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TABLE OF CONTENTS

About the Catalog
- Disability Support Discrimination 2
- Equal Access 2
- Sex Crimes Prevention Act 2

History, Statement of Values, and Accreditation
- Wake Tech History 3
- Wake Tech Mission Statement 3
- Wake Tech Vision 3
- Wake Tech Core Values 3
- College Goals 3
- Programs and Services 4
- SACS Accreditation 4
- Misrepresentation 6
- Program Approvals 6
- College Memberships 6

Wake Tech Foundation
- Foundation 9

Admissions
- Open Door Policy 10
- Non-Discriminatory Policy 10
- Steps to Enrollment 10
- Transcripts for Incoming Students 11
- Placement Testing 11
- Program Placement Requirements 12
- Course Registration Information 13
- Limited Enrollment Programs 13
- English as a Foreign Language (EFL) 14
- International Students 14
- Readmitted Students 14
- Vaccination Policy 14
- Here to Help Information 15

Registration & Records
- Curriculum Class Schedules 16
- Curriculum Registration Dates 16
- Residency Classification 16
- Transcript Requests 16
- Prior Learning 17
  - Challenge Exams 17
  - CLEP Credit 17
  - AP Credit 19
  - DSST 20
  - JST (Joints Services Transcripts) 21
  - Curriculum French and Spanish Exams 21
  - CAP Credentials 22
  - Computer Concepts 22
  - Associate Degree Nursing (Advanced) 24
  - Emergency Medical Science 24
  - CAGC 24
  - International Baccalaureate (IB) Credit 25
  - Business Industry Certifications 26
  - High School Articulation Agreement 26
- Transfer Credits 27
- Program of Study Changes 29
- Change in Student Data (Name, Address, Email) 29
- Security of Student Records (FERPA) 29
- Continuous Enrollment 32
- Here to Help Information 32

Financial Aid
- Financial Aid Application 33
- Veteran Affairs Educational Benefits 34
- Financial Aid for Students with Disabilities 35
- Financial Aid for Transfer Students 35
- Grants 35
- Loans 37
- Scholarships 38
- Enrollment Requirements 38
- Refunds and Repayment 38
- Standards of Satisfactory Academic Progress for Financial Aid Recipients 39
- Here to Help Information 43

Academic Information
- Attendance Policy 44
- Absences for Religious Observances 44
- Add, Audit, and Withdrawal Policies 44
- Enrollment Status 46
- Pre-Curriculum 46
- Prerequisites 46
- Grades 46
- Course Repetition 48
- Grade Posting by Faculty 48
- Grade Forgiveness 48
- Satisfactory Academic Progress 48
- Academic Standing Levels 49
- Grade Requirements to Graduate 50
- Academic Recognition 50
- Graduation 50
- Here to Help Information 51
- Critical Success Factors 52

Student-Related Services and Activities
- Student Services Vision, Value, Mission 56
- Student Centers 56
- Public Telephones 56
- Lost and Found 56
- Student Government Association (SGA) 57
- Clubs and Organizations 57
- Athletics 57
- Military and Veterans Resource Center 57
- Wake Tech Alumni 58

Student Code of Conduct, Rights, and Responsibilities
- General Information 59
- Rights and Responsibilities 59
- Academic Integrity Policy 61
  - Cheating 62
  - Plagiarism 62
  - Academic Penalties 62
  - Academic Appeal 62
  - Course Grade Appeal 63
- Student Code of Conduct 63
  - Prohibited Conduct 63
  - Disciplinary Penalties for Violations 65
  - Disciplinary Procedures for Violations 67
  - Code of Conduct Grievances 67
- Other Complaints 69
- Final Appeals Process 69

TABLE OF CONTENTS

Attorney Involvement in Proceedings....69

Learning Resources, Support, and Services

Bookstore....70
College ID....71
Academic Advising....71
Student Success....72
Fostering Bright Futures....72
O.V.A.L.....72
Pathways Male Mentoring Services....72
Student Advocacy and Support....72
Wellness Services....72
Work-Based Learning....72
Career and Employment Resources....73
Libraries....73
Individualized Learning Centers (ILC)....74
Disability Support Services (DSS)....74
Online Learning....74
Media Production and Learning Support Services....75

Tuition and Fees

Fees & Payment....77
Graduation Fee....78
Official Transcript Fee....78
Senior Citizen Tuition Waiver....79
Refund Policy....79

Campus Policies & Procedures

Campus Use....81
Changes to Curriculum Fees and Policy Changes....81
Off-Campus Sites....81
Official Communication with Students (E-mail)....81
Computer & Internet Acceptance Use....81
Website Policy....82
Student Dress and Hygiene....83
Pets....83
Smoking/Tobacco Use....83
Cell Phones....84
Housing....84
Transportation....84
Skate Boarding/Rollerblading....84
Publications Policy....84
Solicitation Policy....84
Media Coverage of College Activities....86
Campus Police & Safety....87
Threat Assessment & Violence Prevention....88
Visitors and Children on Campus....91
Emergency Exit Procedures....91
Student Insurance and Accidents....91
Drug and Alcohol Policy....92
Emergency Closings....93
Traffic Rules and Regulations....94
Title IX Policy (Sexual Misconduct)....98
Copyright Infringement and Intellectual Property....102
Learning Management System (LMS) Retention Schedule....102

Workforce Continuing Education (non-credit)

Programs....104
Mission....105
Units (CEU's)....105
Grading Policy....105
Admission & Registration....105
Class Locations....106
Course Descriptions....106
Fees....106
Withdrawals & Refunds....106
Transfer Policy....107
College & Career Readiness Admission & Placement Policy....107
College & Career Readiness Programs....107
- Adult Basic Education....107
- High School Equivalency Preparation (HSEP), formerly GED....108
- Adult High School Diploma....108
- ABE TOPS....108
- ESL....108
- High School Equivalency Program....108

BioNetwork Capstone Center....108
Corporate and Business Solutions....109
Education Services & Technology....110
Occupational Services....110
Professional Services & Vocational Training....111
Public Safety Training....112
Here to Help Information....113

Curriculum Education (for credit): Programs of Study

Degrees, Diplomas, Certificates....114
Collaborative Agreements....118
Special Notes about Curriculum Programs....119

Associate in Applied Science (A.A.S.) Programs

Applied Engineering &Technologies…....….120

Agricultural Systems Technology....122
Air Conditioning, Heating & Refrigeration Technology....122
Architectural Technology....123
Automotive Systems Technology....124
Biopharmaceutical Technology....125
Civil Engineering Technology....125
Collision Repair and Refinishing Technology....126
Construction Equip. Systems Technology....127
Construction Management Technology....128
Diesel and Heavy Equipment Technology....128
Electrical Systems Technology....129
Electronics Engineering Technology....130
Facility Maintenance Technology....131
Geomatics Technology....131
Heavy Equipment Operation, Management & Svc 132
Interior Design....134
Mechanical Engineering Technology....135
Mission Critical Operations....136
Plumbing....137
Welding Technology....137

Business & Public Service Technologies ...139

Accounting....141
Baking & Pastry Arts....142
Business Administration....143
Business Analytics....146
Cosmetology....147
Criminal Justice Technology....148

TABLE OF CONTENTS

Criminal Justice/Forensic Science 149
Culinary Arts 150
Early Childhood Education.....151
Esthetics Technology.....153
Fire Protection Technology 153
Hospitality Management 154
Lateral Entry 154
Supply Chain Management.....156

Computer Technologies.....162
Advertising and Graphic Design 164
Computer Engineering.....165
Computer Programming and Development.....165
Cyber Security 167
Data Science & Programming Support Services....168
Healthcare Business Informatics.....169
Medical Office Administration 170
Mobile Applications Developer.....172
Network Management.....173
Office Administration.....176
Simulation and Game Development 179
Storage & Virtualization Degree.....182
Technical Support.....182
Web Designer.....184
Web Developer.....185

Health Sciences 187
Associate Degree Nursing 188
Computed Tomography Technology.....188
Dental Assisting 189
Dental Hygiene 189
Emergency Medical Science.....189
Health and Fitness Science 190
Healthcare Simulation Technology 191
Human Services Technology 191
Human Services Technology/Mental Health 192
Human Services Technology/Substance Abuse 192
Magnetic Resonance Imaging Technology.....193
Medical Assisting 194
Medical Laboratory Technology.....194
Pharmacy Technology 195
Phlebotomy.....196
Radiography 196
Therapeutic Massage 196

College/University Transfer.....158
Associate of Arts (A.A.) 158
Associate in Fine Arts in Visual Arts (A.F.A.) 159
Associate of Science (A.S.).....160
Associate of Engineering (A.E.) 161

Course Prefix Identification.....198
Course Descriptions.....199

Campus Locations and Contact Information
Campus Locations 381
- Southern Wake Campus 381
- Northern Wake Campus.....381
- Western Wake Campus 381
- Perry Health Sciences Campus.....381
- Public Safety Education Campus 382
- RTP Campus.....382
- Beltline Education Center 382
- Eastern Wake Educational Center..... 382
- Vernon Malone College and Career Academy (VMCCA) 383
- North Wake College and Career Academy... 383
- Bionetwork Capstone Center..... 383

Contact Information..... 384

Credentials - Directory
- Administrative Staff & BOT 390
- Curriculum & Workforce Continuing Education Faculty..... 391
- Academic Deans, Directors, & Department Heads 411

Index.....418

Remember to check the online College Catalog for the most up-to-date information at http://www.waketech.edu/student-services/catalog

Welcome to Wake Tech!

We offer pathways for everyone – programs of study that can help you reach your goals and prepare for career success in today's job market. This catalog can help you design the program that's right for you.

Build highly-specialized skills for technical jobs that are in high demand; launch an entrepreneurial venture; add to your professional credentials; or start a whole new career doing something you love. Thanks to our expanded articulation agreements with colleges and universities across the state, you can also choose to transfer your Wake Tech degree to a four-year institution and continue your studies.

We offer multiple locations and convenient evening and weekend classes – as well as hundreds of courses and programs online. Our outstanding instructors, small classes, and hands-on approach enhance the learning experience; our support services help you find the resources you need.

Wake Tech has served the Wake County region for half a century, offering innovative education while maintaining a standard of excellence. Wake Tech graduates are doing amazing things in the health sciences and other STEM disciplines, engineering and construction, computer technologies, hospitality, and many other fields – here in our community, and beyond. Join us!

Stephen C. Scott
President

About the Catalog

CATALOG INTRODUCTION

The Wake Technical Community College Catalog is an information and reference guide on college policies, facilities, degree, certificate and diploma programs, course offerings, services, and personnel. The statements in the catalog are for informational purposes only, and should not be considered the basis of a contract between the institution and the student.

All Wake Technical Community College policies (academic; student services; administrative) apply to all students, regardless of campus and center locations or mode of instructional delivery, unless expressly defined by the college.

Generally, the provisions outlined in the catalog are applicable as stated, but Wake Technical Community College reserves the right to initiate changes, including but not limited to academic requirements for graduation, without direct notification to individuals. Any statement in this catalog is subject to change by the college.

Though the college catalog is produced as a reference guide, each student is responsible for keeping apprised of current requirements for graduation for a particular degree program. Please visit our website at http://catalog.waketech.edu for the most recent version of this catalog.

DISABILITY DISCRIMINATION

Wake Technical Community College does not discriminate on the basis of disability in the admissions or employment processes or in access to programs, facilities, or activities. The following persons, whose offices are at the Main Campus, located at 9101 Fayetteville Rd., (401 South) have been designated to coordinate compliance with the non-discrimination requirements of the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973:

Disability Support Services/Access for Students
Regina Willis - 919-866-5670
Sorenson Video Phone for Deaf – 919-324-1508

Employment Access Benita Clark, Vice President of Human Resources 919-866-5937

Facilities Access Wendell Goodwin, Facilities Engineering Officer 919-866-5148

EQUAL ACCESS

Wake Technical Community College is committed to the policy that all persons shall have equal access to its programs, facilities and employment without regard to race, color, creed, religion, national origin, gender, age, marital status, disability, public assistance status, veteran status, or sexual orientation. For more information, see the Non-Discriminatory Policy in the Admissions section of this catalog.

SEX CRIMES PREVENTION ACT

The Federal Campus Sex Crimes Prevention Act requires registered sex offenders/predators to provide to the Wake County Sheriff's Office notice of each institution of higher education in the state at which the offender/predator is employed, carries on a vocation, or is a student. Any member of the Wake Technical Community College community who wishes to obtain further information regarding sexual offenders/predators in their area may refer to any the following websites:

NC Sex Offender and Public Protection Registry
https://www.ncdps.gov/Our-Organization/Law-Enforcement/state-bureau-investigation/sex-offender-registry

National Sex Offender Public Registry
http://www.nsopr.gov

HISTORY, STATEMENT OF VALUES, AND ACCREDITATION

WAKE TECH HISTORY

Wake Technical Community College is a tax-supported, public, non-profit, educational institution under the control of a Board of Trustees. It is part of the North Carolina Community College System, and is accredited by the Southern Association of Colleges and Schools. Authority for the establishment of the College is found in Chapter 115D of the General Statutes of North Carolina.

The College was chartered on April 3, 1958, as the Wake County Industrial Education Center. Operation actually began October 7, 1963, with 34 curriculum students on campus and 270 enrolled in the various industrial training programs. On January 8, 1964, the Center was formally dedicated as W.W. Holding Industrial Education Center and transferred from the Wake County Board of Education to a Board of Trustees. On March 3, 1966, W.W. Holding Industrial Education Center was granted approval by the State Board of Education as W.W. Holding Technical Institute and licensed to award the Associate in Applied Science degree. The name was changed to Wake Technical Institute in September 1974 and to Wake Technical College on March 1, 1980. The name was changed to Wake Technical Community College on December 1, 1987.

The College was first accredited by the Southern Association of Colleges and Schools on December 3, 1970.

WAKE TECH MISSION STATEMENT

Mission Statement

The mission of Wake Technical Community College is to improve and enrich lives by meeting the lifelong education, training, and workforce development needs of the communities it serves; to promote individual success in the workplace and in higher education; and to increase entrepreneurship and cultural, social, and economic development.

In pursuit of its mission, the college adheres to an open door policy, offering quality education that is accessible and affordable to all adults regardless of age, sex, socioeconomic status, ethnic origin, race, religion, or disability. Wake Tech provides vocational, technical, and occupational training; university transfer preparation; basic skills development; community partnership opportunities; and a variety of support services and resources.

WAKE TECH VISION

At Wake Technical Community College, our vision is a college that exceeds the expectations of our stakeholders for effective lifelong education, training and workforce development by providing world-class programs and services.

WAKE TECH CORE VALUES

Wake Technical Community College will structure its operations, training and educational programs around the Core Values of accountability, respect, responsibility, critical thinking, communication, and collaboration.

Accountability - Accountability is essential for an environment of learning. Those who are accountable stand by their words and actions, taking full responsibility for what they create and for what they contribute to the community.

Respect - Respect is a prerequisite for enhancing learning. Community members who respect themselves and others help create a safe, yet open, climate of learning.

Responsibility - Responsibility is the root of success. Students who assume personal responsibility for their education will reach their goals. Responsible students also make contributions to their communities.

Critical Thinking - Critical thinking is the fundamental purpose of higher education. The ability to solve problems through the application of the appropriate skills is critical to all disciplines.

Communication - Communication is increasingly the key competency for living and working in the information age. Communicating effectively in oral and written forms through traditional and new media is a powerful tool for personal and career success.

Collaboration - Collaboration, by bringing together individual knowledge and talents, creates teams that are greater than the sum of their parts. Such teamwork maximizes benefits to individuals and the community.

COLLEGE GOALS

Student Success

Provide a dynamic learning environment to ensure successful achievement of students' goals by administering sound policies, curricula, instruction, and support services.

Workforce Development
In collaboration with Regional Economic Development Partnerships, identify the workforce needs of emerging jobs in rural and urban economies in North Carolina. Develop and implement the educational and training programs necessary to meet the workforce needs of each community college service area in North Carolina and promote recruitment, retention, and development of high quality faculty and staff necessary to achieve the educational and training objectives of the community college system and provide North Carolina with a world-class workforce.

Diverse Populations Learning Needs
Provide North Carolina citizens with the opportunity to develop essential skills for lifelong learning. Upgrade and retrain North Carolina learners for the workplace through flexible, accessible, and customized educational and training programs within their communities.

Resources
Continuously research, analyze, and secure the resources necessary to fulfill the mission of the North Carolina Community College System and develop processes for measuring the effectiveness of resource allocations and utilization, within the North Carolina Community College System.

Technology
Encourage and support North Carolina Community College faculty and staff in the effective and efficient uses of instructional technology and administrative computing systems to improve the delivery of academic programs to North Carolina citizens.

Community Services
Provide courses and support service activities for the enrichment of the community's civic, economic, and cultural needs.

PROGRAMS & SERVICES

The College translates its mission, vision, values, and goals into action through clearly defined programs and services. Specifically, the College:

- **offers** credit programs leading to associate degrees, diplomas, and certificates designed for immediate entry into employment, an associate degree in general education, and associate degrees designed to transfer to four-year institutions. The College also offers pre-curriculum programs for students to develop academic proficiency so that they may successfully complete curriculum courses;
- **provides** occupational career enhancement programs for individuals and support for economic development to businesses, industries, and agencies. Basic skills education, English as a Second Language and a wide variety of continuing education courses and programs for personal enrichment are offered on campus and throughout the county. The College further serves its constituents by providing a broad range of community services, partnerships, and outreach programs;
- **provides** a wide range of support services designed to assist students in successfully fulfilling their education and occupational goals. These services, developed to meet the diverse needs of individual students, begin with their initial contact with the College and continue throughout their enrollment and job placement or transfer for further study; and
- **practices** sound fiscal management and systematic planning to provide facilities, equipment, and state-of-the art technology to ensure quality education opportunities at secure facilities accessible to Wake County citizens.

SACSCOC ACCREDITATION

Southern Association of Colleges and Schools Accreditation (SACSCOC)

Wake Technical Community College is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award associate degrees, diplomas, and certificates. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Wake Technical Community College.

CALEA
The college's Public Safety Education Campus has been awarded CALEA Training Academy Accreditation by the Commission on Accreditation for Law Enforcement Agencies (13575 Heathcote Boulevard; Suite 320; Gainesville, Virginia 20155) www.calea.org.

Specific Program Accreditation

Automotive Systems Technology Accreditation

The college's Automotive Systems Technology associate degree program has received certification by the National Automotive Technicians Education Foundation (NATEF) 101 Blue Seal Drive, S.E., Suite 101, Leesburg, VA 20175; (1-703-669-6650); www.natef.org and accredited by National Institute for Automotive Service Excellence (ASE). All eight areas meet the strict industry standards required for ASE MASTER certification. This is the highest level of achievement recognized by the National Institute for Automotive Excellence (ASE).

Criminal Justice Program Accreditation
The college's Criminal Justice Technology program is accredited by the North Carolina Criminal Justice Education and Training Standards Commission.

Culinary Technology Program Accreditation
The college's Culinary Technology program is accredited by the American Culinary Federation, 180 Center Place Way; St. Augustine, FL 32095; (1-800-624-9458); acf@acfchefs.net .

Dental Assisting and Dental Hygiene Programs Accreditation
The college's programs in Dental Assisting and Dental Hygiene have received accreditation (without reporting requirements) status from the American Dental Association, Commission on Dental Accreditation. A copy of the appropriate accreditation standards and/or the Commission's policy and procedure for submission of complaints may be obtained by contacting the Commission at 211 East Chicago Avenue, Chicago, IL 60611-2678, or by calling 1-800-621-8099, extension 4653.

Detention Officer's Certificate
The college's Detention Officer's Certificate program has been accredited by the North Carolina Sheriffs' Education and Training Standards Commission to offer the certification course for individuals seeking to become detention officers effective March 16, 2011. North Carolina Sheriffs' Education and Training Standards Commission; North Carolina Department of Justice, 9001 Mail Service Center, Raleigh, NC 27699-9001.

Early Childhood Education Program Accreditation
The Early Childhood Education (AAS) program is accredited by the National Association for the Education of Young Children (NAEYC); 1313 L Street NW, Suite 500, Washington, DC 20005; (1-800-424-2460); www.naeyc.org.

Heavy Equipment and Transport Technology/ Construction Equipment Systems Program Accreditation
The college's Heavy Equipment and Transport Technology/Construction Equipment Systems Program is accredited by Accreditation Board of the Associated Equipment Distributors (The AED Foundation; 600 22nd Street, Suite 220, Oak Brook, IL 60523; www.aedfoundation.org).

Medical Assisting Program Accreditation
The Medical Assisting program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of Medical Assisting Education Review Board (MAERB).

Commission on Accreditation of Allied Health Education Programs
25400 U.S. Highway 19 North, Suite 158
Clearwater, FL 33763
727-210-2350
www.caahep.org

Medical Lab Technology Program Accreditation
The National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) is the accrediting agency for the Medical Laboratory Technology program and the approving agency for the Phlebotomy program. The NAACLS is located at 5600 N. River Road, Suite 720, Rosemont, IL 60018-5119; (1-773-714-8880).

Nursing Program Accreditation
The college's Associate Degree in Nursing program is accredited by the Accreditation Commission for Education in Nursing (ACEN).
The ACEN is located at 3343 Peachtree Road NE, Suite 850, Atlanta, GA, 30326; (1-404-975-5000) (Fax number 1-404-975-5020). http://www.acenursing.org/

Pharmacy Technology Accreditation
The college's Pharmacy Technology program is accredited by the American Society of Health System Pharmacists (ASHP) and Accreditation Council for Pharmacy Education (ACPE). The ASHP is located at 7272 Wisconsin Avenue, Bethesda, MD 20814. www.ashp.org

Radiography Program Accreditation
Wake Technical Community College's program in Radiography is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT). The JRCERT is located at 20 N. Wacker Drive, Suite 2850, Chicago, IL 60606-3182; (1-312-704-5300).

Surgical Technology Program Accreditation
The college's Surgical Technology program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) on recommendation of the Accreditation Review Committee for Surgical Technology (ARC-ST). Effective September 1, 2016 CAAHEP approved Wake Tech's request to place this program on inactive status for two years.

MISREPRESENTATION

Policy Statement
Wake Technical Community College will not engage in substantial misrepresentation of itself as an institution, the nature of its educational programs, its financial charges, the employability of its graduates, or its relationship with the Department of Education.

Wake Tech prohibits substantial misrepresentation, as defined in this policy, by any of its individual representatives; or by any institution, organization, or person not officially affiliated with or authorized by the college, including those with whom the institution has an agreement to provide educational programs, recruitment or admissions services, marketing, or advertising. Substantial misrepresentation is prohibited in all forms, including those used in advertising or promotional materials and those used in the marketing or sale of instructional courses or programs offered by the college.

Definitions
Substantial Misrepresentation - any false, erroneous or misleading statement that the institution, a representative of the institution, or a covered service provider makes "directly or indirectly" to a student, prospective student, member of the public, accrediting agency, state agency, or U.S. Department of Education
Misleading Statement - any statement that has the likelihood or tendency to deceive or confuse

PROGRAM APPROVALS
The following Wake Tech programs have been reviewed by and met the standards for approval of the organizations/agencies indicated:

- Emergency Medical Technology - North Carolina Office of Emergency Medical Services
- Human Services Technology - North Carolina Department of Health and Human Services, Division of Health Service Regulation
- Nursing - North Carolina Board of Nursing
- Phlebotomy - National Accrediting Agency for Clinical Laboratory Sciences
- Veteran's Services - North Carolina Approving Agency for Veterans Education and Training

COLLEGE MEMBERSHIPS
Wake Tech is a member of the following organizations;

ABC of the Carolinas
APPA Membership & Outreach Department
Advisory Board/Education Advisory Board (American Health Line)
Air Conditioning Contractors of America (ACCA)
American Association of Collegiate Registrars and Admissions Officers (AACRAO)
American Association of Community Colleges (AACC)
American College & University Presidents' Climate Commitment (ACUPCC)
American Mathematical Association of Two-Year Colleges (AMATYC)
Association Community College Business Officials (ACCBO)
Association for Commuter Transportation (ACT)
Association for Student Conduct Administration (ASCA)
Association for Talent Development (ATD)
Association for the Advancement of Sustainability in Higher Education (AASHE)
Association for the Title IX Administrators (ATIXA)
Association of College & University Auditors (ACUA)
Association of College & University Policy Administrators (ACUPA)
Association of Collegiate Conference and Events Directors-International (ACCED-i)
Association of Community College Facility Operations (ACCFO)
Association of Community College Trustees (ACCT)
Best Workplaces for Commuters
CAI
Center for Community College Student Engagement (CCCSE)
Chamber of Commerce - Apex
Chamber of Commerce – Cary
Chamber of Commerce - Fuquay-Varina
Chamber of Commerce - Garner

Chamber of Commerce - Holly Springs
Chamber of Commerce - Knightdale
Chamber of Commerce - Morrisville
Chamber of Commerce – Raleigh
Chamber of Commerce – Rolesville
Chamber of Commerce - Wake Forest
Chamber of Commerce – Wendell
Chamber of Commerce – Zebulon
College and University Professional Association for Human Resources (CUPA-HR)
Community College Business Officers (CCBO)
Community College Humanities Association (CCHA)
Construction Management Association of America (CMAA)
Cooperating Raleigh Colleges (CRC)
Cooperative Education & Internship Association (CEIA)
Council for Adult & Experiential Learning (CAEL)
Council for Advancement and Support of Education (CASE)
Downtown Raleigh Alliance (DRA)
EduCause
Institute of Internal Auditors
International Society for Technology in Education (ISTE)
League for Innovation Community College, Leadership Institute, League Alliance Services
Learning Resources Network (LERN)
NASPA (Student Affairs Administrators in Higher Education)
National Alliance Partnerships of Equity in Education (NAPE)
National Association of Colleges and Employers (NACE)
National Association of College and University Attorneys (NACUA)
National Association of Educational Procurement (NAEP)
National Association of International Educators (NAFSA)
National Association of Presidential Assistants in Higher Education (NAPAHE)
National Association of Student Financial Aid Administrators (NASFAA)
National Behavioral Intervention Team Association (NaBITA)
National Council for Marketing & Public Relations (NCMPR)
National Council for State Authorization Reciprocity Agreement (NC-SARA)
National HEP Camp Association
National Institute of Governmental Purchasing (NIGP)
National Institute for Staff & Organizational Development – The University of Texas (NISOD)
National Orientation Directors Association (NODA)
National Restaurant Association/NC Restaurant Association (NC RLA)
NC Sustainable Energy Association (NCSEA)
North Carolina Association of Campus Law Enforcement Administration (NCACLEA)
North Carolina Association of Chiefs of Police (NCACP)
North Carolina Association of Colleges and Employers (NCACE)
North Carolina Association of Community College Trustees (NCACCT)
North Carolina Campus Compact
North Carolina Chamber (formerly NCCBI)
North Carolina Council of Officers for Resource Development (NC CORD)
North Carolina Counseling Association (NCCA)
North Carolina Craft Brewers Guild
North Carolina Hispanic Chamber of Commerce (NCHCC)
North Carolina Honors Association (NCHA)
North Carolina Society of Washington, DC
North Carolina State Education Assistance Authority (SARA NC)
North Carolina Technology Association (NCTA)
Organization for Safety, Asepsis & Prevention (OSAP)
Regional Transportation Alliance
Society for College and University Planning
Southern Association of Colleges & Schools Commission on Colleges, Inc. (SACSCOC)
Southern Association of Colleges with Associate Degree (SACAD)
Southern Association of Collegiate Registrars and Admissions Officers (SACRAO)
Student Development Administrator's Association (SDAA)
Student Leadership Institute
Triangle Area Hotel-Motel Association (TAHMA)
University and College Designers Association (UCDA)
US Green Building Council (USGBC)

Remember to check the online College Catalog for the most up-to-date information at http://www.waketech.edu/student-services/catalog

FOUNDATION

The Wake Technical Community College Foundation manages an array of resources that are critical to the success of the college: corporate investments, foundation grants, alumni and employee contributions, and financial and in-kind support from many other friends of the college. These resources allow Wake Tech to meet instructional and institutional needs and continue to offer top-quality, affordable education and training to the Wake County region.

Gifts are used for program support, instructional technology and equipment, institutional priorities and opportunities, and to promote student success and employee innovation. All private gifts to Wake Technical Community College should be directed to the Wake Technical Community College Foundation, a tax-exempt, 501(c)(3) nonprofit corporation, operating exclusively for the benefit of the college and Wake Tech students.

Donors or advisors should send correspondence to:

Wake Technical Community College Foundation
9101 Fayetteville Road
Raleigh, North Carolina 27603-5696
919-866-6250
foundation@waketech.edu

Website: http://foundation.waketech.edu

ADMISSIONS

OPEN DOOR POLICY

Policy

Wake Technical Community College is subject to the Open Door Admission Policy established by the State Board of Community Colleges. This policy provides for admission of any legal resident of the United States who is a high school graduate or at least 18 years old, or an emancipated minor.

This policy is based on the belief that the college has something to offer at all educational levels and that through effective guidance any person can find his or her place in the proper educational program.

Wake Technical Community College reserves the right to refuse admission to any applicant who has been suspended or expelled for disciplinary reasons from another educational institution. Additionally, the College reserves the right to refuse admission to any applicant who poses an articulable, imminent, and significant threat to others. Such applicants will be evaluated on a case-by-case basis.

Procedures

Suspension or Expulsion from Another Educational Institution

An applicant who has been suspended or expelled for disciplinary reasons from another educational institution or who poses an articulable, imminent, and significant threat to others shall be evaluated as follows:

An evaluation committee composed of WTCC Police staff, Associate VP for Enrollment Services, faculty representative and an Enrollment & Student Services representative, shall review information presented by the Associate Dean of Admissions. The Associate VP for Enrollment Services serves as the chair and recorder of the committee. At their discretion, the committee may request an interview with the applicant. The committee will make a recommendation to the President through the Senior Vice President for Enrollment and Student Services within five (5) business days of their convening and review of the information presented. The President or his designee will make the final admission decision. Upon receiving the President's decision, the Associate Vice President for Enrollment Services will notify the applicant.

State Authorization for Distance Education

Online education is an integral part of Wake Technical Community College's program offerings. In compliance with U.S. Department of Education guidelines, Wake Tech may allow only **those students from states that have granted Wake Tech permission** to register their residents in online courses. Applications for admission from students in states that have not granted Wake Tech permission will be flagged before admission is determined, and a designated member of Wake Tech's Distance Education staff will ascertain enrollment intentions.

NON-DISCRIMINATORY POLICY

Wake Technical Community College offers equal employment and educational opportunities to all employees, students, prospective employees, and prospective students. Equal educational opportunity, Affirmative Action and compliance with the American with Disabilities Act are viewed by the Board of Trustees as an integral part of the mission and purpose of Wake Technical Community College.

Questions concerning this policy should be addressed to:

Student Matters

Dean of Student Development/Student Conduct Officer
Southern Campus: 919-866-5404
Northern Wake Campus: 919-532-5663

Employee Matters

Associate Vice President & Title IX Coordinator, Human Resources, 919-866-7894

STEPS TO ENROLLMENT

1. Complete North Carolina Residency Determination at ncresidency.org
2. Apply online at admissions.waketech.edu
3. Activate your student account at my.waketech.edu
4. Apply for financial aid, if needed.
5. Submit all official high school transcripts or high school equivalency if required for placement into a particular program of study. Official transcripts are required before awarding of financial aid. **If your high school transcript is not from a valid institution, it may affect your ability to receive financial aid.** Subsequent registration will be blocked if transcripts are not received within 30 days of the start of the semester.
6. Submit official college transcripts for consideration of transfer of credits in your chosen program. Note: All college transcripts are required for Health Sciences programs.
7. Take appropriate placement tests (unless waived).
8. Meet with an advisor for course selection.

9. Attend orientation.
10. Register and pay for classes.

Anyone wishing to attend Wake Tech must complete the online Application for Admission at http://admissions.waketech.edu/. The application should indicate whether the applicant is a curriculum student applicant or a special/visiting student applicant, as follows:

- A **curriculum student applicant** is any applicant pursuing admission into a degree, diploma, or certificate program. Curriculum student applicants must complete the standard online Application for Admission and submit official high school transcripts if required for placement into a program of study. Awarding of financial aid will be blocked if official transcripts are not on file. Subsequent registration will be blocked on the 30th day of the semester if official transcripts are not received by the college.

- A **special/visiting student applicant** is any applicant planning to enroll in one or more curriculum courses but not pursuing admission into a degree, diploma, or certificate program. Special/visiting student applicants must complete the standard online Application for Admission and meet all course prerequisites. To verify completion of prerequisite courses, applicants must complete the Special Student Prerequisite Approval Form and provide official or unofficial transcripts before registering.

  Note: Generally, the special/visiting student status is limited to 16 semester hours. Special/visiting students are not eligible for financial aid or veterans' benefits, nor are they permitted to earn any degree, diploma, or certificate awarded by the college. Students wishing to change from special/visiting student to curriculum status must complete the enrollment steps as outlined above.

- **High School Programs/Career and College Promise:** The Career and College Promise program provides dual enrollment educational opportunities for eligible North Carolina high school students. Visit ccp.waketech.edu for more information about eligibility, admissions, and enrollment.

TRANSCRIPTS FOR INCOMING STUDENTS

Curriculum student applicants must have official transcripts of all previous high school and college (if applicable) work submitted directly to Wake Tech. Faxed copies are NOT considered official transcripts. Acceptance by Wake Tech is conditional, based on receipt of all final, official transcripts.

Awarding of financial aid may be blocked if official transcripts are not on file. Subsequent registration will be blocked on the 30th day of the semester if official transcripts are not received by the college. Transcripts become the property of the college upon receipt and may not be copied for student use.

High School: Applicants who are high school seniors can have their school submit a transcript showing work through the first semester of the senior year, as soon as possible after the semester has ended, and a final transcript showing graduation at the close of school. Students are required to submit all official transcripts.

GED/High School Equivalency: Applicants who have a high school equivalency certificate should request that an official copy be sent directly to Wake Tech. Applicants can obtain documentation from the High School Equivalency Office in the state where the certificate was issued.

College: Applicants who wish to transfer credits must submit official transcripts to Wake Tech from all other colleges and universities attended. **Applicants presenting transcripts of completed associate degrees or higher will not need to submit high school transcripts, except in Health Sciences curricula, where ALL transcripts are required.**

Submit transcripts by mail to:
Wake Tech Community College Admissions Office
9101 Fayetteville Road
Raleigh NC 27603
Or send electronically to transcripts@waketech.edu

PLACEMENT TESTING (ACCUPLACER and NC DAP)

The North Carolina Diagnostic Assessment and Placement (NC DAP) test is a customized ACCUPLACER test given to determine readiness and skill level in English, reading, writing, and math. It is given to applicants pursuing a degree, a diploma, and certain certificates. Test results are used to place students in appropriate classes and to determine if developmental instruction is needed.

Students may be exempt from taking the ACCUPLACER/NC DAP or portions thereof if they meet one of the following criteria (verified through official transcript or score report):

1. Graduation from a North Carolina high school within the past five (5) years with an unweighted GPA of 2.6 or higher **and** completion of Algebra II/Common Core Math III/Integrated Math III, and one of the following:
    - Advanced Functions & Modeling
    - Discrete Mathematics
    - Pre-Calculus
    - Integrated Mathematics IV
    - AP Statistics
    - AP Calculus
    - Calculus (completed by June 2014)
    - Analytical Geometry (completed by June 2014)
    - International Baccalaureate (IB) Math
    - International Baccalaureate (IB) Computer Science
    - Mindset
    - Probability & Statistics (completed by June 2015)
    - Trigonometry (completed by June 2014)
    - Essentials for College Math (SREB-Math Ready); **or**
2. SAT scores prior to 3/1/2016 of 500 or higher in critical reading or writing and 500 or higher in math; or SAT scores after 3/1/2016 of 480 or higher in evidence based reading and writing and 530 or higher in math. Scores must be less than five (5) years old at the time of application to Wake Tech; **or**
3. ACT scores of 22 or higher in reading or 18 or higher in English, and 22 or higher in math. Scores must be less than five (5) years old at the time of application to Wake Tech; **or**
4. A grade of "C" or better in college-level English and math courses.

Students who enter under criterion #1 above (high school GPA placement) whose unweighted GPA is between 2.60 and 2.99 will be required to take supplemental instruction courses concurrently with certain entry-level English and math courses, as follows:

- Writing and Inquiry Lab (ENG 001) required for students in Writing and Inquiry (ENG 111)
- Math Skills Support (MAT 001P) required for students in Pre-calculus Algebra (MAT 171) and (MAT 001S) required for students in Statistical Methods (MAT 152)

Students who are non-native speakers of English will take the ACCUPLACER-EFL test and may be required to enroll in English as a Foreign Language (EFL) courses. Additional information about EFL is available in the Student Services section of this catalog under Academic Support and Opportunities.

Applicants who have been notified that they need placement testing may schedule an appointment online at http://testingcenter.waketech.edu or by calling 919-866-5461.

To prepare for computerized placement testing, applicants can review test preparation materials and find sample tests at http://testingcenter.waketech.edu/.

PROGRAM PLACEMENT REQUIREMENTS

Associate Degree and Diploma Programs

- High school diploma or equivalent
- Sufficient mathematics and science to meet specific program requirements
- Placement inventories to aid in course placement and academic guidance
- Medical examination for certain Health Sciences programs
- Additional minimum requirements in some programs (contact admissions advisor at 919-866-5000 for more information)

Certificate Programs

- High school diploma or equivalent for some certificate programs (contact admissions advisor at 919-866-5000 for more information)
- Placement inventories to aid in course placement, and academic guidance
- Medical examination for certain Health Sciences programs

- Additional minimum requirements in some programs (contact admissions advisor at 919-866-5000 for more information)

In some instances, licensing or employment in certain fields may be limited by an individual's prior criminal record. Prospective students should check with an admissions counselor or appropriate academic department head to determine if such sanctions apply.

COURSE REGISTRATION

Students who have been admitted to and have enrolled in a curriculum degree, diploma, or certificate program will receive information about course planning and registration from **an assigned advisor**, based on the student's program of study

Special students (those who have not declared a program of study) are not assigned an advisor but may seek assistance with course planning or registration from the Advising Office as needed.

Registration is conducted online via WebAdvisor: http://webadvisor.waketech.edu. Current students should click "Log in" and then select "Current Curriculum Students"; click on "Plan and Register". More detailed information is available in my.waketech.edu by clicking on "Registration Guide/Self Service Steps".

Access to the registration system **may be blocked** if a financial or academic hold has been placed on a student's records. Some classes may require special permission to register from the curriculum dean. Visit Wake Tech's Registration and Student Records Services website: http://registration.curred.waketech.edu.

Registration will be canceled if payment is not received by the deadline listed for the period for which the student has registered. Students are responsible for paying for all scheduled classes by published deadlines. Wake Tech no longer mails invoices. Payment amounts and deadlines are available from online: https://www.waketech.edu/student-services/registration-student-records/payment-deadlines. Students are strongly encouraged to pay tuition and fees by credit or debit card at the time of registration to avoid waiting in line for the cashier.

Currently-enrolled degree, diploma, and certificate students are notified of upcoming registration periods through the academic calendar, on the Student Portal, by notices around campus, by faculty advisors, and online through the Registration and Records website: https://waketech.edu/student-services/registration-student-records/payment-deadlines/priority-dates. The student is responsible for scheduling an appointment with an advisor.

Course Load

The maximum course load is 20 credit hours per term. To carry more than the maximum load, students pursuing a degree, diploma, or certificate must obtain an electronic override permission from the dean or the dean's designee.

LIMITED ENROLLMENT PROGRAMS

Some Wake Tech programs have more applicants than available space, as follows:

Agricultural Systems
Air Conditioning, Heating, and Refrigeration Technology
Associate Degree Nursing
Automotive Systems Technology
Construction Equipment Systems
Computed Tomography
Cosmetology
Magnetic Resonance Imaging Technology
Dental Assisting
Dental Hygiene
Diesel & Heavy Equipment
Emergency Medical Science
Esthetics
Heavy Equipment Operator
Medical Assisting
Medical Laboratory Technology
Phlebotomy
Radiography
Welding Technology

These "limited enrollment" programs may have unique admission requirements and may use additional criteria, such as postsecondary coursework, related work experience, or professional certification, for selecting applicants. Limited enrollment programs may also have their own policies, procedures, schedules, and deadlines, which are subject to change.

Interested applicants should begin by contacting the Admissions Office and talking to an admissions advisor, who will answer initial questions and guide them through the next steps in the process.

ENGLISH AS A FOREIGN LANGUAGE (EFL)

The English as a Foreign Language (EFL) department offers academic English courses for individuals whose native language is not English and who wish to study at the college and university level in the United States. These courses comprise an intensive English language program that focuses on language for academic purposes; courses are offered on four proficiency levels in grammar, composition, reading, and listening/speaking. See the course descriptions listed as EFL in the course descriptions sections of this catalog for specific course information. This program meets the requirements for those students who have a student visa. Prospective students who wish to obtain a student visa should go to the International Student website at http://international.waketech.edu. Tuition rates are the same as those for other curriculum classes offered at Wake Tech.

Prospective students can call 919-866-5325 for more information or visit the EFL website: http://efl.waketech.edu for more information.

INTERNATIONAL STUDENTS

The International Student Office assists international student applicants who wish to apply for a student (F-1) visa. It also assists F-1 visa students in communicating with Citizenship and Immigration Services (CIS) regarding authorization of application for appropriate employment, extension of I-20 expiration date, transferring an I-20 to another college or university, travel abroad, and re-entry procedures and documentation of F-1 status. In addition, international students may seek advice and referral information on all aspects of living and studying in the United States. All international (F-1) students and other (non-immigrant) visa holders who want to convert to F-1 status are required by CIS regulations to have a current record of local and foreign addresses on file with the college.

Information about the application process for international students can be found at http://international.waketech.edu/.

READMITTED STUDENTS

A student who withdraws from the college for reasons **other than** academic or administrative may apply for readmission for any subsequent semester. An applicant for readmission who has not attended for **one year or more** must submit a new application, and upon readmission, must meet current program requirements.

A student who has been dismissed for academic or administrative reasons may re-enroll with the approval of the Associate Vice President for Enrollment Services and the division dean. The student must request re-enrollment in writing from the Dean of Students.

Readmission, re-enrollment, and any attendance conditions or restrictions are at the discretion of the college.

Health Sciences programs may have additional readmission requirements and policies; they can be found in the Student Policy Handbook for each Health Sciences program.

VACCINATION POLICY

Students at Wake Technical Community College are not required to provide documentation of immunizations for admission to the college; however, documentation is required in specific programs, as follows:

- All students enrolled in curriculum health sciences and continuing education healthcare courses **in which clinical procedures are performed** must provide documentation of required immunizations, titers, and screening for tuberculosis.

- All students in Basic Law Enforcement Training must provide documentation of tetanus vaccination, completion of the Hepatitis B short series, and undergo tuberculosis screening prior to admission.

- All F-1 students must complete the International Student Medical Form documenting **tuberculosis screening within the last 12 months**. Any students with a positive screening must also provide a report of a complete chest x-ray within the last 12 months.

ADMISSIONS

WE ARE HERE TO HELP!

Locations
Southern Wake Campus, 9101 Fayetteville Rd. (401 South), Raleigh, NC 27603
Northern Wake Campus, 6600 Louisburg Rd., Raleigh, NC 27616
Perry Health Sciences Campus, 2901 Holston Ln., Raleigh, NC 27610
Western Wake Campus, 3434 Kildaire Farm Rd., Cary, NC 27518
Public Safety Education Campus, 321 Chapanoke Rd., Raleigh, NC 27603
RTP Campus, 10908 Chapel Hill Rd., Morrisville, NC 27560

Curriculum Admissions
Should assistance be needed, please feel free to contact an Admissions Information Specialist at (919) 866-5420 or find information online at http://admissions.waketech.edu

Registration and Student Records Services
Location: Southern Campus, Student Services Building, Room 243
Phone: (919) 866-5700

Advising
Phone: (919) 866-5474 or advising@waketech.edu

Remember to check the online College Catalog for the most up-to-date information at http://www.waketech.edu/student-services/catalog

REGISTRATION AND RECORDS

CURRICULUM CLASS SCHEDULES

Curriculum class schedules are available online before the start of the upcoming semester through Plan and Register; Login to Webadvisor: http://webadvisor.waketech.edu.

To view the schedule:

1. Visit the **Plan and Register** main page
2. Click on the **Academics** icon on the left side
3. Select **Course Catalog**
4. Look for the desired course(s); you can also click on **Advanced Search** to search with additional criteria

Instructions and help are available at https://my.waketech.edu/login.php.

CURRICULUM REGISTRATION DATES

Curriculum students begin registration at different times, depending on their status as:

1. Newly-admitted students;
2. Returning degree/diploma/certificate-seeking students, based on the number of credits completed at Wake Tech;
3. Non-degree-seeking students (or
4. High school/Career & College Promise/early admission students.

Registration priority dates and other important registration and payment dates can be found on the Registration and Records website: http://www.waketech.edu/student-services/registration-student-records.

Please note that calendars are subject to change.

RESIDENCY CLASSIFICATION

The state of North Carolina subsidizes tuition at NC public colleges and universities for all students whose permanent legal residence, or domicile, is in North Carolina. Students pay “in-state” or “out-of-state” tuition based on a residency determination process. The statute places the burden of proof on the student to establish, by a preponderance of evidence, that they are a bona fide domiciliary rather than mere residents of North Carolina.

Effective October 23, 2017, Wake Tech added the Residency Determination Service (RDS) process to its admission procedures. All prospective applicants must complete the online residency determination before they can apply to the college. Most will be required to complete only the Initial Consideration process. Current students whose circumstances change or who believe their status is incorrect must complete the Reconsideration and Appeal process. **Students are responsible for notifying Registration and Records if a change in residency status occurs.**

Upon completion of the residency determination process, students will be issued a Residency Certification Number (RCN) that can be used at all public colleges in North Carolina.

All residency determinations will be made by RDS and not the college. However, Wake Tech staff may be able to assist students with employer sponsorships, military benefits, and other special exceptions allowed by the state.

More information about residency requirements and the NC Residency Determination Service is available at www.ncresidency.org.

TRANSCRIPT REQUESTS

Wake Tech Registration and Student Records is responsible for all student records and for the protection of student rights as provided by the Family Education Rights and Privacy Act (FERPA). Transcripts of academic record will be issued only with written authorization by the student.

Official copies of transcripts may be obtained in person at Southern Wake, Northern Wake, Research Triangle Park (RTP) and Perry Health Sciences campuses with a photo I.D. Transcripts may also be obtained by mail from Registration and Student Records, Wake Tech Community College, 9101 Fayetteville Road, Raleigh, NC 27603; download an order form online at http://www.waketech.edu/student-services/registration-student-records/how/order-transcripts.

Wake Tech also offers secure pdf transcripts in partnership with National Student Clearinghouse. A direct link can be found at http://www.waketech.edu/student-services/registration-student-records/how/order-transcripts

Mail and online transcript requests will be processed within two business days. Official Wake Tech transcripts are **$5 per copy** when ordered directly with Wake Tech; online requests through the National Student Clearinghouse will incur a service

fee. Unofficial copies are available at no charge; however, pursuant to State Board of Community Colleges Code 200.2, no transcripts will be provided to students with outstanding debt to the college.

PRIOR LEARNING

Prior learning is a means by which students can satisfy graduation requirements by applying transfer work and credits from placement examination. When granted, students are given an equivalency for the prior learning work meaning that it is deemed equivalent to a specific Wake Tech course. However, no academic credit is awarded, and thus the equivalency does not count toward the student's grade point average.

Equivalencies will be noted on the official transcript as transferred equivalencies or non-course equivalencies. Equivalencies will be taken into consideration for program completion at Wake Tech only. Acceptance of prior learning work at one college does not necessarily mean that acceptance will be given at every college. Students are encouraged to review the prior learning policies at any college they may be considering to transfer or enroll.

Department and Special Course Challenge Examinations

Students seeking credit for non-transferable learning experiences for any course, except College/University Transfer and Pre-Curriculum may request a challenge examination. Subject matter for which credit is sought must be equivalent to the course(s) being challenged. Challenge examination requests will not be accepted for incomplete or failed course work. **Note: Not all courses can be challenged. Please refer to divisional staff for specifics on courses to be challenged within their division**.

Requests must be made with full justification to the appropriate academic dean or designee at the time of registration. Upon approval, students will be directed to contact the Individualized Learning Center on Southern Wake Campus or the dean or department head to schedule the challenge examination. Students who successfully challenge a course will receive credit for the course with a grade of "X". The course will not enter into grade-point average computations, but will count toward total hours earned.

Students challenging the Spanish (SPA 120) class are required to submit a challenge form. This course may be challenged at their first class meeting or by appointment with the department head for foreign languages. Students who challenge the SPA 120 class will receive non-course work equivalency for the course. No grade will be recorded. The equivalency will not enter into the grade-point average computation.

Students should make every effort to start the challenge examination process as soon as they register for a course, as some divisions have restrictive challenge examination procedures.

Students must take all challenge examinations no later than the 10% point of the semester or term. Results of challenge examinations will be mailed after the exams have been graded and results forwarded to the Registrar's Office.

Students must register and pay tuition for courses to be challenged and must submit requests for challenge examinations after registering. To receive credit on the transcript record, it is necessary to remain registered for a class that has been challenged successfully. Students may not challenge ENG 111, 112, 113, and 114 or any other College/University Transfer courses; instead, students may take the appropriate CLEP, AP, or DANTES exam.

Most challenge exams are administered within the appropriate department, however, a select number of courses, including BUS 110, 121, 137, 147 and 153 may be taken in the Individualized Learning Center (ILC) on Southern Wake Campus. Students challenging these select courses must obtain approval from the division dean and contact the ILC (919-866-5276) to schedule an appointment to take the exam. Both the division dean-approved form # 610 and student photo identification are required for ILC-administered challenge exams.

College Level Examination Program (CLEP) Credit

The College Level Examination Program, or CLEP, gives students an opportunity to earn college credit for knowledge acquired outside the classroom. All CLEP credit is evaluated on the basis of the receiving institution's policies.

Contact the College Board at www.collegeboard.com/clep for more information about CLEP testing.

CLEP Examination	Minimum Score Needed for Credit	Wake Tech Equivalency	Semester Hours
Business			
Financial Accounting	50	ACC 120	4
Business Law, Introductory	50	BUS 115	3
Information Systems and Computer Applications	50	CIS 110, 111	3
Management, Principles of	50	BUS 137	3
Marketing, Principles of	50	MKT 120	3
Composition and Literature			
American Literature	50	ENG 231, 232	6
Analyzing and Interpreting Literature	50	ENG 261, 262	6
College Composition	50	ENG 111, 112	6
English Composition without Essay	50	ENG 111, 112	6
English Literature	50	ENG 241, 242	6
College Composition Modular	N/A	N/A	N/A
Humanities	50	HUM 211, 212	6
Foreign Languages			
French Language, Level 1	50	FRE 111, 112	6
French Language, Level 2	59	FRE 111, 112, 211, 212	12
German Language, Level 1	50	N/A	N/A
German Language, Level 2	60	N/A	
Spanish Language, Level 1	50	SPA 111, 112	6
Spanish Language, Level 2	63	SPA 111, 112, 211, 212	12
Level 1 – Equivalent to the first two semesters (or 6 semester hours) of college-level foreign language course work			
Level 2 – Equivalent to the first four semesters (or 12 semester hours) of college-level foreign language course work			
History and Social Sciences			
American Government	50	POL 120	3
Educational Psychology, Introduction to	50	PSY 263	3
History of the United States I: Early Colonization to 1877	50	HIS 131	3
History of the United States II: 1865 to Present	50	HIS 132	3
Human Growth and Development	50	PSY 241	3
Macroeconomics, Principles of	50	ECO 252	3
Microeconomics, Principles of	50	ECO 251	3
Psychology, Introductory	50	PSY 150	3

Social Sciences and History	50	HIS 111 and HIS 112	6
Sociology, Introductory	50	SOC 210	3
Western Civilization I: Ancient Near East to 1648	50	HIS 121	3
Western Civilization II: 1648 to Present	50	HIS 122	3
Sciences and Mathematics			
Biology	50	BIO 111	4
Calculus	50	MAT 263 or MAT 271	4
Chemistry	50	CHM 151	4
College Algebra	Special	*Students with >50 on Pre-Calculus & College Algebra get MAT 171 credit & MAT 172*	3
College Algebra – Trigonometry2	50	MAT 175*	4
College Mathematics	0	No Credit	0
Precalculus	50	MAT 172*	4
Natural Sciences	50	N/A	N/A
Trigonometry2	50	N/A	N/A
*Equivalency is given only for the lecture (MAT ###) and not for the lab (MAT ###A)			

Table Last updated 4/20/15

Advanced Placement (AP) Credit

The College Entrance Examination Board sponsors an advanced placement program that enables high school students to complete college-level courses and to demonstrate college-level achievement through examinations. Wake Tech will award non-course work equivalency for students who meet minimum scores on AP exams according to the following chart. These equivalencies can then be applied toward the student's graduation requirements.

Note to students pursuing College Transfer degrees (Associate in Arts or Associate in Sciences, etc.) or students intending to transfer courses to UNC-system schools: "Advanced Placement (AP) course credits awarded for a score of three or higher, are acceptable as part of a student's successfully completed general education core under the Comprehensive Articulation Agreement. Credit for two successive courses can only be awarded with a score of five.

Only one course of credit (MAT 271 for four credit hours) may be awarded for the AP Calculus AB exam with a score of three, four, or five; two courses of credit (MAT 271 and 272 for eight credit hours) may be awarded for the AP Calculus BC exam with a score of three, four or five. Students who receive AP course credit at a community college but do not complete the general education core will have AP Credit awarded on the basis of the receiving institution's AP policy. Transferred-in courses from institutions other than North Carolina community colleges are not a part of this agreement.

AP Examination	Minimum Score Needed for Equivalency	Wake Tech Course Equivalency	Semester Hours
Art History	3	ART 114 and ART 115	6
Biology	3	BIO 111	4
	4	BIO 111 and BIO 112	8
Chemistry	3	CHM 151	4
	4	CHM 151 and CHM 152	8
Computer Science A	3	CIS 115	3

Computer Science B	3	CIS 115 and CSC 120	7
Economics, Macro	3	ECO 252	3
Economics, Micro	3	ECO 251	3
English, Language and Composition	3	ENG 111 and 112	6
English, Literature and Composition	3	ENG 111 and ENG 113	6
Environmental Science	3	BIO 140 and BIO 140A	4
European History	3	HIS 121 and HIS 122	6
French Language & Culture:	3	FRE 111 and 112	6
	4	FRE 111, 112 and 211	9
	5	FRE 111, 112, 211 and 212	12
Spanish Language & Culture:	3	SPA 111 and 112	6
	4	SPA 111, 112 and 211	9
	5	SPA 111, 112, 211 and 212	12
Government and Politics, Comparative	3	POL 210	3
Government and Politics, United States	3	POL 120	3
Mathematics, Calculus AB	3	MAT 263	4
	4	MAT 271	4
Mathematics, Calculus BC	3	MAT 271	4
	4	MAT 271 and MAT 272	8
Physics, Physics B:	3	PHY 151 and PHY 152	8
Physics, Physics C: Mechanics	4	PHY 251	4
Physics, Physics C: Electricity and Magnetism	4	PHY 252	4
Physics 1: Algebra based	4	PHY 151	4
Physics 2: Algebra based	4	PHY 152	4
Psychology	3	PSY 150	3
Statistics	3	MAT 152*	4
US History	3	HIS 131 and 132	6

Table Last updated 10/5/17

Dantes Standardized Subject Tests (DSST)

The DANTES (Defense Activity for Nontraditional Education Support) program is a testing service conducted by Educational Testing Service for the Department of Defense. DANTES' mission is to help service members obtain credit for knowledge and skills acquired through non-traditional educational experiences. DANTES Subject Standardized Tests provide a way for military personnel to obtain credit by examination for knowledge of material commonly taught in college courses.

DANTES Examination	Minimum Score	Wake Tech Course Equivalency	Semester Hours
Art of the Western World	48	ART 114	3
Astronomy	48	AST 151	3
Business Law II	44	BUS 116	3
Business Mathematics	48	BUS 121	3
The Civil War and Reconstruction	47	HIS 226	3

Criminal Justice	49	CJC 111	3
General Anthropology	47	ANT 210	3
A History of the Vietnam War	44	HIS 167	3
Human/Cultural Geography	48	GEO 110	3
Human Resource Management	46	BUS 153	3
Introduction to Business	46	BUS 110	3
Introduction to Computing	45	CIS 110	3
Introduction to World Religions	49	REL 110	3
Management Information Systems	46	CTS 115	3
Personal Finance	46	BUS 125	3
Principles of Finance	46	BUS 225	3
Principles of Financial Accounting	47	ACC 120	4
Principles of Statistics	48	MAT 152	4
Principles of Supervision	46	BUS 137	3
Technical Report Writing	47	CTS 118	2

Table Last updated 06/20/2018

Joint Services Transcript (JST)
Prospective students who have military experience, may be able to obtain some equivalencies toward an AAS degree, diploma, or certificate for training received in military services. Individuals seeking equivalency for military training must have an official Joint Services Transcript (JST) sent to the college.

The JST is a uniform transcript of all military training and experiences for service members in all branches and includes Army Officer and Warrant Officer training, joint military training conducted by other services, and Defense Activity for Non-Traditional Education Support (DANTES)-funded test scores. To obtain your official JST, visit: https://jst.doded.mil/official.html. The appropriate dean or department head will evaluate the transcript, and equivalency will be awarded as appropriate.

Curriculum French and Spanish Placement Exams
Students who are proficient in a foreign language and want to earn credit as soon as possible should take the CLEP exam. Visit http://www.collegeboard.org/ for more information on CLEP testing.

Foreign language faculty reserve the right to ask students to take the Language Placement Exam. Students should start the challenge examination process as soon as they register for a course; they must take all challenge examinations no later than the 10 percent point of the semester or term. Examination results are available through Registration and Student Records (with photo ID); results will be mailed after the exams have been graded.

The following students **must** take the Wake Tech Language Placement Exam to determine the level at which they should continue language studies:

- Native French and Spanish speakers: Students whose primary literacy education was in French or Spanish.
- Heritage learners: Students whose primary literacy education was not in French or Spanish. Language skills vary and may not include reading and writing skills in the second language.
- Students who have completed three years of high school study of a language with a grade of B (87) or better for each year of study.
- Students who have lived or studied in a French- or Spanish-speaking country.

- Transfer students returning to the study of French or Spanish begun in high school but not pursued at the college level.

Students may take the Language Placement Exam in a foreign language only once; they may **not** take the exam if they are currently taking or have taken a foreign language course at Wake Tech. Students who believe their placement level is not correct should contact the Foreign Language Department Head.

Certified Administrative Professional (CAP)
Students applying for entry into: Office Administration, Office Administration/Legal, and Medical Office Administration, programs will be granted equivalency for the courses listed in the following chart upon documented proof of exam completion.

CAP Exam (IAPP)	Wake Tech Course Equivalency	Semester Hours
CAP Exam – Domain 1	OST 165	3
CAP Exam – Domain 2	OST 164	3
	OST 165	3
CAP Exam – Domain 4	OST 184	3
CAP Exam – Domain 5	OST 181	3
CAP Exam – Domain 6	OST 122	3
	OST 181	3

Table Last reviewed 06/20/2018

Medical Coding Certification
Students with a CPC, CCA or CCS-P rating within the last six years will receive credit for the following courses:

Medical Coding Certification	Wake Tech Course Equivalency	Semester Hours
CPC Exam (AAPC Certified Professional Coder)	OST 148 OST 247 OST248	3 2 2
CCA Exam (AHIMA) Certified Coding Associate	OST 148 OST 247 OST 248	3 2 2
CCS-P (AHIMA) Certified Coding Specials-Physician based	OST 148 OST 247 OST 248	3 2 2

Table Last reviewed 06/20/2018

Computer Concepts
The following illustrates curriculum credentials which will be awarded for third party credentials including Microsoft Certification, Cisco Course Completion and Certifications. As well as CompTIA, HDI, Information Tech Infrastructure Library (ITIL), Red Hat and VMWare certifications.

Computer Accrediting Agency	Wake Tech Course Equivalency	Semester Hours
Microsoft		
Administering Windows Server 2012 R2 (70-411)	NOS 231	3
Configuring Advanced Windows Server 2012 Services R2 (7-412)	NOS 233	3
Configuring Windows Devices (70-697)	CTS 272	3
Designing and Implementing a Server Infrastructure	NOS 233	3
Installing and Configuring Windows 10 (70-698)	NOS 130	3
Installing and Configuring Windows 2012 R2 (70-410)	NOS 230	3
MTA Networking Essentials (98-366) & NTA Security Essentials (98-367)	CTI 120	3

Cisco		
Cisco Certified Entry Level Technician Exam	NET 125 NET 126	3 3
Cisco Certified Network Associate (CCNA R&Sv6)	NET 125 NET 126 NET 225 NET 226	3 3 3 3
Interconnecting Cisco Network Devices 1 – Cisco Certified Entry Level Technician (ICND1)	NET 125 NET 126	3 3
Interconnecting Cisco Network Devices 2 (ICND2)	NET 125 NET 126 NET 225 NET 226	3 3 3 3
Cisco Certified Network Professional (CCNP) 300-101 Route, 300-115 Switch, 300-135 TShoot	NET 270 NET 272 NET 273	3 3 3
CCNA Security	SEC 150	3
CCNA Data Center	NET 135	3
CCNA Wireless	NET 175	3
Oracle		
Oracle Database SQL Expert (Exam 1Z0-047)	DBA 120	3
Oracle Database 11g – SQL Fundamentals I (Exam 1Z0-051)	DBA 120	3
Oracle Database 12c – SQL Fundamentals (Exam 1Z0-061)	DBA 120	3
Oracle Database SQL (Exam 1Z0-071)	DBA 120	3
Oracle Database 12c: Advanced PL/SQL Exam (1Z0-148)	DBA 220	3
JAVA SE 7 Programmer I (Exam 1Z0-803)	CSC 151	3
JAVA SE 7 Programmer II (Exam 1Z0-804)	CSC 251	3
JAVA SE 8 Programmer I (Exam 1Z0-808)	CSC 151	3
JAVA SE 8 Programmer II (Exam 1Z0-809)	CSC 251	3
JAVA EE Enter Arch Cert Master	CSC 258	3
CompTIA		
A+ Essentials & A+ Practical Applications	CTS 120 CTS 220 or NOS 110	3 3
Network +	NET 110	3
Security +	SEC 110	3
Storage +	CTI 141	3
HDI		
HDI Support Center Analyst	CTS 255	3
Information Technology Infrastructure Library (ITIL)		
ITIL Foundations	CTS 155	3

Red Hat		
RHCSA Red Hat Certified System Administrator	NOS 120 NOS 220	 3
RHCE Red Hat Certified Engineer	NOS 120 NOS 220 NOS 221 NOS 222	3 3 3 3
Linus Professional Institute – Linux Essentials	NOS 120	3
Linus Professional Institute – LPIC 1	NOS 120	3
VMWare		
VMWare Certified Associate (VCA)	CTI 140	3
VMWare Certified Professional (VCP)	CTI 240 CTI 241	3 3

Table Last updated 06/20/2018

Associate Degree Nursing - Advanced Placement Option for LPNs
The LPN to ADN Advanced Placement Option awards eligible licensed practical nurses 19 credit hours toward the Associate Degree Nursing program, pending successful completion of core nursing courses. Applicants must meet all standard admission requirements for the Associate Degree Nursing program and must have completed BIO 168, BIO 169, BIO 155, BIO 175, ENG 111, PSY 150, and PSY 241.

Students should contact the Associate Degree Nursing Department Head or a Health Science Admissions Counselor with questions about admission criteria.

LPN Credentials	Wake Tech Course Equivalency (Awarded at end of program)	Semester Hours
LPN Diploma and Licensure	NUR 111	8
	NUR 112	5
	NUR 113	5
	NUR 211	5

Table Last reviewed 4/20/16

Emergency Medical Science Advanced Placement through Certification
Students may receive prior learning through certification. Students should contact the Department Head of EMS with questions about additional prior learning.

Certification	Wake Tech Course Equivalency	Semester Hours
EMT – Basic Certification	EMS 110	8
One year active service as an EMT	EMS 150	2
EMT – Intermediate Certification	EMS 120 EMS 121	6 2

Table Last reviewed 06/20/2018

Carolinas Associated General Contractors Articulation Agreement
Wake Tech will award equivalencies for specific CAGC courses in partial fulfillment of program requirements leading to an Associate in Applied Science degree, diploma, or certificate in Construction Management Technology. The college will award equivalencies as listed in the following chart after review of an official transcript from CAGC.

CAGC Course	Wake Tech Course Equivalency	Semester Hours
Course 1 – Professional Construction Supervisor	CMT 210	3

Course 2 – Total Safety Performance	CMT 212	3
Course 3 – Effective Preplanning and Project Scheduling	CMT 214	3
Course 4 – Cost Control and Productivity Improvement	CMT 216	3
Course 5 – Human Side of Project Success	CMT 218	3

Table Last reviewed 4/20/16

International Baccalaureate (IB) Credit

Students may receive credit for achieving acceptable scores on the International Baccalaureate (IB) examinations.

IB College Credit	Minimum Score	Wake Tech Course Equivalency	Semester Hours
IB Applied Chemistry	NA	No Credit	NA
IB Biology (Standard Level)	4+	BIO 110	4
IB Biology (Higher Level)	4+ 6+	BIO 111 BIO 111 BIO 112	4 4 4
IB Chemistry (Higher Level)	4+	CHM 151 CHM 152	4 4
IB Computing Studies (Standard Level)	NA	No Credit	NA
IB Computing Studies (Higher Level)	4+	CSC 120	4
IB Economics (Higher Level)	4+	ECO 251 ECO 252	3 3
IB English A1 (Higher Level)	4+	ENG 113	3
IB English A1 (Standard Level)	4+	ENG 111	3
IB English B (Standard Level)	4+	ENG 111	3
IB Environmental Systems (Standard Level)	4+	BIO 140 BIO 140A	3 1
IB General Chemistry (Standard Level)	NA	No Credit	NA
IB Geography	4+	GEO 111	3
IB History (Higher Level)	4+	HIS 112	3
IB History (Standard Level)	4+	No Credit	NA
IB Mathematics (Higher Level)	4+	MAT 271 MAT 272	4 4
IB Mathematics (Standard Level)	4+	MAT 171	4
IB Philosophy	NA	No Credit	NA
IB Physics (Higher Level)	4+	PHY 251 PHY 252	4 4
IB Physics (Standard Level)	4+	PHY 151 PHY 152	4 4
IB Spanish	4+	SPA 111 SPA 181 SPA 112	3 1 3

		SPA 182 SPA 211 SPA 212	1 3 3

***This chart is a guideline of possible transfer credit. Credit can also be awarded at the discretion of the dean.**
Table Last updated 06/20/2018

Business Industry Certifications
This chart is a guideline of possible transfer credit. Credit can also be awarded at the discretion of the dean or department head.

Business and Industry Certifications/Agency	Wake Tech Course Equivalency	Semester Hours
Association of Operations Management: CPIM/CSCP	LOG 215	3
AutoCAD Certified User	ARC 114 DFT 151	4 5
AutoCAD Certified Professional	DFT 151 DFT 152 DFT 153	5 5 5
Basic NC Correctional Officer Training Certificate	CJC 141 CJC 225 CJC 233	3 3 3
Certified Construction Manager (through CMAA) (requires baccalaureate degree & 4 years of experience)	CMT 112 CMT 210	8 3
Certified Welding Inspector (through AWS)	WLD 262	4
HVAC License, Heating Group I, II, III (Contractor Only)	AHR 111 AHR 112	4 6
Institute of Supply Management: CPM	LOG 240	3
NC Electrical Contractors License (Current)	ELC 113 ELC 118	8 3
NC Firefighter Level I or Level II	FIP 120 FIP 124 FIP 132 FIP 162 FIP 176	3 3 3 3 3
NC Plumbing License, Class I or II (Current)	PLU 110	15
Revit Certified User	ARC 225 ARC 225A	4 3
U.S. Customs and Border Protection: CPM	LOG 235	3

Table Last updated 06/20/2018

High School Articulation Agreement
The North Carolina Department of Public Instruction and the North Carolina Community College System have a statewide articulation agreement through which students may be eligible for college credit following the completion of identified Career

Technical Education (CTE) courses in high school. This agreement creates a systematic and seamless process through which students can move from high school to community college without duplicating efforts or repeating courses.

Criteria used to award college credit for identified CTE courses include the following:

- Final grade of B or higher in CTE course.
- A RAW score of 93 or higher on standardized CTE post-assessment test. (score revision effective fall 2012)
- Enrollment in a community college within two years of high school graduation.

The student's official high school transcript must include the CTE post-assessment scores.

Community college officials are responsible for verifying and accepting the articulated courses on the high school transcript for college credit.

Contact Us

Questions regarding prior learning and transfer credits should be directed to the Registrar's Office:
Registration & Student Records Services, Transcript Evaluation Department, Wake Technical Community College, Student Services Building, Room 252, Phone: **919-866-5717,** Email: **lprobinson@waketech.edu.**

TRANSFER CREDITS

Transferred Coursework

Wake Tech considers courses for transfer equivalency from other colleges or accredited collegiate institutions through a commission whose responsibility is accrediting degree-granting institutions classified as collegiate, and that is housed in a regional or national accrediting agency.

Only those courses with a grade of "C" or higher will be considered for transfer. To receive credit for a specific Wake Tech course, the transferring course must be equivalent in content (and in college/university transfer credit hours) to a Wake Tech course. Official transcripts from accredited institutions will be reviewed against established standard equivalencies and transfer equivalency recommended by the appropriate dean or a designee.

All decisions about transfer equivalency are discretionary on the part of the college: whether equivalency will be allowed, how much will be allowed, and how it will be applied. In exercising this discretion, the college will apply principles recommended by its regional accreditor and national higher education organizations that set standards for transfer credit. These principles focus on the level, content, quality, and comparability of a course and its relevance to the student's intended program of study.

It is not necessary for students to request a review of transferred coursework. Students should submit official transcripts to the Admissions Department. Transcripts will be forwarded to the Registrar's Office for initial review against established standard equivalencies. Once the transfer credit review is complete, the accepted credit is applied and noted on the student's academic record. Students may review their transfer credit on their transfer credit summary.

Please note that a granted equivalency does not mean that it satisfies a graduation or program requirement; that depends on whether the course is listed as a requirement on the curriculum schedule for the specific program (major) in which the student was enrolled when admitted to the college. **The academic dean has the option of moving the student to a more current version of the program of study (curriculum schedule).** If a student changes programs (major), he or she should speak with an advisor to determine which transfer credits, if any, apply to the new program.

Example: A student may be given transfer equivalency for ACC-101 Fundamentals of Accounting, which the student completed while an accounting major at XYZ College. However, the student is now enrolled at Wake Tech in Nursing, and ACC-101 is not a required course in Nursing. Therefore, the course would not be applicable toward graduation requirements at Wake Tech.

Transfer credit does not factor into a student's curriculum GPA calculation. A grade of TA, TB, or TC is awarded for the transferred credit internally to aid with financial aid evaluations. These transfer credit grades do not appear on the student transcript. Students must complete at least 25% of the hours required for a degree, diploma or certificate in residence at Wake Tech.

Transfer Equivalency Practices

As the Commission on Colleges of the Southern Association of College and Schools (SACSCOC) Transfer of Academic Credit position paper states: "The Commission supports institutional autonomy in determining its own standards for transfer of academic credit while also encouraging institutions not to impose artificial impediments or meaningless requirements on

the transfer process. The accreditation standards of this Commission require member institutions to analyze credit accepted for transfer in terms of level, content, quality, comparability, and degree program relevance."

The "Joint Statement on the Transfer and Award of Credit" created by the American Association of Collegiate Registrars and Admissions Officers, the American Council on Education, and the Council for Higher Education Accreditation establishes similar standards. These national organizations have identified three fundamental considerations:

1. the educational quality of the learning experience which the student transfers;
2. the comparability of the nature, content, and level of the learning experience to that offered by the receiving institution; and
3. the appropriateness and applicability of the learning experience to the programs offered by the receiving institution, in light of the student's educational goals.

It is Wake Tech's practice to accept the following categories of courses as meeting the considerations outlined above:

1. matching courses from North Carolina community colleges;
2. equivalent courses from participants in the North Carolina Comprehensive Articulation Agreement;
3. comparable courses from regionally- and nationally-accredited institutions of higher education

These categories also meet requirements of the State of North Carolina and its agencies; these requirements are detailed in each section. Courses that do not fit into one of these three categories (including foreign transcripts) will be considered individually by the director of the program to which the student is seeking admission.

Matching Courses from North Carolina Community Colleges
In accordance with the State Board of Community Colleges Code (1D SBCCC 400.97) which reads, "When a student receives credit for a Combined Course Library course, this credit shall be transferable to any college in the North Carolina Community College System," Wake Tech will accept:

- all matching courses from other NC community colleges for transfer credit;
- matching courses from other NC community colleges to meet Wake Tech program and prerequisite requirements as stated in the college's current official catalog.

Equivalent Courses from Participants in the NC Comprehensive Articulation Agreement
The Comprehensive Articulation Agreement between the University of North Carolina System and the North Carolina Community College System, as revised in 2014, reads (part IV, section (B) (6)), "Transfer credit for courses that originate at a UNC institution or independent college or university that is part of the CAA is acceptable as part of a student's successfully-completed general education core or associate in arts or associate in science program under the CAA."

Wake Tech's policy is to also apply this guideline to associate in applied science programs.

Wake Tech will accept:

- all CAA participant college and university courses equivalent to courses on the CAA Transfer Course List for transfer credit;
- CAA participant college and university courses equivalent to courses on the CAA Transfer Course List to meet Wake Tech program and prerequisite requirements as stated in the college's current official catalog.

Comparable Courses from Regionally- and Nationally-Accredited Institutions of Higher Education
Program directors will as appropriate review courses from regionally- and nationally-accredited institutions of higher education to establish that their level, content, and quality are comparable to a Wake Tech course, and to confirm their relevance to a student's intended program.

If a course is found to be comparable, Wake Tech will accept the course:

- for transfer credit; and
- to fulfill program and prerequisite requirements as stated in the current official Wake Tech Catalog.

Notes:

- These practices apply to courses with no differentiation based on delivery method.
- Equivalent or comparable courses, at minimum, must carry the same number of credit hours and the same type of instructional hours; for example, lecture and lab.
- In some instances, a course may transfer in to Wake Tech as elective credit if the course does not meet the comparability criteria stated above.

- Wake Tech may award transfer credits for fewer credit hours than a transferred course carries.

PROGRAM OF STUDY CHANGES

Students wishing to change from one program of study to another or to enroll in a second program of study must initiate the change through an advisor (available at the Southern Wake, Northern Wake, Western Wake, Perry Health Sciences, and Public Safety Education campuses).

Students receiving VA benefits must also file a request for a program of study change (VA form 22-1995) with the Wake Tech Veteran Services office. Students may not be enrolled in more than two associate degree programs at one time.

CHANGES IN STUDENT DATA FOR CURRICULUM STUDENTS (Name, Address, E-Mail)

Changes in student data must be reported when they occur, in writing, to the Registration and Student Records Services Division.

To request a **name change**, the student will fill out a Permanent Record Change Form, which can be obtained on Southern Wake, Northern Wake, and Perry Health Sciences Campus. **Forms must be accompanied by copies of the legal document authorizing the name change in order for changes to be processed.**

Completed forms may be submitted in person, online, or by mail to Registration and Student Records, Wake Tech Community College, 9101 Fayetteville Road, Raleigh NC 27603.

Change in **address, telephone numbers, or e-mail** can be submitted via WebAdvisor.

If you have questions or need more information, call Registration and Student Records at 919-866-5700.

SECURITY OF STUDENT RECORDS

Annual Notice To Students Of Their Rights Under The Family Educational Rights And Privacy Act Of 1974
Wake Technical Community College complies fully with the Family Educational Rights and Privacy Act of 1974 (FERPA) and informs students of their rights under FERPA three times per year (by the fifth day of the fall, spring, and summer terms) via their college-issued email accounts. FERPA, as amended, protects the privacy of educational records, establishes the rights of students to inspect and review their educational records, and provides guidelines for the correction of inaccurate or misleading data through informal and formal hearings. To the extent consistent with FERPA, students who seek the correction of inaccurate or misleading data or who have other complaints should follow the grievance procedure found in the college catalog. Students also have the right to file complaints with the Family Educational Rights and Privacy Act Office concerning alleged failures by the college to comply with FERPA.

Wake Tech's policy establishing its intent to comply with FERPA and procedures for implementing the provisions of FERPA are published in the college catalog. Questions about FERPA or Wake Tech's policy and procedures should be directed to the Enrollment and Records Services Division.

Care of Records:

Policies and Procedures

Wake Technical Community College, in the execution of its responsibilities to students, maintains accurate and confidential student records. The college staff recognizes the rights of students to have access to their educational and personal records in accordance with college policy and the Family Educational Rights and Privacy Act of 1974.

Definition of "Educational Records"

The term "educational records" as defined under the provisions of FERPA includes files, documents, and other materials that contain information directly related to students and that are maintained by an educational institution or an authority on behalf of the institution.

The term "educational record," under the provision of the act, does not include the following:

1. Records of institutional, supervisory, and administrative personnel that are in the sole possession of the maker and that are not accessible or revealed to any other person except a substitute for the above-named personnel.
2. Records and documents of security officers of the institution that are kept apart from such educational records.
3. Records of students that are made or maintained by physicians, psychiatrists, psychologists, counselors, or other recognized professionals or paraprofessionals acting in their official capacity; and that are made, maintained, or used only in connection with a provision for treatment of the student and not available to anyone other than persons providing such treatment, except that such records can be personally reviewed by a physician or other appropriate professional of a given student's choice.
4. Records of alumni or former students.

Students may not review or inspect:

1. Financial records of the parents of the students or other information therein contained.
2. Confidential recommendations, if the student has signed a waiver of his or her rights of access, provided that such a waiver may not be required of the student.

Control Provisions on Student Records and Student Information

The official student file shall not be sent outside the Wake Tech Admissions Office, Registration and Student Records Services Division, Financial Aid Office, Placement Office, or Cooperative Education Office except in circumstances specifically authorized in writing by the president or appropriate vice president.

Students have the right to inspect their own records as covered by FERPA, whether recorded in hard copy, electronic data processing media, or microfilm. The registrar has been designated by the college to coordinate the inspection and review of student records. Requests to review records must be made in writing, specifying the item or items of interest. Records will be made available for review within forty-five (45) days. Upon inspection, students are entitled to an explanation of any information contained in the record.

Students may have copies of their records except:

1. When a financial "hold" exists.
2. When the copy requested is a transcript of an original or source document that exists elsewhere.

A fee of $.50 per page will be charged for copies of records other than the student's transcript(s) of academic records. Transcripts and other information, except as provided by FERPA, are released only with the written consent of the student. Such written consent must:

1. Specify the records or data to be released, to whom it is to be released, and the reason(s) for release.
2. Be signed and dated by the student.

Disclosure of Information without the Student's Consent

Educational records will be disclosed without written consent of students to properly identified and authorized representatives of the Comptroller General of the United States, the Secretary of Education, state educational officials, and the Department of Veterans Affairs for audit and evaluation of federal and state-supported programs or in connection with enforcement of the federal or legal requirements that relate to such programs. Routine requests for student data from agencies such as the Department of Education, OEO, research agencies, and state-reporting agencies may be honored without prior approval of the student only in formats where students are not identified. In the course of fulfilling its contractual obligations with third party vendors, the college recognizes that the third party vendor is acting as a legal agent ("school official") of the college and will use the confidential information for the purposes stated in the agreement. Currently, the college has entered into agreements with vendors that include but are not limited to the following:

- Barnes and Noble Bookstores
- Higher One

- National Student Clearinghouse
- Maxient Student Conduct Manager
- College Foundation Incorporated (CFI) School Services
- Visual Zen
- Academic Works
- Hyland
- Informer
- Starfish
- MAP

Confidential information requested by anyone other than federal or state agencies as specified above will be released only under the following conditions:

1. An official order of a court of competent jurisdiction.
2. A subpoena: Students will be notified immediately by registered mail that their records are being subpoenaed.
3. At the request of the parents of a student, upon receipt of a certified copy of their most recent Federal Income Tax Form naming the student as a dependent.

Requests for confidential information will be honored without prior consent of the student in connection with an emergency, if the knowledge of such information by appropriate persons is deemed necessary (by a responsible person) to protect the health or safety of the student or others.

Faculty and administrative officers of the College who demonstrate a legitimate educational need will be permitted to look at the official student record of a particular student.

Directory Information
The college may make the following directory information available to the public unless the student notifies the registrar in writing by the end of the first week of the term that such information is not to be made available.

1. Student's name
2. Date of birth
3. Address
4. Major field of study or program
5. Dates of enrollment
6. Degrees, diplomas, or certificates received
7. College honors

The college designates the following categories of student information as “limited-use directory information”:

1. Students’ college-issued electronic mail addresses

2. Photographs, videos, or other media containing a student’s image or likeness
   As designated limited-use directory data, this information will not be provided to external parties not contractually affiliated with the college. Use and disclosure of this information shall be limited to (a) publication on websites hosted by, on behalf of, or for the benefit of the college; (b) publication in print for purposes including but not limited to college marketing, public relations, outreach, and press releases; at college events including but not limited to athletic events, college fairs and open houses, student organization activities, campus atmosphere, etc. (c) college officials who have access, consistent with FERPA, to such information and only in conjunction with a legitimate educational interest; and (d) external parties contractually affiliated with the college, including official third party vendors and partner institutions with a joint memorandum of understanding.
   Any release of student information for public use or use by the media, except for the specified directory information and limited-use directory information detailed above, must have the prior written approval of the student(s) involved.

Record of Access
A record of access to the official student record will be maintained within the record itself. This record will show the name, address, date, and purpose of the person(s) who have been granted access. All persons who have access will be included in this record except those institutional employees who, because of the nature of their duties, have been granted access.

Student’s Rights to Question Contents of Official Records
A student has the right to view his official records as maintained by the college; furthermore, a student may question any inaccurate or misleading information and request correction or deletion of that data from the official records.

All such requests will be sent to the registrar and will become a part of that student's record.

All requests for correction of a student record will be acted upon within 45 days of receipt of that request. If the custodian can verify that such data is, in fact, in error, appropriate corrections will be made and the student will be notified in writing. In the event that the registrar fails to resolve the request to the student's satisfaction, the student may continue the grievance through compliance with the grievance procedure found in the college catalog. If the outcome of the grievance is in agreement with the student's request, the student will be permitted to review his record to verify that the change has been made correctly. If the student's request is denied, he will be permitted to append a statement to the record in question, showing the basis for his disagreement with the denial. Such appendages will become a permanent part of the record.

CONTINUOUS ENROLLMENT

(For Students Admitted Prior to Fall 2014)
Students officially enrolled in the Associate in Arts or Associate in Science program **prior to fall 2014** must have been continuously enrolled in order to retain the conditions and protections contained in the Comprehensive Articulation Agreement in place at the time of their initial enrollment. "Continuously enrolled" means that the student must have been enrolled every fall and spring semester since their initial enrollment.

Students who have not been continuously enrolled will be subject to the Comprehensive Articulation Agreement jointly approved by the State Board of Community Colleges and the University of North Carolina Board of Governors in February 2014.

WE ARE HERE TO HELP!

Locations
Southern Campus: 9101 Fayetteville Road (401, south of Garner), Raleigh NC 27603
Northern Wake Campus: 6600 Louisburg Road (401, north of I-540), Raleigh NC 27616
Health Sciences Campus: 2901 Holston Lane (adjacent to Wake Med), Raleigh NC 27610
Western Wake Campus: 3434 Kildaire Farm Road, Cary NC 27518
Public Safety Education Campus: 321 Chapanoke Road, Raleigh NC 27603
RTP Campus: 10908 Chapel Hill Road, Morrisville, NC 27560

Curriculum Admissions
Information is available online at http://admissions.waketech.edu or by calling an Admissions Information Specialist at 919-866-5420.

Registration and Student Records Services
Southern Wake Campus: Student Services Building, Room 243
919-866-5700 or registrar@waketech.edu

Northern Wake Campus: Building B, Room 216

Online: http://www.waketech.edu/student-services/registration-student-records

Advising
919-866-5474 or advising@waketech.edu

Remember to check the online College Catalog for the most up-to-date information at http://www.waketech.edu/student-services/catalog

FINANCIAL AID

GENERAL INFORMATION

Wake Tech Financial Aid strives to provide quality assistance to all students, and makes every effort to ensure that no qualified student is denied the opportunity to continue his or her education because of economic disadvantages. Through a program of scholarships, grants, work-study, and loans, Wake Tech Financial Aid provides students with options for supplementing their own and their families' resources to pursue their education goals. For more information on financial aid at Wake Tech, visit http://financialaid.waketech.edu.

FINANCIAL AID APPLICATION

To apply for financial aid, you must complete the **Free Application for Federal Student Aid (FAFSA)** online at **www.fafsa.gov**. The FAFSA should be completed as soon as possible on or after October 1 for the upcoming academic year. If you prefer not to complete the application online, you may complete the FAFSA in PDF format and mail it to the processing center, or request a paper FAFSA by calling the Central Processing Center at 1-800-433-3243. If you are hearing impaired, you may contact the TTY line at 1-800-730-8913.

DEADLINE & "PRIORITY" DATES

To allow time for processing and awarding financial aid to students before the first day of classes, priority deadlines have been established for each semester, as follows:

If you plan to enroll:	FAFSA must be completed online by:	All paperwork due to the Financial Aid Office by:
Fall Semester	June 1	July 1
Spring Semester	October 1	November 1
Summer Term	April 1	April 15

Note: If the deadline listed above falls on a weekend or holiday, paperwork is due the next business day.

Students will be notified of their awards once all required documentation has been received in the Financial Aid Office. Students who submit applications and documentation **after** the deadlines above must be prepared to pay for their tuition, fees, and books. Students may view their financial aid information during each stage of the process through My Financial Aid in WebAdvisor.

STUDENT RESPONSIBILITIES

To receive Federal Title IV assistance and state assistance, a student must:

- Demonstrate financial need through the completion of the FAFSA.
- **Have a valid high school diploma or a High School Equivalency certificate on file with the college. (See NOTE below.)**
- Be enrolled in an eligible program of study at Wake Tech.
- Be a U.S. citizen or an eligible non-citizen.
- Have a valid Social Security Number.
- Maintain satisfactory academic progress.
- Certify that he or she is not in default on a federal student loan and does not owe money on any federal aid.
- Not have been convicted for the possession or sell of illegal drugs for an offense that occurred while you were receiving federal student aid.
- Register with Selective Service, if required.

NOTE: Students with a high school diploma determined to be invalid are not eligible for financial aid. A diploma will be deemed invalid if there is reason to believe that limited coursework was required to complete the diploma or that a fee was charged by the agency that issued the diploma.

Students with an invalid diploma may establish eligibility for financial aid as outlined below. "Enrollment" as used below is defined as officially registered and attending classes.

To receive financial aid funds, a student must be qualified to study at the postsecondary level. A student qualifies if he/she:

1. Has a high school diploma;
2. Completes a recognized equivalent of a high school diploma, such as a GED;
3. Completes one of the ability-to-benefit (ATB) alternatives and is either currently enrolled in an eligible career pathway program or first enrolled in an eligible postsecondary program prior to July 1, 2012.
4. Has an accredited associate's degree;
5. Has successfully completed at least 60 semester credit hours that do not result in the awarding of an associate's degree, but that are acceptable for full credit toward a bachelor's degree at any institution; or
6. Is enrolled in a bachelor's degree program where at least 60 semester credit hours have been successfully completed, including hours transferred into the bachelor's degree program.

Students will not be denied admission to Wake Tech; however, they will not be eligible to receive financial aid until one of the above items is completed. More information is available in the Financial Aid Office.

VETERAN AFFAIRS EDUCATIONAL BENEFITS

Website: http://veterans.waketech.edu

All Wake Tech curriculum programs, as well as Workforce Continuing Education's Basic Law Enforcement Training (BLET) and Barbering programs are approved by the North Carolina State Approving agency for use of GI Bill® benefits. Students who are currently serving on Active duty, Retired, Ready Reservists, North Carolina National Guard members, spouses and children of deceased or 100-percent disabled Veterans or dependents in receipt of transferred Post 9/11GI Bill entitlement, are all classified as "Veterans." Veterans who wish to use their G.I. Bill education benefits must first establish their eligibility with the Department of Veterans Affairs (VA) by submitting the appropriate application form at www.gibill.va.gov. Veterans separated from service with an Honorable Discharge usually qualify for education benefits which provide, in general, 36 months of full-time training.

Veterans who have served on active duty on or after September 11, 2001, may be eligible for Post 9/11 GI Bill benefits. Benefits are payable for training on or after August 1, 2009. More information about these benefits is available at www.gibill.va.gov.

Active duty military personnel are also eligible for education benefits under the G.I. Bill. Interested persons should contact their duty station Education Officer for details before applying for admission to the college.

Veterans will not be certified for VA benefits until all entrance/admissions criteria are met. Wake Tech Certifying Officials require "official" transcripts from high school and other institutions of higher learning to expedite the certification process. Additionally, we request copies of the DD-214 and VA Certificate of Eligibility. Reservist and members of the National Guard also must submit the Notice of Basic Eligibility (NOBE). Veterans using GI Bill benefits are encouraged to apply for Federal Financial Aid. Veterans attending Wake Tech under the G.I. Bill receive a monthly reimbursement from the Department of Veterans Affairs. The reimbursement is based on course load; for example, a veteran carrying a full-time load would be eligible for the full benefit. To receive the full benefit, the veteran must be enrolled at the full time rate for the particular semester. Veterans should contact a Wake Tech VA Certifying Official, located on Main Campus in the Student Services Building, room 143, or Northern Wake Campus, Building C, room 217, for more information.

Veterans are afforded the same rights as any Wake Tech student and must meet the same academic requirements and standards. Veterans must meet the grade-point average (GPA) standards established in Wake Tech's Academic Probation and Suspension policy. A veteran failing to meet GPA standards at the end of a term will be placed on probation. A veteran failing to meet those standards at the end of the next term in attendance will have VA enrollment certification terminated and benefits suspended. Enrollment certification will not be restored until GPA standards are met, or upon approval of a Satisfactory Academic Progress Appeal (SAP) Form.

Any changes to a veteran's enrollment must be immediately reported to the Wake Tech VA Certifying Official. Reporting delays or omissions can adversely affect future benefits. Veterans dropped or withdrawn for any reason will be immediately reported to the VA, and appropriate adjustments will be made.

ENROLLMENT OF VETERANS IN NON-TRADITIONAL COURSES

Veterans receiving VA education benefits may enroll in non-traditional courses (including Internet, online or hybrid courses) provided that:

- The course or courses are required by their current program of study.
- The veteran has met with the VA Certifying Official to discuss policies and procedures before registering for a course.
- The veteran has reviewed the Distance Education Student Self-Assessment on the Wake Tech website (or in the schedule of classes) to determine if suited for distance learning.

There is no additional charge for enrolling in non-traditional courses.

Online remedial courses cannot be certified for GI Bill benefits.

For more information about veterans' educational benefits, visit http://veterans.waketech.edu.

Veteran Services Office Hours and Locations

Southern Wake Campus
Student Services Building (SSB), Room 143
Monday-Thursday, 8:00 a.m.–5:00 p.m.
Friday 8:00am - 5:00 p.m. (by appointment only after 2:00 p.m.)

Northern Wake Campus
Building C, Room 217
Monday-Thursday, 8:00 a.m.-5:00 p.m.
Friday 8:00am - 5:00 p.m. (by appointment only after 2:00 p.m.)

GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government Web site at http://www.benefits.va.gov/gibill.

FINANCIAL AID FOR STUDENTS WITH DISABILITIES

Vocational Rehabilitation is a public service program operated through the Division of Vocational Rehabilitation, Department of Human Resources. Vocational Rehabilitation offers several financial resources to assist individuals with disabilities. Students may be eligible for financial assistance to complete a course of study to meet individualized needs. Prospective students should contact the nearest Division of Vocational Rehabilitation Services office.

FINANCIAL AID FOR TRANSFER STUDENTS

Any student who transfers to Wake Technical Community College must provide official transcripts from all schools attended, including high school. Wake Tech will evaluate all transcripts to determine if an offer of financial aid can be made.

Financial aid received at any other institution within the same academic year may reduce the amount of financial aid available to the student at Wake Tech. Financial aid will not be given for courses for which the student receives transfer credit.

GRANTS

Wake Technical Community College offers several different federal and state grant programs. Grants are gifts of financial aid and as such do not generally have to be repaid as long as a student remains enrolled each semester. Students who withdraw completely may be required to repay a portion of federal grant funds received.

FEDERAL GRANT PROGRAMS

1. **Federal Pell Grants**
   Student must be a U.S. citizen or permanent resident enrolled in an eligible program, demonstrate financial need, and meet all other eligibility requirements. Students must complete the Free Application for Federal Student Aid (FAFSA). For 2017-2018, annual awards range from $593-$5920. The maximum PELL-eligible Estimated Family Contribution (EFC) is $5328, with a minimum award for a full-time student of $606. Award ranges are subject to change based on congressional action.

2. **Year Round Pell**
   Beginning with 2017-18 academic year, an eligible student may now receive full Federal Pell Grant for summer 2018 even if they received a full Federal Pell Grant during the fall and spring semesters. Year-round Pell allows students to receive up to 150 percent of a regular grant award over the course of the academic year so that they can continue taking classes in the summer and finish their degrees faster than they would otherwise.

   With careful planning, Pell Grant recipients may take advantage of this new regulation to earn their degree faster. However, students should keep in mind that the summer term is shorter (8-10 weeks) than fall and spring semesters (16 weeks). Students should consult with their academic advisor to develop a manageable course load for the shorter summer term. Just because students may be eligible for full-time Pell Grant funds DOES NOT mean students are required to carry a full-time load.

Note: The provisions of the new law state that any Pell Grant received will be included in determining the student's Pell Grant duration of eligibility and Lifetime Eligibility Used (LEU). To be eligible for additional Pell Grant funds:

- Student must be otherwise eligible to receive Pell Grant funds for the payment period
- Student must be enrolled at least half-time in the payment period(s) (6 credit hours) during the summer term
- Student must be maintaining satisfactory academic progress

3. **Lifetime Eligibility for Federal Pell Grants**
Effective July 1, 2012, Pell grants are limited to a lifetime maximum of the equivalent of 12 full-time semesters or six years (or 600%) for community colleges, vocational schools, and public and private four-year universities. Limits will be tracked by the Department of Education for each institution the student has attended.

A full year (100%) of eligibility is counted regardless of the amount of the grant received. For example, a student who is eligible for $3000 in Pell grant funds who received $1000 in the fall term, $1500 in the spring term, and $500 in the summer term, has been awarded 100% for the year. Pell grants are only available to undergraduate students. Once a bachelor's degree is earned, the student is no longer eligible for Pell grant funds, even if the 600% eligibility has not been met. Students are required to meet and maintain satisfactory academic progress standards to maintain eligibility.

4. **Federal Supplemental Educational Opportunity Grants (FSEOG)**
The Federal Supplemental Educational Opportunity Grant (FSEOG) provides grant funds to exceptionally needy students. Eligibility is determined by a student's submission of the FAFSA and all required documentation. The maximum award at Wake Tech is $1000 per academic year; awards may be reduced. Students who submit the FAFSA by March 15 and all required documentation work by June 1 will receive priority consideration.

5. **Federal Work Study Program**
Federal work study provides part-time employment opportunities to students in need of financial assistance. Students generally work 10-20 hours per week. This grant is administered based on the availability of funding. Students must complete the FAFSA and turn in all required documentation in order to be considered for this grant In most instances, a student must be enrolled at least half-time in an eligible diploma or associate's degree program and must maintain satisfactory academic progress to qualify. Federal Work Study earnings are paid on a monthly basis after a time record has been signed, approved, and processed by the Financial Aid Office. For more information pertaining to the Federal Work Study Program, visit the Financial Aid webpage at: http://www.waketech.edu/student-services/financial-aid/federal-work-study-program.

6. **Iraq and Afghanistan Service Grant (IASG)**
You may be eligible for an Iraq and Afghanistan Service Grant if you meet the following conditions:

- Your parent or guardian was a member of the U.S. armed forces and died as a result of military service performed in Iraq or Afghanistan after the events of 9/11/01; and
- You were under 24 years old or enrolled in college at least part-time at the time of your parent's or guardian's death; and
- You meet all requirements for the Federal Pell Grant, however your Expected Family Contribution makes you ineligible.

For more information pertaining to the Iraq and Afghanistan Service Grant, you may visit the Federal Student Aid website at https://studentaid.ed.gov/sa/types/grants-scholarships/iraq-afghanistan-service.

STATE OF NORTH CAROLINA GRANT PROGRAMS

1. **North Carolina Community College Grant Program (NCCCG)**
To be eligible to receive these funds a student must 1) be a North Carolina resident; 2) be enrolled for at least six credit hours in an eligible curriculum program; and 3) demonstrate moderate financial need based on the FAFSA. To apply, the student must complete the FAFSA. The student's EFC must be within the range determined by the state of North Carolina each academic year. Students who have already earned a bachelor's degree or have exceeded their lifetime limit of six full-time semesters of funding are not eligible. Effective fall 2016, students who register for 15 or more credit hours in a semester may be eligible for additional state funds.

2. **North Carolina Education Lottery Scholarship (NCELS)**
North Caroling Education Lottery Scholarship funds are disbursed each fall and spring semester. Students who

have already earned a bachelor's degree or have exceeded the lifetime limit of 10 full-time semesters of financial aid are not eligible to receive these funds.

To be eligible, a student must complete a FAFSA and must 1) be a North Carolina resident, 2) be enrolled for at least six credit hours in an eligible curriculum program, 3) have an EFC within the range determined each academic year by the state of North Carolina, and 4) demonstrate moderate financial need based on the FAFSA.

LOANS

The U.S. Department of Education (USDOE) offers three types of loans through the **William D. Ford Direct Loan Program**: Direct Subsidized Loans, Direct Unsubsidized Loans, and Direct PLUS Loans. Student loans have to be repaid to the lender.

2016-17 Direct Loan Interest Rates and Fees
(for loans with a first disbursement date on or after July 1, 2016 to June 30, 2017)

Subsidized Interest Rate: 3.76% Fee: 1.069%*****

Unsubsidized Interest Rate: 3.76% Fee: 1.069% *****

*****Direct Loan Fee: The Subsidized and Unsubsidized Federal Direct Stafford Loans have a 1.069% origination fee which will be deducted from the gross amount of the loan borrowed.

Interest rates are subject to change July 1, 2017, and origination fees are subject to change October 1, 2017.

1. **Direct Subsidized Loans**
   Direct subsidized loans are need-based: To qualify for a direct subsidized loan, a student must demonstrate financial need as a result of filing the FAFSA. Eligibility is determined by the institution; funds are provided by the U.S. Treasury and repaid to agencies designated by the U.S. Department of Education. The amount that may be borrowed per year ranges from $3500 to $5500 for undergraduates, depending on grade level; it is set by the federal government. Interest on the loan is paid by the government as long as the student is enrolled at least half time. The student becomes responsible for repayment (principal and interest) six months after graduating or dropping below half-time enrollment. ******

   ******For new loans made between July 1, 2012, and July 1, 2014, interest accruing during the six-month grace period will not be paid by the federal government. The student is responsible for that interest, even though loan repayment does not begin until after the six-month grace period.

2. **Direct Unsubsidized Loans**
   Direct unsubsidized loans are not need-based; however, to qualify, students must still complete a FAFSA. Eligibility is based on the cost of attendance minus other expected financial aid. Students are charged interest from the date the loan funds are disbursed. Annual maximums, interest rates, and repayment provisions are the same as those for direct subsidized loans.

3. **Direct PLUS Loans**
   Parents of a dependent undergraduate student may apply for a PLUS loan to help meet costs of attendance not covered by other financial aid. Completion of a FAFSA is required, and parents must submit a PLUS Request form to the Financial Aid Office. PLUS loans generally offer better interest rates and repayment options than other non-federal education loans. Repayment typically starts when funds are disbursed; however, deferments are available upon request.

4. **Forgivable Education Loans for Service (NCFELS)**
   The Forgivable Education Loan for Service was established by the North Carolina General Assembly in 2011; the first loans were available for the 2012-13 academic year. The loan provides financial assistance to qualified students who are committed to working in North Carolina in fields designated as critical employment shortage professions. Visit http://www.cfnc.org/FELS for the application process, specific program details, and deadlines.

FINANCIAL AID

SCHOLARSHIPS

The Wake Tech Foundation offers a variety of merit-based and financial need-based scholarships for Wake Tech students enrolled in **curriculum** (for-credit) programs. For information about scholarships for students in Workforce Continuing Education programs, students should contact the Workforce Continuing Education Career Pathways Program
To be considered for a scholarship on the basis of financial need, you must complete the Free Application for Federal Student Aid (FAFSA) and supply all necessary documentation to the Financial Aid office prior to the April 30th scholarship deadline.

Scholarship applications are available during spring semester in the financial aid office and online at https://foundation.waketech.edu/scholarshipappinstructions. Applications are accepted online via the website: https://www.waketech.edu/wake-tech-foundation/scholarshipguidelines **from March1 through April 30** for the upcoming academic year. Selections are made in June.

Applications are evaluated by a committee of Wake Tech faculty and staff. Only applicants who have received an acceptance letter from Wake Tech Admissions by the scholarship application deadline will be considered.
Students are strongly encouraged to apply for scholarships to offset tuition costs.

ENROLLMENT REQUIREMENTS

For financial aid purposes, full time enrollment is *always* considered 12 credit hours, regardless of whether the student is enrolled in the fall, spring, or summer semester. Students receiving veteran's benefits should contact their Wake Tech VA representative.

Enrollment requirements for financial aid programs are listed below:

To receive the maximum Pell Grant award, a student must be enrolled for 12 credit hours or more each semester in an eligible program of study. Depending on eligibility a reduced Pell Grant award may be given to students enrolled three-fourths time (9-11 credit hours), half time (6-8 credit hours), or less than half time (1-5 credit hours). Only courses in a student's program of study can be included when determining the award for each semester. For example, a student who is enrolled for 12 credit hours but is taking a five-credit-hour course that is not part of his or her program of study will receive PELL Grant funds for seven credit hours only. Students should refer to Financial Award Information to learn more about disbursement requirements.

- To receive funding from the North Carolina Community College Grant or the North Carolina Education Lottery Scholarship, students must be enrolled at **least half time** when funds are released.
- To receive funding from the Direct Loan Program, students must be enrolled for at **least six credit hours** when funds are released and must maintain continuous enrollment with at least six credit hours.
- Students must register for all courses, including mini-mesters, by the last day to drop for the term.

FINANCIAL AID REFUNDS AND REPAYMENTS

After your financial aid has disbursed to your student account tuition, fees, and book charges will be deducted, and any balance that remains in your account will be refunded to you by the Cashier's Office. Wake Tech uses Bank Mobile to process financial aid refunds. A Refund Selection Kit will be mailed to the address on record and by email. The refund selection kit will arrive in a bright green envelope. Once you receive the kit, go to www.mywaketechcard.com to select your refund preference. You may choose any of the following:

1. Have the funds directly deposited into an existing bank account (2-3 days)
2. Open a bank account with Higher One and have your funds deposited into it (1-2 days)
3. Have a paper check mailed to you (5-6 days)

Once you've made your selection, you will receive your refund as indicated above. You can find out the date your refund will be released to Higher One on the refund disbursement schedule posted on http://www.waketech.edu/student-services/financial-aid/financial-aid-refunds.

TITLE IV REPAYMENT

Title IV (TIV) (federal) financial aid funds are awarded under the assumption that a student will remain in classroom attendance for the entire period (semester) for which the funds were awarded.

When a student withdraws from all courses for any reason, he or she may no longer be eligible for the full amount of TIV funds originally awarded. The return of funds to the federal government is based on the premise that a student earns financial aid in proportion to the length of time during which he or she remains enrolled. A pro-rated schedule determines the

amount of federal financial aid the student will have earned at the time of full withdrawal. For example, a student who withdraws in the second week of the semester has earned less of his or her financial aid than a student who withdraws in the fifth week. Once the 60% point in the semester is reached, a student is considered to have earned all of the financial aid originally awarded and will not be required to return any funds.

Federal regulations require a recalculation of financial aid eligibility if a student:

- Completely withdraws;
- Stops attending before the semester's end; or
- Does not complete all modules (mini-sessions) in which the student is enrolled as of the start date of the mini-session.

Wake Tech students who receive federal financial aid but do not remain in attendance through the end of the semester could be responsible for repaying a portion of the financial aid originally received. Students who never begin classes (do not ever attend) are not eligible for federal financial aid and must repay all financial aid originally awarded.

NOTE: Wake Tech's institutional tuition/fee refund policy is separate from federal regulations concerning the return of unearned financial aid. A tuition/fee refund from Wake Tech will have no impact on the amount a student must repay to federal financial aid programs.

State Grant Repayments

Effective fall 2012, students who receive funds from the North Carolina Community College Grant or the North Carolina Education Lottery Scholarship and completely withdraw from classes before the 30% point of the term will be required to repay a percentage of funds.

IF YOU CHANGE YOUR MIND ABOUT A CLASS

It is imperative that you cancel your registration for any class you decide not to attend. This is **especially** important if you have been awarded financial aid, because your financial aid award holds your classes and prevents you from being automatically dropped for nonpayment. It is your responsibility to cancel your registration. If you decide not to attend a class or classes but fail to cancel your registration, you will be responsible for all tuition and fee charges for those classes.

If you are considering withdrawing from Wake Technical Community College, we strongly urge you to speak to a Financial Aid Specialist to determine how withdrawing may affect you.

SATISFACTORY ACADEMIC PROGRESS (for financial aid recipients)

Standards of Satisfactory Academic Progress for Financial Aid Recipients
Effective July 1, 2013

Federal regulations require schools to monitor the academic progress of each student who applies for financial aid and to certify that each student applicant is making satisfactory academic progress toward a degree, diploma, or certificate. Federal regulations require schools to establish Standards of Satisfactory Academic Progress (SAP) that include qualitative and quantitative measures of progress and a time frame for completion of a program of study.

These standards are applied to students who receive financial aid from any of the following programs: Federal Pell Grant, Federal Supplemental Education Opportunity Grant, North Carolina Community College Grant, North Carolina Education Lottery Scholarship, North Carolina Student Incentive Grant, Federal Direct Subsidized and Unsubsidized Loans, Federal Direct PLUS loans, and institutional grants, scholarships, and loans. Students' academic performance is evaluated at the end of each semester of enrollment. Any student not meeting the minimum standards outlined below will be given financial aid warning status and notified by email from the Financial Aid Office. The student must meet the minimum requirements by the end of the financial aid warning semester; if not, financial aid will be suspended until the standards are met.

Pre-Curriculum Coursework
Although pre-curriculum courses do not count toward completion of a degree, federal regulations require that pre-curriculum courses be included when calculating cumulative GPA and cumulative completion rate for the purpose of determining Satisfactory Academic Progress for financial aid recipients. Federal regulations also state that students may not receive financial aid (including grants and loans) for more than 30 credit hours of pre-curriculum coursework. Students who exceed this limit will be denied financial aid, and denial cannot be appealed. Students are limited to one Direct Loan for completion of pre-curriculum coursework.

Qualitative: Cumulative Grade Point Average (GPA) Requirement
In accordance with federal regulations, a student's cumulative GPA must be reviewed at the end of each semester of attendance, including summer.

1. Students must have earned a cumulative 2.0 GPA (or higher) when grades are reviewed at the end of the semester.
2. Students who do not earn the required cumulative 2.0 GPA will be placed on financial aid warning for their next semester of attendance.
3. While on financial aid warning, the student remains eligible for financial aid:
    a. If the student earns a cumulative 2.0 GPA (or higher) by the end of the financial aid warning semester, the warning will be lifted (provided the student meets all other SAP guidelines).
    b. If the student does **not** earn a cumulative 2.0 GPA by the end of the financial aid warning semester, financial aid will be suspended. The student will not qualify for financial aid effective the next semester of attendance and until such time as the student again meets all SAP guidelines.

Quantitative: Completion Rate Requirement
In accordance with federal regulations, students must successfully complete at least 67% of cumulative credits attempted in order to meet the requirements for financial aid. For example, if a student has attempted 60 credit hours during enrollment, he/she must successfully complete 40 or more of those hours. Student completion rates are reviewed at the end of each semester of attendance, including summer.

1. Students must earn a cumulative 67% completion rate. Grades are reviewed at the end of each semester.
2. Students who do not earn a cumulative 67% completion rate will be placed on financial aid warning for their next semester of attendance.
3. While on financial aid warning, the student remains eligible for financial aid:
    a. If the student completes sufficient credits to earn a 67% completion rate by the end of the financial aid warning semester, the warning will be lifted (provided the student meets all other SAP guidelines).
    b. If the student does **not** complete sufficient credits to earn a 67% completion rate by the end of the financial aid warning semester, financial aid will be suspended. The student will not qualify for financial aid effective the next semester of attendance and until such time as the student again meets all SAP guidelines.

Maximum Time Frame
The maximum time frame within which to complete a degree (or other program of study) is 150% of the published length of the program. For example, if the published length of a program of study is 64 semester hours, a student may attempt up to 96 semester hours (64 x 150% = 96). To determine the published length of a program, please refer to the Wake Technical Community College Catalog.

A student who exceeds the maximum allowable time frame for completing a program of study may appeal. The student must provide a graduation plan signed by his/her academic advisor; if the plan is deemed reasonable, the student will receive financial aid on a probationary basis for one or more semesters until the degree is completed. Failure to comply with the plan will result in suspension of financial aid.

Appeals
Students may appeal the suspension of their financial aid eligibility in the event of documented extenuating circumstances, such as illness or injury of the student or the death of an immediate family member. The appeal must address why the student failed to make satisfactory progress and what has changed in the student's situation that will allow the student to demonstrate satisfactory academic progress in the future. Appeals must be submitted in writing to the Financial Aid Office and addressed to the director. The Satisfactory Academic Progress Appeals Committee will review the appeal and notify the student in writing regarding the status of the appeal. Students are generally limited to two suspension appeals requests while attending Wake Tech. Please refer to the Satisfactory Academic Appeal website for information regarding submission deadlines.

Students whose appeals have been approved will be placed on financial aid probation for their next semester of attendance. The student will, in conjunction with the SAP committee, develop an individualized academic plan that must be followed in order to continue enrollment. The plan may include requirements for academic performance and/or for meetings with an academic advisor or Wake Tech counselor. Students who meet these requirements will continue to be on probation for the next semester, and a new academic plan will be developed. Continued eligibility for financial aid is contingent on meeting the requirements of each semester's academic plan. Failure to meet the requirements of the academic plan will result in suspension of financial aid the next semester of attendance. A student's academic progress status does not return to

satisfactory until he/she earns a cumulative 2.0 GPA and a cumulative 67% progress rate and does not exceed the maximum timeframe for program completion.

Treatment of Selected Grades

Withdrawals: Credit hours in which a student receives a grade of “W”, “WP”, "WF", "R", and “F” are included in the number of hours attempted but do not count toward successfully completed hours; consequently, students who withdraw may have difficulty meeting the satisfactory progress requirements.

Incompletes: Students will not be affected by “incompletes” at the time of the review. Upon notification that the final grade has been submitted, the actual grade, credit hours attempted, and credits earned will be used to determine if the student is maintaining satisfactory academic progress.

Transfer Credit: Students transferring from another institution will be considered making satisfactory progress at the time of enrollment. A student’s maximum timeframe for receiving financial aid will be reduced by the number of transferred credit hours applied towards his/her program of study at Wake Tech. Transfer hours applicable to the student's program of study count favorably towards the student's rate of progression.

Audits: An audit (AU) grade is not considered attempted coursework. It is not included in the determination of grade point average or completion rate. A student cannot receive financial aid for an audited course.

Credit by examination: Credit hours earned by examination are considered attempted and completed coursework and therefore **will** be considered in calculating a student’s completion rate. Financial aid does not pay for credit hours earned by examination.

Repeated course: Per federal regulations, financial aid can pay for one repeat of a course in which a grade of B, C, D, or P was earned. All repeated courses are included as attempted credits. A student may not receive financial aid for repeating a course in which he or she previously earned a grade of "A," because a grade of "A" cannot be improved upon.

Failed course: Per federal regulations, financial aid can pay for a failed course until the course is successfully passed; however, each attempt is included in both attempted and earned credits. As a result, a student's rate of progression may be negatively affected. Students must adhere to the Wake Technical Community College policy regarding limitations on repeat courses.

Summer terms: Credit hours attempted and earned during summer term will be included in the calculation of satisfactory academic progress, just as those earned during any other enrollment period.

Successful completion: A grade of A, B, C, D, X, or P is considered successful course completion. A grade of F or R is **not** considered successful completion.

KEY TERMS RELATED TO SATISFACTORY ACADEMIC PROGRESS STANDARDS

Satisfactory: Student has met the minimum SAP standards and is eligible to continue to receive federal financial aid for the next semester

Financial Aid Warning: Students who have not earned the required GPA or completion rate will be placed on financial aid warning for the following semester. Satisfactory academic progress will be monitored at the end of each semester to determine if the student meets the standards and is eligible to continue to receive financial aid. The student may receive financial aid during the warning period.

Financial Aid Probation: Students whose appeals have been approved by the Satisfactory Academic Progress Appeals Committee are placed on financial aid probation.

Financial Aid Suspension: Students on financial aid warning status who have not successfully earned a cumulative GPA of 2.0 and cumulative completion rate of 67% at the conclusion of the warning period will have their financial aid suspended. Financial aid will also be suspended for students who have attempted the maximum allowable credit hours for their program of study.

Notification of Financial Aid Suspension or Warning: The Financial Aid Office will send an email to any student who is placed on financial aid warning or suspension; however, failure to receive correspondence does not negate a suspension or warning status.

Academic Plan: A plan developed by the institution and the student to ensure that the student is able to meet the institution's satisfactory academic progress standards by a specific point in time.

Continued Probation 1 is assigned to a student who satisfies the conditions of his/her Academic Plan. The student is eligible to receive financial aid for an additional semester and is expected to complete all courses with a C or better, with no withdrawals or Fs.

Continued Probation 2 is assigned to a student who satisfies the conditions of **Continued Probation 1**. The student must complete all courses with a C or better, with no withdrawals or Fs.

Continued Probation 3 is assigned to a student who satisfies the conditions of **Continued Probation 2**.

Continued Probation 4 is assigned to a student who satisfies the conditions of **Continued Probation 3**.

Qualitative component: The specified standard, typically grade point average (GPA), that a student must have at each evaluation period.

Quantitative component: The pace at which students must progress through their programs to ensure that they will graduate within the maximum timeframe.

Transfer Credit: Credit hours from another institution which are accepted toward the student's education program at the current institution and which count as both attempted and completed hours.

Satisfactory Academic Progress Policy: An institution's policy for determining whether an otherwise eligible student is making satisfactory academic progress in his/her educational program in order to receive financial aid assistance.

Regaining Eligibility: Students who continue to attend school without federal financial aid may regain eligibility for financial aid by earning a cumulative GPA of 2.0 and a cumulative completion rate of 67%. A student may request reconsideration of eligibility for financial aid by submitting a written request to the Financial Aid Office once all requirements are met; however, satisfactory academic progress is automatically reviewed at the end of each semester for students with an ISIR on file within the past three years.

Petition of Waiver of Satisfactory Academic Progress Standards: Students who have been disqualified from receiving financial aid may request a waiver of the satisfactory progress requirements by submitting a Satisfactory Academic Progress Appeals Form, if extenuating circumstances have affected academic performance. The circumstances must be explained and documented in writing and submitted to the Satisfactory Academic Progress Appeals Committee.

Extenuating circumstances may include but are not limited to illness or injury of the student or an immediate family member, death of a family member, and full-time employment. If the student's financial aid is reinstated, the student is placed on probation and an Academic Plan established; the student is expected to meet the satisfactory academic progress standards by the end of the semester.

All appeals are reviewed by the SAP Appeals Committee, and the decision of the committee is final. Appeals are not retroactive; they are approved for the current semester only. The SAP Appeals Committee is composed of the Dean of Financial Aid, the Registrar or designee, an academic counselor, and a faculty member.

Returning students are evaluated on a continuing basis from the last enrollment, unless an extenuating circumstance is considered. Returning students who enrolled under an earlier academic progress policy will be required to meet the standards of the current policy upon their return.

Complete academic record: To measure a student’s satisfactory progress toward degree, diploma, or certificate requirements, the student’s complete academic record at Wake Tech must be evaluated, whether or not the student received aid for the entire time of enrollment. Any course grades of W or WF that were forgiven by Wake Tech must be included in a student’s cumulative record when determining satisfactory academic progress standards. When students complete

coursework for more than one major, academic progress standards for each major must be met for that student to receive student aid.

NOTE: Warning status or suspension status due to failure to make satisfactory academic progress can be changed only by successfully completing classes – a student may not improve his/her status by simply "sitting out" a semester. Once the student meets both SAP requirements – a cumulative GPA of 2.0 and a cumulative completion rate of 67% – the student's status will change and he/she will be considered in good standing for financial aid.

The Dean of Financial Aid (or designee) is the person authorized by Wake Technical Community College to provide financial aid information to students. Office hours are 8 a.m.–6 p.m., Monday–Thursday, and 8 a.m.–5 p.m. on Friday.

WE ARE HERE TO HELP!

Locations

Southern Wake Campus
9101 Fayetteville Rd. (401 South), Raleigh
Student Services Bldg Rom 015
Monday-Thursday 8:00 a.m. - 6:00 p.m.
*Friday 8:00 am - 5:00 pm **(Limited Services offered in Student Services Building, Lobby Lower Level)**

Perry Health Sciences Campus
2901 Holston Ln., Raleigh
HSB Suite 102, RM 105
Monday - Thursday 8:00 am - 4:00 pm
Friday 8:00am – 4:00pm (limited services)

Western Wake Campus Millpond Village
3434 Kildaire Farm Rd., Cary
Room 255, Tuesday 10:00 a.m. - 12:00 pm

Northern Wake Campus
6600 Louisburg Rd. (401 North), Raleigh
Building C, RM 322
Monday-Thursday 8:00 am - 6:00 pm
*Friday 8:00 am - 5:00 pm **(Limited Services offered in Building A, Room 322)**

Public Safety Education Campus
321 Chapanoke Rd., Raleigh
Room 1714
Monday, 1:00 - 3:00 pm

Southern Wake Campus Phone Number
919-866-5410

Websites
Please visit http://waketech.financialaidtv.com/, which contains several videos that explain various financial aid topics and concerns or visit the Financial Aid's main website, http://financialaid.waketech.edu

Financial Aid Application
www.fafsa.ed.gov

Remember to check the online College Catalog for the most up-to-date information at http://www.waketech.edu/student-services/catalog

ACADEMIC INFORMATION

ATTENDANCE POLICY

All Wake Technical Community College policies (academic; student services; administrative) apply to all students, regardless of campus and center locations or mode of instructional delivery, unless expressly defined by the college.

Absences
Wake Tech encourages regular class attendance; absences can hurt academic performance and are not a part of good scholarship. Students are expected to take personal responsibility for their attendance and use discretion when making schedule choices to meet the demands of work, family, and other responsibilities.

A class absence is defined as missing one-third or more of any regularly-scheduled class meeting.

Students who know of upcoming absences should notify their instructors in advance; if advance notice is not possible, students should contact instructors immediately upon their return to class.

Students are expected to attend at least 90 percent of all scheduled class meetings. If a student's absences in a class **exceed 10 percent** and are not justified to the satisfaction of the instructor, that instructor will complete an online withdrawal form to Registration and Student Records documenting the student's last date of attendance. .

For information on grading and attendance policies, see Assignment of Grades for Attendance Policy Violations and Withdrawal.

Tardiness and Early Departure
Students are expected to arrive to class on time and to remain in class for the entire class period. Arriving late or leaving early disrupts the learning environment; however, extenuating circumstances may necessitate late arrivals or early departures. Classroom doors are not generally locked. If doors are locked for security or other reasons, they will be opened for students who are justifiably late or have a justifiable reason for leaving early.

Patterns of tardiness or early departure that cannot be justified to the satisfaction of the instructor will be considered violations of the attendance policy, as follows: two tardies or early departures will equate to one absence. Students should consult course handouts or instructors for more specific details.

ABSENCES FOR RELIGIOUS OBSERVANCES

Wake Tech recognizes its legal and ethical responsibilities to accommodate students who must miss classes to participate in religious observances. North Carolina law requires that students be permitted at least two excused absences per year for these purposes. Wake Tech students are allowed up to two class days of excused absences per academic year for religious observances.

It is the student's responsibility to contact the instructor for each course in which work will be missed. The student must provide written notification to the instructor within the first two weeks of the semester, identifying the religious observance and date of the planned absence.

Faculty members must provide a suitable accommodation for affected students. Specific accommodations may vary, depending on course content, mode of instruction, and size of class.

Examples of suitable accommodations include but are not limited to:

- Establishing a class policy allowing all students to drop one exam or assignment grade;
- Providing an opportunity for a makeup exam or equivalent assignment;
- Allowing extra-credit assignments to substitute for missed class work; and
- Other reasonable accommodations determined by the course instructor.

Students are responsible for missed class content. Students must request and should be provided with any instructional materials given out during their absence.

ADD, AUDIT & WITHDRAWAL POLICY

Adding a Course
Students may add a course via Web Advisor, through the last day to add as published in the academic calendar. Students who find it necessary to add a course should confer with their advisors. In rare instances, after the registration systems close, courses may be added by the Registration and Student Records Services Division upon receipt of a completed Request for Registration Override form. Students must obtain this form and the required signature from the academic department offering the course.

Dropping a Course
Students may drop a course through the last day to drop as published in the academic calendar online. (date subject to change). Students who find it necessary to drop a course should confer with their advisors. Students may drop classes via WebAdvisor until the end of the published drop deadline.

Courses dropped after the last day to drop for the term and on or before the 60% date of the semester or term are considered withdrawals. Courses dropped during this period will result in a grade of "W."

Student who drop a class are advised that doing so may affect their financial aid. Students may contact the Financial Aid office to determine whether funds will be affected.

Audits
Students who wish to audit courses may do so by submitting a Request to Audit form to the Registration and Student Records Services Division no later than the last day to add classes. Departmental approval is not required to audit courses during the published schedule period. After the last day to add, students may request to audit by submitting the form with signatures from the instructor and the dean of the division offering the class (or designee). Requests are not accepted after the mid-point of the term.

Audited courses provide no credit hours or grade points. Registration fees and tuition for audited courses are the same as those for courses taken for credit.

Withdrawals
A student who finds it necessary to withdraw from a course, courses, or from the college must initiate the withdrawal process by contacting the instructor of each course, and declaring his or her intent to withdraw. The instructor will then submit the necessary information to the Registration and Student Records Services Division via the online withdrawal form. Students enrolled in courses offered on schedules other than the standard 16-week semester and the regular summer term should consult the Wake Tech Academic Calendar to determine the last day to withdraw and receive a grade of "W." Students may also initiate a withdrawal form accessible from the student portal my.waketech.edu.

Assignment of Grades for Attendance Policy Violations and Withdrawals
Faculty assign grades according to methods which are professionally acceptable, communicated to everyone in the class, and applied to all students equally.

Grade of NA:
Students who never attend and do not drop on or before the drop deadline are assigned a grade of NA (never attended). There is no tuition refund for classes that are not dropped by the published drop and refund deadlines.

Grade of W:
Students who withdraw or who are withdrawn for any reason, including attendance policy violations, on or before the 60% point are assigned a grade of W. In accordance with the state refund policy for community colleges, tuition refunds are allowable after the drop deadline for the term only in the case of military deployment or death of the student.

Grade of WP:
Students who withdraw or who are withdrawn after the 60% point with legitimate, extenuating circumstances, will be assigned a grade of WP. It is the student's responsibility to explain the circumstances to the satisfaction of the instructor. The grade of WP counts the same as a grade of W in the determination of the student's GPA. In accordance with the state refund policy for community colleges, tuition refunds are allowable after the drop deadline for the term only in the case of military deployment or death of the student.

Grade of WF:
Students who withdraw or who are withdrawn after the 60% point with no legitimate, extenuating circumstances will be assigned a grade of WF. If a student stops attending class before the last test, final project, or final exam and has violated the attendance policy, that student will receive the grade of WF. The grade of WF counts the same as an F in the determination of the student's GPA. In accordance with the state refund policy for community colleges, tuition refunds are allowable after the drop deadline for the term only in the case of military deployment or death of the student.

Grade of F:
A grade of F indicates that the student completed the class but earned the F (failing) grade. If a student stops attending class before the last test, final project, or final exam but has not violated the attendance policy, that student will receive the grade earned, including zeroes for the work missed.

Grade of I (Incomplete):
A grade of I may be given at the discretion of the instructor if the instructor decides that the student (who has contacted the instructor to request an incomplete) has a legitimate reason for missing the last test, final project, final exam, or other assignment. The instructor must make arrangements for the student to make up the work for the final grade(s) within the time

allowed for completion of incompletes (by the end of the fifth full week of the following semester). A grade of I will automatically revert to a grade of F unless the work is made up and a Grade Change form is submitted to the office of Registration and Records by the instructor.

ENROLLMENT STATUS

A **full-time student** is a person enrolled for twelve or more semester hours of credit in the fall or spring semesters and nine or more semester hours of credit in the summer term.

A **part-time student** is a person enrolled for less than twelve semester hours of credit pursuing a degree, diploma, or certificate program in the fall or spring semesters and less than nine semester hours of credit in the summer term.

A **special student** is any student who is enrolled in a credit course, but is not working toward a degree, diploma, or certificate.

For financial aid purposes only, full-time status is 12 hours credit or more each semester.

PRE-CURRICULUM

The Pre-Curriculum program is designed to prepare students for college-level coursework by helping them develop the reading, English, and mathematics skills required for entry into curriculum courses. Any person who has a high school diploma or a GED may enroll in pre-curriculum courses. The number of courses and the time required to complete them will vary. Some students may need only one course, while others may take several semesters to complete a series of courses.

Students are placed in pre-curriculum courses on the basis of their admissions test scores, the recommendation of their advisor or instructor, or their own voluntary selection. Students who require pre-curriculum courses in more than one discipline will be required to take a study skills course, ACA 090. This course has been designed to improve pre-curriculum students' success in both pre-curriculum and curriculum courses. Depending on individual circumstances and pending advisor approval, students may take pre-curriculum and curriculum courses during the same term. Most pre-curriculum courses are offered every term, both day and evening. A student taking required pre-curriculum courses must earn a grade of "C" or better on a seven-point scale to progress to the curriculum program or next pre-curriculum course level. A grade of "F" requires the student to repeat the course.

Pre-Curriculum Courses:
ENG 070, ENG 080, ENG 090, RED 070, RED 080, RED 090, DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, DMA 060, DMA 070, DMA 080, and ACA 090

PREREQUISITES

Some courses may have pre-requisite or co-requisite course requirements, which ensure that the student is ready to move on to a higher level course. All students are required to successfully complete the course prerequisites and co-requisites listed before enrolling. Students who do not have confirmed prior credit, equivalency via placement test scores, or transfer equivalency that satisfies the stated prerequisites and co-requisites may be administratively dropped from the course. Course prerequisites and co-requisites may be found by clicking on the course number on WebAdvisor course schedules.

As this information is public and available, students who drop on their own or due to a faculty-requested drop after the first day of class and before the published 10% date, are only eligible for a 75% refund. Therefore, students are advised to review course prerequisites and co-requisites carefully before enrolling.

GRADES

Students are graded according to the following grade-point system in all courses, **except** Pre-Curriculum.

GRADE POINTS

Grade	Per Credit	Explanation
A	4	Excellent
B	3	Very Good
C	2	Satisfactory
D	1	Poor

Grade	Per Credit	Explanation
F	0	Failing
W	0	Withdrawal (prior to 60%)
WF	0	Withdrawal – Failing (after 60%)
WP	0	Withdrawal – Passing (after 60%)

Students in **Pre-Curriculum Reading and English** courses are graded according to the following system.

Grade	Explanation
A	Excellent
B	Very Good
C	Satisfactory
F	Failing
W	Withdrawal (prior to 60%)
WF	Withdrawal – Failing (after 60%)
WP	Withdrawal – Passing (after 60%)

Students in **Pre-Curriculum Math** courses (DMA or DMS course prefixes) are graded according to the following system.

Grade	Explanation
P	Pass
R	Repeat (maps to a F grade)
W	Withdrawal (prior to 60%)
WF	Withdrawal – Failing (after 60%)
WP	Withdrawal – Passing (after 60%)

The following grades will **not** be used in computing the grade-point average.

Grade	Explanation
AU	Audit
SR	Senior Citizen Audit
FG	Forgiven
I	Incomplete
IP	In Progress (Pre-Curriculum and Multi-entry/multi-exit classes only)
NA	Never Attended
P	Pass (Developmental Mat and Work Based Learning Use Only)
R	Repeat (Developmental Math Use Only)
W	Withdrew
WP	Withdrew Passing (after 60%)
T	Transfer Credit
X	Credit by Examination

A grade of Incomplete (I) will be given only when circumstances justify additional time for the completion of a course. An Incomplete must be removed by the end of the fifth full academic week of the term immediately following the term in which the Incomplete was incurred. If it is not removed by this date, the Incomplete will be recorded as an "F" in the student's permanent record.

The grade awarded for participation in Cooperative Education will be either "P" (Pass) or "F" (Fail). These grades are not used in computing the grade-point average. Grades are available online approximately two business days after the deadline for faculty to submit final grades. To view grades, access WebAdvisor. Click on Current Students and select Grades under Academic Profile. Information regarding grade appeals is listed within the Student Rights and Responsibility policy.

Computation of Grade-Point Average
The following process is used to determine a student's grade-point average (GPA):

1. Multiply the number of semester hour credits assigned a course by the number of grade points for the grade received.
2. Add all the grade points together.
3. Divide the total grade points by the total number of semester hours attempted including grades of "F" and "WF."
4. Whenever a course is repeated the best grade (except when the repeat results in a grade of I, IP, NA, AU, or X) will be used in the grade-point average computation.

Example of Grade-Point Average Computation

Subject	Hours Credit	Grade Received	Per Semester Hour	Grade Points
English	3	A	4	12

Physics	3	D	1	3
Economics	3	B	3	9
Chemistry	5	F	0	0
Psychology	3	C	2	6
Total	17			30

Thirty grade points divided by 17 hours attempted equals a 1.76 grade-point average for work attempted in this example. A GPA of 2.0 constitutes a "C" average. Hours attempted and grade points earned in previous terms should be included in the above procedures to determine the cumulative grade-point average.

COURSE REPETITION

A student may enroll in the same course up to three times during his or her academic career. Each attempt will be recorded on the student's official academic record. Grades of NA (never attended) are recorded on the student's official academic record but are not considered a course repetition. The best grade earned in all the attempts is calculated in the GPA. Exceptions to this policy may be approved by the dean, department head, or designee responsible for supervising completion of the course.

Students will receive a **registration block** on their third attempt to repeat a course and must contact the appropriate department in order to proceed. The block allows Curriculum Education Services to intervene before a student risks violating the repetition policy.

GRADE POSTING BY FACULTY

The Family Policy Compliance Office (FPCO), which is responsible for the administration of the Family Educational Rights and Privacy Act (FERPA) at schools and colleges, has issued a technical letter stating that grades may not be posted by Social Security Number (SSN), or part thereof, without the written consent of the student.

Wake Tech faculty are neither required to post grades nor prohibited from posting them; however, faculty may post grades only for those students who have given their written consent. Even with student consent, full social security numbers must never be used as identifiers.

Faculty should distribute **FERPA Consent to Post Grades** forms to students in classes for which they intend to post grades. The consent forms should be turned in to the faculty member's dean with the final grade report and maintained for no less than three years. After three years, grade report records may be destroyed provided no litigation, claim, audit, or other official action involving the records has been initiated. If any official action has been initiated, the records should be destroyed in office after the official action is complete and attendant issues resolved.

For faculty posting grades electronically on Blackboard, written consent is **not** required provided a student's grade is posted where **only the student** can access it with a secure password (i.e., individual grade books). Faculty **may not** post grades on a Blackboard site to which all class members have access; such an action would constitute the disclosure of personally identifiable information without student consent.

Faculty **may** send grades to individual students via email only when there is written authorization from the student on file. Authorization should be maintained by the instructor and College registrar; WebAdvisor will be the official means of final grade notification.

GRADE FORGIVENESS

A student who has not been enrolled in curriculum courses in the College for 60 consecutive months (five years) or longer may submit a Grade Forgiveness request to the Registration and Student Records Services Division. Under this policy, the student may request that previous grades of "WF" or "F" not be used in calculating the cumulative grade point average. A grade of FG will replace the original grade on the transcript: however, the FG grade is not included in the GPA. This ruling has no bearing on any other institutions or how they calculate GPA.

Prior to re-evaluation for grade forgiveness, the student must be re-admitted to the college, register for courses, and complete at least 12 credit hours of course work at the 100 level or above, with a minimum quality point average of 2.0. Requests for re-evaluation are processed weekly, and the student will be notified in writing at the mailing address on file. A student may request grade forgiveness only once while at Wake Tech.

SATISFACTORY ACADEMIC PROGRESS

At the end of each academic term, students' semester and cumulative grade point averages (GPAs) are calculated. Each

student is expected to make satisfactory progress, defined as a cumulative GPA of at least 2.0, based on credit hours attempted. Students with the minimum cumulative GPA are considered to be in good standing.

Credit hours for pre-curriculum courses are not counted in credit hours attempted; thus, grades from pre-curriculum classes are not counted toward cumulative GPA. Likewise, courses with a grade of NA (never attended), AU (audit), X (challenged), W (withdrawn), or WP (withdrawal passing) are not considered in credit hours attempted and are not counted toward cumulative GPA.

Satisfactory Progress in Health Sciences Curricula
Certain policies pertaining to student progress in the Health Sciences curricula differ from general College policies. These policies will be given to each student enrolled in a Health Sciences curriculum.

Satisfactory Progress in Pre-Curriculum Courses
The objective of the pre-curriculum program is to assist students in obtaining the academic skills they need to succeed in a curriculum program. Therefore, a student taking required pre-curriculum courses must earn a grade of "C" or better to progress to a curriculum program or to the next level in a pre-curriculum course. A grade of "F" requires the student to repeat the course.

ACADEMIC STANDING LEVELS

Warning
If the cumulative GPA of a student is below 2.0 at the end of the spring semester, when final grades are submitted to the Registrar, the student will be placed on academic warning. Students who have been placed on academic warning will receive e-mail notification from Enrollment and Student Services at their college-issued address. Students on academic warning are strongly encouraged to consult with an academic advisor or faculty advisor to learn about available academic resources and services.

Probation
If the cumulative GPA of a student who is already on academic warning remains below 2.0 at the end of the spring semester, when final grades are submitted to the Registrar, he or she will be placed on academic probation. Students who have been placed on academic probation will receive e-mail notification from the Curriculum Dean of Registration & Student Records at their college-issued address.

Students on academic probation will have a restriction placed on their record by the Registrar to prevent access or continued access to the registration system and will be required to meet with an academic advisor to develop an Academic Success Contract. The advisor will release the restriction to restore the student's access to the registration system once the Academic Success Contract has been created and signed by the student. The Academic Success Contract may be obtained from the Academic Advising department.

Suspension
If the cumulative GPA of a student who is already on academic probation remains below 2.0 at the end of the spring semester, when final grades are submitted to the Registrar, he or she will be placed on academic suspension. Students who have been placed on academic suspension will receive e-mail notification from the Curriculum Dean of Registration & Student Records at their college-issued address.

Suspension means that students are blocked from registering for classes and may not remain in any classes for which they have pre-registered. The Registrar will drop registration for suspended students when the notifications are sent. The Registrar will authorize a refund of any tuition and fees paid. The Financial Aid Director will cancel financial aid for the term. Students on academic suspension are not allowed to participate in college functions, including but not limited to athletics, student activities, and clubs; or to use college facilities, such as the student lounge, etc. As non-enrolled students, they are considered visitors and must abide by college rules for visitors.

Appeal Process for Students on Academic Suspension
Students on academic suspension may submit a written appeal in order to continue their enrollment. The appeal will be considered by the Academic Standing Review Committee if the student's transcript shows that while the cumulative GPA of 2.0 has not been achieved, significant progress has been made. Significant progress is defined as a minimum 2.0 GPA for the most current term and/or a grade of C or better in all pre-curriculum courses for the current term. Appeal decisions will be sent to the student's Wake Tech e-mail address.

If the appeal is approved, the student must meet with an academic advisor to develop an Academic Success Contract; the registration hold will then be removed to restore the student's access to the registration system. Course availability may be limited. Students who have been granted an appeal are not eligible to participate in intercollegiate athletics, as the primary goal is to improve academic performance.

If the appeal is denied, the student must sit out for one semester and follow the reinstatement process as outlined in the following section.

Reinstatement Process for Students Not Appealing Academic Suspension
Students who choose not to appeal their academic standing or whose appeal is denied may request reinstatement for a future term (after sitting out one term of suspension). In order for reinstatement to be considered, students must attend a required Academic Success Workshop sponsored by the Academic Advising department, meet with an academic advisor, and develop an Academic Success Contract. Requests for reinstatement must be received one month prior to the start date of the term for which the student wants to re-enroll.

GRADE REQUIREMENTS TO GRADUATE

To be eligible for graduation, students must complete all prescribed courses for the curriculum in which they are enrolled, with a cumulative grade point average (GPA) of 2.0 in their program of study.* They must complete at least 25 percent of the hours required for a degree, diploma, or certificate **in residence** at Wake Technical Community College.

To graduate, students must fulfill all financial obligations to the college, including graduation fees, which are to be paid during registration for the term in which graduation requirements will be completed.

* GPA is calculated by dividing the total number of grade points earned by the total number of credit hours attempted. Courses used in this calculation are those completed at Wake Technical Community College and listed in the student's curriculum outline as “minimum requirements,” along with any additional courses approved by the appropriate academic dean.

ACADEMIC RECOGNITION

President's List
The college publishes a "President's List" at the end of each academic term, composed of students who have achieved a grade-point average of 4.0 at the end of that particular term, based on a minimum of 12 curriculum credit hours attempted in fall and spring semesters and a minimum of 8 hours in summer term.

Dean's List
The College publishes a "Dean's List" at the end of each academic term, composed of students who have achieved a minimum grade-point average of 3.50 at the end of that particular term, based on a minimum of 12 curriculum credit hours attempted in fall and spring semesters and a minimum of 8 hours in summer term.

President's Award for Excellence
The President's Award for Excellence is the top academic award presented by Wake Tech, to recognize students who excel in academic achievement, attitude, attendance, and motivation. Six students (one from each academic division) are selected to receive the President's Award for Excellence each calendar year. Division deans and instructors select award recipients. Each recipient receives a personal plaque of commendation from the college president. Recipients' names are engraved on a trophy that is on permanent display at the college.

Who's Who Among Students in American Junior Colleges
Each spring, second-year students are nominated for Who's Who Among Students in American Junior Colleges, based on the student's scholarship, participation and leadership in academic and extracurricular activities, citizenship and service to the college, and potential for future achievement.

GRADUATION

Graduation exercises are held at the end of the fall and spring semesters for all students who have completed degree or diploma requirements since the last graduation. Prospective graduates must request a graduation clearance by submitting an Application for Degree/Diploma/Certificate form to the Registration and Student Records Services Division. Application deadlines are posted on the Registration and Records website: http://www.waketech.edu/student-services/registration-student-records/graduation

Prospective summer graduates who will enroll in their final coursework are allowed to participate in May graduation ceremonies. They must request a graduation clearance by submitting an Application for Degree/Diploma/Certificate form to the Registration and Student Records Services Division by the deadlines posted on the Registration and Records website: http://www.waketech.edu/student-services/registration-student-records/graduation

Persistence Toward Graduation
The rate of persistence toward graduation for Wake Tech students is available from the counseling staff.

WE ARE HERE TO HELP!

Locations
Registration & Student Records Services (401 Southern Wake Campus)
9101 Fayetteville Rd., Raleigh, NC 27603
Student Services Building, Room 243A
Monday-Thursday from 8:00 a.m. - 6:00 p.m.
Friday from 8:00 a.m. - 5:00 p.m.

Phone
919-866-5700

Registration & Student Records Services (401 Northern Wake Campus)
6600 Louisburg Rd., Raleigh, NC 27616
Building NC, Room 218F
Monday – Thursday from 8:00 a.m. – 6:00 p.m.
Friday from 8:00 a.m. – 5:00 p.m.

Phone
919-532-5502

Website
http://www.waketech.edu/student-services/registration-student-records

Remember to check the online College Catalog for the most up-to-date information at http://www.waketech.edu/student-services/catalog

2018 Critical Success Factors Eight Performance Measures for Accountability

A. Basic Skills Student Progress

Percentage of students who progress as defined by an educational functioning level.

System Goal (Excellence Level)	System Baseline (Baseline Level)	Average NC System Percentage Completed
68.3%	34.5%	58.4%

Wake Technical Community College			
Total Students	Completing Level	Percent Completing 2016-2017	Percent Completing 2015-2016
3,069	2,040	**66.5%**	65%

B. Student Success Rate in College-Level English Courses, Fall 2015 Cohort

Percentage of first-time Associate Degree seeking and transfer pathway students passing a credit-bearing English course with a "C" or better within their first two academic years.

System Goal (Excellence Level)	System Baseline (Baseline Level)	Average NC System Percentage Successful
55.9%	23.8%	52.1%

Wake Technical Community College	# Students	# Success	% Successful	
			2015	2014
	3,306	1, 837	**55.6%**	32%

C. Student Success Rate in College-Level Math Courses, Fall 2015 Cohort

Percentage of first-time Associate Degree seeking and transfer pathway students passing a credit bearing Math course with a "C" or better within their first two academic years.

System Goal (Excellence Level)	System Baseline (Baseline Level)	Average NC System Percentage Successful
32.5%	10.1%	32.5%

Wake Technical Community College	# Students	# Success	% Successful	
			2015	2014
	3,306	1,226	**37.1%**	32%

D. First Year Progression

Percentage of first-time fall curriculum students attempting at least 12 hours within their first academic year who successfully complete at least 12 of those hours.

System Goal (Excellence Level)	System Baseline (Baseline Level)	Average NC System Percentage Successful
75.0%	54.1%	69.6%

Wake Technical Community College	# Cohort	12 hrs attempted	12 hrs successfully completed	% Successful			
				2016-17	2015-16	2014-15	2013-14
	4,185	3,244	2,197	**67.7%**	68%	68%	68%

E. Curriculum Completion

Percentage of first-time fall credential seeking students who graduate, transfer, or are still enrolled with 36 non-developmental hours after 6 years.

System Goal (Excellence Level)	System Baseline (Baseline Level)
51.9%	35.9%

Average NC System Percentage Graduate and Transfer - 9% (2011)
Average NC System Percentage Graduate, Not Transfer - 13% (2011)
Average NC System Percentage Transfer, Not Graduate - 19% (2011)
Average NC System Percentage Retained (36 Hrs), Not Graduate or Transfer - 2% (2011)
Average NC System Percentage Graduate, Transfer or Retained – 43.9% (2011)

Wake Technical Community College	# Cohort	% Graduates and Transfer			
		2011	2010	2009	2008
	3,612	**11%**	9%	7%	7%

Wake Technical Community College	% Graduate, Not Transfer			
	2011	2010	2009	2008
	13%	13%	12%	10%

Wake Technical Community College	% Transfer, Not Graduate			
	2011	2010	2009	2008
	22%	22%	21%	23%

Wake Technical Community College	% Retained (36 HRS), Not Graduate or Transfer			
	2011	2010	2009	2008
	2%	2%	2%	3%

Wake Technical Community College	% Graduate, Transfer, or Retained			
	2011	2010	2009	2008
	48.2%	47%	43%	43%

F. Licensure and Certification Passing Rate

Aggregate institutional passing rate of first time test-takers on licensure and certification exams. Exams included in this measure are state mandated exams which candidates must pass before becoming active practitioners.

System Goal (Excellence Level)	System Baseline (Baseline Level)
90.9%	69.9%

Average NC System Percentage Passing Rate 81.6% (** means less than 5 students)

Wake Technical Community College				
Number of Test Takers	Number Passing	Aggregate Passing Rate 2015-2016	2015-2016	2014-2015
448	414	**92.4%**	91%	94%

2016 – 2017 Licensure and Certification Rate by Exam

BLET				
16 – 17	16 – 17	15 – 16	14 – 15	13 - 14
# Tested	% Passed	% Passed	% Passed	% Passed
39	**95%**	95%	90%	91%

Dental Hygiene				
16 – 17	16 – 17	15 – 16	14 – 15	13 - 14
# Tested	% Passed	% Passed	% Passed	% Passed
24	**75%**	90%	93%	87%

Massage & Body Work				
16 – 17	16 – 17	15 – 16	14 – 15	13 – 14
# Tested	% Passed	% Passed	% Passed	% Passed
6	**67%**	100%	100%	100%

Radiography				
16 – 17	16 – 17	15 – 16	14 – 15	13 – 14
# Tested	% Passed	% Passed	% Passed	% Passed
27	**100%**	100%	100%	100%

Registered Nursing				
16 – 17	16 – 17	15 – 16	14 – 15	13 – 14
# Tested	% Passed	% Passed	% Passed	% Passed
112	**98%**	97%	98%	95%

Manicurist				
16 – 17	16 – 17	15 – 16	14 – 15	13 – 14
# Tested	% Passed	% Passed	% Passed	% Passed
30	**70%**	**	80%	**

Cosmetology				
16 – 17	16 – 17	15 – 16	14 – 15	13 – 14
# Tested	% Passed	% Passed	% Passed	% Passed
25	**92%**	94%	96%	96%

Esthetician				
16 – 17	16 – 17	15 – 16	14 – 15	13 – 14
# Tested	% Passed	% Passed	% Passed	% Passed
19	**100%**	93%	100%	95%

EMT - Basic				
16 – 17	16 – 17	15 – 16	14 – 15	13 – 14
# Tested	% Passed	% Passed	% Passed	% Passed
87	**92%**	80%	89%	87%

EMT - I				
16 – 17	16 – 17	15 – 16	14 – 15	13 – 14
# Tested	% Passed	% Passed	% Passed	% Passed
****	****	**	**	**

EMT - P				
16 – 17	16 – 17	15 – 16	14 – 15	13 – 14
# Tested	% Passed	% Passed	% Passed	% Passed
13	**92%**	100%	95%	100%

Detention Officer				
16 – 17	16 – 17	15 – 16	14 – 15	13 – 14
# Tested	% Passed	% Passed	% Passed	% Passed
65	**95%**	93%	**	**

G. College Transfer Performance

Among community college associate degree completers and those who have completed 30 or more credit hours who transfer to a four-year university or college, the percentage who earn a GPA of 2.25 or better after two consecutive semesters within the academic year at the transfer institution.

System Goal (Excellence Level) 87.6% System Baseline (Baseline Level) 65.1%

Average NC System Percentage Total 30 or More Hours: 79%
Average NC System Percentage Total Associate Degree Recipients: 87%
Average NC System Percentage Total: 83.4%

Wake Technical Community College	30 or More Semester Hours		Associate Degree Recipients	
	Students	% ≥ 2.25	Students	% ≥ 2.25
	677	**81%**	703	**90%**

Wake Technical Community College	2015-2016 Totals			% ≥ 2.25	
	Students	# ≥ 2.25	% ≥ 2.25	2014-15	2013-14
	1,380	1,176	**85.2%**	85%	85%

STUDENT SERVICES VISION, VALUES, AND MISSION

Our **vision** is to eliminate barriers and create opportunities that enable all students to experience success. Our actions are guided by these **values**:

- The well-being of all students
- Innovation in problem solving
- The positive affirmation of student achievement
- Professionalism and ethical behavior
- Cooperative and collaborative efforts that include enthusiasm, respect, and humor

Our **mission** is to advance the overall mission of the college by providing programs and services that foster academic success, student development, and campus community.

STUDENT CENTERS

Student Centers have been established on all Wake Tech campuses to allow students to study, relax, and get refreshments between classes. The centers provide TV, a lounge area, a cafeteria, and other services, depending on the needs of each campus location. Student Centers are located on the Southern Wake Campus (Student Services Building), the Northern Wake Campus (Administration Building), the Perry Health Sciences Campus (Health Education Building 2) , Western Wake Campus (2nd floor) and the Public Safety Education Campus.

When using the Wake Tech Student Centers:

Keep noise of all kinds to a minimum.

- Talk quietly
- Use earphones for electronic devices
- Do not play musical instruments unless authorized for a special event

Help to keep centers clean and accessible for all.

- Place trash and recyclables in appropriate receptacles
- Do not move furniture or tamper with equipment not designated for student use

Respect yourself and others.

- Wear appropriate clothing, including shirts and shoes
- Refrain from profane or obscene language and behavior
- Do not engage in violent or aggressive behavior of any kind, including hitting, wrestling, play fighting, or throwing objects

Failure to comply with the guidelines above will result in the loss of student center privileges for one week. A second offense will result in loss of privileges for one semester.

PUBLIC TELEPHONES

Public telephones are conveniently located on all campuses for students desiring to make telephone calls. A courtesy phone for student use is located on the Southern Wake Campus in the Student Services building, in the Student Development Office, 128. On the Northern campus a courtesy phone is located at the front desk in the lobby of Building A.

Students are not permitted to use any other office telephones for personal calls. Since the College does not have access to an intercom system or a messenger service, staff members will not deliver a message to a student unless it is determined to be an emergency. In an emergency, an individual who calls for a student must state the nature of the emergency; someone in Security Services will look up the student's schedule and attempt to contact him/her immediately.

LOST AND FOUND

The purpose of this policy is to provide a standard procedure for the storage and disposal of lost or unclaimed items on the premises of Wake Technical Community College. Whenever possible, the owner of such items will be contacted first.

The following guidelines apply:

- Any lost or unclaimed item deemed unsafe or unsanitary will be discarded immediately.
- Food and other perishable items, lunch bags, and thermoses will be discarded after 24 hours.
- ID cards and credit or debit cards will be shredded and discarded after 48 hours.

No lost or unclaimed items will be held longer than 30 days. After 30 days:

- Clothing, backpacks, and other personal items will be donated to charity.

- Cell phones and other personal electric devices will be recycled.
- Cash will be returned to the person who turned it in or deposited in the student activities account.
- Items valued at more than $200 (laptops, purses, jewelry, tec.) will be recorded in a log and locked in a secure storage area accessible only to an authorized WTCC employee. Items may be reclaimed only by someone providing identification and proof of ownership.

"Lost and Found" repositories are located in the reception areas on most campuses, with these exceptions: Southern Wake Campus repository is in the Student Services Building room 128; the Northern Wake Campus repository is located in Building B, room 150.

STUDENT GOVERNMENT ASSOCIATION

The **Student Government Association (SGA)** is the campus organization that represents the interests of all Wake Tech students. Each curriculum student enrolled at Wake Technical Community College is required to pay the Student Administration Fee and shall be a member of the Wake Technical Community College Student Government Association and governed by its rules and regulations.

Visit http://www.waketech.edu/student-life/student-government-association to learn more about Wake Tech's SGA.

CLUBS AND ORGANIZATIONS

The Office of Student Development supports and encourages professional organizations and clubs at Wake Technical Community College. Professional organizations and clubs give students a unique opportunity to develop leadership skills, network with professionals in a given field of study, and get involved. Students interested in joining a club should visit the Office of Student Activities in the Student Services Building on Southern Wake Campus.

A complete listing of clubs is available online at http://studentactivities.waketech.edu/clubs/.

Guidelines for Organization Approval

All student organizations must be approved by the college through the Office of Student Development. The following are procedural guidelines for obtaining new student organization approval:

- Students wishing to create a new organization must request an application from the Director of Student Activities. The application period for establishing a new organization is spring semester; applications received during the fall semester will be considered for approval for the following academic year. The application must include the name of the organization, its purpose, objectives, recommendation for a faculty advisor, procedures for electing officers, means and methods for financing, and other information as requested by the Dean of Student Development.

- The organization must receive approval from the Director of Student Activities, the Dean of Student Development, the Senior Vice President of Student Services, and the President of the College before becoming an official college organization

ATHLETICS

The mission of Wake Tech's athletics program is to enhance the college experience for all students by promoting fitness, building awareness of the importance of lifelong physical activity, and developing character and leadership ability through athletic activities and events. Wake Tech encourages all students to participate in athletics, develop athletic skills and abilities, and strive to realize their full potential.

The program offers high-quality instruction and support services with the collaborative efforts of faculty, staff, administration, trustees, and the community. Wake Tech offers equal opportunity for all in compliance with the regulations of Title IX and adheres to an established code of conduct for all athletes and program participants.

Wake Tech is a proud member of the National Junior College Athletic Association (NJCAA), Region X.

Support Wake Tech athletics: Become an Eagle Club member! Learn more at athletics.waketech.edu.

MILITARY AND VETERANS RESOURCE CENTER

Website: https://www.waketech.edu/student-services/veterans-services/resource-center

The Military and Veterans Resource Center, located at the Northern Wake Campus, Building C, room 206, was created to provide Wake Tech student veterans and their dependents with a "safe zone," a unique social and academic environment in which they can engage and interact. The center offers a variety of resources and

services to assist and support veterans, to ensure their success in academic and other endeavors. These resources and services include a computer lab, an activity center, counseling services, and connections to programs such as Veterans Upward Bound, NCServes, Hire Heroes USA, Students Veterans of America, and USO of North Carolina. Wake Tech is proud to support veterans and thankful for their service and sacrifice.

ALUMNI

Wake Tech appreciates alumni! We have created a web page especially for you – a convenient place to get news; learn more about benefits, career services, and other resources available to alumni; and contribute to the college.
Visit http://www.waketech.edu/student-life/alumni to learn more.

Please also consider sharing your Wake Tech story! Tell us about your personal and professional accomplishments on our Success Stories page.

We'd love to hear from you!

Remember to check the online College Catalog for the most up-to-date information at http://www.waketech.edu/student-services/catalog

STUDENT CODE OF CONDUCT, RIGHTS AND RESPONSIBILITIES

I. GENERAL INFORMATION

This section covers student conduct, rights, and responsibilities while pursuing an education at Wake Technical Community College. Wake Tech is a learning community with specific expectations regarding student conduct. The college seeks to provide a safe and healthy environment that facilitates teaching, learning, and student success by adhering to the college's core values of respect, responsibility, communication, collaboration, critical thinking, and accountability. When a student's conduct adversely affects the college community or the pursuit of Wake Tech's educational objectives, disciplinary action will be taken – first, to resolve the problem, and then to help students learn from mistakes. Discipline issues will be resolved informally whenever possible.

All Wake Technical Community College policies (academic; student services; administrative) apply to all students, regardless of campus and center locations or mode of instructional delivery, unless expressly defined by the college.

II. RIGHTS AND RESPONSIBILITIES

The submission of an application for admission to Wake Technical Community College represents a voluntary decision on a prospective student's part to participate in the programs offered by the college pursuant to its policies, rules, and regulations. College acceptance of the application represents the extending of the privilege of joining the college community, and of remaining a part of it as long as established standards for academics and conduct are met.

Students who enroll accept college policies and procedures and acknowledge the right of Wake Technical Community College to take action, up to and including suspension or expulsion, when a student is found responsible for misconduct. Students are responsible for becoming familiar with Wake Tech policies and procedures.

Students have the following rights, and the privilege of exercising those rights without fear or prejudice, as long as they respect state and federal laws, college policies, and the rights of others on campus. Wake Technical Community College strives to create an atmosphere where students have the following rights:

Education

- Students are free to pursue educational goals through appropriate opportunities for learning in the classroom and on the campus. Student performance will be evaluated on an academic basis, not on opinions or conduct matters unrelated to academic standards.

Freedom of Expression

- Students can freely study and discuss various ideas in a courteous manner in and outside of the classroom.

Participation

- Students have the right to inquire about and to propose improvements to policies, regulations, and procedures affecting their welfare through established student government procedures, campus committees, and college offices.

Safe Environment

- Students have the right to expect a safe environment that ensures the continuity of the educational process.

Privacy

- Students have the right to expect that their official college records will be safeguarded. The Family Educational Rights and Privacy Act of 1974 (as amended) provides safeguards regarding confidentiality of and access to student records. Other than directory information, no records shall be made available to unauthorized personnel or groups inside or outside the college without the written consent of the student involved, except under legal obligation.

Record Review

- Students and former students have the right to review their official records and to request a hearing if they wish to challenge the contents of those records.

Academic Integrity Appeal

- Students have the right to appeal academic integrity policy penalties. See Section III. D.
- Students have the right to appeal course grades. See Section III. E.

Grievance Process

- Students have the right to grieve student code of conduct sanctions. See Section IV.E.

Due Process

- Students have the right to receive reasonable notice to be heard, prior to conduct sanctions being given, and the opportunity to grieve sanctions. See Sections III. D. & VI. E.

Freedom from Discrimination

- Students can expect to engage in the college community without discrimination as defined by federal and state laws and college regulations.

Students also have responsibilities, as part of the college community, including but not limited to:

Civility

- Respecting the rights of others and exercising courtesy and politeness in all situations.

Academic Integrity

- Respecting the highest standards of academic integrity and reporting any violations of those standards to the Student Conduct Officer or any other college official for appropriate investigation and disposition.

Safety

- Refraining from actions that endanger the health, safety, or welfare of any member of the college community or college visitors.

Compliance

- Adhering to the normal standards, rules, and regulations of the college as well as with federal, state, and local laws.

ARTICLE A: DEFINITIONS (AS APPLICABLE TO STUDENT CODE OF CONDUCT, RIGHTS, AND RESPONSIBILITIES)

Word/Term	Definition
Academic Integrity	All academic assignments turned in shall be one's own work unless otherwise stated by the instructor.
Appeal	An official request that a currently-enrolled student would make to a faculty member regarding a final course grade or academic integrity penalty given by that faculty member; or a decision made by the DRGC.
Board of Trustees	The group of appointed officials charged with oversight of the college.
Business Days	All days except Saturday, Sunday and college holidays.

College	Refers to Wake Technical Community College.
College Official	Any person employed by the college performing assigned administrative or professional responsibilities.
College Premises	All land, buildings, facilities, and other property in the possession of and controlled by the college, including adjacent streets and sidewalks.
Complaint	An expression of dissatisfaction from a currently-enrolled student about an issue related to the college and its mission, for which there is no formal or established grievance or appeals process; including but not limited to curriculum, class scheduling, registration, financial aid, facilities, or any college official.
Complainant	Any person who submits a charge alleging that a student has violated the Student Code.
Disciplinary Review Grievance Committee (DRGC)	A judicial body designed to provide due process and participatory justice to students for college incidents, which resulted in sanctions or penalties.
Disciplinary Review Grievance Committee Chairperson	An individual selected by the Student Conduct Officer to facilitate a Disciplinary Review Grievance Committee proceeding.
Discrimination	Discrimination is the unlawful and intentional act of unfair treatment of a person based on race, ethnicity, sex (gender), sexual orientation, religion, national origin, physical or mental disability, or age.
Due Process	A reasonable notice to be heard, prior to conduct sanctions being given, and the opportunity to grieve sanctions received.
Educational Assignment	A sanction designed to promote self-awareness of the appropriate/inappropriate behavior and awareness of institutional expectations, and to educate the student in the specific area of his or her violation.
Faculty Member	Any person hired by the college to conduct classroom or teaching activities.
Grievance	A formal objection that a currently-enrolled student may wish to have addressed, regarding a disciplinary action placed upon the student by a college official or DRGC.
May	Term used to indicate permission.
Member of College Community	Any person who is a student, faculty member, college official, or any other person employed by the college.
Organization	Any group who has complied with the formal requirements for college recognition of sanctions.
Policies	The written regulations of the college as found in but not limited to the college catalog, the college website and web pages, and the computer use guidelines.
Preponderance of Evidence	A standard of proof in which the evidence strongly suggests the student code has been violated.
Respondent	Any student alleged to have violated the Wake Tech Student Code of Conduct.
Shall	Term used to indicate an imperative (mandatory).
Student	Any person taking courses at the college, full-time or part-time, seated or online.
Student Conduct Officer	The college official charged with the responsibility of administering the college's Student Code of Conduct.
Victim	Any person who is acted on and usually adversely affected by a force or agent.
Witness	One who gives evidence; a person who is present at an event and can speak to what happened.

III. ACADEMIC INTEGRITY POLICY

A. **Expectations**

When college officials award course credits, degrees, diplomas, and certificates, they assume integrity on the part of the student who has completed the work. Wake Technical Community College expects students to demonstrate the highest personal integrity in all academic work and behavior. Effective education depends on an atmosphere that is conducive to learning, based on a commitment to honesty, trust, fairness, respect, and individual responsibility. Creating such an atmosphere is the responsibility of students and instructors and requires integrity on the part of both. Students may be asked to sign a statement of academic integrity upon entering Wake Tech classes.

Cheating and plagiarism, as defined below are forms of academic dishonesty that violate the Academic Integrity Policy.

B. **Violations of the Academic Integrity Policy**

Academic Violations	Definitions
Cheating	Receiving or giving another student any unauthorized information or material during or after a quiz, test, exam, or assignment; working with others, either virtually or in person, to complete a quiz, test, exam, project, or assignment without prior approval from the instructor.
Plagiarism	Taking or passing off as one's owns the ideas, words, or work of another person. When students present others' ideas, words, or work in a written or oral assignment, they must document the source(s) as directed by the instructor of the course. Plagiarism also includes buying or selling work to others, as well as providing false information about submitted work.

C. **Academic Penalties**

The following academic penalties may be imposed by an instructor, a department head, or a division dean for violation of the Academic Integrity Policy.

Academic Penalties	Possible Sanction Imposed
Loss of Grade	A "0" for the assignment
Loss of Credit	An "F" for the course and loss of the right to attend remaining class sessions.

Written notice of any academic penalty must be submitted on an Academic Integrity Reporting form to a student conduct officer for appropriate recordkeeping.

Faculty can impose an Interim/Emergency Suspension for conduct that poses a threat to the health or well-being of any member of the academic community or the activities of the college.

D. **Academic Penalty Appeal Procedures**

1. A student who wishes to appeal an Academic Integrity Violation penalty must initiate the appeal process with the instructor **within three (3) business days** of the communication of the penalty to seek resolution. If not satisfied with the resolution, the student must then initiate the Course Grade Appeal Request. The instructor's supervisor will review the matter and contact the student within five (5) business days with a decision.

2. If the student wishes to appeal the supervisor's resolution, the student must contact the division dean **within two (2) business days** of receiving the supervisor's resolution. The division dean will review the matter and will contact the student within five (5) business days with a decision.

3. If the student wishes to appeal the division dean's resolution, the student must complete this form within two (2) business days of receiving the dean's resolution. The conduct officer will forward all documents to the DRGC Chair and contact the student **within five (5) business days** to schedule the DRGC committee hearing. The decision of the DRGC will be final and not subject to appeal.

4. At whatever stage the grievance is concluded, either due to amicable resolution or time limitations, all documentation should be maintained by a student conduct officer in accordance with the state records and retention policies.

The college recognizes that under certain circumstances, students may be justified in initiating their appeal at the department head level. Students who choose to communicate their appeal to the department head first, instead of to the instructor, must include their justification for doing so.

E. Course Grade Appeal Policy

1. **Faculty Responsibility for Grades**
   A part of faculty responsibility at Wake Technical Community College is the assignment of student grades according to methods that are professionally acceptable, communicated to everyone in the class, and applied to all students equally.

   A student who has a disagreement with an instructor's professional judgment in grading should attempt to resolve the matter through dialogue with the instructor who issued the grade. Wake Tech's academic integrity requires that the college ordinarily refrain from review of or participation in an instructor's evaluation of student performance in cases where the instructor is merely using his or her professional judgment.

   However, the college acknowledges that, on occasion, exceptional circumstances may arise in which a student should have the opportunity to appeal the grade for a course. When circumstances warrant, a student may make use of the following appeals process.

   In the event the student is contending that the disputed grade was rendered on account of or was influenced by the student's age, race, sex, national origin, religion, or disability, the student must use the grievance procedure in lieu of the procedure described below.

2. **Course Grade Appeals Process**
   A student should make every effort to consult with his or her instructor about final course grades; however, if the student wishes to contest a course grade, he or she must:
   a. Initiate the appeals process within **ten (10) business days** of the posting of that semester's final course grades by completing Course Grade Appeal Request.
   b. Within **five (5) business days**, the instructor's supervisor will decide whether a review of student work is required, and if necessary, the manner by which any such reviews of student work will be performed. The instructor's supervisor will also decide on an appropriate action.
   c. A student who is unable to resolve the disagreement through dialogue with the instructor's supervisor may appeal, within five (5) business days, to the academic dean of the division. The academic dean will investigate, and within approximately five (5) business days, decide on an appropriate action. The academic dean's assessment will be considered final.

IV. STUDENT CODE OF CONDUCT

Students are expected to conduct themselves in accordance with generally-accepted standards of scholarship and conduct. The purpose of the Student Code of Conduct is not to restrict freedom, but to protect the rights of all students in their academic pursuits.

A. **Prohibited Conduct**
Students are prohibited from engaging in any conduct which materially and adversely affects the educational process, including the following:

Code Number	Student Code Violation
1.	Violation of Academic Integrity Policy
2.	Disruptive, disrespectful behavior on college premises, at college sponsored events, including but not limited to the use of electronic devices, and playing of loud music. Disruption or obstruction of teaching, research, administration, disciplinary proceedings, or other college-authorized activity, on or off campus.
3.	Attempted or actual theft of, misuse of, or intentional damage to college property or a member of the college community, on college premises or at college events.

	Attempted or actual theft of, misuse of, or intentional damage to college property; or theft of or damage to property of a member of the college community or campus visitor, on college premises or at college events.
4.	Trespassing, including unauthorized entry or presence on the property of the college or in a college facility or any portion thereof to which entry or presence has been restricted.
5.	Violation of the Drug and Alcohol Policy.
6.	The use of profane, lewd, or obscene speech or like expressive behavior (including the wearing of clothing displaying such language, pictures, or symbols); the use of defamatory or racist speech or like expressive behavior; or the use of any speech or behavior implying a physical threat or likely to provoke violence or retaliation in person or via electronic means, including but not limited to blogs, texts, emails, and social media. Lewd or indecent conduct online, on college premises, or at college-sponsored or college-supervised functions.
7.	Mental or physical abuse of any person on college premises, online, or at college-sponsored or supervised events, including but not limited to coercion, cyber bullying, hazing, stalking, intimidation, or verbal or physical actions that threaten or endanger an individual's health or safety.
8.	Violation of the Sexual Harassment Policy.
9.	Occupation of, refusal to depart from, or seizure of college property or any portion thereof (or threatening such in any manner) for a use inconsistent with prescribed, customary, or authorized use.
10.	Participating in or conducting an assembly or demonstration, in a manner which threatens or causes injury to persons or property; which interferes with free access to entrances or exits of college facilities; or which is harmful, obstructive, or disruptive to the functions of the college.
11.	Possession, storage, use of or manufacture of firearms, fireworks, explosives, knives of any kind, and other destructive devices on college property, or college events (except by persons specifically authorized by the college and in accordance with G.S. 14-269.2) in connection with college-approved activity.
12.	Tampering with fire safety equipment or setting off a fire alarm on college premises or at college-sponsored events, except with reasonable belief in the need for such alarm or equipment.
13.	Gambling, including unlawful games of chance for money or anything of value, and the sale, barter, or other disposition of a ticket, order, or any interest in a scheme of chance by any name, on college premises or at college-sponsored or college-supervised functions.
14.	Smoking and/or use of any tobacco products, including but not limited to e-cigarettes and vaporizers, on all properties owned or rented by the college, except in college-approved designated smoking areas.
15.	Violation of state or college regulations regarding the operation and parking of motor vehicles.
16.	Tampering with the election of any college-recognized student organization, forgery, alteration, or misuse of college documents, records, or instruments of identification with intent to deceive.
17.	Failure to comply with instructions of college officials acting in performance of their duties and/or failure to identify oneself to these persons when requested to do so.
18.	Fiscal irresponsibility, such as failure to pay college-levied fines, failure to repay college-funded loans, or the passing of worthless checks to college officials.
19.	Violation of any college policy or local, state, or federal criminal law on college premises adversely affecting the college community's pursuit of its educational purposes; including but not limited to falsification of documents, impersonation of another individual, or willfully encouraging others to commit acts that are prohibited.

20.	The unauthorized access or attempt to access, manipulate, or retrieve files, programs, or data from any college computer system. Use of computing facilities to send or view obscene or threatening messages.

B. **Disciplinary Penalties for Violations of the Student Code**
the following disciplinary actions may be imposed by a college official for violation of the Student Code. A copy of any written warnings or reprimands must be forwarded to a student conduct officer for appropriate recordkeeping.

1. **Verbal Warning:** A warning to the student that the behavior is unacceptable and that if the pattern of behavior continues, the student will face disciplinary action up to and including suspension from the college. Verbal warnings will be documented by the instructor or college official and included as evidence in the event of subsequent violations.

2. **Written Warning:** A written communication giving official notice to the student that a violation of the Student Code has occurred and that any subsequent violation of the Student Code may carry heavier penalties because of this prior infraction.

3. **Emergency (Interim) Suspension:** Instructors or college officials may impose an interim suspension for conduct that poses a threat to the health or well-being of any member of the academic community or the activities of the college.

    a. Interim suspension will not exceed more than two class periods. Instructors must notify their department head or next ranking available supervisor immediately upon suspending a student.
    b. A completed Student Code Violation form must be submitted electronically to the appropriate Student Conduct Officer within 24 hours of the suspension. The form is available online at go.waketech.edu, under the heading Employee Resources, sub-heading Electronic Portal Forms.
    c. Any student who receives an interim suspension must meet with a student conduct officer or designee prior to returning to class.
    d. If class readmission is approved, the student conduct officer will give the student a class readmission notice. Instructors who have not received notification of a suspended student's return to class may deny entry until such notification is received.

Disciplinary sanctions may be imposed only by the Disciplinary Review and Grievance Committee (DRGC), AVP of Student Services, Sr. Vice President for Enrollment & Student Services, Student Conduct Officer, or Registrar. See the chart and sanctions below:

Level of Violation	Minimum Sanction	Maximum Sanction
Minor	Verbal Warning Educational Sanction	No Contact Behavior Contract Probation
Moderate	Written Warning Educational Sanction Restitution	Probation Suspension
Major	Suspension Delayed Registration Withholding	Expulsion Revocation

1. **Educational Assignments:** Educational sanctions may include work assignments, essays, community service, participation in college-sponsored programs or activities, behavioral contract, alcohol and/or drug education and counseling, with a certified counselor, and other related educational assignments.

2. **General Probation:** An individual may be placed on general probation when involved in a substantive disciplinary offense. General probation has two (2) important implications: 1) the individual is given a chance to show capability and willingness to observe the Student Code without further penalty; and 2) if the student errs again, additional sanctions will be imposed for this violation. This probation will be in effect for no more than two (2) terms.

3. **Restrictive Probation:** Restrictive probation results in loss of good standing, and notation of such is made in the student's conduct record. Restrictive conditions may limit activity in the college community and/or access to specified college facilities. The student will not be eligible for initiation into any local or national

organization, and may not receive any college award or other honorary recognition. The student may not occupy a position of leadership or responsibility with any college or student organization, publication, or activity. This probation will be in effect for not less than two (2) terms. Any violation of restrictive probation may result in immediate suspension.

4. **Restitution:** Paying for damaging, misusing, destroying, or losing property belonging to the college, college personnel, students and visitors.

5. **Delayed Registration:** A student may be required to meet with a Student Conduct Officer before registering for classes if the student has not complied with a sanction or contacted the Student Conduct Officer as required.

6. **Revocation of Admission and/ or Degree:** Admission to or a degree awarded from the college may be revoked for fraud, misrepresentation, or other violation of college standards in obtaining the degree, or for other serious violation committed by a student prior to graduation.

7. **Agreed-Upon Behavior Contract:** In situations where a student and the Student Conduct Officer can agree on the consequences that should result from the student's Code of Conduct violation, the agreed-upon consequences can be set out in a document titled "Behavior Contract."

8. **Withholding:** Transcript, diploma, or right to register will be withheld (denied) when financial obligations are not met.

9. **Suspension:** Exclusion from a class, program of the college, or all college activities for a specified period of time. This sanction is reserved for those offenses warranting discipline more severe than probation, or for repeated misconduct. Students who receive this sanction must get specific written permission from a student conduct officer before returning.

10. **Expulsion:** Dismissing a student from campus for an indefinite period. The student loses his/her student status.

11. **Group Probation:** This is given to a college club or other organized group for a specified period of time. If group violations are repeated during the probationary period, the group's charter may be revoked or activities restricted.

12. **Group Restriction:** Removing college recognition during the term or semester in which the offense occurred or for a longer period (usually not more than one additional term). While under restriction the group may not seek or add members, hold or sponsor events in the college community, or engage in other activities as specified.

13. **Group Charter Revocation:** Removal of college recognition from a group, club, society, or other organization for a minimum of two years. Re-charter after that time must be approved by the Vice President of Student Services.

14. **No Contact:** There is to be no communication with the party or parties by any means, including but not limited to electronic or digital, in person, or through a third party (other than an attorney).

Other than college probation, suspension, expulsion, or the revoking or withholding of a degree, disciplinary sanctions will not be made part of the student's permanent academic record but will become part of the student's disciplinary record maintained by the Student Conduct Officer.

C. The Conduct Process

Informal Resolution Meeting
The Conduct Officer will request an initial meeting with the student in order to determine whether disciplinary charges should be initiated. During the meeting, the Conduct Officer will advise the student of the allegation(s), explain the student conduct process, and clarify the student's rights and responsibilities. Every effort will be made to resolve the matter by mutual agreement. Following the preliminary meeting the conduct officer will take one of the following actions:

1. If the student fails to appear, the conduct officer may find the student responsible and impose sanctions. If the student does not accept responsibility, the conduct officer will initiate formal disciplinary charges. The

student will be notified of the sanction via their official Wake Tech email address or US postal service. The student will be granted (**15**) business days to grieve the sanction.

2. If there is no basis for the allegation or if it does not warrant disciplinary action, the conduct officer will dismiss the allegation.

D. **Disciplinary Procedures for Violations of Student Code**

Instructor or College Official
When a student is alleged to have violated any portion of the Student Code, the instructor or college official reporting the incident must follow these steps:

1. Issue a verbal warning to the student if the alleged violation is minor.
2. Refer the student to a Student Conduct Officer if the alleged violation is not minor or is a subsequent violation using the steps outlined below.

3. Prior to reporting, follow the following steps:

Validation	Validating the Suspected Conduct (review the Student Code Violations)
Notification	Notify the Student within five (**5**) business days
Submission	Submit the appropriate violation form, i.e., Academic Integrity, Student Code within five (**5**) business days to the Conduct Officer

4. Failure to notify the student may result in no further action being taken regarding the alleged violation. Forms are available at go.waketech.edu, under Employee Resources, Electronic Portal Forms.
5. If an instructor or college official who is considering reporting a student violation believes that the student poses an **immediate** threat to self or others, that instructor or college official should contact Campus Police. Other behaviors of concern should be reported on the Behavior of Concern Threat reporting form for review by the Behavioral Assessment Team.

E. **Student Code of Conduct Sanction Grievance Procedures**
A student who wishes to grieve a **Student Code of Conduct Sanction** issued by a Student Conduct Officer or instructor may request a hearing with the Disciplinary Review and Grievance Committee (DRGC) within fifteen (**15**) business days after the sanction is issued. Whenever possible, a Student Conduct Officer will attempt to resolve such incidents informally. Request for a hearing must be made using a Student Conduct Grievance Request Form. The student will need to inform the Student Conduct Officer at this time if reasonable accommodations are needed.

If the student cannot attend the scheduled hearing because of an emergency, they must contact the Conduct Officer as soon as possible. The student will have only one opportunity to reschedule a cancelled hearing due to an emergency. Hearings that have been rescheduled due to the absence of the student will assemble, and the committee will make a decision on the case based on evidence provided by the Student Conduct Officer.

Note: If the Student Conduct Officer determines that the complainant or witnesses may be harmed emotionally by testifying in the presence of the respondent at the hearing, other arrangements will be made to allow participation without depriving the respondent of access to the testimony, evidence, or information. The college will provide support to students in cases of sexual or physical assault, as appropriate and upon request.

Composition of the DRGC: The committee is composed of three members, – a student in good standing academically and otherwise, a staff member, and a faculty member – plus a Presiding Chairperson, who may serve a three-year term.

1. Powers and functions of the DRGC: The committee may confirm, deny, or modify the sanction. The decision of the committee is final except in cases of alleged discrimination or denial of due process.

F. **The DRGC Hearing Process**

The hearings are closed to the public and the media. Hearings are scheduled on Thursday afternoon, or as announced. The Student Conduct Officer's role is to provide information when needed and to answer any questions.

1. At the hearing the DRGC chairperson will initiate introductions of all present for the record. The chairperson will read the charges and ask the student to respond to the charges. If the student acknowledges responsibility, they will be given an opportunity to provide any justifying information. If the student denies the charges, the hearing will continue.
2. Complainant and eyewitnesses will be allowed to give testimony on what they saw as related to the incident in question. Witness statements will be permitted based on the incident in question. The respondent will be given an opportunity to ask questions of the complainant and eye witnesses when present.
3. Committee members will be able to ask questions of all involved in the incident in question.
4. The burden of proof rests with the complainant. The DRGC will made a decision based on the preponderance of the evidence (more likely than not).
5. The chairperson will record the hearing except during deliberations. The recordings will be kept in the office of Student Conduct.
6. The DRGC will deliberate in private and provide the chairperson with their decision. The chairperson is not a voting member. Their role is to maintain order, and to advise on points of order and procedure.
7. The chairperson will give the decision of the DRGC to the AVP of Student Services within two (**2**) business days.
8. The decision of the DRGC is final; the only allowable basis for appeal is consideration of:
    a. the severity of the sanction
    b. alleged violation of college procedures in the conduct of the hearing or investigation.
9. Grievances may not be heard by the president or the board of trustees if related to individual grades or the result of reported disciplinary action.
10. The AVP of Student Services will send students official notification through their Wake Tech e-mail address or through the U.S. postal service within three (**3**) business days after receiving the recommendation from the DRGC committee.

G. DRGC Hearing Guidelines

1. Students will be sent via their official Wake Tech e-mail, notice of the DRGC hearing at least five (**5**) business days before the hearing date. All persons involved in the hearing, with the exception of the witnesses will be sent incident documents. All persons will be given the location, time and place of the hearing. When Wake Tech e-mail is not available, students will be contacted in person, by phone or by certified mail via US postal service.
2. Confidentiality will be maintained with information discussed in the hearings except as permitted or required by law. All decisions of the hearing will be given to the complainant and respondent, and to other College officials on a need-to-know basis.
3. Any information and or eye-witnesses related to the incident in question, including names, and contact information and importance of the eye witnesses must be submitted to the Conduct Officer in writing, at least three **(3**) business days before the scheduled hearing.

The following rights are available to the complainant and respondent:

1. The right to know the identity of the person bringing charges against them.
2. To provide an explanation of their part with the incident that led to the charges. Students will be able to provide in writing this information at least three **(3**) business days prior to the hearing. This information will be reviewed and considered in the examination of the case, whether the student is present for the hearing or not.
3. To present information, witnesses and proof on their behalf. All information must relate directly to the incident in question.
4. To question any witnesses or deny any proof on their behalf.
5. To have an advisor at the hearing.

a. A student who intends to have an advisor present at the hearing must notify the Conduct Officer in writing at least three (**3**) business days before the hearing, and include the name of the advisor, contact information and relationship to the student.
b. The role of the advisor is not to represent the complainant or respondent. The advisor cannot ask questions of anyone participating in the hearing.
c. Before the advisor can be given permission to attend the hearing, a confidentiality agreement must be signed. The Conduct Officer will provide the agreement document. Failure to sign this agreement will result in the advisor being denied entry to the hearing.

V. OTHER COMPLAINTS

Concerns involving harassment or discrimination by a college faculty member or staff member on the basis of race, color, religion, sex, sexual orientation, age, national origin, disability, or veteran status should be directed to the college's affirmative action officer and or Title IX officer.

Currently enrolled students may wish to complain about an issue related to the mission of the college for which there is no formal or established grievance or appeals process, including but not limited to curriculum, class scheduling, registration, financial aid, facilities, or faculty. In accordance with federal consumer information and accreditation requirements, all units that receive and resolve such complaints will maintain a log of the complaints and their resolution. In such cases, the student should follow the procedures below:

1. The student should submit a Student Complaint Form.
2. The complaint form will be routed to the Sr. Dean/Student Conduct Officer and assigned to the appropriate administrator, based on the nature of the complaint.
3. The assigned administrator will follow up with resolution to the complaint within five (**5)** business days.

VI. FINAL APPEALS PROCESS

A student who is not in agreement with the decision of the Disciplinary Review and Grievance Committee may appeal in writing to the Senior Vice President of Enrollment and Student Services within five (**5**) business days of official notification of the decision. The only allowable basis for appeal to the SVP for Enrollment and Student Services is consideration of:

(a) the severity of the sanction, or

(b) alleged violation of college procedures in the conduct of the hearing or investigation. It is the student's responsibility to clearly define and substantiate their grounds for appeal in the letter requesting an appeal.

The SVP for Enrollment and Student Services will:

1. Review the findings and proceedings of the DRGC
2. At their discretion, hear from the student, the members of the DRGC, or any other employee or witness who may provide information on the facts, before ruling on an appeal.
3. Uphold, modify, or overturn the decision of the DRGC
4. Inform the student, DRGC chair, and Conduct Officer of the final decision within ten (**10**) days of the receipt of the appeal.

The decision of the Senior Vice President is final.

VII. ATTORNEY INVOLVEMENT IN PROCEEDINGS

1. **Student Initiation**
   A student may engage legal counsel, for advising only, at any point in his or her disciplinary, academic appeal, or grievance proceeding. The student must give advance notice of three (3) business days of their decision to engage counsel.
2. **College Initiation**
   The DRGC or a college official may elect to be advised by legal counsel at any time in any disciplinary, academic appeal, or grievance proceeding.
3. **Staff/Faculty Initiation**
   Any staff or faculty member involved in any disciplinary, academic appeal, or grievance proceeding may avail themselves of legal counsel, at their expense, as they deem necessary. The college attorney is not automatically bound to represent any individual staff or faculty member.

BOOKSTORE

Website: http://waketech.bncollege.com/

Bookstore Information & Policies

The Wake Tech Bookstores are operated by Barnes & Noble College and are located on four physical campuses: Southern Wake, Northern Wake, Health Science and RTP. Hours vary by campus so visit the bookstore website to check your campus. Your WTCC Bookstore is your one stop shop for new, used, rental and e-Textbooks, as well as, college supplies, clothing, gifts and sundry items.

Students should bring their course schedule to the Bookstore as it contains course information which is needed to find the correct materials. Students may also purchase their books 24/7 on our website.

Payment Methods

- Credit Cards: Master Card/Visa/Discover/American Express
- Barnes & Noble Gift Card
- Student Financial Aid
- Cash

Cash for Books

Your Campus Bookstore buys back used books every day. The best time to sell back used books is when final exams begin. The Bookstores will pay you up to 50% of the book's selling price if professors have assigned it for the next term and if the Bookstore is not overstocked. If the book does not meet these criteria, prices are determined by the current national demand. Study guides and workbooks must be "like new," without any writing on their pages. All books must be in good condition. Some books have little or no monetary value. One-time use, out-of-print books, and old editions are not in national demand, and will not be purchased. For students' protection, a current student id is required for all buyback transactions.

Refund Policy

Textbooks

- A full refund will be given in your original form of payment if textbooks are returned during the first week of classes with original receipt.
- With proof of a schedule change and original receipt, a full refund will be given in your original form of payment during the first 30 days of classes.
- No refunds on unwrapped loose leaf books or activated eBooks.
- Textbook must be in original condition.
- No refunds or exchanges without original receipt.

General Reading Books, Software, Audio, Video & Small Electronics

- A full refund will be given in your original form of payment if merchandise is returned within 14 days of purchase with original receipt.
- Opened software, audio books, DVDs, CDs, music and small electronics may not be returned. They can be exchanged for the same item if defective.
- Merchandise must be in original condition.
- No refunds or exchanges without original receipt.

Laptops

- An exchange, for the same item, will be granted if the product is found to have a manufacturer's defect within 14 days of item pick up. All original components, including the box, must be present for the exchange.
- Merchandise damaged by customer does not qualify as defective

All Other Merchandise

- A full refund will be given in your original form of payment with original receipt.
- Without a receipt, a store credit will be issued at the current selling price.
- Cash back on merchandise credits or gift cards will not exceed $1.
- No refunds on gift cards, prepaid cards, phone cards, newspapers, or magazines.
- Merchandise must be in original condition.

COLLEGE ID

Students
A college ID card (student photo identification card) will be provided to each registered student and must be carried by the student at all times. Students on all campuses (Southern Wake, Northern Wake, Perry Health Sciences, Western Wake, and Public Safety Education) must obtain a current semester validation sticker that will be affixed to their ID cards (effective Fall 2010). Semester validation stickers can be obtained at various locations on each campus.

The card is required for using campus services and attending campus functions, and it serves as a library card. Campus security or any college official may ask a student for his or her college ID card at any time while on campus or at any off-campus activity sponsored by the college. Students without a valid college ID card will be asked to leave the campus unless their purpose can be substantiated by a college official. The initial college ID card will be free; a duplicate will cost the student $5.00.

College ID Office Hours of Operation*
***Note:** The college reserves the right to change days and times of availability as needed.

Southern Wake Campus
8 a.m.-5 p.m., Monday-Friday

Northern Wake Campus
8 a.m.-7 p.m., Monday-Thursday
8 a.m.-5 p.m., Friday

Perry Health Sciences Campus
8 a.m.-5 p.m., Monday-Friday

Western Wake Campus
8 a.m.-1 p.m., Monday-Friday (Closed during curriculum class breaks)

Public Safety Education Campus
8 a.m.-4:30 p.m., Monday-Friday

ACADEMIC ADVISING

Website: advising.waketech.edu

Wake Tech employs professional Academic Advisors and Faculty Advisors to provide students with the most effective guidance possible as they pursue academic and career goals.

Students are responsible for planning their programs of study, with the assistance of their advisor, including:

1. clarifying their personal values, goals, and career interests;
2. gathering all relevant decision-making information;
3. keeping up to date on college and division curriculum requirements, including reviewing posted degree plans and accessing their program evaluation in Student Planner;
4. staying informed about academic policies, procedures and deadlines;
5. preparing for course selection for the following semester; and
6. consulting with an advisor during pre-registration periods and at other times as needed

College/University Transfer students in A.A. and A.S. programs work with an Academic Advisor. Advisors are available on a walk-in basis to assist with course planning and selection, program requirements, and career goals.

College/University Transfer students in A.F.A. and A.S.-Engineering programs meet with an Academic Advisor in their first semester. After that, students are assigned a Faculty Advisor who is available during regularly-scheduled office hours.

Associate in Applied Science (A.A.S.) students in degree, diploma, and certificate programs meet with an Academic Advisor in their first semester. After that, students are assigned a Faculty Advisor who is available during regularly-scheduled office hours.

In addition, the Academic Advising Center offers these resources and services to support students in setting and attaining academic and career goals:

- **First Year Experience:** Academic Advisors provide a structured program of services for select first-time-in-college students. Services include academic advising, career exploration and goal-setting, and other activities designed to engage new students.
- **Academic Success Counseling:** Academic Advisors help students address academic difficulties such as low grades, poor study habits, and test anxiety. They also assist students with general problem solving and with the challenges of balancing college, work, and family. Academic Advisors also refer students to other academic support services on campus as appropriate.
- **Workshops:** Workshops are offered on stress management, test anxiety, time management, improving academic success, practical college survival strategies, and many other topics.

STUDENT SUCCESS

The Student Success Department works collaboratively to provide resources to enhance the student experience, along with programs and prevention services to address and alleviate barriers to completion. The mission is achieved through outreach efforts including Fostering Bright Futures, the Office of Volunteerism and Student Leadership, Pathways Male Mentoring Services, Student Advocacy and Support, and Wellness Services.

Fostering Bright Futures

Website: fosteringbrightfutures.waketech.edu
The Fostering Bright Futures (FBF) program is a public-private partnership that provides a comprehensive support structure to assist youth who are making the transition from the foster care system to independent young adulthood.

Office of Volunteerism and Student Leadership

Website: oval.waketech.edu

The Office of Volunteerism and Student Leadership (OVAL) helps students develop the knowledge and skills to serve their communities; provides them with service opportunities; and encourages them to become engaged and active leaders, locally and globally. OVAL provides leadership training and service experiences in support of Wake Tech's core values of accountability, respect, responsibility, and collaboration.

Pathways Male Mentoring Services

Website: pathways.waketech.edu

The mission of Pathways Male Mentoring Services is to increase academic engagement and success rates for minority male students (current and prospective) at Wake Tech. The program includes departmental collaborations, partnerships with the local school system, and programming initiatives across the college.

Student Advocacy and Support

Website: sas.waketech.edu

The Office of Student Advocacy and Support (SAS) addresses non-academic barriers that our students face which often cause them to drop out of school. Housing, childcare, health insurance, legal assistances, finances/financial literacy, and transportation are the primary areas in which SAS is able to provide information and assistance.

Wellness Services

Website: wellness.waketech.edu

Wellness Services is a Wake Tech resource providing counseling and referral services to empower students to resolve problems and reach personal and academic goals. Students can discuss and process attitudes, feelings, and concerns that may be interfering with their education.

WORK-BASED LEARNING

Website: http://wbl.waketech.edu
Wake Tech provides workplace learning opportunities for approved students enrolled in select programs. Work-Based Learning is an educational program that combines classroom instruction with paid, supervised work experiences directly related to student's curricula.

The college does not guarantee employment to any student or employees to any employer. The college reserves the right to add, remove, or alter the work-based learning component in any curriculum, as needed.

CAREER AND EMPLOYMENT RESOURCES

Website: http://careers.waketech.edu

Wake Tech's Career and Employment Resources Division helps students and alumni in assessing their career possibilities, determining a major, setting professional goals, and attaining employment aligned with programs of study. Students and prospective students are provided resources and services to establish career pathways and attain work experiences to support the continuum of career exploration, planning and employment opportunities.

Career Lens Labs, open computer sessions, are available to prospective students, enrolled students, and alumni of Wake Technical Community College. Career Coaches guide students through career exploration activities to assist in defining their career goals. Through this journey, students are provided the resources to gain clarity and validate their college majors and career paths.

Career and Employment Resources serves current curriculum education students, new graduates, and alumni seeking part-time, full-time, internships or temporary employment with resume reviews, mock interviews, social media profile reviews and job search strategies.

The division manages College Central Network, the official job posting board for students and alumni. Experiential learning opportunities for students are offered through employer and military recruiting on campus, career fairs, speaker programs, and employer site visits.

Wake Tech does not guarantee employment to any student or employees to any employer. Services are offered at no charge to students and alumni.

LIBRARIES

Wake Technical Community College operates five libraries, as well as providing student resources through a library website at http://library.waketech.edu

Library services are free, and any Wake Tech student or employee may use any of the library services or resources at his or her convenience. All users must complete a library application form and have a valid Wake Tech photo ID, in order to establish a library account.

Library Location	Hours of Operation	Library Location	Hours of Operation
Southern Wake (Howell) 9101 Fayetteville Rd. Raleigh, NC 27603 919- 866-5644	Mon. –Thur.: 7:30 a.m. – 9 p.m. Friday: 7:30 a.m. – 5 p.m. Saturday: Closed Sunday: Closed	**Northern Wake** 6600 Louisburg Rd. Raleigh, NC 27616 919- 532-5550	Mon. – Thur.: 7:30 a.m. – 9 p.m. Friday: 7:30 a.m. – 5 p.m. Saturday: Closed Sunday: Closed
Perry Health Sciences 2901 Holston Ln. Raleigh, NC 27610 919- 747-0002	Mon. –Thur.:7:30 a.m. – 9 p.m. Friday: 7:30 a.m. – 5 p.m. Saturday: Closed Sunday: Closed	**Public Safety Education** 321 Chapanoke Rd. Raleigh, NC 27603 919- 866-6107	Mon. – Friday: 9 a.m. – 3 p.m. Saturday: Closed Sunday: Closed
Western Wake Millpond Village Room #252 3434 Kildaire Farm Rd. Cary, NC 27518 919- 335-1029	Mon. –Thur.: 8 a.m. – 4 p.m. Friday: 8 a.m. – 3 p.m. Saturday: Closed Sunday: Closed		

Each library location offers the following services and resources:

1. Access to print (books, periodicals) and audiovisual materials (DVD, VHS, audio books)
2. Electronic databases (NC LIVE, SIRS, JSTOR, Science Direct, and more)
3. Interlibrary Loan
4. Online Renewals
5. Research Guides & Tutorials and Database Instruction
6. Ask-A-Librarian Services (Email, Instant Messaging, and NC KNOWS - Virtual Reference)

Overdue Materials & Fines

Books - $0.10 per day, per item (max. $10.00)
Audiovisual & Special Reserve Items - $1.00 per day (max. $10.00)

Fines should be paid in a timely manner to avoid registration blocks. Students with outstanding library fines of $5.00 or more will not be allowed to register for the next semester or obtain their semester grades. At this time, the final notice is mailed and **student records will be blocked** until all materials are returned and fines are paid.

INDIVIDUALIZED LEARNING CENTER (ILC)

All Wake Tech students and employees have access to the free tutorial services offered by the college's Individualized Learning Centers.

The purpose of the Individualized Learning Centers is to provide supplemental learning opportunities aimed at improving student success. ILC services include the Writing /Study Skills Center, the Math/Computer Center, and the Health Sciences Center. Professionally-prepared tutoring faculty assist through one-on-one tutoring, a collection of audio/video and other media tutorials, and course-related printed materials. Workshops and small group activities tailored specifically for WTCC classes are also available.

Challenge exams for a limited number of Wake Tech courses are available with proper photo identification and pre-approved paperwork from the appropriate academic department. The ILC also offers a self-paced, independent study tutorial program for proficiency in high school-level chemistry. This program was designed to meet the admission requirements for certain Wake Tech Health Sciences Curriculum Education (for-credit) programs. It also satisfies the "CHM 090 or equivalent" prerequisite for some approved biology and chemistry Curriculum Education courses. It is offered online and carries no college credit or transfer options.

ILC services are available at five campus locations (see below). All ILC users must present a valid Wake Tech ID to register and use the timekeeping system. E-tutoring is available through CompuTutor, the Virtual Writing Center, and Smarthinking

ILC CAMPUS LOCATIONS

Southern Wake ILC Building – across from Student Services and the Bookstore 9101 Fayetteville Rd. Raleigh, NC 27603 919-866-5276	Northern Wake Building NF, Room 448 6600 Louisburg Rd. Raleigh, NC 27616 919-532-5548	Western Wake Learning Resource Center ILC, 200E 3434 Kildaire Farm Rd. Cary, NC 27518 919-335-1028	Public Safety Education Room 1611 321 Chapanoke Rd. Raleigh, NC 27603 919-866-6100	Perry Health Sciences ILC Building 2901 Holston Lane Raleigh, NC 27610 919-747-0233

Hours may vary within each skills center. Please call ahead to check availability.

ILC website, http://ilc.waketech.edu.

DISABILITY SUPPORT SERVICES (DSS)

The mission of Disability Support Services (DSS) is to adapt the College's general services to the specialized, individual needs of otherwise qualified students with disabilities, for the purpose of providing equal access to all programs, facilities, and activities.

Students requesting disability accommodations from the College must self-identify to Disability Support Services. Students are required to submit current documentation of their disability to DSS to determine eligibility prior to the implementation of services. Students requesting accommodations from the College must have a disability as defined by Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act. Self-identification and providing documentation can be initiated at any time; however, the student must allow reasonable time for accommodations to be implemented.

Consistent with the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act of 1973, Wake Technical Community College is committed to equality of educational opportunity and ensures that no qualified person shall by reason of a disability be denied access to, participation in, or the benefits of any program or activity operated by the College. Each qualified person with a disability shall receive necessary reasonable accommodations to ensure equal access to educational opportunities, programs, and activities in the most integrated setting appropriate.

To obtain additional information or to read documentation guidelines and/or DSS Policies and Procedures, please go to the DSS website http://disabilityservices.waketech.edu or contact the DSS office at 919-866-5670 or by Sorensen Video Phone (919) 324-1508.

ONLINE LEARNING

Wake Technical Community College offers Curriculum Education (for-credit) students two options for online learning: online courses and hybrid courses. These options allow scheduling flexibility not possible in traditional, seated classes. Each course is taught by a qualified instructor who develops the course to achieve learning outcomes comparable to those in a

seated class. The instructor provides a syllabus and course guidelines and serves as the facilitator of the course. . Costs, credit hours earned, and support services provided are the same as for seated courses. Students interested in online courses can learn more at http://online.waketech.edu/.

Online Courses
Curriculum Education students in online courses may be invited to an orientation session or other meetings on campus and may be required to take proctored exams, but all coursework is completed online through Wake Tech's Learning Management System, http://dist-ed.waketech.edu/. Students must have access to a personal computer with Internet connection and browser software, and must know how to navigate the Internet and perform basic computer functions, including the use of word processing software, if applicable for their course. Before enrolling in an online course for the first time, students must:

1. Review the information on the Online Learning website, http://www.waketech.edu/student-services/online-learning
2. Complete the online eLearning Intro, which includes modules designed to prepare students for the online learning environment.

Students must complete the Course Entry Quiz during the first 10% of the course. The quiz is available on the first day of class, on the course website in Wake Tech's Learning Management System. Students who fail to complete the quiz within the required time will be immediately marked as "NA" (Never Attending) and dropped from the class.

Hybrid Courses
Hybrid courses combine regular classroom meetings with Internet instruction, reducing the number of hours a class meets on campus during the semester. The instructor determines the class schedule, which is published online. Students must have access to a personal computer with Internet connection and browser software, and must know how to navigate the Internet and perform basic computer functions, including the use of word processing software, if applicable for their course.

Before enrolling in a hybrid course, students must:

- Review the information on the Online Learning website, http://online.waketech.edu/.

Students must complete the Course Entry Quiz or physically attend a seated class during the first 10% of the course.

Testing Centers
Internet and hybrid course instructors may require students to take tests on campus in a proctored environment. Distance Education Testing Centers are located on the Southern Wake, Northern Wake, Western Wake, and Perry Health Sciences campuses. Students must present a valid student identification badge, driver's license, or passport prior to taking a test. For additional information, visit the Distance Education Testing Center's web page: http://www.waketech.edu/student-services/online-learning/students/testing-center or call 919-335-1071.

Library Resources
Students enrolled in online courses have access to all Wake Tech libraries. The library website, http://www.waketech.edu/student-services/libraries, is available to all students and provides information on electronic and print databases, interlibrary loans, loan periods, and hours of operation. The website also has links that provide access to other libraries, resources, search engines, and services such as NC LIVE.

MEDIA PRODUCTION AND LEARNING SUPPORT SERVICES

The Media Production and Learning Support Services Department supports administration, faculty, staff, and students. The department includes three distinct areas of support: the Distance Education Testing Center, Open Computer Labs, and the Media Production Department.

The Distance Education Testing Centers allow instructors teaching online Curriculum Education (for-credit) courses to provide tests to their students in a proctored environment. Students must present a valid student identification badge, driver's license, or passport prior to taking a test. The centers provide both paper and electronic testing. The centers also collaborate with Disability Support Services to provide testing for students who need extended time. Students have access to computers in the centers; each center has Internet access and is equipped with the Microsoft Office Suite. Centers are located on the Southern Wake, Health Sciences, Northern Wake, and Western Wake Campuses. For additional information, visit the Distance Education Testing Center's web page at http://www.waketech.edu/student-services/online-learning/students/testing-center or call 919-335-1071.

The Open Computer Labs provide computers and printers for student use; they primarily serve Curriculum Education (for-credit) students. Labs are located on Southern Wake, Health Sciences, Northern Wake, and Western Wake campuses, with computers available. The labs are equipped with black-and-white laser jet printers, Microsoft Operating System (OS), Microsoft Office Suite, and an array of computer software to support teaching and learning.

The Media Production Department creates educational videos to support student learning and classroom instruction. The department provides two Sony HD wireless microphone packages, three Apple computers, and Final Cut Pro editing software for students seeking to create educational multimedia projects. The Media Production Department also provides training for students, faculty, and staff on new, innovative technologies that can be used in the classroom.

Remember to check the online College Catalog for the most up-to-date information at http://www.waketech.edu/student-services/catalog

FEES & PAYMENT

Class Tuition & Fees
The State Board of Community Colleges establishes tuition annually, and the Wake Technical Community College Board of Trustees establishes special fees associated with some classes. Tuition and fees are listed below and are subject to change without notice.

All tuition and fees are due by the published payment due dates. Students may pay:

BY WEB at https://webadvisor.waketech.edu. WebAdvisor may be unavailable for weekly scheduled maintenance beginning Thursdays at 8 p.m. through Fridays at 8 a.m.

BY DROP BOX located in front of the Cashier's Office at the Wake Tech Southern Wake campus, Montague Hall, 9101 Fayetteville Road, Raleigh, NC 27603

BY MAIL to the Cashier's Office, Wake Technical Community College, 9101 Fayetteville Road, Raleigh, NC 27603

IN PERSON at the Cashier's Office on Southern Wake Campus, Perry Health Sciences Campus, Northern Wake Campus, RTP Campus or Western Wake Campus.

Payments may be made using personal check, debit card, credit card (MasterCard or Visa) or cash. If you choose to pay by personal check, it is suggested that each student bring two checks to registration: one for registration and one for the purchase of books and supplies. Textbooks are purchased by students as needed. Costs of textbooks vary, depending upon the curriculum in which the student is enrolled.

All rates are subject to change by action of the North Carolina Legislature (tuition) and the Wake Technical Community College Board of Trustees (fees).

Note: Tuition may be increased.

Tuition Rates
For current tuition rates, please click here.

Fees
Fees are established by the Wake Tech Board of Trustees and are subject to change without notice.

Application Fee
Wake Technical Community College does not charge application fees, **with the exception of a $40.00 application fee for International Students.**

Student Activity Fee
$35.00 per semester (applies to fall, spring, and summer semesters)

Campus Access Fee
Charged per semester during registration at Southern Wake, Perry Health Sciences, Western Wake, Northern Wake, and Public Safety Education campuses:

- Curriculum Education
  $85.00 per semester for fall and spring semesters
  $25.00 per term for summer term

- Workforce Continuing Education
  $5.00 per class or 10% of the cost of the course whichever is greater (not applicable for fee waived students; courses at community schools and other off- site locations; and completely online courses)

Computer Use/Technology Fee
$3.00 per credit hour per term ($48.00 per semester maximum)

Lost Gate Card Fee
$5.00 per card

Lost ID Card Fee
$5.00 per card

Professional Liability Insurance
$6.00 per term for Health Sciences Students
$6.00 per term for Cosmetology and Esthetics Students

Graduation Fee (due when registering for the final term)
$35.00 for degree and diploma students. No charge for certificate program students.

Official Transcript Fee
$5.00 for each transcript

Music Fee
$240 per course for MUS 161, MUS 162, MUS 261, MUS 262

Supply Fees
Supply fees ranging from $5.00 to $100.00 may be associated with certain courses. Fees will be noted in the course notes in the schedule of classes.

Placement Test Score Report
$5.00 per report

ACCUPLACER and COMPASS Re-Test Fee
$10.00 per re-test

Facility Fee – Community Schools
A facility fee of $25 per class will be charged to students attending classes at community schools locations. Fees will be collected by Wake Technical Community College at time of registration. Community schools fees are established by the Wake County Public School System and are subject to change without notice.

Facility Fee – Ice Skating, Bowling and Golf
Facility fees are charged to students registering for the following classes:
PED 177: $85.00
PED 139: $80.00
PED 128: $40.00

Facility Fee – State Learning and Development Center
A lab facility fee of $25.00 TP $65.00 per course is charged to students attending classes at the State Personnel Development Center (101 W. Peace Street, Raleigh, NC).

Audits
Registration and tuition charges for audited courses are the same as for courses taken for credit. Audited classes earn neither credit hour nor quality points. **Requests to audit must be submitted to the Office of the Registrar by the last day to add classes.**

Returned Checks and Unpaid Accounts
Any student who has a returned check will be notified by certified letter. If the returned check is not cleared within the specified time, all academic records will be frozen until the account is cleared. Students who develop a pattern of payment by returned checks will have this payment option revoked. Once identified, these individuals will be required to pay by cash, money order, certified check, or credit card. Our bank is authorized to present NSF checks for payment a second time, which may result in additional fees being assessed.

Unpaid student accounts, including returned checks and unpaid parking tickets, will prevent graduation, granting of credit, and release of transcript.

Senior Citizen Tuition Waiver
Effective July 1, 2013, senior citizens age 65 and older are required to pay for tuition and fees for **all** community college classes.

Senior citizens, age 65 and older on the first day of the course, may audit courses with the following guidelines as outlined in 1E SBCCC 1000.2:

- Tuition and registration fees will be waived. Local fees associated with course selections may be charged.

1. Procedure: Obtain Audit form from the Registration & Records office
2. Submit completed form along with a copy of driver's license or state identification card to the Registration & Records office

Registration staff will process the Audit form

1D SBCCC 700.1 (a) Definition. "Audit" means to enroll in a course section without receiving a grade, academic credit, continuing education unit, or certificate of completion.

REFUND POLICY

Curriculum Classes
Refunds are processed under the North Carolina Community College System (state) refund policy.
Tuition refunds are automatically processed based on deadlines and drop dates and mailed to the student address on file at the college. It is therefore very important that students submit address changes to the Registration and Student Records Services Division promptly.

Refund checks are written only after the 10% date in the semester. This date is published as the drop deadline in class schedules and registration information each semester. Refunds are paid by check and mailed from the Accounting Office within four (4) weeks after the 10-percent date.

Tuition
Tuition is charged on a per-credit-hour basis up to a maximum of 16 credit hours per term. There is no additional tuition charge for registration in excess of maximum credit hours. Students will be eligible for refunds when course drops result in enrollment for less than maximum credit hours and meet the applicable conditions described below.

For regular-schedule classes that begin the first week (seven calendar days) of the semester:

1. A **100% refund** will be given if the student drops the class prior to the first day of the academic semester as published on the official college calendar.
2. A **75% refund** will be given if the student drops the class on or after the first day of the semester and prior to or on the official **10%** point of the semester, as published in the College calendar.

For classes that begin at times other than the first week (seven calendar days) of the term:

1. A **100% refund** will be given if the student drops the class prior to the first class meeting.
2. A **75% refund** will be given if the student drops the class prior to or on the **10%** point of the class.
3. To comply with applicable federal regulations regarding refunds, federal regulations supersede the state refund regulations stated in this rule.

For classes for which the college collects receipts that are not required to be deposited into the State Treasury account, the college will adopt local refund policies.

Cancelled Classes
A **100% refund** will be given if the class in which the student is officially registered is cancelled by the college.

Military Tuition
Upon request, the college will grant a full refund of tuition and fees to military reserve and National Guard personnel called to active duty, or active duty personnel with assignments outside North Carolina that make it impossible for them to complete course requirements.

Fees
When a student withdraws entirely and the tuition refund is approved by the college as set forth above, student activity, community schools, and graduation fees will be refunded in total.

Death of a Student
In the event of a student's death, all tuition and fees paid for that term may be refunded to the estate of the deceased.

Books
Books will be accepted for full refund when the student withdraws from the college or drops a class on or before the **10% point** in the semester, provided the books have not been marked in or otherwise defaced. Students must present requests for book refunds (with sales receipts) by the **10% point** in the semester to the bookstore manager, who is authorized to accept or reject the request for refund. Website: http://bookstore.waketech.edu.

Remember to check the online College Catalog for the most up-to-date information at http://www.waketech.edu/student-services/catalog

CAMPUS USE POLICIES

Students have a right to use all resources and facilities of the College during normal operating hours with the proper authorization. Students may not utilize resources and facilities of the College after hours without prior official approval and without faculty supervision. The security personnel must be notified under these unusual circumstances.

CHANGES TO CURRICULUM, FEES, AND OTHER POLICY CHANGES

The Board of Trustees and administration of Wake Technical Community College reserve the right to change at any time, without notice, graduation requirements; fees and other charges; curriculum, course structure, and content; and other such matters as may be within their control, notwithstanding any information set forth in this catalog.

Any statement in the Wake Tech Catalog is subject to change by the college.

New policies and upcoming policy changes will be communicated to students on the official Updates Web page, located at http://Updates.waketech.edu and via the student portal http://my.waketech.edu.

OFF-CAMPUS SITES

Many credit and non-credit courses are scheduled at community schools and other locations county-wide. All rules and regulations of Wake Technical Community College apply at off-campus sites in addition to any rules and regulations specified by those sites.

OFFICIAL COMMUNICATION WITH STUDENTS (E-MAIL)

New policies and policy changes will be communicated to students on the official Updates web page, located at http://updates.waketech.edu./

Every curriculum student is provided with an official Wake Tech email account through the student portal (my.waketech.edu) Students must first activate their my.waketech.edu account, wait 24 hours, and then activate the email account.

- This college-issued email account is to be used for all email correspondence with instructors and other college officials.
- Official correspondence from the college (communications from instructors, information about registration or financial aid, etc.) will be sent to students' Wake Tech email address **ONLY**. Instructors and college officials may refuse to accept student emails sent from other addresses.

For more information, visit my.waketech.edu and click on "Support". Video tutorials are available in the FAQ/Knowledge Base at http://www2.waketech.edu/lore/studkb/category.php?id=9.

COMPUTER & INTERNET ACCEPTABLE USE POLICY

College owned or operated computing resources are reserved for the educational, instructional, research, and administrative computing needs of the faculty, students, staff, and other individuals authorized by the College. The College's computing resources include, but are not limited to, all College computers and hardware, access to the Internet or access to any College intranet provided through College owned or operated computers, online and offline storage, network and communications facilities, telephone systems, and cellular telephone devices.. **Access to these computing resources is a privilege and, therefore, it is essential that all users exercise responsible ethical behavior when using these resources. Users are expected to read, understand, and comply with the College's Acceptable Use Policy.**

The College monitors access to these computing resources and reserves the right, without prior notice to users, to access the College's computing resources and to use any and all information retrieved from the computing resources. **Users do not have an expectation of privacy regarding their use of the computing resources, and by accessing and using the College's computing resources,** users expressly consent to such monitoring, access, and use by the College. Further, information contained on the College's computing resources and in College accounts, including but not limited to e-mail, **may be subject to inspection under the Public Records Law of the State of North Carolina.**

The College does not attempt to articulate all required or unacceptable behavior by its users. Therefore, each user's judgment on appropriate conduct must be relied upon. To assist in such judgment, users will follow this policy:

1. **College computing resources** are to be used only for educational, research, or instructional purposes for which access is provided, and **are not to be used for any unauthorized purpose**, including but not limited to commercial purposes, unauthorized access to remote computers or non-College related activities.
2. **An access account assigned to a user must not be used by any other individual**. Users are responsible for the proper use of their accounts, including proper password protection and appropriate use of the College's computing resources. Obtaining another user's password, allowing friends, family, co-workers, work-study students,

student workers, or any other individual use of your or another user's account, or other unauthorized use of an access account, is a serious violation of this policy.

3. **Users shall not create, display, transmit, or make accessible threatening, racist, sexist, obscene, offensive, annoying or harassing language, e-mail messages, and/or material, including broadcasting unsolicited messages, sending unwanted e-mail, or impersonating other users.** Remember - the College's policies against discrimination and harassment apply to communications through the College's computing resources.
4. **All computer software is protected by federal copyright law.** In addition, most software is proprietary and protected by legal licensing agreements. Users are responsible for knowledge of the licensing restrictions for any software used on the College's computing resources. Unless specifically granted permission, a user may not copy software, or use College-software software on anything but College-owned equipment.
5. **Users shall not download, reproduce and/or distribute copyrighted or licensed materials without proper authorization from the author or creator.** Additionally, users shall not publish information, messages, graphics, or photographs on any web page, without the express permission of the author or creator.
6. **Users shall not engage in activities to damage or disrupt the hardware, software, or any communication** associated with the College's computing resources, such as virus creation and propagation, wasting system resources, overloading networks with excessive data, or any attempt to circumvent data protection schemes or uncover security loopholes.
7. **Users shall not waste, monopolize, interfere or misuse the College's computing resources** by, for example, requesting an excessive number of copies from a printer, playing games, or participating in chain letters or Ponzi schemes.
8. **Users shall not access or damage any portion of the College's computing resources** or other College property, such as College records, or use the College's computing resources for illegal activities.
9. **Users may not connect personal or non-College-owned equipment to the campus network unless given specific authorization** prior to the event. Users MAY connect laptops to smart classroom lecterns which were specifically designed for this purpose.
10. **Students may not use employee computers.** Most employee computers have access to the faculty/staff networks, colleague, and other sensitive data. For this reason, students may not use employee computers.
11. **Users learning of the misuse of the College's computing resources or violations of this Acceptable Use Policy should notify the Chief Information Officer or any employee of ITS immediately.**

Enforcement
Failure to follow the Acceptable Use Policy and any misuse of the College's computing resources may result in the suspension or revoking of access accounts. Employees violating the policy are subject to disciplinary action as deemed appropriate by their immediate supervisor. Students violating the policy are subject to an immediate grade penalty of “F” and will not be allowed to further participate in the class. All College policies and procedures are applicable to users of the College's computing resources.

Any conduct, which violates local, state, or federal laws, will result in the immediate loss of all access to the College computing resources and will be referred to appropriate College offices and/or law enforcement authorities. Wake Technical Community College is not liable for actions of anyone connected to the Internet through the College's computing resources. All users will assume full liability: legal, financial or otherwise, for their actions.

WEBSITE POLICY

Official Public Website
WWW.WAKETECH.EDU (http://www.waketech.edu/) is the only official website of the college and as such must be administered by college officials and the college Webmaster (who manages content and design) on servers maintained by or external services approved by Wake Tech’s Information Technology Services Division.

Blogs
Blogs may be provided to certain entities upon request. All blog websites must reside on Wake Tech's servers and must be the official responsibility of an employee with a key account. (Key accounts are used for login.) Blogs must be moderated by a faculty or staff member, although students may be permitted to edit blogs.

The Student Activities Department may request blogs for college clubs and organizations. Club advisors (faculty or staff) may request design services for their club's blog or add a student editor by submitting a work order. Club advisors are expected to review student posts to ensure appropriate content.

Social Networking/Supplemental Online Services
Use of such services must be arranged through the Digital Communications Specialist in the Communications Division, who will assist with establishing an account and record the employee's username and password. A college employee will be responsible for maintaining the service and may contact the Digital Communications Specialist for assistance as needed. The Digital Communications Specialist will maintain account records in case content needs review or someone other than the original user assumes responsibility for the service.

External Websites
Students, faculty, and staff are not permitted to use Wake Tech's name or official logos, graphics, or information or to state or imply any official association with the college in websites they create outside of Wake Tech's servers.

Violation of any of the above provisions will result in disciplinary action up to and including termination or expulsion.

STUDENT DRESS AND HYGIENE

Students are not allowed in any campus facility without shoes and shirts. Caps and hats should not be worn in any classroom. Underclothing must not be visible.

In addition, students must meet the specific dress requirements of their programs of study, including uniforms or personal protective equipment such as goggles, shields, etc., required in laboratory and shop settings. Students in violation of dress policies may be subject to corrective action, including removal from the setting.

Students' overall personal appearance must reflect cleanliness and good grooming. If a student's dress or hygiene interferes with the learning process, the student's instructor will counsel the student. Repeat offenses will result in referral to the Conduct Officer.

PETS

Pets, including but not limited to dogs and cats, create several conditions the College is not equipped to handle. Pets may carry and spread parasites. Pets of any type may not be brought on campus. This policy is in no way intended to restrict access to the campus for animals specifically trained to aid individuals with disabilities.

FOOD AND BEVERAGES

Food and beverages are not permitted in classrooms, laboratories, shops, learning centers, libraries, or in any instructional area. This policy applies at all Wake Tech campuses, community school locations, and other facilities.

SMOKING/TOBACCO USE

Policy
Students, college employees, volunteers, visitors, contractors, vendors, or any other persons on college property are permitted to smoke or use tobacco products in **designated areas only.** College Property includes any building, facility, or vehicle owned or leased by Wake Technical Community College; or college grounds, including athletic fields and parking lots.

Definitions
For the purposes of this policy, "tobacco products" include cigarettes, e-cigarettes, vaporizers, cigars, blunts, pipes, smokeless tobacco products such as chewing tobacco and snuff, and hookahs; and any other items containing or intended to mimic tobacco or tobacco products. "Tobacco use" includes smoking, chewing, dipping, ingesting, or any other use of tobacco products, or the smoking of any other substance.

Exceptions for Tobacco Products on Campus
Tobacco products may be included in instructional or research activities in college buildings if the activity is conducted or supervised by the faculty member overseeing the instruction or research, and if the activity does not include "tobacco use" as defined above.

Signage
Signs that indicate "smoking/tobacco use in designated areas only" will be posted in a manner and location to provide sufficient notification to students, employees, and visitors.

Violations

- **Students:** Any student who violates the terms of this policy will receive a reprimand upon his or her first offense. If a second offense occurs, the student will be placed on general probation and required to meet with the Student Conduct Officer. A third offense by the student will incur suspension from the college for three calendar days (weekends and holidays excluded). The student will be suspended for a semester if he or she subsequently violates the terms of the

Smoking/Tobacco Use policy.

- **Employees:** Any employee who violates the terms of this policy will receive a written warning upon his or her first offense. If a second offense occurs, the employee will be placed on probation. Any employee who subsequently violates the terms of the Smoking/Tobacco Use policy may be subject to additional disciplinary action.

- **Visitors:** Any visitor refusing to comply may be asked to leave campus.

CELL PHONES

Students may not engage in any activity that is disruptive to orderly classroom instruction, without limitations to the use of cell phone or pager calls; students are therefore required to disengage all such devices when in a classroom.

HOUSING

The College does not have housing facilities, but students should have no difficulty in locating satisfactory housing.

TRANSPORTATION

Wake Technical Community College provides bus service for students between downtown Raleigh and the Southern Wake Campus. The bus stop on Southern Wake Campus is located in front of the Pucher Lemay Building. A schedule can be obtained in Holding Hall, Student Services, or the Individualized Learning Center.

You may also find transportation information by clicking this link. https://www.waketech.edu/about-wake-tech/zoom

SKATE BOARDING/ROLLERBLADING

Skate boarding and rollerblading are not allowed on any Wake Technical Community College campus or site.

PUBLICATIONS POLICY

Publications are defined to include but are not limited to the following: newspapers, pamphlets, newsletters, brochures, flyers, books, posters, or magazines. Publications may not be printed or distributed without official approval of the Dean of Student Development. Approved campus organizations may post and distribute their publications if said publications have been approved by the president of the organization, the organization's advisor, and the Dean of Student Development.

All publications (print, electronic, or other) containing URLs or references to the Wake Tech web site must be sent to the webmaster (webmaster@waketech.edu) prior to finalization to ensure that URLs are listed correctly.

Publications containing profanity, language that is offensive with regard to race, sex, or creed, grammatically incorrect statements, and misspelled words will be subject to disapproval. All publications must represent the dignity, mission, and standards of the college. Organizational publications must also be consistent with the philosophy and mission of the organization.

The college reserves the right to rescind approval for on-campus activity for any organization that violates this policy. Individuals found guilty of not conforming to this policy will face disciplinary action, including suspension from the college.

From time to time, changes made to published, college policies will affect students. The college reserves the right to make such changes and holds students responsible for staying informed about these changes. Announcements of changes will be emailed to student's "my.waketech.edu" email address and can be found online at http://updates.waketech.edu/ or distributed through the electronic newsletter, which is sent to all currently-enrolled students.

This policy does not apply to off-campus groups and individuals. Off-campus groups and individuals are allowed to distribute publications in the designated areas of the Southern Wake Campus and the Northern Wake Campus in accordance with Wake Tech's solicitation policy. Requests for distributions on the Southern Wake Campus require the approval of the Dean of Student Development and requests for the Northern Wake Campus require the approval of the Sr. Dean of Strategic Innovations/Student Conduct Officer. See Campus Policies and Procedures chapter - Solicitation Policy.

All Wake Technical Community College policies (academic; student services; administrative) apply to all students, regardless of campus and center locations or mode of instructional delivery, unless expressly defined by the college.

SOLICITATION

Solicitations occur in numerous forms, formats, and techniques. For the purposes of this handbook, solicitations are deemed to include, among other activities, attempts to address all or portions of the College community to express social, political, religious or other views; to disseminate written materials; or to request, accept, or collect donations or contributions.

Any individual, organization, agency, or group that desires to solicit on any property which is owned, leased, or operated under the jurisdiction of the College is required to comply with the procedures listed below.

A. Expressive Activities

1. On-Campus Groups and Individuals

On-campus groups and individuals may reserve designated outdoor space for use in support of their activities. Arrangements for the use of outdoor space shall comply with campus reservation procedures and WTCC protocols.

2. Off-Campus Groups and Individuals

a. General provisions
Speakers will be granted access to designated areas so long as notice has been provided consistent with this policy, granting access will not conflict with any previously-scheduled events, and the designated area is not temporarily inaccessible or unsafe due to construction, act of God or similar cause.
Access will not be denied because of a speaker's viewpoint or the content of his or her speech.
Access will be granted on a first-come, first-served, space-available basis.

Gross, multiple, or continued violation of this solicitation policy will result in the soliciting party's loss or suspension of future solicitation privileges on property which is owned, leased, or operated under the jurisdiction of the College.

b. Notice Requirement
Speakers must provide written notice to the Office of the Executive President three business days in advance of an intent to speak. Click here for required form, Solicitation Request Form

Upon arriving on campus, speakers must check in with Wake Tech's Campus Police & Security Services office.

c. Information Requirement
Speakers must provide the names of the persons who intend to speak on campus, the anticipated size of the group that will visit campus with the speaker, and the name, address and phone number of a responsible contact person who will be present on campus during the event.

Disclosure of this information is required to permit proper planning and will not be grounds for denying or abridging the right to engage in expressive activities in the designated area.

d. Designated Areas

The following areas are designated for expressive activities by off-campus groups and individuals:

i. Southern Wake Campus: the paved area directly outside and adjacent to the north corner of the Pucher-LeMay building
ii. Northern Wake Campus: the paved area between buildings NE and NF.

e. Scheduling Limitations
At the beginning of the academic year, the President or designee, shall establish a schedule of two days per week for expressive activities by off-campus groups and individuals. These areas will be made available to any off-campus group or individual for up to three hours per day between 10:00 a.m. and 4:00 p.m.

In order to promote opportunities for a diversity of speakers, a speaker may not reserve the forum more than two weeks in advance.

3. Noise Restrictions
No sound amplification is permitted. Also noise levels that are reasonably likely to or do cause a material disruption to the learning environment or the normal administration or operation of the College are prohibited.

4. Grounds for Denial of Access or Removal from WTCC Property
Speakers will be denied access or removed from WTCC property for the following:

a. Failing to comply with this policy.

b. Communicating "fighting words" as defined in case law.

c. Advocating illegal conduct that is directed to inciting or producing imminent lawless action and is likely to incite or produce such action.

d. Touching, striking, or impeding the progress of pedestrians, except for incidental or accidental contact, or contact initiated by a pedestrian.

e. Photographing, audio recording, or videotaping any faculty, staff or student without first obtaining written permission from the person to be photographed, audio recorded or videotaped; provided, however, that speakers are allowed to photograph, audio record and videotape themselves and others who are located within the designated area described in section A.2.d of this policy and interacting with the speakers.

f. Engaging in disruptive or disorderly conduct that is reasonably likely to cause a material disruption to the learning environment or the normal administration or operation of the College.

g. Damaging, destroying or stealing College or private property on campus.

h. Possessing or using firearms, explosives, or dangerous weapons or substances.

i. Obstructing the free flow of pedestrian or vehicular traffic.

B. Distribution of Written Materials
Pamphlets, publications, advertisements, and any other such materials may not be distributed through any form of the College's internal mail system. Such materials may, however, be distributed by hand at such time(s) and at such location(s) as may be designated in writing by the College President or designee,, so long as the group or individual has complied with the requirements of Section A above. Distribution of written materials will not be denied based solely on the content or the viewpoints expressed in the materials

Any individual, organization, agency, or group that distributes written materials on any property which is owned, leased, or operated under the jurisdiction of the College shall reimburse the College for any of the College's internal or external clean-up costs associated with the distribution of such materials.

C. Posting of Messages or Materials
It is expressly prohibited for any individual, agency, organization, or group not officially affiliated with the College to use any surface such as walls, bulletin boards, trees, or the like located on any property owned, leased, or operated under the jurisdiction of the College to display any written or otherwise visual materials.

D. Commercial Use of Bulletin Boards
The College provides some bulletin board space for its students and employees to advertise or request goods and services. Other than such limited use by the College's students and employees, bulletin boards located on any property that is owned, leased, or operated under the jurisdiction of the College may not be used for commercial purposes.

E. Donations and Contributions
On-campus individuals, organizations, and groups may solicit, accept, or collect donations or contributions on property which is owned, leased, or operated under the jurisdiction of the College for not-for-profit activities only. Prior to engaging in any such activities, individuals, organizations, and groups who desire to solicit, accept, or collect donations or contributions shall request permission in writing from the Office of the Executive Vice President.

F. Goods and Services
Students who desire to solicit on any property that is owned, leased, or operated under the jurisdiction of the College to provide goods or services must make their request in writing to the Dean of Students. The request must contain a full description of the activity as to time, benefit, etc., in order to be considered. The decision as to whether such request will be allowed or denied and any conditions attached thereto shall be within the Dean's discretion. The Dean shall respond to all such requests in writing within five (5) working days from the date the request is received. All other individuals, organizations, agencies, or causes are prohibited from canvassing, selling, offering for sale, soliciting, or promoting the sale or advancement of any goods or services on any property which is owned, leased, or operated under the jurisdiction of the College.

Click here for required form, Solicitation Request Form

MEDIA COVERAGE OF COLLEGE ACTIVITIES

As a public, tax-supported community college, Wake Technical Community College complies with public information law and works with news media to provide coverage of news about the college. Occasionally, media representatives may visit Wake Tech classrooms to interview and photograph students. The college welcomes these opportunities while respecting the

rights of students who may not wish to be interviewed or photographed. Students may be excused from classroom activities, without question, while photographs or video images are being recorded.

CAMPUS POLICE & SAFETY

Website: http://www.waketech.edu/about-wake-tech/administrative-offices/campus-police

The Board of Trustees of Wake Technical Community College has adopted policy statements in compliance with the dictates of the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act (Clery Act).

The College's Campus Police Chief is primarily responsible for developing rules and regulations to implement these policies. Crimes on all campuses are reported to the Campus Police Department, which investigates on-campus murder, criminal sexual assault, criminal sexual abuse, robbery, aggravated assault, aggravated battery, burglary, motor vehicle theft, liquor law violations, drug abuse violations, weapons possession, and other emergencies on campus considered to be a threat to safety. Timely reports of such occurrences are made to employees and students. In the event the perpetrator of a violent crime is subject to discipline by the College, the victim of the crime shall, at the discretion of the College's administration, be permitted to obtain results of the disciplinary proceeding.

The College's Campus Police Department prepares, publishes, and distributes statistical reports that identify the occurrence of campus crimes and the number of campus arrests involving liquor law violations, drug abuse violations, and weapons violations. The policy statements and statistical reports are available upon request to students and employees as well as prospective students and the higher education community at Student Services Building, room 233, Southern Wake Campus, 9101 Fayetteville Road, Raleigh, NC 27603.

Some security patrol and traffic control matters are handled by a private security company under contract with the College. This company is responsible to the College's Campus Police Chief, whose office is on Southern Wake Campus, in Student Services, room 233 and whose telephone number is 919-866-5532. The Campus Police Chief also can be contacted by dialing the College's main switchboard number, 866-5000 (from off-campus or from a coin telephone). Students, employees, and visitors are encouraged to report criminal activity and other emergencies on any campus at the College's emergency number, **919-866-5911**.

Students and employees are prohibited from bringing onto campus or using alcohol or illegal drugs on campus or during any College activity. Limited exceptions to this policy may be granted by the College's President or designee. The College has a Drug and Substance Abuse Council, which offers help to students and employees in seeking counseling and/or assistance programs. From time to time workshops and seminars are conducted on campus relating to the following subjects:

- Crime and Safety
- Self-Defense
- Drugs and Alcohol
- Date Rape

Other information is periodically published in the Campus Connections at http://connections.waketech.edu/ and the student newsletter, The Eagle's Eye. The student newspaper, The Student Voice discusses and debates health, safety, self-defense, etc., issues.

Campus safety means protecting people and property. People working together can make our campuses safe and secure working and learning environments. Report suspicious persons, vehicles, and activities to the Campus Police at **919-866-5911**. Students attending classes in the evenings should walk in well-lighted areas with someone or near other people. Extra precaution should be taken by using sidewalks and crosswalks and by avoiding isolated areas. Personal valuables should be marked and NOT left unattended. Vehicles should be parked in a well-lighted area and locked.

Presentations by Local Law Enforcement Personnel

Wake Tech Campus Police Officers can conduct presentations concerning robbery, motor vehicle theft, and drugs and alcohol.

Annual Report of Criminal Offenses

Wake Tech complies fully with the Clery Act (Jeanne Clery Disclosure of Campus Security Policy and Crime Statistics Act), which requires the college to gather statistics about crime on campus and publish them in an annual report by October 1 each year. Reach the current Annual Security Report.

THREAT ASSESSMENT & VIOLENCE PREVENTION

Policy Statement
Wake Tech strives to create an atmosphere that encourages learning and productivity. To that end, the college considers the following behaviors unacceptable:

- Injuring another person physically;
- Engaging in behavior that creates a reasonable fear of injury to another person;
- Engaging in behavior that subjects another individual to undue emotional distress;
- Possessing, brandishing, or using a weapon that is not required by the individual's position while on college premises or engaged in college business;
- Threatening to injure an individual or damage property;
- Committing injurious acts motivated by, or related to, domestic violence or sexual harassment;
- Retaliating against any person who, in good faith, reports a violation of this policy; and,
- Any other behavior or activity that creates a threat or danger to a person or the campus.

This policy will be enforceable at any property, building, or other facility that is owned, leased, or used by Wake Technical Community College for any college activity. Violators will be subject to Wake Tech disciplinary policies or North Carolina General Statutes as appropriate. Several, but not all, of the North Carolina General Statutes would include: NCGS 14-33 Assault, NCGS 14-277.3A Stalking, 14-277.1 Communicating Threats, 14-269.2 Possession of Weapons on School Grounds, 14-160 Injury to Personal Property, 14.35 Hazing and 50.B1 Domestic Violence.

Purpose of the Policy
Wake Technical Community College is committed to providing students, employees, contractors, and visitors with a safe and secure environment that is free from threats, intimidation, and violence. This policy contributes to the creation of that environment by helping school officials respond responsibly, prudently, and effectively to threats and other behaviors that raise concern about potential violence.

Definitions

Targeted Violence	Any incidence of violence in which an attacker selects a particular target prior to a violent attack on that target
Concerning Behavior	A wide range of behaviors which, due to their nature or severity, affect the campus or the workplace, generate a concern for personal safety, or result in physical injury.
Threat	An expression of intent to do physical or psychological harm or to act out violently against a person (or persons) or property that would lead to the reasonable belief that such harm will occur. The threat may be spoken, written, symbolic, implied, direct, or indirect.

Note: Certain Wake Tech policies predate the establishment of the process outlined below. They remain official college policies. Employees and students will be expected to comply with the process in the future.

Procedures

Responsibilities

1. **Faculty and Staff** – Faculty and staff members must be familiar with the threat assessment and violence prevention policy and must report violations of the policy to their supervisor or appropriate administrator and the Chief of Police. All employees are encouraged to be alert to the possibility of violence on the part of employees, former employees, students, contractors, and strangers. Employees who in good faith report threats, concerning behaviors, or violations of college policy will not be retaliated against. Deliberately false or misleading reports of violence will be considered unacceptable personal conduct, and the employee or student making such false or misleading reports will be subject to disciplinary action under the Wake Tech disciplinary policy.

2. **Threat Assessment Team** – The responsibility for assessing potentially-threatening behaviors rests with the College Threat Assessment Team. In making assessments, the team may consult outside resources such as counselors, law enforcement officials, threat assessment professionals, mental health specialists, and others who

might contribute to a successful resolution. The team will report findings from their assessments, including recommendations for appropriate interventions, to the college president or his designated representative. The Threat Assessment Team is composed of these college employees:

- Executive Vice President (Team Leader)
- Vice President of Curriculum Education Services
- Vice President of Workforce Continuing Education Services
- Conduct Officers
- Vice President of Human Resources & College Safety
- Chief of Police

Crisis Management Team – the Threat Assessment Team will recommend activation of Wake Tech's Crisis Management Team when:

A. A situation poses imminent danger to a person or to the college; or
B. An act of violence occurs resulting in serious or fatal injuries to one or more campus members.

The Crisis Management Team will consider the impact of the incident on the campus community and initiate appropriate debriefing, counseling, and support for victims, co-workers, students, and families.

Principle

Fostering a Culture of Respect
An educational setting in which everyone respects everyone else promotes safety. It provides a place for open discussion in which diversity and differences are respected, communication is encouraged and supported, and conflict is managed and mediated constructively. Problems come to light earlier and can be addressed before they become serious or lead to violence; consequently, the potential for violence diminishes.

Reporting Concerning Behaviors
For the safety of the college community, it is imperative that anyone aware of concerning behavior or perceived threats – from firsthand knowledge, written or verbal communications, or any other source – report it immediately to the **Wake Tech Campus Police at 919-866-5911 (65911 from any campus phone)**. Those reporting may identify themselves or remain anonymous. To the extent allowed by law and policy, any identification provided will remain confidential and will be used only by security officials for follow-up, if necessary. Those choosing to leave an anonymous report should include as much detail as possible to make sure security officials can proceed with an investigation. The Chief of Police will address all reports as quickly as possible and convene the Threat Assessment Team when appropriate. If a report suggests that a law has been violated or that violence is imminent, the Chief will immediately refer it to the Campus Police Department for investigation and crisis response measures, as they deem appropriate.

Identifying Concerning Behaviors
The Threat Assessment Team will focus its efforts on formulating strategies for preventing targeted violence, in two principle areas:

- Developing the capacity to monitor and evaluate information that might indicate a risk of targeted attack, and
- Using the results of threat assessments to develop strategies for preventing attacks.

If the team determines through inquiry that an identified behavior involving a student is non-threatening, the matter will be referred to the Conduct Officers for appropriate action. A Behavior of Concern Assessment Team (BAT) has been implemented to assess student behaviors of concern and low-level threats. Non-threatening incidents involving college employees will be directed to the Executive Director of Human Resources. If the team concludes that a law has been violated or that violence is imminent, it will immediately refer the matter to the Chief of Police.

The Threat Assessment Process
Threat assessment will be fact-based, relying primarily on the appraisal of behaviors, rather than on stated threats or traits, as the basis for determining if there is cause for concern. The fact-based assessment considers every aspect of the person of concern and is based on the totality of what is known about that person, in four major areas: **1)** personality, **2)** family dynamics, **3)** school dynamics (and the person's role in those dynamics), and **4)** social dynamics.

Examples of Concerning Behaviors

- Acts of violence
- Threats (direct, indirect, implied, veiled)
- Harassment
- Intimidation
- Hazing
- Stalking, surveillance, or unwanted pursuit
- Weapons on campus or recent acquisition of firearms
- Special interest in or identification with the military, survivalist groups, or weapons
- Homicidal thoughts or actions
- Preoccupation with violent themes
- Apparent obsession with someone
- Domestic disputes
- Intentional destruction of personal property
- Refusal to accept employment termination
- One-sided contact with others following employment termination
- History of conflict with others
- Documenting the activities of others when not required to do so
- Unusual verbal or written communications to others
- Repeated complaints about working conditions
- Excessive blaming of others
- Excessive or intimidating references to workplace violence incidents or other mass murders

Reporting Student Behaviors of Concern and Low-Level Threats to the Conduct Officers
A report should be made to the Conduct Officers if students display behaviors that indicate a concern, including but not limited to:

- self-injury
- uttering threatening words or displaying threatening actions
- writings that clearly communicate intentions to harm self or others
- actions that endanger the health, safety, or well-being of any member of the college community or its guests

Note: If the behavior constitutes an **emergency** or needs immediate attention, contact **Campus Police at 919-866-5911 (65911 from any campus phone).**

If the behavior is clearly a Student Code Violation, complete the **Student Code Violation Form.**

Faculty, Staff, and Students
When a student behavior of concern takes place in which a student is alleged to have shown concerning behaviors, these steps must be followed by the reporting individual:

1. If the behavior of concern that the student is displaying or has displayed is not an emergency complete the form in its entirety and submit the Behavior of Concern and Threat Report (BAT) Form electronically.
2. A Conduct Officer will review the report and make a determination on the referral of the report. If the report is a Behavior of Concern and not a Student Code Violation, members of the BAT will schedule a meeting to discuss the case within five (5) business days.
3. Within two (2) business days, a Conduct Officer will notify the person who submitted the report that the information has been received.
4. The student will be contacted and a determination of the submitted report will be made by the BAT; information will be given to pertinent individuals.
5. If the report is found to be only a Student Code Violation, the report will be forwarded to the appropriate Conduct Officer, who will handle the case under the guidelines of the Student Code of Conduct.

In order to assist students in becoming more productive citizens of our community and to provide guidance in addressing behaviors of concern, the following are actions that the BAT may consider (but is not restricted):

- No instant action.
- Contacting the student by official e-mail or by telephone to assess his or her status.
- Meeting with the student to talk about needs, services available, and college expectations.
- Using the Student Services Referral form to refer students to programs and services on campus; e.g., Wellness Services, Student Success Counseling Services, Financial Aid, Disability Support Services, and the ILC.

The recommendations of the BAT are final; however, the student may appeal any sanction given by a Conduct Officer.

Confidentiality
Wake Technical Community College understands the sensitivity of information obtained, provided, and/or alleged in such reports as it pertains to an individual's reputation, privacy, and anonymity. Any report of concerning behaviors or threats of violence will be handled in a confidential manner, with information released only on a need-to-know basis. When appropriate, legal guidance will be requested.

Records Retention
All Behavior of Concern reports (documents, files, etc.) related to a threat assessment will be maintained by the Conduct Officers in the Maxient system. All criminal reports relating to a threat assessment will be maintained by the Campus Police.

VISITORS AND CHILDREN ON CAMPUS

Website: http://www.waketech.edu/about-wake-tech/locations/visitor-information

Visitors are welcome on the Wake Tech campus. For the safety and security of all, immediately upon arriving, visitors are required to register at the receptionist desk at any campus. At the receptionist desk, visitors may obtain information and directions as needed. The College cannot accommodate extended non-official visits; individuals who have not registered or who are found loitering on campus may be required to leave.

Visitors, children, and any other persons not enrolled at Wake Tech are not allowed in the library or in classrooms, laboratories, or any other instructional areas (on or off campus) without prior authorization.

Children under the age of 15, who are not enrolled at Wake Tech, must be accompanied by a parent, guardian or other adult at all times and must not be left unattended in any area of the College.

At community schools sites, only persons attending classes or other College activities are permitted on the premises. Wake Tech students or employees violating the above regulations on any Wake Tech campus or community schools site will be subject to disciplinary action, up to and including termination of their enrollment or termination of their employment.

EMERGENCY EXIT PROCEDURES

If the need should arise to evacuate a building because of fire or other impending danger, a general alarm will be sounded. When such an alarm is sounded, individuals should leave the building by way of the nearest exit. Individuals should become familiar with posted evacuation routes.

STUDENT INSURANCE AND ACCIDENTS

Insurance
The college does not assume responsibility for injuries or losses sustained on- or off-campus by any student. For this reason accident insurance is included in the Student Administration fee for all curriculum students. Students in select workforce continuing education courses shall be required to purchase accident insurance as part of their registration. All students covered by the insurance policy are responsible for reading the Student Accident Insurance Plan brochure to understand the extent of coverage and the procedures for filing a claim; a copy of the brochure can be obtained from the Registrar's Office. All provisions described in the Student Accident Insurance Plan brochure will prevail in the event of any discrepancy between this policy and the brochure.

The college requires each person enrolling in a Health Sciences curriculum and students in select workforce continuing education courses to have student malpractice liability insurance coverage in the amount of $2,000,000/ $5,000,000. Students enrolled in Health Sciences curriculum may purchase this insurance from a local insurance agency. Proof of coverage must be presented at the time of registration by providing the policy or certification of insurance. In the absence of proof of coverage, students enrolled in a Health Sciences curriculum are required to purchase professional liability insurance through the College's blanket liability insurance program at the time of registration. Payment for this insurance will be included in the registration fee for workforce continuing education students.

Personal injury insurance is required for students participating in the intercollegiate athletics program.

Students who would like to purchase health insurance for themselves and/or their families may participate in a group policy through the North Carolina Community College Student Health Plan. More information can be found on Wake Tech's website by clicking on the Student Services link and then the Student Health Insurance link.

Accident Notification and Response
All accidents and injuries are to be reported to the Campus Police by calling Wake Tech's 24-hour Call Center at 919-866-5911. The Campus Police will notify the Wake County EMS 9-1-1 call center when an accident appears to be severe enough to require professional medical attention.

The Call Center will assign a case number to each incident. For accidents that occur on a Wake Tech site a Campus Police Officer will be dispatched immediately to the scene to compile information for an incident report and to assist with or administer first aid. Students who are injured while participating in off-campus activities sponsored and supervised by Wake Tech faculty or staff, and those who are otherwise unable to provide information to an Officer at the time of their accident, are to report the details to a Campus Police Officer upon their return to Wake Tech. The Officer responding to the incident (or receiving the student report) will complete an incident report as soon as possible, but no later than by the end of their shift.

Injured students who are unable to drive themselves to an urgent care clinic, hospital, or other medical facility will be consigned to the care and transport of EMS personnel. Under no circumstances shall a Wake Tech employee provide transportation for an injured student. Students may seek treatment from a medical facility of their choosing (within plan limitations) providing that the treatment is not rendered by a doctor or nurse who is a family member.

Accident Reimbursement Claims
Students seeking reimbursement for expenses covered by the student accident insurance plan must obtain an Accident Claim Form from the Registrar's office within 30 days of the incident or as soon as is reasonably possible. To be eligible for reimbursement, the original completed Accident Claim Form must be submitted to the insurance agency. A copy of the claim form and medical bills must be provided to the Business Office. Additional instructions and contact information for the agency can be found on the back of the Accident Claim Form; the claim procedure is also detailed in the Student Accident Insurance Plan brochure.

DRUG AND ALCOHOL POLICY

No student shall distribute, dispense, possess, use, or be under the influence of any alcoholic beverage, malt beverage, fortified wine, or other intoxicating liquor; or unlawfully manufacture, distribute, dispense, possess, use, or be under the influence of marijuana or any narcotic drug, hallucinogenic drug, amphetamine, barbiturate, anabolic steroid, or any other controlled substance as defined in Schedule I through V of Section 202 of the Controlled Substance Act (21 U.S.C. Section 812) and as further defined by regulation at 21 C.F.R. 1300.11–1300.15 or Article 5 of Chapter 90 of the North Carolina General Statutes, as amended from time to time, in any college location as defined below.

"College location" means in any college building or on any college premises; in any college-owned vehicle or other college-approved vehicle used to transport students to and from college or college activities; or off college property at any college-sponsored or college-approved activity, event, or function, such as a field trip or athletic event, where students are under the jurisdiction of the college.

Any student who violates the terms of this policy may be suspended or expelled from the college in accordance with the **Student Code of Conduct, Rights, and Responsibilities** policy or may be asked to or required to participate in a drug abuse assistance and rehabilitation program approved by the Board of Trustees. If such student fails to satisfactorily participate in such program, the student will be suspended or expelled from the college in accordance with the Student Code of Conduct, Rights, and Responsibilities policy.

Drug Abuse Prevention Program
Recognizing the serious consequences of the inappropriate use of drugs and the potential disciplinary action that could result from possession or consumption of controlled substances on campus, Wake Tech offers a program of activities and services to prevent drug and alcohol abuse by students. The Dean of Student Development will oversee the program as follows:

1. All students will receive email notification of the program at the start of fall and spring semesters.
2. Each campus will present a seminar, workshop, or other information and awareness program at least once a year that will be open to all students, faculty, and staff.
3. Each campus will provide brochures and other materials for use by individuals for their own information and awareness. These materials will be available at the Enrollment and Student Services office at each campus.
4. The student portal will provide information about services available from the Student Assistance Program (SAP).
5. Providers and other services for persons with substance abuse issues are listed at Wake County Crisis and Assessment Alliance Behavioral Healthcare

(http://www.wakegov.com/humanservices/behavioralhealth/outpatient/Pages/default.aspx) at 1-800-510-9132. Alliance Behavioral Healthcare will help students find providers who match their needs. A link to this agency is also available on the student portal.

Biennial Review
The Associate Vice President for Student Services is responsible for completing the biennial review as noted in 34 CFR Part 86 by December 31 of each even-numbered year, for the two prior academic years.
The review will:

1. Determine the effectiveness of the education program and implement needed changes. The Dean of Student Development will provide the AVP with information about attendance and about timeliness and relevance of content.
2. Ensure consistent enforcement of disciplinary sanctions for the unlawful possession or distribution of illicit drugs and alcohol as applicable under state or federal laws.
3. Include evidence that email notification was sent to all students at the start of fall and spring semesters.

EMERGENCY CLOSINGS

In emergency situations – inclement weather, power outages, or any other conditions constituting an emergency situation – the college may delay opening or close for the day.

- If the college is closed, all classes at all sites are canceled.
- If evening classes are cancelled, all evening classes at all sites are canceled.
- If there is a delayed opening, any class with 30 or more minutes of instructional time remaining will meet. Curriculum students should check Blackboard sites for information about their courses.
- If the college is open but Wake County Public Schools (WCPSS) are closed, Wake Tech classes scheduled at Wake County Public School sites are cancelled.

Notification
Delays and closings will be announced via the Wake Tech Warn emergency alert system. All Wake Tech student and employee email addresses are automatically registered to receive Wake Tech Warn alerts. To add additional email addresses, or phone numbers for voicemail and text message alerts, go to warn.waketech.edu.

Delays and closings will also be posted on Wake Tech's website (waketech.edu), social media (@waketechcc), and local radio and television stations. In the event that an emergency situation occurs after the opening of the college, announcements about class dismissals and closings will come from the administrative officer in charge. Announcements will also be posted on the college's two primary Learning Management Systems (Blackboard for Curriculum students and Moodle for Workforce Continuing Education students), and recorded on the college switchboard 919-866-5000.

Lost Time
When the college is officially **closed** due to inclement weather or other emergency conditions, the time lost will be counted as excused absences for both students and employees. If, however, the college remains **open** during inclement weather or other emergency conditions, students and employees who do not come in will be accountable for that lost time – students must make up classes or assignments (per arrangement with their instructors), and employees may make up time or take annual leave.

Curriculum students in online courses should be aware that coursework is available via Blackboard (dist-ed.waketech.edu) at all times – even when the college is officially closed. If Blackboard becomes inaccessible or power outages occur, assignment due dates will be clearly posted when service resumes. Due dates may also be extended on a case-by-case basis at the discretion of instructors, and announcements will be posted accordingly.

TRAFFIC RULES AND REGULATIONS

Ordinance Governing Traffic, Parking, and Registration of Motor Vehicles
Pursuant to Chapter 115D-21 of the General Statutes of North Carolina, the Wake Tech Board of Trustees adopts the following rules governing parking, traffic, and the registration of motor vehicles on Wake Tech campuses. These regulations are intended only to supplement the Motor Vehicle Laws of North Carolina, all provisions of which apply to the streets, roads, alleys, sidewalks, walkways, parking spaces, parking areas, and parking lots on all Wake Tech campuses.

Revised August 2015

A. General Provisions

Definitions

Abandoned vehicle: a motor vehicle that has remained parked for more than 10 days, which is determined to be "derelict" under North Carolina General Statute 20-137.7.

Employees: faculty members, administrative staff, clerical personnel, and all other non-student personnel employed by the college (including temporary, permanent, part-time, and full-time employees).

No parking area: any area **not** specifically set aside, marked, striped, or designated by Facility Services for the permanent or temporary parking of vehicles.

Parking area: any area specifically set aside, marked, striped, or designated by Facility Services for the permanent or temporary parking of vehicles.

Repeat offender: any person committing three (3) or more traffic or parking violations within an academic year.

Student: anyone registered or enrolled in full- or part-time academic study who is not an employee.

Visitor: anyone not identified as an employee or student according to the definitions above.

Authority

Pursuant to North Carolina General Statutes, Chapter 115D-21, the Board of Trustees of Wake Technical Community College through their designee, Facility Services, shall be responsible for the registration, flow, and parking of vehicles on property owned or leased in whole or in part by the State of North Carolina and under control of the Wake Tech Board of Trustees. Notwithstanding the above, the Registrar shall be responsible for the registration of student vehicles. The provisions of the regulations apply to the operators of all vehicles operated on any Wake Tech campus and shall be in effect 24 hours a day, except as herein provided.

Wake Tech's **Facility Services Office**, as authorized by this Ordinance and the Board of Trustees, shall exercise discretion and authority in ensuring that the necessary business of the college is conducted properly; and that parking areas and facilities on Wake Tech campuses are used for the benefit and convenience of students, faculty, staff, and visitors.

Liability: Wake Technical Community College assumes no liability or responsibility for damage to or theft of personal property or of any vehicle parked or in operation on the properties leased by or under the control of the Board of Trustees of the college.

Violation of Ordinance

In addition to the criminal penalties set out by the North Carolina General Statutes, any person violating this or any regulation issued hereunder is subject to a civil penalty as set forth in this Ordinance.

Rules of Evidence: When a vehicle is found to be in violation of this Ordinance, it shall be considered prima facie evidence that the vehicle was parked:

1. by the person holding the college parking permit for that vehicle, or
2. by the person on file as owner of said vehicle with the North Carolina Division of Motor Vehicles or corresponding agency of another state.

B. Vehicle Registration and Parking Permits

Permit Eligibility

General Provision: All faculty, staff, and students in good standing with the college are eligible for and may obtain a parking permit. Motor vehicles parked on campus by students, faculty, or staff must be registered with the college and must display a valid, official (Wake Tech-issued) vehicle parking permit.

Handicapped Parking Permits: The state-issued permit is the only one Wake Tech requires.

Parking permits become invalid under the following conditions:

- Ownership of the vehicle is transferred to another person or entity.
- The permit holder's association with the college ends.
- The time period for which the permit is issued expires.
- The permit holder is issued another permit relating to the same vehicle.
- The permit holder's parking privileges are forfeited as a result of disciplinary sanctions.
- The permit holder commits three (3) or more traffic or parking violations in an academic year.

Registration of Motor Vehicles

Faculty/staff vehicles must be registered through the Wake Tech Campus Police Department. There is no cost to employees for vehicle registration and no limit on the number of vehicles that can be registered. Contact Sgt. West at 919-866-5867 for more information.

- **Faculty/staff parking permits** are for the exclusive use of employees and do not entitle friends or relatives of employees to park in staff spaces, even with the permit. Faculty/staff parking permits need not be renewed unless worn or illegible.

Student vehicles must be registered as part of the registration process. To obtain a parking permit, students shall provide their vehicle license plate number and the state in which the vehicle is registered. Vehicles brought onto campus after the college registration period has ended must be registered promptly. Students registered for classes at the Perry Health Sciences Campus shall obtain an entry key card for the parking deck.

- **Student parking permits** will be issued in conjunction with student identification badges.

Faculty, staff, and students who have been issued a vehicle registration permit are responsible for parking violations involving the vehicle for which that permit has been issued.

A temporary parking permit shall be obtained when a permit holder’s vehicle is unavailable and he/she drives and parks another vehicle on campus.

Parking permits shall be properly displayed on the vehicles for which they have been issued. Four-wheel vehicles shall display permits on the left side of the rear window or to the rear left bumper. If the vehicle is a convertible or a Jeep with no glass rear windshield, permits may be displayed on the rear bumper or in an interior position within the cabin of the vehicle that would be highly visible to a police officer. Two-wheel vehicle permits shall be displayed on the rear of the vehicle if possible, or attached to the front forks or windshield of the vehicle.

Visitors (as defined in Article I) to any campus shall obtain a temporary parking permit from the reception desk and may park in spaces designated for visitors or general parking only.

C. Parking and Traffic Rules and Regulations

General Provision

Faculty, staff, and students are subject to discipline in accordance with the provisions of this Ordinance and Wake Tech policy and procedure.

Rules and Regulations

- No vehicle shall be driven in a careless or reckless manner or in a direction opposite to that indicated by appropriate signs or markings on roadways that are designated as one-way streets.
- Wake Tech campuses are deemed business districts, with a speed limit of 20 miles per hour.
- No vehicle may be parked in such a manner as to occupy more than one space.
- All vehicles shall be parked in the direction of the flow of the traffic pattern. Facing out (backing into) an angled parking space is not allowed. In straight line spaces, vehicles may face out by backing into the space or pulling forward in a double space.
- Vehicles parking in a designated handicapped parking space shall display a valid handicapped placard or distinguishable license plate issued to the operator or passenger (pursuant to North Carolina General Statute 20-37.6). Any person parking in a designated handicapped parking space shall comply with the requirements of North Carolina General Statue 20-37.6, "Parking privileges for handicapped drivers and passengers."
- Parking is prohibited as follows: on a sidewalk or walkway; along the main driveway entering the college; in the driving lanes of parking areas; in loading or unloading areas; in fire lanes; on grass or landscaped areas; in approaches or other portions of parking areas that are not clearly marked for parking.
- No faculty, staff, or student vehicle may be parked in spaces specifically reserved for certain persons or functions.
- Agents authorized by Wake Tech administration have authority to remove to a place of storage or boot any vehicle illegally stopped, parked, or abandoned, at the vehicle owner's expense.

Enforcement
The college reserves the right to revoke any parking privileges and to remove a repeat offender's valid parking permit for flagrant violation of the Traffic Rules and Regulations, including failure to pay fines.

Fines
The Accounting Office is hereby authorized to collect **a $25 fine** for any of the following violations:

- Backing into an angled parking space
- Driving in a hazardous manner
- Driving wrong way in drive lanes
- Failure to display current parking decal
- Failure to register vehicle
- Failure to heed stop or yield sign
- Improper display of parking decal
- Parking in manner creating a hazard
- Parking in more than one parking space
- Parking in non-parking space
- Parking in unauthorized space
- Parking incorrectly in space

The Accounting Office is hereby authorized to collect a **$250.00** fine for violation of handicapped parking rules and regulations and a **$50.00** administrative fee for removal of a boot from any vehicle.

Towing
The Chief of Campus Police is hereby authorized to have towed or to have a boot (or other lawful means of enforcement) placed on any vehicle in violation of rules and regulations, as follows:

- unauthorized parking in a handicapped space
- unauthorized parking in reserved space
- parking in area not designated for parking
- repeated violation of the parking rules
- parking in a manner that creates a hazard
- abandoned vehicles

In addition to any fine assessed for a violation of this Ordinance, the owner of a towed vehicle is responsible for payment of any towing and/or storage fees.

Notice of North Carolina State Law Concerning Towed Vehicles
Wake Tech provides a petition/appeal procedure for towing and parking violations. Additionally, North Carolina G.S. 20-219.11 provides the following:

When a vehicle with a valid registration plate or registration is towed as provided in G.S. 20-219.11, the authorizing person shall immediately notify the last known registered owner of the vehicle of the following:

- a description of the vehicle;
- the place where the vehicle is stored;
- the violation with which the owner is charged, if any;
- the procedure the owner must follow to have the vehicle returned to him/her; and
- the procedure the owner shall follow to request a probable cause hearing on the towing.

The owner or any other person entitled to claim possession of the vehicle may request in writing a hearing to determine probable cause for the towing. The request for a hearing shall be filed with the magistrate in the county where the vehicle was towed; the hearing will be set within 72 hours of receipt of the request.

The only issue at this hearing is whether probable cause existed for the towing. If the magistrate finds that probable cause did exist, the tower's lien continues. If the magistrate finds that probable cause did not exist, the tower's lien is extinguished. Any aggrieved party may appeal the magistrate's decision to district court.

For a more complete explanation of the above procedure, refer to North Carolina General Statutes, Chapter 20-219.11.

Suspension of Parking Privileges
The Chief of Campus Police may, in addition to any other penalty, suspend for up to one year the parking privileges of any individual found to be a repeat offender in flagrant violation of this Ordinance.

Failure to Settle Fines, Fees, and Charges
Failure to settle outstanding traffic and parking fines, fees, and charges within fourteen days after issuance of a citation may result in the collection of fees in the following manner:

- Penalties owed by faculty members and other employees of the college may be deducted from payroll checks.
- Penalties owed by students will be forwarded to the Registrar, and a hold will be placed on the student's records until the penalties are paid.

Section 6. Petition/Appeal Procedure
Individuals issued a parking or traffic citation may appeal by returning a Traffic Violation Appeal form to the Traffic Appeals Review Board within the semester the citation is issued. Untimely appeals will not be accepted for review

Traffic Violation Appeal forms are available at the reception desk on all Wake Tech campuses.

Unless otherwise specified in this section, the appeal and all arguments in support of the appeal will be submitted in writing. The Traffic Appeals Review Board Administrator shall review the appeal, considering the written statement of the appellant and relevant documents submitted by the Chief of Campus Police, and respond by mail to the address provided on the appeal form.

Appeal Hearings
Individuals whose driving or parking privileges have been suspended or revoked, or whose vehicles have been towed may submit an appeal in writing directly to the Chief of Campus Police. The appeal must be received within14 days. Individuals will be notified in writing of the Chief's decision within seven days of the appeal.

The Traffic Appeals Review Board
Board membership consists of one faculty member appointed by the Faculty Association President; one staff member appointed by the Staff Council President; and one student member appointed by the Student Government Association President. The Executive Vice President (or designee) shall serve as chair. The term of office will be one year, with no limit to the number of terms served. Members will serve until successors are appointed. The Chief of Campus Police (or a designee) will attend each hearing to clarify operational questions that arise.

The Board Chair (or designee) will present subsequent appeal forms to board members and call for a vote from each member. The Board Chair will make note of the decision regarding the appeal. The Board Chair is a non-voting member of the board.

The Traffic Appeals Review Board will meet as necessary. The Board Chair is responsible for notifying the board members of the time, date, and location of the hearing. The Board Chair may render decisions on traffic appeals in between regularly-scheduled meetings of the board and in emergency situations

Decisions of the Traffic Appeals Review Board are final. If an appeal is denied, payment of the fine is due immediately.

Judgment Factors

- All facts as stated on the appeal form
- Information provided by the Chief of Campus Police, to include previous violations
- Information noted on the parking violation notice
- The rules and regulations of this Ordinance

TITLE IX POLICY (SEXUAL MISCONDUCT)

Procedures:
Title IX of the Education Amendments of 1972 states: "*No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance.*"

Wake Technical Community College is committed to providing a learning, working and living environment that promotes respect, responsibility, communication, collaboration, critical thinking, and accountability in an environment free of sexual misconduct and discrimination. Sexual discrimination violates an individual's fundamental rights and personal dignity.

Wake Technical Community College considers sexual discrimination in all its forms to be a serious offense. This plan refers to all forms of sexual discrimination, including: discrimination against pregnant and parenting students, sexual harassment, sexual assault, and sexual violence by employees, students, or third parties. (Title 20 U.S.C. Sections 1681-1688)

Wake Technical Community College has a responsibility to ensure compliance by demonstrating that our education programs and other activities are operated in a manner consistent with Title IX regulations and provisions.
If you feel you have been subjected to sexual harassment or discrimination, you should seek assistance as soon as possible. Please review the **Sexual or Gender Misconduct Plan** and the related **Plan Explanations** listed below**.** Benita Clark, Associate Vice President of Human Resources, is the college's Title IX Coordinator. The Senior Vice President for Student Services, Rita Jerman and the Associate Vice President, Public Safety Education Campus, Anthony Caison, serve as deputy coordinators. They are responsible for implementing and monitoring Wake Technical Community College's Title IX compliance. Investigators are also trained to assist in carrying out Title IX duties.

Mrs. Rita Jerman	**Ms. Benita Clark**	**Mr. Anthony Caison**
919-866-5701	**919-866-7894**	**919-866-6101**
whjerman@waketech.edu	biclark@waketech.edu	amcaison@waketech.edu

When concerns are brought to their attention or when they suspect that sexual or gender discrimination may be present, they are bound to initiate and oversee timely investigations and provide updates to the accuser and the accused. Initial complaints must be completed within 30 days from the date of the report; therefore all faculty and staff are required to cooperate fully, truthfully, and expediently with investigations

More information about Title IX

Retaliation is Prohibited
You have the right to raise concerns, to ask questions about our policies prohibiting sex or gender discrimination, and to participate in investigations without fear of retaliation. You also have the right to submit a complaint about retaliatory acts under Title IX.

How Can We Help
Our plan helps to insure the Wake Technical Community College's community is free from discrimination based on sex or gender behavior. We are here to help assist you in an effective and efficient manner. If you feel you are experiencing sexual discrimination, the **most** important thing you can do is to get help. The contacts listed below will be able to guide you and provide important resources.

Who Should I Contact
If you think you have been a victim of sex or gender discrimination, or if you are aware of its existence in any of our

education programs or activities, or you have any questions about the sexual or gender misconduct policy, you can get help from any of the offices/individuals below:

Faculty or Staff: Contact the Chief Human Resource Officer and Title IX Coordinator, your supervisor, or Campus Security;

Students: Contact the Senior Vice President for Student Services, any Student Services Dean, Counseling Staff, Athletic Director, or Campus Security; and

Visitors, Applicants for employment: Contact Chief Human Resource Officer or Campus Security.

Sexual/Gender Misconduct Plan & Plan Expectations

I. PLAN STATEMENT

Members of the Wake Technical Community College's community, guests, and visitors have the right to be free from sexual violence. All members of the campus community are expected to conduct themselves in a manner that does not infringe upon the rights of others. Wake Technical Community College believes in zero tolerance sexual or gender-based misconduct. When an allegation of misconduct is brought to an appropriate administrator's attention, and a respondent is found to have violated this plan, serious sanctions will be imposed to reasonably ensure that such actions are never repeated.

This plan has been developed to reaffirm these principles and to provide recourse for those individuals whose rights have been violated. This plan is intended to define community expectations and to establish a mechanism for determining when those expectations have been violated.

II. EXPECTATIONS WITH RESPECT TO PHYSICAL SEXUAL MISCONDUCT

The expectations of our community regarding sexual misconduct can be summarized as follows: In order for individuals to engage in sexual activity of any type with each other, there must be clear, knowing and voluntary consent prior to and during sexual activity. Consent is sexual permission. Consent can be given by word or action, but non-verbal consent is not as clear as talking about what you want sexually and what you don't. Consent to one form of sexual activity cannot be automatically taken as consent to any other form of sexual activity. Silence--without actions demonstrating permission--cannot be assumed to show consent.

Additionally, there is a difference between seduction and coercion. Coercing someone into sexual activity violates this plan in the same way as physically forcing someone into sex. Coercion happens when someone is pressured unreasonably for sex.

Because alcohol or other drug use can place the capacity to consent in question, sober sex is less likely to raise such questions. When alcohol or other drugs are being used, a person will be considered unable to give valid consent if they cannot fully understand the details of a sexual interaction ("who, what, when, where, why, or how") because they lack the capacity to reasonably understand the situation. Individuals who consent to sex must be able to understand what they are doing. Under this plan, "No" always means "No," and "Yes" may not always mean "Yes." Anything less than a clear, knowing and voluntary consent to any sexual activity is equivalent to a "No."

III. EXPECTATIONS WITH RESPECT TO CONSENSUAL RELATIONSHIPS

There are inherent risks in any romantic or sexual relationship between individuals in unequal positions (such as teacher and student, supervisor and employee). These relationships may be less consensual than perceived by the individual whose position confers power. The relationship also may be viewed in different ways by each of the parties, particularly in retrospect. Furthermore, circumstances may change, and conduct that was previously welcome may become unwelcome. Even when both parties have consented at the outset to a romantic or sexual involvement, this past consent may not remove grounds for a later charge of a violation of applicable sections of the faculty/staff handbooks.

The College does not wish to interfere with private choices regarding personal relationships when these relationships do not interfere with the goals and policies of the College. For the personal protection of members of this community, relationships in which power differentials are inherent (faculty-student, staff-student, administrator-student) are generally discouraged. Consensual romantic or sexual relationships in which one party maintains a direct supervisory or evaluative role over the other party are unethical.

Therefore, persons with direct supervisory or evaluative responsibilities who are involved in such relationships must bring those relationships to the timely attention of their supervisor; this will likely result in removing the employee from the supervisory or evaluative responsibilities, or shifting the student from being taught or evaluated by someone with whom they

have established a consensual relationship. While no relationships are prohibited by this plan, failure to self-report such relationships to a supervisor as required can result in disciplinary action for an employee.

IV. SEXUAL VIOLENCE -- RISK REDUCTION TIPS

Risk reduction tips can often take a victim-blaming tone, even unintentionally. With no intention to victim-blame, and with recognition that only those who commit sexual violence are responsible for those actions, these suggestions may nevertheless help you to reduce your risk of experiencing a non-consensual sexual act. Set out below are suggestions to avoid committing a non-consensual sexual act:

1. If you have limits, make them known as early as possible.
2. Tell a sexual aggressor "NO" clearly and firmly.
3. Try to remove yourself from the physical presence of a sexual aggressor.
4. Find someone nearby and ask for help.
5. Take affirmative responsibility for your alcohol intake/drug use and acknowledge that alcohol/drugs lower your sexual inhibitions and may make you vulnerable to someone who views a drunk or high person as a sexual opportunity.
6. Take care of your friends and ask that they take care of you. A real friend will challenge you if you are about to make a mistake. Respect them when they do.

If you find yourself in the position of being the initiator of sexual behavior, you owe sexual respect to your potential partner. These suggestions may help you to reduce your risk for being accused of sexual misconduct:

1. Clearly communicate your intentions to your sexual partner and give them a chance to clearly relate their intentions to you.
2. Understand and respect personal boundaries.
3. DON'T MAKE ASSUMPTIONS about consent; about someone's sexual availability; about whether they are attracted to you; about how far you can go or about whether they are physically and/or mentally able to consent. If there are any questions or ambiguity then you DO NOT have consent.
4. Mixed messages from your partner are a clear indication that you should stop, defuse any sexual tension and communicate better. You may be misreading them. They may not have figured out how far they want to go with you yet. You must respect the timeline for sexual behaviors with which they are comfortable.
5. Don't take advantage of someone's drunkenness or drugged state, even if they did it to themselves.
6. Realize that your potential partner could be intimidated by you, or fearful. You may have a power advantage simply because of your gender or size. Don't abuse that power.
7. Understand that consent to one form of sexual behavior does not automatically imply consent to any other forms of sexual behavior.
8. Silence and passivity cannot be interpreted as an indication of consent. Read your potential partner carefully, paying attention to verbal and non-verbal communication and body language.

In campus hearings, legal terms like "guilt, "innocence," and "burdens of proof" are not applicable, but the College never assumes a student is in violation of College policy. Campus hearings are conducted to take into account the totality of all evidence available, from all relevant sources.

The College reserves the right to take whatever measures it deems necessary in response to an allegation of sexual misconduct in order to protect students' rights and personal safety. Such measures include, but are not limited to, modification of class schedule, interim suspension from campus pending a hearing, and reporting the matter to the local police. Not all forms of sexual misconduct will be deemed to be equally serious offenses, and the College reserves the right to impose different sanctions, ranging from verbal warning to expulsion, depending on the severity of the offense. The College will consider the concerns and rights of both the complainant and the person accused of sexual misconduct.

V. SEXUAL MISCONDUCT OFFENSES INCLUDE, BUT ARE NOT LIMITED TO:

1. Sexual Harassment;
2. Non-Consensual Sexual Contact (or attempts to commit same);
3. Non-Consensual Sexual Intercourse (or attempts to commit same); and
4. Sexual Exploitation.

1. SEXUAL HARASSMENT:

Sexual Harassment is

- unwelcome, gender-based verbal or physical conduct that is,
- sufficiently severe, persistent or pervasive that,
- unreasonably interferes with, denies or limits someone's ability to participate in or benefit from the College's educational program and/or activities, and is
- based on power differentials (quid pro quo), the creation of a hostile environment, or retaliation.

Examples include: an attempt to coerce an unwilling person into a sexual relationship; to repeatedly subject a person to egregious, unwelcome sexual attention; to punish a refusal to comply with a sexual based request; to condition a benefit on submitting to sexual advances; sexual violence; intimate partner violence, stalking; gender-based bullying.

2. NON-CONSENSUAL SEXUAL CONTACT:

Non-Consensual Sexual Contact is

- any intentional sexual touching, however slight, with any object, by a man or a woman upon a man or a woman, that is without consent and/or by force.

Sexual Contact includes:

- Intentional contact with the breasts, buttock, groin, or genitals, or touching another with any of these body parts, or making another touch you or themselves with or on any of these body parts; any intentional bodily contact in a sexual manner, though not involving contact with/or/by breasts, buttocks, groin, genitals, mouth or other orifice.

3. NON-CONSENSUAL SEXUAL INTERCOURSE:

Non-Consensual Sexual Intercourse is

- any sexual intercourse, however slight, with any object, by a man or woman upon a man or a woman, that is without consent and/or by force.

Intercourse includes:

- vaginal penetration by a penis, object, tongue or finger, anal penetration by a penis, object, tongue, or finger, and oral copulation (mouth to genital contact or genital to mouth contact), no matter how slight the penetration or contact.

4. SEXUAL EXPLOITATION:

Occurs when a person takes non-consensual or abusive sexual advantage of another for his/her own advantage or benefit, or to benefit or advantage anyone other than the one being exploited, and that behavior does not otherwise constitute one of the other sexual misconduct offenses. Examples of sexual exploitation include, but are not limited to:

- invasion of sexual privacy;
- prostituting another person;
- non-consensual video or audio-taping of sexual activity;
- going beyond the boundaries of consent (such as letting your friends hide in the closet to watch you having consensual sex);
- engaging in voyeurism;
- knowingly transmitting an STI or HIV to another student;
- exposing one's genitals in non-consensual circumstances; inducing another to expose their genitals; and
- sexually-based stalking and/or bullying may also be forms of sexual exploitation.

VI. ADDITIONAL APPLICABLE DEFINITIONS

- Consent: Consent is clear, knowing, and voluntary. Consent is active, not passive. Silence, in and of itself, cannot be interpreted as consent. Consent can be given by words or actions, as long as those words or actions create mutually understandable clear permission regarding willingness to engage in (and the conditions of) sexual activity.
- Consent to any one form of sexual activity cannot automatically imply consent to any other forms of sexual activity.
- Previous relationships or prior consent cannot imply consent to future sexual acts.
- Force is the use of physical violence and/or imposing on someone physically to gain sexual access. Force also includes threats, intimidation (implied threats), and coercion that overcome resistance or produce consent ("Have sex with me or I'll hit you. Okay, don't hit me, I'll do what you want.").
- Coercion is unreasonable pressure for sexual activity. Coercive behavior differs from seductive behavior based on the type of pressure someone uses to get consent from another. When someone makes clear to you that they do not want sex, that they want to stop, or that they do not want to go past a certain point of sexual interaction, continued pressure beyond that point can be coercive.
- NOTE: There is no requirement that a party resist the sexual advance or request, but resistance is a clear demonstration of non-consent. The presence of force is not demonstrated by the absence of resistance. Sexual activity that is forced is by definition non-consensual, but non-consensual sexual activity is not by definition forced.
- In order to give effective consent, one must be of legal age.
- Sexual activity with someone who one should know to be -- or based on the circumstances should reasonably have known to be -- mentally or physically incapacitated (by alcohol or other drug use, unconsciousness or blackout), constitutes a violation of this plan.

    - Incapacitation is a state where someone cannot make rational, reasonable decisions because they lack the capacity to give knowing consent (e.g., to understand the "who, what, when, where, why or how" of their sexual interaction).
    - This plan also covers a person whose incapacity results from mental disability, sleep, involuntary physical restraint, or from the taking of rape drugs. Possession, use and/or distribution of any of these substances,

including Rohypnol, Ketomine, GHB, Burundanga, etc. is prohibited, and administering one of these drugs to another student is a violation of this plan. More information on these drugs can be found at: http://www.911rape.org/.

- Use of alcohol or other drugs will never function as a defense for any behavior that violates this plan.
- The sexual orientation and/or gender identity of individuals engaging in sexual activity is not relevant to allegations under this plan. For reference to the pertinent state statutes on sex offenses, please see Article 7A of Chapter 14 of the North Carolina General Statutes.

VII. STATEMENT

- Any student found responsible for violating the plan on Non-Consensual or Forced Sexual Contact (where no intercourse has occurred) will likely receive a sanction ranging from probation to expulsion, depending on the severity of the incident, and taking into account any previous campus conduct code violations.*
- Any student found responsible for violating the plan on Non-Consensual or Forced Sexual Intercourse will likely face a recommended sanction of suspension or expulsion.*
- Any student found responsible for violating the plan on sexual exploitation or sexual harassment will likely receive a recommended sanction ranging from warning to expulsion, depending on the severity of the incident, and taking into account any previous campus conduct code violations.*

***The conduct body** reserves the right to broaden or lessen any range of recommended sanctions in the case of serious mitigating circumstances or egregiously offensive behavior. Neither the initial hearing officers nor any appeals body or officer will deviate from the range of recommended sanctions unless compelling justification exists to do so.

COPYRIGHT INFRINGEMENT AND INTELLECTUAL PROPERTY

Title of the policy
Copyright Infringement and Intellectual Property

Purpose of the policy
This policy states Wake Technical Community College's position on copyright infringement, illegal file sharing, and intellectual property. The college adheres to the Higher Education Opportunity Act of 2008 regarding the copying or distribution of copyrighted materials.

Applicability
This policy applies to all faculty, staff, and students.

Policy statement
Wake Technical Community College requires its faculty, staff, and students to comply with the United States Copyright Act (Title 17 of the United States Code) (the "Copyright Act"). Faculty, students, and staff may download, possess, and store only lawfully-acquired, copyrighted materials; and may use, adapt, and distribute those materials only in ways consistent with the Copyright Act, associated case law, the Fair Use principle, and the intellectual property rights of others. The unauthorized use (downloading, possessing, storing, copying, adapting, sharing, or distribution) of copyrighted materials is a violation of federal law and Wake Technical Community College policy and is strictly prohibited.

View Full Policy*
Copyright Infringement and Intellectual Property
***This PDF document is the official version of the policy.

LEARNING MANAGEMENT SYSTEM (LMS) RETENTION SCHEDULE

Title of the Policy
Learning Management System Records Retention Schedule

Purpose of the Policy
This policy governs digital student records generated in the course of delivering online courses. These records are confidential, protected under FERPA regulations, and must be provided to students or legal authorities when requested. North Carolina General Statutes (NCGS) § 115D, § 121, and § 132 have no special provisions for the handling or retention of digital academic records or protection from litigation regarding such records. NCGS and current Wake Tech policy require the retention of grade books for a period of three years. Retaining student-generated data poses legal risks for the college if a student or parent sues or if records are compromised through accidental release or malicious intrusion. The maintenance, security, storage, and backup of records in perpetuity and the mechanisms for producing the records in an accessible form constitute a financial burden for the college as well.

Policy Statement
Wake Tech will utilize best practices related to maintaining a comprehensive Learning Management System (LMS) records and data archive and retention schedule. The retention schedule will adhere to all applicable regulations and comply with all audit criteria. The retention schedule provides information pertinent to all types of courses offered by the college and provides instruction for storage and destruction of affected data.

View Full Policy*
Learning Management System Records Retention Schedule
***This PDF document is the official version of the policy.

Remember to check the online College Catalog for the most up-to-date information at http://www.waketech.edu/student-services/catalog

WORKFORCE CONTINUING EDUCATION

Website: http://workforce.waketech.edu

BIONETWORK
Website: http://www.ncbionetwork.org
Director: Rebel Umphlett
Phone:919-513-2322
Email: rbumphlett@waketech.edu

1. Bionetwork Capstone Center Short Courses
2. Validation Academy

COLLEGE & CAREER READINESS PROGRAM
Website: http://ccr.waketech.edu
Dean: Tiffany Williams
Phone: 919-334-1636
Email: tfwilliams4@waketech.edu

The College and Career Readiness program provides classes and support to help adults enhance their basic educational skills, acquire English language skills, earn a high school diploma, or prepare for tests that lead to a high school equivalency credential

1. Adult Basic Education
2. Adult Secondary Education
3. English as a Second Language
4. High School Equivalency Preparation

CORPORATE & BUSINSESS SOLUTIONS
Website: http://corporatesolutions.waketech.edu
Executive Director: Barbara Brothers
Phone: 919-532-5587
Email: babrothers@waketech.edu

Professional development training is delivered in a variety of formats and is completely customizable for any industry's needs. Our solutions make a positive difference in your company or organization.

1. Apprenticeship Training
2. Industry Training
3. Customized Training Program
4. Professional Development and Corporate Training
5. Small Business Center
6. Wake Tech/Wells Fargo Center for Entrepreneurship

TECHNOLOGY SERVICES & CAREER DEVELOPMENT
Dean: Jeffrey Merritt
Phone: 919-866-7206
Email: jlmerritt@waketech.edu

1. Non-Credit Computer Classes
2. Languages
3. Lifelong Learning Programs
4. Career Development
5. Personal Enrichment Classes
6. Human Resources Development

OCCUPATIONAL SERVICES
Dean: Lonette Mims
Phone: 919-866-5829
Email: lemims@waketech.edu

1. Corrections Education
2. Nurse Aide
3. Hospitality Programs
4. Biowork Program
5. Workforce Education Initiatives, Planning & Assessment

PROFESSIONAL SERVICES & VOCATIONAL TRAINING
Dean: Pamela Little
Phone: 919-866-5805
Email: pmlittle@waketech.edu

1. Cosmetology
2. Barbering
3. Green Building
4. International Learning & Vocational Education

PUBLIC SAFETY TRAINING
Website: http://publicsafety.waketech.edu
Dean: Jeffrey Robinson
Phone: 919-866-6139
Email: jbrobinson@waketech.edu

1. Fire Service Training
2. Emergency Medical Services
3. Law Enforcement In-Service Training
4. Correction and Detention Training
5. Basic Law Enforcement Training

RECORDS AND REGISTRATION
Dean: Karen Holding-Jordan
Phone: 919-334-1629
Email: khjordan@waketech.edu

1. Records
2. Registration
3. Scheduling

WORKFORCE CONTINUING EDUCATION (NON-CREDIT)

WORKFORCE CONTINUING EDUCATION MISSION

The mission of Workforce Continuing Education (WCE) is to provide workforce training and opportunities for academic and professional development. WCE's first priority is preparing students for the workforce through education, training, and the enhancement of workplace skills that are in high demand. WCE strives to provide more highly-skilled employees for today's competitive labor force. The division also offers a wide range of courses for personal interest and enrichment.

WORKFORCE CONTINUING EDUCATION UNITS (CEU's)

Wake Technical Community College awards Continuing Education Units (CEUs) for specific non-credit courses and special activities. A permanent transcript will be established for each non-credit student and updated each time the student completes a non-credit course. One CEU will be awarded for every 10 hours of non-credit instruction; for example, a 66-hour non-credit course earns 6.6 CEUs. CEUs are awarded to students upon satisfactorily completing a non-credit course.

The Southern Association of Colleges and Schools became the first regional accrediting agency to require that all member institutions use the CEU to document non-credit special activities.

Workforce Continuing Education Transcripts

Students who have taken non-credit classes may request copies of their **official transcripts** by visiting http://www.waketech.edu/student-services/registration-student-records/transcripts.

Unofficial transcripts may be obtained by logging into WebAdvisor, entering a Wake Tech username and password, and clicking on Transcript in the Academic Profile area. Students who do not have a Wake Tech username and password must submit an electronic Student Record Inquiry form.

GRADING POLICY

All classes except Adult High School classes use the S-U system.

Grade	Explanation
S	Satisfactory (attended at least 80% of scheduled class hours)
*U	Unsatisfactory
*NG	No grade
*W	Withdrew

*****Individual courses may vary in attendance policy and requirements to attain "Satisfactory" status. Contact appropriate Workforce Continuing Education staff to establish specific requirements.

*CEU's are not awarded with these grades.

Adult High School

Adult High School classes use the A-F system*****.

Grade	Explanation
A (93-100)	Excellent
B (85-92)	Above average
C (78-84)	Average
D (70-77)	Below average
F (0-69)	Unsatisfactory
W	Withdrew
NG	No Grade

*****Effective Fall 2015 the grading scale for Adult High School classes will be the 10-point grading scale that has been approved by the North Carolina State Board of Education for public high schools.

ADMISSION & REGISTRATION

Workforce Continuing Education Registrar

This department ensures accuracy and quality in all Workforce Continuing Education programs to comply with the NC General Statues, Title 23 of the NC Administrative Code, Workforce Continuing Education Guidelines, Numbered Memoranda and the Colleges' Accountability and Credibility Plan in all of Workforce Continuing Education registration and reporting processes.

Admissions

Any adult, 18 years of age or older, or emancipated minor not enrolled in public school, may be admitted to an adult education class. A person 16-18 years of age may enroll in certain courses upon the approval of the appropriate public school principal or superintendent. For more detailed information regarding the admissions and registration process of

minors, please click here.

A course schedule is available in an interactive online format at http://ceregistration.waketech.edu. Information about all workforce continuing education classes may be obtained by calling the college at 919-866-5800.

CLASS LOCATIONS

All Wake Tech campuses provide numerous workforce continuing education courses and services. Other classes are conducted in surrounding communities or within a particular business or industry in Wake County. Almost any course can and will be organized in other areas of the county when a sufficient number of citizens indicate an interest in having a class brought to a particular location, provided that there's an instructor and suitable facility.

Site locations and abbreviations can be found at http://www.waketech.edu/about-wake-tech/locations/directions.

COURSE DESCRIPTIONS

Although course descriptions for workforce continuing education courses are not provided in this publication, examples of the types of courses that are offered are listed. Course descriptions are furnished upon request. Descriptions for classes currently open for registration are listed in the interactive online schedule. Courses may be offered to meet expressed needs of the community when evidence of these needs is presented to the college.

FEES

Registration fees are required for Community Service and Occupational Extension Workforce Continuing Education courses (as of July 1, 2013), as follows:

1-24 hours	$70
25-50 hours	$125
51+ hours	$180

Other fees (facility, campus access, technology, or lab fees) may also be required for certain courses.

Fees are set by the NC Legislature and are subject to change without notice.

No registration fees are required for Adult Basic Education programs, High School Equivalency Preparation, Adult High School, or English as a Second Language programs.

Registration fees may be waived for certain classes for fire service, rescue, and law enforcement personnel. Eligibility for fee waiver is contingent on authorized agency affiliation and authorized groups, dictated by North Carolina General Statutes and the State Board of Community College Code.

Self-supporting classes have a pro-rated cost per individual or group and **are not eligible** for fee waiver.

High School Equivalency Testing Fees

GED® and HiSET® are the high school equivalency tests currently offered at Wake Tech's Beltline Education Center. The GED® (www.myged.com), a four-part, computer-based test, costs $80 total or $20 per section. The HiSET® (www.hiset.ets.org), a five-part, paper-based test, costs $50 total or $10 per section. Testing fees must be paid through the test vendor websites at the time of registration using a debit or credit card or voucher. All sections of either exam must be passed to earn the credential.

WITHDRAWALS & REFUNDS

Requests for withdrawals and refunds **must** be made in writing by the student (**no exceptions**) to the Workforce Continuing Education Registrar's Office. Refund request forms (Wake Tech Form # 802) are also available at each class site. A request for refund may also be submitted to ceregistrar@waketech.edu.

- A **100% refund** will be given if the student officially withdraws from the class (by written request) before the first class meeting.
- A **75% refund** will be given if the student officially withdraws from the class (by written request) on or before the 10-percent date of scheduled hours. Community school, facility, and lab fees are non-refundable.

A full refund will be given for classes canceled by the college. Students do not have to request these refunds.

TRANSFER POLICY FOR WORKFORCE CONTINUING EDUCATION

Students may transfer from one course to another during a given semester as long as neither course has passed the 10% point of total scheduled course hours. Students must request transfer **in writing** by completing a Course Transfer Request form (Wake Tech Form #980) or sending an email to the Workforce CE Registrar at ceregistrar@waketech.edu. Requests received after the 10% point will not be considered, and refunds will not be given.

COLLEGE & CAREER READINESS ADMISSION & PLACEMENT POLICY

Wake Tech admits all adults and makes every effort to place students in programs where they can experience success and meet their goals. College & Career Readiness offers educational opportunities in Adult Basic Education (ABE), ABE Transitional Opportunities for Post-Secondary Success (TOPS), High School Equivalency Preparation (HSEP), Adult High School (AHS), and English as a Second Language (ESL). Placement into these programs is determined by standardized assessment tools. If students do not demonstrate progress within one year of attendance, they will be dropped from the program and referred to other college programs or a more appropriate agency.

College & Career Readiness Ability to Benefit Policy

Adults wishing to enroll in College & Career Readiness programs must demonstrate the ability to benefit from the programs by taking the TABE, CASAS, or BEST pre-tests approved by the U.S. Department of Education. Students unable to complete a pre-test may be admitted to the program at a later date, once they have completed it.

Wake Tech offers College & Career Readiness programs for adults, 16 1/2 or older, who are out of school but do not have a high school diploma; or who have a high school diploma (or its equivalent) but are functioning below the post-secondary level with a valid score of 12.9 or below on a TABE test.

According to performance measures outlined in the Workforce Innovation and Opportunity Act of 2014, students in College & Career Readiness programs must demonstrate "improvements in literacy skills levels in reading, writing, and speaking the English language, numeracy, problem solving, English language acquisition, and other literacy skills." Improvements should be sufficient to move students to higher levels of educational functioning. Students who do not demonstrate sufficient improvement to move to higher placement levels on the TABE or BEST tests after one year will be dropped from the program and referred to more appropriate agencies. Students with documented intellectual disabilities who enroll in our College & Career Readiness programs must also demonstrate sufficient improvement on the CASAS or TABE test within two years.

Admission of Minors and Non-High School Graduates

This policy applies to Wake Technical Community College and is in addition to State Board of Community College policies as published in North Carolina Administrative Code, 23 NCAC 2C.0301, Admission to Colleges and 23 NCAC 2C.0305, Education Services for Minors. This policy specifically addresses non-high school graduates' admission into the College & Career Readiness Programs:

- Non-high school graduates who are 16 or 17 years of age will not be allowed to enroll in the College & Career Readiness Program before a minimum of six months from the official date of withdrawal from a public or private high school or from a home school program.
- The student must exhaust any suspension period given the student by a public or private high school or a home school program in addition to the six-month waiting period described above before being eligible for enrollment in the College & Career Readiness Program.

The Administration of Wake Technical Community College has the express authority of the Board of Trustees to implement necessary procedures for enforcement and regulation of this policy.

COLLEGE & CAREER READINESS PROGRAMS

College and Career Readiness programs include Adult Basic Education (ABE), ABE Transitional Opportunities for Post-Secondary Success (TOPS), High School Equivalency Preparation (HSEP), Adult High School (AHS), and English as a Second Language (ESL). These programs are offered throughout Wake County for the primary purposes of helping adults:

- Improve math, reading, writing, and technology skills for the purposes of pursuing post-secondary education, employment, or advancement in the workplace
- Earn a high school equivalency diploma
- Learn English as a second language
- Explore career options

Adult Basic Education

Adult Basic Education (ABE) is designed to assist individuals who want to improve their skills to enter or advance in the workplace and/or prepare for enrollment in one of the College's high school equivalency completion programs.

There are no fees or charges of any kind. All materials have been especially prepared for adults. Students enrolled in ABE classes are taught from the following content standards using contextualized teaching practices:

- Reading

- Writing
- Math
- Technology
- Career Exploration

High School Equivalency Preparation (HSEP)

The High School Equivalency Preparation program offers instruction for adults who are preparing for high school equivalency exams. Instruction covers high school level reading, writing, mathematics, science, and social studies skills. Students may prepare for the exam at various locations throughout Wake County, or by enrolling in Wake Tech's online HSEP programs. Tuition is free, and course materials are provided for students.

Those achieving a passing score on all sections of the HSEP exams receive a high school equivalency diploma from the North Carolina State Board of Community Colleges. The high school equivalency diploma is generally recognized for college admission and employment.

Adult High School Diploma

The Adult High School Diploma is offered through a cooperative agreement between Wake Tech and the Wake County Board of Education, with Wake Tech serving as administering agency. Adult High School provides academic courses in a lab setting or online. Students are placed in English, mathematics, social studies, science, and elective courses based on their high school transcripts and scores on a standard battery of tests. Students are awarded an adult high school diploma upon completion of required North Carolina high school courses.

The Adult High School diploma is offered at the Beltline Education Center. While enrolled in this program, students may be dually enrolled in select curriculum pathway courses as they work on their high school completion diploma.

ABE TOPS (Transitional Opportunities for Post-Secondary Success

ABE TOPS is designed for adults with intellectual disabilities or those who want to achieve a higher level of independence by building academic, social, vocational, and life skills. ABE TOPS is specifically for adults who need additional educational opportunities and employment readiness. This is a year-round program, and documentation of an intellectual disability is not required to enroll. All interested participants must demonstrate the ability to benefit from the program by taking the CASAS pre-test. Students unable to complete the pre-test may be admitted to the program at a future date after successfully completing it.

For more information or to make an appointment for orientation and testing, call 919-334-1507.

English as a Second Language

English as a Second Language (ESL) classes are designed for people whose native language is not English. The ESL program focuses on increasing speaking, listening, reading, and writing skills – and prepares students to live, work, and continue their post-secondary education in the United States. Instructors assist students with workplace skills, community interaction, cultural enrichment, and professional and academic advancement. Classes are also offered in Expanding Reading and Vocabulary, Citizenship, Career Awareness, and Workplace.

High School Equivalency Program

The High School Equivalency Program (HEP) is a five-year grant from the U.S. Department of Education, Office of Migrant Education, to Wake Technical Community College. The purpose of the HEP grant is to provide migrant and seasonal farm workers and their immediate families the instruction and support necessary to earn a high school equivalency (HSE) diploma and subsequently, to gain upgraded employment, be placed in an institution of higher education (ISE) or other post secondary education or training, or enter the military.

HEP operates in partnership with other community organizations throughout the state of North Carolina.

BIONETWORK CAPSTONE CENTER

The BioNetwork Capstone Center provides affordable, high-quality, hands-on training in biotechnology, biomanufacturing, and biopharmaceutical/pharmaceutical operations in a simulated industrial (cGMP) environment. The BioNetwork Capstone Center is situated in the **Golden LEAF Biomanufacturing Training and Education Center (BTEC)** on the Centennial Campus of North Carolina State University. It provides a training environment that mirrors a biomanufacturing plant facility, with state-of-the-art classrooms, industrial-grade equipment laboratories, and a certified cleanroom suite.

The BioNetwork Capstone Center serves:

- Incumbent workers
- New hires
- Workers in job transition
- Community college and college students enrolled in the life sciences, especially in biotechnology-related degree and certificate programs (The center provides an invaluable, extended, hands-on learning experience.)

- College/university and community college faculty

Four certificates are offered by the BioNetwork Capstone Center. Courses can be taken individually and focus on critical skill sets in areas important to biomanufacturing: good manufacturing practices (GMP), aseptic manufacturing, operations in biotechnology processes, industrial microbiology, good laboratory practices (GLP), HPLC, and validation.

- BioNetwork Capstone Certificate in Biomanufacturing
- BioNetwork Capstone Certificate in Analytical Lab Skills
- BioNetwork Capstone Certificate for Instrumentation/Calibration Technicians in Support of Biomanufacturing
- BioNetwork Capstone Certificate in Computer Validation

CORPORATE AND BUSINESS SOLUTIONS

Corporate and Business Solutions provides training options that are virtually limitless, as they are designed by the client. Working with you and our staff, we will create a training plan to meet your company's unique needs – and get results you can measure. Training can range from highly-technical skill-building programs to broader professional development sessions.

Training is delivered in a variety of formats. Let our training solutions make a positive difference for your company or organization.

Wake Tech is an accredited institution of higher learning offering high-quality courses that qualify for company tuition assistance programs. If your company offers this generous benefit, please visit our website and explore the wide array of courses our Corporate and Business Solutions Division can offer.
Learn more: http://corporatesolutions.waketech.edu.

Apprenticeship Training

Wake Tech has been designated by the North Carolina Community College System as a center for formal apprenticeship training. We assist companies' customized apprenticeship training programs by providing the instructional component of the apprenticeship experience.

Industry Training

Wake Tech assists area industry with a full range of courses to train and retrain employees so that they remain competitive and up to date on industry standards. These courses are available at Wake Tech's Advanced Manufacturing Center or on site at company locations.

Customized Training Program (CIT)

Wake Tech's customized training programs support North Carolina's economic development initiatives by providing training assistance for eligible business and industries. The programs enhance the growth potential of these companies and increase retention of the existing industry base while equipping North Carolina's workforce with the skills for successful employment in emerging industries.

Professional Development and Corporate Training

Wake Tech offers a variety of courses to meet the supervisory and managerial needs of business and industry. Our courses help professionals increase proficiency and gain new skills to enhance competency and marketability. Participants can select from our many program areas and build the knowledge and skills to become effective members of their organizations.

Professional Development courses are available in the following areas:

- Leadership, Management, and Supervision
- Writing and Communication
- Organizational Improvement and Analysis
- Professional Certifications

Employers: If you need to train a large group in one of these areas, Wake Tech's Corporate & Business Solutions can customize these courses to meet your needs. Contact Danielle Kroeger, Director of Corporate Professional Development, at dlkroeger@waketech.edu or - 919-532-5758 to discuss customized training options.

Wake Tech/Wells Fargo Center for Entrepreneurship

This partnership between Wake Tech and Wells Fargo aims to enhance the entrepreneurial climate in Wake County by introducing and supporting projects and initiatives that increase the success rate of new and established entrepreneurial ventures.

Learn more at http://entrepreneurship.waketech.edu.

Small Business Center (SBC)

Wake Tech's Small Business Center works to increase the number and success rate of small businesses in North Carolina

by providing high quality, readily-accessible assistance to current and prospective business owners and their employees. The SBC provides education, training, information, and referrals.
The center maintains a resource library of print materials and videos to assist business owners with research and problem solving. The SBC provides these resources, along with confidential counseling services, seminars, and workshops, free of charge.

Learn more at http://www.waketech.edu/programs-courses/non-credit/build-your-business/small-business-center.

EDUCATION SERVICES & TECHNOLOGY

Human Resources Development (HRD)

Human Resources Development (HRD) provides assessment services, employability training, and career development counseling to unemployed and underemployed individuals, age 18 and older, to prepare them for success in the workplace. Training focuses on helping students obtain and perform successfully in entry-level jobs; it is based on national skills standards, assessments, and certifications that enhance participants' ability to compete effectively in the high-tech, high-performance, global economy. Courses are designed to enhance skills and improve employment prospects. Class times and total contact hours vary.

Employability Skills Training is the centerpiece of HRD training, the core training component around which the other four revolve. Employability Skills Training includes job preparation, job-seeking skills, job-keeping skills, lifelong learning, and life skills. Learn more at http://hrd.waketech.edu.

Noncredit Computer Education

The goals of the Noncredit Computer Education Department are to enrich personal and workplace computer skills and to enhance opportunities for employment and job advancement.

The department consists of Workforce Continuing Education classes taught at various campus sites and online. Learn more about our certification programs and explore the trends at http://computertechnology.waketech.edu.

Technology Services & Special Programs

Wake Tech's Distance Learning programs enhance the learning experience and increase student success overall. The programs succeed by 1) partnering with leading educational organizations such as Education-to-Go (ed2go), CareerStep and other platforms to deliver instruction online, and 2) providing relevant courses and quality instruction. Wake Tech has a reputation for quality and for the strength of its faculty; online courses make these resources available to a greater number of students.

Wake Tech's Plus 50 initiative offers classes and events to help adults zero in on a new career, plan for retirement, or simply enjoy this stage of life. Although these classes are designed for those 50 and older, everyone is welcome. Participants can learn new skills, enhance their resumes, maintain health and wellness, or start new hobbies! Learn more at http://plusfifty.waketech.edu

Substitute Effective Teacher Training

This program helps prospective substitute teachers develop instructional preparation; learn time management and presentation skills, discipline strategies, and hands-on activities for the classroom; and become familiar with NC school laws and all levels of administrative expectations.

Note: Effective November 2012, an applicant must have completed a minimum of 48 semester hours from an accredited college or university to be considered for substitute teaching. Substitute Effective Teacher Training will no longer be sufficient for meeting minimum requirements.

OCCUPATIONAL SERVICES

Nurse Aide I Program (NA I)

NA I introduces students to basic nursing skills needed in a health care setting and is approved by the NC Division of Health Service Regulation. Topics include communication, safety, patient rights, personal care, vital signs, elimination, nutrition, emergencies, rehabilitation, and mental health. Upon completion, students will be able to demonstrate the skills necessary to perform as a nurse aide.
Additional classes offered to current Nurse Aides:

- Nurse Aide I Refresher Class
- Nurse Aide II
- Home Care Nurse Aide Specialty

Hospitality Programs

These programs train individuals in food service, lodging, and travel information. Primary objectives are to provide hospitality industry employers with well-trained personnel and to help individuals develop skills that will qualify them for greater employment opportunities. Hospitality training is arranged and scheduled in accordance with the needs of the industry. Programs and courses include:

- START (Skills, Tasks and Results Training) Hospitality Certification Program
- Servsafe
- Human Resources for Hospitality
- Night Auditors
- Housekeeping
- Certified Pool Operator
- Activity Coordinator for Long term Care Facility
- Commercial Food Equipment Repair

Corrections Education

Corrections Education is delivered to immured individuals who have been assigned to Wake County facilities by the NC Department of Public Safety. The primary purpose of the program is to increase the safety of the general public by reducing recidivism via educational and vocational training.

BioWork

BioWork is a 128-hour certificate course. Students who complete the course are equipped with entry-level skills required for becoming a **process technician** for a biotechnology, pharmaceutical or chemical-manufacturing company.

BioWork is intended for high school graduates, for those in manufacturing industries who have lost their jobs, and for those interested in starting new careers.

Career Development and Personal Enrichment

An ongoing priority of Wake Technical Community College is to offer programs that meet the needs of the working adult. These programs focus on assisting adult students in developing new skills, obtaining/maintaining employment, or changing career paths. Examples of courses offered are:

- Automotive Repair
- Automotive Safety
- Building Trades
- Business Management
- Computer Skills
- Foreign Languages
- Internet-based Instruction
- Machine Trades and Welding
- Medical Terminology, Coding, and Transcription
- On-Board Diagnostic Emission Certification
- Plumbing
- Beer Brewing

Career Pathways Program

The Career Pathways Program provides training to students based on regional growth areas identified by labor market data. Credential preparation is conducted based on employer needs and the stated credentials for specific industries.

Workforce Education Initiatives, Planning & Assessment

These services provide support in attracting, recruiting, expanding, retaining, and developing new workforce education opportunities with potential and existing industry partners.

PROFESSIONAL SERVICES & VOCATIONAL TRAINING

The Professional Services & Vocational Training division provides continuous workforce training for adults aspiring to advance or start new careers and trades. The division's top priority is enriching the lives of adults by providing the education and practical experience necessary to excel in specific careers. Classroom instruction is combined with practical experience to prepare students for NC State Board exams and actual scenarios encountered on the job. Students have opportunities to gain certifications and training that will put them on the fast track to employment.

Training for these WCE programs can be completed **in three (3) months or less:**

- Building Envelope Specialist
- Building Envelope Specialist Exam
- Residential Building Analysis
- Residential Building Analysis Exam
- Introduction to Solar Photovoltaic Technology

- Agribusiness and Sustainable Farming for the Family
- Making Your Home Green: An Affordable Investment
- NC Barber Instructor Exam Prep
- Shampoo Technician Certification

Training for these WCE programs can be completed **in six (6) months or less**:

- Comprehensive Solar Training
- Natural Hair Specialist
- Community Gardening/Intermediate Community Gardening/Advanced Gardening Concepts

Training for these WCE programs can be completed **in 12 months or less**:

- Workforce Continuing Education Cosmetology Program

International Learning & Vocational Education

The International Learning and Vocational Education Department provides language instruction for all levels, from beginner to advanced. Classes focus on helping students build language skills for personal enrichment and enhanced employment opportunities; as such, it allows them to learn about the world.

Command Spanish is non-grammar-based training designed to help employees use limited amounts of everyday Spanish to meet the needs of their employers and the community. The training gives employers a practical way to offer professional development to their employees.

Vocational training classes provide development in programs such as Electrical Wiring, HVAC, Apartment Maintenance, Automotive Detailing, Healthcare Facilities Manager and many others. International Learning also offers basic computer skills and software training classes taught in Spanish.

PUBLIC SAFETY TRAINING

The following program areas provide training for public safety personnel and others who wish to increase competencies in specialized occupational areas.

Emergency Medical Services (EMS)

These courses are designed to meet the needs of local emergency services agencies, healthcare providers, and the public, with an emphasis on emergency patient care in pre-clinical settings. EMS training also includes health education courses for those interested in healthcare and related institutions or retraining.

Fire Service Training

Fire Service Training is delivered directly to local fire departments, allowing personnel to learn with the actual equipment they will use in controlling fires. Classes include those listed below along with related classes in industrial brigade training, home fire safety, and search and rescue:

- CPR & First Aid
- Ropes
- USAR
- Fire Hoses / Extinguishers
- Ladders
- Fire Officer I & II
- Instructor I & II
- Rescue Techniques
- EMR courses

Law Enforcement In-Service Training

In-service training for law enforcement personnel is provided at the request of law enforcement agencies. Training emphasizes legal and technological law enforcement advancements. Programs include Criminal Investigation and the Police Law Institute, as well as those listed below:

- Radar / SMI
- Simunitions / Force on Force
- General Instructor
- Personal Protective Services
- Criminal Investigation
- Police Law Institute
- Legal Update (Arrest, Search & Seizure)

- Narcotics Detection / Investigations
- Accident Reconstruction

Basic Law Enforcement Training (BLET)

This program is designed to give students essential skills required for entry-level employment as law enforcement officers with state, county, or municipal governments or with private enterprise. The program covers topics and uses instructional methods mandated by the North Carolina Criminal Justice Education and Training Standards Commission. Topics include but are not limited to criminal, juvenile, civil, motor vehicle, and alcohol beverage laws; investigative, patrol, custody and court procedures; emergency responses; and community relations. The course is filled with practical exercises, and an extensive ethics section is woven throughout the training experience.

The Wake Tech BLET Academy offers the state commission-mandated 620 hour program along with an additional 124 hours of training, for a total of 744 hours. The additional hours include officer survival, public speaking, and other law enforcement-related training.

To qualify for the program, students must meet the Minimum Standards for the Certification of Law Enforcement Officers Administrative Code 12 NCAC 9B .0101/9B .0111 and Admission of trainees 12 NCAC 09B .0203 ADMISSION OF TRAINEES.

Cadets completing the Academy are eligible to take the state comprehensive written exam and skills testing. Upon successful completion of the BLET State Comprehensive Written Examination, the Cadet has one year to be duly appointed and sworn as a law enforcement officer in North Carolina.

Corrections and Detention Training

In-service corrections and detention training is provided for Department of Correction personnel at the request of the department. Training emphasizes officer safety and inmate security and includes courses such as the following:

- Supervisory / Leadership and Mentoring
- Gang Awareness & Identification
- Teamwork
- Report Writing
- Promotional Examination Preparation
- Investigative & Interviewing Techniques
- Spanish For Corrections / Detention Personnel

WE ARE HERE TO HELP!

Phone
919- 866-5800
Website
http://workforce.waketech.edu/

Remember to check the online College Catalog for the most up-to-date information at http://www.waketech.edu/student-services/catalog

Degrees, Diplomas, and Certificates

Wake Technical Community College awards degrees, diplomas, and certificates in a variety of fields shown below. The highest credential given in each area is listed first, in bold type.

- Click on the "**Program Name**" to go to the program's web page
- Click on the "**Program of Study**" to see specific course requirements for that program

Programs may be offered during the day, evening, online, or a combination. Students should refer to WebAdvisor for the availability of classes. Click to see a list of Wake Tech's programs that can be completed fully online.

Program Name	Division to Contact	Program Code
Accounting – *AAS Degree* Accounting **– *Diploma*** Accounting: Core **– *Certificate*** Income Tax Preparer **– *Certificate*** Payroll Accounting Clerk **- *Certificate*** Accounting Software Applications **- *Certificate*** Management Accounting **- *Certificate***	**Business & Public Services Technologies**	A25800 D25800 C25800A C25800B C25800C C25800D C25800E
Advertising and Graphic Design – *AAS Degree* Graphics Design **– *Certificate*** Web and Graphic Design **– *Certificate*** Advanced Graphic Design - ***Certificate*** Design Basics- ***Certificate*** Design Portfolio- ***Certificate***	**Computer Technologies**	A30100 C30100A C30100B C30100D C30100E C30100F
Agricultural Systems Technology – *AAS Degree* Agricultural Systems Technology **– *Diploma***	**Applied Engineering & Technologies**	A60410 D60410
Air Conditioning, Heating, and Refrigeration Technology – *AAS Degree* Air Conditioning, Heating, and Refrigeration Technology **- *Diploma*** Air Conditioning, Heating, and Refrigeration Technology **- *Certificate*** Design **- *Certificate*** Building Automation **– *Certificate*** Commercial Refrigeration **- *Certificate***	**Applied Engineering & Technologies**	A35100 D35100A C35100B C35100D C35100E C35100F
Architectural Technology – *AAS Degree* Architectural CAD **– *Certificate*** Building Information Modeling (BIM) - ***Certificate*** Architectural and Landscape Illustration – ***Certificate*** Landscape Design – ***Certificate*** Plant Identification **- *Certificate***	**Applied Engineering & Technologies**	A40100 C40100A C40100B C40100D C40100F C40100G
Associate Degree Nursing – *AAS Degree* **Associate Degree Nursing** (LPN to RN Advanced Placement Option) **– *AAS Degree***	**Health Sciences** **Health Sciences**	A45110 A45110
Associate of Arts – *AA Degree*	**College Transfer**	A10100
Associate in Fine Arts in Visual Arts – *AFA Degree*	**College Transfer**	A10600
Associate of Science – *AAS Degree*	**College Transfer**	A10400
Associate of Engineering – *AE Degree*	**College Transfer**	A10500
Automotive Systems Technology – *AAS Degree*	**Applied Engineering & Technologies**	A60160
Baking and Pastry Arts – *AAS Degree* Baking and Pastry Arts **– *Diploma*** Baking and Pastry Arts **- *Certificate***	**Business & Public Services Technologies**	A55130 D55130 C55130A
Biopharmaceutical Technology – *AAS Degree* Biopharmaceutical Regulations **- *Certificate*** Biopharmaceutical Manufacturing and Quality **- *Certificate*** Advanced Biopharmaceutical Practices **- *Certificate*** Pharmaceutical Basics **- *Certificate***	**Applied Engineering & Technologies**	A20180 C20180B C20180C C20180D C20180E
Business Administration: General Business Administration – *AAS Degree* Customer Service **– *Certificate*** Entrepreneurship **– *Certificate*** Business Core **– *Certificate*** Leadership **– *Certificate*** Career Sucess **- *Certificate***	**Business & Public Services Technologies**	A25120A C25120B C25120C C25120D C25120F C25120G
Business Administration: Global Business Management – *AAS Degree* International Business - ***Certificate***	**Business & Public Services Technologies**	A25120G C25120GB

Program Name	Division to Contact	Program Code
Business Administration: Human Resources Management – *AAS Degree*	**Business & Public Services Technologies**	A25120H
Human Resources Administration **- *Certificate***		C25120HA
Human Resources Management **– *Certificate***		C25120HB
Business Administration: Marketing – *AAS Degree*	**Business & Public Services Technologies**	A25120M
Marketing and Sales – ***Certificate***		C25120MM
Advertising and Digital Media **- *Certificate***		C25120SAD
Business Analytics – *AAS Degree*	**Business & Public Services Technologies**	A25350
Business Intelligence **– *Certificate***		C25350A
Business Analyst **– *Certificate***		C25350B
Marketing Analytics **– *Certificate***		C25350C
Logistics Analytics **– *Certificate***		C25350E
Finance Analytics **- *Certificate***		C25350F
Civil Engineering Technology – *AAS Degree*	**Applied Engineering & Technologies**	A40140
Office/CAD **- *Certificate***		C40140A
Field Technician – ***Certificate***		C40140B
Design – ***Certificate***		C40140C
Collision Repair and Refinishing Technology – *AAS Degree*	**Applied Engineering & Technologies**	A60130
Fundamentals – ***Certificate***		C60130A
Fundamentals II – ***Certificate***		C60130B
Computer Engineering – *AAS Degree*	**Computer Technologies**	A25590CE
Computed Tomography Technology - *Certificate*	**Health Sciences**	C45200
Computer Programming and Development – *AAS Degree*	**Computer Technologies**	A25590CP
JAVA Programming **– *Certificate***		C25590JV
JAVAScript **- *Certificate***		C25590JS
Visual BASIC Programming **– *Certificate***		C25590VB
C++ Programming **– *Certificate***		C25590CC
C# Programming **– *Certificate***		C25590CZ
.NET Programming **- *Certificate***		C25590NE
Enterprise Java **– *Certificate***		C25590EJ
Programming Fundamentals **- *Certificate***		C25990PF
Construction Equipment Systems Technology – *AAS Degree*	**Applied Engineering & Technologies**	A60450
Construction Equipment Systems Technology **– *Diploma***		D60450
Hydraulics, Engines, and Transmission **– *Certificate***		C60450BB
Fuel Injection, Electrics, and Electronics **– *Certificate***		C60450BC
Construction Management Technology – *AAS Degree*	**Applied Engineering & Technologies**	A35190
Construction Management Technology: Basic **– *Certificate***		C35190C
Basic Construction Estimating **– *Certificate***		C35190D
Construction Safety Management **– *Certificate***		C35190E
Cosmetology – *AAS Degree*	**Business & Public Services Technologies**	A55140
Cosmetology - ***Diploma***		D55140A
Criminal Justice Technology – *AAS Degree*	**Business & Public Services Technologies**	A55180
Principles of Correction **– *Certificate***		C55180A
Introduction to Law Enforcement **– *Certificate***		C55180B
Homeland Security **– *Certificate***		C55180H
Intelligence Analysis **- *Certificate***		C55180I
Criminal Justice Technology/Forensic Science– *AAS Degree*	**Business & Public Services Technologies**	A5518A
Principles of Identification and Information **– *Certificate***		C5518A
Crime Scene Technician - ***Certificate***		C5518C
Culinary Arts – *AAS Degree*	**Business & Public Services Technologies**	A55150
Culinary Arts **– *Diploma***		D55150
Culinary Arts **- *Certificate***		C55150A
Cyber Security – *AAS Degree*	**Computer Technologies**	A25590CS
Hacking and Forensics **– *Diploma***		D25590HF
Data Science and Programming Support – *AAS Degree*	**Computer Technologies**	A25590DS
IT Foundations **- *Certificate***		C25590F
Database Programming - Microsoft **- *Certificate***		C25590SQ
Database Programming - Oracle **- *Certificate***		C25590OR
Database Programming – SAS **- *Certificate***		C25590SS
Python Programming - ***Certificate***		C25590PY
Programming Fundamentals **- *Certificate***		C25990PF
Dental Assisting - Diploma	**Health Sciences**	D45240
Dental Hygiene – AAS Degree	**Health Sciences**	A45260
Diesel and Heavy Equipment Technology – *AAS Degree*	**Applied Engineering & Technologies**	A60460
Diesel and Heavy Equipment Technology **- *Diploma***		D60460
Hydraulics, Engines, and Transmission Forklift **– *Certificate***		C60460BB
Fuel Injection, Electrical, and Electronics Forklift **– *Certificate***		C60460BC

Program Name	Division to Contact	Program Code
Early Childhood Education – *AAS Degree*	**Business & Public Services Technologies**	A55220
Early Childhood Education **– *Diploma***		D55220A
Early Childhood Education **– *Certificate***		C55220D
School-Age **– *Certificate***		C55220E
Preschool Foundation **- *Certificate***		C55220G
Infant/Toddler Care **– *Certificate***		C55290
Birth-Kindergarten (B-K) Licensure Transfer		A55220B
Career Track		A55220C
Electrical Systems Technology – *AAS Degree*	**Applied Engineering & Technologies**	A35130
Electrical Systems Technology **– *Diploma***		D35130
Residential Wiring – ***Certificate***		C35130A
Commercial Wiring – ***Certificate***		C35130B
Industrial Wiring – ***Certificate***		C35130C
Wiring Methods – ***Certificate***		C35130D
Electronics Engineering Technology – *AAS Degree*	**Applied Engineering & Technologies**	A40200
Basic Electronics **– *Certificate***		C40200A
PLC Programming **– *Certificate***		C40200B
SCADA Systems **– *Certificate***		C40200E
Instrumentation **– *Certificate***		C40200F
Embedded Systems – ***Certificate***		C40200G
Emergency Medical Science – *AAS Degree*	**Health Sciences**	A45340
Esthetics Technology - *Certificate*	**Business & Public Services Technologies**	C55230
Facility Maintenance Technology – *AAS Degree*	**Applied Engineering & Technologies**	A50190
Facility Maintenance Technology: Electrical Systems – ***Certificate***		C50190A
Facility Maintenance Technology: HVACR – ***Certificate***		C50190B
Facility Maintenance Technology: Basic Plumbing – ***Certificate***		C50190C
Basic Facilities Technology I – ***Certificate***		C50190D
Basic Facilities Technology II – ***Certificate***		C50190E
Fire Protection Technology – *AAS Degree*	**Business & Public Services Technologies**	A55240
Fire Protection Technology: Basic **– *Certificate***		C55240A
Loss Control/Investigation **– *Certificate***		C55240B
Fire Management **– *Certificate***		C55240C
Food Service Technology – *Diploma*	**Business & Public Services Technologies**	D55250
Food Service Technology **– *Certificate***		C55250
Geomatics Technology – *AAS Degree*	**Applied Engineering & Technologies**	A40420
Geomatics CAD **– *Certificate***		C40420A
Geomatics Field Technician **– *Certificate***		C40240B
Geomatics Design **– *Certificate***		C40420C
Health and Fitness Science – *AAS Degree*	**Health Sciences**	A45630
Health and Fitness **– *Certificate***		C45630
Healthcare Business Informatics – *AAS Degree*	**Computer Technologies**	A25590HB
Healthcare Simulation Technology – *AAS Degree*	**Health Sciences**	A45980
Healthcare Simulation Technology **- *Certificate***		C45980
Heavy Equip Operation, Mgmt & Service: Repair & Wldg – *AAS Degree*	**Applied Engineering & Technologies**	A35340A
Heavy Equipment Operation, Mgmt & Service: Project Mgmt **– *Degree***		A35340B
Heavy Equip Operation, Mgmt & Svc: Entrepreneurship/Business **– *Degree***		A35340C
Heavy Equipment Operation, Management and Service **– *Diploma***		D35340
Basic Heavy Equipment Operator **– *Certificate***		C35340A
Advanced Heavy Equipment Operator ***Certificate***		C35340B
Basic Evening Operator **– *Certificate***		C35340EA
Advanced Evening Operator **– *Certificate***		C35340EB
Hospitality Management – *AAS Degree*	**Business & Public Services Technologies**	A25110
Hospitality Management **– *Diploma***		D25110
Hospitality Restaurant Management **– *Certificate***		C25110D
Procurement Management **- *Certificate***		C25110E
Hospitality Management Core **- *Certificate***		C25110F
Hospitality Event Coordinator**– *Certificate***		C25110G
Hospitality Hotel Operations **– *Certificate***		C25110H
Foodservice Entrepreneurship **– *Certificate***		C25110J

Program Name	Division to Contact	Program Code
Human Services Technology	**Health Sciences**	
Human Services Technology **– *AAS Degree***		A45380
Human Services Technology/Mental Health **– *AAS Degree***		A4538C
Human Services Technology /Substance Abuse **– *AAS Degree***		A4538E
Human Services Technology/Mental Health **– *Certificate***		C4538C
Substance Abuse Counseling **- *Certificate***		C4538ECO
Substance Abuse Intervention **– *Certificate***		C4538EI
Interior Design – *AAS Degree*	**Applied Engineering & Technologies**	A30220
Residential Interior Design – ***Certificate***		C30200A
Décor Focus Interior Design – ***Certificate***		C30220B
Commercial Interior Design – ***Certificate***		C30220C
Lateral Entry - *Certificate*	**Business & Public Services Technologies**	C55430
Magnetic Resonance Imaging - *Diploma*	**Health Sciences**	D45800
Mechanical Engineering Technology – *AAS Degree*	**Applied Engineering & Technologies**	A40320
Mechanical Design **– *Certificate***		C40320B
Thermal Mechanics **- *Certificate***		C40320C
Materials Engineering **– *Certificate***		C40320D
Additive Manufacturing**– *Certificate***		C40320G
Mechanical Drafting – ***Certificate***		C40320H
Mechatronics – ***Certificate***		C40320I
Medical Assisting – *AAS Degree*	**Health Sciences**	A45400
Medical Assisting **- *Diploma***		D45400
Medical Laboratory Technology – *AAS Degree*	**Health Sciences**	A45420
Medical Office Administration	**Computer Technologies**	
Medical Office Administration – Medical Office Professional **– *AAS Degree***		A25310P
Medical Office Administration – Medical Billing and Coding **– *AAS Degree***		A25310B
Medical Office Administration - Healthcare Administration **– *AAS Degree***		A25310H
Medical Office Professional **– *Diploma***		D25310P
Medical Office Professional - ***Certificate***		C25310P
Mission Critical Operations – *AAS Degree*	**Applied Engineering & Technologies**	A40430
Introduction to MCO – ***Certificate***		C40430A
Critical Electrical Systems – ***Certificate***		C40430B
Critical Control Systems – ***Certificate***		C40430C
Mission Critical Operations – ***Certificate***		C40430D
Mobile Applications Developer – *AAS Degree*	**Computer Technologies**	A25590MA
Android Application Developer **- *Certificate***		C25590MA
Web Development Basics **- *Certificate***		C25590WB
iOS Application Developer **- *Certificate***		C25590MI
Front-End Developer **- *Certificate***		C25590DV
Web Designer **- *Certificate***		C25590DM
Network Management – *AAS Degree*	**Computer Technologies**	A25590NM
Data Storage and Virtualization **- *Diploma***		D25590DV
Cisco Network Associate **- *Certificate***		C25590CA
Cisco Network Professional **- *Certificate***		C25590CP
Microsoft Certified IT Professional **- *Certificate***		C25590MS
Linux Certified Professional **– *Certificate***		C25590LX
Linux Security Specialist **– *Certificate***		C25590LS
Global Windows Security Administration **– *Certificate***		C25590WS
Cisco Security **- *Certificate***		C25590CX
Office Administration	**Computer Technologies**	
Office Administration – Office Professional **– *AAS Degree***		A25370P
Office Administration – Office Finance **– *AAS Degree***		A25370F
Office Administration – Office Software **– *AAS Degree***		A25370S
Office Administration - Legal Office **– *AAS Degree***		A25370L
Office Professional **- *Diploma***		D25370P
Office Professional **- *Certificate***		C25370P
Office Administration - Office Software **– *Certificate***		C25370S
Office Administration - Legal Office - ***Certificate***		C25370L
Pharmacy Technology – *AAS Degree*	**Health Sciences**	A45580
Pharmacy Technology **– *Diploma***		D45580
Phlebotomy - *Certificate*	**Health Sciences**	C45600

CURRICULUM EDUCATION (FOR CREDIT): PROGRAMS OF STUDY

Program Name	Division to Contact	Program Code
Plumbing:	**Applied Engineering & Technologies**	
Plumbing: Residential – ***Diploma***		D35300A
Plumbing: Commercial - ***Diploma***		D35300B
Plumbing Concepts I – ***Certificate***		C35300D
Plumbing Concepts II – ***Certificate***		C35300E
Radiography – *AAS Degree*	**Health Sciences**	A45700
Simulation and Game Development:	**Computer Technologies**	
Simulation and Game Development - Art & Modeling **– *AAS Degree***		A25450A
Simulation and Game Development - Programming – ***AAS Degree***		A25450P
Modeling and Animation **– *Diploma***		D25450B
Modeling and Animation **– *Certificate***		C25450A
Production **- *Certificate***		C25450B
Mobile Game Development**– *Certificate***		C25450C
Fundamentals I for Simulation and Game Development**– *Certificate***		C25450D
Fundamentals II for Simulation and Game Development**– *Certificate***		C25450E
Quality Assurance for Simulation and Game Development**– *Certificate***		C25450F
Business for Simulation and Game Development**– *Certificate***		C25450G
Programming for Simulation and Game Development**– *Certificate***		C25450H
Level Design **- *Certificate***		C25450I
Storage & Virtualization – *AAS Degree*	**Computer Technologies**	A25590SV
Supply Chain Management (Distribution Management)– *AAS Degree*	**Business & Public Services Technologies**	A25620D
Distribution Management Core **– *Certificate***		C25620DA
Transportation Management **- *Certificate***		C25620DB
Supply Chain Management (Global Logistics Technology) – *AAS Degree*	**Business & Public Services Technologies**	A25620G
Logistics Core **– *Certificate***		C25620GA
International Logistics **- *Certificate***		C25620GB
Supply Chain **- *Certificate***		C25620GC
Technical Support – *AAS Degree*	**Computer Technologies**	A25590TS
Hardware Support and Repair **- *Certificate***		C25590HW
IT Foundations **- *Certificate***		C25590F
IT Help Desk Technician **- *Certificate***		C25590HD
Cybersecurity Support **- *Certificate***		C25590CS
Networking Support **- *Certificate***		C25590NS
Therapeutic Massage - *Diploma*	**Health Sciences**	D45750
Web Designer – *AAS Degree*	**Computer Technologies**	A25590DM
Web Designer **- *Certificate***		C25590DM
Advanced Web Designer **- *Certificate***		C25590AW
Front-End Developer **- *Certificate***		C25590DV
Web Development Basics **- *Certificate***		C25590WB
Web Developer – *AAS Degree*	**Computer Technologies**	A25590WD
Web Developer **- *Certificate***		C25590WD
Advanced Web Developer **- *Certificate***		C25590AD
Front-End Developer **- *Certificate***		C25590DV
Web Development Basics **- *Certificate***		C25590WB
Welding Technology – *AAS Degree*	**Applied Engineering & Technologies**	A50420
Welding Technology **– *Diploma***		D50420
Welding Technology **– *Certificate***		C50420B
Fabrication Design – ***Certificate***		C50420C
Computer Controlled Welding - ***Certificate***		C50420D

***Collaborative Agreements**

None at this time

Special Notes about Curriculum Programs

Criminal Background Checks

Students should contact their advisors for updates to program offerings. Students admitted to programs that require a clinical or co-op component may be required to provide the college with an official criminal background check in order to meet the requirements of the clinical or co-op site. Convictions for certain crimes and/or evidence of drug use may disqualify students for participating in clinical or co-op experiences, which would limit their progress toward graduation.

Length of Programs

The length of Wake Tech programs is set by the North Carolina Community College System and published in the NCCCS Curriculum Procedures Reference Manual. All Wake Tech degree, diploma, and certificate programs are of the same quality and rigor and meet the same standards for student achievement regardless of the mode of instruction (traditional-seated, online, or hybrid). Website: http://curred.waketech.edu/.

Professional Licensure

If you are considering a program at Wake Technical Community College that leads to licensure or certification and you do not live in North Carolina, please contact the respective licensing board in the state where you reside before starting the program. Also, you will need to contact the degree program administrator within Wake Technical Community College (www.waketech.edu) (919-866-5000) directly, prior to enrolling in the course or degree program.

Remember to check the online College Catalog for the most up-to-date information at http://www.waketech.edu/student-services/catalog

APPLIED ENGINEERING & TECHNOLOGIES

Applied Engineering & Technologies Division

Dean Lora Eddington
Phone: 919-866-5332
Email: lmeddington@waketech.edu
Website: http://aet.waketech.edu/

Wake Technical Community College awards degrees, diplomas, and certificates in a variety of fields shown below. The highest credential given in each area is listed first, in bold type.

1. Click on the "**Program Name**" to go to the program's web page
2. Click on the "**Program of Study**" to see specific course requirements for that program

Programs may be offered during the day, evening, online, or a combination. Students should refer to WebAdvisor for the availability of classes. Click to see a list of Wake Tech's programs that can be completed fully online.

Program Name	Program Code
Agricultural Systems Technology – *AAS Degree*	A60410
Agricultural Systems Technology **– *Diploma***	D60410
Air Conditioning, Heating, and Refrigeration Technology – *AAS Degree*	A35100
Air Conditioning, Heating, and Refrigeration Technology **- *Diploma***	D35100A
Air Conditioning, Heating, and Refrigeration Technology **- *Certificate***	C35100B
Design **- *Certificate***	C35100D
Building Automation **– *Certificate***	C35100E
Commercial Refrigeration **– *Certificate***	C35100F
Architectural Technology – *AAS Degree*	A40100
Architectural CAD **– *Certificate***	C40100A
Building Information Modeling (BIM) - **Certificate***	C40100B
Architectural and Landscape Illustration – ***Certificate***	C40100D
Landscape Design – ***Certificate***	C40100F
Plant Identification **– *Certificate***	C40100G
Automotive Systems Technology – *AAS Degree*	A60160
Biopharmaceutical Technology – *AAS Degree*	A20180
Biopharmaceutical Regulations **- *Certificate***	C20180B
Biopharmaceutical Manufacturing and Quality **- *Certificate***	C20180C
Advanced Biopharmaceutical Practices **- *Certificate***	C20180D
Pharmaceutical Basics **- *Certificate***	C20180E
Civil Engineering Technology – *AAS Degree*	A40140
Office/CAD **– *Certificate***	C40140A
Field Technician **– *Certificate***	C40140B
Design **- *Certificate***	C40140C
Collision Repair and Refinishing Technology – *AAS Degree*	A60130
Fundamentals **– *Certificate***	C60130A
Fundamentals II **– *Certificate***	C60130B
Construction Equipment Systems Technology – *AAS Degree*	A60450
Construction Equipment Systems Technology **– *Diploma***	D60450
Hydraulics, Engines, and Transmission **– *Certificate***	C60450BB
Fuel Injection, Electrics, and Electronics **– *Certificate***	C60450BC
Construction Management Technology – *AAS Degree*	A35190
Construction Management Technology: Basic **– *Certificate***	C35190C
Basic Construction Estimating **– *Certificate***	C35190D
Construction Safety Management **– *Certificate***	C35190E
Diesel and Heavy Equipment Technology – *AAS Degree*	A60460
Diesel and Heavy Equipment Technology **- *Diploma***	D60460
Hydraulics, Engines, and Transmission Forklift **– *Certificate***	C60460BB
Fuel Injection, Electrical, and Electronics Forklift **– *Certificate***	C60460BC

APPLIED ENGINEERING & TECHNOLOGIES

Program Name's Continued	Program Code
Electrical Systems Technology – *AAS Degree*	A35130
Electrical Systems Technology ***– Diploma***	D35130
Residential Wiring ***– Certificate***	C35130A
Commercial Wiring ***– Certificate***	C35130B
Industrial Wiring ***– Certificate***	C35130C
Wiring Methods ***– Certificate***	C35130D
Electronics Engineering Technology – *AAS Degree*	A40200
Basic Electronics ***– Certificate***	C40200A
PLC Programming ***– Certificate***	C40200B
SCADA Systems ***– Certificate***	C40200E
Instrumentation ***– Certificate***	C40200F
Embedded Systems ***– Certificate***	C40200G
Facility Maintenance Technology – *AAS Degree*	A50190
Facility Maintenance Technology: Electrical Systems ***– Certificate***	C50190A
Facility Maintenance Technology: HVACR – ***Certificate***	C50190B
Facility Maintenance Technology: Basic Plumbing – ***Certificate***	C50190C
Basic Facilities Technology I – ***Certificate***	C50190D
Basic Facilities Technology II – ***Certificate***	C50190E
Geomatics Technology – *AAS Degree*	A40420
Geomatics CAD ***– Certificate***	C40420A
Geomatics Field Technician ***– Certificate***	C40240B
Geomatics Design ***– Certificate***	C40420C
Heavy Equipment Operation, Management and Service: Repair and Welding – *AAS Degree*	A35340A
Heavy Equipment Operation, Management and Service: Project Management ***– Degree***	A35340B
Heavy Equipment Operation, Management and Service: Entrepreneurship/Business ***– Degree***	A35340C
Heavy Equipment Operation, Management and Service ***– Diploma***	D35340
Basic Heavy Equipment Operator ***– Certificate***	C35340A
Advanced Heavy Equipment Operator ***Certificate***	C35340B
Basic Evening Operator ***– Certificate***	C35340EA
Advanced Evening Operator ***– Certificate***	C35340EB
Interior Design – *AAS Degree*	A30220
Residential Interior Design – ***Certificate***	C30200A
Décor Focus Interior Design – ***Certificate***	C30220B
Commercial Interior Design – ***Certificate***	C30220C
Mechanical Engineering Technology – *AAS Degree*	A40320
Mechanical Design ***– Certificate***	C40320B
Thermal Mechanics ***- Certificate***	C40320C
Materials Engineering ***– Certificate***	C40320D
Additive Manufacturing***– Certificate***	C40320G
Mechanical Drafting – ***Certificate***	C40320H
Mechatronics – ***Certificate***	C40320I
Mission Critical Operations – *AAS Degree*	A40430
Introduction to MCO – ***Certificate***	C40430A
Critical Electrical Systems – ***Certificate***	C40430B
Critical Control Systems – ***Certificate***	C40430C
Mission Critical Operations – ***Certificate***	C40430D
Plumbing: Residential – *Diploma*	D35300A
Plumbing: Commercial – *Diploma*	D35300B
Plumbing Concepts I – ***Certificate***	C35300D
Plumbing Concepts II – ***Certificate***	C35300E
Welding Technology – *AAS Degree*	A50420
Welding Technology ***– Diploma***	D50420
Welding Technology ***– Certificate***	C50420B
Fabrication Design – ***Certificate***	C50420C
Computer Controlled Welding - ***Certificate***	C50420D

***Collaborative Agreements**

None at this time

APPLIED ENGINEERING & TECHNOLOGIES

AGRICULTURAL SYSTEMS TECHNOLOGY

Agricultural Systems Technology Degree - A60410

Agricultural Systems Technology is designed to provide individuals with the knowledge and skills needed to repair agricultural equipment.

The course work includes diesel engines, power trains, hydraulics, electrical systems, and fuel systems. Other topics include time management, inventory, and parts control.

Graduates of the curriculum should qualify for entry-level employment opportunities in a dealership as technicians qualified to be contributing members of the work team.

Agricultural Systems Technology Diploma - D60410

Program Sequence

First Semester

TRN	110	Intro to Transportation Tech	2
TRN	120	Basic Transportation Electricity	5
TRN	120A	Basic Transportation Electricity Lab	1
TRN	140	Transportation Climate Control	2
TRN	170	PC Skills for Transportation	2
ENG	110	Freshman Composition	3
HUM	121	The Nature of America	3
Elective List I			2

Second Semester

HET	110	Diesel Engines	6
HET	134	Mechanical Fuel Injection	3
PME	112	Consumer Products	2
MAT	110	Math Measurement & Lit	3
Elective List II			2

Third Semester

Elective List III			2

Fourth Semester

HET	114	Power Trains	5
HYD	134	Hyd/Hydrostatic Const	4
PME	121	Component Controls	2
COM	120	Intro Interpersonal Com	3
PSY	118	Interpersonal Psychology	3

Fifth Semester

ELN	112	DC/AC Electricity	4
PME	111	Planters and Sprayers	4
PME	122	Agricultural Telematics	3
Elective List I			4

Complete Agricultural Systems Technology Diploma (D60410): ELN 112, ENG 110, HET 110, HET 114, HET 134, HYD 134, PME 111, PME 112, PME 121, PSY 118, TRN 110, TRN 120, TRN 120A, TRN 140, TRN 170

Elective List I (Select 6 hours from the following courses):

ELN	110	Survey of Electronics	3
ELN	113	Electronic Fuel Injection	2
HET	115	Electronic Engines	3
HET	128	Med/Heavy Duty Tune-up	2
HET	192	Selected Topics	2
PME	211	Adv Equipment Repair	4

Elective List II (Select 2 hours from the following courses):

HYD	110	Hydraulics/Pneumatics I	3
HYD	112	Hydraulics/Med/Heavy Duty	2

Elective List III (Select 2 hours from the following courses):

WBL	111	Work-Based Learning I	1
WBL	112	Work-Based Learning I	2
WLD	112	Basic Welding Processes	2

Graduation Requirements ..... 70 Credit Hours

AIR CONDITIONING, HEATING, AND REFRIGERATION TECHNOLOGY

Air Conditioning, Heating, and Refrigeration Technology Degree - A35100

The Air Conditioning, Heating, and Refrigeration Technology curriculum provides the basic knowledge to develop skills necessary to work with residential and light commercial systems. Topics include mechanical refrigeration, heating and cooling theory, electricity, controls, and safety.

AAS degree graduates should be able to assist in the start up, preventive maintenance, service, repair, and/or installation of residential and light commercial systems and. should be able to demonstrate an understanding of system selection and balance and advanced systems.

Air Conditioning, Heating, and Refrigeration Technology Diploma - D35100A

Topics include mechanical refrigeration, heating and cooling theory, electricity, controls, and safety. The diploma program covers air conditioning, furnaces, heat pumps, tools and instruments. Diploma graduates should be able to assist in the start up, preventive maintenance, service, repair, and/or installation of residential and light commercial systems.

Air Conditioning, Heating, and Refrigeration Technology Certificate - C35100B

Topics include mechanical refrigeration, heating and cooling theory, electricity, controls, and safety. The certificate program covers air conditioning, furnaces, tools, and instruments.
Certificate graduates should be able to assist in the start up, preventive maintenance, service, repair, and/or installation of residential systems.

Design Certificate - C35100D

The Air Conditioning, Heating, and Refrigeration Technology Design Certificate is designed for individuals interested in the basics of how to design residential and commercial AHR systems. Topics include building codes, principles and concepts of conventional residential heating and cooling system design, principles of designing heating and cooling systems for commercial buildings, and common business and customer relation practices. Certificate graduates should be able to assist in the design of residential and commercial AHR systems, and the mechanical codes that apply toward system installation.

Building Automation Certificate – C35100E Commercial Refrigeration Certificate – C35100F

Program Sequence

First Semester
AHR 111 HVACR Electricity 3
AHR 113C Comfort Cooling 2

Second Semester
AHR 110 Introduction to Refrigeration 5
AHR 112 Heating Technology 4
AHR 113L Comfort Cooling 2
PSY 118 Interpersonal Psychology 3

Third Semester
AHR 114 Heat Pump Technology 4
AHR 125 HVACR Electronics 3
AHR 133 HVAC Servicing 4
ENG 110 Freshman Composition 3

Complete AHR Evening Certificate (C35100B): AHR 111, AHR 112, AHR 113, AHR 125, AHR 133

Fourth Semester
AHR 115 Refrigeration Systems 2
AHR 213 HVACR Building Code 2
AHR 151 HVAC Duct Systems I 2
AHR 211 Residential System Design 3
Elective List I 1

Complete AHR Diploma (D35100A): AHR 110, AHR 111, AHR 112, AHR 113C, AHR 113L, AHR 114, AHR 115, AHR 125, AHR 133, AHR 151, AHR 213, ENG 110, PSY 118

Fifth Semester
AHR 180 HVAC Customer Relations 1
AHR 215 Commercial HVAC Controls 2
BAT 111 Building Automation Systems 2
REF 116 Commercial Systems I 4
COM 120 Interpersonal Communication 3

Complete Commercial Refrigeration Certificate (C35100F): AHR 110, AHR 111, AHR 115, REF 116

Sixth Semester
AHR 212 Advanced Comfort Systems 4
AHR 225 Commercial System Design 3
AHR 250 HVAC System Diagnostics 2
AHR 263 Energy Management 2
HUM 121 The Nature of America 3
MAT 110 Mathematical Measurement and Lit 3

Complete Design Certificate (C35100D): AHR 211, AHR 213, AHR 225, AHR 235, AHR 263

Complete Building Automation Certificate (C35100E): AHR 111, AHR 125, AHR 215, AHR 225, AHR 263, BAT 111

Elective List I (Select 1 hour from the following courses):
AHR 160 Refrigerant Certification 1
AHR 235 Refrigeration Design 3
WBL 111 Work-Based Learning I 1

Graduation Requirements ..... 72 Credit Hours

ARCHITECTURAL TECHNOLOGY

Architectural Technology Degree - A40100

The Architectural Technology curriculum provides individuals with knowledge and skills that can lead to employment in the field of architecture or one of the associated professions.

Students receive instruction in construction document preparation, materials and methods, environmental and structural systems, building codes and specifications, and computer applications as well as complete a design project. Optional courses may be provided to suit specific career needs.

Upon completion, graduates have career opportunities within the architectural, engineering, and construction professions as well as positions in industry and government.

Architectural CAD Certificate - C40100A

The evening Architectural CAD certificate is designed for students employed full-time in architectural engineering or construction positions that require microcomputer knowledge. Courses include basic hands-on architectural drafting in residential construction and computer courses in different types of computer-aided drafting software from basic to advanced levels.

Opportunities for employment exist as junior technicians within architectural practices and engineering and contracting companies.

Courses in this program can be transferred directly into the Architectural Technology associate degree program.

Building Information Modeling (BIM) Certificate – C40100B

Architectural and Landscape Illustration Certificate – C40100D

Landscape Design Certificate – C40100F

Plant Identification Certificate – C40100G

Program Sequence

First Semester
ARC 111 Introduction to Architectural Technology 3
ARC 112 Construction Materials and Methods 4
ARC 114 Architectural CAD 2
ARC 114A Architectural CAD Lab 1
ARC 250 Survey of Architecture 3

Second Semester
ARC 113 Residential Architectural Technology 3
ARC 212 Commercial Construction Technology 3
ARC 225 Architectural BIM I 2
ARC 225A Architectural BIM I Lab 1
ARC 264 Digital Architecture 2
MAT 121 Algebra and Trigonometry 3

Third Semester
ENG 111 Expository Writing 3
HUM 115 Critical Thinking 3

Fourth Semester
ARC 131 Building Codes 3

ARC 132 Specifications and Contracts 2
ARC 211 Light Construction Technology 3
ARC 220 Advanced Architectural CAD 2
ARC 230 Environmental Systems 4
ARC 240 Site Planning 3

Complete Architectural CAD Certificate (C40100A): ARC 111, ARC 112, ARC 113, ARC 114, ARC 114A, ARC 220

Fifth Semester
ARC 141 Elementary Structures for Architecture 4
ARC 213 Design Project 4
SST 140 Green Building and Design Concepts 3
ENG 114 Professional Research and Reporting 3
Elective List (choose from 1 of 4 tracks) 5

Elective 1 Track 1: Complete Building Information Modeling Certificate (C40100B): Choose CIV 125, ARC 226, ARC 226A + ARC 212, ARC 225, ARC 225A, ARC 264

Elective 2 Track 2: Complete Architectural Planning Design Certificate (C40100C): Choose LAR 211, LAR 241, LAR 242 + ARC 213, ARC 240, ARC 264

Elective 3 Track 3: Complete Architectural and Landscape Illustration Certificate (C40100D): Choose ARC 231, ARC 235, LAR 235 + ARC 264

Elective 2 Track 4: Complete Landscape Design Certificate (C40100F): Choose HOR 114, HOR 160, LAR 113, LAR 250 + ARC 111, ARC 114, ARC 114A

Elective 2 Track 5: Complete Plant Identification Certificate (C40100G): Choose HOR 160, HOR 161, HOR 162, LAR 231

Sixth Semester
PSY 150 General Psychology 3

Elective List I (Select 5 hours from the following courses):
ARC 226 Architectural BIM II 2
ARC 226A Architectural BIM II Lab 1
CIV 125 Civil/Surveying CAD 3
CIV 230 Construction Estimating 3
WBL 111 Work-Based Learning I 1
WBL 112 Work-Based Learning I 2
WBL 113 Work-Based Learning I 3

Elective List II (Select 5 hours from the following courses):
HOR 112 Landscape Design I 3
HOR 114 Landscape Construction 3
HOR 160 Plant Materials I 3
HOR 161 Plant Materials II 3
HOR 162 Applied Plant Science 3
LAR 113 Residential Landscape Design 3
LAR 120 Sustainable Development 3
LAR 211 Commercial Site Design 3
LAR 230 Principles of Exterior Planting 4
LAR 231 Principles of Interior Planting 3
LAR 241 Adv Site Planning 3
LAR 242 Planning and Environment 3
LAR 250 Survey of LAR 3
WBL 111 Work-Based Learning I 1
WBL 112 Work-Based Learning I 2
WBL 113 Work-Based Learning I 3

Elective List III (Select 5 hours from the following courses):
ARC 231 Architectural Presentations 4
ARC 235 Architectural Portfolio 3
LAR 111 Introduction to Landscape Arch Tech 3
LAR 235 LAR Presentation Techniques 3
WBL 111 Work-Based Learning I 1
WBL 112 Work-Based Learning I 2
WBL 113 Work-Based Learning I 3

Elective List IV (Select 5 hours from the following courses):
ARC 261 Solar Technology 2
LAR 120 Sustainable Development 3
WBL 111 Work-Based Learning I 1
WBL 112 Work-Based Learning I 2
WBL 113 Work-Based Learning I 3
Graduation Requirements ..... 72 Credit Hours

AUTOMOTIVE SYSTEMS TECHNOLOGY

Automotive Systems Technology Degree - A60160

The Automotive Systems Technology curriculum prepares individuals for employment as automotive service technicians. It provides an introduction to automotive careers and increases student awareness of the challenges associated with this fast and ever-changing field.

Classroom and lab experiences integrate technical and academic coursework. Emphasis is placed on theory, servicing and operation of brakes, electrical/electronic systems, engine performance, steering/suspension, automatic transmission/ transaxles, engine repair, climate control, and manual drive trains.

Upon completion of this curriculum, students should be prepared to take the ASE exam and be ready for full-time employment in dealerships and repair shops in the automotive service industry.

First Semester
AUT 116 Engine Repair 3
AUT 116A Engine Repair Lab 1
TRN 110 Intro to Transportation Tech 2
TRN 120 Basic Transport Electricity 5
TRN 120A Basic Transport Electricity Lab 1
TRN 170 PC Skills for Transp 2
MAT 110 Math Measurement & Lit 3

Second Semester
AUT 123 Powertrain Diagn & Serv 2
AUT 181 Engine Performance 1 3
AUT 181A Engine Performance 1 Lab 1
AUT 213 Automotive Servicing 2 2
AUT 231 Man Trans/Axles/Drtrains 3
ENG 110 Freshman Composition 3
HUM 121 The Nature of America 3

Third Semester
TRN 140 Transport Climate Control 2
TRN 140A Transport Climate Control Lab 2

Fourth Semester
AUT 141 Suspension & Steering Sys 3
AUT 141A Suspension & Steering Lab 1
AUT 151 Brake Systems 3
AUT 151A Brake Systems Lab 1
AUT 281 Adv Engine Performance 3
PSY 118 Interpersonal Psychology 3

Fifth Semester
AUT 114 Safety and Emissions 2
AUT 183 Engine Performance II 4
AUT 221 Auto Transm/Transaxles 3
AUT 221A Auto Transm/Transax Lab 1
COM 120 Interpersonal Communication 3
Graduation Requirements ..... 65 Credit Hours

BIOPHARMACEUTICAL TECHNOLOGY

Biopharmaceutical Technology Degree - A20180

The Biopharmaceutical Technology curriculum is designed to prepare graduates for employment in pharmaceutical manufacturing and related industries, including chemical quality assurance, microbiological quality assurance, product inspection, documentation review, manufacturing, and product/process validation.

Biopharmaceutical Regulations Certificate - C20180B

This is an introduction to regulatory and applied science course work. This certificate is the first of three "stackable" certificates embedded within the Biopharmaceutical Technology Program.

Biopharmaceutical Manufacturing and Quality Certificate - C20180C

The courses in this certificate emphasize manufacturing processes and quality control procedures applicable to the biopharmaceutical industry and is the second of the "stackable" certificates.

Advanced Biopharmaceutical Practices Certificate - C20180D

The courses in this certificate provide more detail and very specific applications within the industry. This certificate is the third of the three "stackable" certificates of the Biopharmaceutical Technology Program.

Pharmaceutical Basics Certificate - C20180E

Program Sequence

First Semester

BPM	110	Bioprocess Practices	5
CHM	131	Introduction to Chemistry	3
CHM	131A	Introduction to Chemistry Lab	1
PTC	110	Industrial Environment	3
ENG	111	Expository Writing	3
MAT	121	Algebra/Trigonometry	3

Complete Biopharmaceutical Regulations Certificate (C20180B): BPM 110, CHM 131, CHM 131A, PTC 110

Second Semester

BIO	110	Principles of Biology	4
CHM	132	Organic and Biochemistry	4
ISC	121	Envir Health & Safety	3
PTC	120	Pharmaceutical Quality Control	4
ENG	114	Professional Research and Reporting	3

Third Semester

ENV	212	Instrumentation	4
PTC	210	Pharmaceutical Industrial Processes	4
PTC	222	Pharmaceutical Process Control	3
HUM	110	Technology and Society	3
PSY	118	Interpersonal Psychology	3

Complete Biopharmaceuticals Manufacturing & Quality Certificate (C20180C): CHM 132, PTC 120, PTC 210, PTC 222

Fourth Semester

PTC	212	Applied Microbiology	4
PTC	214	Parenteral Processes	4
PTC	226	Validation	3
PTC	228	Pharmaceutical Issues	1
Elective List I			3

Complete Advanced Biopharmaceutical Practices Certificate (C20180D): PTC 212, PTC 214, PTC 226, PTC 228

Complete Pharmaceutical Basics Certificate (C20180E): BPM 110, ISC 121, PTC 110, PTC 120, PTC 228

Elective List I (Select 3 hours from the following courses):

CIS	110	Intro to Computers	3
EGR	115	Introduction to Technology	3
ISC	135	Principles of Industrial Management	4
ISC	237	Quality Management	3
WBL	111	Work-Based Learning I	1

Graduation Requirements ..... 68 Credit Hours

CIVIL ENGINEERING TECHNOLOGY

Civil Engineering Technology Degree - A40140

The Civil Engineering Technology curriculum provides the application of relevant theory of engineering needed by technicians to carry out planning and supervisory tasks in the construction of transportation systems, residential and commercial buildings, bridges, dams, and water and wastewater treatment systems.

Course work includes the communication and computational skills required to support the fields such as materials testing, structures, estimating, project management, hydraulics, environmental technology, and surveying. Additional course work will cover the operation of computers and application software including computer-aided drafting.

Graduates should qualify for technician-level jobs with both public and private engineering, construction, and surveying agencies and are also eligible to continue on at East Carolina University and UNC-Charlotte as a junior.

Civil Engineering Technology: Office/CAD - C40140A

The Civil Engineering Technology Certificate allows students to complete the certificate in two to three semesters. Students are then able to work in the civil field. This certificate is designed to address the all-time high demand for technicians, and to train for jobs in these fields with just a small amount of college. This certificate is for students that are not sure which path they would like to follow. The Civil Design certificate will allow you to work as an engineering technician in engineering offices throughout the country. One job function would be to place ideas down on the computer by working directly with an engineer.

Civil Engineering Technology: Field Technician – C40140B

Civil Engineering Technology: Design – C40140C

Program Sequence

First Semester

ACA	115	Success & Study Skills	1
CEG	111	Introduction to GIS and Gnss	4
CEG	115	Intro to Tech and Sustainability	3
CEG	115A	Tech and Sustainability Lab	1
CEG	151	CAD for Engineering Technology	3
MAT	121	Algebra and Trigonometry	3

Second Semester

CIV	125	Civil/Surveying CAD	3
EGR	251	Statics	3
SRV	110	Surveying I	4
COM	120	Intro to Interpersonal Communication	3
ENG	111	Expository Writing	3

Third Semester

SRV	111	Surveying II	4
HUM	110	Technology and Society	3

Fourth Semester

CEG	211	Hydrology and Erosion Control	3
CEG	212	Intro to Environmental Technology	3
CIV	111	Solis and Foundations	4
EGR	252	Strength of Materials	3
SRV	260	Field and Office Practices	2

Fifth Semester

CEG	210	Construction Materials and Methods	3
CEG	230	Subdivision Planning and Design	3
CEG	235	Project Mgmt and Estimating	3
PSY	118	Interpersonal Psychology	3
Elective List I			2

Sixth Semester

Elective List II			2

Complete Office/CAD Certificate (C40140A): CEG 111, CEG 151, CEG 235, CIV 125,

Complete Field Technician Certificate (C40140B): CEG 210, CEG 235, CIV 111, EGR 252

Complete Design Certificate (C40140C): CEG 211, CEG 212, CEG 230, CEG 235, EGR 252

Elective List I (Select 3 hours from the following courses):

GIS	121	Georeferencing & Mapping	3
GIS	246	Principles of Property Mapping	3
SRV	240	Topo/Site Surveying	4

Elective List II (Select 2 hours from the following courses):

CST	131	OSHA/Safety Certification	3
WBL	112	Work-Based Learning I	2

Graduation Requirements ..... 70 Credit Hours

COLLISION REPAIR AND REFINISHING TECHNOLOGY

Collision Repair and Finishing Technology Degree – A60130

The Collision Repair and Refinishing Technology program prepares individuals to apply technical knowledge and skills to repair, reconstruct and finish automobile bodies, fenders, and external features. Includes instruction in structure analysis, damage repair, non-structural analysis, mechanical and electrical components, plastics and adhesives, painting and refinishing techniques, and damage analysis and estimating.

Fundamentals Certificate – C60130A

Fundamentals II Certificate – C60130B

Program Sequence

First Semester

AUB	131	Structural Damage I	2
TRN	110	Intro to Transportation Tech	2
TRN	140	Transportation Climate Control	2
TRN	140A	Transportation Climate Control Lab	2
ENG	110	Freshman Composition	3

Second Semester

AUB	121	Non Structural Damage I	3
AUB	132	Structural Damage II	4
TRN	120	Basic Transportation Electricity	5
MAT	110	Math Measurement & Lit	3

Third Semester

TRN	180	Basic Welding for Transportation	3
TRN	180A	Basic Welding for Transportation Lab	1
PSY	118	Interpersonal Psychology	3

Fourth Semester

AUB	111	Painting and Refinishing I	4
AUB	122	Non Structural Damage II	4
AUB	136	Plastics & Adhesives	3
COM	110	Intro to Communication	3

Complete Fundamentals Certificate (C60130A): AUB 111, AUB 131, TRN 110, TRN 120, TRN 140

Fifth Semester

AUB	112	Painting and Refinishing II	4
AUB	114	Special Finishes	2
AUB	162	Autobody Estimating	2
HUM	110	Technology & Society	3

Complete Fundamentals II Certificate (C60130B): AUB 111,AUB 112, AUB 121, AUB 131

Sixth Semester

AUB	150	Automotive Detailing	2
ACA	220	Professional Transitions	1
Elective List I			2

Elective List I (Select 2 hours from the following courses):

TRN	130	Introduction to Sustainable Transport	3
TRN	170	PC Skills for Transportation	2
WBL	111	Work-Based Learning I	1
WBL	112	Work-Based Learning I	2
WBL	121	Work-Based Learning II	1
WLD	131	GTAW (TIG) Plate	4

Graduation Requirements ..... 65 Credit Hours

CONSTRUCTION EQUIPMENT SYSTEMS TECHNOLOGY

Construction Equipment Systems Technology Degree - A60450

Construction Equipment Systems curriculum is designed to provide individuals with the knowledge and skills needed to troubleshoot and repair construction equipment systems. Construction equipment includes dozers, scrapers, loaders, and forklifts.

The core course work includes the theory of operations, troubleshooting techniques, and repair procedures for engines and electrical and hydraulics systems. The concentration courses will include transmissions, brakes, undercarriage, and equipment repair. Other related courses will be required.
Graduates of the curriculum should qualify for entry-level employment opportunities at businesses that repair construction equipment. Entry and advancement levels depend on the amount of training completed, knowledge and ability levels, work performance, and ethics.

Construction Equipment Systems Technology Diploma - D60450

Hydraulics, Engines, and Transmissions Certificate- C60450BB

This certificate is designed to provide individuals with the knowledge and skills needed to troubleshoot and repair hydraulics, engines, and transmissions in construction equipment.

The core course work includes the theory of operations, troubleshooting techniques, and repair procedures for engines and hydraulics systems. The concentration courses will also include transmissions.

Graduates of the curriculum should qualify for entry-level employment opportunities at businesses, which repair construction equipment. Entry and advancement levels depend on the amount of training completed, knowledge and ability levels, work performance, and ethics.

Fuel Injection, Electrics, & Electronics Certificate – C60450BC

This certificate curriculum is designed to provide individuals with the knowledge and skills needed to troubleshoot and repair fuel injection, electrical, and electronic systems in construction equipment. Construction equipment includes dozers, scrapers, loaders, and forklifts.

The core course work includes the theory of operations, troubleshooting techniques, and repair procedures for electrical and electronic systems. The concentration courses will also include fuel injection systems.

Graduates of the curriculum should qualify for entry-level employment opportunities at businesses, which repair construction equipment. Entry and advancement levels depend on the amount of training completed, knowledge and ability levels, work performance, and ethics.

Program Sequence

First Semester
TRN 110 Intro to Transportation Tech.....2
TRN 120 Basic Transportation Electricity.....5
TRN 120A Basic Transportation Electricity Lab.....1
TRN 140 Transportation Climate Control.....2
TRN 170 PC Skills for Transportation.....2
ENG 110 Freshman Composition.....3
Elective List I.....2

Second Semester
HET 110 Diesel Engines.....6
PME 118 Undercarriage Components.....2
PME 221 Construction Equipment Servicing.....2
MAT 110 Math Measurement & Lit.....3
Elective List II.....2

Third Semester
Elective List III.....2

Fourth Semester
HET 114 Power Trains.....5
HYD 134 Hydraulic/Hydrostatic Construction.....4
PME 117 Equipment Braking Systems.....3
COM 120 Interpersonal Communication.....3
PSY 118 Interpersonal Psychology.....3

Complete Hydraulics, Engines, and Transmission Certificate (C60450BB): Choose 2 hours from Elective List 2 + HET 110, HET 114

Fifth Semester
HET 125 Preventative Maintenance.....2
HET 134 Mechanical Fuel Injection.....3
PME 211 Advanced Equipment Repair.....4
HUM 121 The Nature of America.....3
Elective List I.....4

Complete Fuel Injection, Electrical, and Electronics Certificate (C60450BC): Choose 4 hours from Elective List 1 + HET 134, TRN 120

Complete Construction Equipment Systems Technology Diploma (D60450): Choose 4 hours from Elective List 1 + ENG 110, HET 110, HET 114, HET 134, HYD 134, PME 117, PME 118, PME 221, PSY 118, TRN 110, TRN 120, TRN 120A, TRN 140, TRN 170

Elective List I (Select 6 hours from the following courses):
ELN 110 Survey of Electronics.....3
ELN 112 Diesel Electronics System.....4
ELN 113 Electronic Fuel Injection.....2
HET 115 Electronic Engines.....3
HET 128 Medium/Heavy Duty Tune-up.....2
HET 192 Selected Topics.....2

Elective List II (Select 2 hours from the following courses):
HYD 110 Hydraulics/Pneumatics I.....3
HYD 112 Hydraulics/Medium/Heavy Duty.....2

Elective List III (Select 2 hours from the following courses):
WBL 111 Work-Based Learning I.....1
WBL 112 Work-Based Learning I.....2
WLD 112 Basic Welding Processes.....2

Graduation Requirements.....68 Credit Hours

CONSTRUCTION MANAGEMENT TECHNOLOGY

Construction Management Technology Degree - A35190

The Construction Management Technology curriculum is designed to provide training for persons interested in project management and other related positions in the construction industry.

Coursework focuses on such topics as construction materials, methods and techniques of modern construction, building codes, contractor licensing law, contractor business law, OSHA and safety on the construction site, project management, project scheduling, project costs and productivity, residential and commercial estimating, residential and commercial blueprint reading, and human relations issues in the construction industry.

Graduates should quality for entry-level positions as project manager assistants, site superintendents, construction foremen, building inspectors, estimators, and other construction management-related jobs.

Construction Management Technology: Basic Certificate – C35190C

The Construction Management Technology Basic Certificate is designed for individuals already in the construction industry who want to study the basic principles of construction management. Topics include safety/OSHA regulations and compliance, residential and commercial blueprint reading, project planning and scheduling, human relations, issues, and professional construction supervision.

Individuals who complete this certificate will have taken an essential step in the process of qualifying as a construction project manager, superintendent, foreman, or estimator.

Construction Management Technology: Basic Construction Estimating – C35190D

Construction Management Technology: Construction Safety Management – C35190E

Program Sequence

First Semester

BPR	130	Blueprint Reading/Const	3
CMT	112AB	Construction Management I, Pt 1	3
CMT	210	Construction Management Fund	3
CMT	212	Total Safety Performance	3
MAT	121	Algebra and Trigonometry	3

Second Semester

BPR	230	Commercial Blueprints	2
CMT	112BB	Construction Management I, Pt 2	3
CMT	218	Human Relations Issues	3
CST	131	OSHA/Safety/Certification	3
ENG	111	Expository Writing	3

Complete Safety Management Certificate (C35190E): BPR 130, BPR 230, CMT 210, CMT 212, CMT 218, CST 131

Third Semester

CMT	120	Codes and Inspections	3
SST	140	Green Building and Design Concepts	3
COM	120	Intro Interpersonal Com	3
PSY	150	General Psychology	3

Fourth Semester

CMT	193A	Selected Topics	3
CMT	214	Planning and Scheduling	3
CST	150	Building Science	3
CST	241	Planning/Estimating I	3
HUM	110	Technology and Society	3

Complete Basic Certificate (C35190C): BPR 130, BPR 230, CMT 210, CMT 212, CMT 214, CMT 218

Fifth Semester

ACC	120	Prin of Financial Acct	4
BUS	139	Entrepreneurship I	3
CMT	226	Applications Project*	3
CST	242	Planning/Estimating II	4

Complete Basic Construction Estimating Certificate (C35190D): BPR 130, BPR 230, CMT 193A, CMT 210, CST 241, CST 242

Graduation Requirements..... 70 Credits Hours

DIESEL AND HEAVY EQUIPMENT TECHNOLOGY

Diesel and Heavy Equipment Technology Degree - A60460

The Diesel and Heavy Equipment Technology curriculum is designed to provide individuals with the knowledge and skills needed to troubleshoot and repair medium- and heavy-duty vehicles.

The core course work includes the theory of operations, troubleshooting techniques, and repair procedures for engines, electrical, and hydraulic systems. Other courses cover transmissions, brakes, and steering/suspension. Additional related courses will be required.

Graduates of the curriculum should qualify for entry-level employment opportunities at businesses that repair medium- and heavy-duty vehicles. Entry and advancement levels depend on the amount of training completed, knowledge and ability levels, work performance, and ethics.

Diesel and Heavy Equipment Technology Diploma - D60460

Hydraulics, Engines, and Transmission Forklift Certificate - C60460BB

Fuel Injection, Electrical, and Electronics Forklift Certificate - C60460BC

Program Sequence

First Semester

TRN	110	Intro to Transportation Tech	2
TRN	120	Basic Transportation Electricity	5
TRN	120A	Basic Transportation Electricity Lab	1
TRN	140	Transportation Climate Control	2
TRN	170	PC Skills for Transportation	2
ENG	110	Freshman Composition	3
Elective List I			2

Second Semester

HET	110	Diesel Engines	6
HET	233	Suspension and Steering	4
MAT	110	Math Measurement & Lit	3
Elective List II			2

Third Semester

Elective List III			2

Fourth Semester

HET	114	Power Trains	5
HYD	134	Hyd/Hydrostatic Const	4
HET	231	Medium/Heavy Duty Brake System	2
HET	232	Medium/Heavy Duty Brake System Lab	1
COM	120	Interpersonal Communication	3
PSY	118	Interpersonal Psychology	3

Complete Hydraulics, Engines, and Transmission Forklift Certificate (C60460BB): Choose HYD 110 or HYD 112 + HET 110, HET 114

Fifth Semester

HET	125	Preventative Maintenance	2
HET	134	Mechanical Fuel Injection	3
PME	211	Advanced Equipment Repair	4
HUM	121	The Nature of America	3
Elective List I			4

Complete Fuel Injection, Electrical, and Electronics Forklift Certificate (C60460BC): Choose 4 hours from Elective List 1 + HET 134, TRN 120

Complete Diesel and Heavy Equipment Technology Diploma (D60460): Choose 4 hours from Elective List 1 and 2 hours from Elective List 2 + ENG 110, HET 110,HET 114,HET 125, HET 134, HET 231, HET 232, HYD 134,PSY 118, TRN 110, TRN 120, TRN 120A, TRN 140, TRN 170

Elective List I (Select 6 hours from the following courses):

ELN	110	Survey of Electronics	3
ELN	112	Diesel Electronics System	4
ELN	113	Electronic Fuel Injection	2
HET	115	Electronic Engines	3
HET	128	Medium/Heavy Duty Tune-up	2
HET	192	Selected Topics	2

Elective List II (Select 2 hours from the following courses):

HYD	110	Hydraulics/Pneumatics I	3
HYD	112	Hydraulics/Medium/Heavy Duty	2

Elective List III (Select 2 hours from the following courses):

WBL	111	Work-Based Learning I	1
WBL	112	Work-Based Learning I	2
WLD	112	Basic Welding Processes	2

Graduation Requirements ..... 68 Credit Hours

ELECTRICAL SYSTEMS TECHNOLOGY

Electrical Systems Technology Degree - A35130

The Electrical Systems Technology curriculum is designed to provide training for persons interested in the installation and maintenance of electrical systems found in residential, commercial, and industrial facilities.

Training, most of which is hands-on, will include such topics as photovoltaic AC/DC theory, basic wiring practices, programmable logic controllers, industrial motor controls, the National Electrical Code, and other subjects as local needs require.

Graduates should qualify for a variety of jobs in the electrical field as an on-the-job trainee or apprentice assisting in the layout, installation, and maintenance of electrical systems.

Electrical Systems Technology Diploma - D35130

The Electrical Systems Technology curriculum is designed to provide training for persons interested in the installation and maintenance of electrical systems found in residential, commercial, and industrial facilities.

Training, most of which is hands-on, will include such topics as AC/DC theory, basic wiring practices, programmable logic controllers, industrial motor controls, the National Electrical Code, and other subjects as local needs require.

Diploma graduates should qualify for a variety of jobs in the electrical field as an on-the-job trainee or apprentice assisting in the layout, installation, and maintenance of electrical/electronic systems.

Residential Wiring Certificate – C35130A

Commercial Wiring Certificate – C35130B

Industrial Wiring Certificate – C35130C

Wiring Methods Certificate – C35130D

Program Sequence

First Semester

ELC	112	DC/AC Electricity	5
ELC	113	Residential Wiring	4
ELC	118	National Electrical Code	2
ELC	127	Software for Technicians	2

Second Semester

ELC	114	Commercial Wiring	4
ELC	117	Motors and Controls	4
ELC	119	NEC Calculations	2

Complete Wiring Methods Certificate (C35130D): ELC 113, ELC 114, ELC 118, ELC 119

Third Semester

ELC	115	Industrial Wiring	4
ELC	128	Introduction to PLC	3
Elective List I or II			3

Complete Electrical Systems Technology Diploma (D35130): Choose ALT 120 + ELC 112, ELC 113, ELC 114, ELC 115, ELC 117, ELC 118, ELC 119, ELC 128, ENG 110, PSY 118

Fourth Semester

BPR	130	Print Reading-Construction	3
ISC	121	Envir Health and Safety	3
MAT	110	Math Measurement and Literacy	3
Elective List I or II			3

Complete Residential Wiring Certificate (C35130A): BPR 130, ELC 112, ELC 113, ELC 118

Fifth Semester

ACA	220	Professional Transition	1
ELC	121	Electrical Estimating	2
ELC	134	Transformer Applications	2
Elective List I or II			3

Complete Commercial Wiring Certificate (C35130B): ELC 114, ELC 117, ELC 119, ELC 121

Complete Industrial Wiring Certificate (C35130C): ELC 115, ELC 128, ELC 134, ISC 121

General Education Academic Core Requirements

COM	120	Interpersonal Communications	3
ENG	110	Freshman Composition	3
HUM	121	The Nature of America	3
PSY	118	Interpersonal Psychology	3

Elective List I – Renewable Energy Track (Select 9 hours from the following courses):

ALT	120	Renewable Energy Tech	3
ELC	220	Photovoltaic Sys Tech	3
ELC	221	Adv Photovoltaic Sys Designs	3

Elective List II - Business Track (Select 9 hours from the following courses):

BUS	110	Introduction to Business	3
BUS	115	Business Law I	3
BUS	139	Entrepreneurship I	3

Graduation Requirements ..... 65 Credit Hours

ELECTRONICS ENGINEERING TECHNOLOGY

Electronics Engineering Technology Degree - A40200

The Electronics Engineering Technology curriculum prepares individuals to become technicians who design, build, install, test, troubleshoot, repair, and modify developmental and production electronic components, equipment, and systems such as industrial/ computer controls, manufacturing systems, communication systems, and power electronic systems.

A broad-based core of courses, including basic electricity, solid-state fundamentals, digital concepts, and microprocessors, ensures the student will develop the skills necessary to perform entry-level tasks. Emphasis is placed on developing the student's ability to analyze and troubleshoot electronic systems.

Graduates should qualify for employment as engineering assistants or electronic technicians with job titles such as electronics engineering technician, field service technician, maintenance technician, electronic tester, electronic systems integrator, bench technician, and production control technician.

Basic Electronics Certificate - C40200A

The Basic Electronics certificate provides the student with a program of study necessary for developing basic electronic skills. The student will gain an understanding of AC/DC basic circuits, digital circuits, and basic electronic devices. Courses are an adjunct of the Electronics Engineering Technology program and may be transferred directly toward completion of the A.A.S. degree in Electronics Engineering Technology.

PLC Programming Certificate - C40200B

The PLC Programming Certificate provides the student with the basic technical skills and knowledge necessary to work with the Programmable Logic Controllers typically found in an industrial environment. The program investigates the operation and programming of PLCs and the interfacing of PLCs to electronic devices and sensors routinely found in industrial controls. Students entering the program are expected to have a basic knowledge of AC and DC electrical circuits.

SCADA Systems Certificate - C40200E

Instrumentation Certificate - C40200F

Embedded Systems Certificate – C40200G

Program Sequence

First Semester

EGR	131	Intro to Electronics Technology	2
ELC	131	Circuit Analysis I	4
ELN	133	Digital Electronics	4
ENG	111	Expository Writing	3
MAT	121	Algebra and Trigonometry*	3

Second Semester

ELN	131	Analog Electronics I	4
ELN	260	Prog Logic Controllers	4
ELN	275	Troubleshooting	2
HUM	110	Technology and Society	3
PSY	118	Interpersonal Psychology	3

Complete Basic Electronics Certificate (C40200A): EGR 131, ELC 131, ELN 131, ELN 133, ELN 275

Third Semester

ELN	132	Analog Electronics II	4
ELN	231	Industrial Controls	3

Fourth Semester

CSC	133	C Programming	3
ELN	232	Introduction to Microprocessors	4
ELN	234	Communication Systems	4
Elective List I			3

Fifth Semester

ELN	152	Fabrication Techniques	2
ELN	233	Microprocessor Systems	4
ELN	235	Data Communications Systems	4
ENG	114	Professional Research and Reporting	3
Elective List I			3

Complete PLC Programming Certificate (C40200B): Choose ATR 214, ATR 215 + ELN 231, ELN 260

Complete SCADA Systems Certificate (C40200E): Choose ATR 214, PCI 170, PCI 172 + ELN 260

Complete Instrumentation Certificate (C40200F): Choose ATR 215, ELC 250, PCI 172 + ELN 260

Complete Embedded Systems Certificate (C40200G): CSC 133, ELN 133, ELN 152, ELN 233

Elective List I (Select 3 hours from the following courses):

ATR	214	Advanced PLCs	4
ATR	215	Sensors and Transducers	3
ELC	250	Critical Power Systems	4
PCI	170	DAQ and Control	4

PCI 172 SCADA Systems 4
WBL 111 Work-Based Learning I 1

Graduation Requirements ..... 69 Credit Hours

FACILITY MAINTENANCE TECHNOLOGY

Facility Maintenance Technology – A50190

The Facility Maintenance Technology curriculum prepares individuals to repair and maintain electrical and mechanical systems and physical structures of commercial and industrial institutions. Emphasis is on multi-disciplined systems maintenance, troubleshooting, and problem resolution. Course work includes carpentry, interior and exterior finishes, plumbing, electrical, masonry, air conditioning, heating, welding, machining, blueprint reading, building codes, and OSHA regulations, as well as computer applications.

Graduates should qualify for positions as general building mechanics or maintenance technician.

Facility Maintenance Technology: Electrical Systems Certificate – C50190A

Facility Maintenance Technology: HVACR Certificate – C50190B

Facility Maintenance Technology: Basic Plumbing Certificate – C50190C

Basic Facilities Technology I Certificate – C50190D

Basic Facilities Technology II Certificate – C50190E

Program Sequence

First Semester
AHR 113 Comfort Cooling 4
ELC 113 Residential Wiring 4
PLU 115 Basic Plumbing 4
PLU 140 Intro to Plumbing Codes 2
WLD 112 Basic Welding Processes 2

Second Semester
AHR 111 HVACR Electricity 3
AHR 112 Heating Technology 4
ELC 114 Commercial Wiring 4
ELC 127 Software for Technicians 2

Complete Facility Maintenance Technology: HVACR Certificate (C50190B): AHR 111, AHR 112, AHR 113, WLD 112

Complete Basic Facilities Technology I Certificate (C50190D): AHR 111, AHR 112, AHR 113, ELC 113

Complete Basic Facilities Technology II Certificate (C50190E): ELC 114, ELC 127, PLU 115, PLU 140, WLD 112

Third Semester
ENG 110 Freshman Composition 3
HUM 110 Technology and Society 3
PSY 118 Interpersonal Psychology 3

Fourth Semester
AHR 120 HVACR Maintenance 2
BPR 130 Print Reading Construction 3
ISC 121 Envir Health & Safety 3
MNT 110 Intro to Maint Procedures 2
MAT 110 Math Measurement & Literacy 3

Fifth Semester
CAR 140 Basic Carpentry 4
MAS 140 Intro to Masonry 2
COM 120 Intro Interpersonal Comm 3
Elective List I 8
Elective List II 1

Complete Facility Maintenance Technology: Electrical Systems Certificate (C50190A): Choose ELC 112 + ELC 113, ELC 114, ELC 127, ISC 121

Complete Facility Maintenance Technology: Basic Plumbing Certificate (C50190C): Choose PLU 211 + ELC 127, PLU 115, PLU 140, WLD 112

Elective List I (Select 8 hours from the following courses):
AHR 133 HVAC Servicing 4
ELC 112 DC/AC Electricity 5
MNT 150 Basic Building Maintenance 2
PLU 120 Plumbing Applications 9
PLU 211 Commercial/Ind Plumbing 3
PLU 214 Backflow Preventer Install 2

Elective List II (Select 1 hour from the following courses):
ACA 115 Success & Study Skills 1
ACA 122 College Transfer Success 1
ACA 220 Professional Transitions 1
WBL 111 Work-Based Learning I 1

Graduation Requirements ..... 69 Credit Hours

GEOMATICS TECHNOLOGY

Geomatics Technology Degree - A40420

The Geomatics Technology curriculum provides training for technicians in the many areas of surveying. Surveyors are involved in land surveying, route surveying, construction surveying, photogrammetry, mapping, global positioning systems, geographical information systems, and other areas of property description and measurements.

Course work includes the communication and computational skills required for boundary, construction, route, and control surveying, photogrammetry, topography, drainage, surveying law, and subdivision design, with emphasis upon applications of electronic data collection and related software including CAD.

Graduates should qualify for jobs as survey party chief, instrument person, surveying technician, highway surveyor, mapper, GPS technician, and CAD operator. Graduates will be prepared to pursue the requirements necessary to become a Registered Land Surveyor in North Carolina.

Geomatics Technology: CAD Certificate – C40420A

Geomatics Technology: Field Technician Certificate – C40420B

Geomatics Technology: Design Certificate – C40420C

Program Sequence

First Semester

ACA	115	Success & Study Skills	1
CEG	115	Intro to Tech and Sustainability	3
CEG	115A	Intro to Tech and Sustainability Lab	1
SRV	110	Surveying I	4
MAT	121	Algebra and Trigonometry	3
PSY	118	Interpersonal Psychology	3

Second Semester

CEG	111	Introduction to GIS/GNSS	4
CEG	151	CAD for Engineering Tech	3
COM	120	Into to Interpersonal Communication	3
ENG	111	Writing and Inquiry	3
SRV	111	Surveying II	4

Third Semester

CIV	125	Civil/Surveying CAD	3
SRV	260	Field and Office Practices	2

Fourth Semester

CEG	211	Hydrology and Erosion Control	3
COM	120	Intro to Interpersonal Communication	3
HUM	110	Technology and Society	3
GIS	121	Georeferencing and Mapping	3
SRV	210	Surveying III	4
SRV	250	Advanced Surveying	4

Complete Field Technician Certificate (C40420B): SRV 110, SRV 111, SRV 210, SRV 260

Fifth Semester

CEG	230	Subdivision Planning and Design	3
GIS	246	Principles of Property Mapping	3
SRV	220	Surveying Law	3
SRV	240	Topo/Site Surveying	4
Elective List I			3

Complete CAD Certificate (C40420A): CEG 111, CEG 115, CEG 151, CIV 125, GIS 246

Complete Design Certificate (C40420C): CEG 211, CEG 230, SRV 240, SRV 250

Sixth Semester

Elective List II			2

Elective List I (Select 3 hours from the following courses):

CEG	210	Construction Materials & Methods	3
CEG	212	Intro to Environmental Tech	3
CEG	235	Project Management and Estimating	3
EGR	251	Statics	3

Elective List II (Select 2 hours from the following courses):

CST	131	OSHA/Safety/Certification	3
WBL	112	Work-Based Learning I	2

Graduation Requirements ..... 72 Credit Hours

HEAVY EQUIPMENT OPERATION, MANAGEMENT, AND SERVICE

Heavy Equipment Operation, Management, and Service: Repair and Welding Degree – A35340A

Program Sequence

First Semester

HEO	111	Heavy Equipment Operations I	12
HEO	114	Erosion Control and Regulations	2
ISC	121	Environmental Health and Safety	3
PSY	118	Interpersonal Psychology	3
Elective List I			2

Completes Basic Heavy Equipment Operator Certificate (C35340A): Choose 2 credit hours from Elective List I + HEO 111, ISC 121

Complete Basic Evening Operator Certificate (C35340EA): HEO 111

Second Semester

HEO	112	Heavy Equipment Operations II	12
HEO	113	Grades and Drawings	3
HET	125	Preventive Maintenance	2
ENG	110	Freshman Composition	3

Completes Advanced Heavy Equipment Operator Certificate (C35340B): HEO 112, HEO 112, HET 125

Completes Advanced Evening Operator Certificate (C35340EB): HEO 112

Third Semester

Elective List II			2

Completes Heavy Equipment Operation, Management, and Service Diploma (D35340): Choose 2 credits from Elective List I and 2 credits from Elective List II + ENG 110, HEO 111, HEO 112, HEO 113, HEO 114, HET 125, ISC 121, PSY 118

Fourth Semester

HYD	134	Hydraulic/Hydrostatic Construction	4
TRN	120	Basic Transportation Electricity	5
TRN	170	PC Skills for Transportation	2
WLD	110	Cutting Processes	2
HUM	121	The Nature of America	3

Fifth Semester

HET	134	Mechanical Fuel Injection	3
PME	221	Construction Equipment Servicing	2
WLD	112	Basic Welding Processes	2
COM	120	Intro to Personal Communication	3
MAT	110	Math Measurement and Lit	3

Elective List I (Select 2 hours from the following courses):

HEO	150	MSHA-Equip Tech and Operator	2
ISC	115	Construction Safety	2

Elective List II (Select 2 hours from the following courses):

HEO	116	Soil Excavation & Groundwork	2
TRN	140	Trans Climate Control	2
WBL	111	Work-based Learning I	1
WBL	112	Work-based Learning I	2
WBL	121	Work-based Learning II	1

Graduation Requirements ..... 73 Credit Hours

Heavy Equipment Operation, Management, and Service: Project Management Degree – A35340B

Program Sequence

First Semester

HEO	111	Heavy Equipment Operations I	12
HEO	114	Erosion Control and Regulations	2
ISC	121	Environmental Health and Safety	3
PSY	118	Interpersonal Psychology	3
Elective List I			2

Completes Basic Heavy Equipment Operator Certificate (C35340A): Choose 2 credit hours from Elective List I + HEO 111, ISC 121

Complete Basic Evening Operator Certificate (C35340EA): HEO 111

Second Semester

HEO	112	Heavy Equipment Operations II	12
HET	125	Preventive Maintenance	2
MAT	121	Algebra/Trigonometry I	3
Elective List II			3

Completes Advanced Evening Operator Certificate (C35340EB): HEO 112

Third Semester

Elective List III			2

Fourth Semester

HEO	113	Grades and Drawings	3
ISC	222	Project Planning and Control	2
SRV	110	Surveying I	4
TRN	170	PC Skills for Transportation	2
COM	120	Intro to Personal Communication	3

Completes Advanced Heavy Equipment Operator Certificate (C35340B): HEO 112, HEO 112, HET 125

Fifth Semester

BUS	137	Principles of Management	3
CEG	235	Project Management/Estimating	3
ENG	110	Freshman Composition	3
HUM	121	The Nature of America	3
Elective List IV			2

Completes Heavy Equipment Operation, Management, and Service Diploma (D35340): Choose 2 credits from Elective List I and 2 credits from Elective List II + ENG 110, HEO 111, HEO 112, HEO 113, HEO 114, HET 125, ISC 121, PSY 118

Elective List I (Select 2 hours from the following courses):

HEO	150	MSHA-Equip Tech and Operator	2
ISC	115	Construction Safety	2

Elective List II (Select 3 hours from the following courses):

CEG	115	Intro to Tech and Sustainability	3
EGR	115	Intro to Technology	3

Elective List III (Select 2 hours from the following courses):

CMT	210	Construction Management Fund	3
CMT	212	Total Safety Performance	3
TRN	140	Trans Climate Control	2
WBL	111	Work-based Learning I	1
WBL	112	Work-based Learning I	2
WBL	121	Work-based Learning II	1

Elective List IV (Select 2 hours from the following courses):

CEG	210	Construction Mtls & Methods	3
HEO	116	Soil Excavation & Groundwork	2

Graduation Requirements ..... 72 Credit Hours

Heavy Equipment Operation, Management, and Service: Entrepreneurship/Business Degree – A35340C

Program Sequence

First Semester

HEO	111	Heavy Equipment Operations I	12
HEO	114	Erosion Control and Regulations	2
ISC	121	Environmental Health and Safety	3
PSY	118	Interpersonal Psychology	3
Elective List I			2

Completes Basic Heavy Equipment Operator Certificate (C35340A): Choose 2 credit hours from Elective List I + HEO 111, ISC 121

Complete Basic Evening Operator Certificate (C35340EA): HEO 111

Second Semester

HEO	112	Heavy Equipment Operations II	12
HEO	113	Grades and Drawings	3
HET	125	Preventive Maintenance	2
ENG	110	Freshman Composition	3
MAT	110	Math Measurement and Lit	3

Completes Advanced Heavy Equipment Operator Certificate (C35340B): HEO 112, HEO 112, HET 125

Completes Advanced Evening Operator Certificate (C35340EB): HEO 112

Third Semester

Elective List II			2

Completes Heavy Equipment Operation, Management, and Service Diploma (D35340): Choose 2 credits from Elective List I and 2 credits from Elective List II + ENG 110, HEO 111, HEO 112, HEO 113, HEO 114, HET 125, ISC 121, PSY 118

Fourth Semester

BUS	110	Introduction to Business	3
BUS	139	Entrepreneurship I	3
ISC	222	Project Planning and Control	2
TRN	170	PC Skills for Transportation	2
Elective List III			3

Fifth Semester

BUS	137	Principles of Management	3
CEG	235	Project Management/Estimating	3
COM	120	Intro to Personal Communication	3
HUM	121	The Nature of America	3

Elective List I (Select 2 hours from the following courses):

HEO	150	MSHA-Equip Tech and Operator	2
ISC	115	Construction Safety	2

Elective List II (Select 2 hours from the following courses):

CEG	115	Intro to Tech and Sustainability	3
HEO	116	Soil Excavation & Groundwork	2
TRN	140	Trans Climate Control	2
WBL	111	Work-based Learning I	1
WBL	112	Work-based Learning I	2

WBL 121 Work-based Learning II 1

Elective List III (Select 3 hours from the following courses):
CMT 210 Construction Management Fund 3
CMT 212 Total Safety Performance 3
EGR 115 Intro to Technology 3

Graduation Requirements ..... 72 Credit Hours

Heavy Equipment Operation, Management, and Service Diploma – D35340

Program Sequence

First Semester
HEO 111 Heavy Equipment Operations I 12
HEO 114 Erosion Control and Regulations 2
ISC 121 Environmental Health and Safety 3
PSY 118 Interpersonal Psychology 3
Elective List I 2

Second Semester
HEO 112 Heavy Equipment Operations II 12
HEO 113 Grades and Drawings 3
HET 125 Preventive Maintenance 2
ENG 110 Freshman Composition 3

Third Semester
Elective List II 2

Elective List I (Select 2 hours from the following courses):
HEO 150 MSHA-Equip Tech and Operator 2
ISC 115 Construction Safety 2

Elective List II (Select 2 hours from the following courses):
HEO 116 Soil Excavation & Groundwork 2
MAT 110 Math Measurement and Lit 3
WBL 111 Work-based Learning I 1
WBL 112 Work-based Learning I 2
WBL 121 Work-based Learning II 1

Graduation Requirements ..... 44 Credit Hours

Basic Heavy Equipment Operator Certificate – C35340A

Program Sequence

First Semester
HEO 111 Heavy Equipment Operations I 12
ISC 121 Environmental Health and Safety 3
Elective List I 2

Elective List I (Select 2 hours from the following courses):
HEO 150 MSHA-Equip Tech and Operator 2
ISC 115 Construction Safety 2

Graduation Requirements ..... 17 Credit Hours

Advanced Heavy Equipment Operator Certificate – C35340B

Program Sequence

First Semester
HEO 112 Heavy Equipment Operations II 12
HEO 113 Grades and Drawings 3
HET 125 Preventive Maintenance 2

Graduation Requirements ..... 17 Credit Hours

Basic Evening Operator Certificate – C35340EA

Program Sequence

First Semester
HEO 111 Heavy Equipment Operations I 12

Graduation Requirements ..... 12 Credit Hours

Advanced Evening Operator Certificate – C35340EB

Program Sequence

First Semester
HEO 112 Heavy Equipment Operations II 12

Graduation Requirements ..... 12 Credit Hours

INTERIOR DESIGN

Interior Design Degree - A30220

The Interior Design curriculum is designed to prepare students for a variety of job opportunities in the field of both residential and non-residential interior design. The focus of the studies is technical knowledge, professional practices, and aesthetic principles.

Students receive instruction in basic design, graphic presentation, construction document preparation, materials and methods, environmental and structural systems, building codes and specifications, computer-aided design, history of interiors and furnishings, color theory, products, business practices, and general education courses.

Upon completion, graduates have career opportunities in residential or commercial interior design, architecture, set design, showroom design, furniture/textiles/accessories sales, and any business dealing with interiors.

Residential Interior Design Certificate – C30200A

Décor Focus Interior Design Certificate – C30200B

Commercial Interior Design Certificate – C30200C

Program Sequence

First Semester

ARC	111	Introduction to Architectural Technology	3
ARC	114	Architectural CAD	2
ARC	114A	Architectural CAD Lab	1
DES	112	Building and Construction Sys	3
DES	125	Graphic Presentation I	2
DES	135	Principles & Elements of Design	4

Second Semester

ARC	264	Digital Architecture	2
DES	193A	Selected Topics	3
DES	220	Principles of Interior Design	3
DES	235	Products	3
DES	255	History of Interior & Furnishings I	3
Elective List I			3

Third Semester

ENG	111	Expository Writing	3
HUM	110	Technology and Society	3

Fourth Semester

ARC	225	Architectural BIM I	2
ARC	225A	Architectural BIM I Lab	1
DES	230	Residential Deign I	3
DES	240	Commercial and Contract Design	3
DES	256	History of Int Design II	3
DES	280	Codes and Standards/Int Design	3

Complete Residential Interior Design Certificate (C30200A): ARC 111, ARC 114, ARC 114A, DES 112, DES 125, DES 220, DES 230

Fifth Semester

DES	210	Business Practices for Interior Design	2
DES	265	Lighting and Interior Design	2
DES	285	Capstone	4
ENG	114	Professional Research and Reporting	3
PSY	150	General Psychology	3

Complete Décor Focus Interior Design Certificate (C30200B): DES 135, DES 225, DES 235, DES 255, DES 256, DES 265

Complete Commercial Interior Design Certificate (C30220C): DES 210, DES 220, DES 240, DES 265, DES 280, DES 285

Sixth Semester

MAT	110	Math Measurement and Literacy	3
Elective List II			2

Elective List I (Select 3 hours from the following courses):

ARC	220	Advanced Architectural CAD	2
DES	225	Textiles and Fabrics	3

Elective List II (Select 2 hours from the following courses):

BUS	260	Business Communication	3
WBL	111	Work-Based Learning I	1
WBL	112	Work-Based Learning I	2
WBL	121	Work-Based Learning II	1

Completion Requirements .....72 Credit Hours

Mechanical Engineering Technology

Mechanical Engineering Technology Degree - A40320

The Mechanical Engineering Technology curriculum provides a board and diverse educational experience. Course work includes computer-aided drafting and design, applied mechanics, materials engineering, quality control, manufacturing methods and processes, computer usage, mathematics, physics and oral and written communications. The courses will stress critical thinking, planning and problem solving.

The diversity of Mechanical Engineering Technology degree enables students to pursue exciting careers in following fields:

- Engineering/Architectural
- Mechanical Design
- Manufacturing
- Quality
- Service

If elected, students can pursue a 4 year Engineering Technology degree after graduation.

Mechanical Design Certificate - C40320B

Study of design elements for CAD users.

Thermal Mechanics Certificate - C40320C

The Thermal Mechanics Certificate provides a refresher or a concentration in thermal sciences.

Materials Engineering Certificate - C40320D

The Materials Engineering Certificate will provide students with an understanding of engineering materials and processes.

Additive Manufacturing Certificate - C40320G

The Additive Manufacturing Certificate will help students understand modeling and manufacturing processes used in additive manufacturing such as 3D printing.

Mechanical Drafting Certificate – C40320H

Mechatronics Certificate – C40320I

Program Sequence

First Semester

DFT	151	CAD I	3
EGR	115	Introduction to Technology	3
MEC	161	Manufacturing Processes I	3
ENG	111	Expository Writing	3
MAT	121	Algebra/Trigonometry I	3

Second Semester

DFT	152	CAD II	3
DFT	153	CAD III	3
MEC	130	Mechanisms	3
ENG	114	Professional Research and Reporting	3
PHY	131	Physics-Mechanics	4

Third Semester

TDP	110	Intro to 3D Printing	3
PSY	118	Interpersonal Psychology	3

Fourth Semester

DFT	154	Intro to Solid Modeling	3
EGR	251	Statics	3
MEC	180	Manufacturing Materials	3
MEC	265	Fluid Mechanics	3
Elective List I			3

Complete Mechanical Design Certificate (C40320B): DFT 151, DFT 154, MEC 130, MEC 180

Complete Materials Engineering Certificate (C40320D): DFT 151, MEC 130, MEC 161, MEC 180

Complete Additive Manufacturing Certificate (C40320G): DFT 151, DFT 154, MEC 161, MEC 180, TDP 110

Complete Mechanical Drafting Certificate (C40320H): DFT 151, DFT 152, DFT 153, DFT 154, TDP 110

Complete Mechatronics Certificate (C40320I): ELN 260 + MEC 130, MEC 161, MEC 265

Fifth Semester

EGR	252	Strength of Materials	3
EGR	285	Design Project	2
ISC	121	Env Health and Safety	3
MEC	267	Thermal Systems	3
HUM	110	Technology and Society	3

Complete Thermal Mechanics Certificate (C40320C): DFT 154, MEC 180, MEC 265, MEC 267

Elective List I ..... (Select 3 hours from the following courses)

ARC	225	Architectural BIM I	2
ARC	225A	Architectural BIM I Lab	1
CEG	111	Introduction to GIS and Gnss	4
ELC	128	Introduction to PLC	3
WBL	111	Work-Based Learning I	1
WBL	112	Work-Based Learning I	2

Graduation Requirements ..... 66 Credit Hours

MISSION CRITICAL OPERATIONS

Mission Critical Operations Degree – A40430

The Mission Critical Operations curriculum is designed to prepare students through the study and application of principles from mathematics, natural sciences, and technology and applied processes based on these subjects.

Course work includes mathematics, natural sciences, engineering sciences and technology.

Graduates should qualify to obtain occupations such as technical service providers, materials and technologies testing services, process improvement technicians, engineering technicians, industrial and technology managers, or research technicians.

The Mission Critical Operations curriculum prepares graduates for employment in a wide range of positions in specific mission critical environments, operations technology, and maintenance. Course work includes the development of a student's ability to maintain technically sophisticated systems for business continuity and near continuous uptime using engineering, information technology, and industrial management and maintenance skills. The course work emphasizes analytical and problem-solving skills required to sustain high availability national security interests and includes instruction in electromechanical systems, networking, automation, cybersecurity, emergency management and systems integration.

Graduates should qualify for employment as entry-level technicians with businesses, industries, educational systems, and governmental agencies in national critical infrastructure areas including, but not limited to, communications, emergency services, energy, financial services, healthcare, information technology, and transportation.

Introduction to MCO Certificate – C40430A

Critical Electrical Systems Certificate – C40430B

Critical Control Systems Certificate – C40430C

Mission Critical Operations Certificate – C40430D

Program Sequence

First Semester

BAT	117	Principles of Heat and Fluids	3
ISC	112	Industrial Safety	2
MCO	110	Intro to MCO	3
MNT	110	Intro to Maintenance Procedures	2
ENG	111	Writing and Inquiry	3
MAT	121	Algebra/Trigonometry	3

Second Semester

ELC	127	Software for Technicians	2
ELC	131	Circuit Analysis I	4
MCO	115	MCO Infrastructures	3
MNT	222	Industrial Sys Schematics	2
HUM	110	Technology and Society	3

Complete Introduction to MCO Certificate (C40430A): BAT 117, ISC 112, MCO 110, MCO 115, MNT 110

Third Semester

PSY	118	Interpersonal Psychology	3
WBL	112	Work-Based Learning I	2

Fourth Semester

ATR	112	Intro to Automation	3
BAT	111	Building Automation Systems	2
ELN	235	Data Communication Systems	4
ELC	250	Critical Power Systems	4
MCO	210	Critical Site Operations	3

Complete Critical Electrical Systems Certificate (C40430B): ELC 131, ELC 250, ELN 235

Fifth Semester

MCO	260	Critical Facility Infrastructures	4
MCO	265	Critical Facility Management	3
MCO	266	ICS Cyber Security	3
PCI	172	SCADA Systems	4
ENG	114	Prof Research & Reporting	3

Complete Critical Control Systems (C40430C): ATR 112, BAT 111, MCO 266, MNT 222, PCI 172

Complete Mission Critical Operations Certificate (C40430D): ELC 127, MCO 210, MCO 260, MCO 265

Graduation Requirements ..... 68 Credit Hours

APPLIED ENGINEERING & TECHNOLOGIES

PLUMBING

Plumbing: Residential Diploma - D35300A

The Plumbing curriculum is designed to give individuals the opportunity to acquire basic skills to assist with the installation and repair of plumbing systems in residential and small buildings.

Course work includes sketching diagrams, interpretation of blueprints, and practices in plumbing assembly. Students will gain knowledge of state codes and requirements.

Graduates should qualify for employment at parts supply houses, maintenance companies, and plumbing contractors to assist with various plumbing applications.

Plumbing: Commercial Diploma – D35300B

Plumbing Concepts I Certificate - C35300D

The Plumbing certificate curriculum is designed to give individuals the opportunity to acquire basic skills to assist with the installation and repairs of plumbing systems in residential and small buildings.

Course work includes sketching diagrams, interpretation of blueprints, and practices in plumbing assembly. Students will gain additional knowledge of State Codes and requirements.
Graduates should qualify for employment at parts supply houses, and for entry-level positions with maintenance companies and plumbing contractors to assist with various plumbing applications.

Plumbing Concepts II Certificate - C35300E

The Plumbing certificate curriculum is designed to give individuals the opportunity to acquire basic skills to assist with the installation and repairs of plumbing systems in residential and small buildings.

Course work includes sketching diagrams, interpretation of blueprints, and practices in plumbing assembly. Students will gain additional knowledge of State Codes and requirements.

Graduates should qualify for employment at parts supply houses, and for entry-level positions with maintenance companies and plumbing contractors to assist with various plumbing applications.

Program Sequence – Plumbing: Residential Diploma (D35300A)

First Semester

BPR	130	Blueprint Reading/Construction	3
PLU	110	Modern Plumbing	9
PLU	124	Plumbing Business Operations	2
PLU	145	Plumbing Measure Calculations	2

Second Semester

ENG	110	Freshman Composition	3
PLU	120	Plumbing Applications	9
PLU	140	Introduction to Plumbing Codes	2
PLU	150	Plumbing Diagrams	2
PLU	160	Plumbing Estimates	2

Complete Plumbing Concepts I Certificate (C35300D): BPR 130, PLU 110, PLU 140

Complete Plumbing Concepts II Certificate (C35300E): PLU 120, PLU 150, PLU 160

Third Semester

PLU	130	Plumbing Systems	6
PSY	118	Interpersonal Psychology	3
Electives I			1

Electives List I (Choose 1 hour from the following):

SST	140	Green Building and Design Concepts	3
PLU	192	Selected Topics in Plumbing	2

Graduation Requirements ..... 44 Credit Hours

Program Sequence – Plumbing: Commercial Diploma (D35300B)

First Semester

BPR	130	Blueprint Reading/Construction	3
PLU	120	Plumbing Applications	9
PLU	140	Intro to Plumbing Codes	2
PLU	211	Commercial/Industrial Plumbing	3
PSY	118	Interpersonal Psychology	3

Second Semester

BPR	230	Commercial Blueprints	2
PLU	110	Modern Plumbing	9
PLU	124	Plumbing Business Operations	2
PLU	145	Plumbing Measure/Calculations	2
Electives List I			3

Complete Plumbing Concepts I Certificate (C35300D): BPR 130, PLU 110, PLU 140

Third Semester

PLU	214	Backflow Preventer Install	2
PLU	230	Slab Rough-In	4
ENG	110	Freshman Composition	3
Electives List II			1

Electives List I (Choose 3 hours from the following):

PLU	220	Commercial Rough-In Plumbing	4
PLU	225	Commercial Trim-Out Procedures	4

Electives List II (Choose 1 hour from the following):

SST	140	Green Building and Design Concepts	3
WBL	111	Work-Based Learning I	1

Graduation Requirements ..... 48 Credit Hours

WELDING TECHNOLOGY

Welding Technology Degree - A50420

The Welding Technology curriculum provides students with a sound understanding of the science, technology, and applications essential for successful employment in the welding and metal industry.

Instruction includes consumable and non-consumable electrode welding and cutting processes. Courses in math, blueprint reading, metallurgy, welding inspection, and destructive and non-destructive testing provides the student with industry-standard skills developed through classroom training and practical application.

Welding Technology Diploma - D50420

Successful graduates of the Welding Technology diploma curriculum may be employed as entry-level technicians in welding and metalworking industries. Career opportunities also exist in construction, manufacturing, fabrication, sales, quality control, supervision, and welding-related self-employment.

Welding Technology Certificate - C50420B

Instruction includes an introduction to consumable and non-consumable electrode welding and cutting processes. Additional courses in blueprint reading, metallurgy, and destructive testing

provides the student with industry-standard skills developed through classroom training and practical application.

Successful graduates of the Welding Technology certificate curriculum may be employed as entry-level technicians in welding and metalworking industries. Career opportunities also exist in construction, manufacturing, fabrication, sales, quality control, and welding-related self-employment.

Fabrication Design Certificate - C50420C

Instruction includes an introduction to fabrication design as it applies to welding technology.

Computer Controlled Welding Certificate - C50420D

Instruction includes an introduction to computer controlled welding.

Program Sequence

First Semester

ENG	110	Freshman Composition	3
WLD	110	Cutting Processes	2
WLD	115	SMAW (Stick) Plate	5
WLD	121	GMAW (MIG) FCAW/Plate	4
WLD	141	Symbols and Specifications	3

Complete Welding Certificate (C50420B): WLD 110, WLD 115, WLD 121, WLD 141

Second Semester

MAT	110	Math Measurement and Literacy	3
WLD	116	SMAW (Stick) Plate/Pipe	4
WLD	122	GMAW (MIG) Plate	3
WLD	131	GTAW (TIG) Plate	4

Third Semester

WLD	132	GTAW (TIG) Plate/Pipe	3
WLD	151	Fabrication I	4
WLD	262	Inspection and Testing	3

Complete Fabrication Design Certificate (C50420C): WLD 110, WLD 131, WLD 141, WLD 151

Complete Welding Technology Diploma (D50420): ENG 110, MAT 110, WLD 110, WLD 115, WLD 116, WLD 121, WLD 122, WLD 131,WLD 132, WLD 141, WLD 151, WLD 262

Fourth Semester

ISC	112	Industrial Safety	2
WLD	215	SMAW (Stick) Pipe	4
PSY	118	Interpersonal Psychology	3
Elective List I			3

Fifth Semester

WLD	231	GTAW (TIG) Pipe	3
WLD	265	Automated Welding/Cutting	4
COM	110	Introduction to Communication	3
HUM	121	The Nature of America	3

Complete Computer Controlled Welding Certificate (C50420D): WLD 110, WLD 121, WLD 131, WLD 141, WLD 265

Elective List I (Select 3 hours from the following courses):

BUS	110	Introduction to Business	3
MEC	180	Engineering Materials	3
WBL	111	Work-Based Learning I	1
WBL	112	Work-Based Learning I	2

Graduation Requirements.....66 Credit Hours

BUSINESS & PUBLIC SERVICE TECHNOLOGIES

Business & Public Services Technologies Division

Dean Tanya Scott
Phone: 919-866-7106
Email: tescott1@waketech.edu

Wake Technical Community College awards degrees, diplomas, and certificates in a variety of fields shown below. The highest credential given in each area is listed first, in bold type.

1. Click on the "**Program Name**" to go to the program's web page
2. Click on the "**Program of Study**" to see specific course requirements for that program

Programs may be offered during the day, evening, online, or a combination. Students should refer to WebAdvisor for the availability of classes. Click to see a list of Wake Tech's programs that can be completed fully online.

Program Names	Program Code
Accounting – *AAS Degree*	A25800
Accounting **– *Diploma***	D25800
Accounting: Core **– *Certificate***	C25800A
Income Tax Preparer **– *Certificate***	C25800B
Payroll Accounting **- *Certificate***	C25800C
Accounting Software Applications **- *Certificate***	C25800D
Management Accounting **- *Certificate***	C25800E
Baking and Pastry Arts – *AAS Degree*	A55130
Baking and Pastry Arts **– *Diploma***	D55130
Baking and Pastry Arts **- *Certificate***	C55130A
Business Administration: General Business Administration – *AAS Degree*	A25120A
Customer Service **– *Certificate***	C25120B
Entrepreneurship **– *Certificate***	C25120C
Business Core **- *Certificate***	C25120D
Leadership **– *Certificate***	C25120F
Career Success - ***Certificate***	C25120G
Business Administration: Global Business Management – *AAS Degree*	A25120G
International Business - ***Certificate***	C25120GB
Business Administration: Human Resources Management – *AAS Degree*	A25120H
Human Resources Administration - ***Certificate***	C25120HA
Human Resources Management - ***Certificate***	C25120HB
Business Administration: Marketing – *AAS Degree*	A25120M
Marketing and Sales – ***Certificate***	C25120MM
Advertising and Digital Media **- *Certificate***	C25120SAD
Business Analytics – *AAS Degree*	A25350
Business Intelligence **– *Certificate***	C25350A
Business Analyst **– *Certificate***	C25350B
Marketing Analytics **– *Certificate***	C25350C
Logistics Analytics **– *Certificate***	C25350E
Finance Analytics **- *Certificate***	C25350F
Cosmetology – *AAS Degree*	A55140
Cosmetology - ***Diploma***	D55140A
Criminal Justice Technology – *AAS Degree*	A55180
Principles of Correction **– *Certificate***	C55180A
Introduction to Law Enforcement **– *Certificate***	C55180B
Homeland Security **– *Certificate***	C55180H
Intelligence Analysis **- *Certificate***	C55180I
Criminal Justice Technology/Forensic Science – *AAS Degree*	A5518A
Principles of Identification and Information **– *Certificate***	C5518A
Crime Scene Technician - ***Certificate***	C5518C

BUSINESS & PUBLIC SERVICE TECHNOLOGIES

Program Names Continued	Program Code
Culinary Arts – ***AAS Degree***	A55150
Culinary Arts **–** ***Diploma***	D55150
Culinary Arts **-** ***Certificate***	C55150A
Early Childhood Education – ***AAS Degree***	A55220
Early Childhood Education **–** ***Diploma***	D55220A
Early Childhood Education **–** ***Certificate***	C55220D
School-Age **–** ***Certificate***	C55220E
Preschool Foundation **-** ***Certificate***	C55220G
Infant/Toddler Care **–** ***Certificate***	C55290
Birth-Kindergarten (B-K) Licensure Transfer	A55220B
Career Track	A55220C
Esthetics Technology - ***Certificate***	C55230
Fire Protection Technology – ***AAS Degree***	A55240
Fire Protection Technology: Basic **–** ***Certificate***	C55240A
Loss Control/Investigation **–** ***Certificate***	C55240B
Fire Management **–** ***Certificate***	C55240C
Food Service Technology – ***Diploma***	D55250
Food Service Technology **-** ***Certificate***	C55250
Hospitality Management – ***AAS Degree***	A25110
Hospitality Management **–** ***Diploma***	D25110A
Hospitality Restaurant Management **–** ***Certificate***	C25110D
Procurement Management **–** ***Certificate***	C25110E
Hospitality Management Core **–** ***Certificate***	C25110F
Hospitality Event Coordinator **–** ***Certificate***	C25110G
Hospitality Hotel Operations **–** ***Certificate***	C25110H
Foodservice Entrepreneurship **–** ***Certificate***	C25110J
Lateral Entry - ***Certificate***	C55430
Supply Chain Management (Distribution Management)– ***AAS Degree***	A25620D
Distribution Management Core **–** ***Certificate***	C25620DA
Transportation Management **-** ***Certificate***	C25620DB
Supply Chain Management (Global Logistics Technology)– ***AAS Degree***	A25620G
Logistics Core **–** ***Certificate***	C25620GA
International Logistics **-** ***Certificate***	C25620GB
Supply Chain **-** ***Certificate***	C25620GC

***Collaborative Agreements**

None at this time

BUSINESS & PUBLIC SERVICES TECHNOLOGIES

ACCOUNTING AND FINANCE

Accounting Degree - A25800

The Accounting curriculum is designed to provide students with the knowledge and the skills necessary for employment and growth in the accounting profession. Using the "language of business," accountants assemble, analyze, process, and communicate essential information about financial operations.

In addition to course work in accounting principles, theories, and practices, students will study business law, finance, management, and economics. Related skills are developed through the study of communications, computer applications, financial analysis, critical thinking skills, and ethics.

Graduates should qualify for entry-level accounting positions in many types of organizations including accounting firms, small businesses, manufacturing firms, banks, hospitals, school systems, and governmental agencies. With work experience and additional education, an individual may advance in the accounting profession.

Accounting Diploma - D25800

The Accounting Diploma provides students with a basic accounting skill set and overall knowledge enhanced by selected accounting electives and a potential work-based learning education experience. After the Accounting Diploma is started, a student may elect to pursue an A.A.S Degree in Accounting or after the Accounting Diploma is awarded, a student may return to Wake Tech to earn an A.A.S. Degree in Accounting.

The curriculum is designed to provide students with the knowledge and skills necessary for employment and growth in the accounting profession. Diploma graduates should be able to pursue a variety of entry-level accounting positions in private industry, accounting firms, and government agencies. In order to complete the diploma program in three semesters, the program must begin in the summer semester.

Accounting Core Certificate - C25800A

This certificate is designed to prepare students in the core of accounting and business concepts and includes all university transferrable courses. Credits earned in this program may be transferred toward and Associate in Applied Science Degree in Accounting (provided the student meets the entrance requirements for the Accounting program) as well as either the Associate in Arts or Associate in Science for College Transfer.

Income Tax Preparer Certificate - C25800B

This certificate program is designed to prepare students for job opportunities in the accounting field in the specific area of income tax preparation. Credit earned in this program may be transferred toward an Associate in Applied Science Degree in Accounting, provided the student meets the entrance requirements for the Accounting program.

Payroll Accounting Certificate - C25800C

This certificate program is designed to prepare students for job opportunities in the accounting field in the specific area of payroll accounting. Credits earned in this program may be transferred toward an Associate in Applied Science Degree in Accounting, provided the student meets the entrance requirements for the Accounting program.

Accounting Software Applications Certificate - C25800D

This certificate program will assist in preparing accounting students to take the MOS Excel certification test with the goal of increasing the marketability of accounting students upon entering the workforce. In addition to Excel, QuickBooks, **<-** and other general ledger software applications are explored through this certificate.

Management Accounting Certificate - C25800E

This certificate program is designed to prepare students for job opportunities in the accounting field in the specific area of management accounting. Credits earned in this program may be transferred toward an Associate in Applied Science Degree in Accounting, provided the student meets the entrance requirements for the Accounting program.

PROGRAM SEQUENCE

First Semester

ACC	120	Principles of Financial Accounting	4
BUS	110	Introduction to Business	3
CIS	110	Introduction to Computers	3
ENG	111	Writing and Inquiry	3
MAT	143	Quantitative Literacy	3

Second Semester

ACC	121	Principles of Managerial Accounting	4
ACC	149	Introduction to Accounting Spreadsheets	2
ACC	150	Accounting Software Applications	2
BUS	115	Business Law I	3
		Select one course	
HUM	115	Critical Thinking OR	3
PHL	240	Introduction to Ethics	3
		Select one course	
ENG	112	Writing and Research in the Discipline OR	3
ENG	114	Professional Research and Reporting	3

Third Semester

ACC	129	Individual Income Taxes	3
ACC	220	Intermediate Accounting I	4
ACC	268	Information Systems & Internal Controls	3
		Select one course – ECO 251 is recommended	
ECO	151	Survey of Economics OR	3
ECO	251	Principles of Microeconomics	3
___	___	*Major Elective	3

Choose approximately 3 credit hours from the Major Elective List

Complete Payroll Accounting Certificate (C25800C):
*ACC 120, CIS **110**, ACC 149, ACC 150, + Choose ACC 140 Elective*

Complete Accounting Core Certificate (C25800A):
ACC 120, ACC 121, BUS 115, ENG 111, + Choose one ECO elective

Complete Accounting Software Applications Certificate (C25800D):
ACC 120, CIS 110, ACC 149, ACC 150, + Choose ACC 152 Elective

Complete Accounting Diploma (D25800):
ACC 120, BUS 110, CIS 110, BUS 121, ACC 121, ACC 129, ACC 149, ENG 111, ACC 140, ACC 150, ENG 114, + Choose 4 credit hours from ACC 130, ACC 132, ACC 152, ACC 215, ACC 240, ACC 268, WBL 111, WBL 112, and WBL 121

Fourth Semester

ACC	215	Ethics in Accounting	3
ACC	221	Intermediate Accounting II	4
BAF	235	Analyzing Financial Statements	3
BUS	225	Business Finance	3
ECO	252	Principles of Macroeconomics	3
*Major Elective			3

(*Choose approximately 3 credit hours from the Major Elective List)*

Complete Income Tax Preparer Certificate (C25800B):
ACC 120, CIS 110, ACC 129 + Choose Electives ACC 130, ACC 132, and ACC 140

Complete Management Accounting Certificate (C25800E): *ACC 220, ACC 268, BAF 235, BUS 225 + Choose Elective ACC 225*

Major Elective List

ACC	130	Business Income Taxes	3
ACC	132	NC Business Taxes	2
ACC	140	Payroll Accounting	2
ACC	152	Advanced Software Applications	2
ACC	225	Cost Accounting	3
ACC	227	Practices in Accounting	3
ACC	240	Governmental & Not-for-Profit Accounting	3
ACC	269	Auditing and Assurance Services	3
BAF	143	Financial Planning	3
BUS	116	Business Law II	3
BUS	121	Business Math	3
BUS	217	Employment Law and Regulations	3
BUS	228	Business Statistics	3
WBL	111	Work-Based Learning I	1
WBL	112	Work-Based Learning I	2
WBL	121	Work-Based Learning II	1

Graduation Requirements ..... 68 Credit Hours

BAKING & PASTRY ARTS

All core classes are taught in 8 week semesters

Baking and Pastry Arts Degree - A55130

-Day Only

The Baking and Pastry Arts curriculum is designed to prepare students with the skills and knowledge required for employment in the baking/pastry industry including restaurants, hotels, independent bakeries/pastry shops, wholesale/retail markets, and high-volume bakeries.

Course offerings emphasizing practical application, a strong theoretical knowledge base, and professionalism provide the critical competencies to meet industry demands. Course work includes specialty/artisan breads, desserts, pastries, candies, decorative work, high-volume production and food marketing.

Graduates should qualify for entry-level positions, such as pastry/bakery assistant, area pastry chef and assistant pastry chef. American Culinary Federation certification is available to graduates.

Baking and Pastry Arts Diploma - D55130

-Day Only

The Baking and Pastry Arts diploma includes basic and more advanced courses to help prepare students for entry into the baking field or to advance in their current foodservice positions.

Courses address both the art and the science of baking. Students learn basic sanitation, cooking and baking principles, and garnishing and presentation skills. Modern supervision techniques are also studied and practiced. The majority of class time is devoted to actual hands on kitchen skill development.

Baking and Pastry Arts Certificate - C55130A

-Day Only

The Baking and Pastry Arts certificate includes basic courses to help prepare students for entry into the baking field or to advance in their current food service jobs. Course addresses both the art and the science of baking. Students learn basic sanitation, cooking and baking principles, as well as pastry, confection and production baking skills. The majority of class is devoted to actual hands-on baking skill development.

PROGRAM SEQUENCE

First Semester (1st 8 weeks)

CUL	110	Sanitation and Safety	2
CUL	142	Fundamentals of Food	5
CUL	160	Baking I	3

First Semester (2nd 8 weeks)

BPA	120	Petits Fours & Pastries	3
CUL	150	Food Science	2
CUL	260	Baking II	3

Complete Baking and Pastry Arts Certificate (C55130A)
16 credit hours:
CUL 110, CUL 142, CUL 160, BPA 120 and CUL 260

Second Semester (1st 8 weeks)

CUL	112/A	Nutrition for Foodservice	4
BPA	210	Cake Design and Decorating	3
BPA	220	Confection Artistry	4

Second Semester (2nd 8 weeks)

BPA	130	European Cakes & Tortes	3
BPA	150	Artisan & Specialty Breads	4
HRM	245	Human Resources Management Hosp	3

Third Semester (1st 8 weeks)

BPA	230	Chocolate Artistry	3
BPA	230A	Chocolate Artistry Lab	1
BPA	260	Pastry & Baking Marketing	3
WBL	132	Work-Based Learning (16 week course)	2

Third Semester (2nd 8 weeks)

BPA	240	Plated Desserts	3
BPA	250	Dessert & Bread Production	5
WBL	132	Work-Based Learning I (16 week course)	2

General Education Credits (Take Any Semester)

PSY	118	Interpersonal Psychology	3
ENG	111	Writing and Inquiry	3
ENG	112	Writing/Research in the Disc	3
Humanities/Fine Arts Elective			3
MAT	110	Math Measurement & Literacy	3

Humanities/Fine Arts Electives

HUM	115	Critical Thinking	3
ART	131	Drawing I	3

Graduation Requirements ..... 73 Credit Hours

BUSINESS ADMINISTRATION

Business Administration: General Business Administration Degree - A25120A

-Day, Evening, and Online

The Business Administration curriculum is designed to introduce students to the various aspects of the free enterprise system. Students will be provided with a fundamental knowledge of business functions, processes, and an understanding of business organizations in today's global economy.

Course work includes business concepts such as accounting, business law, economics, management, and marketing. Skills related to the application of these concepts are developed through the study of computer applications, communication, team building, and decision making.

Through these skills, students will have a sound business education base for lifelong learning. Graduates are prepared for employment opportunities in marketing, management operations, and some graduates have started up their own small businesses.

Customer Service Certificate - C25120B

-Day, Evening, and Online

This certificate provides a broad foundation of communication and interpersonal skills designed to prepare the individual for customer contact roles within a business organization. Employment opportunities include customer service representative, customer services manager, consumer relations credit analyst, credit card specialist, credit and collections specialist, retail sales, accounts control analyst, administrative assistant, authorizations analyst, and telephone sales representatives in both production and service-oriented businesses.

Entrepreneurship Certificate - C25120C

-Day, Evening, and Online

This program enables students to recognize business opportunities and develop a business plan for the purpose of securing financing for an entrepreneurial start-up as well as to understand how to effectively operate a small business. Students will learn practical skills and some of the best business practices in establishing and operating a business.

Business Core Certificate - C25120D

-Day, Evening, and Online

This certificate provides students who are earning the Business Administration A.A.S., Business Administration/Human Resources Management A.A.S., and/or Associate in Art two-year degree, or simply to improve their skills in a specific area, to earn a certificate comprised of our Business Core courses. In as little as one semester, one can earn a certificate that validates an area of expertise, which can set an individual apart in the interview and selection process. If pursuing an Associate in Art degree or transferring to a four-year university, all of these classes will qualify to transfer.

Leadership Certificate - C25120F

-Day, Evening, and Online

This certificate is designed to be an overview of the major functions of leadership and management with an emphasis on critical thinking. Emphasis is placed on exploring the theories and techniques of leadership and teamwork coupled with the management principles of planning, organizing, controlling, directing, and communicating. Students will be able to identify and analyze a personal philosophy and style of leadership and integrate these concepts in various practical situations using moral and ethical judgments honed during this program. Upon completion, students should be able to work as contributing members of a team utilizing these functions of leadership and management.

Career Success Certificate - C25120G

-Day, Evening, and Online

This certificate is designed to help students develop the knowledge and skills they need to make the successful transition from college to career. The program includes courses on managing personal finances, ethics, successful communication, and interpersonal skill development, as well as a course in business. Together, these courses address the “employability skills” that are in high demand from employers today. A student will need to be sure that they are ready to find and succeed in a great job with this professional transition toolkit.

PROGRAM SEQUENCE

First Semester

BUS	110	Introduction to Business	3
BUS	137	Principles of Management	3
CIS	111	Basic PC Literacy	2
Social Science Elective			3
ENG	111	Writing and Inquiry	3
MKT	120	Principles of Marketing	3

Second Semester

ACC	120	Principles of Financial Accounting	4
BUS	115	Business Law I	3
BUS	121	Business Math	3
BUS	139	Entrepreneurship I	3
BUS	255	Organizational Behavior in Business	3

Complete Business Core Certificate (C25120D):
ACC 120, BUS 110, BUS 115, BUS 137, + One Social Science Elective

Third Semester

ACC	121	Principles of Managerial Accounting	4
BUS	153	Human Resources Management	3
BUS	240	Business Ethics	3
ENG	114	Professional Research and Reporting	3
INT	110	International Business	3

Business Administration Complete Leadership Certificate (C2520F):
BUS 137, BUS 153, BUS 255 and BUS 240

Business Administration Complete Human Resource Management: Human Resources Administration Certificate (C25120HA):
BUS 137, BUS 153, BUS 240 and BUS 255

Business Administration Major Elective Track 1: Complete Customer Service Certificate (C25120B):
BUS 110, BUS 139, BUS 255 and Choose MKT 123 as elective

Business Administration Major Elective Track 2: Complete Career Success Certificate (C25120G):
BUS 110, BUS 240, BUS 255, + Choose BUS 125

Fourth Semester

HUM	115	Critical Thinking	3
Mathematics Elective			3
MKT	221	Consumer Behavior	3
Business Administration Major Electives (choose 6 credit hours)			6

Business Administration Major Elective Track 1:
Complete Career Success Certificate (C25120G):
BUS 110, BUS 139, MKT 120 + Choose BUS 230 OR BUS 245

Social Science Elective
ECO 151 Survey of Economics 3
ECO 251 Principles of Microeconomics..... 3
ECO 252 Principles of Macroeconomics 3

General Education Courses
MAT 110 Mathematical Measurement & Literacy..... 3
MAT 143 Quantitative Literacy 3

Business Administration Major Electives
BUS 116 Business Law II.....3
BUS 125 Personal Finance..... 3
BUS 228 Business Statistics.....3
BUS 230 Small Business Management.....3
BUS 245 Entrepreneurship II 3
LOG 110 Introduction to Logistics 3
MKT 123 Fundamentals of Selling.....3
MKT 228 Service Marketing 3
MKT 232 Social Media Marketing.....4
WBL 111 Work-Based Learning 1 1
WBL 112 Work-Based Learning 1 2
WBL 113 Work-Based Learning 1 3

Completion Requirements .....64 Credit Hours

Business Administration: Global Business Management Degree - A25120G

-Day, Evening, and Online

Global Business Management (A.A.S degree) is a concentration within the Business Administration curriculum. It is designed to meet the demands of today's international economy. Businesses today are truly interconnected and working in business may require an understanding of different cultures as businesses often operate outside of the United States. By learning key business concepts as well as global literacy skills, students will be prepared for employment opportunities in government agencies, financial institutions, and large to small business or industry. Skills related to the application of these concepts are developed through the study of computer literacy, communication, team-building, and decision-making.

Critical thinking, project and problem solving skills are emphasized in the program course work. Because the degree requires the general study of business and management as well as global literacy, students begin their coursework with basic business concepts. The degree is fully online and can be completed in four full-time semesters.

International Business Certificate - C25120GB

-Day, Evening, and Online

This certificate is intended to provide students with a better understanding of how businesses are continually globally connected. Coursework includes a basic understanding of business, as well as understanding business from an international perspective, how international trade impacts business, importing and exporting, the economics of international businesses, and how marketing is impacted by delivering products and services to and from different parts of the world.

PROGRAM SEQUENCE

First Semester
BUS 110 Introduction to Business..... 3
BUS 137 Principles of Management.....3
CIS 111 Basic PC Literacy 2

Social Science Elective.....3
ENG 111 Writing and Inquiry.....3
MKT 120 Principles of Marketing 3

Second Semester
ACC 120 Principles of Financial Accounting.....4
BUS 115 Business Law I 3
BUS 121 Business Math.....3
BUS 25 Organizational Behavior in Business.....3
INT 110 International Business 3

Complete Business Core Certificate (C25120D):
ACC 120, BUS 110, BUS 115, BUS 137, + One Social Science Elective

Third Semester
ENG 114 Professional Research and Reporting.....3
HUM 115 Critical Thinking 3
INT 210 International Trade 3
INT 220 International Economics 3
INT 230 International Law 3

Complete International Business Certificate (C25120GB):
Social Science Elective, INT 110, INT 210, INT 220

Fourth Semester
ACC 270 International Accounting.....3
BUS 139 Entrepreneurship I 3
BUS 153 Human Resources Management.....3
Business Administration/Global Business Major Elective.....5
Mathematics Elective.....3

Business Administration Major Elective Track 1:
Complete Customer Service Certificate (C25120B):
BUS 110, BUS 137, BUS 255 + Choose MKT 123

Business Administration Major Elective Track 2:
Complete Leadership Certificate (C2520F):
BUS 137, BUS 153, BUS 255 + Choose MKT 123

Business Administration Major Elective Track 3:
Complete Career Success Certificate (C25120G):
BUS 110, BUS 255 + Choose BUS 125 and BUS 240

Business Administration Major Elective Track 4:
Complete Human Resource Management: Human Resources Administration Certificate (C25120HA):
BUS 137, BUS 153, BUS 255 + Choose BUS 240

Social Science Elective
ECO 151 Survey of Economics.....3
ECO 251 Principles of Microeconomics 3
ECO 252 Principles of Macroeconomics.....3

General Education Courses
MAT 110 Mathematical Measurement & Literacy 3
MAT 143 Quantitative Literacy.....3

Business Administration/ Global Business Management Major Electives
BUS 125 Personal Finance..... 3
BUS 228 Business Statistics.....3
BUS 240 Business Ethics 3
LOG 110 Introduction to Logistics 3
MKT 232 Social Media Marketing.....4
WBL 111 Work-Based Learning 1 1
WBL 112 Work-Based Learning 1 2
WBL 113 Work-Based Learning 1 3

Completion Requirements .....66 Credit Hours

Business Administration: Human Resources Management Degree - A25120H

-Day, Evening, and Online

Human Resource Management (HRM) is the organizational function responsible for creating and supporting the systems that are used to effectively manage an organization's employees. HRM managers, professionals and support staff work in areas such as compensation, benefits, staffing and training.

The Business Administration / Human Resources Management curriculum prepares students to perform these roles in organizations of varying size and type and, depending on individual and organizational factors, roles can be performed at the administrative support, individual contributor / professional or managerial level. Critical thinking, project and problem solving skills are emphasized in the program course work. Because the degree requires the general study of business and management as well as HRM, students are prepared to begin careers in both disciplines. The degree is fully online and can be completed in four full-time semesters.

Business Administration: Human Resources Administration Certificate - C25120HA

-Day, Evening, and Online

This certificate is intended to provide formal classroom training in Human Resources (HR) to individuals interested in careers in HR. Ideally, students entering this program should already have a college degree in another field, should be working in the field of Human Resources, or should be business owners looking for specific training in Human Resources. Course work includes studies in human resource management, records management, recruitment and selection or compensation and benefits or training and development, people skills or customer service, and word processing or office software applications.

Business Administration: Human Resources Management Certificate- C25120HB

This program is intended to provide formal classroom training in Human Resources Management to individuals interested in careers in Human Resources. Ideally, students entering this program should already have a college degree in another field, should be working in the field of Human Resources, or should be business owners looking for specific training in Human Resources. Course work includes studies inhuman resources, management, employment law, recruitment and selection, training and development, and compensation and benefits.

PROGRAM SEQUENCE

First Semester

BUS	110	Introduction to Business	3
BUS	137	Principles of Management	3
BUS	153	Human Resource Management	3
CIS	111	Basic PC Literacy	2
Social Science Elective			3
ENG	111	Writing and Inquiry	3

Second Semester

ACC	120	Principles of Financial Accounting	4
BUS	115	Business Law I	3
BUS	121	Business Math	3
BUS	217	Employment Law and Regulations*	3
MKT	120	Principles of Marketing	3

Complete Business Core Certificate (C25120D):
ACC 120, BUS 110, BUS 115, BUS 137, + One Social Science Elective

Third Semester

BUS	234	Training and Development*	3
BUS	240	Business Ethics	3
BUS	256	Recruit Select & Per Plan*	3
BUS	258	Compensation and Benefits*	3
ENG	114	Professional Research and Reporting	3

Fourth Semester

ACC	121	Principles of Managerial Accounting	4
BUS	259	HRM Applications	3
HUM	115	Critical Thinking	3
Mathematics Elective			3
HRM Major Elective			3

Complete Human Resources Management Certificate (C25120HB):
BUS 153, BUS 217, BUS 234, BUS 256, BUS 258

Human Resources Major Elective Track 1: Complete Leadership Certificate (C2520F):
BUS 137, BUS 153, BUS 240, + Choose BUS 255

Human Resources Management Elective Track 2: Complete Human Resources Administration Certificate (C25120HA): *BUS 137, BUS 153, BUS 240 + Choose BUS 240 OR BUS 260*

Human Resources Management Elective Track 3: Complete Customer Service Certificate (C25120B):
BUS 110, BUS 137, + Choose BUS 255 and MKT 123

Social Science Elective

ECO	151	Survey of Economics	3
ECO	251	Principles of Microeconomics	3
ECO	252	Principles of Macroeconomics	3

Mathematics Electives

MAT	110	Mathematical Measurement & Literacy	3
MAT	143	Quantitative Literacy	3

HRM Major Electives

BUS	125	Personal Finance	3
BUS	230	Small Business Management	3
BUS	255	Organizational Behavior in Business	3
BUS	260	Business Communications	3
WBL	111	Work-Based Learning 1	1
WBL	112	Work-Based Learning 1	2
WBL	113	Work-Based Learning 1	3

*Indicates non-waiverable prerequisite for BUS 259, HRM Applications.

Completion Requirements……64 Credit Hours

Business Administration: Marketing Degree - A25120M

-Day, Evening, and Online

Business Administration has a new concentration in Marketing (A.A.S. degree), a concentration within the Business curriculum. The program helps students develop skills in advertising and sales, marketing research and applications, social media marketing,

marketing in an international landscape, customer service as well as core business concepts.

It is designed to meet the demands of government agencies, financial institutions, and large to small business or industry. Skills related to the application of these concepts are developed through the study of computer literacy, communication, team-building, and decision-making.

Marketing and Sales Certificate - C25120MM

-Day, Evening, and Online

This certificate introduces innovative marketing concepts and sales strategies skills necessary for today's highly competitive environment. Focusing on core marketing competencies, students are introduced to theories and practices necessary to meet the challenges and opportunities faced by today's marketers. The marketing and sales certificate provides opportunities for students to learn key marketing and sales concepts and apply them to learn skills needed to be successful in marketing, sales, advertising, customer service, and social media marketing.

Advertising and Digital Media Certificate - C25120SAD

-Day, Evening, and Online

This certificate provides instruction on advertising communication, marketing strategy, and other general digital media design principles.

PROGRAM SEQUENCE

First Semester

BUS	110	Introduction to Business	3
BUS	137	Principles of Management	3
CIS	111	Basic PC Literacy	2
Social Science Elective			3
ENG	111	Writing and Inquiry	3
MKT	120	Principles of Marketing	3

Second Semester

ACC	120	Principles of Financial Accounting	4
BUS	115	Business Law I	3
BUS	121	Business Math	3
MKT	220	Advertising and Sales Promotion	3
MKT	123	Fundamentals of Selling	3

Complete Business Core Certificate (C25120D):
ACC 120, BUS 110, BUS 115, BUS 137, + Choose Social Science Elective

Third Semester

ENG	114	Professional Research and Reporting	3
MKT	221	Consumer Behavior	3
MKT	225	Marketing Research	3
MKT	228	Service Marketing	3
MKT	232	Social Media Marketing	4

Complete Marketing and Sales Certificate (C25120MM):
MKT 120, MKT 123, MKT 220 and MKT 232,

Complete Advertising and Digital Media Certificate (C25120SAD):
MKT 120, MKT 220, MKT 228, MKT 232

Marketing Elective Track 1:
Complete Customer Service Certificate (C25120B):
BUS 110, BUS 137, MKT 123, + Choose BUS 255

Fourth Semester

BUS	139	Entrepreneurship I	3
HUM	115	Critical Thinking	3
MKT	227	Marketing Applications	3
Marketing Elective			3
Mathematics Elective			3

Marketing Elective Track 2:
Complete Entrepreneurship Certificate (C25120C):
BUS 110, BUS 139, MKT 120, + Choose BUS 230 OR BUS 245

Social Science Elective

ECO	151	Survey of Economics	3
ECO	251	Principles of Microeconomics	3
ECO	252	Principles of Macroeconomics	3

Mathematics Electives

MAT	110	Mathematical Measurement & Literacy	3
MAT	143	Quantitative Literacy	3

Marketing Electives

ACC	121	Managerial Accounting	3
BAS	120	Intro to Analytics	3
BUS	125	Personal Finance	3
BUS	228	Business Statistics	3
BUS	230	Small Business Management	3
BUS	240	Business Ethics	3
BUS	245	Entrepreneurship II	3
BUS	255	Organizational Behavior in Business	3
WBL	111	Work-Based Learning I	1
WBL	112	Work-Based Learning I	2
WBL	113	Work-Based Learning I	3

Completion Requirements ..... 64 Credit Hours

BUSINESS ANALYTICS

Business Analytics Degree - A25350

-Day, Online, & Evening

The Business Analytics curriculum is designed to provide students with the knowledge and the skills necessary for employment and growth in analytical professions. Business analysts process and analyze essential information about business operations and also assimilate data for forecasting purposes.

Students will complete course work in business analytics, including general theory, best practices, data mining, data warehousing, predictive modeling, project and operations management, statistical analysis, and software packages. Related skills include business communication, critical thinking and decision making.

Graduates should qualify for employment as data technicians, data scientists, business and data analytics engineers, and business analysts in the fields of finance, banking, logistics, marketing, healthcare, manufacturing, information technology, and government organizations.

Business Intelligence Certificate - C25350A

-Day, Online, & Evening

The Business Intelligence Certificate is designed to provide students a foundation in business intelligence and business analytics principles and applications. Credits earned in the program may be transferred toward an Associate in Applied Science Degree in Business Analytics. Students will learn how to use graphical tools to communicate insights about data, use statistical programming tools to conduct descriptive analytics,

process data, and generate reports that support business decision-making.

Business Analyst Certificate - C25350B

-Day, Online, & Evening

The Business Analyst Certificate is designed to reinforce and advance analytics skills and application. Credits earned in the program may be transferred toward an Associate in Applied Science Degree in Business Analytics. Students will build and validate predictive models that will help guide decision makers, as well as be able to analyze complex data using modern analytics tools and methods.

Marketing Analytics Certificate - C25350C

-Day, Online, & Evening

The Marketing Analytics Certificate is designed to prepare students for job opportunities in the marketing analytics field. Credits earned in this program may be transferred toward an Associate in Applied Science Degree in Business Analytics. Students will learn business analytics practices and how they apply in the marketing industry.

Logistics Analytics Certificate - C25350E

-Day, Online, & Evening

The Logistics Analytics Certificate is designed to prepare students for job opportunities in the logistics analytics field. Credits earned in this program may be transferred toward an Associate in Applied Science Degree in Business Analytics and/or an Associate in Applied Science in Global Logistics. Students will learn business analytics practices and how they are applicable in distribution, transportation, and manufacturing organizations.

Finance Analytics Certificate - C25350F

-Day, Online, & Evening

The Finance Analytics Certificate is designed to prepare students for job opportunities in the finance analytics field. Credits earned in this program may be transferred toward an Associate in Applied Science Degree in Business Analytics. Students will learn business analytics practices and how they are applicable in the financial sector.

PROGRAM SEQUENCE

First Semester

BAS	120	Intro to Analytics	3
BAS	150	Intro to Analytical Program.	3
BUS	110	Introduction to Business	3
CIS	110	Introduction to Computers	3
ENG	111	Writing and Inquiry	3
MAT	143	Quantitative Literacy	3

Second Semester

BAS	121	Data Visualization	3
BAS	220	Appl. Analytical Program.	3
MAT	152	Statistical Methods I	4
BUS	137	Principles of Management	3
Elective List I			3

Complete Business Intelligence Certificate (C25350A): *BAS 120, BAS 121, BAS 150, BAS 220*

Elective 1 Track 1: Complete Marketing Analytics Certificate (C25350C): *Choose MKT 120 + BAS 120, BAS 121, BUS 110*

Elective 1 Track 2: Finance Analytics Certificate (C25350F)*: choose ACC 120*

Elective 1 Track 3: Logistics Analytics Certificate (C25350E): *choose LOG 110*

Elective 1: Business Core (C25120D): *Choose ACC 120*

Third Semester

BAS	221	Intro to Predictive Analytics	3
BAS	240	Data Structures for Analytics	3
ENG	114	Prof Research and Reporting	3
BUS	115	Business Law I	3
Elective List II			3

Elective 2 Track 2: Complete Finance Analytics Certificate *(C25350F), choose BUS 225 + BAS 120, BAS 121, ACC 120*

Elective 2 Track 3: Complete Logistics Analytics Certificate *(C25350E), choose LOG 215 + BAS 120, 121, LOG 110*

Fourth Semester

HUM	115	Critical Thinking	3
ECO	251	Prin of Microeconomics	3
BAS	250	Analytical Tools and Methods	3
BAS	270	Adv Analytical Tools and Methods	3
BAS	230	Applied Predictive Modeling	3
or Elective List II			3

Elective 3 Track 4:
Complete Business Analyst Certificate (C25350B):
Choose BAS 230 + BAS 220, BAS 240, BAS 250, BAS 270

Complete Business Core Certificate (C25120D):
BUS 110, BUS 137, BUS 115, ECO 151or 251 or ECO 252, + Choose ACC 120. * See A25120

Elective List I (Select 3 hours from the following courses):

MKT	120	Principles of Marketing	3
ACC	120	Prin of Financial Acct	4
LOG	110	Introduction to Logistics	3

Elective List II (Select 3 hours from the following courses):

MKT	221	Consumer Behavior	3
BUS	225	Business Finance	3
LOG	215	Supply Chain Management	3
WBL	111	Work-Based Learning 1	1
WBL	112	Work-Based Learning 1	2
WBL	113	Work-Based Learning 1	3

Elective List III (Select 3 hours from the following courses):

BUS	210	Investment Analysis	3
LOG	225	Logistics Systems	4

Completion Requirements ..... 64 Credit Hours

COSMETOLOGY

Cosmetology Degree - A55140

-Day, Online

The Cosmetology curriculum is designed to provide competency-based knowledge, scientific/artistic principles, and hands-on fundamentals associated with the cosmetology industry. The curriculum provides a simulated salon environment which enables students to develop manipulative skills.

Course work includes instruction in all phases of professional imaging, hair design, chemical processes, skin care, nail care, multi-

cultural practices, business/computer principles, product knowledge, and other selected topics.

Graduates should qualify to sit for the State Board of Cosmetic Arts examination. Upon successfully passing the State Board exam, graduates will be issued a license. Employment is available in beauty salons and related businesses.

Cosmetology Diploma - D55140A

-Evening

The Cosmetology curriculum is designed to provide competency-based knowledge, scientific/artistic principles, and hands-on fundamentals associated with the cosmetology industry. The curriculum provides a simulated salon environment which enables students to develop manipulative skills.

Course work includes instruction in all phases of professional imaging, hair design, chemical processes, skin care, nail care, multi-cultural practices, business/computer principles, product knowledge, and other selected topics.

Diploma graduates should qualify to sit for the State Board of Cosmetic Arts examination. Upon successfully passing the State Board exam, graduates will be issued a license. Employment is available in beauty salons and related businesses.

PROGRAM SEQUENCE

First Semester

COS	111	Cosmetology Concepts I	4
COS	112	Salon I	8
COS	224	Trichology & Chemistry	2

Second Semester

COS	113	Cosmetology Concepts II	4
COS	114	Salon II	8
COS	115ab	Cosmetology Concepts III, Part I	2
COS	116ab	Salon III, Part I	2

First Summer Term

ENG	110	Freshman Composition	3
PSY	118	Interpersonal Psychology	3
MAT	110	Mathematical Measurement & Literacy	3

Third Semester

COS	115bb	Cosmetology Concepts III, Part II	2
COS	116bb	Salon III, Part II	2
COS	117	Cosmetology Concepts IV	2
COS	118	Salon IV	7
COS	223	Contemporary Hair Coloring	2

Complete Cosmetology Diploma –D55140A (47 Credits)
COS 111, COS 112, ENG 110, PSY 118, COS 113, COS 114, COS 115, COS 116, COS 117, COS 118

Fourth Semester

COM	120	Intro Interpersonal Communication	3
HUM	121	The Nature of America	3
COS	240	Contemporary Design	2
COS	225	Adv Contemp Hair Coloring	2

Total Graduation Requirement ..... 64 Credit Hours

CRIMINAL JUSTICE TECHNOLOGY

Criminal Justice Technology Degree - A55180

-Day & Online

The Criminal Justice Technology curriculum is designed to provide knowledge of criminal justice systems and operations. Study will focus on local, state, and federal law enforcement, judicial processes, corrections, and security services. The criminal justice system's role within society will be explored.

Emphasis is on criminal justice systems, criminology, juvenile justice, criminal and constitutional law, investigative principles, ethics, and community relations. Additional study may include issues and concepts of government, counseling, communications, computers, and technology.

Employment opportunities exist in a variety of local, state, and federal law enforcement, corrections, and security fields. Examples include police officer, deputy sheriff, county detention officer, state trooper, intensive probation/parole surveillance officer, correctional officer, and loss prevention specialist.

Principles of Corrections Certificate - C55180A

-Day & Online

The Principles of Corrections certificate is designed to provide entry level competencies in the field of contemporary corrections as they apply to criminal justice systems and operations. Study will focus on the history, structure, functions, and philosophy of the criminal justice system with regard to corrections; juvenile justice systems and related issues; corrections alternatives, treatment programs, inmate control; statutory/case law as it applies to correctional concepts, facilities, and related practices; and the study of offenders, diversion, house arrest, restitution, community service, probation and parole. Upon completion of this certificate, employment opportunities exist in a variety of local, state, and federal corrections facilities.

Introduction to Law Enforcement Certificate - C55180B

-Day & Online

Individuals seeking a career in law enforcement should realize that additional credentials may be required to enter into the field of criminal justice. Understanding the role of policing in America, which is the gateway to the criminal justice process is essential. The foundations of police processes, occupational roles and tasks of law enforcement, and the nature and designs of typical, as well as innovative police systems are the foundation of the certificate. A broad introduction to the criminal laws, including the structure and function of the courts; the legal profession, legal education, and the politics of judicial selection are reviewed and applied in the course material. This certificate is taught by knowledgeable faculty members with years of real-world, hands-on experience.

Homeland Security Certificate – C55180H

-Day & Online

The Homeland Security certificate program is designed to increase knowledge for personnel working in the areas of public administration, public safety, security management and law enforcement, and for executives in corporations responsible for overseeing in-house security programs. It provides an introduction to the threats posed by domestic and international terrorism, as well to strategies for countering those threats. Students will explore the best

practices behind successful security planning and thereat assessment, while learning the key principles in homeland security.

Intelligence Analysis Certificate – C55180I

-Day & Online

The Intelligence Analysis (IA) certificate promotes excellence in the study, examination, and assessment of threats, risks, and adversaries in all intelligence sectors. The IA certificate is designed to recognize essential intelligence analysis skill sets in those currently seeking a career in criminal justice system. These skill sets include performing analysis, interpreting analysis, planning and organizing, conducting research, tapping sources of intelligence, working with technology, and communicating and writing.

PROGRAM SEQUENCE

First Semester

CJC	111	Intro to Criminal Justice	3
CJC	112	Criminology	3
CJC	121	Law Enforcement Operations	3
CJC	122	Community Policing	3
CJC	131	Criminal Law	3
ENG	111	Writing and Inquiry	3

Complete Introduction to Law Enforcement Certificate (C55180B): CJC 111, CJC 112, CJC 121, CJC 122, CJC 131

Second Semester

CJC	113	Juvenile Justice	3
CJC	132	Court Procedure and Evidence	3
CJC	141	Corrections	3
CJC	225	Crisis Intervention	3
CJC	233	Correctional Law	3
ENG	112	Writing/Research in the Disc	3
OR			
ENG	114	Prof Research and Reporting	3

Complete Principles of Corrections Certificate (C55180A):
CJC 111, CJC 112, CJC 141, CJC 225, CJC 233

Third Semester

CJC	212	Ethics and Community Relations	3
CJC	221	Investigative Principles	4
CJC	231	Constitutional Law	3
BIO	161	Intro to Human Biology	3
OR			
MAT	143	Quantitative Literacy	3
HUM	115	Critical Thinking	3

Fourth Semester

CJC	161	Introduction to Homeland Security	3
CJC	162	Intel Analysis & Security Management	3
CJC	___	Major Elective	
PSY	118	Interpersonal Psychology	3
WBL	111	Work-based Learning	1
OR			
CJC	255	Issues in CJ Application	3

Complete Homeland Security Certificate (C55180H):
CJC 111, CJC 161, CJC 162, CJC 163

Complete Intelligence Analysis Certificate (C55180I):
CJC 111, CJC 221, CJC 161, CJC 162, CJC 163

Total Graduation Requirement ..... 65-67 Credit Hours

Major Elective (Option)

CJC	170	Critical Incident Management Public Safety	3
CJC	232	Civil Liability	3

CRIMINAL JUSTICE TECHNOLOGY/ FORENSIC SCIENCE

Forensic Science Degree - A5518C

-Day, Hybrid, & Online

Forensic Science is a concentration under the curriculum of Criminal Justice Technology, which focuses on the application of the physical, biomedical, and social sciences to the analysis and evaluation of physical evidence, human testimony and criminal suspects. Study will focus on local, state, and federal law enforcement, evidence processing and procedures.

Students will learn both theory and hands-on analysis of latent evidence. They will learn fingerprint classification, identification, and chemical development. Students will record, cast, and recognize footwear and tire-tracks; and process crime scenes. Issues and concepts of communications and the use of computers and computer assisted design programs in crime scene technology will be discussed.

Graduates should qualify for employment in a variety of criminal justice organizations especially in local, state, and federal law enforcement, and correctional agencies.

Principles of Identification & Information Certificate - C5518A

-Day & Online

Crime scene investigation is a complex process that includes the initial response; evaluation, processing, and documentation of the scene. Throughout the investigation process it is vital to maintain the integrity of the investigation. This is done through, crime scene processing, investigative skills, interview and interrogation of the suspects, proper documentation, which includes written documentation, diagrams and sketches, crime scene photography and basic friction ridge analysis.

Crime Scene investigators can pursue a number of professional accreditations in order to meet basic and advanced standards. The competent CSI will seek continuing education opportunities through attendance at conferences and training seminars, as well as advanced educational programs such as this certificate with Wake Technical Community College.

Crime Scene Technician Certificate – C5518C

-Day & Online

Crime scene technician certificate programs are targeted education options that focus on the skills needed to get an entry-level job with a local, county, or state law enforcement program. This certificate will include coursework on how to properly process a crime scene, including establishing chains of custody for evidence, identifying potential materials for analysis, and taking crime scene photos, identifying footwear and tire imprint and recognition of trace evidence.

Crime scene technicians must have a keen eye for detail and patience as the job has a high degree of unpredictability. Students on track to receive a crime scene technician certificate are focused on using a particular methodology from various sources to compile accurate information and patterns to support law enforcement decisions.

PROGRAM SEQUENCE

First Semester

CJC	111	Introduction to Criminal Justice	3

CJC	112	Criminology	3
CJC	115	Crime Scene Photography	3
CJC	131	Criminal Law	3
CJC	245	Friction Ridge Analysis	3
ENG	111	Writing and Inquiry	3

Second Semester

CJC	113	Juvenile Justice	3
CJC	244	Footwear and Tire Imprint	3
CJC	246	Advanced Friction Ridge Analysis	3
PSY	118	Interpersonal Psychology	3
ENG	111	Writing/Research in the Disc	3
ENG	114	Prof Research and Reporting	3

Third Semester

CJC	146	Trace Evidence	3
CJC	212	Ethics and Community Relations	3
CJC	221	Investigative Principles	4
CJC	231	Constitutional Law	3
BIO	161	Intro to Human Biology	3

Fourth Semester

CJC	132	Court Procedure & Evidence	3
CJC	144	Crime Scene Processing	3
CJC	250	Forensic Biology I	3
CJC	251	Forensic Chemistry I	3
HUM	115	Critical Thinking	3
WBL	111	Work-based Learning	1
OR			
CJC	255	Issues in CJ Application	3

Complete Principles of Identification & Information Certificate (C5518A): CJC 221, CJC 144, CJC 146, CJC 245, CJC 246

Complete Crime Scene Technician (C5518C): CJC 115, CJC 144, CJC 146, CJC 244, CJC 250

Total Graduation Requirement .....66 or 68 Credit Hours

CULINARY ARTS

Culinary Arts Degree - A55150

-Day Only

The Culinary Arts curriculum provides specific training required to prepare students to assume positions as trained culinary professionals in a variety of food service settings including full service restaurants, hotels, resorts, clubs, catering operations, contract food service, and health care facilities.

Course offerings emphasize practical application, a strong theoretical knowledge base, and professionalism and provide the critical competencies to successfully meet industry demands. Courses also include sanitation, food/beverage service and control, baking, garde manger, American/International cuisines, and hospitality supervision.

Graduates should qualify for entry-level positions such as line cook, station chef, and assistant pastry chef. American Culinary Federation certification is available to graduates. With experience, graduates may advance to positions such as sous-chef, executive chef, or food service manager.

Culinary Arts Diploma - D55150

-Day Only

The culinary arts diploma includes basic and more advanced courses to help prepare students for entry into the culinary field or to advance in their current foodservice positions.

Courses address both the art and the science of food preparation. Students learn basic sanitation, cooking and baking principles, and garnishing and presentation skills. Modern supervision techniques are also studied and practiced. The majority of class time is devoted to actual hands on kitchen skill development.

Course credits are transferable to the Culinary Arts associate degree program.

Culinary Arts Certificate - C55150A

-Day and Evening

The Culinary Certificate includes basic courses to help prepare students for entry into the culinary field or to advance in their current foodservice jobs.

Courses address both the art and the science of food preparation. Students learn basic sanitation, cooking and baking principles, and garnishing and presentation skills. Modern supervision techniques are also studied and practiced. The majority of class time is devoted to actual hands-on kitchen skill development.

Courses credits are transferable to the Culinary Arts associate degree program.

PROGRAM SEQUENCE

First Semester

CUL	110	Sanitation and Safety	2
CUL	140	Culinary Skills I	5
ENG	111	Writing and Inquiry	3
MAT	110	Math Measurement & Literacy	3

Second Semester

CUL	160	Baking I	3
CUL	170	Garde-Manger I	3
CUL	240	Culinary Skills II	5
HRM	245	Human Resources Management Hosp	3

Complete Culinary Arts certificate (C55150A):
CUL 110, CUL 140, CUL 160 or CUL 170, CUL 240, HRM 245

Third Semester

CUL	112	Nutrition for Foodservice	3
CUL	112A	Nutrition for Fdsv Lab	1
ENG	112	Writing/Research in the Disc	3
HRM	260	Procurement for Hospitality	3

Fourth Semester

CUL	135	Food and Beverage Service	2
CUL	135A	Food and Beverage Service Lab	1
CUL	250	Classical Cuisine	5
WBL	112	Work-Based Learning I	2
Fall Elective List I			2
CUL	260	Baking II	3

Fifth Semester

CUL	230	Global Cuisines	5
HRM	220	Cost Control-Food and Beverage	3
SPA	120	Spanish for the Workplace	3
CUL	270	Garde Manager II	3

Sixth Semester

PSY	118	Interpersonal Psychology	3
Humanities/Fine Arts Elective			3

Complete Culinary Arts Diploma (D55150):
CUL 110, CUL 140, ENG 111, MAT 110, CUL 160, CUL 170, CUL 240, and HRM 245, + Select six credits from HRM 260, HRM 220,

and CUL 112/A, and select ten credits from BPA 150, CUL 130, CUL 214, CUL 260 or CUL 270

Fall Elective List (Select one of the following):
CUL 130 Menu Design……2
CUL 214 Wine Appreciation……2

Other Electives
BPA 150 Artisan & Specialty Bread 4
WBL 122 Work-Based Learning II 2

Humanities Elective (Select one course from the following):
HUM 115 Critical Thinking..... 3
ART 131 Drawing I 3

Graduation Requirements ..... 72 Credit Hours

EARLY CHILDHOOD EDUCATION

Early Childhood Education Degree - A55220

-Day and Evening

The Early Childhood Education curriculum prepares individuals to work with children from birth through eight in diverse learning environments. Students will combine learned theories with practice in actual settings with young children under the supervision of qualified teachers.

Course work includes child growth and development; physical/ nutritional needs of children; care and guidance of children; and communication skills with families and children. Students will foster the cognitive/language, physical/motor, social/emotional, and creative development of young children.

Graduates are prepared to plan and implement developmentally appropriate programs in early childhood settings. Employment opportunities include child development programs, preschools, public and private schools, recreational centers, Head Start Programs, and school-age programs.

Early Childhood Education: A program that prepares individuals to promote child development and learning, work with diverse families and children, observe, document and assess to support young children and families, use content knowledge to build meaningful curriculum, and use developmentally effective approaches in collaboration with other early childhood professionals. Potential coursework includes instruction in all areas of child development such as emotional/ social/ health/ physical/ language/ communication, approaches to play and learning, working with diverse families, and related observations/ student teaching experiences.

**Within the degree program, the institution shall include opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical sills, and basic use of computers.*

Early Childhood Education Diploma - D55220A

-Day and Evening

The Early Childhood Education diploma prepares individuals to work as assistants with early childhood specialists in children's centers, nursery schools, kindergartens, child development centers, hospitals, institutions, camps, and recreation centers.

Early Childhood Education Certificate - C55220D

-Day, Evening, Online

The Early Childhood Education Certificate provides a strong foundation for early childhood professionals working with young children through six courses. The Early Childhood Education Certificate is stackable within the diploma and associate degree. Students will combine learned theories with practice through a practicum experience with young children under the supervision of qualified teachers.

Upon successful completion of EDU 119, the student earns the NC Early Childhood Credential and qualifies to be the lead teacher in a child care center. Additionally, all courses with EDU prefixes are used to evaluate the educational level of each child care provider by the NC Division of Child Development and Early Education.

School-Age Certificate - C55220E

- Online

The School-Age Certificate provides a strong foundation for early childhood professionals working with school-age children through six courses. The School-Age Certificate enables the student to receive two state credentials.

Upon successful completion of EDU 119, the student earns the NC Early Childhood Credential and qualifies to be the lead teacher in a child care center.

By successfully completing EDU 145 and either EDU 235 or EDU 263, the student receives the NC School-Age Credential.

Additionally, all courses with EDU prefixes are used to evaluate the educational level of each child care provider by the NC Division of Child Development and Early Education.

Preschool Foundation Certificate - C55220G

-Day, Evening, Online

The Early Childhood Education Certificate provides a foundation for early childhood professionals working with young children through five courses. The Early Childhood Education Certificate is stackable within the diploma and associate degree.

Upon completion of EDU 119, the student earns the NC Early Childhood Credential and qualifies to be the lead teacher in a child care center. Additionally, all courses with EDU prefixes are used to evaluate the educational level of each child care provider by the NC Division of Child Development and Early Education.

Infant/Toddler Care Certificate - C55290

-Day, Evening, Online

The Infant/Toddler Care Certificate introduces the student to the field of ECE with a concentration of study of children birth through the age of two years through six courses. The Infant/Toddler Care Certificate is stackable within the diploma and associate degree. Students will combine learned theories with practice through a practicum experience with young children under the supervision of qualified teachers.

Upon successful completion of EDU 119, the student earns the NC Early Childhood Credential and qualifies to be the lead teacher in a child care center. Additionally, all courses with EDU prefixes are used to evaluate the educational level of each child care provider by the NC Division of Child Development and Early

Education. This certificate is listed as one option in obtaining quality points in the Star Rated License System.

Birth-Kindergarten (B-K) Licensure Transfer - A55220B

PROGRAM SEQUENCE

First Semester

EDU	119	Introduction to Early Childhood Education	4
EDU	131	Child, Family, and Community	3
EDU	144	Child Development I	3
ENG	111	Writing and Inquiry	3
PSY	150	General Psychology	3

Second Semester

EDU	145	Child Development II	3
EDU	146	Child Guidance	3
EDU	153	Health, Safety, and Nutrition	3
COM	231	Public Speaking	3
MAT	143	Quantitative Literacy	3

Complete Preschool Foundation Certificate (C55220G): EDU 119, EDU 131, EDU 144, EDU 145, EDU 146

Third Semester

EDU	151	Creative Activities	3
EDU	184	Early Child Intro Pract	2
EDU	234	Infants, Toddlers, and Twos	3
HUM/FINE ARTS			
ART	111	Art Appreciation *OR*	3
MUS	110	Music Appreciation *OR*	3
PHI	240	Introduction to Ethics	3

Complete Infant/Toddler Care Certificate (C55290):
EDU 119, EDU 131, EDU 144, EDU 153, EDU 234, EDU 184

Complete Early Childhood Education ECE Certificate (C55220D):
EDU 119, EDU 131, EDU 145, EDU 146, EDU 153, EDU 184

Fourth Semester

BIO	110	Principles of Biology	4
EDU	216	Foundations of Education	3
EDU	221	Children with Exceptionalities	3
ENG	112	Writing/Research in the Disc	3
SOC/BEHAVIORAL			
ECO	251	Principles of Microeconomics *OR*	3
POL	120	American Government *OR*	3
SOC	210	Introduction to Sociology	3

Fifth Semester

EDU	250	Teacher Licensure Preparation	3
EDU	280	Language & Literacy Exp	3
EDU	284	Early Child Capstone Prac	4
NAT SCIENCE			
GEL	111	Geology *OR*	4
PHY	110	Conceptual Physics *OR*	3
PHY	110A	Conceptual Physics Lab	1

TOTAL GRADUATION REQUIREMENT 72 SEMESTER CREDIT HOURS

Career Track - A55220C
PROGRAM SEQUENCE

First Semester

EDU	119	Introduction to Early Childhood Education	4
EDU	131	Child, Family, and Community	3
EDU	144	Child Development I	3
ENG	111	Writing and Inquiry	3
PSY	150	General Psychology	3

Second Semester

EDU	145	Child Development II	3
EDU	146	Child Guidance	3
EDU	153	Health, Safety, and Nutrition	3
COM	231	Public Speaking	3
MAT	110	Math Measurement & Literacy	3

Complete Preschool Foundation Certificate (C55220G): EDU 119, EDU 131, EDU 144, EDU 145, EDU 146

Third Semester

EDU	151	Creative Activities	3
EDU	184	Early Child Intro Pract	2
EDU	234	Infants, Toddlers, and Twos	3
HUM/FINE ARTS			
ART	111	Art Appreciation *OR*	3
MUS	110	Music Appreciation *OR*	3
PHI	240	Introduction to Ethics	3

Complete Early Childhood Education Diploma (D55220A):
ENG 111, COM 231, PSY 150, MAT 110, EDU 119, EDU 131, EDU 144, EDU 145, EDU 146, EDU 151, EDU 184, EDU 234.

Complete Infant/Toddler Care Certificate (C55290):
EDU 119, EDU 131, EDU 144, EDU 153, EDU 234, EDU 184

Complete Early Childhood Education ECE Certificate (C55220D):
EDU 119, EDU 131, EDU 145, EDU 146, EDU 153, EDU 184

Fourth Semester

EDU	282	Early Childhood Literature	3
EDU	221	Children with Exceptionalities	3
EDU	157	Active Play	3
___	___	Elective I (Choose a minimum of 3 credit hours)	3

Fifth Semester

EDU	251	Exploration Activities	3
EDU	280	Language & Literacy Exp	3
EDU	284	Early Child Capstone Prac	4
___	___	Elective II (Choose a minimum of 3 credit hours)	3

TOTAL GRADUATION REQUIREMENT 66-67 SEMESTER CREDIT HOURS

Elective List I and II (Choose a minimum of 6 credit hours)

EDU	163	Classroom Mgt & Instruct	3
EDU	235	School-Age Dev & Program	3
EDU	261	Early Childhood Administration I	3
EDU	*262	Early Childhood Administration II	3
EDU	263	School-Age Program Admin	2

*EDU 262 has a prerequisite of 261. Take EDU 261 as Elective 1 and EDU 262 as Elective 2.

Early Education Non-Teaching Licensure Transfer - A55220E
PROGRAM SEQUENCE

First Semester

EDU	119	Introduction to Early Childhood Education	4
EDU	131	Child, Family, and Community	3
EDU	144	Child Development I	3
ENG	111	Writing and Inquiry	3
PSY	150	General Psychology	3

Second Semester

EDU 145 Child Development II....3
EDU 146 Child Guidance....3
EDU 153 Health, Safety, and Nutrition....3
COM 231 Public Speaking....3
MAT 143 Quantitative Literacy OR....3

Complete Preschool Foundation Certificate (C55220G): EDU 119, EDU 131, EDU 144, EDU 145, EDU 146

Third Semester
EDU 151 Creative Activities....3
EDU 184 Early Child Intro Pract....2
EDU 234 Infants, Toddlers, and Twos....3
HUM/FINE ARTS
ART 111 Art Appreciation *OR*....3
MUS 110 Music Appreciation *OR*....3
PHI 240 Introduction to Ethics....3

Complete Infant/Toddler Care Certificate (C55290):
EDU 119, EDU 131, EDU 144, EDU 153, EDU 234, EDU 184

Complete Early Childhood Education ECE Certificate (C55220D):
EDU 119, EDU 131, EDU 145, EDU 146, EDU 153, EDU 184

Fourth Semester
BIO 110 Principles of Biology....4
EDU 261 Early Childhood Admin I....3
EDU 221 Children with Exceptionalities....3
ENG 112 Writing/Research in the Disc....3
SOC/BEHAVIORAL
ECO 251 Principles of Microeconomics *OR*....3
POL 120 American Government *OR*....3
SOC 210 Introduction to Sociology....3

Fifth Semester
EDU 262 Early Childhood Admin II....3
EDU 280 Language & Literacy Exp....3
EDU 284 Early Child Capstone Prac....4
NAT SCIENCE
GEL 111 Geology *OR*....4
PHY 110 Conceptual Physics *OR*....3
PHY 110A Conceptual Physics Lab....1

TOTAL GRADUATION REQUIREMENT 72 SEMESTER CREDIT HOURS

ESTHETICS TECHNOLOGY

Esthetics Technology Certificate - C55230

The Esthetics Technology curriculum provides competency-based knowledge, scientific/artistic principles and hands-on fundamentals associated with the art of skin care. The curriculum provides a simulated salon environment which enables students to develop manipulative skills.

Course work includes instruction in all phases of professional Esthetics Technology, business/human relations, product knowledge, and other related topics.

Graduates should be prepared to take the North Carolina Cosmetology State Board Licensing Exam and upon passing be licensed and qualify for employment in beauty and cosmetic/skin care salons, as a platform artist, and in related businesses.

PROGRAM SEQUENCE

First Semester
COS 119 Esthetics Concepts I....2
COS 120 Esthetics Salon I....6

Second Semester
COS 125 Esthetics Concepts II....2
COS 126 Esthetics Salon II....6

Total Graduation Requirements .... 16 Credit Hours

FIRE PROTECTION TECHNOLOGY

Fire Protection Technology Degree - A55240

-Online

The Fire Protection Technology curriculum is designed to provide individuals with technical and professional knowledge to make decisions regarding fire protection for both public and private sectors. It also provides a sound foundation for continuous higher learning in fire protection, administration, and management.

Course work includes online classroom exercises to introduce the student to various aspects of fire protection. Students will learn technical and administrative skills such as suppression strategies, fire cause determination, hazardous materials, fire safety, fire management, law, and codes.

Graduates should qualify for employment or advancement in governmental agencies, industrial firms, insurance rating organizations, educational organizations, and fire departments. Employed persons should have opportunities for skilled and supervisory-level positions within their current organizations.

Fire Protection Technology: Basic Certificate - C55240A

- Online

The General Certificate in Fire Protection is designed to develop a student's appreciation and understanding of fire service as a career. Concentrated studies in firefighting strategies, building construction, and fire prevention prepare a student for an entry-level position in fire service.

Loss Control/Investigation Certificate - C55240B

-Online

The Loss Control/Investigation certificate prepares students to function effectively within a fire department's inspections and investigations division. The program provides an overview into the theories, practices, and scope of the fire prevention function, including fire cause investigation, fire protection law, life safety, public education, fire protection systems, and expository writing. Upon completion, certificate holders may qualify for supervisory or entry-level management positions in fire prevention, training, or fire suppression. Additional employment opportunities in fire and life safety protection may also be found in hospitals, colleges, manufacturing facilities or insurance companies.

Fire Management Certificate - C55240C

-Online

The Fire Service Management Certificate develops the student's leadership skills in preparation for promotion into the leadership ranks of a fire department or other fire protection agency. The course work will provide the student with an overview into the theories, practices, and scope of fire service management in action. Course work includes personnel supervision, expository writing, administration, public relations, finance, and planning. Upon completion certificate holders may qualify for supervisory or entry-level management positions in fire suppression, fire prevention, or training.

PROGRAM SEQUENCE

First Semester

ENG	111	Writing and Inquiry	3
FIP	120	Intro to Fire Protection	3
FIP	124	Fire Prevention & Public Ed	3
FIP	132	Building Construction	3
FIP	220	Fire Fighting Strategies	3

Second Semester

FIP	128	Detection & Investigation	3
FIP	152	Fire Protection Law	3
FIP	176	Hazard Material Operations	3
BIO	161	Introduction to Human Biology	3
OR			
MAT	143	Quantitative Literacy	3
ENG	114	Professional Research & Reporting	3

Third Semester

FIP	136	Inspection and Codes	3
FIP	162	Firefighter Safety and Wellness	3
FIP	164	OSHA Standards	3
FIP	228	Local Government Finance	3
FIP	240	Fire Service Supervision	3
HUM	115	Critical Thinking	3
Or			
PHI	240	Introduction to Ethics	3

Fourth Semester

EPT	140	Emergency Management	3
FIP	229	Fire Dynamics and Combust	3
FIP	244	Fire Protection Project	3
FIP	256	Municipal Public Relations	3
FIP	276	Managing Fire Services	3
PSY	118	Interpersonal Psychology	3

Total Graduation Requirement ..... 67 Credit Hours

Fire Protection Technology: Basic Certificate (C55240A):
FIP 120, FIP 124, FIP 132, FIP 220, FIP 229

Fire Management Certificate (C55240C):
ENG 111, FIP 152, FIP 228, FIP 240, FIP 276

Loss Control/Investigation Certificate (C55240B):
ENG 111, FIP 124, FIP 128, FIP 152, FIP 276

LATERAL ENTRY

Lateral Entry Certificate - C55430

-Evening

The Lateral Entry curriculum provides a course of study leading to the development of the general pedagogy knowledge needed to become certified to teach by the North Carolina Department of Public Instruction. Prospective lateral entry candidates are required to meet with the program coordinator prior to entry into the program. They are required to obtain a plan of study from a designated regional alternative licensing center (RALC) prior to applying for admissions to this program.

Course work includes human growth and development, learning theory, instructional technology, school policies and procedures, home, school, and community collaborations, and classroom organization and management to enhance learning. Courses offered by partnering senior institutions include instructional methods, literacy, and exceptionalities in the classroom. Additional courses may be required based on the review of transcripts completed by the RALC and documented in an individual plan of study.

Upon completion of the program, graduates should meet the general pedagogical competencies within the first three years of teaching, including a minimum of six semester hours per school year. Additional requirements, such as pre-service training and passing the PRAXIS, are required for licensure.

PROGRAM SEQUENCE

First Semester

EDU	163	Classroom Mgt & Instruct	3
EDU	245	Policies and Procedures	3

Second Semester

EDU	244	Human Growth/Development	3
EDU	271	Educational Technology	3

Third Semester

EDU	131	Child, Family, & Community	3
EDU	243	Learning Theory	3

Course Required at Senior Institution

-	-	Literacy/Reading Methods	3(+)
		Instructional Methods	3(+)
		Meeting Special Learning Needs, Exceptionalities, Diversity	3(+)

Total Community College Requirements = 18 Sem. Credit Hours

Total Completion Requirements 27 (++) Semester Credit Hours.

HOSPITALITY MANAGEMENT

Hospitality Management Degree - A25110

-Day and online

The Hospitality Management curriculum prepares students to understand and apply the administrative and practical skills needed for supervisory and managerial positions in hotels, motels, resorts, inns, restaurants, institutions, and clubs.

Course work includes front office management, guest services, sanitation, menu writing, quality management, purchasing, and other areas critical to the success of hospitality professionals.

Upon completion, graduates should qualify for supervisory or entry-level management positions in food and lodging including: front office, reservations, housekeeping, purchasing, dining room, and marketing. Opportunities are also available in the support areas of food and equipment sales.

Hospitality Management Diploma - D25110A

-Day

The hospitality management diploma prepares students to understand and apply the administrative and practical skills needed for positions in the hospitality industry. It also applies advanced classes in the hospitality and business field. Students may also choose concentrations in restaurant or hotel management. Course work includes guest services, human resource management, and other areas critical to the success of hospitality professionals. Upon completion, graduates should qualify for entry level supervisory or management training positions in the hospitality industry.

Hospitality Restaurant Management Certificate - C25110D

-Day

The restaurant management certificate prepares students to understand and apply the administrative and practical skills needed for positions in the restaurant industry. Course work includes guest services, sanitation, human resource management, and other areas critical to the success of restaurant professionals. Upon completion, graduates should qualify for entry level supervisory or management training positions in the restaurant industry.

Procurement Management Certificate – C25110E

-Day

The procurement management certificate provides students with skills specific to positions in food ordering industry. Couse work includes procurement, sanitation, culinary skills, and accounting. Upon completion, graduates should qualify for entry-level supervisory or management training positions in food procurement.

Hospitality Management Core Certificate – C25110F

-Online only

The hospitality management core certificate provides students an understanding of management and practical skills for the hospitality industry. Course work includes guest services, human resource management, leadership and other areas critical to the success of hospitality professionals. Upon completion, graduates should qualify for entry-level supervisory or management training positions in the hospitality industry.

Hospitality Event Coordinator Certificate - C25110G

-Day Only

The event management certificate prepares students to understand and apply the administrative and practical skills needed for positions in the field of meeting and convention planning. Course work includes guest services, event planning, marketing, and other areas critical to the success of industry professionals. Upon completion, graduates should qualify for entry level supervisory or management training positions in the meeting and convention planning field.

Hospitality Hotel Operations Certificate- C25110H

-Day

The hotel management certificate prepares students to understand and apply the administrative and practical skills needed for positions in the hotel industry. Course work includes guest services, sanitation, human resource management, and other areas critical to the success of hotel professionals. Upon completion, graduates should qualify for entry level supervisory or management training positions in the hotel industry.

Foodservice Entrepreneurship Certificate - C25110J

-Day

The entrepreneur certificate gives students basic business skills specific to the hotel and restaurant industry. Course work includes guest services, human resource management, basic business and entrepreneurship studies, and other areas critical to the success of industry professionals. Upon completion, graduates should have a good understanding of the basics of setting up a business in the hospitality industry.

PROGRAM SEQUENCE

First Semester

CUL	110	Sanitation and Safety	2
ENG	111	Writing and Inquiry	3
HRM	110	Introduction to Hosp & Tourism	3
MAT	110	Math Measurement & Literacy	3
PSY	118	Interpersonal Psychology	3
___	___	*Elective List I	2

Second Semester

CUL	135	Food and Beverage Service	2
CUL	135A	Food and Beverage Service Lab	1
HRM	245	Human Resource Mgmt - Hosp	3
CUL	142	Fundamentals of Food	
OR			
CUL	140	Culinary Skills I	5
HUM	115	Critical Thinking	3
___	___	*Elective List II	2

Third Semester

HRM	220	Cost Control - Food and Beverage	3
HRM	275	Leadership-Hospitality	3
HRM	240	Marketing for Hospitality	3

Fourth Semester

WBL	112	Work-Based Learning I	2
HRM	235	Quality Mgmt - Hospitality	3
SPA	120	Spanish for the Workplace	3
___	___	*Elective List III	3

Fifth Semester

ACC	175	Hotel and Restaurant Accounting	4
HRM	140	Legal Issues – Hospitality	3
___	___	*English Elective	3
___	___	*Elective List IV	3

Complete Hospitality Restaurant Management certificate (C25110D): CUL 110, HRM 110, HRM 215, HRM 245, HRM 275, CUL 135 and CUL 135A

Complete Procurement Management certificate (C25110E): ACC 175, CUL 110, CUL 140 OR CUL 142, HRM 220 and HRM 260.

Complete Hospitality Management Core certificate (C25110F): HRM 110, HRM 140, HRM 245, HRM 275 and HRM 280.

Complete Hospitality Event Coordinator certificate (C25110G): HRM 110, HRM 140, HRM 240, HRM 235, HRM 125 and HRM 210

Complete Hospitality Hotel Operations certificate (C25110H):
CUL 110, HRM 110, HRM 120,HRM 210 and HRM 245.

Complete Foodservice Entrepreneurship certificate (C25110J):
BUS 139, CUL 110, HRM 245HRM 140, HRM 220 and HRM 240.

Complete Hospitality Management diploma (D25110):
CUL 110, ENG 111, HRM 110, MAT 110, HRM 140, HRM 240, HRM 220, HRM 245; Take one course from BUS 139, CUL214, or HRM 225; Choose 8 credits from ACC 175, CUL 130, CUL 135, CUL 135A, CUL 142, HRM 260; Choose 8 credits from WBL 112, HRM 120, HRM 210, SPA 120

English Electives (Select one course from the following list):

ENG	112	Writing/Research in the Disc	3
ENG	114	Prof Research and Reporting	3

Elective List *I (Select one or both course(s) from the following list)*:

CUL	214	Wine Appreciation	2
HRM	120	Front Office Procedures	3

Elective List II *(Select one or both course(s)from the following list)*:

CUL	130	Menu Design	2
HRM	225	Beverage Management	3

Elective List III*: (Select one or both course(s) from the following list):*

BUS	139	Entrepreneurship I	3
HRM	210	Meetings & Event Planning	3

Elective List IV *(Select 3 credits from the following list)*:

BUS	139	Entrepreneurship I	3
BUS	230	Small Business Management	3
CUL	130	Menu Design	2
CUL	214	Wine Appreciation	2
HRM	120	Front Office Procedures	3
HRM	125	Etiquette for Hospitality	1
HRM	210	Meetings & Event Planning	3
HRM	215	Restaurant Management	3
HRM	225	Beverage Management	3
HRM	260	Procurement for Hospitality	3

Graduation Requirements ..... 68 Credit Hours

SUPPLY CHAIN MANAGEMENT (GLOBAL LOGISTICS TECHNOLOGY)

SUPPLY CHAIN MANAGEMENT (DISTRIBUTION MANAGEMENT) DEGREE - A25620D

-Online

The Global Logistics / Distribution Management Technology curriculum prepares individuals for a multitude of career opportunities in distribution, transportation, warehousing, supply chain, and manufacturing organizations.

Course work includes the international and domestic movement of goods from the raw materials source(s) through production and ultimately to the consumer. Courses in transportation, warehousing, inventory control, material handling, purchasing, computerization, supply chain operations and federal transportation and OSHA regulations are emphasized.

Graduates should qualify for positions in a wide range of logistics-related positions in government agencies, manufacturing, and service organizations. Employment opportunities include entry-level purchasing, material management, warehousing, inventory, transportation, international freight, and logistics analysts. Upon completion, graduates may be eligible to pursue professional credentials through APICS, AST&L, CSCMP, and ISM

Distribution Management Core Certificate - C25620DA

- Online

This certificate is designed to give students a broad foundation in distribution management. Emphasis is placed on providing an overview of the major functions of arranging and coordinating the transportation of products globally. Students will also gain an understanding of all activities involved in the flow of products and information between the suppliers, customers, producers, and service providers. Upon completion students will understand the basics of distribution management.

Transportation Management Certificate - C25620DB

- Online

This certificate is designed to give students a broad foundation in distribution management. Emphasis is placed on providing an overview of the major functions of arranging and coordinating the transportation of products globally. Students will also gain an understanding of all activities involved in the flow of products and information between the suppliers, customers, producers, and service providers. Upon completion students will understand the basics of distribution management.

PROGRAM SEQUENCE

First Semester

CIS	111	Basic PC Literacy	2
BUS	137	Principles of Management	3
ENG	111	Writing & Inquiry	3
LOG	110	Introduction to Logistics	3
MAT	121	Algebra/ Trigonometry 1	3
HUM	115	Critical Thinking	3

Second Semester

ACC	120	Principles of Financial Accounting	4
ENG	114	Professional Research and Reporting	3
LOG	120	Global Logistics	3
LOG	211	Distribution Management	3
LOG	215	Supply Chain Management	3

Complete Distribution Management Core Certificate (C25620DA):
BUS 137, LOG 110, LOG 120, LOG 215

Third Semester

ECO	251	Principles of Microeconomics	3
MKT	120	Principles of Marketing	3
LOG	210	Fleet Management	3
LOG	225	Logistics Systems	4
___	___	*Major Elective	3

Complete Transportation Management Certificate (C25620DB):
LOG 211, LOG 215, LOG 210, LOG 225

Fourth Semester

BUS	115	Business Law I	3
LOG	220	Logistics Management	3
LOG	230	Transportation Management	3
LOG	245	Logistics Security	3
___	___	*Major Elective	3

Complete Logistics Analytics Certificate (C25350E):
LOG 110, LOG 215, +BAS 120 and BAS 121 from major elective list

Major Electives (choose a minimum of 3 credit hours)

BUS	153	Human Resources Management	3
WBL	111	Work-Based Learning I	1
WBL	112	Work-Based learning I	2
WBL	121	Work-Based learning II	1
LOG	240	Purchasing Logistics	3
BAS	120	Business Analytics I	3
BAS	121	Analytics Methods I	3

Total Graduation Requirement ..... 64 Semester Credit Hours

SUPPLY CHAIN MANAGEMENT (GLOBAL LOGISTICS TECHNOLOGY) DEGREE - A25620G

-Online

The Global Logistics / Distribution Management Technology curriculum prepares individuals for a multitude of career opportunities in distribution, transportation, warehousing, supply chain, and manufacturing organizations.

Course work includes the international and domestic movement of goods from the raw materials source(s) through production and ultimately to the consumer. Courses in transportation, warehousing, inventory control, material handling, purchasing, computerization, supply chain operations and federal transportation and OSHA regulations are emphasized.

Graduates should qualify for positions in a wide range of logistics-related positions in government agencies, manufacturing, and service organizations. Employment opportunities include entry-level purchasing, material management, warehousing, inventory, transportation, international freight, and logistics analysts. Upon completion, graduates may be eligible to pursue professional credentials through APICS, AST&L, CSCMP, and ISM.

Logistics Core Certificate – C25620GA

-Online

This certificate is designed to give students a broad foundation in logistics. Emphasis is placed on the various modes of domestic transportation, the movement and storage of goods from raw materials sources to end consumers, warehouse and distribution center management, and management skills. Upon completion students will understand the basics of logistics management

International Logistics Certificate – C25620GB

-Online

This certificate is designed to give students a broad foundation in the global supply chain. Emphasis is placed on import/export management, purchasing and the impact on materials management, supply chain, transportation, and global logistics processes. Upon completion students will understand the global supply chain.

Supply Chain Certificate – C25620GC

-Online

This certificate is designed to give students a broad foundation in the supply chain. Emphasis is placed on the activities of logistics, the various modes of domestic transportation, warehousing and distribution center management, and supply chain management. Upon completion students will understand the supply chain.

PROGRAM SEQUENCE

First Semester

CIS	111	Basic PC Literacy	2
BUS	137	Principles of Management	3
ENG	111	Writing & Inquiry	3
LOG	110	Introduction to Logistics	3
LOG	125	Transportation Logistics	3
MAT	121	Algebra/ Trigonometry 1	3

Second Semester

ACC	120	Principles of Financial Accounting	4
MKT	120	Principles of Marketing	3
ENG	114	Professional Research and Reporting	3
LOG	211	Distribution Management	3
LOG	215	Supply Chain Management	3

Complete Logistics Core Certificate (C25620GA):
LOG 110, LOG 125, LOG 211, BUS 137

Complete Supply Chain Certificate (C25620GC):
LOG 110, LOG 125, LOG 211, LOG 215

Third Semester

ECO	251	Principles of Microeconomics	3
INT	110	International Business	3
LOG	225	Logistics Systems	4
LOG	235	Import/Export Management	3
LOG	240	Purchasing Logistics	3

Complete International Logistics Certificate (C25620GB):
LOG 215, INT 110, LOG 235, LOG 240

Fourth Semester

BUS	115	Business Law I	3
HUM	115	Critical Thinking	3
LOG	245	Logistics Security	3
LOG	250	Advanced Global Logistics	4
___	___	*Major Elective	3

Major Electives (Select 3 credit hours)

BUS	153	Human Resources Management	3
WBL	111	Work-Based Learning I	1
WBL	112	Work-Based learning I	2
WBL	121	Work-Based learning II	1
BAS	120	Business Analytics I	3
BAS	121	Analytics Methods I	3

Complete Logistics Analytics Certificate (C25350E) see A25350:
BAS 120, BAS 121, LOG 110, LOG 215

Total Graduation Requirement..... 65 Semester Credit Hours

COLLEGE/UNIVERSITY TRANSFER

The course sequence outlined below is suggested for **full-time students** pursuing an **Associate of Arts (AA) Degree**, who have placed out of all developmental courses. Part-time students should seek advising to determine the best course sequence to meet their educational goals. To earn the **AA** degree, all students are required to complete:

- 6 credits of UGETC English Composition
  - ENG-111 & ENG-112
- 3 - 4 credits of UGETC Mathematics
  - MAT-143, MAT-152, or MAT-171
- 4 credits of UGETC Natural Sciences
  - AST-151 & AST-151A, BIO-110, BIO-111, CHM-151, GEL-111, or PHY-110 & PHY-110A
- 9 credits of UGETC Humanities/Fine Arts, from at least 2 subjects
  - ART-111, ART-114, ART-115, COM-231, ENG-231, ENG-232, ENG-241, ENG-242, MUS-110, MUS-112, PHI-215, or PHI-240
- 9 credits of UGETC Social/Behavioral Sciences, from at least 2 subjects
  - ECO-251, ECO-252, HIS-111, HIS-112, HIS-131, HIS-132, POL-120, PSY-150, or SOC-210
- 14 credits of additional General Education Courses
- 1 credit of ACA-122
- 14 credits of electives chosen from the list of Transferable Courses
- In addition, at least one of COM-110, COM-120, or COM-231 must be taken as part of the above coursework

Click to view the complete list Transferrable courses available for the A.A, A.F.A., and A.S degrees.

FIRST SEMESTER	Credit Hours	SECOND SEMESTER	Credit Hours
ENG-111	3	ENG 112	3
UGETC Mathematics	3-4	UGETC Social/Behavioral Science Be sure to choose at least 2 subjects	3
UGETC Natural Sciences	4	UGETC Humanities/Fine Arts Be sure to choose at least 2 subjects	3
UGETC Social/Behavioral Science	3	General Education Course	3
UGETC Humanities/Fine Arts	3	General Education Course	3
		ACA-122	1
Total Number of Credit Hours	**16 – 17**	**Total Number of Credit Hours**	**16**

THIRD SEMESTER	Credit Hours	FOURTH SEMESTER	Credit Hours
UGETC Humanities/Fine Arts Be sure to choose at least 2 subjects	3	Communications Take COM-110, COM-120, or COM-231 if not previously selected If COM-110, COM-120, or COM-231 was previously selected, then choose an elective from the list of transferable courses	3
UGETC Social/Behavioral Science Be sure to choose at least 2 subjects	3	Elective - from the list of transferable courses	3
General Education Course	3	Elective - from the list of transferable courses	3
General Education Course	3	Elective - from the list of transferable courses	3
General Education Course	3	Elective - from the list of transferable courses	**3**
Total Number of Credit Hours	**15**	**Total Number of Credit Hours**	**15**
		APPLY FOR ASSOCIATE IN ARTS DEGREE	**60 - 61**

THIS SHEET IS FOR ADVISING PURPOSES ONLY. Students should work with their Advisor to determine course selections that will result in the greatest transferrable credit, for the intended program, upon transfer to the four-year school.
Note 4-semester outline based upon no pre-requisites classes required; students may elect to take courses during summer pending availability
****Note*** Students choosing 3 hour General Education and Elective courses may exceed the required 60-61 credits
****Note*** Transfer students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution. Students who wish to take Foreign Language should begin the sequence in the first or second semester. Foreign Language courses will count toward the additional General Education or pre-major courses for degree completion. For students who select Foreign Language courses, the required UGETC courses in Humanities/Fine Arts and/or in Behavioral/Social Sciences can be delayed until the third semester.

COLLEGE/UNIVERSITY TRANSFER

The course sequence outlined below is suggested for **full-time students** pursuing an **Associate in Fine Arts in Visual Arts**, who have placed out of all developmental courses. Part-time students should seek advising to determine the best course sequence to meet their educational goals.

Note: To earn the **AFA** – **Visual Arts** degree, all students are required to complete:

- 6 credits of UGETC English Composition
  - ENG-111 & ENG-112
- 3 - 4 credits of UGETC Mathematics
  - MAT-143, MAT-152, or MAT-171
- 4 credits of UGETC Natural Sciences
  - AST-151 & AST-151A, BIO-110, BIO-111, CHM-151. GEL-111, or PHY-110 & PHY-110A
- 6 credits of Humanities/Fine Arts, from at least 2 subjects
  - COM-231, ENG-231, ENG-232, ENG-241, ENG-242, MUS-110, MUS-112, PHI-215, or PHI-240
- 6 credits of UGETC Social/Behavioral Sciences, from at least 2 subjects
  - ECO-251, ECO-252, HIS-111, HIS-112, HIS-131, HIS-132, POL-120, PSY-150, or SOC-210
- 15 credits of required ART courses
  - ART-114, ART-115, ART-121, ART-122, and ART-131
- 1 credit of ACA-122
- 19 credits of electives, chosen from the list of UGETC, General Education Core, or Transferable Courses

Click to view the complete list Transferrable courses available for the A.A, A.F.A., and A.S degrees.

FIRST SEMESTER	Credit Hours	SECOND SEMESTER	Credit Hours
ENG-111	3	ENG-112	3
UGETC Mathematics	3 - 4	UGETC Social/Behavioral Science	3
Required ART course: ART-121	3	Required ART course: ART-122	3
Required ART course: ART-114	3	Required ART course: ART-115	3
Required ART course: ART-131	3	Elective (ART-132 Recommended)	3
ACA-122	1		
Total Number of Credit Hours	**16 - 17**	**Total Number of Credit Hours**	**15**

- Students may also elect to take courses during the summer, pending availability.

THIRD SEMESTER	Credit Hours	FOURTH SEMESTER	Credit Hours
UGETC Social/Behavioral Science Be sure to choose at least 2 subjects	3	Humanities/Fine Arts Be sure to choose at least 2 subjects	3
Humanities/Fine Arts	3	UGETC Natural Science	4
Elective (ART-231 Recommended)	3	Elective (ART-232, ART-241, or ART-282 Recommended)	3
Elective (ART-240 or ART-281 Recommended)	3	Elective (ART-281, ART-244, or ART-171 Recommended)	3
Elective (ART-171 or ART-275 Recommended)	3	Elective (ART-214 Recommended)	1-3
Total Number of Credit Hours	**15**	**Total Number of Credit Hours**	**14-16**
		APPLY FOR ASSOCIATE IN FINE ARTS DEGREE	**60***

THIS SHEET IS FOR ADVISING PURPOSES ONLY. Students should work with their Advisor to determine course selections that will result in the greatest transferrable credit, for the intended program, upon transfer to the four-year school.
Note 4-semester outline based upon no pre-requisites classes required; students may elect to take courses during summer pending availability
Note* Students choosing 3 hour General Education and Elective courses may exceed the required 60 credits

COLLEGE/UNIVERSITY TRANSFER

The course sequence outlined below is suggested for **full-time students** pursuing an **Associate of Sciences (AS) Degree,** who have placed out of all developmental courses. Part-time students should seek advising to determine the best course sequence to meet their educational goals.
To earn the **AS** degree, all students are required to complete:

- 6 credits of UGETC English Composition
  - ENG-111 and ENG-112
- 8 credits of UGETC Mathematics
  - MAT-171, MAT-172, MAT-263, or MAT-271
- 8 credits of UGETC Natural Sciences as a one year sequence in one discipline area
  - BIO-111 & BIO-112, CHM-151 & CHM-152, PHY-151 & PHY-152, PHY-251 & PHY-252, or AST-151, AST-151A & GEL-111
- 6 credits of UGETC Humanities/Fine Arts, from two different subjects
  - ART-111, ART-114, ART-115, COM-231, ENG-231, ENG-232, ENG-241, ENG-242 MUS-110, MUS-112, PHI-215, or PHI-240
- 6 credits of UGETC Social/Behavioral Sciences, from two different subjects
  - ECO-251, ECO-252, HIS-111, HIS-112, HIS-131, HIS-132, POL-120, PSY-150, or SOC-210
- 11 credits of additional General Education Courses
- 1 credit of ACA 122
- 14 credits of electives chosen from the list of Transferable Courses
- In addition, at least one of COM-110, COM-120, or COM-231 must be taken as part of the above coursework
- Click to view the complete list Transferrable courses available for the A.A, A.F.A., and A.S degrees.

FIRST SEMESTER	Credit Hours	SECOND SEMESTER	Credit Hours
ENG-111	3	ENG 112	3
UGETC Mathematics	4	UGETC Mathematics	4
UGETC Social/Behavioral Science	3	UGETC Natural Sciences	4
UGETC Humanities/Fine Arts	3	UGETC Social/Behavioral Science Make sure to choose a different subject	3
ACA-122	1	UGETC Humanities/Fine Arts Make sure to choose at least 2 subjects	3
Total Number of Credit Hours	**14**	**Total Number of Credit Hours**	**17**

THIRD SEMESTER	Credit Hours	FOURTH SEMESTER	Credit Hours
UGETC Natural Sciences	4	Communications Take COM-110, COM-120, or COM-231 if not previously selected If COM-110, COM-120, or COM-231 were previously selected, then choose an elective from the list of transferable courses	3
General Education Course	3	Elective - from the list of transferable courses	3
General Education Course	3	Elective - from the list of transferable courses	3
General Education Course	3	Elective - from the list of transferable courses	3
General Education Course	3	Elective - from the list of transferable courses	3
Total Number of Credit Hours	**16**	**Total Number of Credit Hours**	**15**
		APPLY FOR ASSOCIATE IN SCIENCE DEGREE	**60****

THIS SHEET IS FOR ADVISING PURPOSES ONLY. Students should work with their Advisor to determine course selections that will result in the greatest transferrable credit, for the intended program, upon transfer to the four-year school.
Note 4-semester outline based upon no pre-requisites classes required; students may elect to take courses during summer pending availability
Note Students choosing 3 hour General Education and Elective courses may exceed the required 60 credits
Note Transfer students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution. Students who wish to take Foreign Language should begin the sequence in the first or second semester. Foreign Language courses will count toward the additional General Education or pre-major courses for degree completion. For students who select Foreign Language courses, the required UGETC courses in Humanities/Fine Arts and/or in Behavioral/Social Sciences can be delayed until the third semester.

COLLEGE/UNIVERSITY TRANSFER

The course sequence outlined below is suggested for **full-time students** pursuing an **Associates of Engineering Degree (AE),** who have placed out of all developmental and pre-requisite courses. Part-time students should seek advising to determine the best course sequence to meet their educational goals. To earn the AE degree, all students are required to complete:

- 6 credits of UGETC English Composition
  - ENG-111 and ENG-112
- 3 credits of Humanities from
  - ENG-231, ENG-232, PHI-215, PHI-240, or REL-110[i]
- 3 credits of Fine Arts/Communications from
  - ART-111, ART-114, ART-115, COM-231, MUS-110, or MUS-112
- 3 credits of Microeconomics
  - ECO-251
- 3 credits of Social/Behavioral Sciences from
  - HIS-111, HIS-112, HIS-131, HIS-132, POL-120, PSY-150, or SOC-210
- 12 credits of Mathematics
  - MAT-271, MAT-272, and MAT-273
- 12 credits of Natural Sciences
  - CHM-151, PHY-251, and PHY-252
- 1 credit of ACA-122
- 2 credits of EGR-150
- 15 credits of approved *Engineering electives from
  - BIO-111, CHM-152, COM-110, CSC-134, CSC-151, DFT-170, ECO-252, EGR-212, EGR-215, EGR-216, EGR-220, EGR-225, EGR-228, HUM-110, MAT-280, MAT-285, PED-110

***Engineering Electives** should be selected based on the Engineering discipline and University to which you plan to transfer. Please speak to your advisor prior to selecting any Engineering electives

[i] **REL-110** will transfer for equivalency to the engineering programs at all five UNC Institutions that have undergraduate engineering programs. It may not transfer with equivalency to other programs.

FIRST SEMESTER	Credit Hours	SECOND SEMESTER	Credit Hours
MAT-271	4	MAT-272	4
CHM-151	4	PHY-251	4
ENG-111	3	ENG-112	3
ACA-122	1	ECO-251	3
EGR-150	2		
Total Number of Credit Hours	**14**	**Total Number of Credit Hours**	**14**

THIRD SEMESTER	Credit Hours	FOURTH SEMESTER	Credit Hours
MAT-273	4	PHY-252	4
Humanities ENG-231, ENG-232, PHI-215, PHI-240, or REL-110[i]	3	Social/Behavioral Science HIS-111, HIS-112, HIS-131, HIS-132, POL-120, PSY-150, or SOC-210	3
Fine Arts/Communication ART-111, ART-114, ART-115, COM-231, MUS-110, or MUS-112	3	* Engineering Elective	3
* Engineering Elective	3	* Engineering Elective	3
* Engineering Elective	3	* Engineering Elective	3
Total Number of Credit Hours	**16**	**Total Number of Credit Hours**	**16**
		APPLY FOR ASSOCIATE IN ENGINEERING DEGREE	**60**

THIS SHEET IS FOR ADVISING PURPOSES ONLY. Students should work with their Advisor to determine course selections that will result in the greatest transferrable credit, for the intended program, upon transfer to the four-year school.

Note 4-semester outline based upon no pre-requisites classes required; students may elect to take courses during summer pending availability

Note Transfer students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution. Students who wish to take Foreign Language should begin the sequence in the first or second semester. Foreign Language courses will count toward the additional General Education or pre-major courses for degree completion. For students who select Foreign Language courses, the required UGETC courses in Humanities/Fine Arts and/or in Behavioral/Social Sciences can be delayed until the third semester.

Computer Technologies (CT) Division

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Wake Technical Community College awards degrees, diplomas, and certificates in a variety of fields shown below. The highest credential given in each area is listed first, in bold type.

1. Click on the "**Program Name**" to go to the program's web page
2. Click on the "**Program of Study**" to see specific course requirements for that program

Programs may be offered during the day, evening, online, or a combination. Students should refer to WebAdvisor for the availability of classes. Click to see a list of Wake Tech's programs that can be completed fully online.

Program Name	Program Code
Advertising and Graphic Design – *AAS Degree*	A30100
Graphics Design **– *Certificate***	C30100A
Web and Graphic Design **– *Certificate***	C30100B
Advanced Graphic Design - ***Certificate***	C30100D
Design Basics- ***Certificate***	C30100E
Design Portfolio- ***Certificate***	C30100F
Computer Engineering – *AAS Degree*	A25590CE
Computer Programming and Development – *AAS Degree*	A25590CP
Java Programming **– *Certificate***	C25590JV
JavaScript - ***Certificate***	C25590JS
Visual BASIC Programming **– *Certificate***	C25590VB
C++ Programming **– *Certificate***	C25590CC
C# Programming - ***Certificate***	C25590CZ
.NET Programming - ***Certificate***	C25590NE
Enterprise Java **– *Certificate***	C25590EJ
Programming Fundamentals **- *Certificate***	C25990PF
Cyber Security – *AAS Degree*	A25590CS
Hacking and Forensics **– *Diploma***	D25590HF
Data Science and Programming Support – *AAS Degree*	A25590DS
IT Foundations **- *Certificate***	C25590F
Database Programing - Microsoft **- *Certificate***	C25590SQ
Database Programing – Oracle **- *Certificate***	C25590OR
Database Programing - SAS - ***Certificate***	C25590SS
Python Programming - ***Certificate***	C25590PY
Programming Fundamentals **- *Certificate***	C25990PF
Healthcare Business Informatics – *AAS Degree*	A25590HB
Medical Office Administration	
Medical Office Administration – Medical Office Professional – ***AAS Degree***	A25310P
Medical Office Administration – Medical Billing and Coding – ***AAS Degree***	A25310B
Medical Office Administration – Healthcare Administration – ***AAS Degree***	A25310H
Medial Office Professional **– *Diploma***	D25310P
Medical Office Professional – ***Certificate***	C25310P
Mobile Applications Developer – *AAS Degree*	A25590MA
Android Application Developer **- *Certificate***	C25590MA
Web Development Basics **- *Certificate***	C25590WB
iOS Application Developer **- *Certificate***	C25590MI
Front-End Developer **- *Certificate***	C25590DV
Web Designer **- *Certificate***	C25590DM

Program Name Continued	Program Code
Network Management – *AAS Degree*	A25590NM
Data Storage and Virtualization ***- Diploma***	D25590DV
Cisco Network Associate ***- Certificate***	C25590CA
Cisco Network Professional ***- Certificate***	C25590CP
Microsoft Certified IT Professional ***- Certificate***	C25590MS
Linux Certified Professional ***– Certificate***	C25590LX
Linux Security Specialist ***– Certificate***	C25590LS
Global Windows Security Administration - ***Certificate***	C25590WS
Cisco Security ***– Certificate***	C25590CX
Office Administration	
Office Administration – Office Professional – ***AAS Degree***	A25370P
Office Administration – Office Finance – ***AAS Degree***	A25370F
Office Administration – Office Software – ***AAS Degree***	A25370S
Office Administration – Legal Office – ***AAS Degree***	A25370L
Office Professional – ***Diploma***	D25370P
Office Professional – ***Certificate***	C25370P
Office Administration – Office Software ***– Certificate***	C25370S
Office Administration – Legal Office ***- Certificate***	C25370L
Simulation and Game Development	
Simulation and Game Development - Art & Modeling ***– AAS Degree***	A25450A
Simulation and Game Development - Programming – ***AAS Degree***	A25450P
Modeling and Animation ***– Certificate***	D25450B
Production ***- Certificate***	C25450A
Mobile Game Development***– Certificate***	C25450B
Fundamentals I for Simulation and Game Development***– Certificate***	C25450C
Fundamentals II for Simulation and Game Development***– Certificate***	C25450D
Quality Assurance for Simulation and Game Development***– Certificate***	C25450E
Business for Simulation and Game Development***– Certificate***	C25450F
Programming for Simulation and Game Development***– Certificate***	C25450G
Level Design - ***Certificate***	C25450H C25450I
Storage & Virtualization – *AAS Degree*	A25590SV
Technical Support – *AAS Degree*	A25590TS
Hardware Support and Repair ***- Certificate***	C25590HW
IT Foundations ***- Certificate***	C25590F
IT Help Desk Technician ***- Certificate***	C25590HD
Cybersecurity Support ***- Certificate***	C25590CS
Networking Support ***- Certificate***	C25590NS
Web Designer – *AAS Degree*	A25590DM
Web Designer ***- Certificate***	C25590DM
Advanced Web Designer ***- Certificate***	C25590AW
Front-End Developer ***- Certificate***	C25590DV
Web Development Basics ***- Certificate***	C25590WB
Web Developer – *AAS Degree*	A25590WD
Web Developer ***- Certificate***	C25590WD
Advanced Web Developer ***- Certificate***	C25590AD
Front-End Developer ***- Certificate***	C25590DV
Web Development Basics ***- Certificate***	C25590WB

Collaborative Agreements

None at this time

ADVERTISING & GRAPHIC DESIGN

Advertising and Graphic Design Degree - A30100

-Day, Evening & Online

The Advertising and Graphic Design curriculum is designed to provide students with knowledge and skills necessary for employment in the graphic design profession that emphasizes design, advertising, print production, web design, photography, social media, multimedia and video editing using industry standard tools.

Students will be trained in the development and design for promotional materials, such as newspaper and magazine advertisements, posters, folders, letterheads, logos, brochures, booklets, preparation of art for printing, lettering and typography, photography, and electronic media. Students will also become familiar designing and maintaining simple websites using industry best practices.

Graduates should qualify for employment opportunities with graphic design studios, advertising agencies, printing companies, department stores, and a wide variety of manufacturing industries, newspapers, and organizations with in-house graphics operations.

Program Sequence

First Semester

GRD	110	Typography I	3
GRD	121	Drawing Fundamentals I	2
GRD	141	Graphic Design I	4
GRD	151	Computer Design Basics	3
GRD	167	Photographic Imaging I	3

SECOND SEMESTER

ENG	111	Writing and Inquiry	3
GRD	142	Graphic Design II	4
GRD	152	Computer Design Technology I	3
GRD	282	Advertising Copywriting	2
WEB	140	Web Development Tools	3
GRD	145	Design Applications I	1

SUMMER SEMESTER

WEB	214	Social Media	3
___	___	HUM 110 or HUM 115 or PHI 240	3
___	___	MAT 110, 121, 143, 152 or 171	3

THIRD SEMESTER

GRD	230	Technical Illustration	2
GRD	241	Graphic Design III	4
WEB	210	Web Design	3
___	___	ECO 252 or ECO 251	3
GRD	265	Digital Print Production	3
GRD	146	Design Applications II	1

FOURTH SEMESTER

GRD	263	Illustrative Imaging	3
GRD	271	Multimedia Design 1	2
GRD	280	Portfolio Design	4
GRD	285	Client/Media Relations	2
___	___	ENG 112 or ENG 114	3
___	___	WBL 111 or GRD 246 or WBL 112	1

Graduation Requirements.....71 Credit Hours

Graphics Design Certificate C30100A

-Online Only

The Graphics and Design certificate is designed to provide students with knowledge and skills in the areas of typography and design using industry standard software.

GRD	110	Typography I	3
GRD	141	Graphic Design I	4
GRD	151	Computer Design Basics	3
GRD	152	Computer Design Tech I	3
GRD	263	Illustrative Imaging	3

Graduation Requirements.....16 Credit Hours

Web and Graphic Design Certificate - C30100B

-Online Only

The Web and Graphic Design certificate curriculum is designed to provide students with the knowledge and skills necessary to design for print and web. Students will be trained in the use of typography, computer design, and Web development tools to develop and design for print and web delivery.

GRD	110	Typography I	3
GRD	151	Computer Design Basics	3
GRD	152	Computer Design Technology I	3
WEB	140	Web Development Tools	3
WEB	210	Web Design	3

Graduation Requirements.....15 Credit Hours

Advanced Graphic Design Certificate - C30100D

-Online

Certificate in graphic design, advertising, and social media concepts.

GRD	282	Advertising Copywriting	2
GRD	142	Graphic Design II	4
GRD	167	Photographic Imaging I	3
GRD	241	Graphic Design III	4
WEB	214	Social Media	3

Graduation Requirements.....16 Credit Hours

Design Basics Certificate - C30100E

-Online

Introduction to the principles of design and applying them using industry standard tools.

GRD	121	Drawing Fundamentals I	2
GRD	141	Graphic Design I	4
GRD	145	Design Applications I	1
GRD	142	Graphic Design II	4
GRD	151	Computer Design Basics	3

Graduation Requirements.....14 Credit Hours

Design Portfolio Certificate - C30100F

-Day

Certificate leads to creation of an online and physical graphic design portfolio.

WEB	140	Web Development Tools	3
GRD	265	Digital Print Production	3
GRD	280	Portfolio Design	4
GRD	285	Client / Media Relations	2

Graduation Requirements.....12 Credit Hours

COMPUTER ENGINEERING

Computer Engineering AAS Degree – A25590CE

-Day and Evening

The Information Technologies – Computer Engineering A.A.S. degree provides students with the skills required to install, service, and maintain computers, peripherals, networks, and microprocessor and computer controlled equipment. It includes training in both hardware and software, emphasizing operating system and electronics concepts.

Course work includes operating systems, hardware support and repair, analog electronics, digital circuit analysis, programming, and customer service, with an emphasis on the operation, use, and interfacing of memory and devices to the CPU. Additional topics may include networking, databases, communication, professional practices and cybersecurity concepts.

Graduates should qualify for employment and entrepreneurial opportunities in electronics technology, computer service and support, computer networking, server administration, programming, and other areas requiring a knowledge of electronic and computer system repair. Graduates may also qualify to take industry certification exams in the electronic, computer, and networking fields.

Program Sequence

FIRST SEMESTER

CTI	110	Web, Pgm, & Db Foundation	3
CTI	120	Network and Security Foundations	3
ENG	111	Writing and Inquiry	3
MAT	143	Quantitative Literacy	3
NOS	110	Operating Systems Concepts	3

SECOND SEMESTER

CTS	120	Hardware/Software Support	3
EGR	131	Intro to Electronics Technologies	2
ELC	131	Circuit Analysis I	4
NOS	130	Windows Single User	3
NOS	230	Windows Admin I	3

SUMMER SEMESTER

ELN	131	Analog Electronics I	4

THIRD SEMESTER

CSC	133	C Programming	3
CTS	115	Info Sys Business Concepts	3
CTS	118	IS Professional Comm	2
ELN	133	Digital Electronics	4
OMT	154	Customer Satisfaction	2
___	___	Social and Behavioral Sciences Elec	3

FOURTH SEMESTER

CTS	288	Professional Practices in IT	3
CTS	220	Advanced Hardware/Software Support	3
ENG	114	Professional Research and Reporting	3
___	___	Major Elective	2
___	___	HUM/FA Elective	3

General Education Electives

Humanities and Fine Arts Electives
(Choose 3 credit hours)

ART	111	Art Appreciation	3
HUM	115	Critical Thinking	3
MUS	110	Music Appreciation	3
PHI	240	Introduction to Ethics	3

Social and Behavioral Sciences Electives
(choose 3 credit hours)

ECO	151	Survey of Economics	3
ECO	251	Principles of Microeconomics	3
POL	120	American Government	3
PSY	118	Interpersonal Psychology	3
PSY	150	General Psychology	3
SOC	210	Introduction to Sociology	3

Major Electives
(choose a minimum of 2 credit hours)

CSC	116	Introduction to Functional Programming	3
CSC	120	Computing Fundamentals I	4
CSC	121	Python Programming	3
CSC	134	C++ Programming	3
CSC	139	Visual BASIC Programming	3
CSC	151	Java Programming	3
DBA	110	Database Concepts	3
DBA	115	Database Applications	3
NET	125	Introduction to Networks	3
NOS	120	Linux/UNIX Single User	3
SEC	110	Security Concepts	3
WBL	___	Work Based Learning (all numbers accepted)	2

Graduation Requirement ..... 65 Credit Hours

COMPUTER PROGRAMMING AND DEVELOPMENT

Computer Programming and Development Degree - A25590CP

-Day and Evening

This curriculum prepares learners to design and develop desktop and web applications Graduates will be proficient in Java, MVC, REST, unit testing, server-side JavaScript, and SQL. Graduates will be able to support the software development needs of businesses in a wide variety of industries, including healthcare, manufacturing, insurance, finance and software publishing.

Students will solve business computer problems through programming techniques and procedures. The primary emphasis of the curriculum is hands-on training in programming and related computer areas that provide the ability to adapt as systems evolve.

Graduates should qualify for employment in business, industry, and government organizations as programmers, programmer trainees, programmer/analysts, software developers, database specialists, software specialists, or information systems managers.

Program Sequence

FIRST SEMESTER

CSC	120	Computing Fundamentals I	4
CSC	121	Python Programming	3
CTI	110	Web, Pgm, and DB Foundations	3
ENG	111	Writing and Inquiry	3
___	___	MAT 121, 152, 171 or 143	3

SECOND SEMESTER

CTI	120	Network & Sec Foundations	3
CTS	115	Info Sys Business Concepts	3'
DBA	120	Database Programming I	3

WEB	115	Web Markup and Scripting	3
___	___	Programming Concentration Area	3

SUMMER SEMESTER

CSC	154	Software Development	3
___	___	Major Elective	3

THIRD SEMESTER

CSC	227	Cloud Application Development	3
___	___	Programming Concentration Area	12-13

FOURTH SEMESTER

COM	120	Introduction to Interpersonal Comm	3
ECO	151	Survey of Economics	3
___	___	Humanities/Fine Art Elective	3
___	___	Programming Concentration Area	3
___	___	Project Elective	3

Graduation Requirements ..... 67-68 Credit Hours

Humanities and Fine Arts Electives
(Choose Min of 3 Cr Hrs)

HUM	110	Technology and Society	3
HUM	115	Critical Thinking	3
HUM	230	Leadership Development	3
PHI	240	Introduction to Ethics	3

Concentration Areas
(Select 1 Option Grouping Below)

Option 1 – Java Programming (19 Cr Hrs, Take in order listed)

CSC	151	Java Programming	3
CSC	130	Computing Fundamentals II	4
CSC	251	Advanced Java Programming	3
CSC	256	Software Quality Assurance	3
___	___	Concentration Elective	3
CSC	258	Java Enterprise Programs	3

Concentration Elective (Min of 3 Cr Hrs)

CSC	122	Python Application Development	3
CSC	134	C++ Programming	3
CSC	153	C# Programming	3
CSC	174	Server-side Javascript	3
WEB	151	Mobile Applications Dev I	3

Option 2 – C++ Programming (19 Cr Hrs, Take in order listed)

CSC	134	C++ Programming	3
CSC	130	Computing Fundamentals II	4
CSC	234	Advanced C++ Programming	3
CSC	256	Software Quality Assurance	3
___	___	Concentration Elective	3
CSC	216	Software Architecture	3

Concentration Elective (Min of 3 Cr Hrs)

CSC	122	Python Application Development	3
CSC	151	Java Programming	3
CSC	153	C# Programming	3
CSC	174	Server-side Javascript	3
WEB	151	Mobile Applications Dev I	3

Option 3 – .NET Programming (19 Cr Hrs, Take in order listed)

CSC	153	C# Programming	3
WEB	180	Active Server Pages	3
CSC	253	Advanced C# Programming	3
CSC	174	Server-side Javascript	3
CSC	226	.NET Programming	3
DBA	221	SQL Server DB Programming II	3

Major Electives
(Choose Min of 3 Cr Hrs)

CSC	111	Introduction to Ethical Hacking	3
CSC	139	Visual Basic	3
CSC	163	C# Applications Development	3
CSC	221	Advanced Python Programming	3
CTS	285	Systems Analysis and Design	3
DBA	130	Introduction to NoSQL Databases	3
DBA	220	Oracle DB Programming II	3
DBA	240	Database Analysis/Design	3

Project Electives
(Choose Min of 3 Cr Hrs)

CSC	289	Programming Capstone	3
*WBL	111	Work-Based Learning	1
*WBL	112	Work-Based Learning	2
*WBL	113	Work-Based Learning	3

*Work-Based Learning is an elective. Students must have approval from the department head and pre-register with the Computer Technologies Division office. The Work-Based Learning work period may be taken over two semester as WBL 112 or over two semesters as WBL-111, and WBL-121 or in one semester as WBL-113

C++ Programming Certificate – C25590CC
-Day
The C++ Programming certificate offers courses for students interested in upgrading their programming skills by acquiring proficiency in an object-oriented programming language.

CSC	134	C++ Programming	3
CSC	154	Software Development	3
CSC	227	Cloud Application Development	3
CSC	234	Advanced C++ Programming	3

Graduation Requirements ..... 12 Credit Hours

C# Programming Certificate - C25590CZ
-Online
Designed for individuals interested in acquiring programming skills necessary to design and implement C# programs. The student will learn how to design C# programs using event-driven programming techniques, implement current interface design standards, and create reusable code. Manipulate records in both a file-based system and a database system, and program customization using API calls. Emphasis is placed on proper program design techniques.

CSC	153	C# Programming	3
CSC	154	Software Development	3
CSC	253	Advanced C# Programming	3
CSC	163	C# Applications Development	3

Graduation Requirements..... 12 Credit Hours

Enterprise Java Certificate - C25590EJ
-Day
The Enterprise Java certificate offers courses for students interested in upgrading their programming skills for Java in the enterprise and mobile areas. **(Prerequisites required: C25590JV)**

CSC	174	Server-side Javascript	3
CSC	258	Java Enterprise Programs	3
WEB	151	Mobile Applications Dev I	3
DBA	220	Oracle DB Programming II	3

Graduation Requirements ..... 12 Credit Hours

Java Programming Certificate – C25590JV

-Day

Designed for individuals interested in acquiring programming skills necessary to design and implement Java programs

CSC	151	Java Programming	3
CSC	154	Software Development	3
CSC	227	Cloud Application Development	3
CSC	251	Advanced Java Programming	3

Graduation Requirements ..... 12 Credit Hours

JavaScript Certificate – C25590JS

-Day

The certificate offers courses for students interested in programming JavaScript with Full Stack implementation.

CSC	174	Server-Side JavaScript	3
DBA	130	Introduction to NoSQL Databases	3
CSC	151	Java Programming	3
CSC	289	Programming Capstone Project	3

Graduation Requirements ..... 12 Credit Hours

.NET Programming Certificate - C25590NE

-Day

The .NET Programming Certificate offers courses for students to become proficient in .NET technologies. **Prerequisites required: C25590CZ**

CSC	226	.NET Programming	3
CSC	227	Cloud Application Development	3
DBA	221	SQL Server DB Programming II	3
WEB	180	Active Server Pages	3

Graduation Requirements ..... 12 Credit Hours

Programming Fundamentals Certificate - C25590PF

-Day

The Fundamentals of Computer Programming Certificate will give students the opportunity to achieve programming literacy.

CSC	120	Computer Fundamentals I	4
CSC	121	Python Programming	3
WEB	115	Web Markup and Scripting	3
DBA	120	Database Programming I	3

Graduation Requirements ..... 13 Credit Hours

Visual Basic Programming Certificate - C25590VB

-Online

Designed for individuals interested in acquiring programming skills necessary to design and implement Visual BASIC programs.

CSC	139	Visual Basic	3
CSC	154	Software Development	3
CSC	227	Cloud Application Development	3
CSC	289	Programming Capstone Project	3

Graduation Requirements ..... 12 Credit Hours

CYBER SECURITY

Cyber Security AAS Degree – A25590CS

-Day and Evening

The Cyber Security degree prepares students for an IT career in digital forensics, network security services, and ethical hacking. Courses include routing and switching, network vulnerabilities, secure communications, system and security administration, data recovery, and computer investigations. Students will work in Microsoft, Linux, and Apple desktop and server operating system environments. Upon completion, students will be prepared for a variety of industry certifications, including: Certified Ethical Hacker, Certified Enterprise Defender, CCNA Security, and Security+.

Program Sequence

FIRST SEMESTER

CTI	110	Web, Pgm, & Db Foundation	3
CTI	120	Network and Security Foundations	3
ENG	111	Writing and Inquiry	3
MAT	143	Quantitative Literacy	3
NOS	110	Operating Systems Concepts	3

SECOND SEMESTER

NET	125	Introduction to Networks	3
NET	126	Routing Basics	3
NOS	130	Windows Single User	3
NOS	230	Windows Admin I	3
SEC	110	Security Concepts	3

SUMMER SEMESTER

NOS	120	Linux/UNIX Single User	3
___	___	HUM/FA Elective	3

THIRD SEMESTER

CCT	121	Computer crime Investigations	4
CCT	250	Network Vulnerabilities I	3
CTS	115	Info Sys Business Concepts	3
SEC	150	Secure Communications	3
SEC	160	Security Administration I	3

FOURTH SEMESTER

CCT	240	Data Recovery Techniques	3
CCT	251	Network Vulnerabilities II	3
ENG	114	Professional Research and Reporting	3
___	___	Major Elective	2
___	___	Social and Behavioral Sciences Elec	3

SUMMER SEMESTER

CTS	288	Professional Practices in IT	3
SEC	193	Selected Topic in Cyber Security	3

Humanities and Fine Arts Electives
(Choose 3 credit hours from the following courses)

ART	111	Art Appreciation	3
HUM	115	Critical Thinking	3
MUS	110	Music Appreciation	3
PHI	240	Introduction to Ethics	3

Social and Behavioral Sciences Electives
(Choose 3 credit hours from the following courses)

ECO	151	Survey of Economics	3
ECO	251	Principles of Microeconomics	3
POL	120	American Government	3
PSY	118	Interpersonal Psychology	3
PSY	150	General Psychology	3
SOC	210	Introduction to Sociology	3

Major Electives
(Minimum of 2 credit hours)

SEC	210	Intrusion Detection	3
WBL	___	Work Based Learning	2

Graduation Requirement ..... 72 Credit Hours

Hacking and Forensics Diploma – D25590HF

-Day, Evening, Online

The Information Technologies – Hacking and Forensics Diploma provides students with intermediate level skills and ability to perform digital forensic operations, and network vulnerability testing and prevention.

Course work includes programming, databases, operating systems, forensic data recovery, security concepts, hacking technologies and network firewall configuration. Additional topics may include routing and switching, communications and writing, and web technologies.

Graduates from this diploma should qualify to take industry certifications in ethical hacking, security, networking, and forensic examinations. Graduates may qualify for employment opportunities connected to these skills and certifications.

SUMMER SEMESTER

CTI	110	Web, Programming and Database Foundations	3
CTI	120	Network and Security Foundations	3
NOS	110	Operating System concepts	3
ENG	111	Writing and Inquiry	3

FALL SEMESTER

CCT	121	Computer Crime Investigations	4
CCT	250	Network Vulnerabilities I	3
SEC	110	Security Concepts	3
NET	125	Networking Basics	3
NET	126	Routing Basics	3

SPRING SEMESTER

CCT	240	Data Recovery Techniques	3
CCT	251	Network Vulnerabilities II	3
CTS	115	Info Systems Business Concept	3
NOS	120	Linux/UNIX Single User	3
SEC	150	Secure Communications	3

Graduation Requirement ..... 43 Credit Hours

DATA SCIENCE AND PROGRAMMING SUPPORT SERVICES

Data Science and Programming Support Degree - A25590DS

-Day and Evening

This curriculum prepares learners to design and develop desktop and web application with an emphasis on business logic and data-driven applications. Graduates will be proficient in Python, SQL, XML, database development, client/server-side JavaScript and Python. Graduates will be able to support the software development needs of businesses in a wide variety of industries, including healthcare, manufacturing, insurance, finance and software publishing.

Students will solve business computer problems through programming techniques and procedures. The primary emphasis of the curriculum is hands-on training in programming and related computer areas that provide the ability to adapt as systems evolve.

Graduates should qualify for employment in business, industry, and government organizations as programmers, programmer trainees, programmer/analysts, software developers, database specialists, software specialists, or information systems managers.

Program Sequence

FIRST SEMESTER

CSC	120	Computing Fundamentals I	4
CSC	121	Python Programming	3
CTI	110	Web, Pgm, and DB Foundations	3
ENG	111	Writing and Inquiry	3
MAT	152	Statistical Methods	4

SECOND SEMESTER

CSC	122	Python Applications	3
DBA	120	Database Programming I	3
CTI	120	Network & Sec Foundations	3
CTS	115	Info Sys Business Concepts	3
WEB	115	Web Markup and Scripting	3

FIRST SUMMER SEMESTER

CSC	124	Intro to Programming for Data Science	3
DBA	125	Database Reporting	3

THIRD SEMESTER

CSC	221	Advanced Python	3
DBA	130	Introduction to NoSQL Databases	3
CSC	152	SAS	3
DBA	240	Database Analysis/Design	3
___	___	Major Elective	3

FOURTH SEMESTER

COM	120	Introduction to Interpersonal Comm	3
ECO	151	Survey of Economics	3
___	___	HUM/Fine Arts Elective	3
___	___	DBA Elective	3
___	___	Project Elective	3

Graduation Requirements ..... 68 Credit Hours

Humanities and Fine Arts Electives
(Choose a Min of 3 Credit Hrs)

HUM	110	Technology and Society	3
HUM	115	Critical Thinking	3
PHI	240	Introduction to Ethics	3

Major Electives
(Choose Min of 3 Cr Hrs)

CSC	130	Computing Fundamentals II	4
CSC	151	Java Programming	3
CSC	153	C# Programming	3
CSC	154	Software Development	3
CSC	227	Cloud Application Development	3
CSC	256	Software Quality Assurance	3
DBA	224	SAS DB Programming II	3

DBA Electives
(Choose Min of 3 Cr Hrs)

DBA	221	SQL Server DB Programming II	3
DBA	220	Oracle DB Programming II	3

Project Electives
(Choose Min of 3 Cr Hrs)

CSC	289	Programming Capstone	3

*WBL	111	Work-Based Learning	1
*WBL	112	Work-Based Learning	2
*WBL	113	Work-Based Learning	3

*Work-Based Learning is an elective. WBL courses completed for one program may not count toward the completion of another program. Contact your academic advisor or WBL faculty coordinator for verification. Students must have approval from the department head and pre-register with the Computer Technologies Division office. As an alternative to CSC-289, three credit hours of Work-based learning can be taken. The Work-Based Learning work period may be taken over two semester as WBL 112, over two semesters as WBL-111 and WBL-112 or over one semester as WBL-113.

Database Programming – Microsoft Certificate - C25590SQ

-Online

Designed for individuals interested in acquiring programming skills in Microsoft SQL databases.

CSC	153	C# Programming	3
CSC	253	Advanced C# Programming	3
DBA	221	SQL Server DB Programming II	3
DBA	240	Database Analysis/Design	3

Graduation Requirements ..... 12 Credit Hours

Database Programming – Oracle Certificate - C25590OR

-Online

Designed for individuals interested in acquiring programming skills in Oracle databases.

CTS	115	Info Sys Business Concepts	3
DBA	125	Database Reporting	3
DBA	220	Oracle DB Programming II	3
DBA	240	Database Analysis/Design	3

Graduation Requirements ..... 12 Credit Hours

Python Programming Certificate - C25590PY

-Online

Designed for individuals interested in acquiring programming skills in Python.

CSC	122	Python Application Development	3
CSC	124	Intro to Programming for Data Science	3
CSC	130	Computing Fundamentals II	4
CSC	221	Advanced Python	3

Graduation Requirements ..... 13 Credit Hours

Database Programming – SAS Certificate - C25590SS

-Online

Designed for individuals interested in acquiring programming skills in SAS databases.

CSC	124	Intro to Data Science Prog	3
CSC	152	SAS	3
DBA	224	SAS DB Programming II	3
DBA	240	Database Analysis / Design	3

Graduation Requirements ..... 12 Credit Hours

Healthcare Business Informatics

Healthcare Business Informatics Degree - A25590HB

-Day and Evening

The HBI degree program is intended for computer system professionals who expect to work for a healthcare provider of any size; from large scale hospital systems to small practice offices.

A concentration in healthcare terminology and medico-legal issues is combined with specific courses in healthcare networking and database design. Any healthcare provider that uses computers to store and manage their patient information needs an IT professional that understands the confidentiality and business process concerns of the industry – this degree program is intended to produce those IT professionals.

Potential employers for graduates of this program would include the IT departments at Rex, Wake Med and Duke Hospitals, and any healthcare related industry partner, such as Blue Cross Blue Shield and other health insurance providers.

Program Sequence

FIRST SEMESTER

CTI	110	Web, Pgm, & Db Foundation	3
CTI	120	Network & Sec Foundation	3
MAT	143	Quantitative Literacy	3
NOS	110	Operating System Concepts	3
OST	141	Med Terms I	3

SECOND SEMESTER

HBI	110	Issues and Trends in HBI	3
OST	142	Med Terms II	3
ENG	111	Writing and Inquiry	3
NET	110	Networking Concepts	3
DBA	110	Database Concepts	3

SUMMER SEMESTER

HBI	210	Intro to Health Info Net	3

THIRD SEMESTER

HBI	113	Survey of Medical Insurance	3
HBI	250	Data Management and Utilization	3
CTS	135	Integrated Software Intro	4
ENG	114	Professional Research & Reporting	3
___	___	HUM / FA Elective	3

FOURTH SEMESTER

CTS	118	IS Professional Comm	2
CTS	115	Info Sys Business Concept	3
CTS	120	Hardware / Software Support	3
OST	149	Medical Legal Issues	3
___	___	Social and Behavioral Sciences Elec	3
CTS	288	Professional Practices in IT	3

GENERAL EDUCATION ELECTIVES

Humanities/Fine Arts Elective

(Select 3.0 hours from the following courses)

ART	111	Art Appreciation	3
HUM	115	Critical Thinking	3
MUS	110	Music Appreciation	3
PHI	240	Introduction to Ethics	3

Social/Behavioral Science Elective

(Select 3.0 hours from the following courses)

ECO	151	Survey of Economics	3
ECO	251	Principles of Microeconomics	3

POL	120	American Government	3
PSY	118	Interpersonal Psychology	3
PSY	150	General Psychology	3
SOC	210	Introduction to Sociology	3

Graduation Requirements ..... 66 Credit Hours

MEDICAL OFFICE ADMINISTRATION

Medical Office Professional Degree - A25310P

-Online

The Medical Office Professional curriculum prepares individuals for employment as medical administrative office personnel (AAS degree). Students develop skills in medical office procedures and tasks, along with medical terminology, keyboarding, editing and formatting, office software applications, office computations, records management, medical insurance and billing, medical legal and ethical issues, electronic health records, oral and written communication, critical thinking, team building, and problem solving. The degree is available online.

Graduates should qualify for employment opportunities in a variety of medical office positions in medical offices, hospitals, insurance companies, laboratories, medical supply companies, research facilities, and other healthcare organizations. Students may be eligible to sit for industry-recognized certification exams.

Program Sequence

FIRST SEMESTER

ENG	111	Writing and Inquiry	3
OST	122	Office Computations	3
OST	137	Office Software Applications	3
OST	141	Med Office Terms I	3
OST	148	Medical Coding, Billing, and Insurance	3

SECOND SEMESTER

CTS	130	Spreadsheet	3
OST	134	Text Entry and Formatting	3
OST	142	Med Office Terms II	3
OST	243	Med Office Simulation	3
___	___	ENG Elective	3

Eligible for Medical Office Professional Certificate (C25310P) *OST-141, OST-148, OST-134, OST-142, CTS-130, OST-243*

SUMMER SEMESTER

___	___	Social Science Elective	3
___	___	Humanities / FA Elective	3

THIRD SEMESTER

OST	136	Word Processing	3
OST	164	Office Editing	3
OST	184	Records Management	3
OST	286	Professional Development	3
___	___	OA Elective	3

Eligible for Office Professional Certificate (C25370P): *OST-122, OST-137, OST-164, OST-184, OST-134, OST-136*

FOURTH SEMESTER

OST	149	Medical Legal Issues	3
OST	165	Adv Office Editing	3
OST	288	Medical Office Admin Capstone	3
MAT	110	Math Measurement & Literacy	3
___	___	OA Elective	3

Eligible for Medical Office Professional Diploma (D25310P) *ENG-111, OST-137, OST_141, OST_148, OST-164, OST-134, OST-142, OST-149, OST-243, OST-288, CTS-130, ENG Elective*

Graduation Requirements ..... 66 Credit Hours

Humanities and Fine Arts Elective

(Choose 3 credit hours from the following courses)

HUM	110	Technology and Society	3
HUM	115	Critical Thinking	3

ENG Electives

(Choose 3 credit hours from the following courses)

ENG	114	Professional Research and Reporting	3
ENG	112	Writing/Research in the Disc	3

Social and Behavioral Sciences Electives

(Choose 3 credit hours from the following courses)

PSY	150	General Psychology	3
SOC	210	Introduction to Sociology	3
PSY	118	Interpersonal Psychology	3

OA Electives

(Choose 6 credit hours from the following courses)

BUS	153	Human Resource Management	3
CTS	230	Advanced Spreadsheet	3
HMT	110	Intro to Healthcare Mgt	3
HMT	211	Long-Term Care Admin	3
HMT	212	Mgt of Healthcare Org	3
OST	132	Keyboard Skill Building	2
OST	135	Adv Text Entry and Formatting	3
OST	153	Office Finance Solutions	3
OST	236	Adv Word Processing	3
OST	247	Procedure Coding	3
OST	248	Diagnostic Coding	3
OST	260	Adv Coding Methodologies	3
OST	264	Medical Auditing	3
WBL	111	Work-Based Learning I*	1
WBL	121	Work-Based Learning II*	1
WBL	112	Work-Based Learning I*	2

* Work-Based Learning is an elective. WBL courses completed for one program may not count toward the completion of another program. For verification of WBL course work, please contact your academic advisor and/or your departmental Work-Based Learning faculty coordinator. Students must have approval from the Department Head and pre-register with the Work-Based Learning Office. The Work-Based Learning work period may be taken over one semester as WBL 112, or two semesters as WBL 111 and WBL 121.

Medical Office Professional Diploma - D25310P

-Online

The Medical Office Professional Diploma is designed for the individual entering, upgrading, or retraining in the medical office field. Students develop skills in medical terminology, keyboarding and formatting, office software applications, medical office procedures, medical insurance and billing, medical legal and ethical issues, electronic health records, oral and written communication, editing, critical thinking, team building, and problem solving. The diploma is available online.

Graduates should qualify for employment opportunities in medical offices, healthcare facilities, insurance billing offices, labs, and medical equipment manufacturers. Students are eligible to take industry-recognized certification exams.

COMPUTER TECHNOLOGIES

Program Sequence

FIRST SEMESTER

ENG	111	Writing and Inquiry	3
OST	137	Office Applications I	3
OST	141	Med Office Terms I	3
OST	148	Medical Ins & Billing	3
OST	164	Office Editing	3

SECOND SEMESTER

OST	134	Text Entry & Formatting	3
OST	142	Med Office Terms II	3
OST	149	Medical Legal Issues	3
OST	243	Med Office Simulation	3
OST	288	Medical Office Admin Capstone	3

SUMMER SEMESTER

___	___	ENG Elective	3
CTS	130	Spreadsheet	3

Eligible for Medical Office Professional Certificate (C25310P)
OST-141, OST-148, OST-134, OST-142, CTS-130, OST-243

Graduation Requirements ..... 36 Credit Hours

ENG Electives
(Choose 3 credit hours from the following courses)

ENG	114	Professional Research and Reporting	3
ENG	112	Writing/Research in the Disc	3

Medical Office Professional Certificate – C25310P

-Online

This certificate provides the medical and computer skills necessary for entry-level employment in medical settings. The certificate is available online.

FIRST SEMESTER

OST	141	Med Office Terms I	3
OST	148	Medical Ins & Billing	3
OST	134	Text Entry & Formatting	3

SECOND SEMESTER

OST	142	Med Office Terms II	3
CTS	130	Spreadsheet	3
OST	243	Med Office Simulation	3

Graduation Requirements ..... 18 Credit Hours

Medical Billing and Coding Degree - A25310B

-Online

Medical Office Administration has a new concentration in Medical Billing and Coding (AAS degree). Students develop skills in medical coding and auditing, along with medical terminology, keyboarding, editing and formatting, office software applications, office computations, medical office procedures, medical insurance and billing, medical legal and ethical issues, electronic health records, oral and written communication, critical thinking, team building; and problem solving. The degree is available online.

Graduates should qualify for employment opportunities in medical offices; healthcare facilities including hospitals, nursing homes, and rehabilitation centers; insurance billing offices; and laboratories. Students are eligible to take industry-recognized certification exams.

Program Sequence

FIRST SEMESTER

ENG	111	Writing and Inquiry	3
OST	122	Office Computations	3
OST	137	Office Software Applications	3
OST	141	Med Office Terms I	3
OST	148	Medical Coding, Billing, and Insurance	3

SECOND SEMESTER

CTS	130	Spreadsheet	3
OST	134	Text Entry and Formatting	3
OST	142	Med Office Terms II	3
OST	243	Med Office Simulation	3
___	___	ENG Elective	3

Eligible for Medical Office Professional Certificate (C25310P)
OST-141, OST-148, OST-134, OST-142, CTS-130, OST-243

SUMMER SEMESTER

OST	247	Procedure Coding	3
OST	248	Diagnostic Coding	3

THIRD SEMESTER

OST	164	Office Editing	3
OST	286	Professional Development	3
OST	260	Adv Coding Methodologies	3
___	___	HUM/FA Elective	3
___	___	OA Elective	3

FOURTH SEMESTER

OST	149	Medical Legal Issues	3
OST	264	Medical Auditing	3
OST	288	Medical Office Admin Capstone	3
MAT	110	Math Measurement & Literacy	3
___	___	Social Science Elective	3

Eligible for Medical Office Professional Diploma (D25310P)
ENG-111, OST-137, OST-141, OST-148, OST-164, OST-134, OST-142, OST-149, OST-243, OST-288, CTS-130, ENG Elective

Graduation Requirements ..... 66 Credit Hours

Humanities and Fine Arts Elective
(Choose 3 credit hours from the following courses)

HUM	110	Technology and Society	3
HUM	115	Critical Thinking	3

ENG Electives
(Choose 3 credit hours from the following courses)

ENG	114	Professional Research and Reporting	3
ENG	112	Writing/Research in the Disc	3

Social and Behavioral Sciences Electives
(Choose 3 credit hours from the following courses)

PSY	150	General Psychology	3
SOC	210	Introduction to Sociology	3
PSY	118	Interpersonal Psychology	3

OA Electives
(Choose 3 credit hours from the following courses)

BUS	153	Human Resource Management	3
CTS	230	Advanced Spreadsheet	3
HMT	110	Intro to Healthcare Mgt	3
HMT	211	Long-Term Care Admin	3
HMT	212	Mgt of Healthcare Org	3
OST	132	Keyboard Skill Building	2
OST	135	Adv Text Entry and Formatting	3
OST	136	Word Processing	3
OST	153	Office Finance Solutions	3
OST	165	Adv Office Editing	3

OST	184	Records Management	3
OST	236	Adv Word Processing	3
WBL	111	Work-Based Learning I	1
WBL	121	Work-Based Learning II	1
WBL	112	Work-Based Learning I	2

Healthcare Administration Degree - A25310H

-Online

Medical Office Administration has a new concentration in Healthcare Administration (AAS degree). Students develop skills in healthcare administration and human resources management, along with medical terminology, keyboarding, editing and formatting, office software applications, office computations, medical office procedures, medical insurance and billing, medical legal and ethical issues, electronic health records, oral and written communication, critical thinking, team building, and problem solving. The degree is available online.

Graduates should qualify for employment opportunities in medical offices; healthcare facilities including hospitals, nursing homes, and rehabilitation centers; medical supply companies; research facilities; and pharmaceutical companies. Students are eligible to take industry-recognized certification exams.

Program Sequence

FIRST SEMESTER

ENG	111	Writing and Inquiry	3
OST	122	Office Computations	3
OST	137	Office Applications I	3
OST	141	Med Office Terms I	3
OST	148	Medical Ins & Billing	3

SECOND SEMESTER

CTS	130	Spreadsheet	3
OST	134	Text Entry and Formatting	3
OST	142	Med Office Terms II	3
OST	243	Med Office Simulation	3
___	___	ENG Elective	3

Eligible for Medical Office Professional Certificate (C25310P)
OST-141, OST-148, OST-134, OST-142, CTS-130, OST-243

SUMMER SEMESTER

___	___	Social Science Elective	3
___	___	HUM/FA Elective	3

THIRD SEMESTER

BUS	153	Human Resource Mgmt	3
HMT	110	Intro to Healthcare Mgmt	3
OST	164	Office Editing	3
OST	286	Professional Development	3
___	___	OA Elective	3

FOURTH SEMESTER

HMT	211	Long Term Care Admin	3
HMT	212	Mgmt of Healthcare Org	3
OST	149	Medical Legal Issues	3
OST	288	Medical Office Admin Capstone	3
MAT	110	Math Measurement & Literacy	3

Eligible for Medical Office Professional Diploma (D25310P)
ENG-111, OST-137, OST-141, OST-148, OST-164, OST-134, OST-142, OST-149, OST-243, OST-288, CTS-130, ENG Elective

Graduation Requirements ..... 66 Credit Hour

Humanities and Fine Arts Elective
(Choose 3 credit hours from the following courses)

HUM	110	Technology and Society	3
HUM	115	Critical Thinking	3

ENG Electives
(Choose 3 credit hours from the following courses)

ENG	114	Professional Research and Reporting	3
ENG	112	Writing/Research in the Disc	3

Social Sciences Electives
(Choose 3 credit hours from the following courses)

PSY	150	General Psychology	3
SOC	210	Introduction to Sociology	3
PSY	118	Interpersonal Psychology	3

OA Electives
(Choose 3 credit hours from the following courses)

CTS	230	Advanced Spreadsheet	3
OST	132	Keyboard Skill Building	2
OST	135	Adv. Text Entry and Formatting	4
OST	136	Word Processing	3
OST	153	Office Finance Solutions	2
OST	165	Adv Office Editing	3
OST	184	Records Management	3
OST	233	Desktop Publishing	3
OST	236	Adv Word Processing	3
OST	247	Procedure Coding	3
OST	248	Diagnostic Coding	3
OST	260	Adv Coding Methodologies	3
OST	264	Medical Auditing	3
WBL	111	Work-Based Learning I	1
WBL	121	Work-Based Learning II	1
WBL	112	Work-Based Learning I	2

Mobile Applications Developer

Mobile Applications Developer Degree – A25590MA

-Day and Online

The Web Technologies curriculum prepares graduates for careers in the information technology arena using computers to disseminate and collect information via the web.

Course work in this program covers web design, web scripting and markup, databases, web programming, e-commerce, web content management systems as well as mobile applications development and UI/UX. Studies will provide opportunity for students to learn using industry standard software and technologies.

Graduates should qualify for career opportunities as designers, programmers, or developers in the areas of web development, web design, web services, mobile application development and other related areas.

The Mobile Applications Developer Degree covers the developing of mobile content, both apps (applications) and websites. Focus is on iOS and Android operating systems.

Program Sequence

FIRST FALL SEMESTER

CIS	115	Intro to Prog Logic	3
CTI	110	Web, Pgm and DB Foundation	3
DBA	110	Database Fundamentals	3
WEB	110	Internet / Web Fundamentals	3
___	___	MAT 121, 143, 152 or 171	3

FIRST SPRING SEMESTER

CSC	118	Swift Programming	3
CSC	151	Java Programming	3
WEB	115	Web Markup and Scripting	3
WEB	141	Mobile Interface Design	3
ENG	111	Expository Writing	3

FIRST SUMMER SEMESTER

CTI	120	Network & Sec Foundation	3
WEB	215	Advanced Markup and Scripting	3

SECOND FALL SEMESTER

WEB	125	Mobile Web Design	3
SGD	168	Mobile SG Programming I	3
CTI	120	Network & Sec Foundation	3
WEB	151	Mobile Applications Dev I	3

SECOND SPRING SEMESTER

CSC	218	Swift Programming II	3
CSC	154	Software Development	3
WEB	151	Mobile Applications Dev I	3
___	___	ECO 251 or ECO 252	3
___	___	COM 120 or COM 231	3

SECOND SUMMER SEMESTER

CTS	115	Information Sy Business Concepts	3
WEB	251	Mobile Applications Dev II	3
WEB	289	Internet Technologies Project	3
___	___	WEB 140 or WBL 112	2
___	___	HUM 110 or HUM 115 or PHI 240	3

Completion Requirements ..... 65 Credit Hours

* Work based education is an elective. Students must have approval from the Program Director and pre-register with the Work-Based Learning Office. The work may be done over any number of semesters, but the total elective credits must add up to 7 for electives 1, 2 and 3.

Android Application Developer Certificate - C25590MA

– Online

This Certificate covers the development of apps for Android devices.

CIS	115	Intro to Prog to Logic	3
CSC	151	JAVA Programming	3
WEB	141	Mobile Interface Design	3
WEB	151	Mobile Application Dev I	3

Completion Requirements ..... 12 Credit Hours

iOS Application Developer Certificate - C25590MI

-Day and Online

This Certificate covers the development of apps for iOS devices.

CIS	115	Intro to Prog to Logic	3
CSC	118	Swift Programming I	3
CSC	218	Swift Programming II	3
WEB	141	Mobile Interface Design	3
WEB	289	Internet Technologies Project	3

Completion Requirements ..... 15 Credit Hours

Program Sequence

FIRST FALL SEMESTER

WEB	140	Web Development Tools	3
CIS	115	Intro to Prog Logic	3
___	___	HUM 110 or HUM 115 or HUM 230	3
CTI	110	Web, Pgm and DB Foundation	3
___	___	WEB 111 or SGD 112	3
WEB	110	Internet / Web Fundamentals	3

FIRST SPRING SEMESTER

WEB	210	Web Design	3
WEB	115	Web Markup and Scripting	3
WEB	141	Mobile Interface Design	3
CSC	151	Java Programming	3

FIRST SUMMER SEMESTER

ENG	111	Writing and Inquiry	3
___	___	SOC 210 or ECO 252 or PSY 150	3
___	___	WEB 215 or WBL 112	2

SECOND FALL SEMESTER

WEB	125	Mobile Web Design	3
SGD	168	Mobile SG Programming I	3
CTI	120	Network & Sec Foundation	3
WEB	151	Mobile Applications Dev I	3

SECOND SPRING SEMESTER

___	___	COM 110 or COM 120 or COM 231	3
WEB	287	Web e-Portfolio	2
WEB	251	Mobile Applications Dev II	3
___	___	MAT 121 or MAT 143 or MAT 152 or MAT 110	3

SECOND SUMMER SEMESTER

CTS	115	Information Sy Business Concepts	3
SGD	268	Mobile SG Programming 2	3

Completion Requirements..... 68 Credit Hours

NETWORK MANAGEMENT

Network Management Degree - A25590NM

- Day and Evening

The Network Management curriculum prepares individuals for employment supporting local- and wide-area networks. Students will learn how to use technologies to provide for data, voice, image, and video communications in business, industry, and education.

Course work includes design, installation, configuration, and management of local- and wide-area network hardware and software. Emphasis is placed on developing proficiency in the use of network management software and the use of hardware such as switches and routers.

Graduates may find employment in entry-level jobs as local area network managers, network operators, network analysts, and network technicians. Graduates may also be qualified to take certification examinations for various network products, depending on their local program.

Program Sequence

FIRST SEMESTER

CTI	110	Web, Programming and Database Foundations	3
CTI	120	Network and Security Foundations	3
NOS	110	Operating System Concepts	3
ENG	111	Writing and Inquiry	3
MAT	143	Quantitative Literacy	3

SECOND SEMESTER

NET	125	Introduction to Networks	3
NET	126	Routing Basics	3
CTS	120	Hardware/Software Support	3
NOS	130	Windows Single User	3
NOS	230	Windows Admin I	3

SUMMER SEMESTER

NET	225	Routing and Switching I	3
NET	226	Routing and Switching II	3

THIRD SEMESTER

CTS	115	Info Sys Business Concepts	3
ENG	114	Professional Research and Reporting	3
NOS	120	Linux / UNIX Single User	3
___	___	Major Elective I	3

FOURTH SEMESTER

CTS	288	Professional Practices in IT	3
___	___	HUM / FA Elect (Min 3 cr hrs)	3
___	___	Social and Behavioral Sciences Elect (Min 3 cr hrs)	3
___	___	Major Elective II	3

SUMMER SEMESTER

___	___	Major Elective III	2
NET	289	Networking Project	3

Humanities/Fine Arts Elective
(Select 3.0 hours from the following courses)

ART	111	Art Appreciation	3
HUM	115	Critical Thinking	3
MUS	110	Music Appreciation	3
PHI	240	Introduction to Ethics	3

Social/Behavioral Science Elective
(Select 3.0 hours from the following courses)

ECO	251	Prin. Of Microeconomics	3
ECO	151	Survey of Economics	3
POL	120	American Government	3
PSY	118	Interpersonal Psychology	3
PSY	150	General Psychology	3
SOC	210	Introduction to Sociology	3

Graduation Requirements ..... 65 Credit Hours

Concentration Electives List
Select one option from grouping below:

Option 1 – Microsoft Certified IT Professional Track

NOS	231	Windows Administration II	3
NOS	232	Windows Administration III	3

Option 2: Cisco Certified Network Professional Track

NET	270	Building Scalable Networks	3
NET	272	Multi-Layer Networks	3
NET	273	Internetworking Support	3

Option 3: Red Hat Certified Engineer Track

NOS	220	Linux/UNIX Administration I	3
NOS	221	Linux/UNIX Administration II	3
NOS	222	Linux/UNIX Administration III	3

Option 4: Data Storage & Virtualization Track

CTI	140	Virtualization Concepts	3
CTI	240	Virtualization Admin I	3
CTI	241	Virtualization Admin II	3

Option 5: Mixed Elective Track

CCT	121	Computer Crime Investigations	4
CCT	240	Data Recovery Techniques	3
CTS	118	IS Professional Comm	2
CTS	135	Integrated Software Intro	4
CTS	155	Technical Support Functions	3
CTS	220	Advanced Hardware/Software Support	3
CTS	255	Advanced Technical Support Functions	3
CTS	272	Desktop Support: Apps	3
NET	115	Telecom for IT Professionals	3
NET	135	Data Center Networking	3
NET	175	Wireless Technology	3
NET	240	Network Design	3
NOS	125	Linux/UNIX Scripting	3
OMT	154	Customer Satisfaction	2
PMT	110	Intro to Project Management	3
SEC	110	Security Concepts	3
SEC	150	Secure Communications	3
SEC	160	Security Administration I	3
WBL	___	Work Based Learning (All numbers acceptable)	3

Data Storage and Virtualization Diploma - D25590DV

- Evening
This diploma under the Network Management degree includes many courses from that degree, but requires a specific elective path following Virtualization. The skills and credentials that the student could earn with this diploma include those in that area of operating system virtualization, which is a prominent technology in cloud computing and datacenter operations.

The diploma includes courses in Cisco routing and switching, Microsoft desktop and server operating systems, and in-depth training with O/S virtualization. Instruction in these areas can qualify students to take industry certification exams in VMWare, Cisco, Microsoft, CompTIA, and NetApp.

This diploma also includes a work-based learning component, putting students to work in live datacenters

FIRST SEMESTER

CTI	110	Web, Pgm, & DB Foundation	3
ENG	111	Writing and Inquiry	3
___	___	Operating System Elective	3

SECOND SEMESTER

CTI	140	Virtualization Concepts	3
CTS	120	Hardware/Software Support	3
NET	125	Networking Basics	3
NET	126	Routing Basics	3
NOS	130	Windows Single User	3

THIRD SEMESTER

CTI	240	Virtualization Admin I	3
CTS	115	Info Sys Business Concepts	3
ENG	114	Professional Research & Reporting	3
NOS	230	Windows Admin I	3

FOURTH SEMESTER

CTI	241	Virtualization Admin II	3
WBL	113	Work-Based L earning I	3

Graduation Requirements ..... 42 Credit Hours

Electives
(Choose a Min of 3 Credit Hrs)

NOS	110	Operating System Concepts	3
CTI	130	OS and Device Foundation	6

CISCO Network Associate Certificate – C25590CA

COMPUTER TECHNOLOGIES

This certificate is designed to prepare students for the CISCO Certified Network Associate (CCNA) examination. Topics include network topologies and design, router configuration and protocols, switching theory, virtual LANS and threaded case studies.

Upon completion of the four-course sequence, students will have the expertise they need to pass the test required to achieve CCNA status. Completion of NET 110 or CTI-120 or its equivalent is required to begin this program.

NET	125	Networking Basics	3
NET	126	Routing Basics	3
NET	225	Routing and Switching I	3
NET	226	Routing and Switching II	3

Graduation Requirements ..... 12 Credit Hours

CISCO Network Professional Certificate - C25590CP

The CISCO Certified Network Professional (CCNP) certificate provides the student with advanced skills in LAN/WAN networking technologies with an emphasis on CISCO methodology. These courses will provide an in-depth study of theory, as well as practical hands-on lab activities to prepare the student for the CCNP certification objectives. Topics include routing protocols, switching technology, remote access setup and maintenance, building multi-layer networks, and networking troubleshooting.

NET	270	Building Scalable Networks	3
NET	272	Multi-Layer Networks	3
NET	273	Internetworking Support	3
___	___	Major Elective (min 3 cr hrs)	3

Graduation Requirements ..... 12 Credit Hours

Major Electives
(Choose a Min of 3 Credit Hrs)

CTI	140	Virtualization Concepts	3
CTS	135	Integrated Software Intro	4
CTS	155	Technical Support Functions	3
CTS	240	Project Management	3
NET	115	Telecom for IT Professionals	3
NET	135	Data Center Networking	3
NET	175	Wireless Technology	3
NET	240	Network Design	3
NOS	220	Linux/UNIX Admin I	3
NOS	231	Windows Admin II	3
SEC	110	Security Concepts	3
SEC	150	Secure Communications	3
SEC	160	Security Administration I	3
WBL	___	Work Based Learning (All Numbers Accepted)	3

Cisco Security Certificate – C25590CX

-Day and Evening
This program is intended for individuals who are interested in getting certified in network security. Courses lead to industry credentials in networking and network security.

SEC	110	Security Concepts	3
SEC	150	Secure Communications	3
NET	225	Routing and Switching I	3
NET	226	Routing and Switching II	3

Graduation Requirements ..... 12 Credit Hours

Linux Certified IT Professional Certificate – C25590LX

-Day and Evening
This certificate is designed to prepare students for Linux or Red Hat certifications. Topics include network installation, Red Hat Linux file system and kernel concepts, scripts, system recovery, cron system, LILO configuration, implement configure, log and restrict various Red Hat network services, configuration issues associated with using Red Hat Linux as a router, basic firewall policies, and basics of the XWindow system. Completion of NOS-110 or CTI-130 is required to begin this program.

NOS	120	Linux/UNIX Single User	3
NOS	125	Linux/UNIX Scripting	3
NOS	220	Linux/UNIX Admin I	3
NOS	221	Linux/UNIX Admin II	3
NOS	222	Linux/UNIX Admin III	3

Graduation Requirements ..... 15 Credit Hours

Microsoft Certified IT Professional Certificate - C25590MS

- Day and Evening
This certificate is intended for students who are interested in testing for the MCITP or MCSA industry certifications. Courses cover the installation, configuration and management of Microsoft operating systems.

NOS	130	Windows Single User	3
NOS	230	Windows Admin I	3
NOS	231	Windows Admin II	3
NOS	232	Windows Admin III	3

Graduation Requirements ..... 12 Credit Hours

Global Windows Security Administration Certificate – C25590WS

-Day
Graduates from this certificate program will be prepared to demonstrate their knowledge, skills, and abilities in securing Microsoft Windows clients and servers, including technologies such as PKI, IPSec, and Group Policies. Students will earn how to install, configure and secure Windows operating systems. Graduates will be ready to demonstrate proficiency in managing the hardening of Windows systems against malware and persistent adversaries.

SEC	160	Security Administration I	3
NOS	230	Windows Admin I	3
NOS	231	Windows Admin II	3
NOS	232	Windows Admin III	3

Graduation Requirements ..... 12 Credit Hours

OFFICE ADMINISTRATION

Office Professional Degree - A25370P

-Online

The Office Professional curriculum (AAS degree) prepares individuals for employment as administrative office personnel. Students develop skills in administrative office procedures and tasks, along with office software applications, records management, keyboarding, editing and advanced formatting, office computations, oral and written communication, critical thinking, team building, and problem solving. The degree is available online.

Graduates should qualify for employment opportunities in a variety of office positions in business, government, and industry. Students are eligible to take industry-recognized certification exams.

Program Sequence

FIRST SEMESTER

ENG	111	Writing and Inquiry	3
OST	122	Office Computations	3
OST	137	Office Software Applications	3
OST	184	Records Management	3
OST	164	Text Editing Applications	3

SECOND SEMESTER

___	___	English Elective	3
CTS	130	Spreadsheet	3
OST	136	Word Processing	3
OST	134	Text Entry & Formatting	3
MAT	110	Math Measurement & Literacy	3

SUMMER SEMESTER

___	___	Social Science Elective	
___	___	HUM / FA Elective	

Eligible for Office Professional Certificate (C25370P): *OST-122, OST-137, OST-164, OST-184, OST-134, OST-136*

THIRD SEMESTER

OST	138	Advanced Software Applications	3
OST	181	Introduction to Office Systems	3
OST	236	Adv. Word / Information Processing	3
OST	135	Adv. Text Entry and Formatting	3
OST	286	Professional Development	3

Eligible for Office Professional Diploma (D25370P): *OST-122, OST-134, OST-181, OST-184, OST-135, OST-136, OST-137, OST-164, OST-286, CTS-130, ENG-111, ENG Elective*

FOURTH SEMESTER

CTS	230	Advanced Spreadsheet	3
OST	165	Adv Office Editing	3
OST	233	Office Publications Design	3
OST	289	Office Admin Capstone	3
___	___	OA Elective	3

Eligible for Office Software Certificate (C25370S): *CTS-130, OST-136, OST-137, OST-236, CTS-230*

Humanities and Fine Arts Electives

(Choose 3 credit hours from the following courses)

HUM	110	Technology and Society	3
HUM	115	Critical Thinking	3

English Electives

(Choose 3 credit hours from the following courses)

ENG	114	Professional Research and Reporting	3
ENG	112	Writing/Research in the Disc	3

Social Sciences Electives

(Choose 3 credit hours from the following courses)

PSY	150	General Psychology	3
SOC	210	Introduction to Sociology	3
PSY	118	Interpersonal Psychology	3

OA Electives

Choose 3 credit hours from the following courses:

ACC	120	Prin of Financial Accounting	3
BUS	115	Business Law I	3
BUS	153	Human Resource Management	3
OST	132	Keyboard Speed Building	2
OST	153	Office Finance Solutions	3
OST	155	Legal Terminology	3
OST	156	Legal Office Procedures	3
OST	284	Emerging Technologies	2
WBL	111	Work –Based Learning I*	1
WBL	121	Work-Based Learning II*	1
WBL	112	Work-Based Learning I*	2

Graduation Requirements ..... 66 Credit Hours

* Work-Based Learning is an elective. WBL courses completed for one program may not count toward the completion of another program. For verification of WBL course work, please contact your academic advisor and/or your departmental Work-Based Learning faculty coordinator. Students must have approval from the Department Head and pre-register with the Work-Based Learning Office. The Work-Based Learning work period may be taken over one semester as WBL 112, or two semesters as WBL 111 and WBL 121.

Office Professional Certificate – C25370P

-Online

This certificate provides the technical and administrative support skills necessary for entry-level employment in a variety of offices. The certificate is available online.

FIRST SEMESTER

OST	122	Office Computations	3
OST	137	Office Applications I	3
OST	164	Office Editing	3
OST	184	Records Management	3

SECOND SEMESTER

OST	134	Text Entry & Formatting	3
OST	136	Word Processing	3

Graduation Requirements ..... 18 Credit Hours

Office Professional Diploma - D25370P

-Online

The Office Administration Diploma is designed for the individual entering, upgrading, or retraining in the office field. Students develop skills in records management, office computations, software applications, office procedures, keyboarding, editing and advanced formatting, critical thinking, and problem solving. The diploma is available online.

Graduates should qualify for entry-level employment opportunities in a variety of office positions in business, government, and industry. Students are eligible to take industry-recognized certification exams.

COMPUTER TECHNOLOGIES

Program Sequence

FIRST SEMESTER

ENG	111	Writing and Inquiry	3
OST	122	Office Computations	3
OST	134	Text Entry and Formatting	3
OST	181	Office Procedures	3
OST	184	Records Management	3

SECOND SEMESTER

OST	135	Adv Text Entry & Formatting	3
OST	136	Word Processing	3
OST	137	Office Applications I	3
OST	164	Office Editing	3
OST	286	Professional Development	3

SUMMER SEMESTER

CTS	130	Spreadsheet	3
___	___	ENG Elective	3

English Electives

(Choose 3 credit hours from the following courses)

ENG	112	Writing/Research in the Disc	3
ENG	114	Professional Research and Reporting	3

Graduation Requirements ..... 36 Credit Hours

Office Finance Degree - A25370F

-Online

Office Administration has a new concentration in Office Finance (AAS degree). Students develop skills in accounting and office finance, along with office procedures, office software applications, records management, office computations, keyboarding, editing and formatting, oral and written communication, critical thinking, team building and problem solving. The degree is available online.

Graduates should qualify for employment opportunities in government agencies, real estate offices, financial institutions, and large to small offices and businesses. Students are eligible to take industry-recognized certification exams.

Program Sequence

FIRST SEMESTER

ENG	111	Writing and Inquiry	3
OST	122	Office Computations	3
OST	137	Office Applications I	3
OST	164	Office Editing	3
OST	184	Records Management	3

SECOND SEMESTER

CTS	130	Spreadsheet	3
OST	134	Text Entry & Formatting	3
OST	136	Word Processing	3
MAT	110	Math Measurement & Literacy	3
___	___	English Elective	3

Eligible for Office Professional Certificate (C25370P): *OST-122, OST-137, OST-164, OST-184, OST-134, OST-136***SUMMER SEMESTER**

___	___	Social Science Elective	3
___	___	Humanities/FA Elective	3

THIRD SEMESTER

ACC	120	Prin of Financial Accounting	4
OST	138	Office Applications II	3
OST	181	Office Procedures	3
OST	236	Adv Word Processing	3
OST	286	Professional Development	3

Eligible for Office Professional Diploma (D25370P): *OST-122, OST-134, OST-181, OST-184, OST-135, OST-136, OST-137, OST-164, OST-286, CTS-130, ENG-111, ENG Elective*

FOURTH SEMESTER

OST	153	Office Finance Solutions	3
CTS	230	Advanced Spreadsheet	3
OST	165	Adv Office Editing	3
OST	289	Office Admin Capstone	3
___	___	OA Elective	2

Eligible for Office Software Certificate (C25370S): *CTS-130, OST-136, OST-137, OST-236, CTS-230*

Graduation Requirements ..... 66 Credit Hours

Humanities and Fine Arts Electives

(Choose 3 credit hours from the following courses)

HUM	110	Technology and Society	3
HUM	115	Critical Thinking	3

English Electives

(Choose 3 credit hours from the following courses)

ENG	114	Professional Research and Reporting	3
ENG	112	Writing/Research in the Disc	3

Social Sciences Electives

(Choose 3 credit hours from the following courses)

PSY	150	General Psychology	3
SOC	210	Introduction to Sociology	3
PSY	118	Interpersonal Psychology	3

OA Electives

Choose 2 credit hours from the following courses:

BUS	115	Business Law I	3
BUS	153	Human Resource Management	3
OST	132	Keyboard Skill Building	2
OST	135	Adv Text Entry & Format	3
OST	155	Legal Terminology	3
OST	156	Legal Office Procedures	3
OST	233	Office Publications Design	3
OST	284	Emerging Technologies	2
WBL	111	Work –Based Learning I	1
WBL	121	Work-Based Learning II	1
WBL	112	Work-Based Learning I	2

Legal Office Degree - A25370L

-Online

Office Administration has a new concentration in Legal Office (AAS degree). Students develop skills in legal office procedures and tasks, along with legal terminology, business law, office software applications, records management, office computations, keyboarding, editing and advanced formatting, oral and written communication, critical thinking, team building, and problem solving. The degree is available online.

Graduates should qualify for employment opportunities in government agencies, the court system, law offices, real estate offices, financial institutions, and large to small offices and businesses. Students are eligible to take industry-recognized certification exams.

Program Sequence

FIRST SEMESTER

ENG	111	Writing and Inquiry	3
OST	134	Text Entry & Formatting	3
OST	136	Word Processing	3

OST 137 Office Applications I 3
OST 155 Legal Terminology 3

SECOND SEMESTER
CTS 130 Spreadsheet 3
OST 135 Adv Text Entry & Formatting 3
OST 156 Legal Office Procedures 3
MAT 110 Math Measurement & Literacy 3
___ ___ English Elective 3

Eligible for Legal Office Certificate (C25370L): *OST-134, OST-136, OST-155, OST-135, OST-156*

SUMMER SEMESTER
___ ___ Social Science Elective 3
___ ___ Humanities/FA Elective 3

THIRD SEMESTER
OST 122 Office Computations 3
OST 138 Office Applications II 3
OST 164 Office Editing 3
OST 184 Records Management 3
OST 236 Adv Word Processing 3

Eligible for Office Professional Certificate (C25370P): *OST-122, OST-137, OST-164, OST-184, OST-134, OST-136*

FOURTH SEMESTER
BUS 115 Business Law I 3
OST 165 Adv Office Editing 3
OST 286 Professional Development 3
OST 289 Office Admin Capstone 3
___ ___ OA Elective 3

Graduation Requirements ..... 66 Credit Hours

Humanities and Fine Arts Electives
(Choose 3 credit hours from the following courses)
HUM 110 Technology and Society 3
HUM 115 Critical Thinking 3

English Electives
(Choose 3 credit hours from the following courses)
ENG 114 Professional Research and Reporting 3
ENG 112 Writing/Research in the Disc 3

Social Sciences Electives
(Choose 3 credit hours from the following courses)
PSY 150 General Psychology 3
SOC 210 Introduction to Sociology 3
PSY 118 Interpersonal Psychology 3

OA Electives
(Choose 3 credit hours from the following courses)
BUS 153 Human Resource Management 3
CTS 230 Advanced Spreadsheet 3
OST 153 Office Finance Solutions 3
OST 132 Keyboard Skill Building 2
OST 181 Office Procedures 3
OST 233 Office Publications Design 3
OST 284 Emerging Technologies 2
WBL 111 Work –Based Learning I 1
WBL 121 Work-Based Learning II 1
WBL 112 Work-Based Learning I 2

Legal Office Certificate – C25370L

-Online

This certificate provides a study of the office skills necessary for employment in a legal setting. The certificate is available online.

FIRST SEMESTER
OST 134 Text Entry & Formatting 3
OST 136 Word Processing 3
OST 155 Legal Terminology 3

SECOND SEMESTER
OST 135 Adv Text Entry & Format 3
OST 156 Legal Office Procedures 3

Graduation Requirements ..... 15 Credit Hours

Office Software Degree - A25370S

-Online

Office Administration has a new concentration in Office Software (AAS degree). Students develop skills in advanced office software applications, along with office procedures, records management, office computations, keyboarding, editing and formatting, oral and written communication, critical thinking, team building, and problem solving. The degree is available online.

Graduates should qualify for employment opportunities in government agencies, financial institutions, and large to small offices and businesses. Students are eligible to take industry-recognized certification exams.

Program Sequence

FIRST SEMESTER
ENG 111 Writing and Inquiry 3
OST 122 Office Computations 3
OST 137 Office Applications I 3
OST 164 Office Editing 3
OST 184 Records Management 3

SECOND SEMESTER
CTS 130 Spreadsheet 3
OST 134 Text Entry & Formatting 3
OST 136 Word Processing 3
MAT 110 Math Measurement & Literacy 3
___ ___ English Elective 3

Eligible for Office Professional Certificate (C25370P): *OST-122, OST-137, OST-164, OST-184, OST-134, OST-136*

SUMMER SEMESTER
___ ___ Social Science Elective 3
___ ___ Humanities/FA Elective 3

THIRD SEMESTER
CTS 230 Advanced Spreadsheet 3
OST 138 Office Applications II 3
OST 181 Office Procedures 3
OST 236 Adv Word Processing 3
OST 286 Professional Development 3

Eligible for Office Professional Diploma (D25370P): *OST-122, OST-134, OST-181, OST-184, OST-135, OST-136, OST-137, OST-164, OST-286, CTS-130, ENG 111, ENG Elective*

Eligible for Office Software Certificate (C25370S): *CTS-130, OST-136, OST-137, OST-236, CTS-230*

FOURTH SEMESTER
OST 153 Office Finance Solutions 3
OST 165 Adv Office Editing 3
OST 289 Office Admin Capstone 3
OST 233 Office Publications Design 3
___ ___ OA Elective 3
Graduation Requirements ..... 66 Credit Hours

Humanities and Fine Arts Electives
(Choose 3 credit hours from the following courses)
HUM 110 Technology and Society 3
HUM 115 Critical Thinking 3

English Electives
(Choose 3 credit hours from the following courses)
ENG 114 Professional Research and Reporting 3
ENG 112 Writing/Research in the Disc 3

Social Sciences Electives
(Choose 3 credit hours from the following courses)
PSY 150 General Psychology 3
SOC 210 Introduction to Sociology 3
PSY 118 Interpersonal Psychology 3

OA Electives
Choose 3 credit hours from the following courses:
ACC 120 Prin of Financial Accounting 4
BUS 115 Business Law I 3
BUS 153 Human Resource Management 3
OST 132 Keyboard Skill Building 2
OST 135 Adv Text Editing and Formatting 3
OST 155 Legal Terminology 3
OST 156 Legal Office Procedures 3
OST 284 Emerging Technologies 2
WBL 111 Work –Based Learning I 1
WBL 121 Work-Based Learning II 1
WBL 112 Work-Based Learning I 2

Office Software Certificate – C25370S

-Online

This certificate provides an in-depth study of commonly used office software applications to prepare students for employment and to pass certification exams in word processing, spreadsheet, and presentation software. The certificate is available online.

FIRST SEMESTER
CTS 130 Spreadsheet 3
OST 136 Word Processing 3
OST 137 Office Applications I 3

SECOND SEMESTER
OST 236 Adv Word Processing 3
CTS 230 Advanced Spreadsheet 3

Graduation Requirements ..... 15 Credit Hours

* Work-Based Learning is an elective. WBL courses completed for one program may not count toward the completion of another program. For verification of WBL course work, please contact your academic advisor and/or your departmental Work-Based Learning faculty coordinator. Students must have approval from the Department Head and pre-register with the Work-Based Learning Office. The Work-Based Learning work period may be taken over one semester as WBL 112, or two semesters as WBL 111 and WBL 121.

SIMULATION & GAME DEVELOPMENT

Art and Modeling Degree – A25450A and Programming Degree - A25450P

The Simulation and Game Development curriculum provides a broad background in simulation and game development with practical applications in creative arts, visual arts, audio/video technology, creative writing, modeling, design, programming and management.

Students will receive hands-on training in design, 3D modeling, animation, level design, software engineering, and programming for the purpose of creating simulations and games.

Graduates should qualify for employment as designers, artists, animators, programmers quality assurance testers and analysts, engineers and administrators in the entertainment industry, the health care industry, engineering, forensics, education, and government agencies.

Simulation and Game Development - Art & Modeling Degree - A25450A

-Day and Evening

Program Sequence

FIRST SEMESTER
ACA 111 College Student Success 1
ENG 111 Writing and Inquiry 3
SGD 111 Introduction to SGD 3
SGD 112 SGD Design 3
SGD 113 SGD Programming 3
SGD 116 Graphic Design Tools 3

SECOND SEMESTER
___ ___ Math Elective 3
SGD 114 3D Modeling 3
SGD 117 Art for Games 3
SGD 163 SG Documentation 3
SGD 212 SGD Design II 3

THIRD SEMESTER
___ ___ English Elective 3
___ ___ HUM / FA Elective 3

FOURTH SEMESTER
SGD 166 SG Physiology / Kinesis 3
SGD 134 SG Quality Assurance 3
SGD 174 SG Level Design 3
SGD 214 3D Modeling II 3
SGD 162 SG 3 D Animation 3

FIFTH SEMESTER
___ ___ Social Science Elective 3
___ ___ Major Elective 2
SGD 165 SG Character Development 3
SGD 158 SGD Business Management 3
SGD 164 SG Audio / Video 3

SIXTH SEMESTER
SGD 289 SGD Project 3
___ ___ Major Elective 3

Graduation Requirements ..... 71 Credit Hours

Math Elective
(Select 3 credit hours from the following courses)
MAT 121 Algebra/Trigonometry I 3
MAT 143 Quantitative Literacy 3
MAT 152 Statistical Methods 1 4
MAT 171 Precalculus Algebra 4

Humanities/Fine Arts Elective
(Select 3 credit hours from the following courses)
ART 111 Art Appreciation 3
DRA 126 Storytelling 3
ENG 125 Creative Writing I 3

HUM	130	Myth in Human Culture	3
HUM	160	Introduction to Film	3
REL	110	World Religions	3

English Electives
(Select 3 credit hours from the following courses)

ENG	112	Argument-Based Research	3
COM	231	Public-Speaking	3

Social/Behavioral Science Elective
(Select 3 credit hours from the following courses)

ECO	151	Survey of Economics	3
HIS	111	World Civilizations I	3
PSY	150	General Psychology	3
SOC	210	Introduction to Sociology	3

Major Required Electives
(Select a minimum of 4 credit hours)

SGD	135	Serous Games	3
SGD	159	SGD Production Management	3
SGD	161	SG Animation	3
SGD	167	SG Ethics	3
SGD	168	Mobile SG Programming I	3
SGD	172	Virtual SG Environments	3
SGD	180	SGD HTML Programming I	3
SGD	237	Rigging 3D Models	3
SGD	244	3D Modeling III	3
SGD	268	Mobile SG Programming II	3
SGD	274	SG Level Design II	3
SGD	280	SGD HTML Programming I	3
SGD	288	SGD Portfolio Design	2
WBL	112	Work-Based Learning I	2

*WBL courses completed for one program may not count toward the completion of another program. For verification of WBL course work, please contact your academic advisor and/or your departmental Work-Based Learning faculty coordinator. The Work-Based Learning period may be taken over two semesters as WBL 112 and WBL 121 or over three semesters as WBL 111, WBL 121 and WBL 131.

Simulation and Game Development - Programming Degree - A25450P

-Day and Evening

Program Sequence

FIRST FALL SEMESTER

ACA	111	College Student Success	1
ENG	111	Writing and Inquiry	3
SGD	111	Introduction to SGD	3
SGD	112	SGD Design	3
SGD	116	Graphic Design Tools	3
SGD	113	SGD Programming	3

FIRST SPRING SEMESTER

SGD	213	SGD Programming II	3
MAT	171	Precalculus Algebra	4
SGD	114	3D Modeling	3
SGD	163	SG Documentation	3
SGD	212	SGD Design II	3

FIRST SUMMER SEMESTER

___	___	English Elective	3
___	___	HUM / FA Elective	3

SECOND FALL SEMESTER

PHY	151	College Physics I	4
SGD	134	SG Quality Assurance	3
SGD	174	SG Level Design	3
SGD	180	SGD HTML Programming I	3
SGD	285	SG Software Engineering	3

SECOND SPRING SEMESTER

___	___	Social Science Elective	3
___	___	Major Elective I	2
SGD	158	SGD Business Management	3
SGD	164	SG Audio / Video	3
SGD	168	Mobile SG Programming I	3

SECOND SUMMER TERM

___	___	Major Elective I	2
SGD	289	SGD Project	3

Graduation Requirements..... 72 Credit Hours

Humanities/Fine Arts Elective
(Select 3 credit hours from the following courses)

ART	111	Art Appreciation	3
DRA	126	Storytelling	3
ENG	125	Creative Writing I	3
HUM	130	Myth in Human Culture	3
HUM	160	Introduction to Film	3
REL	110	World Religions	3

Communication Elective
(Select 3 credit hours from the following courses)

ENG	112	Argument-Based Research	3
COM	120	Intro Interpersonal Communication	3
COM	231	Public-Speaking	3

Social/Behavioral Science Elective
(Select 3 credit hours from the following courses)

ECO	151	Survey of Economics	3
HIS	111	World Civilizations I	3
PSY	150	General Psychology	3
SOC	210	Introduction to Sociology	3

Major Electives (Choose a minimum of 4 credit hours from the following)

SGD	135	Serious Games	3
SGD	159	SGD Production Management	3
SGD	161	SG Animation	3
SGD	167	SG Ethics	3
SGD	172	Virtual SG Environments	3
SGD	237	Rigging 3D Models	3
SGD	244	3D Modeling III	3
SGD	268	Mobile SG Programming II	3
SGD	274	SG Level Design II	3
SGD	280	SGD HTML Programming I	3
SGD	288	SGD Portfolio Design	2
WBL	112	Work Based Learning I	2

Modeling and Animation Certificate - C25450A

This certificate focuses on the skills needed for an entry-level artist within the simulation or video game industry. Training includes 3d modeling, animation and character development.

SGD	116	Graphic Design Tools	3
SGD	114	3D Modeling	3
SGD	162	SG 3D Animation	3
SGD	165	SG Character Development	3
SGD	214	3D Modeling II	3

Graduation Requirements..... 15 Credit Hours

Production Certificate - C25450B

This certificate focuses on skills needed for entry-level positions in the production side of game development or simulation. Course material includes training for management of a production team, business, development, design and documentation.

SGD	111	Introduction to SGD 3
SGD	112	SGD Design 3
SGD	163	SG Documentation 3
SGD	212	SGD Design II 3
SGD	158	SGD Business Management 3
SGD	159	SGD Production Management 3

Graduation Requirements ..... 18 Credit Hours

Mobile Game Development Certificate - C25450C

The mobile game development certificate prepares students with skills needed to build games or simulations for mobile devices. This certificate focuses primarily on Apple devices and secondarily the Android market.

SGD	112	SGD Design 3
SGD	113	SGD Programming 3
SGD	114	3D Modeling 3
SGD	116	Graphic Design Tools 3
SGD	168	Mobile SG Programming I 3
SGD	268	Mobile SG Programming II 3

Graduation Requirements ..... 18 Credit Hours

Fundamentals I for Simulation and Game Development Certificate - C25450D

Fundamentals I is the first in a series of four step certificates toward the simulation and game development degree. This certificate introduces design, texturing, traditional art and programming basics as well as what to expect with a career in simulation or video game development.

SGD	111	Introduction to SGD 3
SGD	112	SGD Design 3
SGD	113	SGD Programming 3
SGD	116	Graphic Design Tools 3

Graduation Requirements ..... 12 Credit Hours

Fundamentals II for Simulation and Game Development Certificate - C25450E

Fundamentals II is the second in a series of four step certificates toward the simulation and game development degree. This certificate covers topics in 3D modeling, documentation, advanced design principals and introduces programming languages used in the industry.

SGD	114	3D Modeling 3
SGD	163	SG Documentation 3
SGD	212	SGD Design II 3
___	___	SGD 117 or SGD 213 3

Graduation Requirements ..... 12 Credit Hours

Quality Assurance for Simulation and Game Development Certificate - C25450F

Quality Assurance is the third in a series of four step certificates toward the simulation and game development degree. This certificate focuses on skills required for a position as a quality assurance tester in the simulation or video game industry.

SGD	134	SG Quality Assurance 3
SGD	174	SG Level Design 3
___	___	SGD 180 or SGD 214 3
___	___	SGD 168 or SGD 162 3

Graduation Requirements ..... 12 Credit Hours

Business for Simulation and Game Development Certificate - C25450G

Business for SGD is the final in a series of four step certificates toward the simulation and game development degree. This certificate introduces students to the business development side of the industry, the audio/video career field and tackles advanced topics in programming and art.

SGD	158	SGD Business Management 3
SGD	164	SG Audio/Video 3
___	___	Elective I 3
___	___	Elective II 3

Graduation Requirements ..... 12 Credit Hours

Elective I
(Choose a Min of 3 Credit Hrs)

SGD	285	SG Software Engineering 3
SGD	165	SG Character Development 3

Elective II
(Choose a Min of 3 Credit Hrs)

SGD	135	Serious Games 3
SGD	159	SGD Production Management 3
SGD	161	SG Animation 3
SGD	167	SG Ethics 3
SGD	168	Mobile SG Programming I 3
SGD	172	Virtual SG Environments 3
SGD	237	Rigging 3D Models 3
SGD	244	3D Modeling III 3
SGD	268	Mobile SG Programming II 3
SGD	274	SG Level Design II 3
SGD	280	SGD HTML Programming II 3
SGD	288	SGD Portfolio Design 2
WBL	112	Work Based Learning I 2

Programming for Simulation and Game Development Certificate - C25450H

This certificate prepares students for an entry-level programming position within the simulation or video game industry.

SGD	113	SGD Programming 3
SGD	213	SGD Programming II 3
SGD	180	SGD HTML Programming I 3
SGD	168	Mobile SG Programming I 3
SGD	285	SG Software Engineering 3

Graduation Requirements ..... 15 Credit Hours

Level Design Certificate – C25450I

This certificate focuses on training students to design and implement levels within a video game or simulation.

SGD	112	SGD Design	3
SGD	114	3D Modeling	3
SGD	172	Virtual SG Environments	3
SGD	174	SG Level Design	3
SGD	274	SG Level Design II	3

Graduation Requirements ..... 15 Credit Hours

STORAGE & VIRTUALIZATION

Storage and Virtualization Degree (A25590SV)

– Day and Evening

This degree program provides skills and credentials that can qualify graduates for a variety of positions – in organizations all over the world. Any organization that uses operating system virtualization, cloud computing, or data storage solutions will need people trained in these disciplines.

The program includes courses in Cisco routing and switching, Microsoft desktop and server operating systems, in-depth training with O/S virtualization, and unique courses in datacenter storage hardware environments. Instruction in these areas can qualify students to take industry certification exams in VMWare, Cisco, Microsoft, CompTIA, and NetApp.

This program also includes a co-op component, putting students to work with local employers for on-the-job training in “live” datacenters.

PROGRAM SEQUENCE

FIRST SEMESTER

CTI	110	Web, Pgm & DB Foundation	3
CTI	120	Network & Sec Foundation	3
CTI	130	OS and Device Foundation	6
ENG	111	Writing and Inquiry	3
MAT	143	Quantitative Literacy	3

SECOND SEMESTER

NOS	130	Windows Single User	3
NOS	230	Windows Admin I	3
CTI	140	Virtualization Concepts	3
NET	125	Networking Basics	3
NET	126	Routing Basics	3
CTI	141	Cloud & Storage Concepts	3

SUMMER SEMESTER

WBL	112	Work-Based Learning I	2
CTI	240	Virtualization Admin I	3

THIRD SEMESTER

ENG	114	Professional Research & Reporting	3
CTS	118	IS Professional Comm	2
OMT	154	Customer Satisfaction	2
___	___	Major Electives	4
___	___	Humanities and Fine Arts Elec (3 hrs)	3
___	___	Social & Behavioral Sciences Elec (3 hrs)	3

FOURTH SEMESTER

CTS	288	Professional Practices in IT	3
CTI	241	Virtualization Admin II	3
CTI	260	Data Center Troubleshooting	3
CTS	115	Info Sys Business Concept	3
NET	135	Data Center Networking	3
___	___	Major Elective II	2

Major Electives

CCT	121	Computer Crime Investigations	4
CCT	240	Data Recovery Techniques	3
CTS	120	Hardware/Software Support	3
CTS	155	Technical Support Functions	3
CTS	220	Advanced Hardware/Software Support	3
CTS	255	Advanced Technical Support Functions	3
NET	115	Telecom for IT Professionals	3
NET	175	Wireless Technology	3
NET	225	Routing and Switching I	3
NET	226	Routing and Switching II	3
NET	240	Network Design	3
NOS	120	Linux/UNIX Single User	3
NOS	125	Linux/UNIX Scripting	3
NOS	220	Linux/UNIX Admin I	3
NOS	231	Windows Admin I	3
NOS	232	Windows Admin III	3
PMT	110	Intro to Project Management	3
SEC	110	Security Concepts	3
SEC	150	Secure Communications	3
WBL	122	Work Based Learning II	2
WBL	132	Work Based Learning III	2

Humanities/Fine Arts Elective

(Select 3.0 hours from the following courses)

ART	111	Art Appreciation	3
HUM	115	Critical Thinking	3
MUS	110	Music Appreciation	3
PHI	240	Introduction to Ethics	3

Social/Behavioral Science Elective

(Select 3.0 hours from the following courses)

ECO	151	Survey of Economics	3
ECO	251	Principles Of Microeconomics	3
POL	120	American Government	3
PSY	118	Interpersonal Psychology	3
PSY	150	General Psychology	3
SOC	210	Introduction to Sociology	3

Graduation Requirements ..... 73 Credit Hours

TECHNICAL SUPPORT

Technical Support Degree – A25590TS

-Day and Evening

The Information Technology Technical Support curriculum is designed to prepare graduates for employment with organizations that use computers to process, manage, and communicate information. This is a flexible program, designed to meet community information system’s needs.

Course work includes computer systems terminology and operations, logic, operating systems, database, data communications/networking, and related business topics. Studies will provide experience for students to implement, support, and customize industry-standard information systems.

Graduates should qualify for a wide variety of computer-related, entry-level positions that provide opportunities for advancement with increasing experience and ongoing training. Duties may include systems maintenance and troubleshooting, support and training, and Security related help desk and support responsibilities.

COMPUTER TECHNOLOGIES

PROGRAM SEQUENCE

FIRST SEMESTER

ENG	111	Writing and Inquiry	3
CTI	110	Web, Programming and Database Foundations	3
CTI	120	Network and Security Foundations	3
NOS	110	Operating Systems Concepts	3
___	___	Social and Behavioral Sciences Elec	3

SECOND SEMESTER

CTS	115	Information Systems Business Concept	3
CTS	155	Tech Support Functions	3
NOS	130	Windows Single User	3
NOS	230	Windows Admin I	3
MAT	143	Quantitative Literacy	3

Completes IT Foundations Certificate (C25590F)

SUMMER SEMESTER

___	___	Major Elective I	3

THIRD SEMESTER

CTS	135	Integrated Software Intro	4
CTS	255	Advanced Technical Support Functions	3
ENG	114	Professional Research and Reporting	3
NOS	120	Linus / UNIX Single User	3
___	___	Major Elective II	2

FOURTH SEMESTER

CTS	288	Professional Practices in IT	3
CTS	118	IS Professional Comm	2
OMT	154	Customer Satisfaction	2
CTS	285	Systems Analysis & Design	3
___	___	Major Elective III	2
___	___	HUM / FA Elective	3

GENERAL EDUCATION ELECTIVES

Humanities and Fine Arts Electives
(Choose 3 credit hours from the following courses)

ART	111	Art Appreciation	3
HUM	115	Critical Thinking	3
MUS	110	Music Appreciation	3
PHI	240	Introduction to Ethics	3

Social and Behavioral Sciences Electives
(Choose 3 credit hours from the following courses)

ECO	151	Survey of Economics	3
ECO	251	Principles of Microeconomics	3
POL	120	American Government	3
PSY	118	Interpersonal Psychology	3
PSY	150	General Psychology	3
SOC	210	Introduction to Sociology	3

Major Electives (Select 1 option grouping below)

Option 1 – Hardware Support and Repair

CTS	120	Hardware / Software Support	3
CTS	220	Advanced Hardware / Software Support	3
CTS	272	Desktop Support: Apps	3

Option 2 – Networking Support

NET	125	Introduction to Networks	3
NET	126	Routing Basics	3

And one of the following Cisco certificate courses

NET	135	Data Center Networking	3
NET	175	Wireless Technology	3
NET	240	Network Design	3
SEC	150	Secure Communications	3

Option 3 – Cyber Security Support

SEC	110	Security Concepts	3
SEC	160	Security Administration I	3
SEC	210	Intrusion Detection	3

Mixed Elective Options
(Choose a minimum of 7 credit hours from any of the courses listed above or below)

CCT	121	Computer crime Investigations	4
CCT	240	Data Recovery Techniques	3
CSC	139	Visual BASIC Programming	3
CSC	153	C# Programming	3
CSC	226	.NET Programming	3
CTI	140	Virtualization Concepts	3
CTI	240	Virtualization Admin I	3
CTI	241	Virtualization Admin II	3
CTS	210	Computer Ethics	3
DBA	110	Database Concepts	3
DBA	115	Database Applications	3
DBA	120	Database Programming I	3
DBA	130	Intro to noSQL Databases	3
HBI	110	Issues and Trends in HBI	3
HBI	113	Survey of Medical Insurance	3
HBI	210	Data Management and Utilization	3
NOS	125	Linux/UNIX Scripting	3
NOS	220	Linux.UNIX Admin I	3
OST	137	Office Software Applications	3
OST	141	Med Terms I – Med Office	3
OST	142	Med Terms II – Med Office	3
OST	149	Medical Legal Issues	3
PMT	110	Intro to Project Management	3
WBL	___	Work Based Learning* (all numbers accepted)	2

Graduation Requirements ..... 66 Credit Hours

*****Work based education is an elective. Students must have approval from the Program Director and pre-register with the Work-based Learning Office. The work may be done over one semester as WBL 113, two semesters as WBL 112 and WBL 121, or three semesters as WBL 111, WBL 121 and WBL 131.

IT Foundations Certificate - C25590F

-Day, Evening, and Online

This certificate is designed to give individuals an all-around orientation to computer technologies. It is a recommended starting place for students who know they like computer technology, but are not sure what specific field of computers might be right to follow for their career. The courses introduce students to security, operating systems, programming, databases and other career options that involve computer technology. The courses also can prepare students for a variety of industry certifications.

CTI	110	Web, Pgm & Database Foundations	3
CTI	120	Network and Security Foundations	3
CTS	115	Info Sys Business Concepts	3
___	___	Elective I	3
___	___	Elective II	3

Graduation Requirements..... 15 Credit Hours

Elective I
(Choose a Min of 3 Credit Hrs)

CIS	110	Intro to Computers	3
CIS	115	Intro to Programming & Logic	3
CSC	120	Computing Fundamentals I	3
CTI	130	OS and Device Foundations	6
CTS	120	Hardware/Software Support	3
NOS	110	Operating Systems Concepts	3

Elective II
(Choose a Min of 3 Credit Hrs)

CSC	151	JAVA Programming	3
CSC	153	C# Programming	3
CTI	140	Virtualization Concepts	3
CTS	155	Tech Support Functions	3
DBA	120	Database Programming I	3
DME	110	Intro to Digital Media	3
HBI	110	Issues and Trends in HBI	3
NET	125	Introduction to Networking	3
SEC	110	Security Concepts	3
WEB	115	Web Makeup and Scripting	3
WEB	125	Web Mobile Design	3

IT Help Desk Technician Certificate - C25590HD

-Day and Evening
This certificate provides students with the knowledge and practical skills necessary to support users of computing technologies. The course work will help students develop the ability to work in helpdesk and technical support positions.

CTS	155	Tech Support Functions	3
CTS	255	Advanced Technical Support Functions	3
NOS	130	Windows Single User	3
NOS	230	Windows Admin I	3
CTS	118	IS Professional Comm	2
OMT	154	Customer Satisfaction	2

Graduation Requirements..... 16 Credit Hours

Cybersecurity Support Certificate – C25590CS

-Day and Evening
This certificate provides students with the knowledge and practical skills necessary to support cyber security technologies. The course work will help students develop the ability to work in a security operations center support position.

CTS	155	Tech Support Functions	3
SEC	110	Security Concepts	3
SEC	160	Security Administration I	3
SEC	210	Intrusion Detection	3

Graduation Requirements..... 12 Credit Hours

Hardware Support and Repair Certificate – C25590HW

-Day and Evening
This certificate is designed for individuals interested in acquiring advanced technical skills and knowledge to maintain and repair personal computers. Students gain skills in buying parts, upgrading, building, and configuring personal computers. Major hands-on topics include documentation, troubleshooting techniques, PC architectures, disk drives and peripheral cards, memory management, and communications devices.

This certificate is designed to prepare the student for A+ certification. A program prerequisite if CTI-120 is required.

CTS	120	Hardware/Software Support	3
CTS	220	Advanced Hardware/Software Support	3
CTS	272	Desktop Support-Apps	3
NOS	110	Operating Systems Concepts	3

Graduation Requirements..... 12 Credit Hours

Networking Support Certificate - C25590NS

– Day and Evening
This certificate provides students with the knowledge and practical skills necessary to support users of networking technologies. The course work will help students develop the ability to work in a networking support position.

CTS	155	Tech Support Functions	3
NET	125	Introduction to Networks	3
NET	126	Routing Basics	3
___	___	Networking Elective	3

Graduation Requirements..... 12 Credit Hours

Electives
(Choose a Min of 3 Credit Hrs)

NET	135	Data Center Networking	3
NET	175	Wireless Technology	3
NET	240	Network Design	3
SEC	150	Secure Communications	3

WEB DESIGNER

Web Designer Degree – A25590DM

-Online
The Web Technologies curriculum prepares graduates for careers in the information technology arena using computers to disseminate and collect information via the web.

Course work in this program covers web design, web scripting and markup, databases, web programming, e-commerce, web content management systems as well as mobile applications development and UI/UX. Studies will provide opportunity for students to learn using industry standard software and technologies.

Graduates should qualify for career opportunities as designers, programmers, or developers in the areas of web development, web design, web services, mobile application development and other related areas.

Prepares graduates to design, develop and maintain professional, high-quality websites, create digital media and integrate web technologies to support an organization's needs.

Program Sequence

FIRST SEMESTER

CTI	110	Web, Pgm, and DB Foundation	3
GRD	141	Graphic Design I	4
WEB	111	Introduction to Web Graphics	3
WEB	110	Internet / Web Fundamentals	3
DME	110	Intro to Digital Media	3

SECOND SEMESTER

WEB	210	Web Design	3
WEB	115	Web Markup and Scripting	3
DME	210	User Interface Design	3
WEB	140	Web Development Tools	3
CIS	115	Intro to Prog & Logic	3

FIRST SUMMER SEMESTER

ENG	111	Writing and Inquiry	3
___	___	ECO 251 or ECO 252	3
WEB	214	Social Media	3

THIRD SEMESTER

WEB	125	Mobile Web Design	3
CTS	115	Information Sys Business Concepts	3

DME	140	Intro to Audio / Video Media	3
___	___	MAT 110, 121, 143, 152 or 171	3
___	___	HUM 110, HUM 115 or PHI 240	3

FOURTH SEMESTER

___	___	COM 110 or COM 231	3
WEB	287	Web E-Portfolio	2
CTI	120	Network & Sec Foundation	3
WEB	213	Internet Mkt & Analysis	3
___	___	WEB 211 or WBL 112	3

Graduation Requirements ..... 69 Credit Hours

*Work-Based Learning is an elective. WBL courses completed for one program may not count toward the completion of another program. Contact your academic advisor or WBL faculty coordinator for verification. Students must have approval from the department head and pre-register with the Computer Technologies Division office. The Work-Based Learning work period may be taken as WBL 112, over two semesters as WBL 111 and WBL 112 or over one semester as WBL 113.

Web Designer Certificate - C25590DM

- Online

Using industry standard technologies to design and develop basic full and mobile web sites.

DME	110	Intro to Digital Media	3
WEB	110	Internet/Web Fundamentals	3
WEB	111	Introduction to Web Graphics	3
WEB	125	Mobile Web Design	3
WEB	140	Web Development Tools	3
WEB	210	Web Design	3

Graduation Requirements ..... 18 Credit Hours

Advanced Web Designer Certificate – C25590AW

– Online

This program builds upon the Web Developer certificate with more advanced web programming and eCommerce development skills.

DME	140	Intro to Audio/Video Media	3
DME	210	User Interface Design	3
WEB	211	Advanced Web Graphics	3
WEB	214	Social Media	3
WEB	287	Web E-Portfolio	2

Graduation Requirements ..... 14 Credit Hours

Front-End Developer Certificate - C25590DV

–Online

This certificate teaches basic front-end development concepts.

WEB	125	Mobile Web Design	3
WEB	140	Web Development Tools	3
WEB	210	Web Design	3
WEB	287	Web E-Portfolio	2
___	___	Web 141 or DME 210	3

Graduation Requirements ..... 14 Credit Hours

Web Development Basics Certificate - C25590WB

–Online

This certificate teaches basic web technology concepts for beginning web designers and developers.

CIS	115	Intro to Prog & Logic	3
CTI	110	Web, Pgm, and DB Foundations	3
WEB	110	Internet/Web Fundamentals	3
WEB	115	Web Markup and Scripting	3
WEB	140	Web Development Tools	3

Graduation Requirements ..... 15 Credit Hours

WEB DEVELOPER

Web Developer Degree – A25590WD

-Online

The Web Technologies curriculum prepares graduates for careers in the information technology arena using computers to disseminate and collect information via the web.

Course work in this program covers web design, web scripting and markup, databases, web programming, e-commerce, web content management systems as well as mobile applications development and UI/UX. Studies will provide opportunity for students to learn using industry standard software and technologies.

Graduates should qualify for career opportunities as designers, programmers, or developers in the areas of web development, web design, web services, mobile application development and other related areas.

Program Sequence

FIRST SEMESTER

WEB	110	Internet/Web Fundamentals	3
WEB	140	Web Development Tools	3
CIS	115	Intro to Prog & Logic	3
CTI	110	Web, Pgm and DB Foundation	3
CTI	120	Networking & Security Foundation	3

SECOND SEMESTER

WEB	210	Web Design	3
WEB	115	Web Markup and Scripting	3
WEB	125	Mobile Web Design	3
CTS	115	Information Sy Business Concepts	3
WEB	141	Mobile Interface Design	3

FIRST SUMMER SEMESTER

ENG	111	Writing and Inquiry	3
WEB	215	Advanced Markup and Scripting	3
DBA	110	Database Concepts	3

THIRD SEMESTER

WEB	182	PHP Programming	3
___	___	COM 120 or COM 231	3
WEB	180	Active Server Pages	3
WEB	250	Database Driven Websites	3
___	___	ECO 251 or ECO 252	3

FOURTH SEMESTER

WEB	225	Content Management Systems	3
WEB	287	Web E-Portfolio	2
WEB	213	Internet Mkt & Analytics	3
___	___	WEB 260 or WBL 112	2

SECOND SUMMER SEMESTER

___ ___ MAT 110, 121, 143, 152 or 171 3
___ ___ HUM 110 or HUM 115 or PHI 240 3

Graduation Requirements ..... 70 Credit Hours

Web Developer Certificate - C25590WD

- Online

This certificate will prepare students to develop web sites using industry standard scripting and programming. Students will learn HTML, CSS, PHP, JavaScript, ASP.Net and CMS skills.

WEB 110 Internet/Web Fundamentals..... 3
WEB 115 Web Markup and Scripting..... 3
WEB 180 Active Server Pages..... 3
WEB 182 PHP Programming..... 3
WEB 215 Adv Markup and Scripting..... 3

Graduation Requirements ..... 15 Credit Hours

Advanced Web Developer Certificate - C25590AD

–Online

This certificate teaches advanced Web Developer concepts.

DBA 110 Database Concepts..... 3
WEB 213 Internet Marketing and Analysis..... 3
WEB 225 Content Management Systems..... 3
WEB 250 Database Driven Websites..... 3
WEB 260 E-Commerce Infrastructure..... 3

Graduation Requirements ..... 15 Credit Hours

Front-End Developer Certificate - C25590DV

–Online

This certificate teaches basic front-end development concepts.

WEB 125 Mobile Web Design..... 3
WEB 140 Web Development Tools..... 3
WEB 210 Web Design..... 3
WEB 287 Web E-Portfolio..... 2
___ ___ Web 141 or DME 210 3

Graduation Requirements ..... 14 Credit Hours

Web Development Basics Certificate - C25590WB

–Online

This certificate teaches basic web technology concepts for beginning web designers and developers.

CIS 115 Intro to Prog & Logic 3
CTI 110 Web, Pgm, and DB Foundations 3
WEB 110 Internet/Web Fundamentals..... 3
WEB 115 Web Markup and Scripting..... 3
WEB 140 Web Development Tools..... 3

Graduation Requirements ..... 15 Credit Hours

HEALTH SCIENCES

Health Sciences Division

Health Sciences Information: 919-747-0400

Dean Dr. Molly Curry
Phone: 919-747-0007
Email: mpcurry@waketech.edu

Wake Technical Community College awards degrees, diplomas, and certificates in a variety of fields shown below. The highest credential given in each area is listed first, in bold type.

1. Click on the "**Program Name**" to go to the program's web page
2. Click on the "**Program of Study**" to see specific course requirements for that program

Programs may be offered during the day, evening, online, or a combination. Students should refer to WebAdvisor for the availability of classes. Click to see a list of Wake Tech's programs that can be completed fully online.

Program Name	Program Code
Associate Degree Nursing – *AAS Degree*	A45110
Associate Degree Nursing (LPN to RN Advanced Placement Option) **– *AAS Degree***	A45110
Computed Tomography Technology - *Certificate*	C45200
Dental Assisting - Diploma	D45240
Dental Hygiene – AAS Degree	A45260
Emergency Medical Science – *AAS Degree*	A45340
Health and Fitness Science – *AAS Degree* Health and Fitness Science **- *Certificate***	A45630 C45630
Healthcare Simulation Technology – *AAS Degree* Healthcare Simulation Technology **- *Certificate***	A45980 C45980
Human Services Technology Human Services Technology **– *AAS Degree*** Human Services Technology/Mental Health **– *AAS Degree*** Human Services Technology/Substance Abuse **– *AAS Degree*** Human Services Technology/Mental Health **- *Certificate*** Substance Abuse Counseling **- *Certificate*** Substance Abuse Intervention **- *Certificate***	 A45380 A4538C A4538E C4538C C4538ECO C4538EI
Magnetic Resonance Imaging - *Diploma*	D45800
Medical Assisting – *AAS Degree* Medical Assisting **- *Diploma***	A45400 D45400
Medical Laboratory Technology – *AAS Degree*	A45420
Pharmacy Technology – *AAS Degree* Pharmacy Technology **– *Diploma***	A45580 D45580
Phlebotomy - *Certificate*	C45600
Radiography – AAS Degree	A45700
Therapeutic Massage - *Diploma*	D45750

***Collaborative Agreements**

None at this time

ASSOCIATE DEGREE NURSING

The Associate Degree Nursing curriculum provides knowledge, skills, and strategies to integrate safety and quality into nursing care, to practice in a dynamic environment, and to meet individual needs which impact health, quality of life, and achievement of potential.

Course work includes and builds upon the domains of healthcare, nursing practice, and the holistic individual. Content emphasizes the nurse as a member of the interdisciplinary team providing safe, individualized care while employing evidence-based practice, quality improvement, and informatics.

Graduates of this program are eligible to apply to take the National Council Licensure Examination (NCLEX-RN). Employment opportunities are vast within the global health care system and may include positions within acute, chronic, extended, industrial, and community health care facilities.

Associate Degree Nursing - A45110

-Day

First Term

NUR	111	Introduction to Health Concepts	8
BIO	168	Anatomy and Physiology I	4
PSY	150	General Psychology	3
ENG	111	Writing and Inquiry	3

Second Term

NUR	112	Health-Illness Concepts	5
NUR	114	Holistic Health Concepts	5
BIO	169	Anatomy and Physiology II	4
PSY	241	Developmental Psychology	3

Third Term

NUR	211	Health Care Concepts	5
BIO	175	General Microbiology	3

Fourth Term

NUR	113	Family Health Concepts	5
NUR	212	Health System Concepts	5
SOC	210	Introduction to Sociology	3
ENG	112	Writing/Research in the Disc	3

Fifth Term

NUR	213	Complex Health Concepts	10
Humanities/Fine Arts Elective			3

Graduation Requirements ..... 72 Credit Hours

***HUMANITIES/FINE ARTS ELECTIVE:**
Choose one from:
ART 111,114,115
HUM 115
MUS 110, 112
PHI 215, 240

*Demonstrate a chemistry or biology proficiency. This proficiency requirement may be satisfied by completing ONE of the following: one unit of a high school chemistry course with a grade of "C" or better; or CHM 090 (Chemistry Concepts) or an equivalent CHM 090 with a grade of "C" or better; or completion of Wake Tech's chemistry tutorial (CheMOOC); or completion of BIO 110, BIO 111, or CHM 130 or higher (or a transfer equivalent class) with a grade of "C" or better; or completion of BIO 168 (or a transfer equivalent class) with a grade of "C" or higher within 5 years of beginning the first clinical Nursing (NUR) class

Associate Degree Nursing - A45110 LPN to RN – Advanced Placement Option

-Day

First Term

BIO	168	Anatomy and Physiology I	4
PSY	150	General Psychology	3
ENG	111	Writing and Inquiry	3
SOC	210	Introduction to Sociology	3

Second Term

BIO	169	Anatomy and Physiology II	4
PSY	241	Developmental Psychology	3
BIO	175	General Microbiology	3

Third Term

NUR	214	Nursing Transition Concepts	4
_____		Humanities/Fine Arts Elective	3

Fourth Term

NUR	114	Holistic Health Concepts	5
NUR	212	Health System Concepts	5
ENG	112	Writing/Research in the Disc	3

Fifth Term

NUR	213	Complex Health Concepts	10

**Licensed Practical Nurses
Advanced Placement Option Credits 19

Graduation Requirements ..... 72 Credit Hours

COMPUTED TOMOGRAPHY TECHNOLOGY

The Computed Tomography Technology curriculum prepares the individual to use specialized equipment to visualize cross-sectional anatomical structures and aid physicians in the demonstration of pathologies and disease processes**. *Individuals entering this curriculum must be registered or registry- eligible radiologic technologists, radiation therapists, or nuclear medicine technologists.***

Course work prepares the technologist to provide patient care and perform studies utilizing imaging equipment, professional communication, and quality assurance in scheduled and emergency procedures through academic and clinical studies.

Graduates may be eligible to sit for the American Registry of Radiologic Technologist Advanced-Level testing in Computed Tomography examination. They may find employment in facilities which perform these imaging procedures.

Computed Tomography Technology Certificate - C45200

-Day

Fall Semester

CAT	211	CT Procedures	4
CAT	224	CT Clinical Practicum	4

Spring Semester

CAT	210	CT Physics and Equipment	3
CAT	226	CT Clinical Practicum	6
CAT	261	CT Exam Prep	1

Graduation Requirements..... 18 Credit Hours

*CAT 210, 211 and 261 taught totally online
*Clinical hours are scheduled during the day. Clinicals are usually

scheduled two days during the week. There *MAY* be some flexibility but must be coordinated through Ms. Pastor or Mr. Morris prior to school start date.

DENTAL ASSISTING

The Dental Assisting curriculum prepares individuals to assist the dentist in the delivery of dental treatment and to function as integral members of the dental team while performing chairside and related office and laboratory procedures.

The Dental Assisting Program at Wake Technical Community College is accredited by the American Dental Association and therefore a graduate is classified as a DA II by the North Carolina State Board of Dental Examiners. The student is eligible to take the Dental Assisting National Board Exam in order to be classified as a Certified Dental Assistant (CDA). As a Dental Assistant II (DAII), defined by the Dental Laws of North Carolina, graduates can perform identified expanded functions including coronal polishing.

Course work includes instruction in general studies, biomedical sciences, dental sciences, clinical sciences, and clinical practice. A combination of lecture, laboratory or pre-clinical, and clinical experiences provide the students with knowledge in infection/hazard control, radiography, dental materials, preventive dentistry, and clinical procedures. The students receive their hands-on patient care clinical experience with rotations at the UNC School of Dentistry, Wake County Human Services-Dental Clinic, Wake Smiles, and private general and specialty dental practices within Wake County.

Dental Assisting Diploma - D45240

-Day

First Semester

DEN	100	Basic Orofacial Anatomy	2
DEN	101	Preclinical Procedures	7
DEN	102	Dental Materials	4
DEN	111*	Infection/Hazard Control	2
BIO	106	Intro to Anatomy/Physiology/Micro	3
ENG	111	Writing and Inquiry	3

Second Semester

DEN	103	Dental Sciences	2
DEN	104	Dental Health Education	3
DEN	105	Practice Management	2
DEN	106	Clinical Practice I	6
DEN	112*	Dental Radiography	3
COM	120	Intro Interpersonal Communications	3

Summer Term

DEN	107	Clinical Practice II	5
PSY	118	Interpersonal Psychology	3

*Core course with Dental Hygiene.

Graduation Requirements.....48 Credit Hours
A grade of “C” or better is required for all curriculum courses in the Dental Assisting Diploma.

DENTAL HYGIENE

The Dental Hygiene curriculum provides individuals with the knowledge and skills to assess, plan, implement, and evaluate dental hygiene care for the individual and the community.

Students will learn to prepare the operatory, take patient histories, note abnormalities, plan care, teach oral hygiene, clean teeth, take x-rays, apply preventive agents, complete necessary chart entries, and perform other procedures related to dental hygiene care.

Graduates of this program may be eligible to take national and state/regional examinations for licensure which are required to practice dental hygiene. Employment opportunities include dental offices, clinics, schools, public health agencies, industry, and professional education.

Dental Hygiene Degree - A45260

-Day

First Semester

BIO	163	Basic Anatomy and Physiology I	5
DEN	110	Orofacial Anatomy	3
DEN	111	Infection/Hazard Control	2
DEN	112	Dental Radiography	3
DEN	120	Dental Hygiene Preclinic Lecture	2
DEN	121	Dental Hygiene Preclinic Lab	2

Second Semester

BIO	175	General Microbiology	3
ENG	111	Writing and Inquiry	3
DEN	124	Periodontology	2
DEN	130	Dental Hygiene Theory I	2
DEN	131	Dental Hygiene Clinic I	3
DEN	223	Dental Pharmacology	2
DEN	224	Materials and Procedures	2

Summer Term

CHM	130	General, Organic and Biochemistry	3
COM	120	Interpersonal Communication	3
DEN	140	Dental Hygiene Theory II	1
DEN	141	Dental Hygiene Clinic II	2

Third Semester

PSY	150	General Psychology	3
DEN	123	Nutrition and Dental Health	2
DEN	125	Dental Office Emergencies	1
DEN	220	Dental Hygiene Theory III	2
DEN	221	Dental Hygiene Clinic III	4
DEN	222	General and Oral Pathology	2

Fourth Semester

DEN	230	Dental Hygiene Theory IV	1
DEN	231	Dental Hygiene Clinic IV	4
DEN	232	Community Dental Health	3
DEN	233	Professional Development	2
SOC	210	Introduction to Sociology	3
		Humanities/Fine Arts Elective	3

Graduation Requirements..... 73 Credit Hours
A grade of “C” or better is required for all curriculum courses in the Dental Hygiene Degree.

EMERGENCY MEDICAL SCIENCE

The Emergency Medical Science curriculum provides individuals with the knowledge, skills and attributes to provide advanced emergency medical care as a paramedic for critical and emergent patients who access the emergency medical system and prepares graduates to enter the workforce.

Students will gain complex knowledge, competency, and experience while employing evidence-based practice under medical oversight, and serve as a link from the scene into the healthcare system.

Graduates of this program may be eligible to take state and/or national certification examinations. Employment opportunities include providers of emergency medical services, fire departments, rescue agencies, hospital specialty areas, industry, educational and government agencies.

Emergency Medical Science Degree - A45340

-Day

First Semester (First Fall)

EMS	110	EMT	8
BIO	163	Basic Anat & Physiology	5
MED	120	Survey of Med Terminology	2

Second Semster

EMS	122	EMS Clinical Practicum I	1
EMS	130	Pharmacology	4
EMS	131	Advanced Airway Management	2
EMS	160	Cardiology I	2
ENG	111*	Writing and Inquiry	3
MAT	110+	Math Measurement & Literacy	3

Summer Term (First Summer)

EMS	150	Emergency Vehicles & EMS Comm	2
EMS	220	Cardiology II	3
EMS	221	EMS Clinical Practicum II	2
EMS	250	Medical Emergencies	4

Third Semester (Second Fall)

EMS	125	EMS Instructor Methodology	2
EMS	231	EMS Clinical Pract III	3
EMS	260	Trauma Emergencies	2
EMS	270	Life Span Emergencies	3
ENG	112§	Writing/Research in the Disc	3

Fourth Semester (Second Spring)

EMS	140	Rescue Scene Management	2
EMS	240	Patients W/ Special Challenges	2
EMS	241	EMS Clinical Practicum IV	4
EMS	285	EMS Capstone	2
PHI	240	Introduction to Ethics	3
PSY	150*	General Psychology	3

Graduation Requirements ..... 70 Credit Hours

* College transfer courses

§ Other 3-credit-hour English courses such as ENG-114 may be accepted with EMS Department Head approval.

+ College Transfer Human Anatomy and Physiology Option: BIO-168* with BIO-169* may be substituted for BIO-163.

HEALTH AND FITNESS SCIENCE

The Health and Fitness Science program is designed to provide students with the knowledge and skills necessary for employment in the fitness and exercise industry.

Students will be trained in exercise science and be able to administer basic fitness tests and health risk appraisals, teach specific exercise and fitness classes and provide instruction in the proper use of exercise equipment and facilities.

Graduates should qualify for employment opportunities in commercial fitness clubs, YMCA's/YWCA's, wellness programs in business and industry, Parks & Recreation Departments and other organizations implementing exercise & fitness programs.

HEALTH AND FITNESS SCIENCE - A45630

First Fall Semester

ACA	111	College Student Success	1
ENG	111	Writing and Inquiry	3
PSF	110	Exercise Science	4
BIO	168	Anatomy and Physiology I	4
PED	117	Weight Training I	1

** Other Major Hours (Choose from Pick List As Needed)*

First Spring Semester

BIO	169	Anatomy and Physiology II	4
PSF	111	Fitness and Exer Testing I	4
PSF	116	Pvnt & Care Exer Injuries	3
PSF	120	Group Exer Instruction	3
PED	113	Aerobics I	1

** Other Major Hours (Choose from Pick List As Needed)*

**** Eligible to sit for ACSM Group Exercise Instructor Certification Exam**

Summer Session

PSY	150	General Psychology	3
COM	120	Intro to Interpersonal Communication	3
		OR	
COM	231	Public Speaking	3

** Other Major Hours (Choose from Pick List As Needed)*

Second Fall Semester

PED	118	Weight Training II	1
PSF	210	Personal Training	3
PSF	118	Fitness Facility Management	4
HEA	112	First Aid & CPR	2
HUM	115	Critical Thinking	3
MAT	143	Quantitative Literacy	3
		OR	
MAT	171	Precalculus Algebra	4

** Other Major Hours (Choose from Pick List As Needed)*

****Eligible to sit for ACSM Personal Trainer Certification Exam**

Second Spring Semester

PSF	212	Exercise Programming	3
PSF	218	Lifestyle Chang & Wellness	4
WBL	111	Work Based Learning	1
BIO	155	Nutrition	3
PED	111	Physical Fitness I	1

** Other Major Hours (Choose from Pick List As Needed)*

***Other Major Hours**

BIO	110	Principles of Biology	4
PED	110	Fit and Well for Life	2
PED	119	Circuit Training	1
PED	121	Walk, Jog, Run	1
PED	122	Yoga I	1
PED	130	Tennis-Beginning	1
PED	217	Pilates I	1
HEA	110	Personal Health/Wellness	3
BUS	139	Entrepreneurship I	3

Graduation Requirements .....68-70 Credit Hours

Health and Fitness Science Certificate - C45630

Major Courses

PSF	110	Exercise Science	4
PSF	111	Fitness & Exercise Testing	4
PSF	210	Personal Training*	3
		OR	
PSF	120	Group Exercise Instruction*	3
PSF	212	Exercise Programming	3
PED	110	Fit and Well for Life	2

Graduation Requirements .....16 Credit Hours

HEALTHCARE SIMULATION TECHNOLOGY

This curriculum is designed to prepare individuals to teach, remediate, and evaluate healthcare providers using different forms of healthcare simulation. Course work includes the day-to-day operations of a multidisciplinary healthcare simulation lab. Students will learn how to operate low, mid, and high-fidelity simulation mannequins, various task trainers, audiovisual tools used in simulation, and managing standardized patient programs. Graduates of the Healthcare Simulation Technology program will be eligible for employment opportunities at hospitals, public and private educational institutions, emergency medical services agencies, and simulation centers. Qualifying graduates may be eligible for the national Certified Healthcare Simulation Educator exam.

Healthcare Simulation Technology – A45980 Associate Degree

-Hybrid

First Semester

SIM 110	Intro to Healthcare Sim Tech	6
SIM 120	Sim Tech Maintenance	4
BIO 163	Anatomy and Physiology	5

Second Semester

SIM 130	Simulation Pharmacology	4
SIM 140	Medical Equipment in Sim	3
SIM 150	Healthcare Simulation Lab I	2
SIM 160	Sim Program Fundamentals	4

Third Semester

COM 120	Intro to Interpersonal Communications	3
HUM/Fine Arts	Elective……	3
ENG 111	Expository Writing	3

Fourth Semester

SIM 210	Environmental Designs in Sim	4
SIM 220	Healthcare Simulation Lab II	2
SIM 230	ALS Scenario Development	5
PSY 150	General Psychology	3

Fifth Semester

SIM 240	Peds, OB, and Specialty Simulators	5
SIM 250	Management Systems for Sim	4
SIM 260	Healthcare Simulation Lab III	2
SIM 270	Sim Capstone	4

Graduation Requirements ..... 66 Credit Hours

***HUMANITIES/FINE ARTS ELECTIVE**
Choose one from:
ART 111,114, 115
HUM 115
MUS 110,112
PHI 215,240

Successful completion of all courses requires a "C" or better.

Healthcare Simulation Technology – C45980 Certificate Degree for Trained Healthcare Providers

-Hybrid

The Certificate Program is open to well-qualified students currently serving in healthcare simulation with a recognized hospital, medical training facility, or EMS agency. Strong communication skills are preferred, along with a basic understanding of modern healthcare simulation.

Program Entry Requirements: Must meet **at least one** of the following criteria:

- Current holding an unencumbered certification or licensure in an assessment-based health science program. (consult academic advisors for approval)
- Successful completion of an assessment-based health science program of study.
- One year work experience in a high-fidelity simulation lab.

First Semester

SIM 110	Intro to Healthcare Sim Tech	6
SIM 120	Sim Tech Maintenance	4

Second Semester

SIM 150	Healthcare Simulation Lab I	2
SIM 210	Environmental Designs in SIM	4

Certificate Requirements ..... 16 Semester Credit Hours
Successful completion of all courses requires a "C" or better

HUMAN SERVICES TECHNOLOGY

The Human Services Technology curriculum prepares students for entry-level positions in institutions and agencies that provide social, community, and educational services. Along with core courses, students take courses that prepare them for specialization in specific human service areas.

Students will take courses from a variety of disciplines. Emphasis in core courses is placed on development of relevant knowledge, skills, and attitudes in human services. Fieldwork experience will provide opportunities for application of knowledge and skills learned in the classroom.

Graduates should qualify for positions in mental health, child care, family services, social services, rehabilitation, correction, and educational agencies. Former graduates have successfully transferred into select 4-year colleges and universities.

Students may choose to complete more than one degree/concentration. Each degree requires a separate work-based learning experience.

Human Services Technology Degree - A45380

-Day, Evening

First Fall Semester

ENG	111	Writing and Inquiry	3
HSE	110	Introduction to Human Services	3
HSE	135	Orientation Lab I	1
HSE	112	Group Process I	2
PSY	150	General Psychology	3
SAB	110	Substance Abuse Overview	3

First Spring Semester

PSY	241	Developmental Psychology	3
ENG	114	Prof Research and Reporting	3
HSE	125	Counseling	3
HSE	210	Human Services Issues	2
HSE	123	Interviewing Techniques	3

First Summer Term

PHI	240	Introduction to Ethics	3
		OR	
HUM	115	Critical Thinking	3
CIS	111	Basic PC Literacy	2
SOC	213	Sociology of the Family	3
		OR	
SOC	210	Introduction to Sociology	3

Second Fall Semester

MAT	110	Math Measurement & Literacy	3
GRO	120	Gerontology	3

____ ___ ❖Major Elective 3
HSE 225 Crisis Intervention 3
HSE 245 Stress Management 3

Second Spring Semester
WBL 111 Work-Based Learning I 1
WBL 115 Work-Based Learning Seminar I 1
HSE 127 Conflict Resolution 3
SWK 113 Working with Diversity 3
HSE 220 Case Management 3
PSY 281 Abnormal Psychology 3

❖Major Electives
Select 3 hours from the following courses
HSE 145 Child Abuse and Neglect 3
HSE 251 Activities Planning 3
SWK 110 Introduction to Social Work 3

Graduation Requirements ..... 66 Credit Hours
WBL 111 & WBL 115 - *The semester prior to co-op consideration, students must meet with their faculty program advisor to obtain approval before registering for classes.

HUMAN SERVICES TECHNOLOGY / MENTAL HEALTH

The Human Services Technology/Mental Health concentration prepares students for job opportunities in the mental health field. The curriculum enables students to understand culturally and emotionally handicapped, developmentally disabled, or addicted clients through a variety of models and diagnoses.

Course work includes a history of the mental health movement, current developments and future trends, and theoretical models affecting individual development and behavior in a diverse client population. Fieldwork experiences provide opportunities for application of knowledge in agency and institutional settings.

Graduates should qualify for employment in mental health treatment centers serving a diverse multicultural client population in public and private settings. Graduates will work with individuals, families, groups, organizations, and communities in providing a therapeutic arena of care.

Human Services Technology / Mental Health – A4538C

-Day, Evening

First Fall Semester
ENG 111 Writing and Inquiry 3
HSE 112 Group Process I 2
HSE 110 Intro to Human Services 3
HSE 135 Orientation Lab I 1
PSY 150 General Psychology 3
SAB 110 Substance Abuse Overview 3

First Spring Semester
ENG 114 Prof Research & Reporting 3
HSE 123 Interviewing Techniques 3
HSE 125 Counseling 3
PSY 281 Abnormal Psychology 3
MHA 150 Mental Health Systems 3

First Summer Term
PHI 240 Introduction to Ethics 3
OR
HUM 115 Critical Thinking 2
CIS 111 Basic PC Literacy 2
SOC 213 Sociology of the Family 3
OR
SOC 210 Introduction to Sociology 3

Second Fall Semester
MAT 110 Math Measurement & Literacy 3
MHA 155 Psychological Assessment 3
HSE 225 Crisis Intervention 3
HSE 226 Intellectual Disabilities 3
PSY 265 Behavioral Modification 3

Second Spring Semester
WBL 111 Work-Based Learning 1
WBL 115 Work-Based Learning Seminar I 1
SWK 113 Working with Diversity 3
PSY 241 Developmental Psych 3
HSE 210 Human Services Issues 2
HSE 220 Case Management 3
MHA 240 Advocacy 2

Graduation Requirements ..... 68 Credit Hours
WBL 111 & WBL 115 - * The semester prior to co-op consideration, students must meet with their faculty program advisor to obtain approval before registering for classes.

Human Services Technology/Mental Health Certificate – C4538C

Major Electives
HSE 110 Intro to Human Services 3
HSE 226 Intellectual Disabilities 3
MHA 155 Psychological Assessment 3
PSY 150 General Psychology 3
PSY 265 Behavior Modification 3
OR
HSE 225 Crisis Intervention 3
Graduation Requirements ..... 18 Credit Hours

HUMAN SERVICES TECHNOLOGY / SUBSTANCE ABUSE

The Human Services Technology/Substance Abuse concentration prepares students to assist in drug and alcohol counseling, prevention-oriented educational activities, rehabilitation with recovering clients, managing community-based programs, counseling in residential facilities, and pursuit of four-year degrees.

Course work includes classroom and experiential activities oriented toward an overview of chemical dependency, psychological/sociological process, the twelve Core Functions, intervention techniques with individuals in groups, and follow-up activities with recovering clients.

Graduates should qualify for positions as substance abuse counselors, DUI counselors, halfway house workers, residential facility employees, and substance education specialists. With educational and clinical experiences, graduates can obtain certification by the North Carolina Substance Abuse Board.

Human Services Technology / Substance Abuse Degree - A4538E

-Day, Evening

First Fall Semester
HSE 135 Orientation Lab I 1
PSY 150 General Psychology 3
ENG 111 Writing and Inquiry 3
HSE 110 Introduction to Human Services 3
SAB 110 Substance Abuse Overview 3
HSE 112 Group Process I 2

First Spring Semester
ENG 114 Prof Research and Reporting 3

HSE	125	Counseling	3
HSE	123	Interviewing Techniques	3
PSY	241	Developmental Psychology	3
SAB	210	Substance Abuse Counseling	3

First Summer Term

PHI	240	Introduction to Ethics	3
		OR	
HUM	115	Critical Thinking	3
CIS	111	Basic PC Literacy	2
SOC	213	Sociology of the Family	3
		OR	
SOC	210	Introduction to Sociology	3

Second Fall Semester

MAT	110	Math Measurement & literacy	3
SAB	135	Addictive Process.	3
SAB	120	Intake and Assessment	3
HSE	225	Crisis Intervention	3
SAB	240	SAB Issues in Client Services	3

Second Spring Semester

SWK	113	Working with Diversity	3
WBL	111	Work-Based Learning I*	1
WBL	115	Work-Based Learning Seminar I*	1
SAB	125	SA Case Management	3
HSE	210	Human Services Issues	2
SAB	220	Group Techniques/Therapy	3
PSY	281	Abnormal Psychology	3

Graduation Requirements ..... 69 Credit Hours

WBL 111 & WBL 115 - * The semester prior to co-op consideration, students must meet with their faculty program advisor to obtain approval before registering for classes.

Human Services Technology / Substance Abuse Counseling Certificate - C4538ECO

-Day, Evening

This Certificate is designed for individuals who already hold a bachelor or master's degree in a Human Services related field. The certificate **assists** students in **meeting all the SAB educational requirements** for Certification and/or Licensure for the North Carolina Substance Abuse Professional Practice Board (NCSAPPB).

Students who do not have an Associate's degree, Bachelor or Master's degree in a Human Service related field are not likely to obtain employment as a Substance Abuse Counselor with only the Substance Abuse Certificate.

HSE	112	Group Processes I	2
SAB	120	Intake and Assessment	3
SAB	135	Addictive Process	3
SAB	210	Substance Abuse Counseling	3
SAB	220	Group Techniques/Therapy	3
SAB	240	Substance Abuse Issues	3

Completion Requirements ..... 17 Credit Hours

Human Services Technology / Substance Abuse Intervention Certificate - C4538EI

-Day, Evening

This Certificate is designed for individuals who already hold a bachelor or master's degree in a Human Services related field. The certificate **assists** students in **meeting all the SAB educational requirements** for Certification and/or Licensure for the North Carolina Substance Abuse Professional Practice Board (NCSAPPB).

Students who do not have an Associate's degree, Bachelor or Master's degree in a Human Service related field are not likely to obtain employment as a Substance Abuse Counselor with only the Substance Abuse Certificate.

HSE	112	Group Processes I	2
SAB	120	Intake and Assessment	3
SAB	135	Addictive Process	3
SAB	210	Substance Abuse Counseling	3
SAB	240	Substance Abuse Issues	3
WBL	111	Work-Based Learning I*	1
WBL	115	Work-Based Learning Seminar*	1

Graduation Requirements.....16 Semester Hours

WBL 111 & WBL 115 - * The semester prior to co-op consideration, students must meet with their faculty program advisor to obtain approval before registering for classes.

MAGNETIC RESONANCE IMAGING TECHNOLOGY

The Magnetic Resonance Imaging (MRI) curriculum prepares students to become MRI technologists and skilled health care professionals who are educated to use magnetic energy fields to produce images of the human body. Individuals entering this program must be registered or registry-eligible radiologic technologists, nuclear medicine technologists, sonographers, or radiation therapists by the American Registry of Radiologic Technologists. Supporting discipline of Nuclear Medicine Technology may be through ARRT or NMTCB. Supporting discipline of Sonography may be through AART or ARDMS.

Course work includes imaging fundamentals, MRI physics, procedures, anatomy, pathology, patient care, imaging ethics and law, in a medical environment. Students should be able to demonstrate all functional areas related to the magnetic resonance imaging fields.

Graduates may be eligible to take the American Registry of Radiologic Technologists (ARRT) national examination for certification as MRI technologists.

Graduates may be employed in hospitals, outpatient clinics, physicians' offices, government agencies, and research. It is essential that the MRI technologist understands ethical standards and the legal framework for MRI. In addition, the MRI technologist must be committed to professional development and the care of others.

Magnetic Resonance Imaging Technology Diploma - D45800

-Day

Summer Term

MRI	213	MR Patient Care and Safety	2
MRI	216	MRI Instrumentation	2
MRI	250	MRI Clinical Ed I.	4
ENG	111	Writing and Inquiry	3
Humanities/Fine Arts Elective			3

Fall Semester

MRI	214	MRI Procedures I	2
MRI	217	MRI Physics I	2
MRI	241	MRI Anatomy and Path I	2
MRI	260	MRI Clinical Ed II	7
IMG	130	Imaging Ethics and Law.	3

Spring Semester

MRI	215	MRI Procedures II	2
MRI	218	MRI Physics II	2
MRI	242	MRI Anatomy and Path II	2
MRI	270	MRI Clinical Ed III	8
MRI	271	MRI Capstone	1

Graduation Requirements ..... 45 Credit Hours

MEDICAL ASSISTING

The Medical Assisting curriculum prepares multi-skilled health care professionals qualified to perform administrative, clinical, and laboratory procedures.

Course work includes instruction in scheduling appointments, coding and processing insurance accounts, billing, collections, computer operations; assisting with examinations/treatments, performing routine laboratory procedures, electro-cardiography, supervised medication administration; and ethical/legal issues associated with patient care.

The Medical Assisting Education Review Board (MAERB), an autonomous unit within the Endowment, evaluates medical assisting programs according to Standards adopted by the American Association of Medical Assistants (AAMA), the American Medical Association (AMA), and the Commission on Accreditation of Allied Health Education Programs (CAAHEP). The MAERB then recommends programs to CAAHEP for accreditation.

Graduates of CAAHEP accredited medical assisting diploma program may be eligible to sit for the American Association of Medical Assistants' Certification Examination, the CMA (AAMA) exam, to become Certified Medical Assistants. Employment opportunities include physicians' offices, health maintenance organizations, health departments, and outpatient clinics.

Medical Assisting Diploma - D45400

-Hybrid

First Semester

BIO	161	Intro to Human Biology	3
ENG	111	Writing and Inquiry	3
MAT	110	Math Measurement & Literacy	3
CIS	111	Basic PC Literacy	2
MED	110	Orientation to Medical Assisting	1
MED	118	Medical Law and Ethics	2
MED	121	Medical Terminology I	3
MED	130	Administrative Office Procedures I	2
MED	138	Infection/Hazard Control	2

First Semester

MED	122	Medical Terminology II	3
MED	131	Administrative Office Procedures II	2
MED	140	Examining Room Procedures I	5
MED	150	Laboratory Procedures I	5

Summer Term

MED	260	Medical Clinical Practicum	5
MED	264	Medical Assisting Overview	2
MED	274	Diet Therapy/Nutrition	3

Graduation Requirements ..... 46 Credit Hours

A grade of "C" or better is required for all curriculum courses in the Medical Assisting Diploma program of study.

Medical Assisting Degree - A45400

Students who have successfully completed the one-year Medical Assisting diploma can choose to continue their education by completing the Medical Assisting degree. The Medical Assisting associate degree completion program is designed for Medical Assistants who desire an associate degree for career advancement or transfer purposes.

-Hybrid

Additional Courses Required for the Medical Assisting Degree – A45400

First Spring Semester

BIO	161	Intro to Human Biology	3
ENG	111	Writing and Inquiry	3
MAT	110	Math Measurement & Literacy	3
CIS	111	Basic PC Literacy	2
MED	110	Orientation to Medical Assisting	1
MED	118	Medical Law and Ethics	2
MED	121	Medical Terminology I	3
MED	130	Administrative Office Procedures I	2
MED	138	Infection/Hazard Control	2

First Spring Semester

MED	122	Medical Terminology II	3
MED	131	Administrative Office Procedures II	2
MED	140	Examining Room Procedures I	5
MED	150	Laboratory Procedures I	5

Summer Term

MED	260	Medical Clinical Practicum	5
MED	264	Medical Assisting Overview	2
MED	274	Diet Therapy/Nutrition	3

Total Diploma Requirements ..... 47 Semester Credit Hours

Third Semester

MED	232	Medical Insurance Coding	2
MED	270	Symptomatology	3
MED	272	Drug Therapy	3
ENG/COM		Select one from ENG 114, ENG 112, COM 231, COM 120	3

Fourth Semester

PSY/SOC		PSY 150 or SOC 210	3
SPA	120	Spanish for the Workplace	3
HUM/Fine Arts		Select one from HUM 110, HUM 115, HUM 160, or PHI 210	3

Graduation Requirements ..... 66 Credit Hours

A grade of "C" or better is required for all curriculum courses in the Medical Assisting Diploma program of study.

MEDICAL LABORATORY TECHNOLOGY

The Medical Laboratory Technology curriculum prepares individuals to perform clinical laboratory procedures in chemistry, hematology, microbiology, and immunohematology that may be used in the maintenance of health and diagnosis/treatment of disease.

Course work emphasizes mathematical and scientific concepts related to specimen collection, laboratory testing and procedures, quality assurance, and reporting/recording and interpreting findings involving tissues, blood, and body fluids.

Graduates may be eligible to take the examination given by the Board of Certification of the American Society for Clinical Pathology. Employment opportunities include laboratories in hospitals, medical offices, industry, and research facilities.

Medical Laboratory Technology Degree - A45420

-Day

First Semester

MLT	110	Introduction to MLT	3
MLT	118	Medical Lab Chemistry	3
MLT	140	Introduction to Microbiology	3
BIO	163	Basic Anatomy and Physiology	5
MLT	111	Urinalysis and Body Fluids	2
MLT	115	Laboratory Calculations	2

Second Semester

MLT	120	Hematology/Hemostasis I	4
MLT	130	Clinical Chemistry I	4
MLT	240	Special Clinical Microbiology	3
MLT	125	Immunohematology I	5

First Summer Semester

MAT	143	Quantitative Literacy	3
MLT	220	Hematology/Hemostasis II	3
MLT	254	MLT Practicum I	4

Third Semester

MLT	230	Clinical Chemistry II	3
MLT	280	Special Practice Lab	1
ENG	111	Writing and Inquiry	3
CIS	111	Basic PC Literacy	2
MLT	266	MLT Practicum II	6

Fourth Semester

*Humanities/Fine Arts Elective			3
MLT	217	Professional Issues	1
MLT	276	MLT Practicum III	6
ENG	112	Writing/Research in the Disc	3
PSY	150	General Psychology	3

Graduation Requirements ..... 75 Credit Hours

A grade of "C" or better must be earned in each curriculum courses in the Medical Laboratory Technology Program.

PHARMACY TECHNOLOGY

The Pharmacy Technology Program prepares individuals to become pharmacy technicians. These allied health professionals assist and support licensed pharmacists in providing prescription medications, over-the-counter drugs, medical equipment and supplies, pharmaceutical care services, and other health care products and services for patients.

Students will gain a broad knowledge of pharmacology, drug uses, actions, interactions and side effects, medication therapy, pharmaceutical calculations, anatomy and physiology, drug delivery systems, pharmacy practice, purchasing and inventory control and pharmacy law and regulations. Through simulated pharmacy laboratory activities, students will increase their skills in using pharmacy computer software, interpreting prescriptions, processing medication orders, compounding IV admixtures and parenteral nutrition, compounding pediatric medications, creating veterinary dosage forms, managing pharmacy operations, and utilizing critical thinking to resolve patient problems.

Through the clinical experience, students will increase knowledge and skills in creating and maintaining patient profiles, effectively participating on the health care team, filing insurance claims, managing automated medication dispensing systems, operating robotic pharmacy equipment, staffing patient care clinics, providing exceptional customer service, leading quality improvement programs, supervising and managing pharmacy technicians, and reconciling medications for ER patients. The clinical practice will take place in hospital, community and specialty pharmacies.

Graduates may be employed in hospitals, medical centers, private and chain pharmacies, and specialty pharmacies, including medication compounding, long term care medication therapy management, and IV infusion pharmacies. Graduates will be prepared to take the national Certification Examination administered by the Pharmacy Technician Certification Board.

Pharmacy Technology Diploma - D45580

Fall Semester

*ENG	111	Writing & Inquiring	3
*MAT	110	Mathematical Measurement & Literacy	3
PHM	110	Introduction to Pharmacy	3
PHM	111	Pharmacy Practice I	4
PHM	115	Pharmacy Calculations	3
PHM	115A	Pharmacy Calculations Lab	1

Spring Semester

PHM	118	Sterile Products	4
PHM	120	Pharmacology I	3
PHM	134	Pharmacy Clinical	4
PHM	140	Trends in Pharmacy	2
PHM	155	Community Pharmacy	3

Summer Term

PHM	125	Pharmacology II	3
PHM	132	Pharmacy Clinical	2
PHM	165	Pharmacy Prof Practice	2

Graduation Requirements ..... 40 Credit Hours

*****Courses may be taken before entering the program

Pharmacy Technology Degree - A45580

First Fall Semester

ENG	111	Writing & Inquiry	3
MAT	110	Mathematical Measurement & Literacy	3
PHM	110	Introduction to Pharmacy	3
PHM	111	Pharmacy Practice I	4
PHM	115	Pharmacy Calculations	3
PHM	115A	Pharmacy Calculations lab	1

First Spring Semester

PHM	118	Sterile Products	4
PHM	120	Pharmacology I	3
PHM	134	Pharmacy Clinical	4
PHM	140	Trends in Pharmacy	2
PHM	155	Community Pharmacy	3

Summer Term

PHM	125	Pharmacology II	3
PHM	132	Pharmacy Clinical	2
PHM	165	Pharmacy Prof Practice	2

Total Diploma Requirements .....40 Semester Credit Hours

Second Fall Semester

*CIS	111	Basic PC Literacy	2
*ENG	112	Writing/Research in the Disciplines	3
PHM	133	Pharmacy Clinical	3
PHM	150	Hospital Pharmacy	4

Second Spring Semester

PHM	135	Pharmacy Clinical	5
PHM	160	Pharm Dosage Forms	3
PSY	150	General Psychology	3
		OR	
PSY	118	Interpersonal Psychology	3
----	---	Humanities Elective	3

Graduation Requirements ..... 67 Credit Hours
*Humanities elective: select one: HUM110, HUM 115, PHI 240
*Students must earn a "C" or better in all Gen Ed and PHM courses
*MAT 110 must have been taken within the last 5 years.

PHLEBOTOMY

The Phlebotomy curriculum prepares individuals to obtain blood and other specimens for the purpose of laboratory analysis.

Course work includes proper specimen collection and handling, communication skills, and maintaining patient data. Graduates may be eligible to take the examination given by Board of Certification of the American Society for Clinical Pathology.

Graduates may qualify for employment in hospitals, clinics, physicians' offices, and other health care settings and may be eligible for national certification as phlebotomy technicians.

The Phlebotomy program is a one semester program offered each Fall and Spring semester.

PHLEBOTOMY - C45600

-Day Only

First Semester

PBT	100	Phlebotomy Technology	6
PBT	101	Phlebotomy Practicum	3

Choose one of the following:

PSY	118	Interpersonal Psychology	3
PSY	150	General Psychology	3

Completion Requirements ..... 12 Credit Hours
A grade of "C" or better is required in all curriculum courses in the Phlebotomy program.

RADIOGRAPHY

The Radiography curriculum prepares the graduate to be a radiographer, a skilled health care professional who uses radiation to produce images of the human body. The radiographer must be committed to professional development and the care of others.

Course work includes clinical rotations to area health care facilities, radiographic exposure, image processing, radiographic procedures, physics, pathology, patient care and management, radiation protection, quality assurance, anatomy and physiology, and radiobiology.

Graduates of accredited programs are eligible to apply to take the American Registry of Radiologic Technologists' national examination for certification and registration as medical radiographers. Graduates may be employed in hospitals, clinics, physicians' offices, medical laboratories, government agencies, and industry.

Radiography Degree - A45700

-Day

First Semester

RAD	110	RAD Intro & Patient Care	3
RAD	111	RAD Procedures I	4
BIO	163	Basic Anatomy and Physiology	5
ENG	111	Writing and Inquiry	3
RAD	151	RAD Clinical Ed I	2

Second Semester

RAD	112	RAD Procedures II	4
RAD	121	Image Production I	3
MAT	143	Quantitative Literacy	3
ENG	112	Writing/Research in the Disc	3
RAD	161	RAD Clinical Ed II	5

Summer Term

RAD	122	Image Production II	2
RAD	141	Radiation Safety	2
RAD	171	RAD Clinical Ed III	3

Third Semester

RAD	211	RAD Procedures III	3
RAD	231	Image Production III	2
RAD	241	Radiobiology/Protection	2
PSY	150	General Psychology	3
RAD	251	RAD Clinical Ed IV	7

Fourth Semester

RAD	261	RAD Clinical Ed V	7
RAD	271	Radiography Capstone	3
HUM	115	Critical Thinking	3

Graduation Requirements: ..... 70 Credit Hours
*Demonstrate chemistry proficiency. The chemistry proficiency requirement may be satisfied by completing ONE of the following: a college-level basic chemistry course from a U.S. regionally-accredited institution with a grade of "C" or better, or one unit of a high school chemistry course with a grade of "C" or better, or CHM 090 (Chemistry concepts) or an equivalent CHM 090 with a grade of "C" or better, or the self-taught chemistry tutorial unit in the Individualized Learning Center with a grade of 85 or higher. Completion of BIO 163 (or a transfer equivalent class) with a grade of "C" or better.

THERAPEUTIC MASSAGE

The Therapeutic Massage curriculum prepares graduates to work in direct client care settings to provide manipulation, methodical pressure, friction and kneading of the body for maintaining wellness or treating alterations in wellness throughout the lifespan.

Courses will include content in normal human anatomy and physiology, therapeutic massage, ethical/legal issues, business practices, nutrition and psychology.

Employment opportunities in North Carolina may be found in hospitals, rehabilitation centers, health departments, home health, medical offices, nursing homes, spas, health and sports clubs, and private practice. Graduates may be eligible to take the Massage and Bodywork Licensing Exam, and apply for Licensure in North Carolina.

Therapeutic Massage Diploma - D45750

-Day

First Semester

MTH	110	Fundamentals of Massage	10
ACA	111	College Student Success	1
*BIO	163	Basic Anatomy and Physiology	5

Second Semester

*BIO	155	Nutrition	3
MTH	120	Therapeutic Massage Applications	10
MTH	121	Clinical Supplement I	1
MTH	130	Therapeutic Massage Management	2

Summer Term

MTH	125	Ethics of Massage	2

General Education Required
(Transfer Credit May Apply)

*ENG	111	Writing and Inquiry	3
*PSY	118	Interpersonal Psychology	3
		OR	
*PSY	150	General Psychology	3

Graduation Requirements ..... 40 Credit Hours

- ACA 111 is a co-requisite to MTH 110; students must register for ACA 111 section restricted to MTH [D45750]
- BIO 163 must be completed either before or concurrently with MTH 110. Students may not progress to MTH 120 without successful completion of BIO 163.
- Transfer credit may be awarded by review of transcripts.
- Transfer credit for BIO 271 Pathophysiology may be substituted for BIO 155.

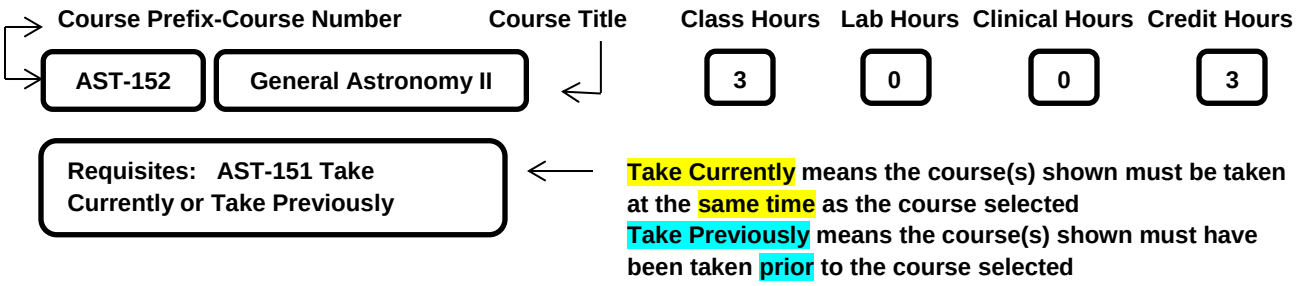
***** Coursework other than MTH may be completed prior to entry into the program.

COURSE PREFIX IDENTIFICATION

ACA Academic Related
ACC Accounting
AHR Air Conditioning, Heating, & Refrigeration
ANT Anthropology
ARA Arabic
ARC Architecture
ART Art
AST Astronomy
ATR Automation and Robotics
AUB Automotive Body Repair
AUT Automotive
BAF Baking and Finance
BAS Business Analytics
BAT Building Automation Systems
BIO Biology
BPA Baking and Pastry Arts
BPM Bioprocessing Manufacturing Tech
BPR Blueprint Reading
BUS Business
CAR Carpentry
CAT Computed Tomography
CCT Cyber Crime Technology
CEG Civil Engineering and Geomatic
CET Computer Engineering Technology
CHI Chinese
CHM Chemistry
CIS Information Systems
CIV Civil Engineering Technology
CJC Criminal Justice
CMT Construction Management
COM Communication
COS Cosmetology
CSC Computer Science
CST Construction
CTI Computer Tech Integration
CTS Computer Information Technology
CUL Culinary
DBA Database Management Technology
DDF Design Drafting
DDT Developmental Disabilities
DEN Dental
DES Design: Creative
DFT Drafting
DMA Developmental Mathematics
DME Digital Medial Technology
DMS Developmental Math Shell
DRA Drama/Theatre
DRE Developmental Reading/English
ECM Electronic Commerce
ECO Economics
EDU Education
EFL English as a Foreign Language
EGR Engineering
ELC Electricity
ELN Electronics
EMS Emergency Medical Care
ENG English
ENV Environmental Science
EPT Emergency Preparedness
FIP Fire Protection
FRE French
FST Food Service Technology
GEL Geology
GEO Geography
GIS Geographic Information Systems
GRD Graphic Design
GRO Gerontology
HBI Healthcare Business Informatic
HEA Health
HEO Heavy Equipment Operation
HET Heavy Equipment Maintenance
HFS Health and Fitness Sciences
HIS History
HMT Healthcare Management
HOR Horticulture
HRM Hospitality Management
HSC Health Sciences
HSE Human Services
HUM Humanities
HYD Hydraulics and Pneumatics
IMG Imaging
INT International Business
ISC Industrial Science
LAR Landscape Architecture
LOG Logistics Management
MAS Masonry
MAT Mathematics
MCO Mission Critical Operations
MEC Mechanical
MED Medical Assisting
MHA Mental Health
MKT Marketing and Retailing
MLT Medical Laboratory Technology
MNT Maintenance
MRI Magnetic Resonance Imaging
MSI Military Science
MTH Therapeutic Massage
MUS Music
NAS Nursing Assistant
NET Networking Technology
NOS Networking Operating System
NUR Nursing
OMT Operations Management
OST Office Systems Technology
PBT Phlebotomy
PCI Process Control Instrumentation
PED Physical Education
PHI Philosophy
PHM Pharmacy
PHY Physics
PLU Plumbing
PME Power Mechanics
PMT Project Management Technology
POL Political Science
PSF Physical Fitness Technology
PSY Psychology
PTC Pharmaceutical Technology
RAD Radiography
REA Real Estate Appraisal
REF Refrigeration
REL Religion
RLS Real Estate
SAB Substance Abuse
SEC Information Systems Security
SGD Simulation and Game Development
SIM Simulation
SOC Sociology
SPA Spanish
SRV Surveying
SST Sustainability Technology
SUR Surgical Technology
SWK Social Work
TRN Transportation Technology
WBL Work-Based Learning
WEB Web Technologies
WLD Welding

CURRICULUM COURSE DESCRIPTIONS

All courses are identified by the following example:



ACADEMIC RELATED (ACA Prefix)

ACA-090 Student Success Strategies 3 0 0 3
Requisites:
This course is intended to provide students with skills and strategies to promote success in college, career, and life. Topics include the College's physical, academic, and social environment, promotes personal development, and cultivates learning strategies essential for student success. Upon completion, students should be able to manage their learning experiences to meet educational and life goals.

ACA-111 College Student Success 1 0 0 1
Requisites:
This course introduces the college's physical, academic, and social environment and promotes the personal development essential for success. Topics include campus facilities and resources; policies, procedures, and programs; study skills; and life management issues such as health, self-esteem, motivation, goal-setting, diversity, and communication. Upon completion, students should be able to function effectively within the college environment to meet their educational objectives.

ACA-115 Success & Study Skills 0 2 0 1
Requisites:
This course provides an orientation to the campus resources and academic skills necessary to achieve educational objectives. Emphasis is placed on an exploration of facilities and services, study skills, library skills, self-assessment, wellness, goal-setting, and critical thinking. Upon completion, students should be able to manage their learning experiences to successfully meet educational goals.

ACA-120 Career Assessment 1 0 0 1
Requisites:
This course provides the information and strategies necessary to develop clear personal, academic, and professional goals. Topics include personality styles, goal setting, various college curricula, career choices, and campus leadership development. Upon completion, students should be able to clearly state their personal, academic, and professional goals and have a feasible plan of action to achieve those goals.

ACA-121 Managing a Team 1 0 0 1
Requisites: Take NET-289(S21106); Take concurrently. Required.
This course focuses on the process of the individual with an awareness of the reality in the collective teamwork approach for the workplace emphasizing process-orientation. Topics include how teams work, team effectiveness,

team-building techniques, positive thinking, and leadership principles. Upon completion, students should be able to demonstrate an understanding of how teamwork strengthens ownership, involvement, and responsibility in the workplace.

ACA-122 College Transfer Success 0 2 0 1

Requisites: Take 1 group; Option: Take DRE-096(S23641); Option: Take ENG-070(S16349) RED-070(S10648); Take previously. Required.

This course provides information and strategies necessary to develop clear academic and professional goals beyond the community college experience. Topics include the CAA, college policies and culture, career exploration, gathering information on senior institutions, strategic planning, critical thinking, and communications skills for a successful academic transition. Upon completion, students should be able to develop an academic plan to transition successfully to senior institutions.

ACCOUNTING (ACC Prefix)

ACC-120 Principles of Financial Accounting 3 2 0 4

Requisites:

This course introduces business decision-making using accounting information systems. Emphasis is placed on analyzing, summarizing, reporting, and interpreting financial information. Upon completion, students should be able to prepare financial statements, understand the role of financial information in decision-making and address ethical considerations.

ACC-121 Principles of Managerial Accounting 3 2 0 4

Requisites: Take ACC-120(S10290); Take previously. Required.

This course includes a greater emphasis on managerial and cost accounting skills. Emphasis is placed on managerial accounting concepts for external and internal analysis, reporting and decision-making. Upon completion, students should be able to analyze and interpret transactions relating to managerial concepts including product-costing systems.

ACC-122 Principles of Financial Accounting II 3 0 0 3

Requisites: Take ACC-120(S20278); Take previously. Required.

This course provides additional instruction in the financial accounting concepts and procedures introduced in ACC 120. Emphasis is placed on the analysis of specific balance sheet accounts, with in-depth instruction of the accounting principles applied to these accounts. Upon completion, students should be able to analyze data, prepare journal entries, and prepare reports in compliance with generally accepted accounting principles.

ACC-129 Individual Income Taxes 2 2 0 3

Requisites: Take ACC-120(S20278); Take previously. Required.

This course introduces the relevant laws governing individual income taxation. Topics include tax law, electronic research and methodologies, and the use of technology for preparation of individual income tax returns. Upon completion, students should be able to analyze basic tax scenarios, research applicable tax law, and complete various individual tax forms.

ACC-130 Business Income Taxes 2 2 0 3

Requisites: Take ACC-129(S20283); Take previously. Required.

This course introduces the relevant laws governing business and fiduciary income taxes. Topics include tax law relating to business organizations, electronic research and methodologies, and the use of technology for the preparation of business tax returns. Upon completion, students should be able to analyze basic tax scenarios, research applicable tax law, and complete various business tax forms.

ACC-131 Federal Income Taxes 2 2 0 3

Requisites:

This course provides an overview of federal income taxes for individuals, partnerships, and corporations. Topics include tax law, electronic research and methodologies and the use technology for the preparation of individual and business tax returns. Upon completion, students should be able to analyze basic tax scenarios, research applicable tax laws, and complete federal tax returns for individuals, partnerships, and corporations.

ACC-132 NC Business Taxes 1 3 0 2

Requisites:

This course introduces the relevant laws governing North Carolina taxes as they apply to business. Topics include sales taxes, income taxes for business entities, payroll taxes, unemployment taxes, and other taxes pertaining to the State of North Carolina. Upon completion, students should be able to maintain a company's records to comply with the laws governing North Carolina business taxes.

ACC-140 Payroll Accounting 1 2 0 2

Requisites: Take ACC-115(S12924) or ACC-120(S10290); Take previously. Required.Take 1 group; Option: Take ACC-115(S12924) CIS-110(S21058); Option: Take ACC-115(S12924) CIS-111(S21059); Option: Take ACC-120(S10290) CIS-110(S21058);

This course covers federal and state laws pertaining to wages, payroll taxes, payroll tax forms, and journal and general ledger transactions. Emphasis is placed on computing wages; calculating social security, income, and unemployment taxes; preparing appropriate payroll tax forms; and journalizing/posting transactions. Upon completion, students should be able to analyze data, make appropriate computations, complete forms, and prepare accounting entries using appropriate technology.

ACC-149 Intro to Acc Spreadsheets 1 2 0 2

Requisites: Take ACC-115(S12924) or ACC-120(S10290); Take previously. Required.Take 1 group; Option: Take ACC-115(S12924) CIS-110(S21058); Option: Take ACC-115(S12924) CIS-111(S21059); Option: Take ACC-120(S10290) CIS-110(S21058);

This course provides a working knowledge of computer spreadsheets and their use in accounting. Topics include pre-programmed problems, model-building problems, beginning-level macros, graphics, and what-if analysis enhancements of template problems. Upon completion, students should be able to use a computer spreadsheet to complete many of the tasks required in accounting.

ACC-150 Accounting Software Applications 1 2 0 2

Requisites: Take ACC-115(S12924) or ACC-120(S10290); Take previously. Required.Take 1 group; Option: Take ACC-115(S12924) CIS-110(S21058); Option: Take ACC-115(S12924) CIS-111(S21059); Option: Take ACC-120(S10290) CIS-110(S21058);

This course introduces microcomputer applications related to accounting systems. Topics include general ledger, accounts receivable, accounts payable, inventory, payroll, and correcting, adjusting, and closing entries. Upon completion, students should be able to use a computer accounting package to solve accounting problems.

ACC-151 Accounting Spreadsheet Applications 1 2 0 2

Requisites: Take ACC-149(S16200); Take previously. Required.

This course is designed to facilitate the use of spreadsheet technology as applied to accounting principles. Emphasis is placed on using spreadsheet software as a problem-solving and decision-making tool. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.

ACC-152 Advanced Software Applications 1 2 0 2

Requisites: Take ACC-150(S20275); Take previously. Required.

This course provides continued exposure to commercial accounting software and the opportunity to refine skills developed in ACC 150. Emphasis is placed on advanced applications of software packages. Upon completion, students should be able to use commercial software to complete complex accounting tasks.

ACC-175 Hotel and Restaurant Accounting 3 2 0 4

Requisites: Take MAT-110(S23926); Take previously. Required.

This course covers generally accepted accounting principles and the uniform system of accounts for small hotels and motels of the American Hotel and Motel Association. Emphasis is placed on the accounting cycle, analysis of financial statements, and payroll procedures including treatment of tips. Upon completion, students should be able to demonstrate competence in the accounting principles and procedures used in hotels and restaurants.

ACC-215 Ethics in Accounting 3 0 0 3

Requisites: Take ACC-121(S20282); Take previously. Required.

This course introduces students to professional codes of conduct and ethics adopted by professional associations and state licensing boards for accountants, auditors, and fraud examiners. Topics include research and discussion of selected historical and contemporary ethical cases and issues as they relate to accounting and business. Upon completion, students should be able to apply codes, interpret facts and circumstances, as they relate to accounting firms and business activities.

ACC-220 Intermediate Accounting I 3 2 0 4

Requisites: Take ACC-120(S20278); Take previously. Required.

This course is a continuation of the study of accounting principles with in-depth coverage of theoretical concepts and financial statements. Topics include generally accepted accounting principles and extensive analysis of balance sheet components. Upon completion, students should be able to demonstrate competence in the conceptual framework underlying financial accounting, including the application of financial standards.

ACC-225 Cost Accounting 3 0 0 3

Requisites: Take ACC-121(S10328); Take previously. Required.

This course introduces the nature and purposes of cost accounting as an information system for planning and control. Topics include direct materials, direct labor, factory overhead, process, job order, and standard cost systems. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.

ACC-227 Practices in Accounting 3 0 0 3

Requisites: Take ACC-220(S10646); Take previously. Required.

This course provides an advanced in-depth study of selected topics in accounting using case studies and individual and group problem solving. Topics include cash flow, financial statement analysis, individual and group problem solving, practical approaches to dealing with clients, ethics, and critical thinking. Upon completion, students should be able to demonstrate competent analytical skills and effective communication of their analysis in written and/or oral presentations.

ACC-240 Gov & Not-For-Profit Acct 3 0 0 3

Requisites: Take ACC-121(S20282); Take previously. Required.

This course introduces principles and procedures applicable to governmental and not-for-profit organizations. Emphasis is placed on various budgetary accounting procedures and fund accounting. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.

ACC-268 Information Systems & Internal Controls 3 0 0 3

Requisites: Take ACC-121(S20282); Take previously. Required.

This course covers the design and operation of accounting information systems, with emphasis placed upon transaction cycles and the necessary controls for reliable data. Topics include accounting procedures; authorizing, documentation, and monitoring; flowcharting, data flow diagrams, and scheduling; and some auditing concepts. Upon completion, students should be able to demonstrate an analytical problem-solving ability to communicate effectively their analysis in written and oral presentations.

ACC-269 Auditing & Assurance Services 3 0 0 3

Requisites: Take ACC-220(S10646); Take previously. Required.

This course introduces selected topics pertaining to the objectives, theory and practices in engagements providing auditing and other assurance services. Topics include planning, conducting and reporting, with emphasis on the related professional ethics and standards. Upon completion, students should be able to demonstrate an understanding of the types of professional services, the related professional standards, and engagement methodology.

ACC-270 International Accounting 3 0 0 3

Requisites: Take ACC-120(S20278); Take previously. Required.

This course includes identifying, recording, and interpreting financial information for accounting systems used in different countries. Topics include currency exchange rates, methods of setting and selecting transfer prices, practices used to account for rates of inflation, and major types of taxes. Upon completion, students should be able to describe accounting systems and their impacts on different currencies and demonstrate a basic knowledge of international accounting.

AIR CONDITIONING, HEATING, & REFRIGERATION (AHR Prefix)

AHR-111 HVACR Electricity 2 2 0 3

Requisites:

This course introduces electricity as it applies to HVACR equipment. Emphasis is placed on power sources, interaction of electrical components, wiring of simple circuits, and the use of electrical test equipment. Upon completion, students should be able to demonstrate good wiring practices and the ability to read simple wiring diagrams.

AHR-112 Heating Technology 2 4 0 4

Requisites:

This course covers the fundamentals of heating including oil, gas, and electric heating systems. Topics include safety, tools and instrumentation, system operating characteristics, installation techniques, efficiency testing, electrical power, and control systems. Upon completion, students should be able to explain the basic oil, gas, and electrical heating systems and describe the major components of a heating system.

AHR-112AB Heating Technology 2 0 0 2

Requisites:

This course covers the fundamentals of heating including oil, gas, and electric heating systems. Topics include safety, tools and instrumentation, system operating characteristics, installation techniques, efficiency testing, electrical power, and control systems. Upon completion, students should be able to explain the basic oil, gas, and electrical heating systems and describe the major components of a heating system.

AHR-112BB Heating Technology 0 4 0 2

Requisites: Take AHR-112AB; Take either previously or concurrently. Required.

This course covers the fundamentals of heating including oil, gas, and electric heating systems. Topics include safety, tools and instrumentation, system operating characteristics, installation techniques, efficiency testing, electrical power, and control systems. Upon completion, students should be able to explain the basic oil, gas, and electrical heating systems and describe the major components of a heating system.

AHR-113 Comfort Cooling 2 4 0 4

Requisites:

This course covers the installation procedures, system operations, and maintenance of residential and light commercial comfort cooling systems. Topics include terminology, component operation, and testing and repair of equipment used to control and produce assured comfort levels. Upon completion, students should be able to use psychrometrics, manufacturer specifications, and test instruments to determine proper system operation.

AHR-114 Heat Pump Technology 2 4 0 4

Requisites: Take AHR-110(S23419) or AHR-113(S23422); Take previously. Required.

This course covers the principles of air source and water source heat pumps. Emphasis is placed on safety, modes of operation, defrost systems, refrigerant charging, and system performance. Upon completion, students should be able to understand and analyze system performance and perform routine service procedures.

AHR-115 Refrigeration Systems 1 3 0 2

Requisites: Take AHR-110(S14098); Take previously. Required.

This course introduces refrigeration systems and applications. Topics include defrost methods, safety and operational control, refrigerant piping, refrigerant recovery and charging, and leak testing. Upon completion, students should be able to assist in installing and testing refrigeration systems and perform simple repairs.

AHR-120 HVACR Maintenance 1 3 0 2

Requisites:

This course introduces the basic principles of industrial air conditioning and heating systems. Emphasis is placed on preventive maintenance procedures for heating and cooling equipment and related components. Upon completion, students should be able to perform routine preventive maintenance tasks, maintain records, and assist in routine equipment repairs.

AHR-125 HVACR Electronics 2 2 0 3

Requisites: Take AHR-111(S23420) ELC-111 or ELC-112(S21587); Take previously. Required.

This course introduces the common electronic control components in HVACR systems. Emphasis is placed on identifying electronic components and their functions in HVACR systems and motor-driven control circuits. Upon completion, students should be able to identify components, describe control circuitry and functions, and use test instruments to measure electronic circuit values and identify malfunctions.

AHR-130 HVAC Controls 2 2 0 3

Requisites: Take AHR-111(S14148) ELC-111 or ELC-112(S21587); Take previously. Required.

This course covers the types of controls found in residential and commercial comfort systems. Topics include electrical and electronic controls, control schematics and diagrams, test instruments, and analysis and troubleshooting of electrical systems. Upon completion, students should be able to diagnose and repair common residential and commercial comfort system controls.

AHR-133 HVAC Servicing 2 6 0 4

Requisites: Take AHR-112(S23421) or AHR-113(S23422); Take either previously or concurrently. Required.

The course covers the maintenance and servicing of HVAC equipment. Topics include testing, adjusting, maintaining, and troubleshooting HVAC equipment and record keeping. Upon completion, students should be able to adjust, maintain, and service HVAC equipment.

AHR-160 Refrigerant Certification 1 0 0 1

Requisites:

This course covers the requirements for the EPA certification examinations. Topics include small appliances, high pressure systems, and low pressure systems. Upon completion, students should be able to demonstrate knowledge of refrigerants and be prepared for the EPA certification examinations.

AHR-180 HVACR Customer Relations 1 0 0 1

Requisites:

This course introduces common business and customer relation practices that may be encountered in HVACR. Topics include business practices, appearance of self and vehicle, ways of handling customer complaints, invoices, telephone communications, and warranties. Upon completion, students should be able to present themselves to customers in a professional manner, understand how the business operates, complete invoices, and handle complaints.

AHR-211 Residential System Design 2 2 0 3

Requisites:

This course introduces the principles and concepts of conventional residential heating and cooling system design. Topics include heating and cooling load estimating, basic psychrometrics, equipment selection, duct system selection, and system design. Upon completion, students should be able to design a basic residential heating and cooling system.

AHR-212 Advanced Comfort Systems 2 6 0 4

Requisites: Take AHR-114(S14084); Take previously. Required.

This course covers water-cooled comfort systems, water-source/geothermal heat pumps, and high efficiency heat pump systems including variable speed drives and controls. Emphasis is placed on the application, installation, and servicing of water-source systems and the mechanical and electronic control components of advanced comfort systems. Upon completion, students should be able to test, analyze, and troubleshoot water-cooled comfort systems, water-source/geothermal heat pumps, and high efficiency heat pumps.

AHR-213 HVACR Building Code 1 2 0 2

Requisites:

This course covers the North Carolina codes that are applicable to the design and installation of HVACR systems. Topics include current North Carolina codes as applied to HVACR design, service, and installation. Upon completion, students should be able to demonstrate the correct usage of North Carolina codes that apply to specific areas of the HVACR trade.

AHR-215 Commercial HVAC Controls 1 3 0 2

Requisites: Take AHR-111(S23420) ELC-111 or ELC-112(S23481); Take previously. Required.

This course introduces HVAC control systems used in commercial applications. Topics include electric/electronic control systems, pneumatic control systems, DDC temperature sensors, humidity sensors, pressure sensors, wiring, controllers, actuators, and controlled devices. Upon completion, students should be able to verify or correct the performance of common control systems with regard to sequence of operation and safety.

AHR-235 Refrigeration Design 2 2 0 3

Requisites: Take AHR-110(S14098); Take previously. Required.

This course covers the principles of commercial refrigeration system operation and design. Topics include walk-in coolers, walk-in freezers, system components, load calculations, equipment selection, defrost systems, refrigerant line sizing, and electric controls. Upon completion, students should be able to design, adjust, and perform routine service procedures on a commercial refrigeration system.

AHR-240 Hydronic Heating 1 3 0 2

Requisites: Take AHR-112(S14102); Take previously. Required.

This course covers the accepted procedures for proper design, installation, and balance of hydronic heating systems for residential or commercial buildings. Topics include heating equipment; pump, terminal unit, and accessory selection; piping system selection and design; and pipe sizing and troubleshooting. Upon completion, students should be able to assist with the proper design, installation, and balance of typical hydronic systems.

AHR-245 Chiller Systems 1 3 0 2

Requisites: Take AHR-110(S14098); Take previously. Required.

This course introduces the fundamentals of liquid chilling equipment. Topics include characteristics of water, principles of water chilling, the chiller, the refrigerant, water and piping circuits, freeze prevention, purging, and equipment flexibility. Upon completion, students should be able to describe the components, controls, and overall operation of liquid chilling equipment and perform basic maintenance tasks.

AHR-250 HVAC Systems Diagnostics 0 4 0 2

Requisites: Take AHR-133; Take previously. Required.

This course is a comprehensive study of air conditioning, heating, and refrigeration system diagnostics and corrective measures. Topics include advanced system analysis, measurement of operating efficiency, and inspection and

correction of all major system components. Upon completion, students should be able to restore a residential or commercial AHR system so that it operates at or near manufacturers' specifications. This course also includes variable air volume box set-up, test and balance air and water systems.

AHR-263 Energy Management 1 3 0 2
Requisites: Take AHR-125(S13194) or AHR-215(S10409); Take previously. Required.
This course covers building automation computer programming as currently used in energy management. Topics include night setback, duty cycling, synchronization, schedule optimization, and anticipatory temperature control. Upon completion, students should be able to write programs utilizing the above topics and connect computer systems to HVAC systems.

ANTHROPOLOGY (ANT Prefix)

ANT-210 General Anthropology 3 0 0 3
Requisites: Take 1 group; Option: Take ENG-090 RED-090; Option: Take ENG-111(S13673); Option: Take DRE-098(S23643); Take previously. Required.
This course introduces the physical, archaeological, linguistic, and ethnological fields of anthropology. Topics include human origins, genetic variations, archaeology, linguistics, primatology, and contemporary cultures. Upon completion, students should be able to demonstrate an understanding of the four major fields of anthropology.

ANT-220 Cultural Anthropology 3 0 0 3
Requisites: Take 1 group; Option: Take ENG-090 RED-090; Option: Take ENG-111(S13673); Option: Take DRE-098(S23643); Take previously. Required.
This course introduces the nature of human culture. Emphasis is placed on cultural theory, methods of fieldwork, and cross-cultural comparisons in the areas of ethnology, language, and the cultural past. Upon completion, students should be able to demonstrate an understanding of basic cultural processes and how cultural data are collected and analyzed.

ANT-230 Physical Anthropology 3 0 0 3
Requisites: Take 1 group; Option: Take ENG-090 RED-090; Option: Take ENG-111(S13673); Take previously. Required.
This course introduces the scientific study of human evolution and adaptation. Emphasis is placed on evolutionary theory, population genetics, biocultural adaptation and human variation, as well as non-human primate evolution, morphology, and behavior. Upon completion, students should be able to demonstrate an understanding of the biological and cultural processes which have resulted in the formation of the human species.

ANT-230A Physical Anthropology Lab 0 2 0 1
Requisites: Take ANT-230; Take either previously or concurrently. Required.Take 1 group; Option: Take ENG-090 RED-090; Option: Take ENG-111(S13673); Take previously. Required.
This course provides laboratory work that reinforces the material presented in ANT 230. Emphasis is placed on laboratory exercises which may include fossil identification, genetic analysis, skeletal comparisons, forensics, computer simulations, and field observations. Upon completion, students should be able to demonstrate an understanding of the analytical skills employed by anthropologists in the study of primate evolution and variation.

ANT-240 Archaeology 3 0 0 3
Requisites: Take 1 group; Option: Take ENG-090 RED-090; Option: Take ENG-111(S13673); Option: Take DRE-098(S23643); Take previously. Required.
This course introduces the scientific study of the unwritten record of the human past. Emphasis is placed on the process of human cultural evolution as revealed through archaeological methods of excavation and interpretation. Upon completion, students should be able to demonstrate an understanding of how archaeologists reconstruct the past and describe the variety of past human cultures.

ANT-245 World Prehistory 3 0 0 3

Requisites: Take 1 group; Option: Take ENG-090 RED-090; Option: Take ENG-111(S13673); Option: Take DRE-098(S23643); Take previously. Required.

This course provides an introduction to the prehistory of the Old and New world. Emphasis is placed on archaeological evidence from origins of human culture to the beginning of recorded history. Upon completion, students should be able to demonstrate knowledge of the variability of ancient human societies and the development of agriculture and urbanism.

ARABIC (ARA Prefix)

ARA-112 Elementary Arabic II 3 0 0 3

Requisites: Take ARA-111; Take previously. Required.Take ARA-182; Take either previously or concurrently. Recommended.

This course includes the basic fundamental elements of the modern standard Arabic language within the cultural context of Arabic-speaking people. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Arabic and demonstrate further cultural awareness.

ARA-181 Arabic Lab I 0 2 0 1

Requisites: Take ENG-090; Take previously. Required.Take ARA-111; Take either previously or concurrently. Recommended.

This course provides an opportunity to enhance acquisition of the fundamental elements of the modern standard Arabic language. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills through the use of supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Arabic and to demonstrate cultural awareness.

ARA-182 Arabic Lab II 0 2 0 1

Requisites: Take ARA-181; Take previously. Required.Take ARA-112; Take either previously or concurrently. Recommended.

This course provides an opportunity to enhance acquisition of the fundamental elements of the modern standard Arabic language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Arabic and demonstrate cultural awareness.

ARA-211 Intermediate Arabic I 3 0 0 3

Requisites: Take ARA-112; Take previously. Required.

This course includes communicative competencies in speaking, listening comprehension, reading and writing at an intermediate level with attention to cultural awareness. Emphasis is placed on intermediate skills in speaking, reading, writing, and comprehension of spoken language. Upon completion, students should be able to demonstrate simple conversations and read works written in modern standard Arabic.

ARA-212 Intermediate Arabic II 3 0 0 3

Requisites: Take ARA-211; Take previously. Required.

This course provides continuation of communicative competence in speaking, listening comprehension, reading and writing at an intermediate level with attention to cultural awareness. Emphasis is placed on intermediate skills in speaking, reading, writing, and comprehension of spoken language. Upon completion, students should be able to demonstrate an ability to conduct conversations and to read literary and non-fiction texts in modern standard Arabic.

ARCHITECTURE (ARC Prefix)

ARC-111 Introduction to Architectural Technology 1 6 0 3
Requisites:
This course introduces basic architectural drafting techniques, lettering, use of architectural and engineer scales, and sketching. Topics include orthographic, axonometric, and oblique drawing techniques using architectural plans, elevations, sections, and details; reprographic techniques; and other related topics. Upon completion, students should be able to prepare and print scaled drawings within minimum architectural standards.

ARC-113 Residential Architectural Technology 1 6 0 3
Requisites: Take ARC-111; Take previously. Required.Take ARC-112(S11752); Take either previously or concurrently. Required.
This course covers intermediate residential working drawings. Topics include residential plans, elevations, sections, details, schedules, and other related topics. Upon completion, students should be able to prepare a set of residential working drawings that are within accepted architectural standards.

ARC-114 Architectural CAD 1 3 0 2
Requisites: Take ARC-114A; Take either previously or concurrently. Recommended.
This course introduces basic architectural CAD techniques. Topics include basic commands and system hardware and software. Upon completion, students should be able to prepare and plot architectural drawings to scale within accepted architectural standards. This course is introduction to CAD using AutoCAD software. Course has a required co-requisite for ARC-111 or LAR-111.

ARC-114A Architectural CAD Lab 0 3 0 1
Requisites: Take ARC-114(S10248); Take either previously or concurrently. Required.
This course provides a laboratory setting to enhance architectural CAD skills. Emphasis is placed on further development of commands and system operation. Upon completion, students should be able to prepare and plot scaled architectural drawings.

ARC-131 Building Codes 2 2 0 3
Requisites: Take ARC-112(S23271) or CAR-111(S16248); Take previously. Required.
This course covers the methods of researching building codes for specific projects. Topics include residential and commercial building codes. Upon completion, students should be able to determine the code constraints governing construction projects.

ARC-132 Specifications & Contracts 2 0 0 2
Requisites: Take ARC-112(S11752); Take previously. Required.
This course covers the development of written specifications and the implications of different contractual arrangements. Topics include specification development, contracts, bidding material research, and agency responsibilities. Upon completion, students should be able to write a specification section and demonstrate the ability to interpret contractual responsibilities.

ARC-141 Elementary Structures for Architecture 4 0 0 4
Requisites: Take 1 group; Option: Take ARC-111 MAT-121(S23927); Option: Take ARC-111 MAT-171(S23934); Take previously. Required.
This course covers concepts of elementary structures in architecture. Topics include structural form, statics, strength of materials, structural behavior, and the relationship between structures and architectural form. Upon completion, students should be able to size simple structural elements.

ARC-212 Commercial Constr Tech 1 6 0 3
Requisites: Take ARC-111; Take previously. Required.Take ARC-112(S11752); Take either previously or concurrently. Required.
This course introduces regional construction techniques for commercial plans, elevations, sections, and details.

Topics include production of a set of commercial contract documents and other related topics. Upon completion, students should be able to prepare a set of working drawings in accordance with building codes.

ARC-213 Design Project 2 6 0 4
Requisites: Take ARC-111 ARC-112(S11752) ARC-114(S10248); Take previously. Required.Take ARC-111 ARC-112(S11752) ARC-113 ARC-114(S10248) ARC-211; Take previously. Required.Take ARC-264(S12557); Take either previously or concurrently. Recommended.
This course provides the opportunity to design and prepare a set of contract documents within an architectural setting. Topics include schematic design, design development, construction documents, and other related topics. Upon completion, students should be able to prepare a set of commercial contract documents.

ARC-214 Architectural Statics 3 0 0 3
Requisites: Take ARC-111 ARC-112(S11752) MAT-121(S13643); Take previously. Required.
This course covers the concepts of elementary statics as applied to architecture. Topics include forces, resultants, and types of force system; equations of equilibrium; reactions of simple architectural structures; internal forces in architectural roof trusses; frames and beams; centroids and moments of inertia as applied to architecture. Upon completion, students should be able to solve problems which require the ability to analyze systems of forces in static equilibrium as applied to architectural forms.

ARC-220 Advanced Architectural CAD 1 3 0 2
Requisites: Take ARC-114(S10248); Take previously. Required.
This course provides file management, productivity, and CAD customization skills. Emphasis is placed on developing advanced proficiency techniques. Upon completion, students should be able to create prototype drawings and symbol libraries, compose sheets with multiple details, and use advanced drawing and editing commands. This course is advanced CAD using AutoCAD software.

ARC-221 Architectural 3-D CAD 1 4 0 3
Requisites: Take ARC-114(S10248); Take previously. Required.
This course introduces architectural three-dimensional CAD applications. Topics include three-dimensional drawing, coordinate systems, viewing, rendering, modeling, and output options. Upon completion, students should be able to prepare architectural three-dimensional drawings and renderings.

ARC-225 Architectural Building Information Modeling I 1 3 0 2
Requisites:
This course is an introduction to the fundamentals of Building Information Modeling (BIM) as a construction documentation system. Topics include basic parametric modeling, creating new types and families of components, and using 3D models to create design drawings. Upon competition, students should be able to use BIM software to create, edit, and print rudimentary architectural 3D computer models.

ARC-226 Architectural Building Information Modeling II 1 3 0 2
Requisites: Take ARC-225; Take previously. Required.Take ARC-212(S10754) ARC-225; Take previously. Required.
This course covers advanced concepts of Building Information Modeling (BIM) including complex drawing generation and inter-disciplinary collaboration. Topics include advanced parametric modeling and model analysis, inter-disciplinary coordination, design web format models, material take-off, schedules, and rendering. Upon completion, students should be able to apply BIM software to create full 3D project models and convert them to scaled working or presentation drawings.

ARC-226A Architectural Building Information Modeling II Lab 0 3 0 1
Requisites: Take ARC-225; Take previously. Required.Take ARC-226; Take either previously or concurrently. Required.Take ARC-212(S10754) ARC-225; Take previously. Required.Take ARC-226; Take concurrently. Required.
This course provides a laboratory setting to enhance advanced architectural BIM skills. Emphasis is placed on further development of advanced parametric modeling and model analysis, inter-disciplinary coordination, design web format

models, material take-off, schedules, and rendering. Upon completion, students should be able to apply BIM software to create full 3D project models and convert them to scaled working or presentation drawings.

ARC-230 Environmental Systems 3 3 0 4
Requisites: Take 1 group; Option: Take ARC-111 MAT-121(S23927); Option: Take ARC-111 MAT-171(S23934); Take previously. Required.
This course introduces plumbing, mechanical (HVAC), and electrical systems for the architectural environment. Topics include basic plumbing, mechanical, and electrical systems for residential and/or commercial buildings with an introduction to selected code requirements. Upon completion, students should be able to develop schematic drawings for plumbing, mechanical, and electrical systems and perform related calculations.

ARC-231 Architectural Presentations 2 4 0 4
Requisites: Take ARC-111; Take previously. Required.Take 1 group; Option: Take ARC-111 ARC-264(S22026); Option: Take ARC-111 ARC-225; Take previously. Required.
This course introduces architectural presentation techniques. Topics include perspective drawing, shadow projection, texturization, rendered plans, elevations, and other related topics. Upon completion, students should be able to present ideas graphically and do rendered presentation drawings.

ARC-235 Architectural Portfolio 2 3 0 3
Requisites: Take 1 group; Option: Take ARC-113; Option: Take LAR-113(S23293); Option: Take DES-230(S10589); Take previously. Required.
This course covers the methodology for the creation of an architectural portfolio. Topics include preparation of marketing materials and a presentation strategy using conventional and/or digital design media. Upon completion, students should be able to produce an architectural portfolio of selected projects.

ARC-240 Site Planning 2 2 0 3
Requisites: Take ARC-111 or LAR-111(S10088); Take previously. Required.Take ARC-111 or LAR-111(S23291); Take previously. Required.
This course introduces the principles of site planning, grading plans, and earthwork calculations. Topics include site analysis, site work, site utilities, cut and fill, soil erosion control, and other related topics. Upon completion, students should be able to prepare site development plans and details and perform cut and fill calculations.

ARC-250 Survey of Architecture 3 0 0 3
Requisites:
This course introduces the historical trends in architectural form. Topics include historical and current trends in architecture. Upon completion, students should be able to demonstrate an understanding of significant historical and current architectural styles.

ARC-261 Solar Technology 1 2 0 2
Requisites: Take ARC-111; Take previously. Required.
This course introduces passive and active solar design theory and application. Topics include passive solar design, active solar theory, heat loss analysis, and other related topics. Upon completion, students should be able to design a passive solar system.

ARC-264 Digital Architecture 1 3 0 2
Requisites: Take ARC-112(S23271) or LAR-112(S23292); Take previously. Required.
This course covers multiple digital architectural techniques. Topics include spreadsheets and word processing procedures, on-line resources, modems, e-mail, image capture, multimedia, and other related topics. Upon completion, students should be able to transmit/receive electronic data, create multimedia presentations, and produce a desktop publishing document.

ART (ART Prefix)

ART-111 Art Appreciation 3 0 0 3
Requisites: Take 1 group; Option: Take ENG-090 RED-090; Option: Take DRE-098(S23643); Take previously. Required.
This course introduces the origins and historical development of art. Emphasis is placed on the relationship of design principles to various art forms including but not limited to sculpture, painting, and architecture. Upon completion, students should be able to identify and analyze a variety of artistic styles, periods, and media.

ART-114 Art History Survey I 3 0 0 3
Requisites: Take 1 group; Option: Take ENG-090 RED-090; Option: Take DRE-098(S23643); Take previously. Required.
This course covers the development of art forms from ancient times to the Renaissance. Emphasis is placed on content, terminology, design, and style. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of human social development.

ART-115 Art History Survey II 3 0 0 3
Requisites: Take 1 group; Option: Take ENG-090 RED-090; Option: Take DRE-098(S23643); Take previously. Required.
This course covers the development of art forms from the Renaissance to the present. Emphasis is placed on content, terminology, design, and style. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of human social development.

ART-117 Non-Western Art History 3 0 0 3
Requisites: Take 1 group; Option: Take ENG-090 RED-090; Option: Take DRE-098(S23643); Take previously. Required.
This course introduces non-Western cultural perspectives. Emphasis is placed on, but not limited to, African, Oriental, and Oceanic art forms throughout history. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of non-Western social and cultural development.

ART-121 Two-Dimensional Design 0 6 0 3
Requisites: Take 1 group; Option: Take ENG-070(S16349) RED-070(S10648); Option: Take DRE-096(S23641); Take previously. Required.
This course introduces the elements and principles of design as applied to two-dimensional art. Emphasis is placed on the structural elements, the principles of visual organization, and the theories of color mixing and interaction. Upon completion, students should be able to understand and use critical and analytical approaches as they apply to two-dimensional visual art.

ART-122 Three-Dimensional Design 0 6 0 3
Requisites: Take 1 group; Option: Take ENG-070(S16349) RED-070(S10648); Option: Take DRE-096(S23641); Take previously. Required.
This course introduces basic studio problems in three-dimensional visual design. Emphasis is placed on the structural elements and organizational principles as applied to mass and space. Upon completion, students should be able to apply three-dimensional design concepts.

ART-131 Drawing I 0 6 0 3
Requisites: Take 1 group; Option: Take ENG-070(S16349) RED-070(S10648); Option: Take DRE-096(S23641); Take previously. Required.
This course introduces the language of drawing and the use of various drawing materials. Emphasis is placed on drawing techniques, media, and graphic principles. Upon completion, students should be able to demonstrate competence in the use of graphic form and various drawing processes.

ART-132 Drawing II 0 6 0 3

Requisites: Take ART-131; Take previously. Required.

This course continues instruction in the language of drawing and the use of various materials. Emphasis is placed on experimentation in the use of drawing techniques, media, and graphic materials. Upon completion, students should be able to demonstrate increased competence in the expressive use of graphic form and techniques.

ART-135 Figure Drawing I 0 6 0 3

Requisites: Take ART-131; Take previously. Required.

This course introduces rendering the human figure with various drawing materials. Emphasis is placed on the use of the visual elements, anatomy, and proportion in the representation of the draped and undraped figure. Upon completion, students should be able to demonstrate competence in drawing the human figure.

ART-214 Portfolio and Resume 0 2 0 1

Requisites: Take 1 group; Option: Take ENG-070(S16349) RED-070(S10648); Option: Take DRE-096(S23641); Take previously. Required.Take 1 group; Option: Take ART-121(S23014) ART-122(S23015); Option: Take ART-121(S23014) ART-131;

This course covers resume writing, interview skills, and the preparation and presentation of an art portfolio. Emphasis is placed on the preparation of a portfolio of original artwork, the preparation of a photographic portfolio, approaches to resume writing, and interview techniques. Upon completion, students should be able to photograph and present a digital portfolio and write an effective resume.

ART-231 Printmaking I 0 6 0 3

Requisites: Take 1 group; Option: Take ENG-090 RED-090; Option: Take DRE-096(S23641); Take previously. Required.

This course introduces printmaking: its history, development techniques, and processes. Emphasis is placed on basic applications with investigation into image source and development. Upon completion, students should be able to produce printed images utilizing a variety of methods.

ART-232 Printmaking II 0 6 0 3

Requisites: Take ART-231; Take previously. Required.

This course includes additional methods and printmaking processes. Emphasis is placed on the printed image as related to method, source, and concept. Upon completion, students should be able to produce expressive images utilizing both traditional and innovative methods.

ART-240 Painting I 0 6 0 3

Requisites: Take 1 group; Option: Take ENG-070(S16349) RED-070(S10648); Option: Take DRE-096(S23641); Take previously. Required.

This course introduces the language of painting and the use of various painting materials. Emphasis is placed on the understanding and use of various painting techniques, media, and color principles. Upon completion, students should be able to demonstrate competence in the use of creative processes directed toward the development of expressive form.

ART-241 Painting II 0 6 0 3

Requisites: Take ART-240; Take previously. Required.

This course provides a continuing investigation of the materials, processes, and techniques of painting. Emphasis is placed on the exploration of expressive content using a variety of creative processes. Upon completion, students should be able to demonstrate competence in the expanded use of form and variety.

ART-244 Watercolor 0 6 0 3

Requisites: Take 1 group; Option: Take ENG-080 RED-080; Option: Take DRE-096(S23641); Take previously. Required.

This course introduces basic methods and techniques used in watercolor. Emphasis is placed on application, materials, content, and individual expression. Upon completion, students should be able to demonstrate a variety of traditional and nontraditional concepts used in watercolor media.

ART-281 Sculpture I 0 6 0 3

Requisites: Take 1 group; Option: Take ENG-070(S16349) RED-070(S10648); Option: Take DRE-096(S23641); Take previously. Required.

This course provides an exploration of the creative and technical methods of sculpture with focus on the traditional processes. Emphasis is placed on developing basic skills as they pertain to three-dimensional expression in various media. Upon completion, students should be able to show competence in variety of sculptural approaches.

ART-282 Sculpture II 0 6 0 3

Requisites: Take ART-281(S16229); Take previously. Required.

This course builds on the visual and technical skills learned in ART 281. Emphasis is placed on developing original solutions to sculptural problems in a variety of media. Upon completion, students should be able to express individual ideas using the techniques and materials of sculpture.

ASTRONOMY (AST Prefix)

AST-111 Descriptive Astronomy 3 0 0 3

Requisites: Take 1 group; Option: Take MAT-161(S20916) DMA-010 DMA-020 DMA-030 DMA-040(S23170) DMA-050(S23171); Option: Take MAT-171(S23934) DMA-010 DMA-020 DMA-030 DMA-040(S23170) DMA-050(S23171); Take previously. Required.Take AST-111A; Take either

This course introduces an overall view of modern astronomy. Topics include an overview of the solar system, the sun, stars, galaxies, and the larger universe. Upon completion, students should be able to demonstrate an understanding of the universe around them.

AST-111A Descriptive Astronomy Lab 0 2 0 1

Requisites: Take AST-111; Take either previously or concurrently. Required.Take 1 group; Option: Take MAT-161(S20916) DMA-010 DMA-020 DMA-030 DMA-040(S23170) DMA-050(S23171); Option: Take MAT-171(S23934) DMA-010 DMA-020 DMA-030 DMA-040(S23170) DMA-050

The course is a laboratory to accompany AST 111. Emphasis is placed on laboratory experiences which enhance the materials presented in AST 111 and which provide practical experience. Upon completion, students should be able to demonstrate an understanding of the universe around them.

AST-151 General Astronomy I 3 0 0 3

Requisites: Take DMA-010 DMA-020 DMA-030 DMA-040(S23170) DMA-050(S23171); Take previously. Required.Take AST-151A; Take concurrently. Required.Take 1 group; Option: Take MAT-143(S23945); Minimum grade C; Option: Take MAT-171(S23934);

This course introduces the science of modern astronomy with a concentration on the solar system. Emphasis is placed on the history and physics of astronomy and an introduction to the solar system, including the planets, comets, and meteors. Upon completion, students should be able to demonstrate a general understanding of the solar system.

AST-151A General Astronomy I Lab 0 2 0 1

Requisites: Take AST-151; Take either previously or concurrently. Required.Take DMA-010 DMA-020 DMA-030 DMA-040(S23170) DMA-050(S23171); Take previously. Required.Take 1 group; Option: Take MAT-143(S23945); Minimum grade C; Option: Take MAT-171(S23934); Minimum grade C

The course is a laboratory to accompany AST 151. Emphasis is placed on laboratory experiences which enhance the materials presented in AST 151 and which provide practical experience. Upon completion, students should be able to demonstrate a general understanding of the solar system.

AST-152A General Astronomy II Lab 0 2 0 1

Requisites: Take AST-151; Take previously. Required.Take AST-151 AST-151A; Take previously. Required.Take AST-152; Take either previously or concurrently. Required.Take AST-152; Take concurrently. Required.

The course is a laboratory to accompany AST 152. Emphasis is placed on laboratory experiences which enhance the materials presented in AST 152 and which provide practical experience. Upon completion, students should be able to demonstrate a working knowledge of astronomy.

AUTOMATION AND ROBOTICS (ATR Prefix)

ATR-112 Introduction to Automation 2 3 0 3
Requisites:
This course introduces the basic principles of automated systems and describes the tasks that technicians perform on the job. Topics include the history, development, and current applications of robots and automated systems including their configuration, operation, components, and controls. Upon completion, students should be able to understand the basic concepts of automation and robotic systems.

ATR-214 Advanced PLCs 3 3 0 4
Requisites: Take ELC-128(S23522) or ELN-260(S21655); Take previously. Required.
This course introduces the study of high-level programming languages and advanced I/O modules. Topics include advanced programming languages; system networking; computer interfacing; analog and other intelligent I/O modules; and system troubleshooting. Upon completion, students should be able to write and troubleshoot systems using high-level languages and complex I/O modules.

ATR-215 Sensors and Transducers 2 3 0 3
Requisites:
This course provides the theory and application of sensors typically found in an automated manufacturing system. Topics include physical properties, operating range, and other characteristics of numerous sensors and transducers used to detect temperature, pressure, position, and other desired physical parameters. Upon completion, students should be able to properly interface a sensor to a PLC, PC, or process control system.

AUTOMOTIVE BODY REPAIR (AUB Prefix)

AUB-111 Painting & Refinishing I 2 6 0 4
Requisites:
This course introduces the proper procedures for using automotive refinishing equipment and materials in surface preparation and application. Topics include federal, state, and local regulations, personal safety, refinishing equipment and materials, surface preparation, masking, application techniques, and other related topics. Upon completion, students should be able to identify and use proper equipment and materials in refinishing following accepted industry standards.

AUB-112 Painting & Refinishing II 2 6 0 4
Requisites: Take AUB-111; Take previously. Required.
This course covers advanced painting techniques and technologies with an emphasis on identifying problems encountered by the refinishing technician. Topics include materials application, color matching, correction of refinishing problems, and other related topics. Upon completion, students should be able to perform spot, panel, and overall refinishing repairs and identify and correct refinish problems.

AUB-121 Non-Structural Damage I 1 4 0 3
Requisites:
This course introduces safety, tools, and the basic fundamentals of body repair. Topics include shop safety, damage analysis, tools and equipment, repair techniques, materials selection, materials usage, and other related topics. Upon completion, students should be able to identify and repair minor direct and indirect damage including removal/repairing/replacing of body panels to accepted standards.

AUB-122 Non-Structural Damage II 2 6 0 4
Requisites:
This course covers safety, tools, and advanced body repair. Topics include shop safety, damage analysis, tools and equipment, advanced repair techniques, materials selection, materials usage, movable glass, and other related topics. Upon completion, students should be able to identify and repair or replace direct and indirect damage to accepted standards including movable glass and hardware.

AUB-131 Structural Damage I 2 4 0 4
Requisites:
This course introduces safety, equipment, structural damage analysis, and damage repairs. Topics include shop safety, design and construction, structural analysis and measurement, equipment, structural glass, repair techniques, and other related topics. Upon completion, students should be able to analyze and perform repairs to a vehicle which has received light/moderate structural damage.

AUB-132 Structural Damage II 2 6 0 4
Requisites: Take AUB-131; Take previously. Required.
This course provides an in-depth study of structural damage analysis and repairs to vehicles that have received moderate to heavy structural damage. Topics include shop safety, structural analysis and measurement, equipment, structural glass, advanced repair techniques, structural component replacement and alignment, and other related topics. Upon completion, students should be able to analyze and perform repairs according to industry standards.

AUB-136 Plastics & Adhesives 1 4 0 3
Requisites:
This course covers safety, plastic and adhesive identification, and the various repair methods of automotive plastic components. Topics include safety, identification, preparation, material selection, and the various repair procedures including refinishing. Upon completion, students should be able to identify, remove, repair, and/or replace automotive plastic components in accordance with industry standards.

AUB-150 Automotive Detailing 1 3 0 2
Requisites:
This course covers the methods and procedures used in automotive detailing facilities. Topics include safety, engine, interior and trunk compartment detailing, buffing/polishing exterior surfaces, and cleaning and reconditioning exterior trim, fabrics, and surfaces. Upon completion, students should be able to improve the overall appearance of a vehicle.

AUB-162 Autobody Estimating 1 2 0 2
Requisites:
This course provides a comprehensive study of autobody estimating. Topics include collision damage analysis, industry regulations, flat-rate and estimated time, and collision estimating manuals. Upon completion, students should be able to prepare and interpret a damage report.

AUTOMOTIVE (AUT Prefix)

AUT-114 Safety and Emissions 1 2 0 2
Requisites: Take AUT-141(S21690) AUT-141A AUT-151(S21692) AUT-151A; Take previously. Required.
This course covers the laws, procedures, and specifications needed to perform a North Carolina State Safety and Emissions inspection. Topics include brake, steering and suspension, lighting, horn, windshield wiper, tire, mirrors, and emission control devices inspection. Upon completion, students should be able to perform complete and thorough North Carolina State Safety and Emissions inspections.

AUT-116 Engine Repair 2 3 0 3
Requisites: Take AUT-116A; Take either previously or concurrently. Recommended.
This course covers the theory, construction, inspection, diagnosis, and repair of internal combustion engines and related systems. Topics include fundamental operating principles of engines and diagnosis, inspection, adjustment,

and repair of automotive engines using appropriate service information. Upon completion, students should be able to perform basic diagnosis, measurement and repair of automotive engines using appropriate tools, equipment, procedures, and service information.

AUT-116A Engine Repair Lab 0 3 0 1
Requisites: Take AUT-116(S21687); Take either previously or concurrently. Required.
This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include diagnosis, inspection, adjustment, and repair of automotive engines using appropriate service information. Upon completion, students should be able to perform basic diagnosis, measurement and repair of automotive engines using appropriate tools, equipment, procedures, and service information.

AUT-123 Powertrain Diagnosis & Service 1 3 0 2
Requisites: Take AUT-116(S21687) AUT-116A; Take either previously or concurrently. Recommended.
This course covers the diagnosis, repair and service of the vehicle powertrain and related systems. Topics include fundamental operating principles of engines and transmissions and use of proper service procedures for diagnosis, service and removal and replacement of major components. Upon completion, students should be able to perform basic service and diagnosis of the powertrain and related systems, and to perform in vehicle repairs and remove and replace components.

AUT-141 Suspension & Steering Systems 2 3 0 3
Requisites: Take AUT-141A AUT-151(S21692) AUT-151A; Take concurrently. Required.
This course covers principles of operation, types, and diagnosis/repair of suspension and steering systems to include steering geometry. Topics include manual and power steering systems and standard and electronically controlled suspension and steering systems. Upon completion, students should be able to service and repair steering and suspension components, check and adjust alignment angles, repair tires, and balance wheels.

AUT-151 Brake Systems 2 3 0 3
Requisites: Take AUT-141(S21690) AUT-141A AUT-151A; Take either previously or concurrently. Recommended.
This course covers principles of operation and types, diagnosis, service, and repair of brake systems. Topics include drum and disc brakes involving hydraulic, vacuum boost, hydra-boost, electrically powered boost, and anti-lock and parking brake systems. Upon completion, students should be able to diagnose, service, and repair various automotive braking systems.

AUT-151A Brakes Systems Lab 0 3 0 1
Requisites: Take AUT-151(S21692); Take either previously or concurrently. Required.
This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include drum and disc brakes involving hydraulic, vacuum-boost, hydra-boost, electrically powered boost, and anti-lock, parking brake systems and emerging brake systems technologies. Upon completion, students should be able to diagnose, service, and repair various automotive braking systems.

AUT-181 Engine Performance 1 2 3 0 3
Requisites: Take AUT-181A; Take concurrently. Required.
This course covers the introduction, theory of operation, and basic diagnostic procedures required to restore engine performance to vehicles equipped with complex engine control systems. Topics include an overview of engine operation, ignition components and systems, fuel delivery, injection components and systems and emission control devices. Upon completion, students should be able to describe operation and diagnose/repair basic ignition, fuel and emission related driveability problems using appropriate test equipment/service information.

AUT-181A Engine Performance 1 Lab 0 3 0 1
Requisites: Take AUT-181(S21701); Take either previously or concurrently. Required.
This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include overviews of engine operation, ignition components and systems, fuel delivery, injection components and systems and emission control devices and emerging engine performance technologies. Upon

completion, students should be able to describe operation and diagnose/repair basic ignition, fuel and emission related driveability problems using appropriate test equipment/service information.

AUT-183 Engine Performance 2 2 6 0 4

Requisites: Take AUT-181(S21701); Take previously. Required.Take AUT-141(S21690) AUT-141A AUT-151(S21692) AUT-151A AUT-281(S21713) AUT-181(S21701); Take previously. Required.Take AUT-221(S21707) AUT-221A; Take either previously or concurrently. Required

This course covers study of the electronic engine control systems, the diagnostic process used to locate engine performance concerns, and procedures used to restore normal operation. Topics will include currently used fuels and fuel systems, exhaust gas analysis, emission control components and systems, OBD II (on-board diagnostics) and inter-related electrical/electronic systems. Upon completion, students should be able to diagnose and repair complex engine performance concerns using appropriate test equipment and service information.

AUT-213 Automotive Servicing 2 1 3 0 2

Requisites: Take AUT-116(S21687) AUT-116A TRN-120 TRN-120A; Take previously. Required.

This course is a lab used as an alternative to co-op placement. Emphasis is placed on shop operations, troubleshooting, testing, adjusting, repairing, and replacing components using appropriate test equipment and service information. Upon completion, students should be able to perform a variety of automotive repairs using proper service procedures and to operate appropriate equipment.

AUT-221A Automatic Transmissions/Transaxles Lab 0 3 0 1

Requisites: Take AUT-221(S21707); Take either previously or concurrently. Required.

This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include hydraulic, pneumatic, mechanical, and electrical/electronic operation of automatic drive trains and the use of appropriate service tools and equipment. Upon completion, students should be able to diagnose and repair automatic drive trains.

AUT-231 Manual Transmissions/Transaxles/Drive Trains 2 3 0 3

Requisites:

This course covers the operation, diagnosis, and repair of manual transmissions/transaxles, clutches, driveshafts, axles, and final drives. Topics include theory of torque, power flow, and manual drive train servicing and repair using appropriate service information, tools, and equipment. Upon completion, students should be able to explain operational theory, diagnose and repair manual drive trains.

AUT-231A Manual Transmissions/Transaxles/Drive Trains Lab 0 3 0 1

Requisites: Take AUT-231(S21711); Take either previously or concurrently. Required.

This course is an optional lab for the program that needs to meet NATEF hour standards but does not have a co-op component in the program. Topics include manual drive train diagnosis, service and repair using appropriate service information, tools, and equipment. Upon completion, students should be able to diagose and repair manual drive trains.

AUT-281 Advanced Engine Performance 2 2 0 3

Requisites: Take AUT-181(S21701) TRN-120 TRN-120A; Take previously. Required.

This course utilizes service information and specialized test equipment to diagnose and repair power train control systems. Topics include computerized ignition, fuel and emission systems, related diagnostic tools and equipment, data communication networks, and service information. Upon completion, students should be able to perform diagnosis and repair.

BAKING AND FINANCE (BAF Prefix)

BAF-143 Financial Planning 3 0 0 3
Requisites:
This course covers the perspectives, principles, and practices of financial planning. Topics include investment, retirement, tax, and estate planning. Upon completion, students should be able to understand the process that looks at a customer's financial picture and recommend strategies to achieve the customer's objectives.

BAF-235 Analyzing Financial Statements 3 0 0 3
Requisites: Take ACC-120(S10290); Take previously. Required.
This course provides practice in constructing and analyzing long-range, multiple-year forecasts of income statements and balance sheets, and cash budgets. Topics include trend, ratio, common size, comparative analysis, programs, projections, and cash budgets. Upon completion, students should be able to analyze income statements, balance sheets, and pro forma statements.

BUSINESS ANALYTICS (BAS Prefix)

BAS-121 Data Visualization 2 3 0 3
Requisites: Take BAS-120(S24318); Take previously. Required.
This course introduces key concepts in data visualization and reporting. Topics include concepts and methods used in graphical representation of data, exploration and reporting of data, and basic linear regression methods. Upon completion, students should be able to effectively use graphical tools to communicate insights about data.

BAS-150 Introduction to Analytical Programming 2 3 0 3
Requisites: Take DRE-098(S23643) DMA-050(S23171); Take previously. Required.
This course introduces statistical software for analytics. Topics include utilization of analytical and statistical software packages for data management, data visualization, and exploratory data analysis. Upon completion, students should be able to use statistical programming tools to conduct descriptive analytics.

BAS-220 Applied Analytical Programming 2 3 0 3
Requisites: Take BAS-150(S24320); Take previously. Required.
This course covers applications of statistical software for data management and reporting. Topics include data management, data preprocessing, and modeling including linear and logistic regression analysis using programming tools. Upon completion, students should be able to process data and generate reports that support business decision-making.

BAS-221 Introduction to Predictive Analytics 2 3 0 3
Requisites: Take BAS-121(S24319) BAS-220(S24321); Take previously. Required.
This course introduces foundations of predictive analytics. Topics include basic predictive modeling methods for both classification and regression tasks. Upon completion, students should be able to build and validate predictive models.

BAS-230 Applied Predictive Modeling 2 3 0 3
Requisites: Take BAS-221(S24322); Take previously. Required.
This course covers advanced applications of predictive models. Topics include the advanced use of classification and regression models in real-world scenarios. Upon completion, students should be able to utilize their knowledge and skills in predictive analytics to independently guide decision makers.

BAS-240 Data Structures for Analytics 2 3 0 3
Requisites: Take BAS-121(S24319) BAS-220(S24321); Take previously. Required.
This course is designed to enhance student proficiency in data management skills for analytics applications. Topics include techniques and methods for identification, extraction, and preparation of data for processing with analytical software. Upon completion, students should be able to demonstrate the skills necessary to effectively organize and combine different data sources for analytic applications.

BAS-270 Advanced Analytical Tools and Methods 2 3 0 3

Requisites: Take BAS-221(S24322) BAS-240; Take previously. Required.Take BAS-250(S24331); Take previously. Required.

This course covers the planning and execution of an analytics project that integrates the analytical knowledge and skills acquired through prior coursework. Students will define and carry out an analytics project from inception to final reporting. Upon completion, students should be able to demonstrate their ability to apply analytic methods and best practices in a simulated business setting.

BUILDING AUTOMATION SYSTEMS (BAT Prefix)

BAT-111 Building Automation Systems 1 3 0 2

Requisites:

This course introduces the issues involved with building automation systems (BAS). Topics include digital direct control (DDC), field devices, human machine interface (HMI), BAS design and specification, energy conservation control strategies, and system maintenance. Upon completion, students should identify and describe the major components in a BAS, explain the basic functions of DDC systems and HMI basics, reference codes and standards applicable to BAS, and justify control components for project work.

BAT-117 Principles of Heat and Fluids in Building Automation Technology 3 0 0 3

Requisites:

This course introduces the principles of thermodynamics and fluid dynamics relative to building energy systems. Topics include thermodynamics, fluid dynamics, psychrometrics, principles of refrigeration, and building thermal loads. Upon completion, students should be able to apply thermal and fluid power laws and principles relative to building energy applications.

BAT-212 Building Automation Technology Logic and Programming 2 3 0 3

Requisites:

This course covers the concepts of logic and programming as applied to building automation system technology. Topics include logic expressions, number systems, programming basics, program constructs, data types, programming languages, and programming principles. Upon completion, students should be able to modify and debug building automation system software at the introductory level.

BAT-221 Building Automation Systems Networking 2 3 0 3

Requisites: Take BAT-111; Take previously. Required.

This course covers the fundamentals of common building automation system (BAS) networks. Topics include the fundamentals, standards, protocols, topologies, and benefits of various BAS networks. Upon completion, students should be able to install network hardware and software and diagnose common BAS network problems.

BIOLOGY (BIO Prefix)

BIO-106 Intro to Anatomy/Physiology/Microbiology 2 2 0 3

Requisites:

This course covers the fundamental and principle concepts of human anatomy and physiology and microbiology. Topics include an introduction to the structure and function of cells, tissues, and human organ systems, and an overview of microbiology, epidemiology, and control of microorganisms. Upon completion, students should be able to identify structures and functions of the human body and describe microorganisms and their significance in health and disease.

BIO-111 General Biology I 3 3 0 4

Requisites: Take 1 group; Option: Take DMA-010 DMA-020 DMA-030 DMA-040(S23170) DMA-050(S23171) ENG-111(S24022); Option: Take DMA-010 DMA-020 DMA-030 DMA-040(S23170) DMA-050(S23171) DRE-098(S23643); Take previously. Required.

This course introduces the principles and concepts of biology. Emphasis is placed on basic biological chemistry, molecular and cellular biology, metabolism and energy transformation, genetics, evolution, and other related topics.

Upon completion, students should be able to demonstrate understanding of life at the molecular and cellular levels. This course is the first in a two-semester series intended for science majors.

BIO-112 General Biology II 3 3 0 4
Requisites: Take BIO-111(S24020); Take previously. Required.Take BIO-111(S24020); Minimum grade C; Take previously. Required.
This course is a continuation of BIO 111. Emphasis is placed on organisms, evolution, biodiversity, plant and animal systems, ecology, and other related topics. Upon completion, students should be able to demonstrate comprehension of life at the organismal and ecological levels. This course is the second in a two-semester series intended for science majors.

BIO-120 Introductory Botany 3 3 0 4
Requisites: Take BIO-110(S13284) or BIO-111(S13307); Take previously. Required.
This course provides an introduction to the classification, relationships, structure, and function of plants. Topics include reproduction and development of seed and non-seed plants, levels of organization, form and function of systems, and a survey of major taxa. Upon completion, students should be able to demonstrate comprehension of plant form and function, including selected taxa of both seed and non-seed plants. Laboratory exercises are correlated with lecture topics.

BIO-130 Introductory Zoology 3 3 0 4
Requisites: Take BIO-110(S13284) or BIO-111(S13307); Take previously. Required.
This course provides an introduction to the classification, relationships, structure, and function of major animal phyla. Emphasis is placed on levels of organization, reproduction and development, comparative systems, and a survey of selected phyla. Upon completion, students should be able to demonstrate comprehension of animal form and function including comparative systems of selected groups. The evolutionary relatedness of the organisms studied will be emphasized.

BIO-140 Environmental Biology 3 0 0 3
Requisites:
This course introduces environmental processes and the influence of human activities upon them. Topics include ecological concepts, population growth, natural resources, and a focus on current environmental problems from scientific, social, political, and economic perspectives. Upon completion, students should be able to demonstrate an understanding of environmental interrelationships and of contemporary environmental issues. Individual actions as part of the solution to regional environmental problems is stressed.

BIO-140A Environmental Biology Lab 0 3 0 1
Requisites: Take BIO-140; Take either previously or concurrently. Required.
This course provides a laboratory component to complement BIO 140. Emphasis is placed on laboratory and field experience. Upon completion, students should be able to demonstrate a practical understanding of environmental interrelationships and of contemporary environmental issues. Environmentally responsible behavior at the individual level is investigated.

BIO-150 Genetics in Human Affairs 3 0 0 3
Requisites: Take BIO-110(S13284) or BIO-111(S13307); Take previously. Required.
This course describes the importance of genetics in everyday life. Topics include the role of genetics in human development, birth defects, cancer and chemical exposure, and current issues including genetic engineering and fertilization methods. Upon completion, students should be able to understand the relationship of genetics to society today and its possible influence on our future. Through the analysis of current topics in genetics , students will develop skills in reading scientific articles and in compiling information into written an oral communications.

BIO-155 Nutrition 3 0 0 3
Requisites: Take CHM-090 or CHM-092; Take previously. Required.
This course covers the biochemistry of foods and nutrients with consideration of the physiological effects of specialized diets for specific biological needs. Topics include cultural, religious, and economic factors that influence a

person's acceptance of food, as well as nutrient requirements of the various life stages. Upon completion, students should be able to identify the functions and sources of nutrients, the mechanisms of digestion, and the nutritional requirements of all age groups.

BIO-161 Introduction to Human Biology 3 0 0 3

Requisites:

This course provides a basic survey of human biology. Emphasis is placed on the basic structure and function of body systems and the medical terminology used to describe normal and pathological states. Upon completion, students should be able to demonstrate an understanding of normal anatomy and physiology and the appropriate use of medical terminology.

BIO-163 Basic Anatomy & Physiology 4 2 0 5

Requisites: Take 1 group; Option: Take DRE-098(S23643) CHM-090; Option: Take DRE-098(S23643) CHM-130; Take previously. Required.

This course provides a basic study of the structure and function of the human body. Topics include a basic study of the body systems as well as an introduction to homeostasis, cells, tissues, nutrition, acid-base balance, and electrolytes. Upon completion, students should be able to demonstrate a basic understanding of the fundamental principles of anatomy and physiology and their interrelationships.

BIO-165 Anatomy and Physiology I 3 3 0 4

Requisites: Take CHM-090; Take previously. Required.

This course is the first of a two-course sequence which provides a comprehensive study of the anatomy and physiology of the human body. Topics include the structure, function, and interrelationship of organ systems with emphasis on the processes which maintain homeostasis. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships.

BIO-166 Anatomy and Physiology II 3 3 0 4

Requisites: Take BIO-165; Take previously. Required.

This course is the second in a two-course sequence which provides a comprehensive study of the anatomy and physiology of the human body. Topics include the structure, function, and interrelationship of organ systems with emphasis on the processes which maintain homeostasis. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and the interrelationships of all body systems.

BIO-169 Anatomy and Physiology II 3 3 0 4

Requisites: Take BIO-168(S11555); Take previously. Required.Take BIO-168(S11555); Minimum grade C; Take previously. Required.

This course provides a continuation of the comprehensive study of the anatomy and physiology of the human body. Topics include the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems as well as metabolism, nutrition, acid-base balance, and fluid and electrolyte balance. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships. Laboratory exercises will include investigation of structural and functional aspects of the indicated organ systems.

BIO-175 General Microbiology 2 2 0 3

Requisites: Take BIO-110(S13284) BIO-111(S13307) BIO-163 BIO-165 or BIO-168(S11555); Take previously. Required.Take BIO-110(S24019) BIO-111(S24020) BIO-163 BIO-165 or BIO-168(S11555); Minimum grade C; Take previously. Required.

This course covers principles of microbiology with emphasis on microorganisms and human disease. Topics include an overview of microbiology and aspects of medical microbiology, identification and control of pathogens, disease transmission, host resistance, and immunity. Upon completion, students should be able to demonstrate knowledge of microorganisms and the disease process as well as aseptic and sterile techniques.

BIO-230 Entomology 3 3 0 4

Requisites: Take BIO-112(S13261); Take previously. Required.

This course covers the biology of insects. Topics include harmful and beneficial insects, their identification, classification, life cycles, behavior, distribution, economic importance, and the methods involved in collection and preservation. Upon completion, students should be able to identify common insects and describe their biology and ecology.

BIO-242 Natural Resource Conservation 3 0 0 3

Requisites: Take 1 group; Option: Take BIO-112(S13261); Option: Take BIO-140 BIO-140A; Take previously. Required.

This course covers the importance of natural resources and their role in our environment. Emphasis is placed on the physical, biological, and ecological principles underlying natural resource conservation with attention to the biological consequences of human impacts. Upon completion, students should be able to demonstrate an understanding of natural resource conservation. Local environmental issues dealing with resource conservation are emphasized.

BIO-243 Marine Biology 3 3 0 4

Requisites: Take BIO-110(S13284) or BIO-111(S13307); Take previously. Required.

This course covers the physical and biological components of the marine environment. Topics include major habitats, the diversity of organisms, their biology and ecology, marine productivity, and the use of marine resources by humans. Upon completion, students should be able to identify various marine habitats and organisms and to demonstrate a knowledge of their biology and ecology.

BIO-250 Genetics 3 3 0 4

Requisites: Take BIO-112(S13261); Take previously. Required.

This course covers principles of prokaryotic and eukaryotic cell genetics. Emphasis is placed on the molecular basis of heredity, chromosome structure, patterns of Mendelian and non-Mendelian inheritance, evolution, and biotechnological applications. Upon completion, students should be able to recognize and describe genetic phenomena and demonstrate knowledge of important genetic principles.

BIO-275 Microbiology 3 3 0 4

Requisites: Take 1 group; Option: Take BIO-110(S13284); Option: Take BIO-111(S13307); Option: Take BIO-163; Option: Take BIO-165; Option: Take BIO-168(S11555); Take previously. Required.Take BIO-110(S13284) BIO-111(S13307) BIO-163 BIO-1

This course covers principles of microbiology and the impact these organisms have on man and the environment. Topics include the various groups of microorganisms, their structure, physiology, genetics, microbial pathogenicity, infectious diseases, immunology, and selected practical applications. Upon completion, students should be able to demonstrate knowledge and skills including microscopy, aseptic technique, staining, culture methods, and identification of microorganisms.

BAKING AND PASTRY ARTS (BPA Prefix)

BPA-120 Petit Fours and Pastries 1 4 0 3

Requisites: Take CUL-110(S11030) CUL-160(S13015); Take previously. Required.Take CUL-110(S22835) CUL-160(S22847); Take either previously or concurrently. Required.

This course introduces the basic principles of the preparation and plating of a variety of petit fours and individual dessert pastries. Emphasis is placed on traditional and contemporary petit fours and pastries utilizing updated production methods. Upon completion, students should be able to produce individual pastries and petit fours for buffet and special event settings.

BPA-130 European Cakes and Tortes 1 4 0 3

Requisites: Take CUL-110(S11030) CUL-160(S13015); Take previously. Required.Take CUL-110(S22835) CUL-160(S22847) CUL-260(S22857); Take previously. Required.

This course introduces the production of a wide variety of classical and modern cakes suitable for restaurants, retail shops and large-scale production. Emphasis is placed on classic cakes using the methods of mixing, filling, glazing

and icing. Upon completion, students should be able to prepare, assemble, and decorate gelatin-based and layered tortes and cakes such as Bavarian, Dobos, and Sacher.

BPA-150 Artisan & Specialty Bread 1 6 0 4
Requisites: Take CUL-110(S11030) CUL-160(S13015); Take previously. Required.Take CUL-110(S22835) CUL-160(S22847); Take previously. Required.
This course provides an advanced study in the art and craft of bread making. Topics include pertinent formulas and techniques associated with naturally leavened loaves, hearth breads, focaccia, flat breads, and other breads utilizing a variety of grains. Upon completion, students should be able to prepare artisan and specialty breads that meet or exceed the expectations of restaurant and retail publics.

BPA-165 Hot and Cold Desserts 1 4 0 3
Requisites: Take CUL-110(S11030) CUL-160(S13015); Take previously. Required.
This course covers the principles and techniques of frozen desserts, soufflés, cobblers, crisps, and strudel dough products. Topics include bombes, parfaits, baked Alaska, ice cream, sorbets, sherbets and granites; hand-stretched strudel products, crepes, and hot/cold soufflés. Upon completion, student should be able to prepare and plate hot and cold desserts with suitable sauces and garnishes.

BPA-210 Cake Design and Decorating 1 4 0 3
Requisites: Take CUL-110(S11030) CUL-160(S13015); Take previously. Required.Take CUL-110(S22835) CUL-160(S22847); Take previously. Required.
This course covers advanced concepts in the design and decoration of wedding cakes and other specialty cakes. Topics include baking, filling, and assembling cakes; cake design; finishing techniques utilizing gum paste, fondant, and royal icing; and advanced piping skills. Upon completion, students should be able to design, create, finish and evaluate the quality of wedding and specialty cakes.

BPA-230 Chocolate Artistry 1 4 0 3
Requisites: Take CUL-110(S11030) CUL-160(S13015); Take previously. Required.Take CUL-110(S22835) CUL-160(S22847); Take previously. Required.Take BPA-230A; Take either previously or concurrently. Required.
This course provides a study in the art and craft of chocolate. Topics include chocolate tempering, piping, and molding; decorative work associated with cakes and centerpieces; and the candy production techniques of filling, enrobing and dipping. Upon completion, students should be able to properly evaluate tempered chocolate and produce a variety of chocolate candies and decorative elements for garnishing desserts.

BPA-230A Chocolate Artistry Lab 0 2 0 1
Requisites: Take CUL-110(S11030) CUL-160(S13015); Take previously. Required.Take BPA-230(S20766); Take either previously or concurrently. Required.Take CUL-110(S22835) CUL-160(S22847); Take previously. Required.
This course provides a laboratory experience for enhancing student skills in the art and craft of chocolate. Emphasis is placed on chocolate tempering, piping, and molding; decorative work associated with cakes and centerpieces; and candy production techniques of filling, enrobing and dipping. Upon completion, students should be able to demonstrate a basic proficiency in the preparation of decorative chocolate centerpieces, garnishes and candies.

BPA-240 Plated Desserts 1 4 0 3
Requisites: Take CUL-110(S11030) CUL-160(S13015); Take previously. Required.Take CUL-110(S22835) CUL-160(S22847) CUL-260(S22857); Take previously. Required.
This course provides a study in the elements and principles of design as they relate to plated desserts. Topics include plate composition, portioning, flavor pairings, textures, temperatures, eye appeal, balance, color harmony and plate decorating/painting techniques such as stenciling and chocolate striping. Upon completion, students should be able to demonstrate competence in combining a variety of dessert components enhanced with plate decorating techniques.

BPA-250 Dessert and Bread Production 1 8 0 5
Requisites: Take BPA-150; Take previously. Required.Take CUL-110(S22835) CUL-160(S22847) BPA-150

BPA-210(S22830); Take previously. Required.
This course is designed to merge artistry and innovation with the practical baking and pastry techniques utilized in a production setting. Emphasis is placed on quantity bread and roll-in dough production, plated and platter presentations, seasonal/theme product utilization and cost effectiveness. Upon completion, students should be able to plan, prepare and evaluate breads and desserts within a commercial environment and determine production costs and selling prices.

BPA-260 Pastry and Baking Marketing 2 2 0 3
Requisites: Take BPA-150 BPA-210(S22830); Take previously. Required.Take BPA-250(S22833); Take either previously or concurrently. Required.Take BPA-150 BPA-210(S22830); Take previously. Required.
This course is designed to cover the marketing concepts and merchandising trends utilized in bakery and pastry operations. Emphasis is placed on menu planning, pricing products/strategies, resale and wholesale distribution methods, legal implications, and advertising techniques. Upon completion, students should be able to create a marketing plan that will serve as a basis for a capstone experience.

BIOPROCESSING MFG TEC (BPM Prefix)

BPM-110 Bioprocess Practices 3 4 0 5
Requisites:
This course provides a study of plant operations including various plant utility systems and detailed study of the varied plant environments in a bioprocessing facility. Emphasis is placed on quality mindset and principles of validation through applications of monitoring procedures. Upon completion, students should be able to demonstrate the rigors of industry regulation and its necessity.

BLUEPRINT READING (BPR Prefix)

BPR-130 Print Reading-Construction 3 0 0 3
Requisites:
This course covers the interpretation of prints and specifications that are associated with design and construction projects. Topics include interpretation of documents for foundations, floor plans, elevations, and related topics. Upon completion, students should be able to read and interpret construction prints and documents.

BPR-230 Commercial Blueprints 1 2 0 2
Requisites: Take BPR-130(S11505); Take previously. Required.
This course covers blueprints specific to commercial structures and requires basic blueprint reading skills and/or a commercial construction background. Topics include site, structural, mechanical, electrical, and plumbing blueprints and specifications. Upon completion, students should be able to interpret commercial blueprints and specifications.

BUSINESS (BUS Prefix)

BUS-110 Introduction to Business 3 0 0 3
Requisites:
This course provides a survey of the business world. Topics include the basic principles and practices of contemporary business. Upon completion, students should be able to demonstrate an understanding of business concepts as a foundation for studying other business subjects.

BUS-115 Business Law I 3 0 0 3
Requisites:
This course introduces the student to the legal and ethical framework of business. Contracts, negotiable instruments, the law of sales, torts, crimes, constitutional law, the Uniform Commercial Code, and the court systems are examined. Upon completion the student should be able to identify legal and ethical issues that arise in business decisions and the laws that apply to them.

BUS-116 Business Law II 3 0 0 3

Requisites: Take BUS-115(S24153); Take previously. Required.

This course includes the study of the legal and ethical framework of business. Business Organizations, property law, intellectual property law, agency and employment law, consumer law, secured transactions, and bankruptcy are examined. Upon completion, the student should be able to identify legal and ethical issues that arise in business decisions and the laws that apply to them.

BUS-121 Business Math 2 2 0 3

Requisites:

This course covers fundamental mathematical operations and their application to business problems. Topics include payroll, pricing, interest and discount, commission, taxes, and other pertinent uses of mathematics in the field of business. Upon completion, students should be able to apply mathematical concepts to business.

BUS-137 Principles of Management 3 0 0 3

Requisites:

This course is designed to be an overview of the major functions of management. Emphasis is placed on planning, organizing, controlling, directing, and communicating. Upon completion, students should be able to work as contributing members of a team utilizing these functions of management.

BUS-139 Entrepreneurship I 3 0 0 3

Requisites:

This course provides an introduction to the principles of entrepreneurship. Topics include self-analysis of entrepreneurship readiness, the role of entrepreneur in economic development, legal problems, organizational structure, sources of financing, budgeting, and cash flow. Upon completion, students should have an understanding of the entrepreneurial process and issues faced by entrepreneurs.

BUS-148 Survey of Real Estate 3 0 0 3

Requisites:

This course introduces real estate principles and practices. Topics include real estate finance, real estate law, brokerage, land use planning, property management, and valuation. Upon completion, students should be able to explain basic procedures involved in the lease, purchase, and sale of real property.

BUS-151 People Skills 3 0 0 3

Requisites:

This course introduces the basic concepts of identity and communication in the business setting. Topics include self-concept, values, communication styles, feelings and emotions, roles versus relationships, and basic assertiveness, listening, and conflict resolution. Upon completion, students should be able to distinguish between unhealthy, self-destructive, communication patterns and healthy, non-destructive, positive communication patterns.

BUS-152 Human Relations 3 0 0 3

Requisites:

This course introduces the concepts of effective human interaction in the business work environment. Topics include effective communication techniques, motivation, ego states, stress, and conflict. Upon completion, students should be able to explain the importance of human relations, apply motivational techniques, and implement strategies for resolving work-related conflicts.

BUS-153 Human Resource Management 3 0 0 3

Requisites:

This course introduces the functions of personnel/human resource management within an organization. Topics include equal opportunity and the legal environment, recruitment and selection, performance appraisal, employee development, compensation planning, and employee relations. Upon completion, students should be able to anticipate and resolve human resource concerns.

BUS-175 Contract Negotiations 3 0 0 3

Requisites:

This course covers theory, strategies, techniques and tactics for negotiating contracts, and principles and practices of negotiations for government, corporate or institutional procurements. Topics include preparation and conduct of negotiations and methods of dealing with situations under different types of negotiations. Upon completion, students should be able to effectively negotiate contracts.

BUS-210 Investment Analysis 3 0 0 3

Requisites: Take ACC-111 or ACC-120(S10290); Take previously. Required.

This course examines the concepts related to financial investment and the fundamentals of managing investments. Emphasis is placed on the securities markets, stocks, bond, and mutual funds, as well as tax implications of investment alternatives. Upon completion, students should be able to analyze and interpret investment alternatives and report findings to users of financial information.

BUS-217 Employment Law and Regulations 3 0 0 3

Requisites:

This course introduces the principle laws and regulations affecting public and private organizations and their employees or prospective employees. Topics include fair employment practices, EEO, affirmative action, and employee rights and protections. Upon completion, students should be able to evaluate organization policy for compliance and assure that decisions are not contrary to law.

BUS-225 Business Finance 2 2 0 3

Requisites: Take ACC-120(S10290); Take previously. Required.

This course provides an overview of business financial management. Emphasis is placed on financial statement analysis, time value of money, management of cash flow, risk and return, and sources of financing. Upon completion, students should be able to interpret and apply the principles of financial management.

BUS-228 Business Statistics 2 2 0 3

Requisites:

This course introduces the use of statistical methods and tools in evaluating research data for business applications. Emphasis is placed on basic probability, measures of spread and dispersion, central tendency, sampling, regression analysis, and inductive inference. Upon completion, students should be able to apply statistical problem solving to business.

BUS-230 Small Business Management 3 0 0 3

Requisites:

This course introduces the challenges of entrepreneurship including the startup and operation of a small business. Topics include market research techniques, feasibility studies, site analysis, financing alternatives, and managerial decision making. Upon completion, students should be able to develop a small business plan.

BUS-239 Business Applications Seminar 1 2 0 2

Requisites: Take 1 group; Option: Take ACC-120(S20278) BUS-115(S11427) BUS-137(S12782) MKT-120(S12573) ECO-151; Option: Take ACC-120(S20278) BUS-115(S11427) BUS-137(S12782) MKT-120(S12573) ECO-251; Option: Take ACC-120(S20278) BUS-115(S11427) BUS-137

This course is designed as a capstone course for Business Administration majors. Emphasis is placed on decision making in the areas of management, marketing, production, purchasing, and finance. Upon completion, students should be able to apply the techniques, processes, and vital professional skills needed in the work place.

BUS-240 Business Ethics 3 0 0 3

Requisites:

Tis course introduces contemporary and controversial ethical issues that face the business community. Topics include moral reasoning, moral dilemmas, law and morality, equity, justice and fairness, ethical standards, and moral development. Upon completion, students should be able to demonstrate an understanding of their moral responsibilities and obligations as members of the workforce and society.

BUS-245 Entrepreneurship II 3 0 0 3

Requisites: Take BUS-139(S21145); Take previously. Required.

This course is designed to allow the student to develop a business plan. Topics include the need for a business plan, sections of the plan, writing the plan, and how to find assistance in preparing the plan. Upon completion, students should be able to design and implement a business plan based on sound entrepreneurship principles.

BUS-253 Leadership and Management Skills 3 0 0 3

Requisites:

This course includes a study of the qualities, behaviors, and personal styles exhibited by leaders. Emphasis is placed on coaching, counseling, team building, and employee involvement. Upon completion, students should be able to identify and exhibit the behaviors needed for organizational effectiveness.

BUS-255 Organizational Behavior in Business 3 0 0 3

Requisites:

This course covers the impact of different management practices and leadership styles on worker satisfaction and morale, organizational effectiveness, productivity, and profitability. Topics include a discussion of formal and informal organizations, group dynamics, motivation, and managing conflict and change. Upon completion, students should be able to analyze different types of interpersonal situations and determine an appropriate course of action.

BUS-256 Recruiting, Selection & Personnel Planning 3 0 0 3

Requisites:

This course introduces the basic principles involved in managing the employment process. Topics include personnel planning, recruiting, interviewing and screening techniques, maintaining employee records; and voluntary and involuntary separations. Upon completion, students should be able to acquire and retain employees who match position requirements and fulfill organizational objectives.

BUS-259 Human Resource Management Applications 3 0 0 3

Requisites: Take BUS-217(S24154) BUS-234(S24155) BUS-256(S24156) BUS-258(S24157); Take previously. Required.

This course provides students in the Human Resource Management concentration the opportunity to reinforce their learning experiences from preceding HRM courses. Emphasis is placed on application of day-to-day HRM functions by completing in-basket exercises and through simulations. Upon completion, students should be able to determine the appropriate actions called for by typical events that affect the status of people at work. This course is a unique concentration requirement of the Human Resources Management concentration in the Business Administration program.

BUS-260 Business Communication 3 0 0 3

Requisites: Take ENG-110(S22173) or ENG-111(S13673); Take previously. Required.

This course is designed to develop skills in writing business communications. Emphasis is placed on business reports, correspondence, and professional presentations. Upon completion, students should be able to communicate effectively in the work place.

BUS-261 Diversity in Management 3 0 0 3

Requisites:

This course is designed to help managers recognize the need to incorporate diversity into all phases of organizational management. Topics include self-evaluation, management, sexual harassment, workforce diversity, dual careers, role conflict, and communication issues. Upon completion, students should be able to implement solutions that minimize policies, attitudes, and stereotypical behaviors that block effective team building.

BUS-280 REAL Small Business 4 0 0 4

Requisites:

This course introduces hands-on techniques and procedures for planning and opening a small business, including the personal qualities needed for entrepreneurship. Emphasis is placed on market research, finance, time management, and day-to-day activities of owning/operating a small business. Upon completion, students should be able to write

and implement a viable business plan and seek funding.

BUS-285 Business Management Issues 2 2 0 3
Requisites: Take BUS-137(S12782); Take previously. Required.
This course covers contemporary issues that affect successful businesses and their managers and employees. Emphasis is placed on using case studies and exercises to develop analytical and problem-solving skills, ethics, quality management concepts, team skills, and effective communication. Upon completion, students should be able to apply the specific knowledge and skills covered to become more effective managers and employees.

CARPENTRY (CAR Prefix)

CAR-140 Basic Carpentry 2 6 0 4
Requisites:
This course covers the basic construction of wood structures, and installation, maintenance, and repair of the many components within these structures. Topics include safe use of tools, implementation of standard practices, appropriate use of materials, and installation/repair of components such as doors, windows, roofing, and siding. Upon completion, students should be able to construct, install/repair wooden structures and components using appropriate tools, materials and standard practices from the carpentry trade.

COMPUTED TOMOGRAPHY (CAT Prefix)

CAT-210A CT Physics & Equipment Lab 0 2 0 1
Requisites:
This course provides the opportunity to apply knowledge gained from classroom instruction to the computed tomography clinical setting. Emphasis is placed on system components and operation, and exposes the student to the clinical applications of the equipment that comprise CT. Upon completion, students should be able to assume a variety of duties and responsibilities within the computed tomography clinical environment.

CAT-211 CT Procedures 4 0 0 4
Requisites:
This course is designed to cover specialized patient care, cross-sectional anatomy, contrast media, and scanning procedures in computed tomography. Emphasis is placed on patient assessment and monitoring, contrast agents' use, radiation safety, methods of data acquisition, and identification of cross-sectional anatomy. Upon completion, students should be able to integrate all facets of the imaging procedures in computed tomography.

CAT-212 CT Sectional-Anatomy 3 0 0 3
Requisites:
This course is designed to cover aspects of cross-sectional anatomy as related to the CT imaging process. Emphasis is placed on the function and identification of anatomical structures within the head, neck, chest, abdomen, pelvis, and musculoskeletal system visualized on CT images. Upon completion, students should be able to integrate all knowledge of cross-sectional anatomy into the routine CT imaging process.

CAT-214 CT Pathology 3 0 0 3
Requisites:
This course is designed to provide a thorough understanding of common diseases diagnosable using CT. Emphasis is placed on the examination and demonstration of each disease or trauma process from its description, etiology, associated symptoms, and diagnosis with appearance on CT. Upon completion, students should be able to identify and define terms associated with pathologies on CT.

CAT-215 CT Procedures 3 0 0 3
Requisites:
This course designed to provide a thorough understanding of CT procedures that include patient care, patient assessment, basic pharmacology, medical ethics and law, and scanning procedures. Emphasis is placed on patient care and assessment as it relates to CT, contrast reaction protocols, proper use, and administration of both oral and

intravenous contrast agents as used in CT. Upon completion, students should be able to understand and demonstrate proper CT procedures, patient care and assessment and proper use of CT contrast agents.

CAT-224 CT Clinical Practicum 0 0 12 4
Requisites:
This course provides the opportunity to apply knowledge gained from classroom instruction to the computed tomography clinical setting. Emphasis is placed on patient care and positioning, scanning procedures, and image production in computed tomography. Upon completion, students should be able to assume a variety of duties and responsibilities within the computed tomography clinical environment.

CAT-227 CT Clinical Practicum 0 0 21 7
Requisites:
This course provides the opportunity to apply knowledge gained from classroom instruction to the computed tomography clinical setting. Emphasis is placed on patient care and positioning, scanning procedures, and image production in computed tomography. Upon completion, students should be able to assume a variety of duties and responsibilities within the computed tomography clinical environment.

CAT-228 CT Clinical Practicum 0 0 24 8
Requisites:
This course provides the opportunity to apply knowledge gained from classroom instruction to the computed tomography clinical setting. Emphasis is placed on patient care and positioning, scanning procedures, and image production in computed tomography. Upon completion, students should be able to assume a variety of duties and responsibilities within the computed tomography clinical environment.

CAT-231 CT Clinical Practicum 0 0 33 11
Requisites:
This course provides the opportunity to apply knowledge gained from classroom instruction to the computed tomography clinical setting. Emphasis is placed on patient care and positioning, scanning procedures, and image production in computed tomography. Upon completion, students should be able to assume a variety of duties and responsibilities within the computed tomography clinical environment.

CAT-261 CT Exam Prep 1 0 0 1
Requisites:
This course is a review of the components specific to CT imaging technology as practiced in didactic and clinical settings. Emphasis is placed on content specifications of the ARRT post primary certification in CT. Upon completion, students should be able to demonstrate an understanding of the topics presented for successful completion of the ARRT post-primary certification exam.

CYBER CRIME TECHNOLOGY (CCT Prefix)

CCT-121 Computer Crime Investigation 3 2 0 4
Requisites: Take 1 group; Option: Take CTI-130(S22512) CTI-120(S22511); Option: Take NOS-110(S20980) CTI-120(S22511); Option: Take NOS-110(S20980) NET-110(S21056); Option: Take NOS-110(S20980) NET-125(S24501); Take previously. Required.
This course introduces the fundamental principles of computer crime investigation processes. Topics include crime scene/incident processing, information gathering techniques, data retrieval, collection and preservation of evidence, preparation of reports and court presentations. Upon completion, students should be able to identify cyber crime activity and demonstrate proper investigative techniques to process the scene and assist in case prosecution.

CCT-240 Data Recovery Techniques 2 3 0 3
Requisites: Take CCT-121; Take previously. Required.
This course introduces the unique skills and methodologies necessary to assist in the investigation and prosecution of cyber crimes. Topics include hardware and software issues, recovering erased files, overcoming encryption, advanced imaging, transient data, Internet issues and testimony considerations. Upon completion, students should

be able to recover digital evidence, extract information for criminal investigation and legally seize criminal evidence.

CCT-251 Network Vulnerabilities II 2 2 0 3
Requisites: Take CCT-250(S21749); Take previously. Required.
This course advances students' knowledge of penetration testing, network vulnerabilities, and hacking. Topics include analyzing advanced techniques for circumventing network security hardware and software. Upon completion, students should be able to assemble test kits for multiple operating systems, scan and footprint networks, and perform advanced forensic investigation.

CIVIL ENGINEERING AND GEOMATIC (CEG Prefix)

CEG-111 Introduction to Gis and Gnss 2 4 0 4
Requisites:
This course introduces the methods and techniques used in the Geographic Information Systems (GIS) and Global Navigation Satellite Systems (GNSS) professions. Emphasis is placed on data collection and mapping using GIS software. Upon completion, students should be able to use GNSS technologies to collect field data and create GIS maps.

CEG-115 Intro to Tech & Sustainability 2 3 0 3
Requisites:
This course introduces basic skills, sustainability concepts and career fields for technicians. Topics include career options, technical vocabulary, dimensional analysis, measurement systems, engineering graphics, professional ethics, and related topics. Upon completion, students should be able to identify drawing elements and create sketches, perform basic engineering computations and identify measures of sustainable development.

CEG-115A Technology and Sustainability Lab 0 3 0 1
Requisites: Take CEG-115; Take either previously or concurrently. Recommended.
This course provides a lab experience that requires students to apply principles of sustainable development and engineering computations, measurement, and drawing to hands-on activities and in actual settings. Emphasis is placed on basic engineering technology and sustainable development topics. Upon completion, students should be able to recognize appropriate technologies for particular projects and scenarios.

CEG-151 Cad for Engineering Technology 2 3 0 3
Requisites:
This course introduces computer-aided drafting (CAD) software. Topics include file and data management, drawing, editing, dimensioning commands, plotting, and related topics. Upon completion, students should be able to create and plot basic drawings and maps using CAD software.

CEG-210 Construction Materials & Methods 2 3 0 3
Requisites: Take CEG-115 or EGR-115(S20666); Take previously. Required.
This course covers the behavior and properties of Portland cement, asphaltic concretes, and other construction materials, including construction methods and equipment. Topics include cementing agents, aggregates, water and admixture materials with their proportions, production, placement, consolidation, curing; and their inspection. Upon completion, students should be able to proportion Portland concrete mixes to attain predetermined strengths, perform standard control tests on Portland cement concrete, identify inspection criteria for concretes, identify construction equipment and applications.

CEG-211 Hydrology & Erosion Control 2 3 0 3
Requisites: Take 1 group; Option: Take MAT-121(S24993); Option: Take MAT-171(S24997); Option: Take DMA-060(S24985) DMA-070(S24987) DMA-080(S24988); Option: Take DMA-065(S24986); Take previously. Required.Take 1 group; Option: Take MAT-1
This course introduces basic engineering principles and characteristics of hydrology, erosion and sediment control. Topics include stormwater runoff, gravity pipe flow, open channel flow, low impact development (LID), erosion control devices and practices. Upon completion, students should be able to analyze and design gravitational drainage

structures, identify LID and erosion control elements, and prepare a stormwater drainage plan.

CEG-212 Introduction to Environmental Technology 2 3 0 3
Requisites: Take EGR-250(S23538) EGR-251 or MEC-210(S20669); Take previously. Required.Take 1 group; Option: Take EGR-250(S23987) CEG-115 or EGR-115(S20666); Option: Take EGR-251 CEG-115 or EGR-115(S20666); Option: Take MEC-210(S20669) CEG-115
This course introduces basic engineering principles of hydraulics, and water and wastewater technologies. Topics include fluid statics, fluid dynamics, flow measurement, the collection, treatment, and distribution of water and wastewater. Upon completion, students should be able to identify water and wastewater system elements, describe water and wastewater system processes and perform basic hydraulics and treatment computations.

CEG-230 Subdivision Planning & Design 1 6 0 3
Requisites: Option: Take CEG-151 DFT-151 or EGR-120(S20678); Option: Take 1 courses; From courses CEG-211(S23515); Option: Take SRV-111 or CIV-215(S23476); Take previously. Required.Take 1 group; Option: Take CEG-151 CEG-211(S23951) CIV-125
This course covers the planning and design concepts related to subdivisions including analysis of development standards, engineering, and the creation of CAD drawings. Topics include applicable codes, lot creation, roadway system layout, stormwater drainage, low impact development (LID) concepts, and related topics. Upon completion, students should be able to prepare a set of subdivision plans.

CEG-235 Project Management and Estimating 2 3 0 3
Requisites: Take CIS-110(S21058) CIS-111(S21059) CEG-115 EGR-115(S20666) or EGR-125; Take previously. Required.
This course covers planning and estimating practices which are applicable to the civil engineering and related construction industries. Emphasis is placed on construction project planning and management, material take-offs labor and equipment requirements in accordance with industry formats, and other economic topics. Upon completion, students should be able to accurately complete material take-offs, prepare cost estimates, and prepare construction schedules.

COMPUTER ENGINEERING TECHNOLOGY (CET Prefix)

CET-111 Computer Upgrade/Repair I 2 3 0 3
Requisites:
This course covers repairing, servicing, and upgrading computers and peripherals in preparation for industry certification. Topics include CPU/memory/bus identification, disk subsystems, hardware/software installation/configuration, common device drivers, data recovery, system maintenance, and other related topics. Upon completion, students should be able to safely repair and/or upgrade computer systems to perform within specifications.

CET-222 Computer Architecture 2 0 0 2
Requisites:
This course introduces the organization and design philosophy of computer systems with respect to resource management, throughput, and operating system interaction. Topics include instruction sets, registers, data types, memory management, virtual memory, cache, storage management, multi-processing, and pipelining. Upon completion, students should be able to evaluate system hardware and resources for installation and configuration purposes.

CHINESE (CHI Prefix)

CHI-112 Elementary Chinese II 3 0 0 3
Requisites: Take CHI-111; Take previously. Required.Take CHI-182; Take either previously or concurrently. Required.
This course includes the basic fundamentals of the Chinese language within a cultural context of the Chinese people and its history. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills.

Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Chinese and demonstrate further cultural awareness.

CHI-181 Chinese Lab I 0 2 0 1
Requisites: Take 1 group; Option: Take ENG-090 RED-090; Option: Take DRE-098(S23643); Take previously. Required.Take CHI-111; Take either previously or concurrently. Required.
This course provides an opportunity to enhance acquisition of the fundamental elements of the Chinese language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of various supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Chinese and demonstrate cultural awareness.

CHI-182 Chinese Lab II 0 2 0 1
Requisites: Take CHI-181; Take previously. Required.Take CHI-112; Take either previously or concurrently. Required.
This course provides an opportunity to enhance acquisition of the fundamental elements of the Chinese language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of various supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Chinese and demonstrate cultural awareness.

CHI-211 Intermediate Chinese I 3 0 0 3
Requisites: Take CHI-112; Take previously. Required.
This course includes communicative competencies in speaking, listening comprehension, reading, and writing at an intermediate level with attention to cultural awareness. Emphasis is placed on intermediate skills in speaking, reading, writing, and comprehension of spoken language. Upon completion, students should demonstrate simple conversations and distinguish an appropriate range of Chinese characters, as well as read simple expressions in modern standard Chinese.

CHI-212 Intermediate Chinese II 3 0 0 3
Requisites: Take CHI-211; Take previously. Required.
This course provides continuation of communicative competence in speaking, listening comprehension, reading and writing at an intermediate level with attention to cultural awareness. Emphasis is placed on intermediate skills in speaking, reading, writing, and comprehension of spoken language. Upon completion, students should demonstrate simple conversations and distinguish a broad range of Chinese characters, as well as read expressions in modern standard Chinese.

CHEMISTRY (CHM Prefix)

CHM-090 Chemistry Concepts 4 0 0 4
Requisites: Take DRE-098(S23643) DMA-010 DMA-020 DMA-030 DMA-040(S23170); Take previously. Required.
This course provides a non-laboratory based introduction to basic concepts of chemistry. Topics include measurements, matter, energy, atomic theory, bonding, molecular structure, nomenclature, balancing equations, stoichiometry, solutions, acids and bases, gases, and basic organic chemistry. Upon completion, students should be able to understand and apply basic chemical concepts necessary for success in college-level science courses.

CHM-115 Concepts in Chemistry 3 0 0 3
Requisites:
This course introduces basic chemical concepts and their applications to daily life for non-science majors. Topics include air pollution, global warming, energy, world of polymers, water and its importance to a technological society, food, drugs, and nuclear chemistry. Upon completion, students should be able to discuss, apply, and appreciate the impact of chemistry on modern society.

CHM-115A Concepts in Chemistry Lab 0 2 0 1
Requisites: Take CHM-115; Take either previously or concurrently. Required.
This course is a laboratory for CHM 115. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 115. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical concepts presented in CHM 115.

CHM-130 General, Organic, & Biochemistry 3 0 0 3
Requisites: Take DRE-098(S23643) DMA-010 DMA-020 DMA-030 DMA-040(S23170); Take previously. Required.
This course provides a survey of basic facts and principles of general, organic, and biochemistry. Topics include measurement, molecular structure, nuclear chemistry, solutions, acid-base chemistry, gas laws, and the structure, properties, and reactions of major organic and biological groups. Upon completion, students should be able to demonstrate an understanding of fundamental chemical concepts.

CHM-130A General, Organic, & Biochemistry Lab 0 2 0 1
Requisites: Take CHM-130; Take either previously or concurrently. Required.
This course is a laboratory for CHM 130. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 130. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 130.

CHM-131 Introduction to Chemistry 3 0 0 3
Requisites:
This course introduces the fundamental concepts of inorganic chemistry. Topics include measurement, matter and energy, atomic and molecular structure, nuclear chemistry, stoichiometry, chemical formulas and reactions, chemical bonding, gas laws, solutions, and acids and bases. Upon completion, students should be able to demonstrate a basic understanding of chemistry as it applies to other fields.

CHM-131A Introduction to Chemistry Lab 0 3 0 1
Requisites: Take CHM-131; Take either previously or concurrently. Required.
This course is a laboratory to accompany CHM 131. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 131. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 131.

CHM-151 General Chemistry I 3 3 0 4
Requisites: Take 1 group; Option: Take CHM-090 ENG-111(S24022) MAT-161(S20916); Minimum grade C; Option: Take CHM-092 ENG-111(S24022) MAT-161(S20916); Minimum grade C; Option: Take CHM-090 ENG-111(S24022) MAT-171(S23934); Minimum grade C;
This course covers fundamental principles and laws of chemistry. Topics include measurement, atomic and molecular structure, periodicity, chemical reactions, chemical bonding, stoichiometry, thermochemistry, gas laws, and solutions. Upon completion, students should be able to demonstrate an understanding of fundamental chemical laws and concepts as needed in CHM 152. Students will develop laboratory technique and learn how to effectively communicate experimental results in written reports.

CHM-152 General Chemistry II 3 3 0 4
Requisites: Take CHM-151; Take previously. Required.Take CHM-151; Minimum grade C; Take previously. Required.
This course provides a continuation of the study of the fundamental principles and laws of chemistry. Topics include kinetics, equilibrium, ionic and redox equations, acid-base theory, electrochemistry, thermodynamics, introduction to nuclear and organic chemistry, and complex ions. Upon completion, students should be able to demonstrate an understanding of chemical concepts as needed to pursue further study in chemistry and related professional fields. Students will develop laboratory skills learned in CHM 151 and give an oral presentation on a chemically relevant subject.

CHM-251 Organic Chemistry I 3 3 0 4

Requisites: Take CHM-152; Take previously. Required.Take CHM-152; Minimum grade C; Take previously. Required.

This course provides a systematic study of the theories, principles, and techniques of organic chemistry. Topics include nomenclature, structure, properties, reactions, and mechanisms of hydrocarbons, alkyl halides, alcohols, and ethers; further topics include isomerization, stereochemistry, and spectroscopy. Upon completion, students should be able to demonstrate an understanding of the fundamental concepts of covered organic topics as needed in CHM 252. Students will perform basic synthetic and analytic techniques on organic compounds.

CHM-252 Organic Chemistry II 3 3 0 4

Requisites: Take CHM-251; Take previously. Required.Take CHM-251; Minimum grade C; Take previously. Required.

This course provides continuation of the systematic study of the theories, principles, and techniques of organic chemistry. Topics include nomenclature, structure, properties, reactions, and mechanisms of aromatics, aldehydes, ketones, carboxylic acids and derivatives, amines and heterocyclics; multi-step synthesis will be emphasized. Upon completion, students should be able to demonstrate an understanding of organic concepts as needed to pursue further study in chemistry and related professional fields. Students will conduct a multi-step synthetic scheme in the laboratory component.

INFORMATION SYSTEMS (CIS Prefix)

CIS-110 Introduction to Computers 2 2 0 3

Requisites:

This course introduces computer concepts, including fundamental functions and operations of the computer. Topics include identification of hardware components, basic computer operations, security issues, and use of software applications. Upon completion, students should be able to demonstrate an understanding of the role and function of computers and use the computer to solve problems.

CIS-111 Basic PC Literacy 1 2 0 2

Requisites:

This course provides an overview of computer concepts. Emphasis is placed on the use of personal computers and software applications for personal and fundamental workplace use. Upon completion, students should be able to demonstrate basic personal computer skills.

CIS-115 Introduction to Programming and Logic 2 3 0 3

Requisites: Take 1 group; Option: Take DMA-010 DMA-020 DMA-030 DMA-040(S24983); Option: Take MAT-121(S24993); Option: Take MAT-171(S24997); Option: Take DMA-025 DMA-040(S24983); Option: Take MAT-060 MAT-070; Option: Take MAT-060 MAT-080;

This course introduces computer programming and problem solving in a structured program logic environment. Topics include language syntax, data types, program organization, problem solving methods, algorithm design, and logic control structures. Upon completion, students should be able to use top-down algorithm design and implement algorithmic solutions in a programming language.

CIVIL ENGINEERING TECHNOLOGY (CIV Prefix)

CIV-111 Soils and Foundations 2 4 0 4

Requisites: Take EGR-250(S23538) EGR-251 or MEC-210(S20669); Take previously. Required.Take 1 group; Option: Take EGR-250(S23987) CEG-115; Option: Take EGR-250(S23987) EGR-115(S20666); Option: Take EGR-251 CEG-115; Option: Take EGR-251 EGR-1

This course presents an overview of soil as a construction material using both analysis and testing procedures. Topics include index properties, classification, stress analysis, compressibility, compaction, dewatering, excavation, stabilization, settlement, and foundations. Upon completion, students should be able to perform basic soil tests and analyze engineering properties of soil.

CIV-125 Civil/Surveying CAD 1 6 0 3
Requisites: Take CEG-151 DFT-151 or ARC-114(S10248); Take previously. Required.
This course introduces civil/surveying computer-aided drafting (CAD) software. Topics include drawing, editing, and dimensioning commands; plotting; and other related civil/surveying topics. Upon completion, students should be able to produce civil/surveying drawings using CAD software. This course utilizes Land Development Desktop Software.

CIV-215 Highway Technology 2 3 0 3
Requisites: Take 1 group; Option: Take CEG-115 MAT-121(S23927); Option: Take CEG-115 MAT-171(S23934); Option: Take EGR-115(S20666) MAT-121(S23927); Option: Take EGR-115(S20666) MAT-171(S23934); Take previously. Required.Take 1 group;
This course introduces the essential elements of roadway components and design. Topics include subgrade and pavement construction, roadway drawings and details, traffic analysis, geometric design and other related topics. Upon completion, students should be able to interpret roadway details and specifications, and produce street and highway construction drawings.

CIV-221 Steel and Timber Design 2 3 0 3
Requisites: Take EGR-250(S23538) EGR-251 or MEC-210(S20669); Take previously. Required.
This course introduces the basic elements of steel and timber structures. Topics include strength of materials applications, the analysis and design of steel and timber beams, columns, and connections and concepts of structural detailing. Upon completion, students should be able to analyze, design, and draw simple plans using Computer Aided Drafting and Design software (CADD).

CIV-230 Construction Estimating 2 3 0 3
Requisites: Take CIS-111(S12478) EGR-115(S12560) CIS-110(S12456) or ARC-111; Take previously. Required.
This course covers quantity take-offs of labor, materials, and equipment and calculation of direct and overhead costs for a construction project. Topics include the interpretation of working drawings and specifications, types of contracts and estimates, building codes, bidding techniques and procedures, and estimating software. Upon completion, students should be able to prepare a detailed cost estimate and bid documents for a construction project.

CIV-250 Civil Engineering Technology Project 1 3 0 2
Requisites: Take CIV-111(S11393) CIV-125(S21521) or CIV-211; Take previously. Required.
This course includes an integrated team approach to civil engineering technology projects. Emphasis is placed on project proposal, site selection, analysis/design of structures, construction material selection, time and cost estimating, planning, and management of a project. Upon completion, students should be able to apply team concepts, prepare estimates, submit bid proposals, and manage projects.

CRIMINAL JUSTICE (CJC Prefix)

CJC-111 Introduction to Criminal Justice 3 0 0 3
Requisites:
This course introduces the components and processes of the criminal justice system. Topics include history, structure, functions, and philosophy of the criminal justice system and their relationship to life in our society. Upon completion, students should be able to define and describe the major system components and their interrelationships and evaluate career options.

CJC-112 Criminology 3 0 0 3
Requisites:
This course introduces deviant behavior as it relates to criminal activity. Topics include theories of crime causation; statistical analysis of criminal behavior; past, present, and future social control initiatives; and other related topics. Upon completion, students should be able to explain and discuss various theories of crime causation and societal response.

CJC-113 Juvenile Justice 3 0 0 3

Requisites:

This course covers the juvenile justice system and related juvenile issues. Topics include an overview of the juvenile justice system, treatment and prevention programs, special areas and laws unique to juveniles, and other related topics. Upon completion, students should be able to identify/discuss juvenile court structure/procedures, function and jurisdiction of juvenile agencies, processing/detention of juveniles, and case disposition.

CJC-115 Crime Scene Photography 2 3 0 3

Requisites:

This course covers methodologies for photographing crime scenes including their application to forensic sciences, the legal system, and the proper use of digital cameras and accessories. Topics include digital cameras, operational functions required to properly photograph physical evidence and crime scenes, factors affecting admissibility of crime scene photographs, and methods and techniques specific to photographing crime scenes. Upon completion, students should be able to operate digital cameras using appropriate settings to control exposure and depth of field, properly compose various types of crime scene photographs, and use specialized techniques to properly photograph key items of evidence.

CJC-121 Law Enforcement Operations 3 0 0 3

Requisites:

This course introduces fundamental law enforcement operations. Topics include the contemporary evolution of law enforcement operations and related issues. Upon completion, students should be able to explain theories, practices, and issues related to law enforcement operations.

CJC-131 Criminal Law 3 0 0 3

Requisites:

This course covers the history/evolution/principles and contemporary applications of criminal law. Topics include sources of substantive law, classification of crimes, parties to crime, elements of crimes, matters of criminal responsibility, and other related topics. Upon completion, students should be able to discuss the sources of law and identify, interpret, and apply the appropriate statutes/elements.

CJC-132 Court Procedure & Evidence 3 0 0 3

Requisites:

This course covers judicial structure/process/procedure from incident to disposition, kinds and degrees of evidence, and the rules governing admissibility of evidence in court. Topics include consideration of state and federal courts, arrest, search and seizure laws, exclusionary and statutory rules of evidence, and other related issues. Upon completion, students should be able to identify and discuss procedures necessary to establish a lawful arrest/search, proper judicial procedures, and the admissibility of evidence.

CJC-141 Corrections 3 0 0 3

Requisites:

This course covers the history, major philosophies, components, and current practices and problems of the field of corrections. Topics include historical evolution, functions of the various components, alternatives to incarceration, treatment programs, inmate control, and other related topics. Upon completion, students should be able to explain the various components, processes, and functions of the correctional system.

CJC-144 Crime Scene Processing 2 3 0 3

Requisites:

This course introduces the theories and practices of crime scene processing and investigating. Topics include legal considerations at the crime scene, processing indoor and outdoor scenes, recording, note taking, collection and preservation of evidence and submission to the crime laboratory. Upon completion, the student should be able to evaluate and search various crime scenes and demonstrate theapprpriate techniques.

CJC-146 Trace Evidence 2 3 0 3

Requisites:

This course provides a study of trace evidence as it relates to forensic science. Topics include collection, packaging, and preservation of trace evidence from crime scenes such as bombings, fires and other scenes. Upon completion, students should be able to demonstrate the fundamental concepts of trace evidence collection, preservation and submission to the crime laboratory.

CJC-151 Introduction to Loss Prevention 3 0 0 3

Requisites:

This course introduces the concepts and methods related to commercial and private security systems. Topics include the historical, philosophical, and legal basis of security, with emphasis on security surveys, risk analysis, and associated functions. Upon completion, students should be able to demonstrate and understand security systems, risk management, and the laws relative to loss prevention.

CJC-161 Introduction to Homeland Security 3 0 0 3

Requisites:

This course introduces the historical, organizational and practical aspects of Homeland Security. Topics include a historic overview, definitions and concepts, organizational structure, communications, technology, mitigation, prevention and preparedness, response and recovery, and the future of Homeland Security. Upon completion, students should be able to explain essential characteristics of terrorism and Homeland Security, and define roles, functions and interdependency between agencies.

CJC-162 Intelligence Analysis and Security Management 3 0 0 3

Requisites:

This course examines intelligence analysis and its relationship to the security management of terrorist attacks and other threats to national security of the United States. Topics include a historic overview, definitions and concepts, intelligence evolution-politicization-operations-strategies, surveillance, analysis perspectives, covert action, and ethics. Upon completion, students should be able to outline intelligence policies, evaluate source information, implement intelligence techniques and analysis, identify threats, and apply ethical behaviors.

CJC-163 Transportation and Border Security 3 0 0 3

Requisites:

This course provides an in-depth view of modern border and transportation security including the technologies used for detecting potential threats from terrorists and weapons. Topics include an overview of security challenges, detection devices and equipment, transportation systems, facilities, threats and counter-measures, and security procedures, policies and agencies. Upon completion, students should be able to describe border security, the technologies used to enforce it, and the considerations and strategies of border security agencies.

CJC-170 Critical Incident Mgmt for Public Safety 3 0 0 3

Requisites:

This course prepares the student to specialize in the direct response, operations, and management of critical incidents. Emphasis is placed upon the theoretical and applied models to understand and manage disasters, terrorism, and school/work place violence. Upon completion, the student should be able to identify and discuss managerial techniques legal issues, and response procedures to critical incidents.

CJC-212 Ethics & Community Relations 3 0 0 3

Requisites:

This course covers ethical considerations and accepted standards applicable to criminal justice organizations and professionals. Topics include ethical systems; social change, values, and norms; cultural diversity; citizen involvement in criminal justice issues; and other related topics. Upon completion, students should be able to apply ethical considerations to the decision-making process in identifiable criminal justice situations.

CJC-213 Substance Abuse 3 0 0 3

Requisites:

This course is a study of substance abuse in our society. Topics include the history and classifications of drug abuse and the social, physical, and psychological impact of drug abuse. Upon completion, students should be able to identify various types of drugs, their effects on human behavior and society, and treatment modalities.

CJC-215 Organization & Administration 3 0 0 3

Requisites:

This course introduces the components and functions of organization and administration as it applies to the agencies of the criminal justice system. Topics include operations/functions of organizations; recruiting, training, and retention of personnel; funding and budgeting; communications; span of control and discretion; and other related topics. Upon completion, students should be able to identify and discuss the basic components and functions of a criminal justice organization and its administrative operations.

CJC-221 Investigative Principles 3 2 0 4

Requisites:

This course introduces the theories and fundamentals of the investigative process. Topics include crime scene/incident processing, information gathering techniques, collection/preservation of evidence, preparation of appropriate reports, court presentations, and other related topics. Upon completion, students should be able to identify, explain, and demonstrate the techniques of the investigative process, report preparation, and courtroom presentation.

CJC-222 Criminalistics 3 0 0 3

Requisites:

This course covers the functions of the forensic laboratory and its relationship to successful criminal investigations and prosecutions. Topics include advanced crime scene processing, investigative techniques, current forensic technologies, and other related topics. Upon completion, students should be able to identify and collect relevant evidence at simulated crime scenes and request appropriate laboratory analysis of submitted evidence.

CJC-223 Organized Crime 3 0 0 3

Requisites:

This course introduces the evolution of traditional and non-traditional organized crime and its effect on society and the criminal justice system. Topics include identifying individuals and groups involved in organized crime, areas of criminal activity, legal and political responses to organized crime, and other related topics. Upon completion, students should be able to identify the groups and activities involved in organized crime and the responses of the criminal justice system.

CJC-225 Crisis Intervention 3 0 0 3

Requisites:

This course introduces critical incident intervention and management techniques as they apply to operational criminal justice practitioners. Emphasis is placed on the victim/offender situation as well as job-related high stress, dangerous, or problem-solving citizen contacts. Upon completion, students should be able to provide insightful analysis of emotional, violent, drug-induced, and other critical and/or stressful incidents that require field analysis and/or resolution.

CJC-231 Constitutional Law 3 0 0 3

Requisites:

The course covers the impact of the Constitution of the United States and its amendments on the criminal justice system. Topics include the structure of the Constitution and its amendments, court decisions pertinent to contemporary criminal justice issues, and other related topics. Upon completion, students should be able to identify/discuss the basic structure of the United States Constitution and the rights/procedures as interpreted by the courts.

CJC-233 Correctional Law 3 0 0 3

Requisites:

This course introduces statutory/case law pertinent to correctional concepts, facilities, and related practices. Topics include examination of major legal issues encompassing incarceration, probation, parole, restitution, pardon, restoration of rights, and other related topics. Upon completion, students should be able to identify/discuss legal issues which directly affect correctional systems and personnel.

CJC-240 Law Enforcement Mgmt & Supervision & Supervision 3 0 0 3

Requisites: Take BUS-253; Take previously. Required.

This course provides a study of the best known methods and practices of police leadership and management. Topics include the role of the manager in law enforcement, communications, time-management in law enforcement, managing problems, training and law enforcement productivity. Upon completion, students should be able to identify and discuss methods and practices capable of moving law enforcement agencies forward into the twenty-first century.

CJC-241 Community-Based Corrections 3 0 0 3

Requisites:

This course covers programs for convicted offenders that are used both as alternatives to incarceration and in post-incarceration situations. Topics include offenders, diversion, house arrest, restitution, community service, probation and parole, including both public and private participation, and other related topics. Upon completion, students should be able to identify/discuss the various programs from the perspective of the criminal justice professional, the offender, and the community.

CJC-244 Footwear and Tire Imprint 2 3 0 3

Requisites:

This course provides a study of the fundamental concepts of footwear and tire imprint evidence as related to forensic science. Topics include proper photographic recording, casting, recognition of wear patterns and imprint identification. Upon completion, the student should be able to recognize, record, photograph, and identify footwear and tire imprints.

CJC-245 Friction Ridge Analysis 2 3 0 3

Requisites:

This course introduces the basic elements of fingerprint technology and techniques applicable to the criminal justice field. Topics include the history and meaning of fingerprints, pattern types and classification filing sequence, searching and referencing. Upon completion, the students should be able to discuss and demonstrate the fundamental techniques of basic fingerprint technology.

CJC-246 Advanced Friction Ridge Analysis 2 3 0 3

Requisites: Take CJC-245; Take previously. Required.

This course introduces the theories and processes of advanced friction ridge analysis. Topics include evaluation of friction ridges, chart preparation, comparative analysis for values determination rendering proper identification, chemical enhancement and AFIS preparation and usage. Upon completion, students must show an understanding of proper procedures for friction ridge analysis through written testing and practical exercises.

CJC-251 Forensic Chemistry I 3 2 0 4

Requisites:

This course provides a study of the fundamental concepts of chemistry as it relates to forensic science. Topics include physical and chemical properties of substances, metric measurements, chemical changes, elements, compounds, gases, and atomic structure. Upon completion, students should be able to demonstrate an understanding of the fundamental concepts of forensic chemistry.

CJC-255 Issues in Criminal Justice Application 3 0 0 3

Requisites: Take CJC-111 CJC-221 CJC-231; Take previously. Required.

This course provides an opportunity to exhibit interpersonal and technical skills required for application of criminal justice concepts in contemporary practical situations. Emphasis is placed on critical thinking and integration of theory and practical skills components. Upon completion, students should be able to demonstrate the knowledge required of any entry-level law enforcement officer.

CJC-260 Threat Assessment 1 2 0 2

Requisites:

This course prepares students to perform extensive security audits for private corporations and for local and state government, identifying weaknesses in their overall security programs. Emphasis will be placed on risk analysis studies that examine the methods, procedures, and systems for security gaps and vulnerabilities. Upon completion, students should be able to evaluate all facets of a protective program from corporate disaster response planning to security teams guarding local/state officials.

CJC-262 High-Risk Event Planning 1 2 0 2

Requisites:

This course introduces students to the principles of high-risk executive protection and the planning associated with security during visits from government officials and other dignitaries. Emphasis will be placed on conducting advance surveys, residential security, restaurant and banquet security, surveillance detection, and counter surveillance operations. Upon completion, students should be able to demonstrate the ability to write security plans for high-risk events.

CONSTRUCTION MANAGEMENT (CMT Prefix)

CMT-112 Construction Mgt I 4 4 0 6

Requisites:

This course introduces students to the field of construction management technology. Topics include job planning, work methods, materials, equipment, and other related topics. Upon completion, students should be able to demonstrate basic knowledge of methods, materials, equipment, and the logical sequence of a construction project.

CMT-112AB Construction Mgt I 2 2 0 3

Requisites:

This course introduces students to the field of construction management technology. Topics include job planning, work methods, materials, equipment, and other related topics. Upon completion, students should be able to demonstrate basic knowledge of methods, materials, equipment, and the logical sequence of a construction project.

CMT-120 Codes and Inspections 3 0 0 3

Requisites:

This course covers building codes and the code inspections process used in the design and construction of residential and commercial buildings. Emphasis is placed on commercial, residential, and accessibility (ADA) building codes. Upon completion, students should understand the building code inspections process and apply building code principals and requirements to construction projects.

CMT-193A Selected Topics in Construction Mgmt 3 0 0 3

Requisites:

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

CMT-210 Construction Management Fundamentals 3 0 0 3

Requisites:

This course introduces the student to the fundamentals of effective supervision emphasizing professionalism through knowledge and applied skills. Topics include safety, planning and scheduling, contracts, problem-solving,

communications, conflict resolution, recruitment, employment laws and regulations, leadership, motivation, teamwork, discipline, setting objectives, and training. Upon completion, students should be able to demonstrate the basic skills necessary to be successful as a supervisor in the construction industry.

CMT-212 Total Safety Performance 3 0 0 3
Requisites: Take CMT-210(S13450); Take either previously or concurrently. Required.
This course covers the importance of managing safety and productivity equally by encouraging people to take individual responsibility for safety and health in the workplace. Topics include safety management, controlling construction hazards, communicating and enforcing policies, OSHA compliance, personal responsibility and accountability, safety planning, training, and personal protective equipment. Upon completion, the student should be able to properly supervise safety at a construction jobsite and qualify for OSHA Training Certification.

CMT-214 Planning and Scheduling 3 0 0 3
Requisites: Take CMT-210(S13450) BPR-130(S11505); Take previously. Required.
This course covers the need for and the process of planning construction projects, as well as the mechanics and vocabulary of project scheduling. Topics include project preplanning, scheduling formats, planning for production, short interval planning, schedule updating and revising, and computer-based planning and scheduling. Upon completion, the student should be able to understand the need for planning and scheduling, the language and logic of scheduling, and use of planning skills.

CMT-216 Costs and Productivity 3 0 0 3
Requisites: Take CMT-210(S13450); Take previously. Required.
This course covers the relationships between time, work completed, work-hours spent, schedule duration, equipment hours, and materials used. Topics include production rates, productivity unit rates, work method improvements, and overall total project cost control. Upon completion, the student should be able to demonstrate an understanding of how costs may be controlled and productivity improved on a construction project.

CMT-226 Applications Project 2 2 0 3
Requisites: Take BPR-130(S23275) BPR-230 CMT-210(S23270) CMT-112 CST-241(S23984) CMT-214; Take previously. Required.
This course provides an individual and/or integrated team approach to a practical construction management project. Topics include project selection, research and planning, implementation, and a final presentation. Upon completion, students should be able to plan and implement an applications-oriented construction management project.

COMMUNICATION (COM Prefix)

COM-110 Introduction to Communication 3 0 0 3
Requisites: Take 1 group; Option: Take ENG-080 RED-080; Option: Take DRE-097(S23642); Take previously. Required.
This course provides an overview of the basic concepts of communication and the skills necessary to communicate in various contexts. Emphasis is placed on communication theories and techniques used in interpersonal group, public, intercultural, and mass communication situations. Upon completion, students should be able to explain and illustrate the forms and purposes of human communication in a variety of contexts.

COM-120 Intro to Interpersonal Communication 3 0 0 3
Requisites: Take 1 group; Option: Take ENG-080 RED-080; Option: Take DRE-097(S23642); Take previously. Required.
This course introduces the practices and principles of interpersonal communication in both dyadic and group settings. Emphasis is placed on the communication process, perception, listening, self-disclosure, speech apprehension, ethics, nonverbal communication, conflict, power, and dysfunctional communication relationships. Upon completion, students should be able to demonstrate interpersonal communication skills, apply basic principles of group discussion, and manage conflict in interpersonal communication situations.

COM-140 Introduction to Intercultural Communication 3 0 0 3

Requisites: Take 1 group; Option: Take ENG-080 RED-080; Option: Take DRE-097(S23642); Take previously. Required.

This course introduces techniques of cultural research, definitions, functions, characteristics, and impacts of cultural differences in public address. Emphasis is placed on how diverse backgrounds influence the communication act and how cultural perceptions and experiences determine how one sends and receives messages. Upon completion, students should be able to demonstrate an understanding of the principles and skills needed to become effective in communicating outside one's primary culture.

COM-231 Public Speaking 3 0 0 3

Requisites: Take ENG-111(S13673); Minimum grade C; Take previously. Required.

This course provides instruction and experience in preparation and delivery of speeches within a public setting and group discussion. Emphasis is placed on research, preparation, delivery, and evaluation of informative, persuasive, and special occasion public speaking. Upon completion, students should be able to prepare and deliver well-organized speeches and participate in group discussion with appropriate audiovisual support.

COSMETOLOGY (COS Prefix)

COS-111 Cosmetology Concepts I 4 0 0 4

Requisites: Take COS-112; Take either previously or concurrently. Required.

This course introduces basic cosmetology concepts. Topics include safety, first aid, sanitation, bacteriology, anatomy, diseases and disorders, hygiene, product knowledge, chemistry, ethics, manicures, and other related topics. Upon completion, students should be able to safely and competently apply cosmetology concepts in the salon setting.

COS-111B Cosmetology Concepts I 4 0 0 4

Requisites: Take COS-112; Take either previously or concurrently. Required.Take COS-112B(L48050); Take either previously or concurrently. Recommended.

This course introduces basic cosmetology concepts. Topics include safety, first aid, sanitation, bacteriology, anatomy, diseases and disorders, hygiene, product knowledge, chemistry, ethics, manicures, and other related topics. Upon completion, students should be able to safely and competently apply cosmetology concepts in the salon setting. This is part two of a two part course.

COS-111BB Cosmetology Concepts I 2 0 0 2

Requisites: Take COS-112; Take either previously or concurrently. Required.Take COS-111AB; Take either previously or concurrently. Required.

This course introduces basic cosmetology concepts. Topics include safety, first aid, sanitation, bacteriology, anatomy, diseases and disorders, hygiene, product knowledge, chemistry, ethics, manicures, and other related topics. Upon completion, students should be able to safely and competently apply cosmetology concepts in the salon setting.

COS-112 Salon I 0 24 0 8

Requisites: Take COS-111; Take either previously or concurrently. Required.

This course introduces basic salon services. Topics include scalp treatments, shampooing, rinsing, hair color, design, haircutting, permanent waving, pressing, relaxing, wigs, and other related topics. Upon completion, students should be able to safely and competently demonstrate salon services.

COS-112AB Salon I 0 12 0 4

Requisites: Take COS-111; Take either previously or concurrently. Required.

This course introduces basic salon services. Topics include scalp treatments, shampooing, rinsing, hair color, design, haircutting, permanent waving, pressing, relaxing, wigs, and other related topics. Upon completion, students should be able to safely and competently demonstrate salon services.

COS-112B **Salon I** 0 24 0 8
Requisites: Take COS-111; Take either previously or concurrently. Required.Take COS-111B(L48052); Take either previously or concurrently. Recommended.
This course introduces basic salon services. Topics include scalp treatments, shampooing, rinsing, hair color, design, haircutting, permanent waving, pressing, relaxing, wigs, and other related topics. Upon completion, students should be able to safely and competently demonstrate salon services.

COS-112BB **Salon I** 0 12 0 4
Requisites: Take COS-111; Take either previously or concurrently. Required.Take COS-112AB; Take either previously or concurrently. Required.
This course introduces basic salon services. Topics include scalp treatments, shampooing, rinsing, hair color, design, haircutting, permanent waving, pressing, relaxing, wigs, and other related topics. Upon completion, students should be able to safely and competently demonstrate salon services.

COS-113AB **Cosmetology Concepts II** 2 0 0 2
Requisites: Take COS-111 COS-112; Take previously. Required.
This course covers more comprehensive cosmetology concepts. Topics include safety, product knowledge, chemistry, manicuring, chemical restructuring, and hair coloring. Upon completion, students should be able to safely and competently apply these cosmetology concepts in the salon setting.

COS-113BB **Cosmetology Concepts II** 2 0 0 2
Requisites: Take COS-111 COS-112; Take previously. Required.Take COS-113AB; Take either previously or concurrently. Required.
This course covers more comprehensive cosmetology concepts. Topics include safety, product knowledge, chemistry, manicuring, chemical restructuring, and hair coloring. Upon completion, students should be able to safely and competently apply these cosmetology concepts in the salon setting.

COS-114 **Salon II** 0 24 0 8
Requisites: Take COS-111 COS-112; Take previously. Required.
This course provides experience in a simulated salon setting. Topics include basic skin care, manicuring, nail application, scalp treatments, shampooing, rinsing, hair color, design, haircutting, chemical restructuring, pressing, wigs, and other related topics. Upon completion, students should be able to safely and competently demonstrate these salon services.

COS-114AB **Salon II** 0 12 0 4
Requisites: Take COS-111 COS-112; Take previously. Required.
This course provides experience in a simulated salon setting. Topics include basic skin care, manicuring, nail application, scalp treatments, shampooing, rinsing, hair color, design, haircutting, chemical restructuring, pressing, wigs, and other related topics. Upon completion, students should be able to safely and competently demonstrate these salon services.

COS-114BB **Salon II** 0 12 0 4
Requisites: Take COS-111 COS-112; Take previously. Required.Take COS-114AB; Take either previously or concurrently. Required.
This course provides experience in a simulated salon setting. Topics include basic skin care, manicuring, nail application, scalp treatments, shampooing, rinsing, hair color, design, haircutting, chemical restructuring, pressing, wigs, and other related topics. Upon completion, students should be able to safely and competently demonstrate these salon services.

COS-115 **Cosmetology Concepts III** 4 0 0 4
Requisites: Take COS-111 COS-112; Take previously. Required.
This course covers more comprehensive cosmetology concepts. Topics include safety, product knowledge, salon management, salesmanship, skin care, electricity/light therapy, wigs, thermal hair styling, lash and brow tinting, superfluous hair removal, and other related topics. Upon completion, students should be able to safely and

competently apply these cosmetology concepts in the salon setting.

COS-115BB Cosmetology Concepts III 2 0 0 2
Requisites: Take COS-111 COS-112; Take previously. Required.
This course covers more comprehensive cosmetology concepts. Topics include safety, product knowledge, salon management, salesmanship, skin care, electricity/light therapy, wigs, thermal hair styling, lash and brow tinting, superfluous hair removal, and other related topics. Upon completion, students should be able to safely and competently apply these cosmetology concepts in the salon setting.

COS-116 Salon III 0 12 0 4
Requisites: Take COS-111 COS-112; Take previously. Required.
This course provides comprehensive experience in a simulated salon setting. Emphasis is placed on intermediate-level of skin care, manicuring, scalp treatments, shampooing, hair color, design, haircutting, chemical restructuring, pressing, and other related topics. Upon completion, students should be able to safely and competently demonstrate these salon services.

COS-116AB Salon III 0 6 0 2
Requisites: Take COS-111 COS-112; Take previously. Required.
This course provides comprehensive experience in a simulated salon setting. Emphasis is placed on intermediate-level of skin care, manicuring, scalp treatments, shampooing, hair color, design, haircutting, chemical restructuring, pressing, and other related topics. Upon completion, students should be able to safely and competently demonstrate these salon services.

COS-116BB Salon III 0 6 0 2
Requisites: Take COS-111 COS-112; Take previously. Required.
This course provides comprehensive experience in a simulated salon setting. Emphasis is placed on intermediate-level of skin care, manicuring, scalp treatments, shampooing, hair color, design, haircutting, chemical restructuring, pressing, and other related topics. Upon completion, students should be able to safely and competently demonstrate these salon services.

COS-117 Cosmetology Concepts IV 2 0 0 2
Requisites: Take COS-111 COS-112; Take previously. Required.
This course covers advanced cosmetology concepts. Topics include chemistry and hair structure, advanced cutting and design, and an overview of all cosmetology concepts in preparation for the licensing examination. Upon completion, students should be able to demonstrate an understanding of these cosmetology concepts and meet program completion requirements.

COS-118 Salon IV 0 21 0 7
Requisites: Take COS-111 COS-112; Take previously. Required.
This course provides advanced experience in a simulated salon setting. Emphasis is placed on efficient and competent delivery of all salon services in preparation for the licensing examination and employment. Upon completion, students should be able to demonstrate competence in program requirements and the areas covered on the Cosmetology Licensing Examination and meet entry-level employment requirements.

COS-120 Esthetics Salon I 0 18 0 6
Requisites:
This course covers the techniques of esthetics in a comprehensive experience in a simulated salon setting. Topics include client consultation, facials, body treatments, hair removal, make-up applications, and color analysis. Upon completion, students should be able to safely and competently demonstrate esthetic services on clients in a salon setting.

COS-125 Esthetics Concepts II 2 0 0 2

Requisites:

This course covers more comprehensive esthetics concepts. Topics include nutrition, business management, makeup, and color analysis.Upon completion students should be able to demonstrate an understanding of the advanced esthetics concepts and meet course requirements.

COS-126 Esthetics Salon II 0 18 0 6

Requisites:

This course provides experience in a simulated esthetics setting. Topics include machine facials, aromatherapy, surface manipulation in relation to skin care, electricity, and apparatus. Upon completion, students should be able to demonstrate competence in program requirements and the areas covered on the Cosmetology licensing examination for Estheticians.

COS-223 Contemp Hair Coloring 1 3 0 2

Requisites: Take COS-111 COS-112; Take previously. Required.

This course covers basic color concepts, hair coloring problems, and application techniques. Topics include color theory, terminology, contemporary techniques, product knowledge, and other related topics. Upon completion, students should be able to identify a clients color needs and safely and competently perform color applications and correct problems.

COS-224 Trichology & Chemistry 1 3 0 2

Requisites:

This course is a study of hair and the interaction of applied chemicals. Emphasis is placed on pH actions and the reactions and effects of chemical ingredients. Upon completion, students should be able to demonstrate an understanding of chemical terminology, pH testing, and chemical reactions on hair.

COS-225 Advanced Contemporary Hair Coloring 1 3 0 2

Requisites: Take COS-223; Take previously. Required.

This course covers advanced techniques in coloring applications and problem solving situations. Topics include removing unwanted color,replacing pigment and re-coloring, removing coatings, covering grey and white hair, avoiding color fading, and poor tint results. Upon completion, students should be able to apply problem solving techniques in hair coloring situations.

COS-250 Computerized Salon Ops 1 0 0 1

Requisites:

This course introduces computer and salon software. Emphasis is placed on various computer and salon software applications. Upon completion, students should be able to utilize computer skills and software applications in the salon setting.

COMPUTER SCIENCE (CSC Prefix)

CSC-111 Introduction to Ethical Hacking 3 0 0 3

Requisites:

This course introduces computer programming students to the foundations of ethical hacking. Topics include security policies, common vulnerabilities, penetration testing methodology, and hacking concepts using computer programming and scripting techniques. Upon completion, students should be able to describe the computer programming aspects of ethical hacking in an organization's overall security framework.

CSC-116 Introduction to Functional Programming 2 2 0 3

Requisites:

This course introduces the concepts of functional programming. Emphasis is placed on using functions and procedures for the fundamental building blocks of a program. Upon completion, students should be able to program in a style that emphasizes the evaluation of an expression rather than the execution of commands.

CSC-118 Swift Programming I 2 3 0 3

Requisites:

This course introduces the development of iOS applications and Apple applications using Swift programming language. Emphasis is placed on syntax, object-oriented principles, memory management, and functional concepts of Swift programming. Upon completion, students should be able to develop fully functional iOS and Apple applications using Swift programming language.

CSC-120 Computing Fundamentals I 3 2 0 4

Requisites: Take 1 group; Option: Take DMA-010 DMA-020 DMA-030 DMA-040(S24983) DMA-050(S24984); Option: Take MAT-121(S24993); Option: Take MAT-171(S24997); Option: Take DMA-025 DMA-040(S24983) DMA-050(S24984); Option: Take DMA-025 DMA-045;

This course provides the essential foundation for the discipline of computing and a program of study in computer science, including the role of the professional. Topics include algorithm design, data abstraction, searching and sorting algorithms, and procedural programming techniques. Upon completion, students should be able to solve problems, develop algorithms, specify data types, perform sorts and searches, and use an operating system.

CSC-122 Python Application Development 2 2 0 3

Requisites: Take CSC-121 CTI-110(S22510); Take previously. Required.

This course introduces the use of frameworks to build web-enabled applications. Emphasis is placed on URL routing, output format templating, database manipulation and security. Upon completion, students should be able to create simple web-enabled applications with a graphical user interface using the Python language.

CSC-124 Introduction to Data Science Programming 2 2 0 3

Requisites: Take MAT-152(S24996); Take previously. Required.

This course covers the key technologies used to manipulate, store and analyze big data. Topics include scripting languages, noSQL databases, database scalability, performance metrics and tuning. Upon completion, students should be able to use programming techniques to investigate data sets and algorithms.

CSC-130 Computing Fundamentals II 3 2 0 4

Requisites: Take CSC-120(S11470); Take previously. Required.Take CSC-121; Take previously. Required.

This course provides in-depth coverage of the discipline of computing and the role of the professional. Topics include software design methodologies, analysis of algorithm and data structures, searching and sorting algorithms, and file organization methods. Upon completion, students should be able to use software design methodologies and choice of data structures and understand social/ethical responsibilities of the computing professional.

CSC-133 C Programming 2 3 0 3

Requisites:

This course introduces computer programming using the C programming language with structured programming principles. Topics include input/output operations, iteration, arithmetic operations, arrays, pointers, filters, and other related topics. Upon completion, students should be able to design, code, test and debug at a beginning level.

CSC-134 C++ Programming 2 3 0 3

Requisites: Take MAT-121(S23927) MAT-143(S23945) MAT-152(S23944) MAT-171(S23934) or MAT-271(S23939); Take previously. Required.

This course introduces computer programming using the C++ programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test and debug at a beginning level.

CSC-135 COBOL Programming 2 3 0 3

Requisites:

This course introduces computer programming using the COBOL programming language with structured programming principles. Topics include input/output operations, iteration, arithmetic operations, arrays, pointers, filters, and other related topics. Upon completion, students should be able to design, code, test and debug at a

beginning level.

CSC-141 Visual C++ Programming 2 3 0 3
Requisites: Take CSC-134(S21066); Take previously. Required.
This course introduces computer programming using the Visual C++ programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test, debug, and implement objects using the appropriate environment at a beginning level.

CSC-151 JAVA Programming 2 3 0 3
Requisites: Take MAT-121(S23927) MAT-143(S23945) MAT-152(S23944) MAT-171(S23934) or MAT-271(S23939); Take previously. Required.
This course introduces computer programming using the JAVA programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion students should be able to design, code, test, debug JAVA language programs.

CSC-152 SAS 2 3 0 3
Requisites:
This course introduces the fundamentals of SAS programming. Emphasis is placed on learning basic SAS commands and statements for solving a variety of data processing applications. Upon completion, students should be able to use SAS data and procedure steps to create SAS data sets, do statistical analysis, and general customized reports.

CSC-153 C# Programming 2 3 0 3
Requisites: Take MAT-121(S24993) MAT-143(S24995) MAT-152(S24996) MAT-171(S24997) or MAT-271(S23939); Take previously. Required.
This course introduces computer programming using the C# programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test, debug, and implement objects using the appropriate environment at the beginning level.

CSC-154 Software Development 2 2 0 3
Requisites: Take CSC-134(S21066) CSC-139(S21071) CSC-151 or CSC-153; Take previously. Required.Take DBA-110 or DBA-120; Take either previously or concurrently. Required.
This course covers the fundamentals of software development. Emphasis is placed on the full spectrum of team software development methodologies, software development project management, version control, issue tracking, regression testing, automated build and deployment. Upon completion, students should be able to work in a team environment and apply software development methodologies and software quality assurance principles.

CSC-163 C Sharp Application Development 2 2 0 3
Requisites: Take CSC-153; Take previously. Required.
This course introduces the use of web-enabled applications and web services in the development of C# based applications. Emphasis is placed on creating web-enabled applications using event driven programming, graphical user interface design, database connectivity, and software development principles. Upon completion, students should be able to create web-enabled applications with a graphical user interface using the C# language.

CSC-216 Software Architecture 2 2 0 3
Requisites:
This course covers the fundamentals of N-tier and Web API software architectures through the exploration of various data access methodologies. Topics include presentation, middle/business and data tiers (N-tier), Web APIs and XML. Upon completion, students should be able to discuss the differences and similarities between N-tier and other

software architectures.

CSC-218 Swift Programming II 2 3 0 3
Requisites: Take CSC-118; Take previously. Required.
This course introduces advanced iOS application development using the Swift programming language. Emphasis is placed on navigation, data manipulation, web services, prototyping, debugging, and project planning. Upon completion, students should be able to develop advanced multifunctional iOS and Apple applications using the Swift programming language.

CSC-221 Advanced Python Programming 2 2 0 3
Requisites: Take CSC-121; Take previously. Required.Take MAT-152(S24996); Take previously. Required.
This course introduces advanced computer programming using the Python programming language. Emphasis is placed on the advanced programming concepts including advanced algorithms and programming principles utilizing standard and third party library tools. Upon completion, students should be able to design, code, test, and debug advanced Python language programs.

CSC-226 .NET Programming 2 2 0 3
Requisites: Take 1 group; Option: Take CSC-153 WEB-115(S22059) DBA-120; Option: Take CSC-139(S21071) WEB-115(S22059) DBA-120; Take previously. Required.
This course introduces the use of C# and XAML to design, develop, test and deploy .NET applications. Topics include building GUIs, data binding, Web API services, automated testing and deployment. Upon completion, students should be able to design, develop, test and deploy .NET applications.

CSC-227 Cloud Application Development 2 2 0 3
Requisites: Take CSC-134(S21066) CSC-139(S21071) CSC-151 or CSC-153; Take previously. Required.
This course introduces how to build, deploy, host, and manage applications using cloud technologies. Topics include building cloud applications using cloud toolsets, defining and managing service models, storage fundamentals, secure backup system and database programming. Upon completion, students should be able to develop and host cloud applications, as well as design and develop services that access local and remote data from various data sources.

CSC-234 Advanced C++ Programming 2 3 0 3
Requisites: Take CSC-134(S21066); Take previously. Required.
This course is a continuation of CSC 134 using the C++ programming language with standard programming principles. Emphasis is placed on advanced arrays/tables, file management/processing techniques, data structures, sub-programs, interactive processing, sort/merge routines, and libraries. Upon completion, students should be able to design, code, test, debug and document programming solutions.

CSC-239 Advanced Visual BASIC Programming 2 3 0 3
Requisites: Take CSC-139(S21071); Take previously. Required.Take CSC-139(S21071); Take previously. Required.
This course is a continuation of CSC 139 using the Visual BASIC programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test, debug, and implement objects using the appropriate environment.

CSC-245 Advanced C/C++ Programming 2 3 0 3
Requisites: Take CSC-133(S14305) CSC-134(S14286) CSC-140 CSC-141(S12799) or CSC-145; Take previously. Required.
This course covers additional operations using C dialects primarily relating to operating system interfacing. Topics include advanced file handling, Interprocess Communications, messages, semaphores, inter-language calls, signals, device drivers, sockets, and client/server techniques. Upon completion, students should be able to write and modify programs using advanced functions.

CSC-251 Advanced JAVA Programming 2 3 0 3

Requisites: Take CSC-151; Take previously. Required.

This course is a continuation of CSC 151 using the JAVA programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test, debug, and implement objects using the appropriate environment.

CSC-253 Advanced C# Programming 2 3 0 3

Requisites: Take CSC-153; Take previously. Required.

This course is a continuation of CSC 153 using the C# programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test, debug, and implement objects using the appropriate environment.

CSC-256 Software Quality Assurance 2 2 0 3

Requisites: Take CSC-121; Take previously. Required.

This course covers the principles, concepts and processes of software testing. Topics include testing technologies, static techniques, test design techniques, and test management. Upon completion, students should be able to design and implement software testing plans and procedures throughout the software life cycle.

CSC-258 JAVA Enterprise Programs 2 3 0 3

Requisites: Take CSC-151; Take previously. Required.Take DBA-120; Take previously. Required.

This course provides a continuation to CSC 151 using the Java Enterprise Edition (JEE) programming architecture. Topics include distributed network applications, database connectivity, Enterprise Java Beans, servlets, collection frameworks, JNDI, RMI, JSP, multithreading XML and multimedia development. Upon completion, students should be able to program a client/server enterprise application using the JEE framework.

CONSTRUCTION (CST Prefix)

CST-131 OSHA/Safety/Certification 2 2 0 3

Requisites:

This course covers the concepts of work site safety. Topics include OSHA regulations, tool safety, and certifications which relate to the construction industry. Upon completion, students should be able to identify and maintain a safe working environment based on OSHA regulations and maintain proper records and certifications.

CST-150 Building Science 2 2 0 3

Requisites: Take CMT-112; Take previously. Required.

This course introduces concepts and techniques for the design and interaction of the mechanical systems of high performance buildings. Topics include building envelope, heating, ventilation and air conditioning (HVAC), indoor air quality, lighting, plumbing and electrical. Upon completion, students should be able to understand building systems interaction and performance.

CST-241 Planning/Estimating I 2 2 0 3

Requisites: Take BPR-130(S23275) MAT-121(S23927) or MAT-171(S23934); Take previously. Required.

This course covers the procedures involved in planning and estimating a construction/building project. Topics include performing quantity take-offs of materials necessary for a building project. Upon completion, students should be able to accurately complete a take-off of materials and equipment needs involved in a construction project.

CST-242 Planning/Estimating II 3 2 0 4

Requisites: Take CST-241(S16266); Take previously. Required.

This course covers planning and estimating practices which are applicable to commercial construction. Emphasis is placed on planning and developing take-offs of materials, labor, and equipment in accordance with industry formats. Upon completion, students should be able to accurately complete take-offs and planning time lines necessary to complete a commercial structure.

CST-244 Sustainable Building Design 2 3 0 3

Requisites:

This course is designed to increase student knowledge about integrating sustainable design principles and green building technologies into mainstream residential construction practices. Emphasis is placed on reducing negative environmental impact and improving building performance, indoor air quality and the comfort of a building's occupants. Upon completion, students should be able to identify principles of green building, environmental efficiency and conservation of natural resources in relation to basic construction practices.

COMPUTER TECH INTEGRATION (CTI Prefix)

CTI-110 Web, Programming, and Database Foundation 2 2 0 3

Requisites:

This course covers the introduction of the tools and resources available to students in programming, mark-up language and services on the Internet. Topics include standard mark-up language Internet services, creating web pages, using search engines, file transfer programs; and database design and creation with DBMS products. Upon completion students should be able to demonstrate knowledge of programming tools, deploy a web-site with mark-up tools, and create a simple database table.

CTI-130 Operating Systems and Device Foundation 4 4 0 6

Requisites:

This course covers the basic hardware and software of a personal computer, including installation, operations and interaction with popular microcomputer operating systems. Topics include components identification, memory-system, peripheral installation and configuration, preventive maintenance, hardware diagnostics/repair, installation and optimization of system software, commercial programs, system configuration, and device-drivers. Upon completion, students should be able to select appropriate computer equipment and software, upgrade/maintain existing equipment and software, and troubleshoot/repair non-functioning personal computers.

CTI-140 Virtualization Concepts 1 4 0 3

Requisites: Take CTI-130(S22512) or NOS-110(S20980); Take previously. Required.

This course introduces operating system virtualization. Emphasis is placed on virtualization terminology, virtual machine storage, virtual networking and access control. Upon completion, students should be able to perform tasks related to installation, configuration and management of virtual machines.

CTI-141 Cloud and Storage Concepts 1 4 0 3

Requisites: Take CTI-130(S22512); Take previously. Required.

This course introduces cloud computing and storage concepts. Emphasis is placed on cloud terminology, virtualization, storage networking and access control. Upon completion, students should be able to perform tasks related to installation, configuration and management of cloud storage systems.

CTI-240 Virtualization Administration I 1 4 0 3

Requisites: Take CTI-140; Take previously. Required.

This course covers datacenter virtualization concepts. Topics include data storage, virtual network configuration, virtual machine and virtual application deployment. Upon completion, students should be able to perform tasks related to virtual machine and hypervisor installation and configuration.

CTI-241 Virtualization Administration II 1 4 0 3

Requisites: Take CTI-240; Take previously. Required.

This course covers administration of datacenter virtualization infrastructure. Topics include access control, fault tolerance, scalability, resource management, virtual machine migration and troubleshooting. Upon completion, students should be able to perform tasks related to virtualization security, data protection and resource monitoring.

CTI-260 Data Center Troubleshooting 2 2 0 3
Requisites: Take CTI-141 CTI-240 NET-126(S21096) NOS-230(S24041) WBL-112; Take previously. Required.
This course covers troubleshooting in a highly available, high performance, storage and computing system. Topics include provisioning, monitoring, diagnosing, and taking corrective actions in storage environments relating to Storage Area Network (SAN), Network Attached Storage (NAS), data protection and recovery. Upon completion, students should be able to demonstrate an understanding of SAN and NAS technologies, topologies, configuration, data protection, and fault triage and remediation.

COMPUTER INFORMATION TECHNOLOGY (CTS Prefix)

CTS-080 Computing Fundamentals 2 3 0 3
Requisites:
This course covers fundamental functions and operations of the computer. Topics include identification of components and basic computer operations including introduction to operating systems, the Internet, web browsers, and communication using World Wide Web. Upon completion, students should be able to operate computers, access files, print documents and perform basic applications operations.

CTS-112 Windows (TM) 1 2 0 2
Requisites:
This course includes the fundamentals of the Windows(TM) software. Topics include graphical user interface, icons, directories, file management, accessories, and other applications. Upon completion, students should be able to use Windows(TM) software in an office environment.

CTS-115 Information Systems Business Concepts 3 0 0 3
Requisites: Take CIS-110(S21058) CTI-110(S22510) or SGD-111(S21240); Take previously. Required.
The course introduces the role of IT in managing business processes and the need for business process and IT alignment. Emphasis is placed on industry need for understanding business challenges and developing/managing information systems to contribute to the decision making process based on these challenges. Upon completion, students should be able to demonstrate knowledge of the 'hybrid business manager' and the potential offered by new technology and systems.

CTS-118 IS Professional Communications 2 0 0 2
Requisites: Take 1 group; Option: Take CTI-120(S22511) CTS-135(S24367); Option: Take CTI-120(S22511) CTI-130(S22512); Option: Take CIS-110(S21058) CTS-135(S24367); Take previously. Required.
This course prepares the information systems professional to communicate with corporate personnel from management to end-users. Topics include information systems cost justification tools, awareness of personal hierarchy of needs, addressing these needs, and discussing technical issues with non-technical personnel. Upon completion, students should be able to communicate information systems issues to technical and non-technical personnel.

CTS-120 Hardware/Software Support 2 3 0 3
Requisites: Take NOS-110(S20980) CTI-130(S22512) or CIS-110(S21058); Take previously. Required.
This course covers the basic hardware of a personal computer, including installation, operations and interactions with software. Topics include component identification, memory-system, peripheral installation and configuration, preventive maintenance, hardware diagnostics/repair, installation and optimization of system software, commercial programs, system configuration, and device-drivers. Upon completion, students should be able to select appropriate computer equipment and software, upgrade/maintain existing equipment and software, and troubleshoot/repair non-functioning personal computers.

CTS-130 Spreadsheet 2 2 0 3
Requisites:
This course introduces basic spreadsheet design and development. Topics include writing formulas, using functions, enhancing spreadsheets, creating charts, and printing. Upon completion, students should be able to design and print

basic spreadsheets and charts.

CTS-155 Tech Support Functions 2 2 0 3
Requisites: Take 1 group; Option: Take CTI-120(S22511) NOS-110(S20980); Option: Take CIS-110(S21058) NOS-110(S20980); Take previously. Required.
This course introduces a variety of diagnostic and instructional tools that are used to evaluate the performance of technical support technologies. Emphasis is placed on technical support management techniques and support technologies. Upon completion, students should be able to determine the best technologies to support and solve actual technical support problems.

CTS-210 Computer Ethics 3 0 0 3
Requisites: Take CIS-110(S21058) NET-125(S24501) SEC-110(S23204) or CTI-120(S22511); Take previously. Required.
This course introduces the student to current legal and ethical issues in the computer/engineering field. Topics include moral reasoning, ethical standards, intellectual property, social issues, encryption, software piracy, constitutional issues, and public policy in related matters. Upon completion, students should be able to demonstrate an understanding of the moral and social responsibilities and public policy issues facing an industry.

CTS-220 Advanced Hardware/Software Support 2 3 0 3
Requisites: Take CTS-120(S23679); Take previously. Required.
This course provides advanced knowledge and competencies in hardware and operating system technologies for computer technicians to support personal computers. Emphasis is placed on: configuring and upgrading; diagnosis and troubleshooting; as well as preventive maintenance of hardware and system software. Upon completion, students should be able to install, configure, diagnose, perform preventive maintenance, and maintain basic networking on personal computers.

CTS-225 Spreadsheet Data Analysis 2 2 0 3
Requisites:
This course presents basic and advanced techniques for data analysis and management using electronic spreadsheets. Topics include an overview of spreadsheet analytics, terminology, model preparation, and analytical techniques. Upon completion, students should be able to develop reliable and effective quantitative data models and reports to support analysis and decision-making for common business systems.

CTS-230 Advanced Spreadsheet 2 2 0 3
Requisites: Take CTS-130(S21000); Take previously. Required.
This course covers advanced spreadsheet design and development. Topics include advanced functions and statistics, charting, macros, databases, and linking. Upon completion, students should be able to demonstrate competence in designing complex spreadsheets.

CTS-235 Integrated Software Advanced 2 4 0 4
Requisites: Take CTS-135(S21001); Take previously. Required.
This course provides strategies to perform data transfer among software programs. Emphasis is placed on data interchange among word processors, spreadsheets, presentation graphics, databases and communications products. Upon completion, students should be able to integrate data to produce documents using multiple technologies.

CTS-255 Advanced Tech Support Functions 2 2 0 3
Requisites: Take CTS-155; Take previously. Required.
This course introduces a variety of diagnostic and instructional tools that are used to evaluate the performance of technical support technologies. Topics include technical support management techniques, evaluation, and methods of deployment for technical support technologies. Upon completion, students should be able to determine the best technologies to support and solve more complex technical support problems.

CTS-272 Desktop Support: Applications 2 2 0 3
Requisites: Take CTS-120(S23679) NOS-130(S24397); Take previously. Required.
This course is designed to prepare students for a foundation in Desktop Support certification in office productivity applications. Emphasis is placed on developing proficiency in the end-user support skills, processes, and procedures necessary to correctly support office productivity products. Upon completion, students should be able to prepare for industry-level certification and utilize advanced support tools toward resolving office productivity end-user problems.

CTS-285 Systems Analysis & Design 3 0 0 3
Requisites: Take 1 group; Option: Take CTI-110(S22510) CTS-115(S20996); Option: Take CIS-115(S24352) CTS-115(S20996); Take previously. Required.
This course introduces established and evolving methodologies for the analysis, design, and development of an information system. Emphasis is placed on system characteristics, managing projects, prototyping, CASE/OOM tools, and systems development life cycle phases. Upon completion, students should be able to analyze a problem and design an appropriate solution using a combination of tools and techniques.

CTS-288 Professional Practices in IT 2 2 0 3
Requisites:
This course provides students with the business skills needed for success in the information technology field. Topics include portfolio development, resume design, interviewing techniques and professional practices. Upon completion, students should be able to prepare themselves and their work for a career in the information technology field.

CTS-289 System Support Project 1 4 0 3
Requisites: Take CTI-110(S22510) CTI-120(S22511) CTS-115(S20996); Take previously. Required.Take CTI-110(S22510) CTI-120(S22511) CTS-115(S20996) CTS-135(S24367) CTS-220 CTS-285(S24373) NOS-230(S24041); Take previously. Required.
This course provides an opportunity to complete a significant support project with minimal instructor assistance. Emphasis is placed on written and oral communication skills, project definition, documentation, installation, testing, presentation, and user training. Upon completion, students should be able to complete a project from the definition phase through implementation.

CULINARY (CUL Prefix)

CUL-110 Sanitation and Safety 2 0 0 2
Requisites: Take DMA-030 DRE-098(S23643); Take previously. Required.
This course introduces the basic principles of sanitation and safety relative to the hospitality industry. Topics include personal hygiene, sanitation and safety regulations, use and care of equipment, the principles of food-borne illness, and other related topics. Upon completion, students should be able to demonstrate an understanding of the content necessary for successful completion of a nationally recognized food/safety/sanitation exam.

CUL-112A Nutrition for Foodservice Lab 0 3 0 1
Requisites: Take CUL-112(S10923); Take either previously or concurrently. Required.Take CUL-110(S22835) CUL-140(S22844) or CUL-142(S22845); Take previously. Required.Take CUL-112(S22837); Take either previously or concurrently. Required.
This course provides a laboratory experience for enhancing student skills in the principles of nutrition and its relationship to the foodservice industry. Emphasis is placed on personal nutrition fundamentals, weight management/exercise, nutritional adaptation/analysis of recipes/menus, healthy cooking techniques and marketing nutrition in a foodservice operation. Upon completion, students should be able to apply basic nutritional concepts to food preparation and selection.

CUL-130 Menu Design 2 0 0 2
Requisites: Take DMA-030 DRE-098(S23643); Take previously. Required.
This course introduces menu design and its relationship to foodservice operations. Topics include layout, marketing, concept development, dietary concerns, product utilization, target consumers and trends. Upon completion, students should be able to design, create and produce menus for a variety of foodservice settings.

CUL-135 Food and Beverage Service 2 0 0 2

Requisites: Take CUL-110(S22835); Take previously. Required.Take CUL-135A(S22843); Take either previously or concurrently. Required.

This course is designed to cover the practical skills and knowledge necessary for effective food and beverage service in a variety of settings. Topics include greeting/service of guests, dining room set-up, profitability, menu sales and merchandising, service styles and reservations. Upon completion, students should be able to demonstrate competence in human relations and the skills required in the service of foods and beverages. Concepts and skills studied in this course will be applied in CUL 135A, Food and Beverage Service Lab.

CUL-135A Food and Beverage Service Lab 0 2 0 1

Requisites: Take CUL-135(S10202); Take either previously or concurrently. Required.

This course provides a laboratory experience for enhancing student skills in effective food and beverage service. Emphasis is placed on practical experiences including greeting/service of guests, dining room set-up, profitability, menu sales and merchandising, service styles and reservations. Upon completion, students should be able to demonstrate practical applications of human relations and the skills required in the service of foods and beverages.

CUL-140 Culinary Skills I 2 6 0 5

Requisites: Take CUL-110(S22835); Take either previously or concurrently. Required.

This course introduces the fundamental concepts, skills and techniques in basic cookery, and moist, dry and combination heat. Emphasis is placed on recipe conversion, measurements, terminology, classical knife cuts, safe food/equipment handling, flavorings/seasonings, stocks/sauces/soups, and related topics. Upon completion, students should be able to exhibit the basic cooking skills used in the foodservice industry.

CUL-142 Fundamentals of Food 2 6 0 5

Requisites: Take CUL-110(S22835); Take either previously or concurrently. Required.

This course introduces the student to the basic principles of cooking, baking and kitchen operations. Topics include preparation methods for protein, starch, vegetable/fruit identification/selection, storage; breakfast cookery, breads, sweet dough/pastries, basic fabrication, knife skills, and mise en place. Upon completion, students should be able to execute efficiently a broad range of basic cooking/baking skills as they apply to different stations in foodservice operations.

CUL-160 Baking I 1 4 0 3

Requisites: Take CUL-110(S22835); Take either previously or concurrently. Required.Take DMA-030 DRE-098(S23643); Take previously. Required.Take CUL-140(S22844) or CUL-142(S22845); Take either previously or concurrently. Required.

This course covers basic ingredients, techniques, weights and measures, baking terminology and formula calculations. Topics include yeast/chemically leavened products, laminated doughs, pastry dough batter, pies/tarts, meringue, custard, cakes and cookies, icings, glazes and basic sauces. Upon completion, students should be able to demonstrate proper scaling and measurement techniques, and prepare and evaluate a variety of bakery products.

CUL-170 Garde Manger I 1 4 0 3

Requisites: Take CUL-110(S22835); Take either previously or concurrently. Required.Take CUL-140(S22844); Take previously. Required.

This course introduces basic cold food preparation techniques and pantry production. Topics include salads, sandwiches, appetizers, dressings, basic garnishes, cheeses, cold sauces, and related food items. Upon completion, students should be able to present a cold food display and exhibit an understanding of the cold kitchen and its related terminology.

CUL-214 Wine Appreciation 1 2 0 2

Requisites: Take DMA-030 DRE-098(S23643); Take previously. Required.

This course provides an introduction to information about wine from all the major wine producing regions. Emphasis is placed on the history of wine, production, characteristics, wine list development, laws, purchasing and storing requirements. Upon completion, students should be able to evaluate varietal wines and basic food pairings. Must be 21 years old or older to take this class.

CUL-230 Global Cuisines 1 8 0 5

Requisites: Take CUL-110(S11030) CUL-140(S12163); Take previously. Required.Take CUL-110(S22835) WBL-112 CUL-140(S22844) CUL-240(S22853); Take previously. Required.

This course provides practical experience in the planning, preparation, and presentation of representative foods from a variety of world cuisines. Emphasis is placed on indigenous ingredients and customs, nutritional concerns, and cooking techniques. Upon completion, students should be able to research and execute a variety of international and domestic menus.

CUL-240 Culinary Skills II 1 8 0 5

Requisites: Take 1 group; Option: Take CUL-110(S22835) CUL-140(S22844); Option: Take CUL-110(S22835) CUL-142(S22845) CUL-170(S22849); Take previously. Required.Take CUL-110(S22835) CUL-140(S22844); Take previously. Required.

This course is designed to further students' knowledge of the fundamental concepts, skills, and techniques involved in basic cookery. Emphasis is placed on meat identification/fabrication, butchery and cooking techniques/methods; appropriate vegetable/starch accompaniments; compound sauces; plate presentation; breakfast cookery; and quantity food preparation. Upon completion, students should be able to plan, execute, and successfully serve entrees with complementary side items.

CUL-260 Baking II 1 4 0 3

Requisites: Take CUL-110(S22835) CUL-160(S22847); Take previously. Required.Take CUL-110(S22835) CUL-160(S22847); Take previously. Required.

This course is designed to further students' knowledge in ingredients, weights and measures, baking terminology and formula calculation. Topics include classical desserts, frozen desserts, cake and torte production, decorating and icings/glazes, dessert plating and presentation. Upon completion, students should be able to demonstrate pastry preparation, plating, and dessert buffet production skills.

CUL-270 Garde Manger II 1 4 0 3

Requisites: Take CUL-110(S22835) CUL-140(S22844) CUL-170(S22849); Take previously. Required.Take CUL-110(S22835) CUL-140(S22844) CUL-170(S22849); Take previously. Required.

This course is designed to further students' knowledge in basic cold food preparation techniques and pantry production. Topics include pâtés, terrines, galantines, decorative garnishing skills, carving, charcuterie, smoking, canapés, hors d'oeuvres, and related food items. Upon completion, students should be able to design, set up, and evaluate a catering/event display to include a cold buffet with appropriate showpieces.

CUL-280 Pastry and Confections 1 4 0 3

Requisites: Take CUL-110(S22835) CUL-140(S22844) CUL-160(S22847); Take previously. Required.Take CUL-110(S22835) CUL-140(S22844) CUL-160(S22847); Take previously. Required.

This course includes confections and candy, chocolate techniques, transfer sheets, pulled and blown sugar, pastillage, marzipan and custom silicon molding. Emphasis is placed on showpieces, pre-set molding, stencil cutouts, pattern tracing and/or free-hand shaping. Upon completion, students should be able to design and produce centerpieces and showpieces.

CUL-287 Cultural Experience 2 2 0 3

Requisites: Take CUL-110(S11030) CUL-140(S12163) CUL-240(S13191); Take previously. Required.Take CUL-110(S22835) CUL-140(S22844) CUL-240(S22853); Take previously. Required.

This course is designed to provide the background cultural information necessary for students to maximize a cultural experience. Emphasis is placed on language skills, culture, culinary traditions and cuisines, and an appreciation of the local history. Upon completion, students should exhibit an understanding of the unique character of the studied culture, specifically those relating to culinary arts.

DATABASE MANAGEMENT TECHNOLOGY (DBA Prefix)

DBA-110 Database Concepts 2 3 0 3

Requisites:

This course introduces database design and creation using a DBMS product. Emphasis is placed on data dictionaries, normalization, data integrity, data modeling, and creation of simple tables, queries, reports, and forms. Upon completion, students should be able to design and implement normalized database structures by creating simple database tables, queries, reports, and forms.

DBA-115 Database Applications 2 2 0 3

Requisites: Take DBA-110; Take previously. Required.

This course applies concepts learned in DBA 110 to a specific DBMS. Topics include manipulating multiple tables, advanced queries, screens and reports, linking, and command files. Upon completion, students should be able to create multiple table systems that demonstrate updates, screens, and reports representative of industry requirements.

DBA-125 Database Reporting 2 2 0 3

Requisites:

This course provides a survey of the tools used in designing, creating and publishing database reports. Topics include both relational and XML datasets. Upon completion, students should be able to demonstrate an understanding of the different tools and frameworks used for database reporting.

DBA-130 Introduction to Nosql Databases 2 2 0 3

Requisites: Take DBA-120 WEB-115(S22059); Take previously. Required.

This course introduces large scale data oriented web solutions on noSQL Databases. Topics include the advantages of developing and implementing noSQL Database systems. Upon completion, students should be able to design, develop, implement, and administer noSQL Database structures on business environments.

DBA-210 Database Administration 2 3 0 3

Requisites: Take DBA-120; Take previously. Required.

This course covers database administration issues and distributed database concepts. Topics include database administrator (DBA) goals and functions, backup and recovery, standards and procedures, training, and database security and performance evaluations. Upon completion, students should be able to produce functional DBA documentation and administer a database.

DBA-220 Oracle Database Programming II 2 2 0 3

Requisites: Take DBA-120; Take previously. Required.

This course is designed to enhance programming skills developed in DBA 120. Topics include application development with GUI front-ends and embedded programming. Upon completion, students should be able to develop an Oracle DBMS application which includes a GUI front-end and report generation.

DBA-221 SQL Server Database Programming II 2 2 0 3

Requisites: Take DBA-120; Take previously. Required.

This course is designed to enhance programming skills developed in DBA 120. Topics include application development with GUI front-ends and embedded programming. Upon completion, students should be able to develop a SQL Server DBMS application which includes a GUI front-end and report generation.

DBA-223 MySQL Database Programming II 2 2 0 3

Requisites: Take DBA-120; Take previously. Required.

This course is designed to enhance programming skills developed in DBA 120. Topics include application development with GUI front-ends and embedded programming. Upon completion, students should be able to develop a MySQL DBMS application which includes a GUI front-end and report generation.

DBA-230 Databases in Corporate Environments 3 0 0 3
Requisites: Take DBA-120 DBA-240; Take previously. Required.
This course covers database systems as they relate to the corporate environment. Topics include knowledge-based, decision-support, and expert systems; database choices; data warehousing; and corporate structure. Upon completion, students should be able to analyze and recommend database systems needed by a corporation.

DBA-240 Database Analysis and Design 2 3 0 3
Requisites: Take DBA-120; Take previously. Required.
This course is an exploration of the established and evolving methodologies for the analysis, design, and development of a database system. Emphasis is placed on business data characteristics and usage, managing database projects, prototyping and modeling, and CASE tools. Upon completion, students should be able to analyze, develop, and validate a database implementation plan.

DBA-260 Oracle Database Management System Admin 2 2 0 3
Requisites: Take DBA-120 DBA-240; Take previously. Required.
This course examines advanced Oracle database administration issues and distributed database concepts. Topics include backup and recovery, transporting of data between databases, database networking concepts, and resolution of database networking issues. Upon completion, students should be able to manage backup recovery and implement networked database solutions.

DBA-261 SQL Server Database Management System Administration 2 2 0 3
Requisites: Take DBA-221; Take concurrently. Required.
This course examines advanced SQL Server database administration issues and distributed database concepts. Topics include backup and recovery, transporting of data between databases, database networking concepts, and resolution of database networking issues. Upon completion, students should be able to manage backup recovery and implement networked database solutions.

DBA-285 Data Warehousing and Mining 2 3 0 3
Requisites:
This course introduces data warehousing and data mining techniques. Emphasis is placed on data warehouse design, data transference, data cleansing, retrieval algorithms, and mining techniques. Upon completion, students should be able to create, populate, and mine a data warehouse.

DESIGN DRAFTING (DDF Prefix)

DDF-211 Design Process I 1 6 0 4
Requisites:
This course emphasizes design processes for finished products. Topics include data collection from manuals and handbooks, efficient use of materials, design sketching, specifications, and vendor selection. Upon completion, students should be able to research and plan the design process for a finished product.

DEVELOPMENTAL DISABILITIES (DDT Prefix)

DDT-210 DDT Health Issues 3 0 0 3
Requisites: Take DDT-110; Take previously. Required.
This course introduces the health and medical aspects of assisting people with developmental disabilities. Topics include universal precautions, medication, wellness, nutrition, human sexuality, and accessing medical services. Upon completion, students should be able to identify and implement strategies to promote wellness and manage chronic health conditions.

DDT-220 Program Planning Process 3 0 0 3

Requisites:

This course covers the individual program planning process used in services for people with developmental disabilities. Topics include basic components and benefits of the process, the effect of values on outcomes, and group problem-solving methods. Upon completion, students should be able to demonstrate an understanding of effective group process in program planning and the individual roles of team members.

DENTAL (DEN Prefix)

DEN-100 Basic Orofacial Anatomy 2 0 0 2

Requisites:

This course provides a basic introduction to the structures of the head, neck, and oral cavity. Topics include tooth morphology, head and neck anatomy, histology, and embryology. Upon completion, students should be able to demonstrate knowledge of normal structures and development and how they relate to the practice of dental assisting.

DEN-101 Preclinical Procedures 4 6 0 7

Requisites:

This course provides instruction in procedures for the clinical dental assistant as specified by the North Carolina Dental Practice Act. Emphasis is placed on orientation to the profession, infection control techniques, instruments, related expanded functions, and diagnostic, operative, and specialty procedures. Upon completion, students should be able to demonstrate proficiency in clinical dental assisting procedures.

DEN-102 Dental Materials 2 4 0 4

Requisites:

This course provides instruction in identification, properties, evaluation of quality, principles, and procedures related to manipulation and storage of operative and specialty dental materials. Emphasis is placed on the understanding and safe application of materials used in the dental office and laboratory. Upon completion, students should be able to demonstrate proficiency in the laboratory and clinical application of routinely used dental materials.

DEN-103 Dental Sciences 2 0 0 2

Requisites:

This course is a study of oral pathology, pharmacology, and dental office emergencies. Topics include oral pathological conditions, dental therapeutics, and management of emergency situations. Upon completion, students should be able to recognize abnormal oral conditions, identify classifications, describe actions and effects of commonly prescribed drugs, and respond to medical emergencies.

DEN-105 Practice Management 2 0 0 2

Requisites:

This course provides a study of principles and procedures related to management of the dental practice. Emphasis is placed on maintaining clinical and financial records, patient scheduling, and supply and inventory control. Upon completion, students should be able to demonstrate fundamental skills in dental practice management.

DEN-106 Clinical Practice I 2 0 12 6

Requisites: Take DEN-101(S20496); Take previously. Required.

This course is designed to provide experience assisting in a clinical setting. Emphasis is placed on the application of principles and procedures of four-handed dentistry and laboratory and clinical support functions. Upon completion, students should be able to utilize classroom theory and laboratory and clinical skills in a dental setting.

DEN-107 Clinical Practice II 1 0 12 5

Requisites: Take DEN-106(S14145); Take previously. Required.

This course is designed to increase the level of proficiency in assisting in a clinical setting. Emphasis is placed on the application of principles and procedures of four-handed dentistry and laboratory and clinical support functions. Upon completion, students should be able to combine theoretical and ethical principles necessary to perform entry-level skills including functions delegable to a DA II.

DEN-110 Orofacial Anatomy 2 2 0 3

Requisites:

This course introduces the structures of the head, neck, and oral cavity. Topics include tooth morphology, head and neck anatomy, histology, and embryology. Upon completion, students should be able to relate the identification of normal structures and development to the practice of dental assisting and dental hygiene.

DEN-111 Infection/Hazard Control 2 0 0 2

Requisites:

This course introduces the infection and hazard control procedures necessary for the safe practice of dentistry. Topics include microbiology, practical infection control, sterilization and monitoring, chemical disinfectants, aseptic technique, infectious diseases, OSHA standards, and applicable North Carolina laws. Upon completion, students should be able to understand infectious diseases, disease transmission, infection control procedures, biohazard management, OSHA standards, and applicable North Carolina laws.

DEN-112 Dental Radiography 2 3 0 3

Requisites:

This course provides a comprehensive view of the principles and procedures of radiology as they apply to dentistry. Topics include techniques in exposing, processing, and evaluating radiographs, as well as radiation safety, quality assurance, and legal issues. Upon completion, students should be able to demonstrate proficiency in the production of diagnostically acceptable radiographs using appropriate safety precautions.

DEN-121 Dental Hygiene Preclinical Lab 0 6 0 2

Requisites: Take DEN-120; Take either previously or concurrently. Required.

This course provides the opportunity to perform clinical dental hygiene procedures discussed in DEN 120. Emphasis is placed on clinical skills in patient assessment and instrumentation techniques. Upon completion, students should be able to demonstrate the ability to perform specific preclinical procedures.

DEN-123 Nutrition/Dental Health 2 0 0 2

Requisites:

This course introduces basic principles of nutrition with emphasis on nutritional requirements and their application to individual patient needs. Topics include the study of Federal Nutritional Guidelines, nutrient functions, Recommended Daily Allowances, Adequate Intake, Tolerable Upper Intake Level, Estimated Average Requirement, and related psychological principles. Upon completion, students should be able to recommend and counsel individuals on their food intake as related to their dental health.

DEN-124 Periodontology 2 0 0 2

Requisites: Take DEN-110; Take previously. Required.

This course provides an in-depth study of the periodontium, periodontal pathology, periodontal monitoring, and the principles of periodontal therapy. Topics include periodontal anatomy and a study of the etiology, classification, and treatment modalities of periodontal diseases. Upon completion, students should be able to describe, compare, and contrast techniques involved in periodontal/maintenance therapy, as well as patient care management.

DEN-125 Dental Office Emergencies 0 2 0 1

Requisites:

This course provides a study of the management of dental office emergencies. Topics include methods of prevention, necessary equipment/drugs, medicolegal considerations, recognition and effective initial management of a variety of emergencies. Upon completion, the student should be able to recognize, assess and manage various dental office emergencies and activate advanced medical support when indicated.

DEN-130 Dental Hygiene Theory I 2 0 0 2

Requisites: Take DEN-120; Take previously. Required.Take DEN-131; Take either previously or concurrently. Required.

This course is a continuation of the didactic dental hygiene concepts necessary for providing an oral prophylaxis. Topics include deposits/removal, instrument sharpening, patient education, fluorides, planning for dental hygiene

treatment, charting, and clinical records and procedures. Upon completion, students should be able to demonstrate knowledge needed to complete a thorough oral prophylaxis.

DEN-131 Dental Hygiene Clinic I 0 0 9 3
Requisites: Take DEN-121; Take previously. Required.Take DEN-130; Take either previously or concurrently. Required.
This course continues skill development in providing an oral prophylaxis. Emphasis is placed on treatment of the recall patients with gingivitis or light deposits. Upon completion, students should be able to assess these patients' needs and complete the necessary dental hygiene treatment.

DEN-141 Dental Hygiene Clinic II 0 0 6 2
Requisites: Take DEN-131; Take previously. Required.Take DEN-140(S14315); Take either previously or concurrently. Required.
This course continues skill development in providing an oral prophylaxis. Emphasis is placed on treatment of patients with early periodontal disease and subgingival deposits. Upon completion, students should be able to assess these patients' needs and complete the necessary dental hygiene treatment.

DEN-220 Dental Hygiene Theory III 2 0 0 2
Requisites: Take DEN-140(S14315); Take previously. Required.Take DEN-221; Take either previously or concurrently. Required.
This course introduces advanced principles of patient care. Topics include advanced periodontal debridement, subgingival irrigation, air polishing, special needs and case presentations. Upon completion, students should be able to demonstrate knowledge of methods of treatment and management of periodontally compromised and special needs patients.

DEN-221 Dental Hygiene Clinic III 0 0 12 4
Requisites: Take DEN-141; Take previously. Required.Take DEN-220(S11191); Take either previously or concurrently. Required.
This course continues skill development in providing an oral prophylaxis. Emphasis is placed on treatment of patients with moderate to advanced periodontal involvement and moderate deposits. Upon completion, students should be able to assess these patients' needs and complete the necessary dental hygiene treatment.

DEN-222 General & Oral Pathology 2 0 0 2
Requisites: Take BIO-163 BIO-165 or BIO-168(S11555); Take previously. Required.
This course provides a general knowledge of oral pathological manifestations associated with selected systemic and oral diseases. Topics include developmental and degenerative diseases, selected microbial diseases, specific and nonspecific immune and inflammatory responses with emphasis on recognizing abnormalities. Upon completion, students should be able to differentiate between normal and abnormal tissues and refer unusual findings to the dentist for diagnosis.

DEN-223 Dental Pharmacology 2 0 0 2
Requisites: Take BIO-163 BIO-165 or BIO-168(S11555); Take either previously or concurrently. Required.
This course provides basic drug terminology, general principles of drug actions, dosages, routes of administration, adverse reactions, and basic principles of anesthesiology. Emphasis is placed on knowledge of drugs in overall understanding of patient histories and health status. Upon completion, students should be able to recognize that each patient's general health or drug usage may require modification of the treatment procedures.

DEN-224 Materials and Procedures 1 3 0 2
Requisites: Take DEN-111; Take previously. Required.
This course introduces the physical properties of materials and related procedures used in dentistry. Topics include restorative and preventive materials, fabrication of casts and appliances, and chairside functions of the dental hygienist. Upon completion, students should be able to demonstrate proficiency in the laboratory and/or clinical application of routinely used dental materials and chairside functions.

DEN-231 Dental Hygiene Clinic IV 0 0 12 4

Requisites: Take DEN-221; Take previously. Required.Take DEN-230(S12882); Take either previously or concurrently. Required.

This course continues skill development in providing an oral prophylaxis. Emphasis is placed on periodontal maintenance and on treating patients with moderate to advanced/refractory periodontal disease. Upon completion, students should be able to assess these patients' needs and complete the necessary dental hygiene treatment.

DEN-232 Community Dental Health 2 3 0 3

Requisites:

This course provides a study of the principles and methods used in assessing, planning, implementing, and evaluating community dental health programs. Topics include epidemiology, research methodology, biostatistics, preventive dental care, dental health education, program planning, and financing and utilization of dental services. Upon completion, students should be able to assess, plan, implement, and evaluate a community dental health program.

DEN-233 Professional Development 2 0 0 2

Requisites:

This course includes professional development, ethics, and jurisprudence with applications to practice management. Topics include conflict management, state laws, resumes, interviews, and legal liabilities as health care professionals. Upon completion, students should be able to demonstrate the ability to practice dental hygiene within established ethical standards and state laws.

DESIGN: CREATIVE (DES Prefix)

DES-112 Building and Construction Systems 3 0 0 3

Requisites: Take ARC-111 ARC-114(S10248); Take either previously or concurrently. Required.

This course provides an overview of the residential construction process for the interior designer. Emphasis is placed on providing the fundamental knowledge needed by the designer in residential construction basics and methods, including electrical and lighting, plumbing, sustainability, mechanical and ventilation, and the building envelope. Upon completion, students should be able to demonstrate effective communication required for effective collaboration with architects, engineers, and building contractors.

DES-125 Visual Presentation I 0 6 0 2

Requisites:

This course introduces visual presentation techniques for communicating ideas. Topics include drawing, perspective drawing, rendering and mixed media. Upon completion, students should be able to present a design concept through graphic media.

DES-135 Principles and Elements of Design I 2 4 0 4

Requisites:

This course introduces the basic concepts and terminology of design as they relate to the design profession. Topics include line, pattern, space, mass, shape, texture, color, unity, variety, rhythm, emphasis, balance, proportion, scale, and function. Upon completion, students should be able to demonstrate an understanding of the principles covered through 2D and 3D exploration.

DES-210 Professional Practices for Interior Design 2 0 0 2

Requisites: Take DES-220(S24228); Take previously. Required.Take ENG-114(S13706); Take either previously or concurrently. Required.

This course introduces contemporary business practices for interior design. Topics include employment skills, business formations, professional associations, preparation of professional contracts and correspondence, and means of compensation. Upon completion, students should be able to demonstrate an understanding of basic business practices as they relate to the interior design profession.

DES-220 Interior Design Fundamentals 1 6 0 3

Requisites: Take 1 group; Option: Take DES-135(S10718) ARC-111; Option: Take DES-110(S10337); Option: Take DFT-115; Take previously. Required.Take ARC-114(S10248); Take previously. Required.

This course provides an introduction to the application of interior design principles. Emphasis is placed on spatial relationships, material selections, craftsmanship, and visual presentation techniques. Upon completion, students should be able to apply interior design principles and illustrate design solutions through visual communication.

DES-225 Textiles for Interiors 2 2 0 3

Requisites:

This course includes the study of textiles and their applications for a variety of interiors. Emphasis is placed on history, manufacturing processes, fiber characteristics, and residential and non-residential applications. Upon completion, students should be able to specify appropriate textiles.

DES-230 Residential Design I 1 6 0 3

Requisites: Take DES-220(S24228); Take either previously or concurrently. Required.Take DES-125(S24222) ARC-264(S22026) or GRD-151; Take either previously or concurrently. Required.

This course includes principles of interior design for various residential design solutions. Emphasis is placed on visual presentation and selection of appropriate styles to meet specifications. Upon completion, students should be able to present scaled floor plans, elevations, specifications, color schemes finishes and furniture selection.

DES-235 Products 2 2 0 3

Requisites: Take DES-220(S24228); Take either previously or concurrently. Required.

This course provides an overview of interior products. Topics include floor coverings; wall coverings and finishes; ceilings, moldings, and furniture construction techniques; and other interior components. Upon completion, students should be able to identify and select appropriate materials and furnishings for interior spaces based on application.

DES-240 Commercial and Contract Design I 1 6 0 3

Requisites: Take DES-220(S21676); Take previously. Required.Take DES-193A(L52494); Take previously. Required.Take DES-280(S24237) or ARC-131(S23274); Take either previously or concurrently. Required.

This course is designed to focus on commercial/contract design including retail, office, institutional, healthcare and hospitality design. Emphasis is placed on ADA requirements, building codes and standards, space planning, and selection of appropriate materials for non-residential interiors. Upon completion, students should be able to analyze design and present non-residential projects.

DES-256 History of Interiors and Furnishings II 3 0 0 3

Requisites:

This course continues the study of architecture, interiors, and furnishings from a variety of historic styles from Colonial to Contemporary. Emphasis is placed on style recognition, vocabulary, and chronology. Upon completion, students should be able to recognize, classify and describe major styles of furniture, interiors, and exteriors.

DES-265 Lighting/Interior Design 1 2 0 2

Requisites: Take DES-135(S24225) ARC-111 ARC-114(S10248); Take previously. Required.

This course introduces theory and contemporary concepts in lighting. Topics include light levels, light quality, lamps and fixtures, and their use and application in interior design. Upon completion, students should be able to visually communicate light concepts and requirements based on national standards and select solutions for specific lighting scenarios.

DES-280 Codes and Standards/Interior Design 3 0 0 3

Requisites: Take DES-220(S24228); Take previously. Required.

This course introduces standard building codes as they relate to interior design. Topics include state and federal codes and standards related to accessibility, fire codes, egress, occupancy, and plumbing requirements. Upon completion, students should be able to research and interpret and apply applicable codes.

DES-285 Capstone/Interior Design 2 6 0 4
Requisites: Take DES-230(S24230) DES-240(S24233); Take previously. Required.Take DES-210(S24227); Take either previously or concurrently. Required.
This course provides additional studio time to investigate areas of special interest, upgrade weaknesses, and/or capitalize on strengths. Topics include a broad range of options, both residential and non-residential, combining individual research and instructional guidance. Upon completion, students should be able to complete the graphics, client folder, and all schedules for a professional project.

DES-286 Interior Design/Advanced 1 6 0 3
Requisites: Take DES-230(S10589); Take previously. Required.Take DES-240(S21677); Take previously. Required.
This course covers advanced techniques in designing either a residential or non-residential project: a residence, health care facility, retail establishment, or office complex. Emphasis is placed on the development of a total concept based on client profile and specifications and a presentation of appropriate and creative design solutions. Upon completion, students should be able to complete a detailed floorplan, space planning, furniture plan specifications, schedules, and detailed window treatments.

DRAFTING (DFT Prefix)

DFT-110 Basic Drafting 1 2 0 2
Requisites:
This course introduces basic drafting skills, terminology, and applications. Topics include basic mathematics; sketching; introduction to CAD, ANSI, and ISO drafting standards; and a survey of various drafting applications. Upon completion, students should be able to perform basic calculations for CAD drafting, sketch drawings using appropriate standards, and recognize drawings from different drafting fields.

DFT-112 Technical Drafting II 1 3 0 2
Requisites: Take DFT-111(S16295); Take previously. Required.
This course provides for advanced drafting practices and procedures. Topics include detailed working drawings, hardware, fits and tolerances, assembly and sub-assembly, geometric dimensioning and tolerancing, intersections, and developments. Upon completion, students should be able to produce detailed working drawings.

DFT-119 Basic CAD 1 2 0 2
Requisites:
This course introduces computer-aided drafting software for specific technologies to non-drafting majors. Emphasis is placed on understanding the software command structure and drafting standards for specific technical fields. Upon completion, students should be able to create and plot basic drawings. This course utilizes MicroStation software.

DFT-120 Advanced CAD 1 2 0 2
Requisites: Take DFT-119; Take previously. Required.
This course is designed for non-drafting majors to build upon basic computer-aided drafting skills by the use of application-specific assignments. Emphasis is placed on advanced 2D, 3D, isometric, and modeling applications via the CAD system. Upon completion, students should be able to generate, manage, and output engineering drawings via the computer, printer, and plotter. This course utilizes Geopak software.

DFT-121 Introduction to GD&T 1 2 0 2
Requisites: Take 1 group; Option: Take DFT-110; Option: Take DFT-151; Option: Take ARC-114(S10248); Take previously. Required.
This course introduces basic geometric dimensioning and tolerancing principles. Topics include symbols, annotation, theory, and applications. Upon completion, students should be able to interpret and apply basic geometric dimensioning and tolerancing principles to drawings.

DFT-151 CAD I 2 3 0 3
Requisites:
This course introduces CAD software as a drawing tool. Topics include drawing, editing, file management, and plotting. Upon completion, students should be able to produce and plot a CAD drawing.

DFT-152 CAD II 2 3 0 3
Requisites: Take 1 group; Option: Take DFT-110; Option: Take DFT-151; Option: Take ARC-114(S10248); Take previously. Required.
This course introduces extended CAD applications. Emphasis is placed upon intermediate applications of CAD skills. Upon completion, students should be able to use extended CAD applications to generate and manage drawings.

DFT-154 Intro to Solid Modeling 2 3 0 3
Requisites: Take 1 group; Option: Take DFT-110; Option: Take DFT-151; Option: Take ARC-114(S10248); Take previously. Required.
This course is an introduction to basic three-dimensional solid modeling and design software. Topics include basic design, creation, editing, rendering and analysis of solid models, and creation of multiview drawings. Upon completion, students should be able to use design techniques to create, edit, render and generate a multiview drawing. This course is advanced solid modeling using ProE software.

DFT-170 Engineering Graphics 2 2 0 3
Requisites:
This course introduces basic engineering graphics skills and applications. Topics include sketching, selection and use of current methods and tools, and the use of engineering graphics applications. Upon completion, students should be able to demonstrate an understanding of basic engineering graphics principles and practices. This course utilizes Solidworks software.

DFT-189 Emerging Technologies in CAD 1 2 0 2
Requisites:
This course provides an opportunity to explore new and emerging technologies related to Computer-Aided Drafting (CAD). Emphasis is placed on introducing a selected CAD technology or topic, identified as being "new" or "emerging," from a variety of drafting discipines. Upon completion, students should be able to demonstrate an understanding of and practical skill in the use of the CAD technology studied.

DFT-251 Customizing CAD Software 2 2 0 3
Requisites: Take DFT-151; Take previously. Required.
This course covers customizing CAD software. Topics include the creation of symbol libraries and screen menus, macro writing, and automation of common drafting functions on CAD. Upon completion, students should be able to create a symbol library and screen menu and automate common drawing functions.

DFT-253 CAD Data Management 2 2 0 3
Requisites: Take DFT-151; Take previously. Required.
This course covers engineering document management techniques. Topics include efficient control of engineering documents, manipulation of CAD drawing data, generation of bill of materials, and linking to spreadsheets or databases. Upon completion, students should be able to utilize systems for managing CAD drawings, extract data from drawings, and link data to spreadsheets or database applications.

DFT-254 Intermediate Solid Modeling & Rendering 2 3 0 3
Requisites: Take DFT-154(S20155); Take previously. Required.
This course presents a continuation of basic three-dimensional solid modeling and design software. Topics include advanced study of parametric design, creation, editing, rendering and analysis of solid model assemblies, and multiview drawing generation. Upon completion, students should be able to use parametric design techniques to create and analyze the engineering design properties of a model assembly.

DEVELOPMENTAL MATHEAMATICS (DMA Prefix)

DMA-020 Fractions and Decimals 1 0 0 1
Requisites: Take DMA-010; Take previously. Required.
This course provides a conceptual study of the relationship between fractions and decimals and covers related problems. Topics include application of operations and solving contextual application problems, including determining the circumference and area of circles with the concept of pi. Upon completion, students should be able to demonstrate an understanding of the connections between fractions and decimals.

DMA-030 Proportion/Ratios/Rates/Percents 1 0 0 1
Requisites: Take DMA-010 DMA-020; Take previously. Required.
This course provides a conceptual study of the problems that are represented by rates, ratios, percent, and proportions. Topics include rates, ratios, percent, proportion, conversion of English and metric units, and applications of the geometry of similar triangles. Upon completion, students should be able to use their understanding to solve conceptual application problems.

DMA-040 Expressions, Linear Equations, Linear Inequalities 1 0 0 1
Requisites: Take 1 group; Option: Take DMA-010 DMA-020 DMA-030; Option: Take MAT-060; Take previously. Required.
This course provides a conceptual study of problems involving linear expressions, equations, and inequalities. Emphasis is placed on solving contextual application problems. Upon completion, students should be able to distinguish between simplifying expressions and solving equations and apply this knowledge to problems involving linear expressions, equations, and inequalities.

DMA-050 Graphs and Equations of Lines 1 0 0 1
Requisites: Take 1 group; Option: Take DMA-010 DMA-020 DMA-030 DMA-040(S23170); Option: Take MAT-060 DMA-040(S23170); Take previously. Required.
This course provides a conceptual study of problems involving graphic and algebraic representations of lines. Topics include slope, equations of lines, interpretation of basic graphs, and linear modeling. Upon completion, students should be able to solve contextual application problems and represent real-world situations as linear equations in two variables.

DMA-065 Algebra for Precalculus 2 1 0 2
Requisites: Take DMA-010 DMA-020 DMA-030 DMA-040(S23170) DMA-050(S23171); Take previously. Required.
This course provides a study of problems involving algebraic representations of quadratic, rational, and radical equations. Topics include simplifying polynomial, rational, and radical expressions and solving quadratic, rational, and radical equations. Upon completion, students should be able to find algebraic solutions to contextual problems with quadratic and rational applications.

DIGITAL MEDIA TECHNOLOGY (DME Prefix)

DME-110 Introduction to Digital Media 2 2 0 3
Requisites: Take DRE-098(S23643); Take previously. Required.
This course introduces students to key concepts, technologies, and issues related to digital media. Topics include emerging standards, key technologies and related design issues, terminology, media formats, career paths, and ethical issues. Upon completion, students should be able to demonstrate the various media formats that are used in digital media technology.

DME-210 User Interface Design 2 2 0 3
Requisites: Take DME-110; Take previously. Required.Take WEB-140; Take previously. Required.
This course covers current design approaches and emerging standards related to the design and development of user interfaces. Emphasis is placed on conducting research, and analyzing and reviewing current practices in effective interface design. Upon completion, students should be able to intelligently discuss and evaluate new and

existing digital media products in terms of the user interface.

DEVELOPMENTAL MATH SHELL (DMS Prefix)

DMS-001 Developmental Math Shell 1 1 0 0 1
Requisites: Take MAT-050; Take previously. Required.
This course provides an opportunity to customize developmental math content in specific developmental math areas. Content will be one DMA module appropriate to the required level of the student. Upon completion, students should be able to demonstrate an understanding of their specific developmental math area of content.

DMS-001A Developmental Math Shell 1 1 0 0 1
Requisites: Take MAT-050; Take previously. Required.
This course provides an opportunity to customize developmental math content in specific developmental math areas. Content will be one DMA module appropriate to the required level of the student. Upon completion, students should be able to demonstrate an understanding of their specific developmental math area of content.

DMS-001B Developmental Math Shell 1 1 0 0 1
Requisites: Take MAT-050; Take previously. Required.
This course provides an opportunity to customize developmental math content in specific developmental math areas. Content will be one DMA module appropriate to the required level of the student. Upon completion, students should be able to demonstrate an understanding of their specific developmental math area of content.

DMS-001D Developmental Math Shell 1 1 0 0 1
Requisites: Take MAT-050; Take previously. Required.
This course provides an opportunity to customize developmental math content in specific developmental math areas. Content will be one DMA module appropriate to the required level of the student. Upon completion, students should be able to demonstrate an understanding of their specific developmental math area of content.

DMS-001E Developmental Math Shell 1 1 0 0 1
Requisites: Take MAT-050; Take previously. Required.
This course provides an opportunity to customize developmental math content in specific developmental math areas. Content will be one DMA module appropriate to the required level of the student. Upon completion, students should be able to demonstrate an understanding of their specific developmental math area of content.

DMS-001G Developmental Math Shell 1 1 0 0 1
Requisites: Take MAT-050; Take previously. Required.
This course provides an opportunity to customize developmental math content in specific developmental math areas. Content will be one DMA module appropriate to the required level of the student. Upon completion, students should be able to demonstrate an understanding of their specific developmental math area of content.

DMS-001H Developmental Math Shell 1 1 0 0 1
Requisites: Take MAT-050; Take previously. Required.
This course provides an opportunity to customize developmental math content in specific developmental math areas. Content will be one DMA module appropriate to the required level of the student. Upon completion, students should be able to demonstrate an understanding of their specific developmental math area of content. Developmental Math Shell 1

DMS-001I Developmental Math Shell 1 1 0 0 1
Requisites: Take MAT-050; Take previously. Required.
This course provides an opportunity to customize developmental math content in specific developmental math areas. Content will be one DMA module appropriate to the required level of the student. Upon completion, students should be able to demonstrate an understanding of their specific developmental math area of content.

DMS-002 Developmental Math Shell 2 2 1 0 2
Requisites: Take MAT-050; Take previously. Required.
This course provides an opportunity to customize developmental math content in specific developmental math areas. Content will be two DMA modules appropriate to the required level of the student. Upon completion, students should be able to demonstrate an understanding of their specific developmental math area of content.

DMS-002A Developmental Math Shell 2 2 1 0 2
Requisites: Take MAT-050; Take previously. Required.
This course provides an opportunity to customize developmental math content in specific developmental math areas. Content will be two DMA modules appropriate to the required level of the student. Upon completion, students should be able to demonstrate an understanding of their specific developmental math area of content.

DMS-002B Developmental Math Shell 2 2 1 0 2
Requisites: Take MAT-050; Take previously. Required.
This course provides an opportunity to customize developmental math content in specific developmental math areas. Content will be two DMA modules appropriate to the required level of the student. Upon completion, students should be able to demonstrate an understanding of their specific developmental math area of content.

DMS-002E Developmental Math Shell 2 2 1 0 2
Requisites: Take MAT-050; Take previously. Required.
This course provides an opportunity to customize developmental math content in specific developmental math areas. Content will be two DMA modules appropriate to the required level of the student. Upon completion, students should be able to demonstrate an understanding of their specific developmental math area of content.

DMS-002F Developmental Math Shell 2 2 1 0 2
Requisites: Take MAT-050; Take previously. Required.
This course provides an opportunity to customize developmental math content in specific developmental math areas. Content will be two DMA modules appropriate to the required level of the student. Upon completion, students should be able to demonstrate an understanding of their specific developmental math area of content.

DMS-002G Developmental Math Shell 2 2 1 0 2
Requisites: Take MAT-050; Take previously. Required.
This course provides an opportunity to customize developmental math content in specific developmental math areas. Content will be two DMA modules appropriate to the required level of the student. Upon completion, students should be able to demonstrate an understanding of their specific developmental math area of content.

DMS-002H Developmental Math Shell 2 2 1 0 2
Requisites: Take MAT-050; Take previously. Required.
This course provides an opportunity to customize developmental math content in specific developmental math areas. Content will be two DMA modules appropriate to the required level of the student. Upon completion, students should be able to demonstrate an understanding of their specific developmental math area of content.

DMS-002I Developmental Math Shell 2 2 1 0 2
Requisites: Take MAT-050; Take previously. Required.
This course provides an opportunity to customize developmental math content in specific developmental math areas. Content will be two DMA modules appropriate to the required level of the student. Upon completion, students should be able to demonstrate an understanding of their specific developmental math area of content.

DMS-003 Developmental Math Shell 3 2 2 0 3
Requisites: Take MAT-050; Take previously. Required.
This course provides an opportunity to customize developmental math content in specific developmental math areas. Content will be three DMA modules appropriate to the required level of the student. Upon completion, students should be able to demonstrate an understanding of their specific developmental math area of content.

DMS-003D **Developmental Math Shell 3** 2 2 0 3
Requisites: Take MAT-050; Take previously. Required.
This course provides an opportunity to customize developmental math content in specific developmental math areas. Content will be three DMA modules appropriate to the required level of the student. Upon completion, students should be able to demonstrate an understanding of their specific developmental math area of content.

DMS-003E **Developmental Math Shell 3** 2 2 0 3
Requisites: Take MAT-050; Take previously. Required.
This course provides an opportunity to customize developmental math content in specific developmental math areas. Content will be three DMA modules appropriate to the required level of the student. Upon completion, students should be able to demonstrate an understanding of their specific developmental math area of content.

DMS-003F **Developmental Math Shell 3** 2 2 0 3
Requisites: Take MAT-050; Take previously. Required.
This course provides an opportunity to customize developmental math content in specific developmental math areas. Content will be three DMA modules appropriate to the required level of the student. Upon completion, students should be able to demonstrate an understanding of their specific developmental math area of content.

DMS-004 **Developmental Math Shell 4** 3 2 0 4
Requisites: Take MAT-050; Take previously. Required.
This course provides an opportunity to customize developmental math content in specific developmental math areas. Content will be four DMA modules appropriate to the required level of the student. Upon completion, students should be able to demonstrate an understanding of their specific developmental math area of content.

DRAMA/THEATRE (DRA Prefix)

DRA-111 **Theatre Appreciation** 3 0 0 3
Requisites: Take 1 group; Option: Take RED-090 ENG-090; Option: Take ENG-111(S13673); Option: Take DRE-097(S23642); Take previously. Required.
This course provides a study of the art, craft, and business of the theatre. Emphasis is placed on the audience's appreciation of the work of the playwright, director, actor, designer, producer, and critic. Upon completion, students should be able to demonstrate a vocabulary of theatre terms and to recognize the contributions of various theatre artists.

DRA-126 **Storytelling** 3 0 0 3
Requisites: Take 1 group; Option: Take ENG-090 RED-090; Option: Take ENG-111(S13673); Option: Take DRE-097(S23642); Take previously. Required.
This course introduces the art of storytelling and the oral traditions of folk literature. Topics include the history of storytelling, its value and purpose, techniques of the storyteller, and methods of collecting verbal art. Upon completion, students should be able to present and discuss critically stories from the world's repertory of traditional lore.

DRA-131 **Acting II** 0 6 0 3
Requisites: Take DRA-130; Take previously. Required.
This course provides additional hands-on practice in the actor's craft. Emphasis is placed on further analysis, characterization, growth, and training for acting competence. Upon completion, students should be able to explore their creativity in an acting ensemble.

DRA-170 **Play Production I** 0 9 0 3
Requisites: Take 1 group; Option: Take ENG-070(S16349) RED-070(S10648); Option: Take DRE-096(S23641); Take previously. Required.
This course provides an applied laboratory study of the processes involved in the production of a play. Topics include fundamental practices, principles, and techniques associated with producing plays of various periods and styles. Upon completion, students should be able to participate in an assigned position with a college theatre

production.

DRA-171 Play Production II 0 9 0 3
Requisites: Take DRA-170; Take previously. Required.
This course provides an applied laboratory study of the processes involved in the production of a play. Topics include fundamental practices, principles, and techniques associated with producing plays of various periods and styles. Upon completion, students should be able to participate in an assigned position with a college theatre production.

DRA-270 Play Production III 0 9 0 3
Requisites: Take DRA-171; Take previously. Required.
This course provides an applied laboratory study of the processes involved in the production of a play. Topics include fundamental practices, principles, and techniques associated with producing plays of various periods and styles. Upon completion, students should be able to participate in an assigned position with a college theatre production.

DRA-271 Play Production IV 0 9 0 3
Requisites: Take DRA-270; Take previously. Required.
This course provides an applied laboratory study of the processes involved in the production of a play. Topics include fundamental practices, principles, and techniques associated with producing plays of various periods and styles. Upon completion, students should be able to participate in an assigned position with a college theatre production.

DEVELOPMENTAL READING/ENGLISH (DRE Prefix)

DRE-096 Integrated Reading and Writing I 2 1 0 3
Requisites:
This course is designed to develop proficiency in specific integrated and contextualized reading and writing skills and strategies. Topics include reading and writing processes, critical thinking strategies, and recognition and composition of well-developed, coherent, and unified texts; these topics are primarily taught at the introductory level using texts primarily in a Lexile (TM) range of 960 to 1115. Upon completion, students should be able to apply those skills toward understanding a variety of academic and career-related texts and composing effective paragraphs. null Please note: (TM) stands for registered trademark.

DRE-098 Integrated Reading and Writing III 2 1 0 3
Requisites: Take DRE-097(S23586); Take previously. Required.
This course is designed to develop proficiency in integrated and contextualized reading and writing skills and strategies. Topics include reading and writing processes, critical thinking strategies, and recognition and composition of well-developed, coherent, and unified texts; these topics are taught using texts primarily in the Lexile (TM) range of 1185 to 1385. Upon completion, students should be able to apply those skills toward understanding a variety of texts at the career and college ready level and toward composing a documented essay. null Note: (TM) represents registered trademark.

ELECTRONIC COMMERCE (ECM Prefix)

ECM-210 Introduction to E-Commerce 2 2 0 3
Requisites:
This course introduces the concepts and tools to implement electronic commerce via the Internet. Topics include application and server software selection, securing transactions, use and verification of credit cards, publishing of catalogs, and site administration. Upon completion, students should be able to setup a working e-commerce Internet web site.

ECONOMICS (ECO Prefix)

ECO-151 Survey of Economics 3 0 0 3
Requisites:
This course, for those who have not received credit for ECO 251 or 252, introduces basic concepts of micro- and macroeconomics. Topics include supply and demand, optimizing economic behavior, prices and wages, money, interest rates, banking system, unemployment, inflation, taxes, government spending, and international trade. Upon completion, students should be able to explain alternative solutions for economic problems faced by private and government sectors.

ECO-251 Principles of Microeconomics 3 0 0 3
Requisites:
This course introduces economic analysis of individual, business, and industry in the market economy. Topics include the price mechanism, supply and demand, optimizing economic behavior, costs and revenue, market structures, factor markets, income distribution, market failure, and government intervention. Upon completion, students should be able to identify and evaluate consumer and business alternatives in order to efficiently achieve economic objectives.

ECO-252 Principles of Macroeconomics 3 0 0 3
Requisites:
This course introduces economic analysis of aggregate employment, income, and prices. Topics include major schools of economic thought; aggregate supply and demand; economic measures, fluctuations, and growth; money and banking; stabilization techniques; and international trade. Upon completion, students should be able to evaluate national economic components, conditions, and alternatives for achieving socioeconomic goals.

EDUCATION (EDU Prefix)

EDU-119 Introduction to Early Childhood Education 4 0 0 4
Requisites:
This course introduces the foundations of early childhood education, the diverse educational settings for young children, professionalism and planning intentional developmentally appropriate experiences for each child. Topics include theoretical foundations, national early learning standards, NC Foundations for Early Learning and Development, state regulations, program types, career options, professionalism, ethical conduct, quality inclusive environments, and curriculum responsive to the needs of each child/family. Upon completion, students should be able to design a career/professional development plan, appropriate environments, schedules, and activity plans.

EDU-144 Child Development I 3 0 0 3
Requisites: Take 1 group; Option: Take DRE-097(S23642); Option: Take ENG-080 RED-080; Option: Take ENG-085; Take either previously or concurrently. Required.Take DRE-097(S23642); Take either previously or concurrently. Recommended.
This course includes the theories of child development, observation and assessment, milestones, and factors that influence development, from conception through approximately 36 months. Emphasis is placed on knowledge, observation and assessment of developmental sequences in approaches to play/learning, emotional/social, health/physical, language/communication and cognitive domains. Upon completion, students should be able to compare/contrast typical/atypical developmental characteristics, explain biological and environmental factors that impact development, and identify evidence-based strategies for enhancing development for children that are culturally, linguistically, and ability diverse.

EDU-145 Child Development II 3 0 0 3
Requisites: Take 1 group; Option: Take DRE-097(S23642); Option: Take ENG-080 RED-080; Option: Take ENG-085; Take either previously or concurrently. Required.Take EDU-119(S24238); Take previously. Required.
This course includes the theories of child development, observation and assessment, milestones, and factors that influence development, from preschool through middle childhood. Emphasis is placed on knowledge, observation and assessment of developmental sequences in approaches to play/learning, emotional/social, health/physical,

language/communication and cognitive domains. Upon completion, students should be able to compare/contrast typical/atypical developmental characteristics, explain biological and environmental factors that impact development, and identify evidence-based strategies for enhancing development for children that are culturally, linguistically, and ability diverse.

EDU-146 Child Guidance 3 0 0 3

Requisites: Take 1 group; Option: Take DRE-097(S23642); Option: Take ENG-080 RED-080; Option: Take ENG-085; Take either previously or concurrently. Required.Option: Take EDU-119(S24238); Option: Take EDU-144(S24559) or EDU-145(S24560);

This course introduces evidence-based strategies to build nurturing relationships with each child by applying principles and practical techniques to facilitate developmentally appropriate guidance. Topics include designing responsive/supportive learning environments, cultural, linguistic and socio-economic influences on behavior, appropriate expectations, the importance of communication with children/families including using technology and the use of formative assessments in establishing intentional strategies for children with unique needs. Upon completion, students should be able to demonstrate direct/indirect strategies to encourage social skills, self-regulation, emotional expression and positive behaviors while recognizing the relationship between children's social, emotional and cognitive development.

EDU-151 Creative Activities 3 0 0 3

Requisites: Take 1 group; Option: Take DRE-097(S23642); Option: Take ENG-080 RED-080; Option: Take ENG-085; Take either previously or concurrently. Required.Take ENG-111(S24022) EDU-119(S24238) EDU-144(S24559) EDU-145(S24560) EDU-146(S24561);

This course introduces developmentally supportive creative learning environments with attention to divergent thinking, creative problem-solving, evidence-based teaching practices, and open-ended learning materials while applying NC Foundations for Early Learning and Development. Emphasis is placed on observation of process driven learning experiences in art, music, creative movement, dance, and dramatics for every young child age birth through eight, integrated through all domains and academic content. Upon completion, students should be able to examine, create, and adapt developmentally creative learning materials, experiences, and environments for children that are culturally, linguistically, and ability diverse.

EDU-153 Health, Safety and Nutrition 3 0 0 3

Requisites: Take 1 group; Option: Take DRE-097(S23642); Option: Take ENG-080 RED-080; Option: Take ENG-085; Take either previously or concurrently. Required.

This course covers promoting and maintaining the health and well-being of every child. Topics include health and nutritional guidelines, common childhood illnesses, maintaining safe and healthy learning environments, health benefits of active play, recognition and reporting of abuse/neglect, and state regulations. Upon completion, students should be able to apply knowledge of NC Foundations for Early Learning and Development for health, safety, nutritional needs and safe learning environments.

EDU-157 Active Play 2 2 0 3

Requisites: Take 1 group; Option: Take DRE-097(S23642); Option: Take ENG-080 RED-080; Option: Take ENG-085; Take either previously or concurrently. Required.Take EDU-119(S24238) EDU-144(S24559) EDU-145(S24560) EDU-153(S24564); Take previously.

This course introduces physical activities to promote the development of the whole child, birth through middle childhood. Topics include active play, outdoor learning, design of the environment, development of play skills, loose parts play, nature play, risk benefit assessment, advocacy, and family/community connection. Upon completion, students should be able to discuss the stages of play, the role of teachers in play, active play environments, advocate for the child's right to play, and plan and assess appropriate experiences using NC Foundations for Early Learning and Development.

EDU-163 Classroom Management and Instruction 3 0 0 3

Requisites: Take 1 group; Option: Take DRE-097(S23642); Option: Take ENG-080 RED-080; Option: Take ENG-085; Take either previously or concurrently. Required.

This course examines classroom management and evidence-based instructional strategies that create supportive learning environments to provide developmentally appropriate guidance for school-age populations. Topics include classroom management and organization, teaching strategies, individual student differences and learning styles, ongoing systematic observation, and developmentally appropriate classroom guidance techniques. Upon completion, students should be able to utilize developmentally appropriate behavior management and high quality instructional strategies that enhance the teaching/learning process and promote students' academic success.

EDU-184 Early Childhood Introductory Practicum 1 3 0 2

Requisites: Take EDU-119(S22283); Take previously. Required.Take 1 group; Option: Take DRE-097(S23642); Option: Take ENG-080 RED-080; Option: Take ENG-080; Take either previously or concurrently. Required.Take EDU-119(S22283) EDU-131(S23692)

This course introduces students to early childhood settings and applying skills in a three star (minimum) or NAEYC accredited or equivalent, quality early childhood environment. Emphasis is placed on observing children and assisting in the implementation of developmentally appropriate activities/environments for all children; and modeling reflective/professional practices. Upon completion, students should be able to demonstrate developmentally appropriate interactions with children and ethical/professional behaviors as indicated by assignments and onsite faculty visits.

EDU-216 Foundations of Education 3 0 0 3

Requisites: Take 1 group; Option: Take DRE-098(S23643); Option: Take ENG-080 RED-080; Option: Take ENG-085; Take either previously or concurrently. Required.

This course introduces the examination of the American educational systems and the teaching profession. Topics include the historical and philosophical influences on education, various perspectives on educational issues, and experiences in birth through grade 12 classrooms. Upon completion, students should be able to reflect on classroom observations, analyze the different educational approaches, including classical/traditional and progressive, and have knowledge of the various roles of educational systems at the federal, state and local level.

EDU-221 Children With Exceptionalities 3 0 0 3

Requisites: Take 1 group; Option: Take EDU-144(S24559) EDU-145(S24560); Option: Take PSY-244(S12069) PSY-245(S11997); Take previously. Required.Take 1 group; Option: Take DRE-098(S23643); Option: Take ENG-090 RED-090;

This course covers atypical patterns of child development, inclusive/diverse settings, evidenced-based educational/family plans, differentiated instruction, adaptive materials, and assistive technology. Emphasis is placed on the characteristics of exceptionalities and delays, early intervention/special education, transitions, observation, developmental screening, formative assessment of children, and collaborating with families and community partners. Upon completion, students should be able to recognize diverse abilities, describe the referral process, identify community resources, explain the importance of collaboration with families/professionals, and develop appropriate strategies/adaptations to support children in all environments with best practices as defined by laws, policies and the NC Foundations for Early Learning and Development.

EDU-234 Infants, Toddlers, and Twos 3 0 0 3

Requisites: Take EDU-119(S24238); Take previously. Required.Take 1 group; Option: Take DRE-098(S23643); Option: Take ENG-090 RED-090; Option: Take ENG-095; Take either previously or concurrently. Required.Take EDU-119(S24238) EDU-144(S24559)

This course covers the development of high-quality, individualized, responsive/engaging relationships and experiences for infants, toddlers, and twos. Emphasis is placed on typical and atypical child development, positive early learning experiences, supporting and engaging diverse families, providing safe, warm and nurturing interactions, and the application of the NC Foundations for Early Learning and Development. Upon completion, students should be able to demonstrate responsive planning, respectful relationships and exposure to a variety of developmentally appropriate experiences/materials that support a foundation for healthy development and growth of culturally, linguistically and ability diverse children birth to 36 months.

EDU-234 Infants, Toddlers, and Twos 3 0 0 3

Requisites: Take EDU-119(S24238); Take previously. Required.Take 1 group; Option: Take DRE-098(S23643); Option: Take ENG-090 RED-090; Option: Take ENG-095; Take either previously or concurrently. Required.Take EDU-119(S24238) EDU-144(S24559)

This course covers the development of high-quality, individualized, responsive/engaging relationships and experiences for infants, toddlers, and twos. Emphasis is placed on typical and atypical child development, working with diverse families to provide positive, supportive, and engaging early learning activities and interactions through field experiences and the application of the NC Foundations for Early Learning and Development. Upon completion, students should be able to demonstrate responsive curriculum planning, respectful relationships and exposure to a variety of developmentally appropriate experiences/materials that support a foundation for healthy development and growth of culturally, linguistically and ability diverse children birth to 36 months.

EDU-243 Learning Theory 3 0 0 3

Requisites: Take 1 group; Option: Take DRE-098(S23643); Option: Take ENG-090 RED-090; Option: Take ENG-095; Take either previously or concurrently. Required.

This course provides lateral entry teachers an introduction to learning theory, various styles of learning, and motivational factors involved in the learning process. Emphasis is placed on the development of cognitive skills using the eight types of intelligence and applying these to practical classroom situations. Upon completion, students should be able to describe theories and styles of learning and discuss the relationship between different types of intelligence to learning motivation.

EDU-244 Human Growth and Development 3 0 0 3

Requisites: Take 1 group; Option: Take DRE-098(S23643); Option: Take ENG-090 RED-090; Option: Take ENG-095; Take either previously or concurrently. Required.

This course introduces lateral entry teachers to theories and ages and stages related to human growth and development from birth through adolescence. Emphasis is placed on development through the stages of a child's life in the areas of physical, emotional, social, intellectual, and moral development. Upon completion, students should be able to identify and describe milestones of each stage in all areas of development and discuss factors that influence growth.

EDU-245 Policies and Procedures 3 0 0 3

Requisites: Take 1 group; Option: Take DRE-098(S23643); Option: Take ENG-090 RED-090; Option: Take ENG-095; Take either previously or concurrently. Required.

This course is designed to introduce new lateral entry teachers to the policies and procedures established by the local education agency. Topics include emergency situation procedures, acceptable discipline, chain of command, role of mentors, evaluation procedures, employment requirements, dress codes, and other policies and procedures. Upon completion, students should be able to explain the policies and procedures to students, parents, or others and discuss the purpose of each policy category.

EDU-250 Teacher Licensure Preparation 3 0 0 3

Requisites: Take 1 group; Option: Take ENG-111(S24022) MAT-143(S24995); Option: Take ENG-111(S24022) MAT-152(S24996); Option: Take ENG-111(S24022) MAT-171(S24997); Take either previously or concurrently. Required.Take EDU-119(S24238)

This course provides information and strategies necessary for transfer to a teacher licensure program at a senior institution. Topics include entry level teacher licensure exam preparation, performance based assessment systems, requirements for entry into teacher education programs, the process to become a licensed teacher in North Carolina, and professionalism including expectations within the field of education. Upon completion, students should be able to utilize educational terminology and demonstrate knowledge of teacher licensure processes including exam preparation, technology based portfolio assessment, and secondary admissions processes to the school of education at a senior institution.

EDU-251 Exploration Activities 3 0 0 3

Requisites: Take 1 group; Option: Take DRE-098(S23643); Option: Take ENG-090 RED-090; Option: Take ENG-095; Take either previously or concurrently. Required.Take ENG-111(S24022) EDU-119(S24238) EDU-

144(S24559) EDU-145(S24560) EDU-151(S24562)
This course covers fundamental concepts in the content areas of science, technology, engineering, math and social studies through investigative experiences. Emphasis is placed on exploring fundamental concepts, developmentally appropriate scope and sequence, and teaching strategies to engage each child in the discovery approach. Upon completion, students should be able to understand major concepts in each content area and implement appropriate experiences for young children.

EDU-251A Exploration Activities Lab 0 2 0 1
Requisites: Take 1 group; Option: Take EDU-251(S24576) DRE-098(S23643); Option: Take EDU-251(S24576) ENG-090 RED-090; Option: Take EDU-251(S24576) ENG-095; Take either previously or concurrently. Required.Take ENG-111(S24022) ENG-112(S24024)
This course provides a laboratory component to practice content knowledge gained from EDU 251. Emphasis is placed on practical experience that enhances the fundamental concepts. Upon completion, students should be able to demonstrate the discovery approach to teaching and plan appropriate science, technology, engineering, math, and social studies experiences for each child.

EDU-262 Early Childhood Administration II 3 0 0 3
Requisites: Take DRE-098(S23643) EDU-119(S24238) EDU-261(S24579); Take previously. Required.
This course focuses on advocacy/leadership, public relations/community outreach and program quality/evaluation for diverse early childhood programs. Topics include program evaluation/accreditation, involvement in early childhood professional organizations, leadership/mentoring, family, volunteer and community involvement and early childhood advocacy. Upon completion, students should be able to define and evaluate all components of early childhood programs, develop strategies for advocacy and integrate community into programs.

EDU-263 School-Age Program Administration 2 0 0 2
Requisites: Take 1 group; Option: Take DRE-098(S23643); Option: Take ENG-090 RED-090; Option: Take ENG-095; Take either previously or concurrently. Required.Take EDU-119(S24238) DRE-098(S23643); Take previously. Required.
This course introduces the methods and procedures for development and administration of school-age programs in the public or proprietary setting. Emphasis is placed on the construction and organization of the physical environment. Upon completion, students should be able to plan, develop and administer a quality school-age program.

EDU-271 Educational Technology 2 2 0 3
Requisites: Take 1 group; Option: Take DRE-098(S23643); Option: Take ENG-090 RED-090; Option: Take ENG-095; Take either previously or concurrently. Required.Take 1 group; Option: Take ENG-111(S24022); Option: Take ENG-112(S24024);
This course introduces the ethical use of technology to enhance teaching and learning in all educational settings. Emphasis is placed on technology concepts, ethical issues, digital citizenship, instructional strategies, assistive technology, and the use of technology for professional development and communication. Upon completion, students should be able to discuss technology concepts, ethically use a variety of technology resources, demonstrate appropriate technology skills in educational environments, and identify assistive technology.

EDU-280 Language and Literacy Experiences 3 0 0 3
Requisites: Take 1 group; Option: Take DRE-098(S23643); Option: Take ENG-090 RED-090; Option: Take ENG-095; Take either previously or concurrently. Required.Take ENG-111(S24022) EDU-119(S24238) EDU-144(S24559) EDU-145(S24560) EDU-146(S24561)
This course provides evidence-based strategies for enhancing language and literacy experiences that align with NC Foundations for Early Learning and Development. Topics include developmental sequences for children's emergent receptive and expressive language, print concepts, appropriate observations/assessments, literacy enriched environments, quality selection of diverse literature, interactive media, and inclusive practices. Upon completion, students should be able to select, plan, implement and evaluate developmentally appropriate language and literacy experiences for children who are culturally, linguistically and ability diverse.

EDU-282 Early Childhood Literature 3 0 0 3

Requisites: Take 1 group; Option: Take DRE-098(S23643); Option: Take ENG-090 RED-090; Option: Take ENG-095; Take either previously or concurrently. Required.Take EDU-119(S24238) EDU-144(S24559) EDU-145(S24560) EDU-146(S24561) ENG-111(S24022);

This course covers the history, selection, and integration of literature and language in the early childhood curriculum. Topics include the history and selection of developmentally appropriate children's literature and the use of books and other media to enhance language and literacy in the classroom. Upon completion, students should be able to select appropriate books for storytelling, reading aloud, puppetry, flannel board use, and other techniques for children who are culturally, linguistically, and ability diverse.

EDU-284 Early Childhood Capstone Practicum 1 9 0 4

Requisites: Take 1 group; Option: Take EDU-119(S24238) EDU-144(S24559) EDU-145(S24560) EDU-146(S24561) EDU-151(S24562); Option: Take EDU-119(S24238) PSY-244(S12069) PSY-245(S11997) EDU-146(S24561) EDU-151(S24562); Option: Take EDU-119(S24238)

This course is designed to allow students to demonstrate acquired skills in a three star (minimum) or NAEYC accredited or equivalent, quality early childhood environment. Emphasis is placed on designing, implementing and evaluating developmentally appropriate activities and environments for all children; supporting/engaging families; and modeling reflective and professional practices based on national and state guidelines. Upon completion, students should be able to apply NC Foundations for Early Learning and Development to demonstrate developmentally appropriate plans/assessments, appropriate guidance techniques and ethical/professional behaviors, including the use of appropriate technology, as indicated by assignments and onsite faculty assessments.

ENGLISH AS A FOREIGN LANGUAGE (EFL Prefix)

EFL-061 Listening/Speaking I 5 0 0 5

Requisites:

This course is designed to provide the basic oral/aural language skills needed for essential daily conversation on campus and in the community. Emphasis is placed on vocabulary building, communication in various social and academic situations, and various spoken grammatical skills. Upon completion, students should be able to produce and understand English dealing with routine topics using basic syntax and vocabulary skills.

EFL-062 Listening/Speaking II 5 0 0 5

Requisites: Take EFL-061; Take previously. Required.

This course is designed to enhance intermediate listening and speaking skills of non-native speakers of English. Emphasis is placed on the ability to hold extended conversation and on the ability to understand extended spoken discourse. Upon completion, students should be able to demonstrate improved listening skills and strategies in a variety of settings.

EFL-063 Listening/Speaking III 5 0 0 5

Requisites: Take EFL-062; Take previously. Required.

This course is designed to increase the ability and confidence of high intermediate-level non-native speakers of English in verbal expression and listening comprehension. Emphasis is placed on listening/speaking skills which would be appropriate for group discussions, oral presentations, and note taking. Upon completion, students should be able to successfully participate in high intermediate-level listening and speaking activities.

EFL-064 Listening-Speaking IV 5 0 0 5

Requisites: Take EFL-063; Take previously. Required.

This course is designed to prepare advanced-level non-native speakers of English for academic and professional speaking and listening activities. Emphasis is placed on learning and practicing strategies of effective oral expression and comprehension of spoken discourse in informal and formal settings. Upon completion, students should be able to effectively participate in activities appropriate to academic and professional settings.

EFL-071 Reading I 5 0 0 5

Requisites:

This course is designed to help those literacy skills achieve reading fluency in English at the beginning level. Emphasis is placed on basic academic and cultural vocabulary and reading strategies which include self-monitoring, and recognizing organizational styles and context clues. Upon completion, students should be able to use these strategies to read and comprehend basic academic, narrative, and expository texts.

EFL-072 Reading II 5 0 0 5

Requisites: Take EFL-071; Take previously. Required.

This course provides preparation in academic and general purpose reading in order to achieve reading fluency at the low-intermediate level. Emphasis is placed on expanding academic and cultural vocabulary and developing effective reading strategies to improve comprehension and speed. Upon completion, students should be able to read and comprehend narrative and expository texts at the low-intermediate instructional level.

EFL-074 Reading IV 5 0 0 5

Requisites: Take EFL-073; Take previously. Required.

This course is designed to enhance the academic reading skills for successful reading ability as required in college-level courses. Emphasis is placed on strategies for effective reading and the utilization of these strategies to improve comprehension, analytical skills, recall, and overall reading speed. Upon completion, students should be able to comprehend, synthesize, and critique multi-disciplinary college-level reading/textbook materials.

EFL-081 Grammar I 5 0 0 5

Requisites: Take EFL-091; Take either previously or concurrently. Recommended.

This course provides non-native speakers of English with a variety of fundamental grammatical concepts which enrich language skills and comprehension. Emphasis is on key basic grammatical structures and opportunities for practice which incorporate grammatical knowledge into various skills areas. Upon completion, students should be able to demonstrate comprehension and correct usage of specified grammatical concepts.

EFL-082 Grammar II 5 0 0 5

Requisites: Take EFL-081; Take previously. Required.

This course provides non-native speakers of English with a variety of basic grammatical concepts which enrich language skills and comprehension. Emphasis is on key low-intermediate grammatical structures and opportunities for practice which incorporate grammatical knowledge into various skills areas. Upon completion, students should be able to demonstrate by written and oral means the comprehension and correct usage of specified grammatical concepts

EFL-083 Grammar III 5 0 0 5

Requisites: Take EFL-082; Take previously. Required.

This course is designed to provide high-intermediate non-native speakers of English with a knowledge of grammatical structures that improves academic communication. Emphasis is placed on using high-intermediate grammatical structures in meaningful contexts through exercises integrating the use of newly acquired structures with previously learned structures. Upon completion, students should be able to demonstrate improved proficiency, comprehension, and grammatical accuracy.

EFL-084 Grammar IV 5 0 0 5

Requisites: Take EFL-083; Take previously. Required.

This course is designed to give non-native speakers of English a full understanding of advanced grammatical structures and techniques. Emphasis is placed on oral and written communicative fluency through the study of advanced grammatical forms. Upon completion, students should be able to incorporate the structures covered in both spoken and written form, demonstrating improved proficiency, comprehension, and grammatical accuracy.

EFL-091 Composition I 5 0 0 5

Requisites: Take EFL-081; Take either previously or concurrently. Recommended.

This course introduces basic sentence structure and writing paragraphs. Emphasis is placed on word order, verb

tense-aspect system, auxiliaries, word forms, and simple organization and basic transitions in writing paragraphs. Upon completion, students should be able to demonstrate a basic understanding of grammar and ability to write English paragraphs using appropriate vocabulary, organization, and transitions.

EFL-093 Composition III 5 0 0 5
Requisites: Take EFL-092; Take previously. Required.
This course covers intermediate-level academic and general-purpose writing. Emphasis is placed on the writing process, content, organization, and language use in formal academic compositions in differing rhetorical modes. Upon completion, students should be able to effectively use the writing process in a variety of rhetorical modes.

EFL-094 Composition IV 5 0 0 5
Requisites: Take EFL-093; Take previously. Required.
This course prepares low-advanced non-native speakers of English to determine the purpose of their writing and to write paragraphs and essays to fulfill that purpose. Emphasis is placed on unity, coherence, completeness, audience, the writing process, and thegrammatical forms and punctuation appropriate for each kind of writing. Upon completion, students should be able to write unified, coherent, and complete paragraphs and essays which are grammatical and appropriate for the intended audience.

EFL-095 Composition V 5 0 0 5
Requisites: Take EFL-094; Take previously. Required.
This course is designed to prepare advanced non-native speakers of English for college-level composition courses. Emphasis is placed on the study and process of writing formal essays and research papers and the analysis of literary, expository, and descriptive writings. Upon completion, students should be able to write and analyze professional and peer compositions and apply basic research principles.

ENGINEERING (EGR Prefix)

EGR-115 Intro to Technology 2 3 0 3
Requisites:
This course introduces the basic skills and career fields for technicians. Topics include career options, technical vocabulary, dimensional analysis, measurement systems, engineering graphics, calculator applications, professional ethics, safety practices, and other related topics. Upon completion, students should be able to demonstrate an understanding of the basic technologies, prepare drawings and sketches, and perform computations using a scientific calculator. This course is an introduction to CAD using AutoCAD software.

EGR-115A Intro to Technology Lab 0 3 0 1
Requisites: Take EGR-115(S20666); Take either previously or concurrently. Required.
This course provides a laboratory setting for EGR 111. Emphasis is placed on developing skills in dimensional analysis, measurement systems, engineering graphics, and calculator applications. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in EGR 115.

EGR-131 Introduction to Electronics Technology 1 2 0 2
Requisites:
This course introduces the basic skills required for electrical/electronics technicians. Topics include soldering/desoldering, safety and sustainability practices, test equipment, scientific calculators, AWG wire table, the resistor color code, electronic devices, problem solving, and use of hand tools. Upon completion, students should be able to solder/desolder, operate test equipment, apply problem-solving techniques, and use a scientific calculator.

EGR-210 Intro to Electrical/Computer Engineering Lab 1 3 0 2
Requisites: Take MAT-271(S13631) PHY-251; Take previously. Required.
This course provides an overview of electrical and computer engineering, through a lecture and laboratory setting. Topics include fundamental concepts, electronic circuits, digital circuits, communication systems, and signal processing. Upon completion, students should be able to discuss the wide range of fields available to the electrical or computer engineer.

EGR-212 Logic System Design I 3 0 0 3

Requisites: Take MAT-271(S13631) PHY-251; Take previously. Required.Take 1 group; Option: Take PHY-251; Minimum grade C; Option: Take MAT-271(S23939); Minimum grade C; Take previously. Required.Take PHY-252; Take either previously or concurrently.

This course provides an introduction to digital circuits and analysis. Topics include Boolean Algebra; mixed logic; design of combinational circuits; introduction to sequential systems; and MSI building blocks. Upon completion, students should be able to analyze and design digital circuits and systems.

EGR-215 Network Theory I 3 0 0 3

Requisites: Take PHY-251 MAT-272(S13612); Take previously. Required.Take PHY-252 MAT-273(S13616); Take either previously or concurrently. Required.

This course provides an introduction to Kirchoff's laws and terminal equations, circuit analysis techniques and network theorems, transient and natural response, and state variable analysis. Topics include Kirchoff's laws, Ohm's law, circuit analysis techniques, Network theorems, singularity functions, transient and natural responses, power, and state variable analysis. Upon completion, students should be able to analyze electric circuits involving capacitors, inductors, and resistors to determine required parameters.

EGR-216 Logic and Network Lab 0 3 0 1

Requisites: Take PHY-251 MAT-272(S13612); Take previously. Required.Take EGR-212 EGR-215; Take either previously or concurrently. Required.

This course provides laboratory experiments in network measurements and logic design and laboratory equipment and techniques. Topics include network measurement and applications, experimental logic design and introduction to laboratory equipment and techniques. Upon completion, students should be able to complete network measurement logic design and be able to use laboratory equipment with proper techniques.

EGR-220 Engineering Statics 3 0 0 3

Requisites: Take PHY-251; Take previously. Required.Take MAT-272(S13612); Take either previously or concurrently. Required.Take 1 group; Option: Take PHY-251; Minimum grade C; Option: Take MAT-272(S23940); Minimum grade C; Take previously. Required.

This course introduces the concepts of engineering based on forces in equilibrium. Topics include concentrated forces, distributed forces, forces due to friction, and inertia as they apply to machines, structures, and systems. Upon completion, students should be able to solve problems which require the ability to analyze systems of forces in static equilibrium.

EGR-225 Engineering Dynamics 3 0 0 3

Requisites: Take EGR-220; Take previously. Required.Take MAT-273(S13616); Take either previously or concurrently. Required.Take EGR-220; Minimum grade C; Take previously. Required.

This course introduces the concepts of engineering based on the analysis of motion in Cartesian, cylindrical, and spherical coordinate systems. Topics include the two and three dimensional motion of particles and rigid bodies, the forces associated with that motion, and relative motion between two coordinate systems. Upon completion, students should be able to solve problems which require the ability to analyze the motion and forces involved in a dynamic system.

EGR-251 Statics 2 2 0 3

Requisites: Take MAT-121(S23927) or MAT-171(S23934); Take previously. Required.

This course covers the concepts and principles of statics. Topics include systems of forces and moments on structures in two- and three-dimensions in equilibrium. Upon completion, students should be able to analyze forces and moments on structures.

EGR-252 Strength of Materials 2 2 0 3

Requisites: Take EGR-251; Take previously. Required.

This course covers the principles and concepts of stress analysis. Topics include centroids, moments of inertia, shear/moment diagrams, and stress and strain. Upon completion, students should be able to perform a stress and strain analysis on structural components.

EGR-285 Design Project 0 4 0 2

Requisites: Take 1 group; Option: Take EGR-115(S20666) DFT-110 ENG-111(S24022); Option: Take EGR-115(S20666) DFT-151 ENG-111(S24022); Option: Take EGR-115(S20666) ARC-114(S10248) ENG-111(S24022); Take previously. Required.

This course provides the opportunity to design an instructor-approved project using previously acquired skills. Emphasis is placed on selection, proposal, design, testing, and documentation of the approved project. Upon completion, students should be able to present and demonstrate projects.

ELECTRICITY (ELC Prefix)

ELC-112 DC/AC Electricity 3 6 0 5

Requisites:

This course introduces the fundamental concepts of and computations related to DC/AC electricity. Emphasis is placed on DC/AC circuits, components, operation of test equipment; and other related topics. Upon completion, students should be able to construct, verify, and analyze simple DC/AC circuits.

ELC-113 Residential Wiring 2 6 0 4

Requisites:

This course introduces the care/usage of tools and materials used in residential electrical installations and the requirements of the National Electrical Code. Topics include NEC, electrical safety, and electrical print reading; planning, layout; and installation of electrical distribution equipment; lighting; overcurrent protection; conductors; branch circuits; and conduits. Upon completion, students should be able to properly install conduits, wiring, and electrical distribution equipment associated with residential electrical installations.

ELC-113AB Residential Wiring 2 0 0 2

Requisites: Take ELC-118; Take either previously or concurrently. Required.

This course introduces the care/usage of tools and materials used in residential electrical installations and the requirements of the National Electrical Code. Topics include NEC, electrical safety, and electrical print reading; planning, layout; and installation of electrical distribution equipment; lighting; overcurrent protection; conductors; branch circuits; and conduits. Upon completion, students should be able to properly install conduits, wiring, and electrical distribution equipment associated with residential electrical installations.

ELC-114 Commercial Wiring 2 6 0 4

Requisites: Take ELC-113(S23518); Take previously. Required.

This course provides instruction in the application of electrical tools, materials, and test equipment associated with commercial electrical installations. Topics include the NEC; safety; electrical blueprints; planning, layout, and installation of equipment and conduits; and wiring devices such as panels and overcurrent devices. Upon completion, students should be able to properly install equipment and conduit associated with commercial electrical installations.

ELC-114C Commercial Wiring 2 0 0 2

Requisites: Take ELC-113(S23518); Take previously. Required.

This course provides instruction in the application of electrical tools, materials, and test equipment associated with commercial electrical installations. Topics include the NEC; safety; electrical blueprints; planning, layout, and installation of equipment and conduits; and wiring devices such as panels and overcurrent devices. Upon completion, students should be able to properly install equipment and conduit associated with commercial electrical installations.

ELC-114L Commercial Wiring 0 6 0 2

Requisites: Take ELC-113(S23518); Take previously. Required.Take ELC-114C; Take either previously or concurrently. Required.

This course provides instruction in the application of electrical tools, materials, and test equipment associated with commercial electrical installations. Topics include the NEC; safety; electrical blueprints; planning, layout, and installation of equipment and conduits; and wiring devices such as panels and overcurrent devices. Upon completion, students should be able to properly install equipment and conduit associated with commercial electrical installations.

ELC-115 Industrial Wiring 2 6 0 4

Requisites: Take ELC-114(S23519); Take previously. Required.

This course covers layout, planning, and installation of wiring systems in industrial facilities. Emphasis is placed on industrial wiring methods and materials. Upon completion, students should be able to install industrial systems and equipment.

ELC-117 Motors and Controls 2 6 0 4

Requisites: Take 1 group; Option: Take ELC-111; Option: Take ELC-112(S23481); Option: Take ELC-131(S23482); Take previously. Required.

This course introduces the fundamental concepts of motors and motor controls. Topics include ladder diagrams, pilot devices, contactors, motor starters, motors, and other control devices. Upon completion, students should be able to properly select, connect, and troubleshoot motors and control circuits.

ELC-117C Motors and Controls 2 0 0 2

Requisites: Take 1 group; Option: Take ELC-111; Option: Take ELC-112(S23481); Option: Take ELC-131(S23482); Take previously. Required.

This course introduces the fundamental concepts of motors and motor controls. Topics include ladder diagrams, pilot devices, contactors, motor starters, motors, and other control devices. Upon completion, students should be able to properly select, connect, and troubleshoot motors and control circuits.

ELC-118 National Electrical Code 1 2 0 2

Requisites:

This course covers the use of the current National Electrical Code. Topics include the NEC history, wiring methods, overcurrent protection, materials, and other related topics. Upon completion, students should be able to effectively use the NEC.

ELC-119 NEC Calculations 1 2 0 2

Requisites: Take ELC-118; Take previously. Required.

This course covers branch circuit, feeder, and service calculations. Emphasis is placed on sections of the National Electrical Code related to calculations. Upon completion, students should be able to use appropriate code sections to size wire, conduit, and overcurrent devices for branch circuits, feeders, and service.

ELC-121 Electrical Estimating 1 2 0 2

Requisites: Take ELC-113(S11805) ELC-114(S21588); Take previously. Required.

This course covers the principles involved in estimating electrical projects. Topics include take-offs of materials and equipment, labor, overhead, and profit. Upon completion, students should be able to estimate simple electrical projects.

ELC-126 Electrical Computations 2 2 0 3

Requisites:

This course introduces the fundamental applications of mathematics which are used by an electrical/electronics technician. Topics include whole numbers, fractions, decimals, powers, roots, simple electrical formulas, and usage of a scientific calculator. Upon completion, students should be able to solve simple electrical mathematical problems.

ELC-127 Software for Technicians 1 3 0 2

Requisites:

This course introduces computer software which can be used to solve electrical/electronics problems. Topics include electrical/electronics calculations and applications. Upon completion, students should be able to utilize a personal computer for electrical/electronics- related applications.

ELC-128 Introduction to Programmable Logic Controller 2 3 0 3

Requisites: Take ELC-117(S23521) or ELC-131(S23482); Take previously. Required.

This course introduces the programmable logic controller (PLC) and its associated applications. Topics include ladder logic diagrams, input/output modules, power supplies, surge protection, selection/installation of controllers, and

interfacing of controllers with equipment. Upon completion, students should be able to understand basic PLC systems and create simple programs.

ELC-128L **Introduction to Programmable Logic Controller** 0 3 0 1
Requisites: Take ELC-117(S23521) or ELC-131(S23482); Take previously. Required.Take ELC-128C; Take either previously or concurrently. Required.
This course introduces the programmable logic controller (PLC) and its associated applications. Topics include ladder logic diagrams, input/output modules, power supplies, surge protection, selection/installation of controllers, and interfacing of controllers with equipment. Upon completion, students should be able to understand basic PLC systems and create simple programs.

ELC-131 **Circuit Analysis I** 3 3 0 4
Requisites: Take DMA-010 DMA-020 DMA-030 DMA-040(S23170) DMA-050(S23171) DMA-060(S23172) DRE-098(S23643); Take previously. Required.
This course introduces DC and AC electricity with an emphasis on circuit analysis, measurements, and operation of test equipment. Topics include DC and AC principles, circuit analysis laws and theorems, components, test equipment operation, circuit simulation, and other related topics. Upon completion, students should be able to interpret circuit schematics; design, construct, verify, and analyze DC/AC circuits; and properly use test equipment.

ELC-131A **Circuit Analysis I Lab** 0 3 0 1
Requisites: Take ELC-131(S13459); Take either previously or concurrently. Required.
This course provides laboratory assignments as applied to fundamental principles of DC/AC electricity. Emphasis is placed on measurements and evaluation of electrical components, devices and circuits. Upon completion, the students will gain hands-on experience by measuring voltage, current, and opposition to current flow utilizing various meters and test equipment.

ELC-134 **Transformer Applications** 1 2 0 2
Requisites: Take ELC-112(S21587); Take previously. Required.Take ELC-117(S21589); Take either previously or concurrently. Required.
This course covers single- and three-phase transformer applications as found in industrial/commercial buildings and machinery. Topics include transformer principles, single- and three-phase calculations, and connections. Upon completion, students should be able to understand single-and three-phase transformers, make transformer connections, and make calculations.

ELC-139 **AC Circuit Analysis** 3 3 0 4
Requisites:
This course introduces AC electricity with an emphasis on circuit analysis, measurements, and operation of test equipment. Topics include AC voltages, circuit analysis laws and theorems, reactive components and circuits, transformers, test equipment operation, circuit simulation, and other related topics. Upon completion, students should be able to interpret AC circuit schematics; analyze and troubleshoot AC circuits; and properly use test equipment.

ELC-220 **Photovoltaic System Technology** 2 3 0 3
Requisites: Take ALT-120; Take previously. Required.
This course introduces the concepts, tools, techniques, and materials needed to understand systems that convert solar energy into electricity with photovoltaic (pv) technologies. Topics include site analysis for system integration, building codes, and advances in photovoltaic technology. Upon completion, students should be able to demonstrate an understanding of the principles of photovoltaic technology and current applications.

ELC-228 **Programmable Logic Controllers Applications** 2 6 0 4
Requisites:
This course covers programming and applications of programmable logic controllers. Emphasis is placed on programming techniques, networking, specialty I/O modules, and system troubleshooting. Upon completion, students should be able to specify, implement, and maintain complex PLC controlled systems.

ELC-229 Applications Project 1 3 0 2
Requisites: Take ELC-113(S11805) ELC-128(S10676) ELN-229(S21638) ELN-133(S16330); Take previously. Required.
This course provides an individual and/or integrated team approach to a practical project as approved by the instructor. Topics include project selection and planning, implementation and testing, and a final presentation. Upon completion, students should be able to plan and implement an applications-oriented project.

ELC-231 Electric Power Systems 3 2 0 4
Requisites:
This course covers the basic principles of electric power systems, including transmission lines, generator and transformer characteristics, and fault detection and correction. Emphasis is placed on line diagrams and per unit calculations for circuit performance analysis in regards to voltage regulation, power factor, and protection devices. Upon completion, students should be able to analyze simple distribution subsystems, calculate fault current, and compare different types and sizes of circuit protection devices.

ELC-233 Energy Management 2 2 0 3
Requisites:
This course covers energy management principles and techniques typical of those found in industry and commercial facilities, including load control and peak demand reduction systems. Topics include load and peak demand calculations, load shedding, load balance and power factor, priority scheduling, remote sensing and control, and supplementary/alternative energy sources. Upon completion, students should be able to determine energy management parameters, calculate demand and energy use, propose energy management procedures, and implement alternative energy sources.

ELC-250 Critical Power Systems 3 3 0 4
Requisites:
This course covers power systems commonly utilized in the operation of data centers and other mission critical facilities. Topics include redundant electrical system components including generators, automatic transfer switches, static transfer switches, power quality, uninterruptible power supply systems, battery back-up systems, and electrical codes and safety standards. Upon completion, students should be able to demonstrate an understanding of the operation, layout, system components, and the maintenance and troubleshooting requirements associated with mission critical power systems.

ELECTRONICS (ELN Prefix)

ELN-110 Survey of Electronics 2 2 0 3
Requisites:
This course introduces fundamental electrical and electronic concepts for non-electronic majors. Emphasis is placed on terminology and devices used in basic electronic and digital applications. Upon completion, students should be able to demonstrate a grasp of the fundamentals of modern electronic circuits.

ELN-113 Electronic Fuel Injection 1 2 0 2
Requisites:
This course covers the function of the various sensors used to provide feedback control to current model diesel engines. Emphasis is placed on the operation of ECM-controlled fuel injectors and testing using current industry methods. Upon completion, students should be able to obtain information from the electronic fuel system using current test programs, fault tree, and digital meters.

ELN-131 Analog Electronics I 3 3 0 4
Requisites: Take ELC-131(S23482); Take previously. Required.
This course introduces the characteristics and applications of semiconductor devices and circuits. Emphasis is placed on analysis, selection, biasing, and applications. Upon completion, students should be able to construct, analyze, verify, and troubleshoot analog circuits using appropriate techniques and test equipment.

ELN-132 Analog Electronics II 3 3 0 4

Requisites: Take ELN-131(S23487); Take previously. Required.

This course covers additional applications of analog electronic circuits with an emphasis on analog and mixed signal integrated circuits (IC). Topics include amplification, filtering, oscillation, voltage regulation, and other analog circuits. Upon completion, students should be able to construct, analyze, verify, and troubleshoot analog electronic circuits using appropriate techniques and test equipment.

ELN-133 Digital Electronics 3 3 0 4

Requisites: Take DRE-098(S23643) DMA-010 DMA-020 DMA-030 DMA-040(S23170) DMA-050(S23171) DMA-060(S23172); Take previously. Required.

This course covers combinational and sequential logic circuits. Topics include number systems, Boolean algebra, logic families, medium scale integration (MSI) and large scale integration (LSI) circuits, analog to digital (AD) and digital to analog (DA) conversion, and other related topics. Upon completion, students should be able to construct, analyze, verify, and troubleshoot digital circuits using appropriate techniques and test equipment.

ELN-150 Computer-Aided Drafting for Electronics 1 3 0 2

Requisites: Take CIS-110(S21058) CIS-111(S21059) or ELC-127(S21592); Take previously. Required.

This course introduces computer-aided drafting (CAD) with an emphasis on applications in the electronics field. Topics include electronics industry standards (symbols, schematic diagrams, layouts); drawing electronic circuit diagrams; and specialized electronic drafting practices and components such as resistors, capacitors, and ICs. Upon completion, students should be able to prepare electronic drawings with CAD software.

ELN-152 Fabrication Techniques 1 3 0 2

Requisites: Take ELN-232(S21640); Take previously. Required.

This course covers the fabrication methods required to create a prototype product from the initial circuit design. Topics include CAD, layout, sheet metal working, component selection, PC board layout and construction, reverse engineering, soldering, and other related topics. Upon completion, students should be able to design and construct an electronic product with all its associated documentation.

ELN-231 Industrial Controls 2 3 0 3

Requisites: Take ELC-131(S23482); Take previously. Required.

This course introduces the fundamental concepts of control of rotating machinery and associated peripheral devices. Topics include rotating machine theory, ladder logic, electromechanical and solid state relays, motor controls, pilot devices, three-phase power systems, and other related topics. Upon completion, students should be able to interpret schematics and demonstrate an understanding of electromechanical and electronic control of rotating machinery.

ELN-232 Introduction to Microprocessors 3 3 0 4

Requisites: Take ELN-133(S23488); Take previously. Required.

This course introduces microprocessor architecture and microcomputer systems including memory and input/output interfacing. Topics include low-level language programming, bus architecture, I/O systems, memory systems, interrupts, and other related topics. Upon completion, students should be able to interpret, analyze, verify, and troubleshoot fundamental microprocessor circuits and programs using appropriate techniques and test equipment.

ELN-233 Microprocessor Systems 3 3 0 4

Requisites: Take ELN-133(S23488); Take previously. Required.

This course covers the application and design of microprocessor control systems. Topics include control and interfacing of systems using AD/DA, serial/parallel I/O, communication protocols, and other related applications. Upon completion, students should be able to design, construct, program, verify, analyze, and troubleshoot fundamental microprocessor interface and control circuits using related equipment.

ELN-234 Communication Systems 3 3 0 4

Requisites: Take ELN-131(S23487); Take previously. Required.

This course introduces the fundamentals of electronic communication systems. Topics include the frequency spectrum, electrical noise, modulation techniques, characteristics of transmitters and receivers, and digital

communications. Upon completion, students should be able to interpret analog and digital communication circuit diagrams, analyze transmitter and receiver circuits, and use appropriate communication test equipment.

ELN-235 Data Communication Systems 3 3 0 4
Requisites: Take ELC-112(S23481) or ELC-131(S23482); Take previously. Required.
This course covers data communication systems and the transmission of digital information from source to destination. Topics include data transmission systems, interfaces and modems, protocols, networks, and other related topics. Upon completion, students should be able to demonstrate knowledge of the concepts associated with data communication systems.

ELN-236 Fiber Optics and Lasers 3 2 0 4
Requisites: Take ELN-131(S23487); Take previously. Required.
This course introduces the fundamentals of fiber optics and lasers. Topics include the transmission of light; characteristics of fiber optic and lasers and their systems; fiber optic production; types of lasers; and laser safety. Upon completion, students should be able to understand fiber optic communications and basic laser fundamentals.

ELN-260 Prog Logic Controllers 3 3 0 4
Requisites:
This course provides a detailed study of PLC applications, with a focus on design of industrial controls using the PLC. Topics include PLC components, memory organization, math instructions, documentation, input/output devices, and applying PLCs in industrial control systems. Upon completion, students should be able to select and program a PLC system to perform a wide variety of industrial control functions.

ELN-275 Troubleshooting 1 3 0 2
Requisites: Take ELN-131(S23487); Take either previously or concurrently. Required.
This course covers techniques of analyzing and repairing failures in electronic equipment. Topics include safety, signal tracing, use of service manuals, and specific troubleshooting methods for analog, digital, and other electronics-based circuits and systems. Upon completion, students should be able to logically diagnose and isolate faults and perform necessary repairs to meet manufacturers' specifications.

EMERGENCY MEDICAL CARE (EMS Prefix)

EMS-110 EMT 6 6 0 8
Requisites:
This course introduces basic emergency medical care. Topics include preparatory, airway, patient assessment, medical emergencies, trauma, infants and children, and operations. Upon completion, students should be able to demonstrate the knowledge and skills necessary to achieve North Carolina State or National Registry EMT certification.

EMS-110AB EMT 3 3 0 4
Requisites:
This course introduces basic emergency medical care. Topics include preparatory, airway, patient assessment, medical emergencies, trauma, infants and children, and operations. Upon completion, students should be able to demonstrate the knowledge and skills necessary to achieve North Carolina State or National Registry EMT certification.

EMS-110BB EMT 3 3 0 4
Requisites: Take EMS-110AB; Take either previously or concurrently. Required.
This course introduces basic emergency medical care. Topics include preparatory, airway, patient assessment, medical emergencies, trauma, infants and children, and operations. Upon completion, students should be able to demonstrate the knowledge and skills necessary to achieve North Carolina State or National Registry EMT certification.

EMS-122 EMS Clinical Practicum I 0 0 3 1
Requisites: Take EMS-110(S23869); Take previously. Required.Take EMS-130(S16339); Take either previously or concurrently. Required.
This course provides the introductory hospital clinical experience for the paramedic student. Emphasis is placed on mastering fundamental paramedic skills. Upon completion, students should be able to demonstrate competence with fundamental paramedic level skills.

EMS-130 Pharmacology 3 3 0 4
Requisites: Take EMS-110(S23869); Take previously. Required.Take EMS-122(S23872); Take either previously or concurrently. Required.
This course introduces the fundamental principles of pharmacology and medication administration and is required for paramedic certification. Topics include medical terminology, pharmacological concepts, weights, measures, drug calculations, vascular access for fluids and medication administration and legislation. Upon completion, students should be able to accurately calculate drug dosages, properly administer medications, and demonstrate general knowledge of pharmacology.

EMS-131 Advanced Airway Management 1 2 0 2
Requisites: Take EMS-110(S23869); Take previously. Required.
This course is designed to provide advanced airway management techniques and is required for paramedic certification. Topics include respiratory anatomy and physiology, airway/ventilation, adjuncts, surgical intervention, and rapid sequence intubation. Upon completion, students should be able to properly utilize all airway adjuncts and pharmacology associated with airway control and maintenance.

EMS-140 Rescue Scene Management 1 3 0 2
Requisites:
This course introduces rescue scene management. Topics include response to hazardous material conditions, incident command, and extrication of patients from a variety of situations. Upon completion, students should be able to recognize and manage rescue operations based upon initial and follow-up scene assessment. Students must be admitted into the Emergency Medical Science program to be able to register for this course.

EMS-150 Emergency Vehicles and EMS Communication 1 3 0 2
Requisites:
This course covers the principles governing emergency vehicles, maintenance of emergency vehicles, and EMS communication equipment. Topics include applicable motor vehicle laws affecting emergency vehicle operation, defensive driving, collision avoidance techniques, communication systems, and information management systems. Upon completion, students should have a basic knowledge of emergency vehicles, maintenance, and communication needs. Students must be admitted into the Emergency Medical Science program to be able to register for this course.

EMS-160 Cardiology I 1 3 0 2
Requisites: Take EMS-110(S23869); Take previously. Required.
This course introduces the study of cardiovascular emergencies and is required for paramedic certification. Topics include anatomy and physiology, pathophysiology, electrophysiology, and basic rhythm interpretation in the monitoring leads. Upon completion, students should be able to recognize and interpret basic rhythms.

EMS-220 Cardiology II 2 3 0 3
Requisites: Take EMS-122(S23872) EMS-130(S23874) EMS-160; Take previously. Required.
This course provides an in-depth study of cardiovascular emergencies and is required for paramedic certification. Topics include assessment and treatment of cardiac emergencies, application and interpretation of advanced electrocardiography utilizing the twelve-lead ECG, cardiac pharmacology, and patient care. Upon completion, students should be able to assess and treat patients utilizing American Heart Association guidelines.

EMS-231 EMS Clinical Practicum III 0 0 9 3
Requisites: Take EMS-130(S23874) EMS-221(S23879); Take previously. Required.
This course provides clinical experiences in the hospital and/or field. Emphasis is placed on enhancing the students' skills and abilities in providing advanced-level care. Upon completion, students should be able to demonstrate continued progress in advanced-level patient care.

EMS-235 EMS Management 2 0 0 2
Requisites:
This course stresses the principles of managing a modern emergency medical service system. Topics include structure and function of municipal governments, EMS grantsmanship, finance, regulatory agencies, system management, legal issues, and other topics relevant to the EMS manager. Upon completion, students should be able to understand the principles of managing emergency medical service delivery systems.

EMS-240 Patients With Special Challenges 1 2 0 2
Requisites: Take EMS-122(S23872) EMS-130(S23874); Take previously. Required.
This course includes concepts of crisis intervention and techniques of interacting with patients with special challenges and is required for paramedic certification. Topics include appropriate intervention and interaction for neglected, abused, terminally ill, chronically ill, technology assisted, bariatric, physically challenged, mentally challenged, or assaulted patients as well as behavioral emergencies. Upon completion, students should be able to recognize and manage the care of patients with special challenges.

EMS-241 EMS Clinical Practicum IV 0 0 12 4
Requisites: Take EMS-130(S23874) EMS-231(S23880); Take previously. Required.
This course provides clinical experiences in the hospital and/or field. Emphasis is placed on mastering the skills/competencies required of the paramedic providing advanced-level care. Upon completion, students should be able to provide advanced-level patient care as an entry-level paramedic.

EMS-250 Medical Emergencies 3 3 0 4
Requisites: Take EMS-122(S23872) EMS-130(S23874); Take previously. Required.
This course provides an in-depth study of medical conditions frequently encountered in the prehospital setting and is required for paramedic certification. Topics include appropriate interventions/treatments for disorders/diseases/injuries affecting the following systems: respiratory, neurological, abdominal/gastrointestinal, endocrine, genitourinary, musculoskeletal, and immunological as well as toxicology, infectious diseases and diseases of the eyes, ears, nose and throat. Upon completion, students should be able to recognize, assess and manage the care of frequently encountered medical conditions based upon initial patient assessment.

EMS-260 Trauma Emergencies 1 3 0 2
Requisites: Take EMS-122(S23872) EMS-130(S23874); Take previously. Required.
This course provides in-depth study of trauma including pharmacological interventions for conditions frequently encountered in the prehospital setting and is required for paramedic certification. Topics include an overview of thoracic, abdominal, genitourinary, orthopedic, neurological, and multi-system trauma, soft tissue trauma of the head, neck, and face as well as environmental emergencies. Upon completion, students should be able to recognize and manage trauma situations based upon patient assessment and should adhere to standards of care.

EMS-285 EMS Capstone 1 3 0 2
Requisites: Take EMS-220(S16342) EMS-250(S11267) EMS-260(S10208); Take previously. Required.
This course provides an opportunity to demonstrate problem-solving skills as a team leader in simulated patient scenarios and is required for paramedic certification. Emphasis is placed on critical thinking, integration of didactic and psychomotor skills, and effective performance in simulated emergency situations. Upon completion, students should be able to recognize and appropriately respond to a variety of EMS-related events.

ENGLISH (ENG Prefix)

ENG-001 English Skills Support 0 2 0 1
Requisites: Take 1 group; Option: Take ENG-090 RED-090; Option: Take ENG-095; Option: Take DRE-098(S23643); Take previously. Required.
This course is designed to supplement the skills introduced in ENG-111 with emphasis placed on the editing and revision components of the writing process. Topics include concepts, skills, writing in a variety of genres and formats using a recursive process, and effective use of rhetorical strategies, with emphasis placed on the editing and revision components of the writing process. Upon completion, students should be able to produce unified, coherent, well-developed essays using standard written English.

ENG-110 Freshman Composition 3 0 0 3
Requisites: Take DRE-097(S23642); Take previously. Required.
This course is designed to develop informative and business writing skills. Emphasis is placed on logical organization of writing, including effective introductions and conclusions, precise use of grammar, and appropriate selection and use of sources. Upon completion, students should be able to produce clear, concise, well-organized short papers.

ENG-111 Writing and Inquiry 3 0 0 3
Requisites: Take 1 group; Option: Take DRE-098(S23643); Option: Take ENG-090 RED-090; Option: Take ENG-095; Take previously. Required.Take 1 group; Option: Take DRE-098(S23643); Option: Take ENG-090 RED-090; Option: Take ENG-095;
This course is designed to develop the ability to produce clear writing in a variety of genres and formats using a recursive process. Emphasis includes inquiry, analysis, effective use of rhetorical strategies, thesis development, audience awareness, and revision. Upon completion, students should be able to produce unified, coherent, well-developed essays using standard written English. This course will also introduce students to the skills needed to produce a college-level research essay.

ENG-112 Writing and Research in the Disciplines 3 0 0 3
Requisites: Take ENG-111(S24022); Take previously. Required.Take ENG-111(S24022); Minimum grade C; Take previously. Required.
This course, the second in a series of two, introduces research techniques, documentation styles, and writing strategies. Emphasis is placed on analyzing information and ideas and incorporating research findings into documented writing and research projects. Upon completion, students should be able to evaluate and synthesize information from primary and secondary sources using documentation appropriate to various disciplines.

ENG-113 Literature-Based Research 3 0 0 3
Requisites: Take ENG-111(S13673); Take previously. Required.Take ENG-111(S13673); Minimum grade C; Take previously. Required.
This course, the second in a series of two, expands the concepts developed in ENG 111 by focusing on writing that involves literature-based research and documentation. Emphasis is placed on critical reading and thinking and the analysis and interpretation of prose, poetry, and drama: plot, characterization, theme, cultural context, etc. Upon completion, students should be able to construct mechanically-sound, documented essays and research papers that analyze and respond to literary works. This course may include a variety of critical approaches.

ENG-116 Technical Report Writing 3 0 0 3
Requisites: Take ENG-110(S13348) or ENG-111(S13673); Take previously. Required.
This course, the second in a series of two, introduces layout anddesign of technical reports used in business and industry. Emphasisis placed on audience analysis, data collection and analysis,technical writing style and organization, oral presentation oftechnical data, and the appropriate use of graphics in written andoral presentations. Upon completion, students should be able toproduce written and oral reports using a variety of technicalcommunication models.

ENG-125 Creative Writing I 3 0 0 3
Requisites: Take ENG-111(S13673); Take previously. Required.
This course is designed to provide students with the opportunity to practice the art of creative writing. Emphasis is placed on writing, fiction, poetry, and sketches. Upon completion, students should be able to craft and critique their own writing and critique the writing of others.

ENG-231 American Literature I 3 0 0 3
Requisites: Take ENG-112(S24024) ENG-113 or ENG-114(S13706); Take previously. Required.
This course covers selected works in American literature from its beginnings to 1865. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to analyze and interpret literary works in their historical and cultural contexts.

ENG-232 American Literature II 3 0 0 3
Requisites: Take ENG-112(S24024) ENG-113 or ENG-114(S13706); Take previously. Required.
This course covers selected works in American literature from 1865 to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to analyze and interpret literary works in their historical and cultural contexts.

ENG-241 British Literature I 3 0 0 3
Requisites: Take ENG-112(S24024) ENG-113 or ENG-114(S13706); Take previously. Required.
This course covers selected works in British literature from its beginnings to the Romantic Period. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts.

ENG-242 British Literature II 3 0 0 3
Requisites: Take ENG-112(S13681) ENG-113 or ENG-114(S13706); Take previously. Required.
This course covers selected works in British literature from the Romantic Period to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts.

ENG-262 World Literature II 3 0 0 3
Requisites: Take ENG-112(S13681) ENG-113 or ENG-114(S13706); Take previously. Required.
This course introduces selected works from the Pacific, Asia, Africa, Europe, and the Americas from the eighteenth century to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to selected works.

ENVIRONMENTAL SCIENCE (ENV Prefix)

ENV-110 Environmental Science 3 0 0 3
Requisites:
This course covers fundamental scientific principles and problems facing society today. Topics include population, natural resources, air and water pollution, and waste disposal problems. Upon completion, students should be able to demonstrate insight into the role the individual plays in shaping the environment.

ENV-110A Environmental Science Laboratory 0 2 0 1
Requisites: Take ENV-110(S13454); Take either previously or concurrently. Required.
This course provides a laboratory component to complement ENV 110. Emphasis is placed on laboratory and field experience. Upon completion, students should be able to demonstrate a practical understanding of environmental relationships and of contemporary environmental issues.

ENV-112 Environmental Education I 2 3 0 3

Requisites:

This course introduces the student to elements of the NC Environmental Education Plan. Topics will include: Basic NC Wild, Project Learning Tree, environmental education learning experience and aquatics. Upon completion, students should have an understanding of environmental education and complete learning objectives specific to obtaining the NCDENR Environmental Education Certification.

ENV-114 Environmental Education II 2 3 0 3

Requisites:

This course introduces the student to elements of the NC Environmental Education Plan. Emphasis is placed on the student participating in a variety of out-of-door experiences that support action to ensure stewardship of the earth's environment. Upon completion, students should have the necessary knowledge of the support resources and skills to lead an environmental education class.

ENV-120 Earth Science 3 2 0 4

Requisites: Take 1 group; Option: Take ENV-110(S13454); Option: Take BIO-140 BIO-140A; Take previously. Required.

This course covers the fundamental principles of earth science that provide a foundation for continued study in environmental science. Emphasis is placed on the basic principles of geology, oceanography, meteorology, astronomy, and the development of inquiry about the natural world through observation. Upon completion, students should be able to demonstrate an understanding of the component areas of earth science.

ENV-212 Instrumentation 3 3 0 4

Requisites: Take 1 group; Option: Take ENV-110(S13454); Option: Take BIO-140 BIO-140A; Option: Take PTC-110; Take previously. Required.Take CHM-132(S12618); Take either previously or concurrently. Required.

This course introduces analytical techniques used in quantitative analysis of chemical samples. Emphasis is placed on both classical wet techniques of chemical analysis and modern instrumental techniques. Upon completion, students should be able to use the methodologies and technologies involved in chemical analysis.

ENV-214 Water Quality 3 2 0 4

Requisites: Take 1 group; Option: Take CHM-131 ENV-110(S13454); Option: Take CHM-131 BIO-140 BIO-140A; Take previously. Required.

This course examines the constituents of natural waters from a biological and geochemical perspective. Topics include common components of water, water sources, water law, health consequences, water treatment procedures, and the design of water treatment plants. Upon completion, students should be able to demonstrate an understanding of the biological, chemical, and geological factors affecting water quality.

ENV-218 Environmental Health 3 0 0 3

Requisites: Take 1 group; Option: Take ENV-110(S13454); Option: Take BIO-111(S13307); Option: Take BIO-140 BIO-140A; Take previously. Required.

This course covers the influence of environmental conditions on human health. Emphasis is placed on environmental contaminants and the major exposure routes of the human body. Upon completion, students should be able to examine segments of the environment, including air, water, and food, and determine how the conditions of these influence human health.

ENV-220 Applied Ecology 3 2 0 4

Requisites: Take 1 group; Option: Take ENV-110(S23360) BIO-110(S24019); Option: Take ENV-110(S23360) BIO-111(S24020); Option: Take BIO-111(S24020) BIO-140 BIO-140A; Take previously. Required.

This course covers the relationships between organisms and their environment and the interactions among organisms. Topics include environmental factors affecting aquatic and terrestrial systems, regulation and dynamics of populations, interactions among species, and the ecological viewpoint in modern land management. Upon completion, students should be able to demonstrate an understanding of the relationship between man and his environment and the ecological impact of human activities.

ENV-222 Air Quality 3 2 0 4

Requisites: Take 1 group; Option: Take CHM-131 ENV-110(S13454); Option: Take CHM-131 BIO-140 BIO-140A; Take previously. Required.

This course introduces the study of air quality and air pollution. Emphasis is placed on air pollution basics, current atmospheric conditions, effects of air pollution, air quality analysis and measurement, and regulatory control of air pollution. Upon completion, students should be able to demonstrate an understanding of the environmental hazards associated with air pollution from a human health and welfare perspective.

ENV-226 Environmental Law 3 0 0 3

Requisites: Take 1 group; Option: Take ENV-110(S13454); Option: Take BIO-140 BIO-140A; Take previously. Required.

This course covers federal laws and acts concerning environmental quality standards and the use of resources, legal procedures for enforcing laws, and problems concerning enforcement. Emphasis is placed on environmental law basics, water quality laws, air quality laws, waste disposal laws, and biological resource protection laws. Upon completion, students should be able to demonstrate an understanding of federal/state environmental laws and their importance to the protection of environmental quality.

ENV-232 Site Assessment and Remediation 2 3 0 3

Requisites: Take 1 group; Option: Take ENV-110(S13454); Option: Take BIO-140 BIO-140A; Take previously. Required.

This course introduces the concepts and techniques utilized in the assessment and remediation of contaminated soils and groundwater. Emphasis is placed on hydrogeology, environmental sampling, and remedication practices. Upon completion, the student should be able to properly sample environmental medica, demonstrate a knowledge of groundwater dynamics, and discuss various remediation approaches.

ENV-236 Wetlands Science 2 2 0 3

Requisites: Take 1 group; Option: Take ENV-110(S13454); Option: Take BIO-140 BIO-140A; Take previously. Required.

This course introduces wetlands delineation procedures used and approved by the US Army Corps of Engineers. Emphasis is placed on hydrology, hydrolytic vegetation, and hydric soils. Upon completion,students should be able to perform quality wetlands delineation procedures, according to local, state, federal, and regulatory protocol.

ENV-250 Rural Watershed Protection 3 3 0 4

Requisites:

This course examines the environmental and public health impacts of animal wastes, pesticides and fertilizer contamination in rural watersheds. Emphasis is placed on contamination characterization and transport, containment and control measures, re-use, recycling and treatment of fertilizer runoff and animal wastes. Upon completion, the student should be able to demonstrate an understanding of watershed dynamics, environmental contamination and associated protection techniques.

EPT EMERGENCY PREPAREDNESS (EPT Prefix)

EPT-140 Emergency Management 3 0 0 3

Requisites:

This course covers the four phases of emergency management: mitigation, preparedness, response, and recovery. Topics include organizing for emergency management, coordinating for community resources, public sector liability, and the roles of government agencies at all levels. Upon completion, students should be able to demonstrate an understanding of comprehensive emergency management and the integrated emergency management system.

FIRE PROTECTION (FIP Prefix)

FIP-120 Introduction to Fire Protection 3 0 0 3

Requisites:

This course provides an overview of the development, methods, systems and regulations that apply to the fire protection field. Topics include history, evolution, statistics, suppression, organizations, careers, curriculum, and related subjects. Upon completion, students should be able to demonstrate a broad understanding of the fire protection field.

FIP-124 Fire Prevention & Public Education 3 0 0 3

Requisites:

This course introduces fire prevention concepts as they relate to community and industrial operations referenced in NFPA standard 101. Topics include the development and maintenance of fire prevention programs, educational programs, and inspection programs. Upon completion, students should be able to research, develop, and present a fire safety program to a citizens or industrial group.

FIP-132 Building Construction 3 0 0 3

Requisites:

This course covers the principles and practices reference in NFPA standard 220 related to various types of building construction,including residential and commercial, as impacted by fire conditions. Topics include types of construction and related elements, fire resistive aspects of construction materials, building codes, collapse, and other related topics. Upon completion, students should be able to understand and recognize various types of construction and their positive or negative aspects as related to fire conditions.

FIP-136 Inspections and Codes 3 0 0 3

Requisites:

This course covers the fundamentals of fire and building codes and procedures to conduct an inspection referenced in NFPA standard 1730. Topics include review of fire and building codes, writing inspection reports, identifying hazards, plan reviews, site sketches, and other related topics. Upon completion, students should be able to conduct a fire code compliance inspection and produce a written report.

FIP-152 Fire Protection Law 3 0 0 3

Requisites:

This course covers fire protection law as referenced in NFPA standard 1. Topics include legal terms, contracts, liability, review of case histories, and other related topics. Upon completion, students should be able to discuss laws, codes, and ordinances as they relate to fire protection.

FIP-162 Firefighter Safety and Wellness 3 0 0 3

Requisites:

The purpose of this course is to reduce firefighter injuries and fatalities by discussing topics that impact firefighter safety. Emphasis is placed on national standards, the 16 Life Safety Initiatives, and current events to identify changes needed to create a culture of safety. Upon completion, students should be able to define and describe the need for cultural and behavioral changes within the emergency services.

FIP-164 OSHA Standards 3 0 0 3

Requisites:

This course covers public and private sector OSHA work site requirements referenced in NFPA standard 1250. Emphasis is placed on accident prevention and reporting, personal safety, machine operations, and hazardous material handling. Upon completion, students should be able to analyze and interpret specific OSHA regulations and write workplace policies designed to achieve compliance.

FIP-176 HazMat: Operations 4 0 0 4

Requisites:

This course is designed to increase first responder awareness of the type, nature, physiological effects of, and defensive techniques for mitigation of HazMat incidents. Topics include recognition, identification, regulations and standards, zoning, resource usage, defensive operations, and other related topics. Upon completion, students should be able to recognize and identify the presence of hazardous materials and use proper defensive techniques for incident mitigation.

FIP-221 Advanced Fire Fighting Strategies 3 0 0 3

Requisites: Take FIP-220(S23898); Take previously. Required.

This course covers command-level operations for multi-company/agency operations involving fire and non-fire emergencies. Topics include advanced use of the Incident Command System(ICS), advanced incident analysis, command-level fire operations, and control of both man made and natural major disasters. Upon completion, students should be able to describe proper and accepted systems for the mitigation of emergencies at the level of overall scene command.

FIP-228 Local Government Finance 3 0 0 3

Requisites:

This course introduces local governmental financial principles and practices. Topics include budget preparation and justification, revenue policies, statutory requirements, audits, and the economic climate. Upon completion, students should be able to comprehend the importance of finance as it applies to the operations of a department.

FIP-229 Fire Dynamics and Combustion 3 0 0 3

Requisites:

This course covers the theories and fundamentals of how and why fires start and spread, and how they are safely controlled referenced in NFPA standard 1001. Topics include components of fire, fire sources, fire behavior, properties of combustible solids, classification of hazards, and the use of fire extinguishing agents. Upon completion, students should be able to describe the properties of matter and dynamics of fire, identify fuel sources, and compare suppressants and extinguishment techniques.

FIP-232 Hydraulics and Water Distribution 2 2 0 3

Requisites:

This course covers the flow of fluids through fire hoses, nozzles, appliances, pumps, standpipes, water mains, and other devices reference in NFPA standard 25. Emphasis is placed on supply and delivery systems, fire flow testing, hydraulic calculations, and other related topics. Upon completion, students should be able to perform hydraulic calculations, conduct water availability tests, and demonstrate knowledge of water distribution systems.

FIP-240 Fire Service Supervision 3 0 0 3

Requisites:

This course covers supervisory skills and practices in the fire protection field. Topics include the supervisor's job, supervision skills, the changing work environment, managing change, organizing for results, discipline and grievances, and safety. Upon completion, students should be able to demonstrate an understanding of the roles and responsibilities of effective fire service supervision, meeting elements of NFPA 1021.

FIP-244 Fire Protection Project 3 0 0 3

Requisites:

This course provides an opportunity to apply knowledge covered in previous courses to employment situations that the fire protection professional will encounter referenced in NFPA standard 1001. Emphasis is placed on the development of comprehensive and professional practices. Upon completion, students should be able to demonstrate knowledge of the fire protection service through written and performance evaluations.

FIP-260 Fire Protection Planning 3 0 0 3

Requisites: Take FIP-228(S23902) FIP-240(S23908); Take previously. Required.

This course covers the need for a comprehensive approach to fire protection planning referenced in NFPA standards 424 and 1620. Topics include the planning process, using an advisory committee, establishing goals and objectives, and techniques used to approve and implement a plan. Upon completion, students should be able to demonstrate a working knowledge of the concepts and principles of planning as it relates to fire protection.

FIP-276 Managing Fire Services 3 0 0 3

Requisites:

This course provides an overview of fire department operative services referenced in NFPA standard 1021. Topics include finance, staffing, equipment, code enforcement,management information, specialized services, legal issues, planning, and other related topics. Upon completion, students should be able to understand concepts and apply fire department management and operations principles.

FIP-277 Fire and Social Behavior 3 0 0 3

Requisites:

This course covers fire-related aspects of human behavior, with an emphasis on research and a systems approach to human-behavior analysis. Topics include identification of populations and structures at high risk, evaluation of systems models, and use of computer models to predict human behavior during fires. Upon completion, students should be able to identify and anticipate human behavior in response to various residential, commercial, board-and-care facility, and wildland/rural fire events.

FRENCH (FRE Prefix)

FRE-111 Elementary French I 3 0 0 3

Requisites: Take 1 group; Option: Take ENG-090 RED-090; Option: Take DRE-098(S23643); Take previously. Required.Take FRE-181; Take either previously or concurrently. Required.

This course introduces the fundamental elements of the French language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written French and demonstrate cultural awareness.

FRE-112 Elementary French II 3 0 0 3

Requisites: Take FRE-111; Take previously. Required.Take FRE-111; Minimum grade C; Take previously. Required.Take FRE-182; Take either previously or concurrently. Required.

This course is a continuation of FRE 111 focusing on the fundamental elements of the French language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written French and demonstrate further cultural awareness.

FRE-181 French Lab 1 0 2 0 1

Requisites: Take 1 group; Option: Take ENG-090 RED-090; Option: Take DRE-098(S23643); Take previously. Required.Take FRE-111; Take either previously or concurrently. Required.

This course provides an opportunity to enhance acquisition of the fundamental elements of the French language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written French and demonstrate cultural awareness.

FRE-211 Intermediate French I 3 0 0 3

Requisites: Take FRE-112; Take previously. Required.Take FRE-112; Minimum grade C; Take previously. Required.Take FRE-281; Take either previously or concurrently. Required.

This course provides a review and expansion of the essential skills of the French language. Emphasis is placed on the study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future.

FRE-212 Intermediate French II 3 0 0 3

Requisites: Take FRE-211; Take previously. Required.Take FRE-282; Take either previously or concurrently. Required.

This course is a continuation of FRE 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication.

FRE-281 French Lab 3 0 2 0 1

Requisites: Take FRE-182; Take previously. Required.Take FRE-182; Minimum grade C; Take previously. Required.Take FRE-211; Take either previously or concurrently. Required.

This course provides an opportunity to enhance the review and expansion of the essential skills of the French language. Emphasis is placed on the study of authentic and representative literary and cultural texts through the use of supplementary learning media and materials. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future.

FRE-282 French Lab 4 0 2 0 1

Requisites: Take FRE-281; Take previously. Required.Take FRE-212; Take either previously or concurrently. Required.

This course provides an opportunity to enhance the review and expansion of the essential skills of the French language. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts through the use of supplementary learning media and materials. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication.

FOOD SERVICE TECHNOLOGY (FST Prefix) (only offered to immured populations)

FST-100 Introduction to Foodservice 3 0 0 3

Requisites:

This course is designed to develop an understanding of the foodservice industry, its terminology, mathematics, and measurements. Emphasis is placed on employability skills, vocabulary, and culinary math including fractions, ratio and proportion, and percents. Upon completion, students should be able to identify career paths, convert recipes, and differentiate standard measurements.

FST-101 Quantity Baking I 1 4 0 3

Requisites: Take FST-103(S22867) or CUL-110(S22835); Take either previously or concurrently. Required.

This course introduces fundamental concepts, skills, and techniques in quantity baking. Topics include yeast and quick breads, cookies, cakes, and other baked goods. Upon completion, students should be able to prepare and evaluate baked products.

FST-103 Foodservice Sanitation 2 0 0 2

Requisites:

This course provides practical experience with the basic principles of safety and sanitation in the foodservice industry. Emphasis is placed on personal hygiene habits, safety regulations, and food handling practices (H.A.C.C.P.) that protect the health of the consumer. Upon completion, students should be able to demonstrate appropriate safety and sanitation practices required in the foodservice industry.

FST-103A Foodservice Sanitation Lab 0 2 0 1

Requisites: Take FST-103(S22867) or CUL-110(S22835); Take either previously or concurrently. Required.

This course provides a laboratory experience for enhancing student skills in the basic principles of sanitation and safety in the foodservice industry. Emphasis is placed on the practical experiences that enhance personal hygiene habits, safety regulations, and food handling practices that protect the health of the consumer. Upon completion, students should be able to demonstrate the application of sanitation and safety production procedures in foodservice operations.

GEOLOGY (GEL Prefix)

GEL-111 Geology 3 2 0 4

Requisites: Take 1 group; Option: Take DMA-010 DMA-020 DMA-030 DMA-040(S23170) DMA-050(S23171) ENG-111(S24022); Option: Take DMA-010 DMA-020 DMA-030 DMA-040(S23170) DMA-050(S23171) DRE-098(S23643); Take previously. Required.

This course introduces basic landforms and geological processes. Topics include rocks, minerals, volcanoes, fluvial processes, geological history, plate tectonics, glaciers, and coastal dynamics. Upon completion, students should be able to describe basic geological processes that shape the earth.

GEL-113 Historical Geology 3 2 0 4

Requisites: Take GEL-111(S12347) or GEL-120; Take previously. Required.Take GEL-111(S12347) or GEL-120; Minimum grade C; Take previously. Required.

This course covers the geological history of the earth and its life forms. Emphasis is placed on the study of rock strata, fossil groups, and geological time. Upon completion, students should be able to identify major fossil groups and associated rock strata and approximate ages of geological formations.

GEL-120 Physical Geology 3 2 0 4

Requisites: Take 1 group; Option: Take ENG-090 MAT-070 RED-090; Option: Take ENG-111(S13673) MAT-070; Option: Take DMA-040(S23170) ENG-090 RED-090; Option: Take DMA-040(S23170) ENG-111(S13673); Take previously. Required.

This course provides a study of the structure and composition of the earth's crust. Emphasis is placed on weathering, erosional and depositional processes, mountain building forces, rocks and minerals, and structural changes. Upon completion, students should be able to explain the structure, composition, and formation of the earth's crust.

GEL-230 Environmental Geology 3 2 0 4

Requisites: Take GEL-111(S12347) GEL-120 or PHS-130; Take previously. Required.Take GEL-111(S12347) GEL-120 or PHS-130; Minimum grade C; Take previously. Required.

This course provides insights into geologic forces that cause environmental changes influencing man's activities. Emphasis is placed on natural hazards and disasters caused by geologic forces. Upon completion, students should be able to relate major hazards and disasters to the geologic forces responsible for their occurrence.

GEOGRAPHY (GEO Prefix)

GEO-112 Cultural Geography 3 0 0 3

Requisites: Take 1 group; Option: Take RED-090 ENG-090; Option: Take ENG-111(S13673); Option: Take DRE-098(S23643); Take previously. Required.

This course is designed to explore the diversity of human cultures and to describe their shared characteristics. Emphasis is placed on the characteristics, distribution, and complexity of earth's cultural patterns. Upon completion, students should be able to demonstrate an understanding of the differences and similarities in human cultural groups.

GEOGRAPHIC INFORMATION SYSTEMS (GIS Prefix)

GIS-111 Introduction to GIS 2 2 0 3

Requisites:

This course introduces the hardware and software components of a Geographic Information System and reviews GIS applications. Topics include data structures and basic functions, methods of data capture and sources of data, and the nature and characteristics of spatial data and objects. Upon completion, students should be able to identify GIS hardware components, typical operations, products/applications, and differences between database models and between raster and vector systems.

GIS-112 Introduction to GPS 2 2 0 3

Requisites:

This course provides an overview of Global Positioning Systems (GPS). Topics include the theory, implementation, and operations of GPS, as well as alternate data source remote sensing. Upon completion, students should be able to demonstrate an understanding of the fundamentals of GPS.

GIS-120 Introduction to Geodesy 2 2 0 3

Requisites:

This course introduces the fundamental concepts behind map projections, datums, and coordinate systems. Topics include the theory of how the earth's shape is defined and how geographic features are positioned using spherical coordinate systems. Upon completion, students should be able to demonstrate an understanding of the fundamentals of geodesy as it relates to the measurement and representation of the earth.

GIS-121 Georeferencing & Mapping 2 2 0 3

Requisites: Take GIS-111 or CEG-111; Take previously. Required.

This course introduces coordinate systems, fundamentals of surveying, and cartography. Topics include the theory, acquisition, and use of locational data using both continuous and discrete georeferencing methods. Upon completion, students should be able to identify appropriate coordinate systems for a situation and translate data into correct map form.

GIS-125 CAD for GIS 2 2 0 3

Requisites:

This course introduces the concepts of Computer Aided Drafting (CAD) as well as software that is used for building geographic data for a GIS. Emphasis is placed on the learning of basic commands used in building spatial data. Upon completion, the student will be able to operate within a CAD environment.

GIS-230 GIS Data Creation 2 2 0 3

Requisites:

This course introduces the fundamental concepts of primary GIS data creation. Topics include the collection of field data, digital conversion of existing hardcopy maps, and the construction of spatial data from known geodetic locations. Upon completion, students should be able to demonstrate an ability to collect, create, and process spatial data within a variety of environments.

GIS-231 Geoographical Positioning System Methods 1 4 0 3

Requisites:

This course covers quantitative techniques for collection, classification, and spatial analysis of geographical data. Emphasis is placed on map analysis and application of spatial analysis. Upon completion, students should be able to collect, record, and utilize geographical data.

GIS-241 Cartographic Production 2 2 0 3

Requisites: Take GIS-111; Take previously. Required.

This course covers the application of computerized cartography, to include the science and art of map design. Topics include the use of maps as an effective medium, efficient map layout and large-scale map production. Upon completion, students should be able to create a variety of map products for an audience or client.

GIS-246 Principles of Property Mapping 2 2 0 3

Requisites: Take CEG-111 or GIS-111; Take previously. Required.

This course covers interpreting and understanding land records, updating parcel data, and utilizing the data for information retrieval and spatial analysis. Topics include the use and development of parcel information, parcel boundaries, and legal land descriptions. Upon completion, students should be able to demonstrate an understanding of the fundamentals of parcel mapping.

GRAPHIC DESIGN (GRD Prefix)

GRD-110 Typography I 2 2 0 3

Requisites: Take DRE-097(S23642) DMA-030 DMA-020 DMA-010; Take previously. Required.

This course introduces the history and mechanics of type and its application to layout and design. Topics include typographic fundamentals, anatomy, measurements, composition, identification, and terminology. Upon completion, students should be able to demonstrate proficiency in design application, analysis, specification, and creation of typographic elements.

GRD-121 Drawing Fundamentals I 1 3 0 2

Requisites:

This course increases observation skills using basic drawing techniques and media in graphic design. Emphasis is placed on developing the use of graphic design principles, media applications, spatial considerations, drawing styles, and approaches. Upon completion, students should be able to show competence and proficiency in finished works. Students should process basic drawing ability to successfully complete drawing at the college level.

GRD-142 Graphic Design II 2 4 0 4

Requisites: Take ART-121(S12130) DES-135(S10718) or GRD-141; Take previously. Required.Take GRD-151 GRD-110; Take previously. Required.

This course covers the application of visual elements and design principles in advertising and graphic design. Topics include creation of various designs, such as logos, advertisements, posters, outdoor advertising, and publication design. Upon completion, students should be able to effectively apply design principles and visual elements to projects.

GRD-145 Design Applications I 0 3 0 1

Requisites: Take GRD-141; Take either previously or concurrently. Required.Take GRD-151; Take previously. Required.

This course introduces visual problem solving. Emphasis is placed on application of design principles. Upon completion, students should be able to produce projects utilizing basic design concepts.

GRD-146 Design Applications II 0 3 0 1

Requisites: Take GRD-142; Take either previously or concurrently. Required.Take GRD-151 GRD-152; Take previously. Required.

This course is designed to provide additional hands-on training in graphic design. Emphasis is placed on producing comprehensive projects utilizing concepts and technologies covered in GRD 141 and GRD 142. Upon completion, students should be able to provide solutions to design problems.

GRD-151 Computer Design Basics 1 4 0 3

Requisites: Take DRE-097(S23642) DMA-030 DMA-010 DMA-020; Take previously. Required.

This course covers designing and drawing with various types of software applications for advertising and graphic design. Emphasis is placed on creative and imaginative use of space, shapes, value, texture, color, and typography to provide effective solutions to advertising and graphic design problems. Upon completion, students should be able to use the computer as a creative tool.

GRD-152 Computer Design Techniques I 1 4 0 3

Requisites: Take GRD-151; Take previously. Required.Take GRD-151 DRE-098(S23643); Take previously. Required.

This course covers complex design problems utilizing various design and drawing software applications. Topics include the expressive use of typography, image, and organization to communicate a message. Upon completion, students should be able to use appropriate computer software to professionally present their work.

GRD-167 Photographic Imaging I 1 4 0 3

Requisites:

This course introduces basic camera operations and photographic production. Topics include subject composition, depth of field, shutter control, light control, color, photo-finishing, and digital imaging, correction and output. Upon completion, students should be able to produce traditional and/or digital photographic prints with acceptable technical and compositional quality.

GRD-230 Technical Illustration 1 3 0 2

Requisites: Take ART-131 DES-125(S11944) or GRD-121; Take previously. Required.Take 1 group; Option: Take GRD-152 ART-131; Option: Take GRD-152 DES-125(S11944); Option: Take GRD-152 GRD-121; Take previously. Required.

This course introduces technical and industrial illustration techniques. Topics include orthographic, isometric, linear perspective, and exploded views. Upon completion, students should be able to demonstrate competence in various technical rendering techniques.

GRD-241 Graphic Design III 2 4 0 4

Requisites: Take DES-136(S10746) or GRD-142; Take previously. Required.Take 1 group; Option: Take DES-136(S10746) GRD-110 GRD-152; Option: Take GRD-142 GRD-110 GRD-152; Take previously. Required.

This course is an advanced exploration of various techniques and media for advertising and graphic design. Emphasis is placed on advanced concepts and solutions to complex and challenging graphic design problems. Upon completion, students should be able to demonstrate competence and professionalism in visual problem solving.

GRD-246 Design Applications III 0 3 0 1

Requisites: Take GRD-241; Take either previously or concurrently. Required.Take GRD-110 GRD-152; Take previously. Required.

This course is designed to provide additional hands-on training in graphic design. Emphasis is placed on producing complex design projects utilizing concepts and technologies taught in GRD 241. Upon completion, students should be able to produce complex design projects for reproduction.

GRD-263 Illustrative Imaging 1 4 0 3

Requisites: Take GRD-151 or GRA-151; Take previously. Required.

This course covers the creative manipulation of images utilizing digital techniques of masking, layering, airbrushing, and painting. Topics include the aesthetic analysis of visual imagery as well as the legalities of manipulating images. Upon completion, students should be able to utilize software applications to creatively manipulate and illustratively build digital images which accomplish design objectives.

GRD-265 Digital Print Production 1 4 0 3

Requisites: Take GRD-151 or GRA-151; Take previously. Required.Take 1 group; Option: Take GRD-151 GRD-152; Option: Take GRA-151 GRD-152; Take previously. Required.

This course covers preparation of digital files for output and reproduction. Emphasis is placed on output options, separations, color proofing, and cost and design considerations. Upon completion, students should be able to prepare files and select appropriate output methods for design solutions. Topics include sustainable and eco-friendly printing solutions including Forest Stewardship Council certification.

GRD-271 Multimedia Design I 1 3 0 2

Requisites: Take GRD-151 or GRA-151; Take previously. Required.Take GRD-151 or GRA-151; Take previously. Required.

This course introduces the fundamentals of multimedia design and production for computer-related presentations. Topics include interface design, typography, storyboarding, scripting, simple animation, graphics, digital audiovideo, and copyright issues. Upon completion, students should be able to design and produce multimedia presentations.

GRD-282 Advertising Copywriting 1 2 0 2

Requisites: Take ENG-110(S20133) or ENG-111(S13673); Take previously. Required.Take 1 group; Option: Take GRD-110 ENG-110(S22173); Option: Take GRD-110 ENG-111(S13673); Option: Take GRD-151 ENG-110(S22173); Option: Take GRD-151 ENG-111

This course covers copywriting for print, electronic, and broadcast advertising and promotion. Topics include advertising strategies, proposals, headlines, slogans, and text copy for various types of advertising. Upon completion, students should be able to write and articulate advertising proposals and understand the ethical and regulatory environment for advertising.

GRD-285 Client/Media Relations 1 2 0 2

Requisites: Take 1 group; Option: Take GRD-142 GRA-121; Option: Take GRD-142 GRA-152; Option: Take GRD-142 GRD-152; Take previously. Required.Take 1 group; Option: Take GRD-142 GRA-121 GRA-152; Option: Take GRD-142 GRA-121 GRD-152 ENG-1

This course introduces media pricing, scheduling, and business ethics. Emphasis is placed on communication with clients and determination of clients' advertising needs. Upon completion, students should be able to use professional communication skills to effectively orchestrate client/media relationships. Additional topics include evaluation of career choices, resources, job search techniques and for students to consider an appropriate personal direction of career specialization.

GERONTOLOGY (GRO Prefix)

GRO-120 Gerontology 3 0 0 3

Requisites: Take DRE-098(S23643); Take previously. Required.

This course covers the psychological, social, and physical aspects of aging. Emphasis is placed on the factors that promote mental and physical well-being. Upon completion, students should be able to recognize the aging process and its psychological, social, and physical aspects.

HEALTHCARE BUSINESS INFORMATIC (HBI Prefix)

HBI-110 Issues and Trends in Healthcare Business Informatics 3 0 0 3

Requisites:

This course is a survey of current and emerging technology applications and data standards in the healthcare industry. Topics include the history, implementation, use, management, and impact of information technology in healthcare settings. Upon completion, students should have an understanding of the current trends and issues in healthcare informatics.

HBI-113 Survey of Medical Insurance 3 0 0 3

Requisites: Take HBI-110; Take previously. Required.

This course is a survey of the healthcare insurance system. Emphasis is placed on the foundation necessary for understanding the healthcare delivery system, terminology and practices of healthcare insurance, and provider reimbursement. Upon completion, students should have an understanding of healthcare insurance and how outcomes are addressed through healthcare informatics.

HBI-210 Introduction to Health Information Networking 2 3 0 3

Requisites: Take NET-110(S21056) NET-126(S24383) or CTI-120(S22511); Take previously. Required.

This course introduces health information networking. Emphasis is on security and privacy in healthcare, EHR/EMR implementations, designing, securing, and troubleshooting a network to support a medical group. Upon completion, students should be able to design and support healthcare network implementations.

HEALTH (HEA Prefix)

HEA-110 Personal Health/Wellness 3 0 0 3
Requisites:
This course provides an introduction to basic personal health and wellness. Emphasis is placed on current health issues such as nutrition, mental health, and fitness. Upon completion, students should be able to demonstrate an understanding of the factors necessary to the maintenance of health and wellness. This course will include practical, real-life applications to the material presented in the text that encourage students to apply the material to their own lives.

HEA-112 First Aid & CPR 1 2 0 2
Requisites:
This course introduces the basics of emergency first aid treatment. Topics include rescue breathing, CPR, first aid for choking and bleeding, and other first aid procedures. Upon completion, students should be able to demonstrate skills in providing emergency care for the sick and injured until medical help can be obtained.

HEA-120 Community Health 3 0 0 3
Requisites:
This course provides information about contemporary community health and school hygiene issues. Topics include health education and current information about health trends. Upon completion, students should be able to recognize and devise strategies to prevent today's community health problems.

HEAVY EQUIPMENT OPERATION (HEO Prefix)

HEO-111 Heavy Equipment Operations I 8 8 0 12
Requisites:
This course covers the beginning processes of heavy equipment operations. Topics include heavy equipment operator employment options, heavy equipment safety, identification of heavy equipment, equipment systems and maintenance, and basic operational techniques. Upon completion, students should be able to demonstrate a basic understanding of heavy equipment operations utilized in the construction field.

HEO-112 Heavy Equipment Operations II 8 8 0 12
Requisites: Take HEO-111; Take previously. Required.
This course provides instruction regarding advanced operations of various construction equipment. Topics include purpose, function, design features, controls, manipulation, limitations, and safe operation of popular mobile heavy equipment. Upon completion, students should be able to demonstrate advanced operations of various heavy equipment found in the construction field.

HEO-113 Grades and Drawings 3 0 0 3
Requisites:
This course is designed to develop the knowledge and skills required to interpret construction drawings, civil blueprints, and grades. Topics include basic terms for construction drawings, dimensions, setting grades, interpreting grade stakes, reading site plans, safety, and legal issues. Upon completion, students should be able to demonstrate a general knowledge of civil blueprints, construction drawings and the theory behind finish grade selection.

HEO-116 Soil Excavation and Groundwork 1 2 0 2
Requisites:
This course introduces the concepts associated with soil characteristics as they relate to excavation and groundwork on construction sites. Topics include identification of soil sites, compaction needs of soils for various applications, safety concerns of soils and effects of the addition of organic or non-organic material to soil. Upon completion, students should be able to identify soil types, describe the properties of soils, determine the compaction requirements for various applications, and explain the effects of addition of water, organic and non-organic materials upon soils.

HEO-150 Mine Safety Health Administration for Equipment Technicians and Operators 2 0 0 2
Requisites:
This course introduces Mine Safety and Health Administration (MSHA) rules and regulations needed for heavy equipment technicians and operators working in a quarry or mining operation. Emphasis is placed on personal and equipment safety using the topics of MSHA standards, first aide, work site hazards, welding hazards, lifting hazards, following proper procedures and required documentation as they relate to quarry and mining operations. Upon completion, students should be able to demonstrate an understanding of how to identify and implement safe repairs and operation of equipment used in quarry or mining operations.

HEO-192A Selected Topics in Heavy Equipment 1 2 0 2
Requisites:
This course provides an opportunity to explore areas of current interest in the specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study. This course provides an opportunity to explore areas of current interest in the specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

HET-110 Diesel Engines 3 9 0 6
Requisites:
This course introduces theory, design, terminology, and operating adjustments for diesel engines. Emphasis is laced on safety, theory of operation, inspection, measuring, and rebuilding diesel engines according to factory specifications. Upon completion, students should be able to measure, diagnose problems, and repair diesel engines.

HEAVY EQUIPMENT MAINTENANCE (HET Prefix)

HET-114 Power Trains 3 6 0 5
Requisites:
This course introduces power transmission devices. Topics include function and operation of gears, chains, clutches, planetary gears, drive lines, differentials, and transmissions. Upon completion, students should be able to identify, research specifications, repair, and adjust power train components.

HET-115 Electronic Engines 2 3 0 3
Requisites:
This course introduces the principles of electronically controlled diesel engines. Emphasis is placed on testing and adjusting diesel engines in accordance with manufacturers' specifications. Upon completion, students should be able to diagnose, test, and calibrate electronically controlled diesel engines.

HET-128 Medium/Heavy Duty Tune Up 1 2 0 2
Requisites:
This course introduces tune-up and troubleshooting according to manufacturers' specifications. Topics include troubleshooting engine systems, tune-up procedures, and use and care of special test tools and equipment. Upon completion, students should be able to troubleshoot, diagnose, and repair engines and components using appropriate diagnostic equipment.

HET-134 Diesel Fuel and Power System 2 3 0 3
Requisites:
This course introduces the principles of fuel injection and other power systems used in the heavy equipment industry including newer and cleaner technology. Emphasis is placed on test equipment, component functions, safety, and theories of older conventional and newer and cleaner Tier III and Tier IV fuel systems. Upon completion, students should be able to diagnose and service fuel systems and explain proper safety procedures on alternative fuel systems used in heavy equipment industry.

HET-217 Tractor Performance 1 2 0 2
Requisites:
This course covers procedures for attaining optimum performance of agricultural tractors. Emphasis is placed on problem solving using dynamometers, test procedures, and safety. Upon completion, student sshould be able to use test equipment to diagnose engines and drive components and adjust tractors to achieve optimum performance.

HET-231 Medium/Heavy Duty Brake Systems 1 3 0 2
Requisites:
This course covers the theory and repair of braking systems used in medium and heavy-duty vehicles. Topics include air, hydraulic, and ABS system diagnosis and repair. Upon completion, students should be able to troubleshoot, adjust, and repair braking systems on medium and heavy-duty vehicles.

HET-232 Medium/Heavy Duty Brake Systems Lab 0 3 0 1
Requisites: Take HET-231; Take either previously or concurrently. Required.
This course provides a laboratory setting to enhance the skills for troubleshooting, adjusting, and repairing brake systems on medium and heavy duty vehicles. Emphasis is placed on practical experiences that enhance the topics presented in HET 231. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in HET 231.

HET-233 Suspension and Steering 2 4 0 4
Requisites:
This course introduces the theory and principles of medium and heavy duty steering and suspension systems. Topics include wheel and tire problems, frame members, fifth wheel, bearings, and coupling systems. Upon completion, students should be able to troubleshoot, adjust, and repair suspension and steering components on medium and heavy duty vehicles.

HEALTH AND FITNESS SCIENCE (HFS Prefix)

HFS-111 Fitness & Exer Testing I 3 2 0 4
Requisites:
This course introduces the student to graded exercise testing. Topics include various exercise testing protocols with methods for prescribing exercise programs based on exercise tolerance tests and the use of various equipment and protocols. Upon completion, students should be able to conduct specific exercise tests and the use of various equipment.

HFS-116 Pvnt & Care Exer Injuries 2 2 0 3
Requisites:
This course provides information about the care and prevention of exercise injuries. Topics include proper procedures, prevention techniques, and on-site care of injuries. Upon completion, students should be able to demonstrate the knowledge and skills necessary to prevent and care for exercise related injuries.

HFS-118 Fitness Facility Management 4 0 0 4
Requisites:
This course provides information about the management and operation of health and fitness facilities and programs. Topics include human resources, sales and marketing, member retention, financial management, facility design and maintenance, and risk management. Upon completion, students should be able to demonstrate the knowledge and skills necessary to effectively manage a fitness facility.

HFS-120 Group Exercise Instruction 2 2 0 3
Requisites: Take HFS-110; Take previously. Required.
This course introduces the concepts and guidelines of instructing exercise classes. Topics include program designs, working with special populations, and principles of teaching and monitoring physical activity. Upon completion, students should be able to demonstrate basic skills in instructing an exercise class and monitoring workout intensity.

HFS-210 Personal Training 2 2 0 3

Requisites: Take HFS-110 HFS-111; Take previously. Required.

This course introduces the student to the aspects of personal (one-on-one) training. Topics include training systems, marketing, and program development. Upon completion, students should be able to demonstrate personal training techniques and competencies of same.

HFS-212 Exercise Programming 2 2 0 3

Requisites: Take HFS-110; Take previously. Required.

This course provides information about organizing, scheduling, and implementation of physical fitness programs. Topics include programming for various age groups, competitive activities and special events, and evaluating programs. Upon completion, students should be able to organize and implement exercise activities in a competent manner.

HISTORY (HIS Prefix)

HIS-111 World Civilizations I 3 0 0 3

Requisites: Take 1 group; Option: Take ENG-090 RED-090; Option: Take ENG-111(S13673); Option: Take DRE-098(S23643); Take previously. Required.

This course introduces world history from the dawn of civilization to the early modern era. Topics include Eurasian, African, American, and Greco-Roman civilizations and Christian, Islamic and Byzantine cultures. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in pre-modern world civilizations.

HIS-112 World Civilizations II 3 0 0 3

Requisites: Take 1 group; Option: Take ENG-090 RED-090; Option: Take ENG-111(S13673); Option: Take DRE-098(S23643); Take previously. Required.

This course introduces world history from the early modern era to the present. Topics include the cultures of Africa, Europe, India, China, Japan, and the Americas. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in modern world civilizations.

HIS-121 Western Civilization I 3 0 0 3

Requisites: Take 1 group; Option: Take ENG-090 RED-090; Option: Take ENG-111(S13673); Option: Take DRE-098(S23643); Take previously. Required.

This course introduces western civilization from pre-history to the early modern era. Topics include ancient Greece, Rome, and Christian institutions of the Middle Ages and the emergence of national monarchies in western Europe. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in early western civilization.

HIS-122 Western Civilization II 3 0 0 3

Requisites: Take 1 group; Option: Take ENG-090 RED-090; Option: Take ENG-111(S13673); Option: Take DRE-098(S23643); Take previously. Required.

This course introduces western civilization from the early modern era to the present. Topics include the religious wars, the Industrial Revolution, World Wars I and II, and the Cold War. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in modern western civilization.

HIS-131 American History I 3 0 0 3

Requisites: Take 1 group; Option: Take ENG-090 RED-090; Option: Take ENG-111(S13673); Option: Take DRE-098(S23643); Take previously. Required.

This course is a survey of American history from pre-history through the Civil War era. Topics include the migrations to the Americas, the colonial and revolutionary periods, the development of the Republic, and the Civil War. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in early American history.

HIS-132 American History II 3 0 0 3

Requisites: Take 1 group; Option: Take ENG-090 RED-090; Option: Take ENG-111(S13673); Option: Take DRE-098(S23643); Take previously. Required.

This course is a survey of American history from the Civil War era to the present. Topics include industrialization, immigration, the Great Depression, the major American wars, the Cold War, and social conflict. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in American history since the Civil War.

HEALTHCARE MANAGEMENT (HMT Prefix)

HMT-211 Long-Term Care Administration 3 0 0 3

Requisites: Take 1 group; Option: Take RED-090 ENG-090 HMT-110(S20232); Option: Take DRE-098(S23643) HMT-110(S20232); Option: Take ENG-111(S24022) HMT-110(S20232); Take previously. Required.

This course introduces the administration of long-term care facilities and services. Emphasis is placed on nursing home care, home health care, hospice, skilled nursing facilities, and other long-term care services. Upon completion, students should be able to distinguish between the different long-term care offerings, criteria for use, and benefits of the patient, resident, and participant.

HMT-212 Management of Healthcare Organizations 3 0 0 3

Requisites: Take 1 group; Option: Take RED-090 ENG-090 HMT-110(S20232); Option: Take DRE-098(S23643) HMT-110(S20232); Option: Take ENG-111(S24022) HMT-110(S20232); Take previously. Required.

This course examines current issues affecting the management of healthcare delivery systems. Topics include current problems, changes, and challenges in the healthcare environment. Upon completion, students should be able to identify current health care issues and their impact on healthcare management.

HORTICULTURE (HOR Prefix)

HOR-112 Landscape Design I 2 3 0 3

Requisites:

This course covers landscape principles and practices for residential and commercial sites. Emphasis is placed on drafting, site analysis, and common elements of good design, plant material selection, and proper plant utilization (encouraged use of native plants and discouraged use of invasive species). Upon completion, students should be able to read plans and draft a landscape design according to sustainable practices.

HOR-114 Landscape Construction 2 2 0 3

Requisites:

This course introduces the design and fabrication of landscape structures/features. Emphasis is placed on safety, tool identification and use, material selection, construction techniques, and fabrication. Upon completion, students should be able to design and construct common landscape structures/features.

HOR-160 Plant Materials I 2 2 0 3

Requisites:

This course covers identification, culture, characteristics, and use of plants in a sustainable landscape. Emphasis is placed on nomenclature, identification, growth requirements, cultural requirements, soil preferences, and landscape applications. Upon completion, students should be able to demonstrate knowledge of the proper selection and utilization of plant materials, including natives and invasive plants.

HOR-161 Plant Materials II 2 2 0 3

Requisites:

This course provides a supplementary opportunity to cover identification, culture, characteristics, and use of plants in a sustainable landscape, giving students a broader knowledge of available landscape plants for utilization in landscapes and plant production. Emphasis is placed on nomenclature, identification, growth requirements, cultural requirements, soil preferences, landscape applications and expansion of the plant palette. Upon completion, students

should be able to demonstrate knowledge of the proper selection and utilization of plant materials, including natives and invasive plants.

HOSPITALITY MANAGEMENT (HRM Prefix)

HRM-110 Introduction to Hospitality and Tourism 3 0 0 3
Requisites: Take 1 group; Option: Take MAT-070 RED-090 ENG-090; Option: Take ENG-111(S13673) MAT-070; Option: Take DMA-030 RED-090 ENG-090 or DRE-098(S23643); Option: Take DMA-030 ENG-111(S13673); Take previously. Required.
This course covers the growth and progress of the hospitality industry. Topics include tourism, lodging, resorts, gaming, restaurants, foodservice and clubs. Upon completion, students should be able to demonstrate an understanding of the background, context, and career opportunities that exist within the hospitality industry.

HRM-120 Front Office Procedures 3 0 0 3
Requisites: Take 1 group; Option: Take MAT-070 RED-090 ENG-090; Option: Take ENG-111(S13673) MAT-070; Option: Take DMA-030 RED-090 ENG-090 or DRE-098(S23643); Option: Take DMA-030 ENG-111(S13673); Take previously. Required.
This course introduces a systematic approach to lodging front office procedures. Topics include reservations, registration, guest satisfaction, occupancy and revenue management, security, interdepartmental communications, and related guest services. Upon completion, students should be able to demonstrate a basic understanding of current front office operating systems, including efficient and courteous guest services.

HRM-125 Etiquette for Hospitality 1 0 0 1
Requisites:
This course covers social skills needed to effectively interact within organizational and customer situations. Topics include general social manners, personal appearance, table manners, restaurant and meeting etiquette, and business interaction. Upon completion, students should be able to function with confidence in various social, cultural, and professional situations.

HRM-140 Legal Issues-Hospitality 3 0 0 3
Requisites: Take 1 group; Option: Take MAT-070 RED-090 ENG-090; Option: Take ENG-111(S13673) MAT-070; Option: Take DMA-030 RED-090 ENG-090 or DRE-098(S23643); Option: Take DMA-030 ENG-111(S13673); Take previously. Required.
This course covers the rights and responsibilities that the law grants to or imposes upon the hospitality industry. Topics include federal and state regulations, historical and current practices, safety and security, risk management, loss prevention, relevant torts, and contracts. Upon completion, students should be able to demonstrate an understanding of the legal system and the concepts necessary to prevent or minimize organizational liability.

HRM-210 Meetings and Event Planning 3 0 0 3
Requisites: Take 1 group; Option: Take MAT-070 RED-090 ENG-090; Option: Take ENG-111(S13673) MAT-070; Option: Take DMA-030 RED-090 ENG-090; Option: Take DMA-030 DRE-098(S23643); Option: Take DMA-030 ENG-111(S13673); Take previously. Required.
This course introduces concepts related to the planning and operation of conventions, trade shows, professional meetings, and foodservice events. Emphasis is placed on methods of marketing, selling, organizing, and producing conventions, events, and trade shows that will increase financial and environmental value. Upon completion, students should be able to demonstrate an understanding of management principles for multi-function, multi-day conferences and events.

HRM-215 Restaurant Management 3 0 0 3
Requisites: Take CUL-135(S22842) or HRM-124(S22904); Take previously. Required.Take 1 group; Option: Take CUL-135(S10202) CUL-135A(S11193); Option: Take HRM-124(S21353); Take previously. Required.
This course provides an overview of the responsibilities and activities encountered in managing a food and beverage operation. Topics include planning, organization, accounting, marketing, trends, and human resources from an integrated managerial viewpoint. Upon completion, students should be able to demonstrate an understanding of the

operation of a restaurant.

HRM-225 Beverage Management 3 0 0 3
Requisites: Take 1 group; Option: Take MAT-070 RED-090 ENG-090; Option: Take ENG-111(S13673) MAT-070; Option: Take DMA-030 RED-090 ENG-090 or DRE-098(S23643); Option: Take DMA-030 ENG-111(S13673); Take previously. Required.
This course introduces the management of beverages served in hospitality operations. Topics include history and trends; service, procurement and storage; knowledge and control of wines and fermented/distilled beverages; and non-alcoholic beverages, coffees, and teas. Upon completion, students should be able to demonstrate an understanding of responsible alcohol service and the knowledge of beverages consumed in a hospitality operation.

HRM-235 Quality Management-Hospitality 3 0 0 3
Requisites:
This course introduces the various schools of thought in achievementand implementation of quality standards for the hospitality industry. Emphasis is placed on developing and maintaining quality in the delivery of the tangible and intangible aspects of the service product. Upon completion, students should be able to demonstrate an understanding of quality service principles and apply them within a hospitality/service environment.

HRM-240 Marketing for Hospitality 3 0 0 3
Requisites: Take 1 group; Option: Take MAT-070 RED-090 ENG-090; Option: Take ENG-111(S13673) MAT-070; Option: Take DMA-030 RED-090 ENG-090 or DRE-098(S23643); Option: Take DMA-030 ENG-111(S13673); Take previously. Required.
This course covers planning, organizing, directing, and analyzing the results of marketing programs for the hospitality industry. Emphasis is placed on target marketing, marketing mix, analysis, product and image development, use of current media, sales planning, advertising, public relations, and collateral materials. Upon completion, students should be able to apply the marketing process as it relates to the hospitality industry.

HRM-245 Human Resource Management-Hospitality 3 0 0 3
Requisites: Take 1 group; Option: Take MAT-070 RED-090 ENG-090; Option: Take ENG-111(S13673) MAT-070; Option: Take DMA-030 RED-090 ENG-090 or DRE-098(S23643); Option: Take DMA-030 ENG-111(S13673); Take previously. Required.
This course introduces a systematic approach to human resource management in the hospitality industry. Topics include training/development, staffing, selection, hiring, recruitment, evaluation, benefit administration, employee relations, labor regulations/laws, discipline, motivation, productivity, shift management, contract employees and organizational culture. Upon completion, students should be able to apply human resource management skills for the hospitality industry.

HRM-260 Procurement for Hospitality 3 0 0 3
Requisites: Take 1 group; Option: Take MAT-070 RED-090 ENG-090; Option: Take ENG-111(S13673) MAT-070; Option: Take DMA-030 RED-090 ENG-090 or DRE-098(S23643); Option: Take DMA-030 ENG-111(S13673); Take previously. Required.
This course provides information for management decisions regarding needs analysis and fulfillment for hospitality operations. Emphasis is placed on supply chain sourcing, environmental impacts, procurement technologies, and packaging of products such as food, beverages, supplies, furniture, and equipment. Upon completion, students should be able to demonstrate competence in planning and executing the procurement function.

HRM-275 Leadership-Hospitality 3 0 0 3
Requisites: Take 1 group; Option: Take MAT-070 RED-090 ENG-090; Option: Take ENG-111(S13673) MAT-070; Option: Take DMA-030 RED-090 ENG-090 or DRE-098(S23643); Option: Take DMA-030 ENG-111(S13673); Take previously. Required.
This course introduces leadership traits, styles, and the roles and responsibilities of successful hospitality leaders while developing the student?s personal leadership skills. Topics include formal and informal hospitality leadership; defining effective and ineffective leadership behavior; and leadership organizational change and planning within the hospitality industry. Upon completion, students will be able to apply appropriate leadership actions in real-world

situations ranging from local to global hospitality environments.

HEALTH SCIENCES (HSC Prefix)

HSC-120 CPR 0 2 0 1
Requisites:
This course covers the basic knowledge and skills for the performance of infant, child, and adult CPR and the management of foreign body airway obstruction. Emphasis is placed on recognition, assessment, and proper management of emergency care. Upon completion, students should be able to perform infant, child, and adult CPR and manage foreign body airway obstructions.

HUMAN SERVICES (HSE Prefix)

HSE-110 Introduction to Human Services 2 2 0 3
Requisites: Take HSE-135; Take either previously or concurrently. Recommended.
This course introduces the human services field, including the history, agencies, roles, and careers. Topics include personal/professional characteristics, diverse populations, community resources, disciplines in the field, systems, ethical standards, and major theoretical and treatment approaches. Upon completion, students should be able to identify the knowledge, skills, and roles of the human services worker.

HSE-112 Group Process I 1 2 0 2
Requisites: Take 1 group; Option: Take DRE-098(S23643); Option: Take RED-090 ENG-090; Option: Take ENG-111(S24022); Take previously. Required.
This course introduces interpersonal concepts and group dynamics. Emphasis is placed on self-awareness facilitated by experiential learning in small groups with analysis of personal experiences and the behavior of others. Upon completion, students should be able to show competence in identifying and explaining how people are influenced by their interactions in group settings.

HSE-123 Interviewing Techniques 2 2 0 3
Requisites: Take DRE-098(S23643) HSE-110; Take previously. Required.
This course covers the purpose, structure, focus, and techniques employed in effective interviewing. Emphasis is placed on observing, attending, listening, responding, recording, and summarizing of personal histories with instructor supervision. Upon completion, students should be able to perform the basic interviewing skills needed to function in the helping relationship.

HSE-125 Counseling 2 2 0 3
Requisites: Take DRE-098(S23643) HSE-110; Take previously. Required.
This course covers the major approaches to psychotherapy and counseling, including theory, characteristics, and techniques. Emphasis is placed on facilitation of self-exploration, problem solving, decision making, and personal growth. Upon completion, students should be able to understand various theories of counseling and demonstrate counseling techniques.

HSE-127 Conflict Resolution 2 2 0 3
Requisites: Take DRE-098(S23643); Take previously. Required.
This course introduces conflict resolution and mediation theory and practice. Emphasis is placed on achieving compromise and a win/win perception. Upon completion, students should be able to demonstrate competence in identifying seemingly dissimilar positions and facilitating agreement.

HSE-145 Child Abuse & Neglect 3 0 0 3
Requisites: Take DRE-098(S23643); Take previously. Required.
This course explores the abused and neglected child, including the nature and dimension of the problem. Emphasis is placed on various types of abuse and neglect, their causes, proper treatment, and reporting laws and procedures. Upon completion, students should be able to identify family intervention and counseling techniques to help parents effectively cope in parent-child conflicts.

HSE-210 Human Services Issues 2 0 0 2

Requisites: Take DRE-098(S23643); Take previously. Required.

This course covers current issues and trends in the field of human services. Emphasis is placed on contemporary topics with relevance to special issues in a multi-faceted field. Upon completion, students should be able to integrate the knowledge, skills, and experiences gained in classroom and clinical experiences with emerging trends in the field.

HSE-212 Group Process II 1 2 0 2

Requisites: Take HSE-112; Take previously. Required.

This course is a continuation of the study of interpersonal concepts and group dynamics. Emphasis is placed on self-awareness facilitated by experiential learning in small groups with analysis of personal experiences and the behavior of others. Upon completion, students should be able to demonstrate their ability to communicate with others and facilitate communications between others.

HSE-220 Case Management 2 2 0 3

Requisites: Take HSE-110; Take previously. Required.Take HSE-110 DMA-010 DMA-020 DMA-030; Take previously. Required.

This course covers the variety of tasks associated with professional case management. Topics include treatment planning, needs assessment, referral procedures, and follow-up and integration of services. Upon completion, students should be able to effectively manage the care of the whole person from initial contact through termination of services.

HSE-225 Crisis Intervention 3 0 0 3

Requisites: Take 1 group; Option: Take DRE-098(S23643); Option: Take RED-090 ENG-090; Option: Take ENG-111(S24022); Take previously. Required.

This course introduces the basic theories and principles of crisis intervention. Emphasis is placed on identifying and demonstrating appropriate and differential techniques for intervening in various crisis situations. Upon completion, students should be able to assess crisis situations and respond appropriately.

HSE-226 Intellectual Disabilities 3 0 0 3

Requisites:

This course covers intellectual disabilities and related issues. Emphasis is placed on the theoretical perspectives, causes, prevention, and treatment of intellectual disabilities. Upon completion, students should be able to demonstrate a general knowledge of individuals with intellectual disabilities.

HSE-245 Stress Management 2 2 0 3

Requisites: Take DRE-098(S23643); Take previously. Required.

This course covers stressors and techniques for stress management. Topics include anger, assertiveness, breathing, change, coping skills, family, time management, meditation, guided imagery, and journaling. Upon completion, students should be able to identify areas of stress and the skills and management techniques for dealing with stressors.

HSE-251 Activities Planning 2 2 0 3

Requisites: Take DRE-098(S23643); Take previously. Required.

This course introduces skills and techniques used in recreation and leisure activities to enhance the lives of special populations. Emphasis is placed on music, art, and recreational activities. Upon completion, students should be able to define, plan, and adapt recreational activities for selected groups and individuals to maintain quality of life.

HUMANITIES (HUM Prefix)

HUM-110 Technology and Society 3 0 0 3

Requisites: Take 1 group; Option: Take ENG-090 RED-090; Option: Take ENG-111(S13673); Option: Take DRE-098(S23643); Take previously. Required.

This course considers technological change from historical, artistic, and philosophical perspectives and its effect on human needs and concerns. Emphasis is placed on the causes and consequences of technological change. Upon completion, students should be able to critically evaluate the implications of technology.

HUM-115 Critical Thinking 3 0 0 3

Requisites: Take 1 group; Option: Take DRE-098(S23643); Option: Take ENG-095; Option: Take RED-090 ENG-090; Take previously. Required.Take 1 group; Option: Take ENG-090 RED-090; Option: Take ENG-111(S24022);

This course introduces the use of critical thinking skills in the context of human conflict. Emphasis is placed on evaluating information, problem solving, approaching cross-cultural perspectives, and resolving controversies and dilemmas. Upon completion, students should be able to demonstrate orally and in writing the use of critical thinking skills in the analysis of appropriate texts. Students will also explore the parameters of selected ethical issues.

HUM-121 The Nature of America 3 0 0 3

Requisites:

This course provides an interdisciplinary survey of the American cultural, social, and political experience. Emphasis is placed on the multicultural character of American society, distinctive qualities of various regions, and the American political system. Upon completion, students should be able to analyze significant cultural, social, and political aspects of American life.

HUM-130 Myth in Human Culture 3 0 0 3

Requisites: Take 1 group; Option: Take RED-090 ENG-090; Option: Take ENG-111(S13673); Option: Take DRE-098(S23643); Take previously. Required.

This course provides an in-depth study of myths and legends. Topics include the varied sources of myths and their influence on the individual and society within diverse cultural contexts. Upon completion, students should be able to demonstrate a general familiarity with myths and a broad-based understanding of the influence of myths and legends on modern culture.

HUM-161 Advanced Film Studies 2 2 0 3

Requisites: Take HUM-160(S16395); Take previously. Required.

This course provides an advanced study of film art and production, building on skills learned in HUM 160. Topics include advanced film production techniques, film genres, examination of master directors' styles, and the relation of film to culture. Upon completion, students should be able to recognize and critically analyze advanced elements of film production.

HUM-220 Human Values and Meaning 3 0 0 3

Requisites: Take ENG-111(S13673); Take previously. Required.

This course presents some major dimensions of human experience as reflected in art, music, literature, philosophy, and history. Topics include the search for identity, the quest for knowledge, the need for love, the individual and society, and the meaning of life. Upon completion, students should be able to recognize interdisciplinary connections and distinguish between open and closed questions and between narrative and scientific models of understanding.

HUM-230 Leadership Development 3 0 0 3

Requisites: Take ENG-111(S13673); Take previously. Required.

This course explores the theories and techniques of leadership and group process. Emphasis is placed on leadership styles, theories of group dynamics, and the moral and ethical responsibilities of leadership. Upon completion, students should be able to identify and analyze a personal philosophy and style of leadership and integrate these concepts in various practical situations.

HYDRAULICS AND PNUEMATICS (HYD Prefix)

HYD-110 Hydraulics/Pneumatics I 2 3 0 3
Requisites:
This course introduces the basic components and functions of hydraulic and pneumatic systems. Topics include standard symbols, pumps, control valves, control assemblies, actuators, FRL, maintenance procedures, and switching and control devices. Upon completion, students should be able to understand the operation of a fluid power system, including design, application, and troubleshooting.

HYD-112 Hydraulics-Medium and Heavy Duty 1 2 0 2
Requisites:
This course introduces hydraulic theory and applications as applied to mobile equipment. Topics include component studies such as pumps, motors, valves, cylinders, filters, reservoirs, lines, and fittings. Upon completion, students should be able to identify, diagnose, test, and repair hydraulic systems using schematics and technical manuals.

HYD-134 Hydraulic/Hydrostatic Construction 2 4 0 4
Requisites:
This course covers the hydraulic/hydrostatic components of construction equipment hydraulics and power trains. Topics include testing, adjusting, repair, and replacement of components that are applied to construction equipment hydraulics and transmissions along with other related topics. Upon completion, students should be able to use proper diagnostic procedures and identify, repair, and replace hydraulic and hydrostatic systems on construction equipment.

IMAGING (IMG Prefix)

IMG-111 Fundamentals of Imaging II 2 0 6 4
Requisites: Take IMG-110; Take previously. Required.
This course provides an overview of the principles of imaging for CT, PET, CT/PET and MRI. Emphasis is placed on image production and anatomical relationships in CT, PET, CT/PET, and MRI. Upon completion, students should be able to identify basic anatomy on, and differentiate between, CT, PET, CT/PET, and MRI images.

IMG-120 Patient Care Medical Imaging 1 2 0 2
Requisites:
This course is designed to provide the basic concepts of patient care in a healthcare facility. Topics include routine and emergent patient care procedures, infection control procedures, and usage of universal precautions. Upon completion, students should be able to demonstrate competence in these areas.

IMG-130 Imaging Ethics & Law 3 0 0 3
Requisites:
This course covers the legalities of relationships between health care workers and patients. Emphasis is placed on professional malpractice, patient rights, legal and professional standards, and ethical considerations. Upon completion, students should be able to demonstrate the legal and ethical responsibilities of a diagnostic imaging professional.

INTERNATIONAL BUSINESS (INT Prefix)

INT-110 International Business 3 0 0 3
Requisites:
This course provides an overview of the environment, concepts, and basic differences involved in international business. Topics include forms of foreign involvement, international trade theory, governmental influences on trade and strategies, international organizations, multinational corporations, personnel management, and international marketing. Upon completion, students should be able to describe the foundation of international business.

INT-180 Travel Study Abroad 3 0 0 3

Requisites:

This course is designed to apply language and theoretical skills in an appropriate international business setting in a foreign country. Emphasis is placed on strengthening foreign language skills, performing with greater competence and confidence in the international workplace, and completing objectives outlined in training plan. Upon completion, students should be able to understand and utilize cultural patterns and business practices in the region of study.

INT-210 International Trade 3 0 0 3

Requisites:

This course covers international business trade practices and foreign market research. Emphasis is placed on current trends of US trade practices in foreign countries and how to engage in international trade and acquire foreign marketing information. Upon completion, students should be able to formulate an overall product policy for the international marketplace.

INT-230 International Law 3 0 0 3

Requisites: Take BUS-115(S11427); Take previously. Required.

This course is designed to develop an understanding of the different theories on international law and their effect on international trade. Emphasis is placed on concepts of contracts, international transactions, major organizations in international trade, establishment of treaties, economic areas, and US laws affecting international trade. Upon completion, students should be able to apply theories and concepts to international trade and transactions.

INDUSTRIAL SCIENCE (ISC Prefix)

ISC-112 Industrial Safety 2 0 0 2

Requisites:

This course introduces the principles of industrial safety. Emphasis is placed on industrial safety and OSHA regulations. Upon completion, students should be able to demonstrate knowledge of a safe working environment and OSHA compliance.

ISC-115 Construction Safety 2 0 0 2

Requisites:

This course introduces the basic concepts of construction site safety. Topics include ladders, lifting, lock-out/tag-out, personal protective devices, scaffolds, and above/below ground work based on OSHA regulations. Upon completion, students should be able to demonstrate knowledge of applicable safety regulations and safely participate in construction projects.

ISC-121 Environmental Health & Safety 3 0 0 3

Requisites:

This course covers workplace environmental, health, and safety concepts. Emphasis is placed on managing the implementation and enforcement of environmental health and safety regulations and on preventing accidents, injuries, and illnesses. Upon completion, students should be able to demonstrate an understanding of basic concepts of environmental health and safety.

ISC-131 Quality Management 3 0 0 3

Requisites:

This course provides a study and analysis of the aspects and implications of quality management that lead to customer satisfaction through continuous quality improvement. Topics include Total Quality Management, ISO 9000, organizing for quality, supplier/vendor relationships, and the role of leadership in quality management. Upon completion, students should be able to demonstrate an understanding of quality management concepts and techniques.

ISC-132 Manufacturing Quality Control 2 3 0 3

Requisites: Take EGR-115(S20666); Take previously. Required.

This course introduces quality concepts and techniques used in industry. Topics include elementary statistics and

probability, process control, process capability, and quality improvement tools. Upon completion, students should be able to demonstrate an understanding of the concepts and principles of quality and apply them to the work environment.

ISC-136 Productivity Analysis I 2 3 0 3
Requisites:
This course covers modern methods of measuring, analyzing, and improving productivity. Topics include methods analysis, standardized practices, process analysis, and human factors. Upon completion, students should be able to apply productivity improvement techniques.

ISC-175 QA Fundamentals 1 0 0 1
Requisites:
This course is designed to increase fundamental knowledge in the philosophies, principles, and practice of quality in the work environment. Topics include the history and basics of quality, philosophies of quality, daily application of principles, and roles of quality professions, with emphasis on cGMP environment. Upon completion, students should be able to discuss quality fundamentals, components of quality systems, and identify standards and programs of quality.

ISC-210 Operation and Production Planning 3 0 0 3
Requisites:
This course includes the fundamentals of operations and production planning, forecasting, and scheduling. Topics include demand management, production planning and control, scheduling, and budgeting. Upon completion, students should be able to demonstrate an understanding of the concepts and techniques involved in operations and production planning.

ISC-220 Lean Manufacturing 2 2 0 3
Requisites:
This course introduces students to the concept of lean manufacturing as a means of waste reduction. Topics include the examination of manufacturing operations and the incorporation of lean techniques to reduce waste, cost, time, and materials in manufacturing processes. Upon completion, students should be able to demonstrate an understanding of lean manufacturing systems and how they benefit the environment and business.

ISC-222 Project Planning/Control 1 2 0 2
Requisites:
This course covers how to plan, schedule and control projects typical in manufacturing and service industries. Topics include fundamental project management concepts and hands-on computer application experience with process flow charting and PERT/CPM project managers. Upon completion, students should be able to plan, schedule and control projects using state-of-the-art computer application programs.

ISC-230 Simulation Production Processes 1 3 0 2
Requisites:
This course introduces fundamental principles and procedures for simulation modeling of production processes. Emphasis is placed on problem-solving and engineering applications of simulation modeling for quality enhancement and productivity improvement. Upon completion, students should be able to analyze and model a production process to obtain optimum productive operations.

ISC-237 Quality Management 2 3 0 3
Requisites:
This course covers the process by which successful manufacturing organizations achieve customer satisfaction in all processes in the organization. Topics include quality models and approaches, such as MBNQA, ISO 9000, benchmarking, and Deming's 14 Points, and the incorporation of SPC improvement techniques. Upon completion, students should be able to integrate SPC techniques with successful management practices for a comprehensive understanding of continuous quality improvement.

ISC-243 Production and Operations Management I 2 3 0 3

Requisites: Take 1 group; Option: Take DFT-110; Option: Take DFT-151; Option: Take ARC-114(S10248); Take previously. Required.

This course introduces concepts used to analyze and solve productivity and operational problems. Topics include operations strategy, forecasting, resource allocation, and materials management. Upon completion, students should be able to recognize, analyze, and solve a variety of productivity and operational problems.

ISC-255 Engineering Economy 2 2 0 3

Requisites:

This course covers the process of economic evaluation of manufacturing industrial alternatives such as equipment selection, replacement studies, and cost reduction proposals. Topics include discounted cash flows, time value of money, income tax considerations, internal rates of return, and comparison of alternatives using computer programs. Upon completion, students should be able to analyze complex manufacturing alternatives based on engineering economy principles.

ISC-277 Quality Technology 4 0 0 4

Requisites:

This course presents quality assurance topics relating to an effective quality system. Emphasis is placed on quality management concepts, including sampling and reliability. Upon completion, students should be able to demonstrate the basic knowledge required to take the ASQC Certified Quality Technician Exam.

ISC-278 cGMP Quality Systems 2 0 0 2

Requisites:

This course focuses on the development, implementation, and ongoing maintenance of a quality system in a cGMP environment. Topics include the cGMP standard, components of cGMP quality systems, quality function roles and training, development of documentation such as SOPs, and system review procedures. Upon completion, students should be able to identify the components of a quality system and develop a quality system manual utilizing the cGMP standard.

ISC-280 Validation Fundamentals 1 2 0 2

Requisites:

This course covers the fundamental concepts of components of a validation program in a cGMP environment. Emphasis is placed on FDA requirements concerning validation, types of validation, documentation, procedures, and the QA role. Upon completion, students should be able to discuss the purpose of validation, identify the steps in the validation process, and effectively utilize sample documentation.

LANDSCAPE ARCHITECTURE (LAR Prefix)

LAR-111 Introduction to Landscape Architecture Technology 1 6 0 3

Requisites:

This course introduces basic architectural drafting techniques, lettering, and use of architectural and engineering scales. Topics include creating landscape architectural plans, sections and details; reprographic techniques; and other related topics. Upon completion, students should be able to prepare and print scaled drawings within minimum landscape architectural standards.

LAR-112 Landscape Materials & Methods 3 2 0 4

Requisites:

This course introduces landscape architecture construction materials and their methodologies. Topics include landscape construction terminology, materials and their properties, manufacturing processes, landscape construction techniques, and other related topics. Upon completion, students should be able to detail landscape construction materials and properties.

LAR-113 Residential Landscape Design 1 6 0 3

Requisites: Take LAR-111(S10088); Take previously. Required.

The course covers the creation of residential landscape design working drawings. Topics include residential plans, elevation, sections, plant selection/lists, and other related topics. Upon completion, students should be able to prepare a set of residential landscape working drawings which are within accepted architectural standards.

LAR-120 Sustainable Development 2 2 0 3

Requisites:

This course introduces students to sustainable practices in site design and land development. Topics include conservation subdivision design, transportation issues, urban planning, water conservation, rain gardens, alternative technologies, permaculture design, low impact design, and grey water systems. Upon completion, students should be able to demonstrate techniques and procedures used for mitigating the impact of development on the environment.

LAR-211 Commercial Site Design 1 6 0 3

Requisites: Take LAR-113(S10075); Take previously. Required.

This course covers commercial landscape design techniques. Topics include creation of site analysis drawings, commercial landscape architectural plans, and other related topics. Upon completion, students should be able to perform a site analysis, design a commercial landscape, and generate scaled drawings within landscape architectural standards.

LAR-223 Land Design Project 2 6 0 4

Requisites: Take ARC-114(S10248) LAR-211(S22167); Take previously. Required.Take CIV-125(S21521); Take either previously or concurrently. Required.

This course provides the opportunity to design and prepare landscape contract documents. Topics include schematic design, design development, grading, roadway and parking lot design, and other related topics. Upon completion, students should be able to prepare drawings within landscape architectural standards.

LAR-231 Principles of Interior Planting 2 3 0 3

Requisites:

This course covers the identification, selection, and installation of interior landscape plants. Topics include interior plant selection, fertilization, pruning, pest and disease identification and control, and other related topics. Upon completion, students should be able to select plants for interior settings.

LAR-235 Landscape Architectural Presentation Techniques 2 3 0 3

Requisites:

This course covers landscape architectural presentation techniques. Topics include perspective drawing, shadow projection, texturization, rendered landscape architecture plans, and other related topics. Upon completion, students should be able to present ideas graphically and render landscape presentation drawings.

LAR-241 Advanced Site Planning 2 3 0 3

Requisites: Take ARC-240(S21519); Take previously. Required.

This course covers advanced site planning. Topics include grading complex sites, erosion control, soil volume calculations, storm water volume calculations, channel sizing and other related topics. Upon completion, students should be able to perform advanced grading and site planning calculations.

LAR-242 Planning & Environment 2 2 0 3

Requisites:

This course covers the historical development of urban and rural environmental problems and issues. Emphasis is placed on governmental response to environmental issues, built and natural environments, historical conflicts, and attempts to produce planning compatibility. Upon completion, students should be able to demonstrate an understanding of the importance of considering natural resources when making political and planning decisions.

LAR-250 Survey of LAR 3 0 0 3

Requisites:

This course introduces the historical trends in landscape architectural forms. Emphasis is placed on landscape architectural history and current trends. Upon completion, students should be able to demonstrate an understanding of significant historical and current landscape architectural styles.

LOGISTICS MANAGEMENT (LOG Prefix)

LOG-110 Introduction to Logistics 3 0 0 3

Requisites:

This course provides an overview of logistics. Topics include traffic management, warehousing, inventory control, material handling, global logistics, and the movement and storage of goods from raw materials sources to end consumers. Upon completion, students should be able to identify the different segments of logistics and use the terminology of the industry.

LOG-125 Transportation Logistics 3 0 0 3

Requisites:

This course covers the role and importance of the transportation industry. This is an overview of transportation emphasizing its environmental and sociological aspects, economic impact, services, regulatory guidelines, policies, and its future. Upon completion, students should be able to identify modes of transportation, interpret governing regulations, and describe the principles and terminology used in the transportation industry.

LOG-210 Fleet Management 3 0 0 3

Requisites: Take LOG-110; Take previously. Required.

This course covers the management of transportation, fleet operations, and safety. Emphasis is placed on DOT safety regulations in the hiring, training, and supervision of drivers in transportation. Upon completion, students should be able to write a safety program for drivers involved in interstate commerce following DOT regulations.

LOG-211 Distribution Management 2 2 0 3

Requisites: Take LOG-110; Take previously. Required.

This course covers the functions, techniques, and tools utilized in warehousing and distribution centers and their role in business and logistics. Emphasis is placed on warehouse and distribution center management, operations, productivity, software systems, picking, automation, cross docking, safety, security, material handling, benchmarking, and cost. Upon completion, students should be able to describe the role of warehouses and distribution centers, apply industry principles and terminology, and understand distribution productivity measures.

LOG-215 Supply Chain Management 3 0 0 3

Requisites: Take LOG-110; Take previously. Required.

This course covers all activities involved in the flow of products and information between the suppliers, customers, producers, and service providers. Topics include acquiring, purchasing, manufacturing, assembling, and distributing goods and services throughout the supply chain organizations. Upon completion, students should be able to identify the supply chain units and describe the materials management processes.

LOG-220 Logistics Management 3 0 0 3

Requisites: Take LOG-110; Take previously. Required.

This course covers the management of the movement and storage of goods and analysis of total costs involved. Emphasis is placed on the monitoring of inventory using automated systems, managing the storage function, warehousing, and distribution. Upon completion, students should be able to describe warehousing and facility layouts, identify material handling methods, and apply inventory control procedures.

LOG-225 Logistics Systems 3 2 0 4

Requisites: Take LOG-215(S13965); Take previously. Required.

This course covers the design, implementation, and application of logistics software systems utilized by businesses to

improve accountability, and capabilities of their logistics processes. Emphasis is placed on an in-depth understanding of logistical software applications, optimization models, automated data collection, electronic data interchange, and other logistics software tools. Upon completion, students should be able to identify the various logistics software applications and explain how they are utilized to improve business and logistics processes.

LOG-235 Import/Export Management 3 0 0 3
Requisites: Take LOG-125(S21720); Take previously. Required.
This course introduces the elements of import and export operations, from transportation to documentation, finance, and security and the effects on the global supply chain. Emphasis is placed on existing import/export regulations, customs documentation, intermodal transportation, foreign freight forwarders, global technology, and homeland security initiatives. Upon completion, students should be able to perform import/export operations, channels of distribution, implemented technologies, and associate with operating a secure supply chain.

LOG-240 Purchasing Logistics 3 0 0 3
Requisites: Take LOG-110; Take previously. Required.
This course introduces the various aspects of purchasing, and their impact on materials management, supply chain, transportation, and global logistics processes. Emphasis is placed on the different methods of electronic sourcing, negotiating and pricing principles, and on the internal and external considerations associated with international logistics. Upon completion, students should be able to describe and apply the principles and terminology used in procurement including electronic data interchange services, purchasing and logistics systems.

LOG-245 Logistics Security 3 0 0 3
Requisites: Take LOG-110; Take previously. Required.
This course covers the role and importance of securing the domestic and global transportation and supply chain networks. Emphasis is placed on Customs and Border Protection, Department of Homeland Security, the Transportation Security Agency and how they affect businesses, logistics and transportation processes. Upon completion, students should be able to apply the principles and terminologies used in securing the logistics and transportation networks and identify potential threats.

LOG-250 Advanced Global Logistics 3 2 0 4
Requisites: Take LOG-125(S13306); Take previously. Required.
This course covers the advanced application of global operations and logistics strategies, planning, technology, risk, and management necessary to cope with the global business environment. Emphasis is placed on an in-depth understanding of global sourcing, shipping, tracking, and e-logistics systems necessary to operate inbound/outbound logistics in a global market. Upon completion, students should be able to identify the different global markets and logistics technology available to process international inbound/outbound logistics transactions.

MASONRY (MAS Prefix)

MAS-140 Introduction to Masonry 1 2 0 2
Requisites:
This course introduces basic principles and practices of masonry. Topics include standard tools, materials, and practices used in basic masonry and other related topics. Upon completion, students should be able to demonstrate an understanding of masonry and be able to use basic masonry techniques.

MATHEMATICS (MAT Prefix)

MAT-001 Math Skills Support 0 2 0 1
Requisites: Take MAT-110(S23926) MAT-121(S23927) MAT-143(S23945) MAT-152(S23944) or MAT-171(S23934); Take either previously or concurrently. Required.
This course provides opportunities for students to build a stronger foundation for success in their corequisite math course by obtaining skills through a variety of instructional strategies. Emphasis is placed on foundational skills as well as concepts, skills, vocabulary and definitions necessary to master student learning outcomes of the co-requisite math course. Upon completion, students should be able to apply mathematical concepts and critical thinking skills to

solve problems relevant to the student's co-requisite math course.

MAT-001S Math Skills Support 0 2 0 1
Requisites:
This course provides opportunities for students to build a stronger foundation for success in their corequisite math course by obtaining skills through a variety of instructional strategies. Emphasis is placed on foundational skills as well as concepts, skills, vocabulary and definitions necessary to master student learning outcomes of the co-requisite math course. Upon completion, students should be able to apply mathematical concepts and critical thinking skills to solve problems relevant to the student's co-requisite math course.

MAT-050 Basic Math Skills 3 2 0 4
Requisites:
This course is designed to strengthen basic math skills. Topics include properties, rounding, estimating, comparing, converting, and computing whole numbers, fractions, and decimals. Upon completion, students should be able to perform basic computations and solve relevant mathematical problems. This course will also include work with percents and geometry, using technology where appropriate.

MAT-110 Mathematical Measurement and Literacy 2 2 0 3
Requisites: Take 1 group; Option: Take DMA-010 DMA-020 DMA-030; Option: Take MAT-060; Take previously. Required.
This course provides an activity-based approach that develops measurement skills and mathematical literacy using technology to solve problems for non-math intensive programs. Topics include unit conversions and estimation within a variety of measurement systems; ratio and proportion; basic geometric concepts; financial literacy; and statistics including measures of central tendency, dispersion, and charting of data. Upon completion, students should be able to demonstrate the use of mathematics and technology to solve practical problems, and to analyze and communicate results.

MAT-121 Algebra/Trigonometry I 2 2 0 3
Requisites: Take 1 group; Option: Take DMA-010 DMA-020 DMA-030 DMA-040(S23170) DMA-050(S23171) DMA-060(S24128); Option: Take MAT-060 MAT-070; Option: Take MAT-060 MAT-080; Option: Take MAT-060 MAT-090; Option: Take MAT-095; Take previously.
This course provides an integrated approach to technology and the skills required to manipulate, display, and interpret mathematical functions and formulas used in problem solving. Topics include the properties of plane and solid geometry, area and volume, and basic proportion applications; simplification, evaluation, and solving of algebraic equations and inequalities and radical functions; complex numbers; right triangle trigonometry; and systems of equations. Upon completion, students will be able to demonstrate the ability to use mathematics and technology for problem-solving, analyzing and communicating results.

MAT-143 Quantitative Literacy 2 2 0 3
Requisites: Take 1 group; Option: Take DMA-010 DMA-020 DMA-030 DMA-040(S23170) DMA-050(S23171) DRE-098(S23643); Option: Take DMA-010 DMA-020 DMA-030 DMA-040(S23170) DMA-050(S23171) ENG-095; Option: Take DMA-010 DMA-020 DMA-030 DMA-040(S23170)
This course is designed to engage students in complex and realistic situations involving the mathematical phenomena of quantity, change and relationship, and uncertainty through project- and activity-based assessment. Emphasis is placed on authentic contexts which will introduce the concepts of numeracy, proportional reasoning, dimensional analysis, rates of growth, personal finance, consumer statistics, practical probabilities, and mathematics for citizenship. Upon completion, students should be able to utilize quantitative information as consumers and to make personal, professional, and civic decisions by decoding, interpreting, using, and communicating quantitative information found in modern media and encountered in everyday life.

MAT-152 Statistical Methods I 3 2 0 4
Requisites: Take 1 group; Option: Take DMA-010 DMA-020 DMA-030 DMA-040(S23170) DMA-050(S23171) DRE-098(S23643); Option: Take DMA-010 DMA-020 DMA-030 DMA-040(S23170) DMA-050(S23171) ENG-095; Option: Take DMA-010 DMA-020 DMA-030 DMA-040(S23170)

This course provides a project-based approach to introductory statistics with an emphasis on using real-world data and statistical literacy. Topics include descriptive statistics, correlation and regression, basic probability, discrete and continuous probability distributions, confidence intervals and hypothesis testing. Upon completion, students should be able to use appropriate technology to describe important characteristics of a data set, draw inferences about a population from sample data, and interpret and communicate results.

MAT-171 Precalculus Algebra 3 2 0 4

Requisites: Take 1 group; Option: Take DMA-010 DMA-020 DMA-030 DMA-040(S24983) DMA-050(S24984) DMA-060(S24985) DMA-070(S24987) DMA-080(S24988); Option: Take MAT-121(S24993); Option: Take DMA-010 DMA-020 DMA-030 DMA-040(S24983) DMA-050(S24984) DMA-065

This course is designed to develop topics which are fundamental to the study of Calculus. Emphasis is placed on solving equations and inequalities, solving systems of equations and inequalities, and analysis of functions (absolute value, radical, polynomial, rational, exponential, and logarithmic) in multiple representations. Upon completion, students should be able to select and use appropriate models and techniques for finding solutions to algebra-related problems with and without technology.

MAT-172 Precalculus Trigonometry 3 2 0 4

Requisites: Take MAT-171(S23934); Take previously. Required.Take MAT-171(S23934); Minimum grade C; Take previously. Required.

This course is designed to develop an understanding of topics which are fundamental to the study of Calculus. Emphasis is placed on the analysis of trigonometric functions in multiple representations, right and oblique triangles, vectors, polar coordinates, conic sections, and parametric equations. Upon completion, students should be able to select and use appropriate models and techniques for finding solutions to trigonometry-related problems with and without technology.

MAT-263 Brief Calculus 3 2 0 4

Requisites: Take MAT-171(S23934); Take previously. Required.Take MAT-171(S23934); Minimum grade C; Take previously. Required.

This course is designed to introduce concepts of differentiation and integration and their applications to solving problems. Topics include graphing, differentiation, and integration with emphasis on applications drawn from business, economics, and biological and behavioral sciences. Upon completion, students should be able to demonstrate an understanding of the use of basic calculus and technology to solve problems and to analyze and communicate results.

MAT-271 Calculus I 3 2 0 4

Requisites: Take MAT-172(S23935); Take previously. Required.Take MAT-172(S23935); Minimum grade C; Take previously. Required.

This course is designed to develop the topics of differential and integral calculus. Emphasis is placed on limits, continuity, derivatives and integrals of algebraic and transcendental functions of one variable. Upon completion, students should be able to select and use appropriate models and techniques for finding solutions to derivative-related problems with and without technology.

MAT-272 Calculus II 3 2 0 4

Requisites: Take MAT-271(S23939); Take previously. Required.Take MAT-271(S23939); Minimum grade C; Take previously. Required.

This course is designed to develop advanced topics of differential and integral calculus. Emphasis is placed on the applications of definite integrals, techniques of integration, indeterminate forms, improper integrals, infinite series, conic sections, parametric equations, polar coordinates, and differential equations. Upon completion, students should be able to select and use appropriate models and techniques for finding solutions to integral-related problems with and without technology.

MAT-273 Calculus III 3 2 0 4

Requisites: Take MAT-272(S23940); Take previously. Required.Take MAT-272(S23940); Minimum grade C; Take previously. Required.

This course is designed to develop the topics of multivariate calculus. Emphasis is placed on multivariate functions, partial derivatives, multiple integration, solid analytical geometry, vector valued functions, and line and surface integrals. Upon completion, students should be able to select and use appropriate models and techniques for finding the solution to multivariate-related problems with and without technology.

MAT-280 Linear Algebra 2 2 0 3

Requisites: Take MAT-271(S23939); Take previously. Required.Take MAT-271(S23939); Minimum grade C; Take previously. Required.

This course provides an introduction to linear algebra topics. Emphasis is placed on the development of abstract concepts and applications for vectors, systems of equations, matrices, determinants, vector spaces, multi-dimensional linear transformations, eigenvectors, eigenvalues, diagonalization and orthogonality. Upon completion, students should be able to demonstrate understanding of the theoretical concepts and select and use appropriate models and techniques for finding solutions to linear algebra-related problems with and without technology.

MAT-285 Differential Equations 2 2 0 3

Requisites: Take MAT-272(S13612); Take previously. Required.Take MAT-272(S23940); Minimum grade C; Take previously. Required.

This course provides an introduction to topics involving ordinary differential equations. Emphasis is placed on the development of abstract concepts and applications for first-order and linear higher-order differential equations, systems of differential equations, numerical methods, series solutions, eigenvalues and eigenvectors, and LaPlace transforms. Upon completion, students should be able to demonstrate understanding of the theoretical concepts and select and use appropriate models and techniques for finding solutions to differential equations-related problems with and without technology.

MISSION CRITICAL OPERATIONS (MCO Prefix)

MCO-115 Mission Critical Operations Infrastructure 2 2 0 3

Requisites:

This course provides a survey of critical infrastructure and its impact on mission critical operations. Topics include an introduction to concepts, theory, terminology, and best practices regarding critical infrastructure assets essential for the economy and the functioning of society. Upon completion, students should be able to name critical infrastructure sectors, explain relationships between infrastructure sectors, discuss the roles government and private entities play in maintaining critical infrastructure, and their impact on daily life.

MCO-210 Critical Site Operations 2 3 0 3

Requisites:

This course introduces critical site operations and the multidisciplinary concepts and infrastructure involved in maintaining performance, security, and safety in a high uptime environment. Topics include safety, security, cybersecurity, operating procedures, operating processes, site-wide monitoring, utilities infrastructure, and regulatory agency compliance. Upon completion, students should be able to identify infrastructure systems, discuss infrastructure performance, demonstrate an understanding of infrastructure system interoperability, apply safety and security principles, and generate a cybersecurity framework for critical sites.

MCO-260 Mission Critical Operations Facility Infrastructures 3 3 0 4

Requisites: Take MCO-115; Take previously. Required.

This course covers the infrastructure systems requirements of mission critical operation (MCO) facilities. Topics include chillers, cooling system design and efficiency, raised access floors, plumbing, fire suppression, and security systems. Upon completion, students should be able to demonstrate an understanding of the operation, testing, maintenance, and troubleshooting of MCO infrastructure systems.

MCO-265 Critical Facility Management 3 0 0 3

Requisites: Take MCO-110; Take previously. Required.

This course covers management practices and operational requirements that are unique to mission critical facilities. Topics include critical infrastructure assessment and maintenance, network management, budget and finance,

documentation and compliance, and personnel management. Upon completion, students should be able to participate as a member of a critical facility management team.

MCO-266 Industrial Control System Cyber Security 2 3 0 3
Requisites:
This course covers the cyber security concerns that are unique to industrial control system (ICS) networks. Topics include ICS architecture, ICS vulnerabilities, ICS defense, incident management, and mitigation solutions. Upon completion, students should be able to demonstrate cyber security skills related to the protection of critical infrastructure control system networks.

MECHANICAL (MEC Prefix)

MEC-130 Mechanisms 2 2 0 3
Requisites: Take 1 group; Option: Take MAT-121(S20804) DFT-110; Option: Take MAT-121(S20804) DFT-151; Option: Take MAT-121(S20804) ARC-114(S10248); Option: Take MAT-161(S20916) DFT-110; Option: Take MAT-161(S20916) DFT-151;
This course introduces the purpose and action of various mechanical devices. Topics include cams, cables, gear trains, differentials, screws, belts, pulleys, shafts, levers, lubricants, and other devices. Upon completion, students should be able to analyze, maintain, and troubleshoot the components of mechanical systems.

MEC-180 Engineering Materials 2 3 0 3
Requisites:
This course introduces the physical and mechanical properties of materials. Topics include materials testing, pre- and post-manufactufing processes, and material selection of ferrous and non-ferrous metals, plastics, composities, and non-conventional materials. Upon completion, students should be able to utilize basic material property tests and select appropriate materials for applications.

MEC-265 Fluid Mechanics 2 2 0 3
Requisites: Take MAT-121(S23927) or MAT-171(S23934); Take previously. Required.
This course covers the physical behavior of fluids and fluid systems. Topics include fluid statics and dynamics, laminar and turbulent flow, Bernoulli's Equation, components, applications, and other related topics. Upon completion, students should be able to apply fluid power principles to practical applications.

MEC-267 Thermal Systems 2 2 0 3
Requisites: Take PHY-131(S13319) or PHY-151(S16517); Take previously. Required.Take 1 group; Option: Take MAT-121(S20804) PHY-131(S20809); Option: Take MAT-121(S20804) PHY-151(S20924); Option: Take MAT-161(S20916) PHY-131(S20809);
This course introduces the fundamental laws of thermodynamics. Topics include work and energy, open and closed systems, and heat engines. Upon completion, students should be able to demonstrate a knowledge of the laws and principles that apply to thermal power.

MEDICAL ASSISTING (MED Prefix)

MED-110 Orientation to Medical Assisting 1 0 0 1
Requisites:
This course covers the history of medicine and the role of the medical assistant in the health care setting. Emphasis is placed on professionalism, communication, attitude, behaviors, and duties in the medical environment. Upon completion, students should be able to project a positive attitude and promote the profession of medical assisting. This course is also available through the Virtual Learning Community (VLC).

MED-118 Medical Law and Ethics 2 0 0 2
Requisites:
This course covers legal relationships of physicians and patients, contractual agreements, professional liability, malpractice, medical practice acts, informed consent, and bioethical issues. Emphasis is placed on legal terms,

professional attitudes, and the principles and basic concepts of ethics and laws involved in providing medical services. Upon completion, students should be able to meet the legal and ethical responsibilities of a multi-skilled health professional.

MED-120 Survey of Medical Terminology 2 0 0 2
Requisites:
This course introduces the vocabulary, abbreviations, and symbols used in the language of medicine. Emphasis is placed on building medical terms using prefixes, suffixes, and word roots. Upon completion, students should be able to pronounce, spell, and define accepted medical terms.

MED-122 Medical Terminology II 3 0 0 3
Requisites: Take MED-121; Take previously. Required.
This course is the second in a series of medical terminology courses. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatment of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders.

MED-130 Administrative Office Procedures I 1 2 0 2
Requisites:
This course introduces medical office administrative procedures. Topics include appointment processing, written and oral communications, medical records, patient orientation, and safety. Upon completion, students should be able to perform basic administrative skills within the medical environment.

MED-131 Administrative Office Procedures II 1 2 0 2
Requisites: Take MED-130; Take previously. Required.
This course provides medical office procedures in both economic and management skills. Topics include physical plant maintenance, equipment and supplies, liability coverage, medical economics, and introductory insurance procedures. Upon completion, students should be able to manage the economics of the medical office and supervise personnel.

MED-138 Infection/Hazard Control 2 0 0 2
Requisites:
This course introduces the student to infection and hazard control procedures necessary for the healthcare worker. Topics include introduction to Microbiology, Practical Infection Control, Sterilization and Monitoring, Chemical Disinfectants, Aseptic Technique, Infectious diseases, and applicable North Carolina laws. Upon completion, students should be able to demonstrate an understanding of infectious diseases, disease transmission, infection control procedures, biohazard management, OSH standards, and applicable North Carolina laws.

MED-140 Examining Room Procedures I 3 4 0 5
Requisites: Take BIO-161 ENG-111(S13673) MAT-110(S20801) MED-110 MED-121 MED-130 MED-138; Take previously. Required.Take MED-150; Take either previously or concurrently. Required.
This course provides instruction in clinical examining room procedures. Topics include asepsis, infection control, assisting with exams and treatment, patient education, preparation and administration of medications, EKG, vital signs, and medical emergencies. Upon completion, students should be able to demonstrate competence in exam room procedures.

MED-150 Laboratory Procedures I 3 4 0 5
Requisites: Take BIO-161 ENG-111(S13673) MAT-110(S20801) MED-110 MED-121 MED-130 MED-138; Take previously. Required.Take MED-140; Take either previously or concurrently. Required.
This course provides instruction in basic lab techniques used by the medical assistant. Topics include lab safety, quality control, collecting and processing specimens, performing selective tests, phlebotomy, screening and follow-up of test results, and OSHA/CLIA regulations. Upon completion, students should be able to perform basic lab tests/skills based on course topics.

MED-232 Medical Insurance Coding 1 3 0 2

Requisites: Take MED-130 MED-131(S16431); Take previously. Required.

This course is designed to develop coding skills. Emphasis is placed on advanced diagnostic and procedural coding in the outpatient facility. Upon completion, students should be able to demonstrate proficiency in coding for reimbursement.

MED-260 MED Clinical Practicum 0 0 15 5

Requisites: Take MED-140 MED-150; Take previously. Required.

This course provides the opportunity to apply clinical, laboratory, and administrative skills in a medical facility. Emphasis is placed on enhancing competence in clinical and administrative skills necessary for comprehensive patient care and strengthening professional communications and interactions. Upon completion, students should be able to function as an entry-level health care professional.

MED-262 Clinical Perspectives 1 0 0 1

Requisites: Take MED-140 MED-150; Take previously. Required.Take MED-260(S13597); Take either previously or concurrently. Required.

This course is designed to explore personal and occupational responsibilities of the practicing medical assistant. Emphasis is placed on problems encountered during externships and development of problem-solving skills. Upon completion, students should be able to demonstrate courteous and diplomatic behavior when solving problems in the medical facility.

MED-264 Medical Assisting Overview 2 0 0 2

Requisites: Take MED-140 MED-150; Take previously. Required.

This course provides an overview of the complete medical assisting curriculum. Emphasis is placed on all facets of medical assisting pertinent to administrative, laboratory, and clinical procedures performed in the medical environment. Upon completion, students should be able to demonstrate competence in the areas covered on the national certification examination for medical assistants.

MED-270 Symptomatology 2 2 0 3

Requisites: Take 1 group; Option: Take MED-122 BIO-161; Option: Take MED-122 BIO-163; Take previously. Required.

This course covers the study of disease symptoms and the appropriate actions taken by medical assistants in a medical facility in relation to these symptoms. Emphasis is placed on interviewing skills and appropriate triage, preparing patients for procedures, and screening test results. Upon completion, students should be able to recognize how certain symptoms relate to specific diseases, recognize emergency situations, and take appropriate actions.

MED-272 Drug Therapy 3 0 0 3

Requisites: Take MED-140 MED-150; Take previously. Required.

This course focuses on major drug groups, including their side effects, interactions, methods of administration, and proper documentation. Emphasis is placed on the theory of drug administration. Upon completion, students should be able to identify, spell, recognize side effects of, and document the most commonly used medications in a physician's office.

MED-276 Patient Education 1 2 0 2

Requisites: Take MED-140 MED-150; Take previously. Required.

This course is designed to provide communication skills, basic education principles, and knowledge of available community resources and to apply this knowledge to the clinical setting. Emphasis is placed on identifying appropriate community resources, developing patient education materials, and perfecting written and oral communication skills. Upon completion, students should be able to instruct, communicate effectively, and act as a liaison between the patient and community agencies.

MENTAL HEALTH (MHA Prefix)

MHA-150 Mental Health Systems 3 0 0 3
Requisites: Take HSE-110; Take previously. Required.Take DRE-098(S23643) DMA-010 DMA-020 DMA-030; Take previously. Required.
This course introduces the treatment and services available at both public and private mental health facilities. Topics include intake procedures, admission criteria, history, and structure of mental health facilities. Upon completion, students should be able to demonstrate competence in articulating both the theory and practice of mental health services delivery.

MHA-155 Psychological Assessment 3 0 0 3
Requisites: Take PSY-150; Take previously. Required.Take DRE-098(S23643) DMA-010 DMA-020 DMA-030; Take previously. Required.
This course covers psychological assessment. Emphasis is placed on different types of psychological tests. Upon completion, students should be able to recognize and understand the purpose of various psychological tests.

MHA-240 Advocacy 2 0 0 2
Requisites: Take HSE-110; Take previously. Required.Take DRE-098(S23643) DMA-010 DMA-020 DMA-030; Take previously. Required.
This course covers the roles and duties of the client advocate. Topics include treatment planning, needs assessment, referral procedures, and follow-up and integration of services. Upon completion, students should be able to effectively manage the care of the whole person from contact initiation to termination.

MARKETING AND RETAILING (MKT Prefix)

MKT-120 Principles of Marketing 3 0 0 3
Requisites:
This course introduces principles and problems of marketing goods and services. Topics include promotion, placement, and pricing strategies for products. Upon completion, students should be able to apply marketing principles in organizational decision making.

MKT-123 Fundamentals of Selling 3 0 0 3
Requisites:
This course is designed to emphasize the necessity of selling skills in a modern business environment. Emphasis is placed on sales techniques involved in various types of selling situations. Upon completion, students should be able to demonstrate an understanding of the techniques covered.

MKT-221 Consumer Behavior 3 0 0 3
Requisites:
This course is designed to describe consumer behavior as applied to the exchange processes involved in acquiring, consuming, and disposing of goods and services. Topics include an analysis of basic and environmental determinants of consumer behavior with emphasis on the decision-making process. Upon completion, students should be able to analyze concepts related to the study of the individual consumer.

MKT-223 Customer Service 3 0 0 3
Requisites:
This course stresses the importance of customer relations in the business world. Emphasis is placed on learning how to respond to complex customer requirements and to efficiently handle stressful situations. Upon completion, students should be able to demonstrate the ability to handle customer relations.

MKT-224 International Marketing 3 0 0 3
Requisites:
This course covers the basic concepts of international marketing activity and theory. Topics include product

promotion, placement, and pricing strategies in the international marketing environment. Upon completion, students should be able to demonstrate a basic understanding of the concepts covered.

MKT-225 Marketing Research 3 0 0 3
Requisites: Take MKT-120(S24159); Take previously. Required.
This course provides information for decision making by providing guidance in developing, analyzing, and using data. Emphasis is placed on marketing research as a tool in decision making. Upon completion, students should be able to design and conduct a marketing research project and interpret the results.

MKT-227 Marketing Applications 3 0 0 3
Requisites:
This course extends the study of diverse marketing strategies. Emphasis is placed on case studies and small-group projects involving research or planning. Upon completion, students should be able to effectively participate in the formulation of a marketing strategy.

MKT-228 Service Marketing 3 0 0 3
Requisites:
This course is designed to define service marketing, demonstrate its importance, and note its special characteristics. Topics include basic building blocks of service marketing, distinctive aspects of services, and applications of service marketing mix. Upon completion, students should be able to demonstrate a basic understanding of the marketing mix as it applies to the service industry.

MEDICAL LABORATORY TECHNOLOGY (MLT Prefix)

MLT-110 Introduction to MLT 2 3 0 3
Requisites:
This course introduces all aspects of the medical laboratory profession. Topics include health care/laboratory organization, professional ethics, basic laboratory techniques, safety, quality assurance, and specimen collection. Upon completion, students should be able to demonstrate a basic understanding of laboratory operations and be able to perform basic laboratory skills.

MLT-111 Urinalysis & Body Fluids 1 3 0 2
Requisites:
This course introduces the laboratory analysis of urine and body fluids. Topics include physical, chemical, and microscopic examination of the urine and body fluids. Upon completion, students should be able to demonstrate theoretical comprehension in performing and interpreting urinalysis and body fluid tests.

MLT-115 Laboratory Calculations 2 0 0 2
Requisites:
This course is designed to present mathematical operations used in the medical laboratory. Topics include use of basic math processes, systems of measurement, conversion factors, solutions, and dilutions. Upon completion, students should be able to solve practical problems in the context of the medical laboratory.

MLT-118 Medical Lab Chemistry 3 0 0 3
Requisites:
This course introduces the basic medical laboratory chemical principles. Emphasis is placed on selected topics from inorganic, organic, and biological chemistry. Upon completion, students should be able to demonstrate an understanding of the relationship between basic chemical principles and the medical laboratory function.

MLT-120 Hematology/Hemostasis I 3 3 0 4
Requisites: Take BIO-163 MLT-110 MLT-111 MLT-115 MLT-118 MLT-140; Take previously. Required.
This course introduces the theory and technology used in analyzing blood cells and the study of hemostasis. Topics include hematology, hemostasis, and related laboratory testing. Upon completion, students should be able to demonstrate theoretical comprehension of hematology/hemostasis, perform diagnostic techniques, and correlate

laboratory findings with disorders.

MLT-125 Immunohematology I 4 3 0 5
Requisites: Take BIO-163 MLT-110 MLT-111 MLT-115 MLT-118 MLT-140; Take previously. Required.
This course introduces the immune system and response; basic concepts of antigens, antibodies, and their reactions; and applications in transfusion medicine and serodiagnostic testing. Emphasis is placed on immunological and blood banking techniques including concepts of cellular and humoral immunity and pretransfusion testing. Upon completion, students should be able to demonstrate theoretical comprehension in performing and interpreting routine immunological and blood bank procedures.

MLT-140 Introduction to Microbiology 2 3 0 3
Requisites:
This course introduces basic techniques and safety procedures in clinical microbiology. Emphasis is placed on the morphology and identification of common pathogenic organisms, aseptic technique, staining techniques, and usage of common media. Upon completion, students should be able to demonstrate theoretical comprehension in performing and interpreting basic clinical microbiology procedures.

MLT-217 Professional Issues 0 3 0 1
Requisites: Take MLT-230 MLT-266 MLT-280; Take previously. Required.
This course surveys professional issues in preparation for career entry. Emphasis is placed on work readiness and theoretical concepts in microbiology, immunohematology, hematology, and clinical chemistry. Upon completion, students should be able to demonstrate competence in career entry-level areas and be prepared for the national certification examination.

MLT-220 Hematology/Hemostasis II 2 3 0 3
Requisites: Take MLT-120 MLT-125 MLT-130 MLT-240; Take previously. Required.
This course covers the theories and techniques used in the advanced analysis of human blood cells and hemostasis. Emphasis is placed on the study of hematologic disorders, abnormal cell development and morphology, and related testing. Upon completion, students should be able to demonstrate a theoretical comprehension and application of abnormal hematology and normal and abnormal hemostasis.

MLT-230 Clinical Chemistry II 2 3 0 3
Requisites: Take MLT-130; Take previously. Required.Take MLT-220 MLT-254 MLT-130; Take previously. Required.
This course is designed to supplement the biochemical and physiologic theory presented in MLT 130. Emphasis is placed on special chemistry techniques and methodologies. Upon completion, students should be able to recognize and differentiate technical and physiological causes of unexpected test results.

MLT-240 Special Clinical Microbiology 2 3 0 3
Requisites: Take MLT-140; Take previously. Required.Take BIO-163 MLT-110 MLT-111 MLT-115 MLT-118 MLT-140; Take previously. Required.
This course is designed to introduce special techniques in clinical microbiology. Emphasis is placed on advanced areas in microbiology. Upon completion, students should be able to demonstrate theoretical comprehension in performing and interpreting specialized clinical microbiology procedures.

MLT-254 MLT Practicum I 0 0 12 4
Requisites: Take MLT-120 MLT-125 MLT-130 MLT-240; Take previously. Required.
This course provides entry-level clinical laboratory experience. Emphasis is placed on technique, accuracy, and precision. Upon completion, students should be able to demonstrate entry-level competence on final clinical evaluations.

MLT-276 MLT Practicum III 0 0 18 6
Requisites: Take MLT-230 MLT-266 MLT-280; Take previously. Required.
This course provides entry-level clinical laboratory experience. Emphasis is placed on technique, accuracy, and

precision. Upon completion, students should be able to demonstrate entry-level competence on final clinical evaluations.

MLT-280 Special Practice Lab 0 3 0 1
Requisites: Take MLT-220 MLT-254; Take previously. Required.
This course provides additional medical laboratory experience. Emphasis is placed on laboratory skills and techniques. Upon completion, students should be able to demonstrate proficiency in laboratory skills and techniques.

MAINTENANCE (MNT Prefix)

MNT-110 Introduction to Maintenance Procedures 1 3 0 2
Requisites:
This course covers basic maintenance fundamentals for power transmission equipment. Topics include equipment inspection, lubrication, alignment, and other scheduled maintenance procedures. Upon completion, students should be able to demonstrate knowledge of accepted maintenance procedures and practices according to current industry standards.

MNT-150 Basic Building Maintenance 1 3 0 2
Requisites:
This course introduces the basic skills of building maintenance. Topics include basic carpentry and masonry skills including forming, framing, laying block to a line, repairing, and other related topics. Upon completion, students should be able to perform basic carpentry and masonry skills in a maintenance setting.

MNT-222 Industrial Systems Schematics 1 2 0 2
Requisites:
This course covers the reading and drawing of schematics and diagrams. Emphasis is placed on water and gas plumbing, hydraulic and pneumatic circuits, electrical circuits, and welding diagrams. Upon completion, students should be able to interpret and construct industrial schematics and diagrams.

MAGNETIC RESONANCE IMAGING (MRI Prefix)

MRI-213 MR Patient Care & Safety 2 0 0 2
Requisites: Take MRI-216 MRI-250; Take either previously or concurrently. Required.
This course covers magnetic field safety issues concerning patients and other healthcare personnel. Emphasis is placed on screening skills, biological magnetic field effects, and the management of an MR facility. Upon completion, the student should be able to demonstrate a safe MR environment for patients and all personnel.

MRI-215 MRI Procedures II 2 0 0 2
Requisites: Take MRI-214; Take previously. Required.Take MRI-218 MRI-242 MRI-270; Take either previously or concurrently. Required.
This course provides advanced scan procedures for the neck, chest, abdomen, and pelvic systems with MR imaging. Emphasis is placed on patient set-up, scan parameters, methods of data acquisition, and contrast administration with each of these types of procedures. Upon completion, students should be able to demonstrate all aspects of MR imaging to successfully scan the chest, abdomen, and pelvic systems.

MRI-216 MRI Instrumentation 2 0 0 2
Requisites: Take MRI-213 MRI-250; Take either previously or concurrently. Required.
This course covers instrumentation utilized to produce the magnetic fields allowing MRI imaging to take place. Emphasis will be placed on equipment operations and use, inclusive of the static field, gradient fields, and the radiofrequency fields. Upon completion, the student should be able to demonstrate an understanding of the utilization of all MRI equipment in an MRI facility.

MRI-217 MRI Physics I 2 0 0 2

Requisites: Take MRI-216; Take previously. Required.Take MRI-214 MRI-241 MRI-260; Take either previously or concurrently. Required.

This course is designed to cover the basic physics fundamentals of magnetic resonance imaging. Emphasis is placed on the historical development, basic imaging principles, and use of basic scan parameters and pulse sequences. Upon completion, the student should be able to demonstrate an understanding of the basic fundamentals of magnetic resonance.

MRI-218 MRI Physics II 2 0 0 2

Requisites: Take MRI-217; Take previously. Required.Take MRI-215 MRI-242 MRI-270; Take either previously or concurrently. Required.

This course is designed to cover the advanced physics concepts of magnetic resonance imaging. Emphasis is placed on advanced imaging parameters and techniques, angiography methods, image artifacts, and quality control. Upon completion, the student should be able to demonstrate an understanding of the advanced physics concepts of magnetic resonance imaging.

MRI-223 MRI Clinical Practicum 0 0 9 3

Requisites:

This course provides experience in the computed tomography clinical setting. Emphasis is placed on patient care and positioning, scanning procedures, and image production in magnetic resonance imaging. Upon completion, students should be able to assume a variety of duties and responsibilities within the magnetic resonance clinical environment.

MRI-224 MRI Clinical Practicum 0 0 12 4

Requisites:

This course provides experience in the computed tomography clinical setting. Emphasis is placed on patient care and positioning, scanning procedures, and image production in magnetic resonance imaging. Upon completion, students should be able to assume a variety of duties and responsibilities within the magnetic resonance clinical environment.

MRI-227 MRI Clinical Practicum 0 0 21 7

Requisites:

This course provides experience in the computed tomography clinical setting. Emphasis is placed on patient care and positioning, scanning procedures, and image production in magnetic resonance imaging. Upon completion, students should be able to assume a variety of duties and responsibilities within the magnetic resonance clinical environment.

MRI-228 MRI Clinical Practicum 0 0 24 8

Requisites:

This course provides experience in the computed tomography clinical setting. Emphasis is placed on patient care and positioning, scanning procedures, and image production in magnetic resonance imaging. Upon completion, students should be able to assume a variety of duties and responsibilities within the magnetic resonance clinical environment.

MRI-241 MRI Anatomy & Pathology I 2 0 0 2

Requisites: Take MRI-214 MRI-217 MRI-260; Take either previously or concurrently. Required.

This course covers anatomical and pathological information about the components of the central nervous and musculoskeletal system. Emphasis is placed upon identification of anatomy and pathology on MRI images of the central nervous and musculoskeletal systems. Upon completion, the student should be able to identify anatomy and pathology of the central nervous and musculoskeletal systems.

MRI-242 MRI Anatomy & Pathology II 2 0 0 2

Requisites: Take MRI-241; Take previously. Required.Take MRI-215 MRI-218 MRI-270; Take either previously or concurrently. Required.

This course covers anatomical and pathological information about the components of the neck, chest, abdomen, and pelvic systems. Emphasis is placed upon identification of anatomy and pathology on MRI images of the neck, chest, abdomen, and pelvic systems. Upon completion, the student should be able to identify anatomy and pathology of the neck, chest, abdomen, and pelvic systems.

MRI-250 MRI Clinical Ed I 0 0 12 4
Requisites: Take MRI-213 MRI-216; Take either previously or concurrently. Required.
This course provides experience in the MR clinical setting with attention to basic MR scan procedures. Emphasis is placed on patient care, screening, contrast administration, and manipulation of MR equipment. Upon completion, students should be able to demonstrate selected MR procedures/techniques in the areas of patient screening, contrast administration, and manipulation of MR equipment.

MRI-260 MRI Clinical Ed II 0 0 21 7
Requisites: Take MRI-250; Take previously. Required.Take MRI-214 MRI-217 MRI-241; Take either previously or concurrently. Required.
This course provides advanced experience in the MR clinical setting with attention to central nervous and musculoskeletal system imaging. Emphasis is placed on demonstration of methods of data acquisition with respect to central nervous and musculoskeletal system imaging. Upon completion, students should be able to demonstrate selected MR procedures/techniques as they relate to the central nervous system and musculoskeletal imaging.

MRI-271 MRI Capstone 1 0 0 1
Requisites:
This course provides experience using problem solving skills required for certification. Emphasis is placed on critical thinking and integration of didactic and clinical components. Upon completion, students should be able to demonstrate knowledge required of any entry level MR technologist.

MILITARY SCIENCE (MSI Prefix)

MSI-110 Military Science I 1 0 0 1
Requisites:
This course introduces military-style training and confidence building, including military weapons firing, rappelling, and other related material. Emphasis is placed on US Army and ROTC organization, leadership and management techniques, principles of war, evolution of weapons, and military tactics. Upon completion, students should be able to identify and explain the basics of military science and put into practice the art of organizing, motivating, and leading others.

MSI-120 Military Science II 2 0 0 2
Requisites:
This course covers the use of maps and compasses for land navigation, leadership principles and techniques, and military written and oral communication. Topics include orienteering compass techniques, assault boat training, time management, military briefings, and basic survival skills. Upon completion, students should be able to fulfill requirements for entry into the ROTC advanced program and compete for continuing ROTC scholarships.

MSI-210 Military Science III 2 0 0 2
Requisites:
This course emphasizes basic concepts in leadership, team building, and management. Topics include land navigational skills, basic first aid, oral communication, military briefings and personal management skills. Upon completion, students should be able to manage and communicate effectively in a small team environment.

MSI-220 Military Science IV 2 0 0 2
Requisites:
This course completes the preparation for accession into the ROTC advanced program. Topics include introduction to the Leadership Development Program (LDP), operation orders, advance land navigation techniques, small unit tactics, and physical training. Upon completion, students will be eligible to apply for entry into the ROTC Advanced

Program.

THERAPEUTIC MASSAGE (MTH Prefix)

MTH-110 Fundamentals of Massage 6 9 3 10
Requisites: Take BIO-163 ACA-111; Take either previously or concurrently. Required.
This course introduces concepts basic to the role of the massage therapist in a variety of clinical settings. Emphasis is placed on beginning theory and techniques of body work as well as skill in therapeutic touch. Upon completion of the course, the student should be able to apply basic practical massage therapy skills.

MTH-121 Clinical Supplement I 0 0 3 1
Requisites: Take MTH-110(S22033) MTH-120(S22036) MTH-125(S20862) MTH-210(S22034) or MTH-220(S22035); Take either previously or concurrently. Required.Take MTH-125(S20862) MTH-210(S22034) MTH-220(S22035) MTH-110(S22033) MTH-120(S22036); Take either previously or concurrently. Required.
This course is designed to introduce the student to a variety of clinical experiences. Emphasis is placed on applying the therapeutic massage process across the lifespan. Upon completion, students should be able to demonstrate delivery of massage techniques in a clinical setting.

MTH-125 Ethics of Massage 2 0 0 2
Requisites: Take MTH-120(S20861); Take previously. Required.
This course is designed to explore issues related to the practice of massage therapy. Emphasis is placed on ethical, legal, professional, and political issues. Upon completion of this course the student should be able to discuss issues relating to the practice of massage therapy, client/therapist relationships as well as ethical issues.

MTH-130 Therapeutic Massage Management 2 0 0 2
Requisites: Take MTH-110(S22033); Take previously. Required.
This course introduces the basic responsibilities in the development and administration of a professional massage therapy practice. Emphasis is placed on identifying successful practice management methods such as selecting a business structure, negotiating a contract/lease, developing a business/marketing plan, designing a massage space, differentiating spa from clinical practice, management of client/financial records and physician referral. Upon completion, students should be able to demonstrate the knowledge and skills necessary to develop and manage a massage therapy practice.

MTH-210 Advanced Skills of Massage 4 9 3 8
Requisites: Take MTH-120(S22036) or MTH-121; Take previously. Required.
This course provides knowledge and skills in diverse body work modalities in a variety of clinical settings. Emphasis is placed on selected techniques such as Neuromuscular Therapy, Sports Massage, Soft Tissue Release, Spa Approaches, Oriental Therapies, and energy techniques. Upon completion, students should be able to perform basic skills in techniques covered.

MTH-220 Outcome-Based Massage 4 6 3 7
Requisites: Take MTH-120(S22036) MTH-121 or MTH-221; Take previously. Required.
This course provides knowledge and skills in more complex body works modalities in a variety of clinical settings. Emphasis is placed on developing advanced skills in outcome-based Massage. Upon completion, students should be able to perform basic skills in techniques covered.

MTH-221 Clinical Supplement II 0 0 6 2
Requisites: Take MTH-110(S22033); Take previously. Required.Take MTH-120(S22036) MTH-125(S20862) MTH-210(S22034) or MTH-220(S22035);
Take either previously or concurrently. Required.
This course is designed to be offered as an advanced clinical experience. Emphasis is placed on applying an advanced therapeutic massage process across the lifespan. Upon completion, students should be able to demonstrate delivery of massage at an advanced level in a clinical setting. null

MUSIC (MUS Prefix)

MUS-111 Fundamentals of Music 3 0 0 3
Requisites: Take 1 group; Option: Take RED-080 ENG-080; Option: Take DRE-097(S23642); Take previously. Required.
This course is an introductory course for students with little or no music background. Emphasis is placed on music notation, rhythmic patterns, scales, key signatures, intervals, and chords. Upon completion, students should be able to demonstrate an understanding of the rudiments of music.

MUS-112 Introduction to Jazz 3 0 0 3
Requisites: Take 1 group; Option: Take RED-080 ENG-080; Option: Take DRE-097(S23642); Take previously. Required.
This course introduces the origins and musical components of jazz and the contributions of its major artists. Emphasis is placed on the development of discriminating listening habits, as well as the investigation of the styles and structural forms of the jazz idiom. Upon completion, students should be able to demonstrate skills in listening and understanding this form of American music.

MUS-121 Music Theory I 3 2 0 4
Requisites: Take 1 group; Option: Take RED-080 ENG-080; Option: Take DRE-097(S23642); Take previously. Required.
This course provides an in-depth introduction to melody, rhythm, and harmony. Emphasis is placed on fundamental melodic, rhythmic, and harmonic analysis, introduction to part writing, ear-training, and sight-singing. Upon completion, students should be able to demonstrate proficiency in the recognition and application of the above.

MUS-122 Music Theory II 3 2 0 4
Requisites: Take MUS-121(S12074); Take previously. Required.
This course is a continuation of studies begun in MUS 121. Emphasis is placed on advanced melodic, rhythmic, and harmonic analysis and continued studies in part-writing, ear-training, and sight-singing. Upon completion, students should be able to demonstrate proficiency in the recognition and application of the above.

MUS-131 Chorus I 0 2 0 1
Requisites: Take 1 group; Option: Take RED-070(S10648) ENG-070(S16349); Option: Take DRE-096(S23641); Take previously. Required.
This course provides an opportunity to gain experience singing in a chorus. Emphasis is placed on vocal techniques and the study and performance of a variety of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance.

MUS-132 Chorus II 0 2 0 1
Requisites: Take MUS-131; Take previously. Required.
This course provides a continuation of studies begun in MUS 131. Emphasis is placed on vocal techniques and the study and performance of a variety of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance.

MUS-142 Ensemble II 0 2 0 1
Requisites: Take MUS-141; Take previously. Required.
This course is a continuation of MUS 141. Emphasis is placed on the development of performance skills and the study of a variety of styles and periods of ensemble literature. Upon completion, students should be able to demonstrate skills needed to participate in ensemble playing leading to performance.

MUS-151 Class Music I 0 2 0 1
Requisites: Take 1 group; Option: Take RED-070(S10648) ENG-070(S16349); Option: Take DRE-096(S23641); Take previously. Required.
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of

appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.

MUS-151D Class Music I Drums 0 2 0 1
Requisites: Take 1 group; Option: Take RED-070(S10648) ENG-070(S16349); Option: Take DRE-096(S23641); Take previously. Required.
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through drum performance.

MUS-151G Class Music I Guitar 0 2 0 1
Requisites: Take 1 group; Option: Take RED-070(S10648) ENG-070(S16349); Option: Take DRE-096(S23641); Take previously. Required.
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through guitar performance.

MUS-151P Class Music I Piano 0 2 0 1
Requisites: Take 1 group; Option: Take RED-070(S10648) ENG-070(S16349); Option: Take DRE-096(S23641); Take previously. Required.
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through piano performance.

MUS-151V Class Music I Voice 0 2 0 1
Requisites: Take 1 group; Option: Take RED-070(S10648) ENG-070(S16349); Option: Take DRE-096(S23641); Take previously. Required.
This course provides group instruction in skills and techniques of the particular instrument or voice for those with little or no previous experience. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through voice performance.

MUS-152D Class Music II Drum 0 2 0 1
Requisites: Take MUS-151; Take previously. Required.
This course is a continuation of MUS 151. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through drum performance.

MUS-152P Class Music II Piano 0 2 0 1
Requisites: Take MUS-151; Take previously. Required.
This course is a continuation of MUS 151. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through piano performance.

MUS-152V Class Music II 0 2 0 1

Requisites: Take MUS-151; Take previously. Required.Take 1 group; Option: Take MUS-151; Option: Take MUS-151D(L50127); Option: Take MUS-151G(L50447); Option: Take MUS-151J; Option: Take MUS-151P; Option: Take MUS-151V; Take previously. Required.

This course is a continuation of MUS 151. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.

MUS-161 Applied Music I 1 2 0 2

Requisites: Take 1 group; Option: Take RED-080 ENG-080; Option: Take DRE-097(S23642); Take previously. Required.

This course provides individual instruction in the skills and techniques of the particular instrument or voice. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance.

MUS-162 Applied Music II 1 2 0 2

Requisites: Take MUS-161(S16445); Take previously. Required.

This course is a continuation of MUS 161. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. Colleges may use a letter suffix to designate a specific instrument or voice, for example MUS 162P for piano.

MUS-231 Chorus III 0 2 0 1

Requisites: Take MUS-132; Take previously. Required.

This course is a continuation of MUS 132. Emphasis is placed on vocal techniques and the study and performance of a variety of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance.

MUS-232 Chorus IV 0 2 0 1

Requisites: Take MUS-231; Take previously. Required.

This course is a continuation of MUS 231. Emphasis is placed on vocal techniques and the study of styles and periods of choral literature. Upon completion, students should be able to demonstrate skills needed to participate in choral singing leading to performance.

MUS-261 Applied Music III 1 2 0 2

Requisites: Take MUS-162(S16446); Take previously. Required.

This course is a continuation of MUS 162. Emphasis is placed on techniques and styles and the exploration and study of appropriate literature. Upon completion, students should be able to demonstrate proficiency in the studied skills and repertoire through performance. Colleges may use a letter suffix to designate a specific instrument or voice, for example MUS 261P for piano.

NURSING ASSISTANT (NAS Prefix)

NAS-101 Nurse Aide I 3 4 3 6

Requisites:

This course includes basic nursing skills required to provide safe, competent personal care for individuals. Emphasis is placed on person-centered care, the aging process, communication, safety/emergencies, infection prevention, legal and ethical issues, vital signs, height and weight measurements, elimination, nutrition, basic restorative care/rehabilitation, dementia, mental health and end-of-life care. Upon completion, students should be able to demonstrate knowledge and skills and be eligible to test for listing on the North Carolina Nurse Aide I Registry.

NAS-102 Nurse Aide II 3 2 6 6

Requisites: Take NAS-101(S24247); Take previously. Required.

This course provides training in Nurse Aide II tasks. Emphasis is placed on the role of the Nurse Aide II, sterile

technique and specific tasks such as urinary catheterization, wound care, respiratory procedures, ostomy care, peripheral IV assistive activities, and alternative feeding methods. Upon completion, students should be able to demonstrate knowledge and skills and safe performance of skills necessary to be eligible for listing on the North Carolina Nurse Aide II Registry.

NETWORKING TECHNOLOGY (NET Prefix)

NET-110 Networking Concepts 2 2 0 3

Requisites:

This course introduces students to the networking field. Topics include network terminology and protocols, local-area networks, wide-area networks, OSI model, cabling, router programming, Ethernet, IP addressing, and network standards. Upon completion, students should be able to perform tasks related to networking mathematics, terminology, and models, media, Ethernet, subnetting, and TCP/IP Protocols.

NET-125 Introduction to Networks 1 4 0 3

Requisites: Take 1 group; Option: Take CTI-120(S22511) NOS-110(S20980) ENG-111(S24022) MAT-143(S23945); Option: Take CTI-120(S22511) CTI-130(S22512) ENG-111(S24022) MAT-143(S23945); Option: Take CIS-110(S21058) NOS-110(S20980) ENG-111(S24022) MAT-143

This course introduces the architecture, structure, functions, components, and models of the Internet and computer networks. Topics include introduction to the principles of IP addressing and fundamentals of Ethernet concepts, media, and operations. Upon completion, students should be able to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes. This course introduces the networking field. Emphasis is placed on network terminology and protocols, local-area networks, wide-area networks, OSI model, cabling, router programming, Ethernet, IP addressing, and network standards. Upon completion, students should be able to perform tasks related to networking mathematics, terminology, and models, media, Ethernet, subnetting, and TCP/IP Protocols. The emphasis of this course will be on Cisco Networking Academy CCNA Routing and Switching curriculum-Introduction to Networks.

NET-126 Routing Basics 1 4 0 3

Requisites: Take NET-125(S24501); Take previously. Required.

This course focuses on initial router configuration, router software management, routing protocol configuration, TCP/IP, and access control lists (ACLs). Emphasis will be placed on the fundamentals of router configuration, managing router software, routing protocol, and access lists. Upon completion, students should have an understanding of routers and their role in WANs, router configuration, routing protocols, TCP/IP, troubleshooting, and ACLs.

NET-135 Data Center Networking 2 2 0 3

Requisites: Take NET-126(S24383); Take previously. Required.

This course introduces the field of data center network administration. Emphasis is placed on foundational data center concepts such as designing, implementing and troubleshooting data center technologies. Upon completion, students will be able to enter the field of data center network administration.

NET-175 Wireless Technology 2 2 0 3

Requisites: Take NET-126(S24383); Take previously. Required.

This course introduces the student to wireless technology and interoperability with different communication protocols. Topics include Wireless Application Protocol (WAP), Wireless Mark-up language (WML), link manager, service discovery protocol, transport layer and frequency band. Upon completion, students should be able to discuss in written and oral form protocols and procedures required for different wireless applications.

NET-225 Routing & Switching I 1 4 0 3

Requisites: Take NET-126(S24383); Take previously. Required.

This course focuses on advanced IP addressing techniques, intermediate routing protocols, command-line interface configuration of switches, Ethernet switching, VLANs, STP, and VTP. Emphasis will be placed on application and demonstration of skills acquired in pre-requisite courses. Upon completion, students should be able to perform tasks

related to VLSM, routing protocols, switching concepts and configuration, STP, VLANs, and VTP.

NET-226 Routing and Switching II 1 4 0 3

Requisites: Take NET-225(S24385); Take previously. Required.

This course introduces WAN theory and design, WAN technology, PPP, Frame Relay, ISDN, and additional case studies. Topics include network congestion problems, TCP/IP transport and network layer protocols, advanced routing and switching configuration, ISDN protocols, PPP encapsulation operations on a router. Upon completion, students should be able to provide solutions for network routing problems, identify ISDN protocols, and describe the Spanning Tree protocol.

NET-270 Building Scalable Networks 1 4 0 3

Requisites: Take NET-226(S24386); Take previously. Required.

This course covers principles and techniques of scalable networks. Topics include building multi-layer networks, controlling overhead traffic in growing routed networks, and router capabilities used to control traffic over LANs and WANs. Upon completion, students should be able to design; implement; and improve traffic flow, reliability, redundancy, and performance in enterprise networks. This course covers principles and techniques of scalable networks. Topics include building multi-layer networks, controlling overhead traffic in growing routed networks, and router capabilities used to control traffic over LANs and WANs. Upon completion, students should be able to design; implement; and improve traffic flow, reliability, redundancy, and performance in enterprise networks. The emphasis of this course will be on Cisco Networking Academy CCNP Routing and Switching curriculum (ROUTE).

NET-272 Multi-Layer Networks 1 4 0 3

Requisites: Take NET-270(S24391); Take previously. Required.

This course covers building campus networks using multi-layer switching technologies over a high-speed Ethernet. Topics include improving IP routing performance with multi-layer switching, implementing fault tolerance routing, and managing high bandwidth broadcast while controlling IP multi-cast access to networks. Upon completion, students should be able to install and configure multi-layer enterprise networks and determine the required router configurations to support new services and applications.

NET-273 Internetworking Support 1 4 0 3

Requisites: Take NET-270(S24391) NET-272(S24392); Take previously. Required.

This course covers how to baseline and troubleshoot and internetworking environment using routers and switches for multi-protocol client, host and servers. Topics include troubleshooting processes, routing and routed protocols, campus switching; and WAN troubleshooting. Upon completion, students should be able to troubleshoot Ethernet, Fast Ethernet, and Token Ring LANs; and Serial, Frame Relay, and ISDN connections.

NET-289 Networking Project 1 4 0 3

Requisites: Take CTI-110(S22510) CTI-120(S22511) CTS-115(S20996); Take previously. Required.Take 1 group; Option: Take CTI-110(S22510) CTI-120(S22511) CTS-115(S20996) NET-226(S24386) NET-270(S24391); Option: Take CTI-110(S22510) CTI-120(S22511) CTS-11

This course provides an opportunity to complete a significant networking project from the design phase through implementation with minimal instructor support. Emphasis is placed on project definition, documentation, installation, testing, presentation, and training. Upon completion, students should be able to complete a project from the definition phase through implementation.

NETWORKING OPERATING SYSTEMS (NOS Prefix)

NOS-110 Operating Systems Concepts 2 3 0 3

Requisites:

This course introduces students to a broad range of operating system concepts, including installation and maintenance. Emphasis is place on operating system concepts, management, maintenance, and resources required. Upon completion of this course, students will have an understanding of OS concepts, installation, management, maintenance, using a variety of operating systems.

NOS-120 Linux/UNIX Single User 2 2 0 3

Requisites: Take CTI-130(S22512) NOS-110(S20980) or CET-211(S21575); Take previously. Required.

This course develops the necessary skills for students to develop both GUI and command line skills for using and customizing a Linux workstation. Topics include Linux file system and access permissions, GNOME Interface, VI editor, X Window System expression pattern matching, I/O redirection, network and printing utilities. Upon completion, students should be able to customize and use Linux systems for command line requirements and desktop productivity roles.

NOS-130 Windows Single User 2 2 0 3

Requisites: Take 1 group; Option: Take DMA-010 DMA-020 DMA-030 DMA-040(S23170) DMA-050(S23171) NOS-110(S20980); Option: Take DMA-010 DMA-020 DMA-030 DMA-040(S23170) DMA-050(S23171) CTI-130(S22512); Option: Take DMA-010 DMA-020 DMA-030 DMA-040(S23170)

This course introduces operating system concepts for single-user systems. Topics include hardware management, file and memory management, system configuration/optimization, and utilities. Upon completion, students should be able to perform operating systems functions at the support level in a single-user environment. This course introduces operating system concepts for single-user systems. Topics include hardware management, file and memory management, system configuration/optimization, and utilities. Upon completion, students should be able to perform operating systems functions at the support level in a single-user environment. This course is taught within the Microsoft IT Academy as a Microsoft Official Academic Course (MOAC).

NOS-130AB Windows Single User 1 1 0 1.5

Requisites: Take 1 group; Option: Take DMA-010 DMA-020 DMA-030 DMA-040(S23170) DMA-050(S23171) DMA-060(S23172) NOS-110(S20980); Option: Take DMA-010 DMA-020 DMA-030 DMA-040(S23170) DMA-050(S23171) DMA-060(S23172) CTI-130(S22512); Option: Take DMA-010

This course introduces operating system concepts for single-user systems. Topics include hardware management, file and memory management, system configuration/optimization, and utilities. Upon completion, students should be able to perform operating systems functions at the support level in a single-user environment. This course introduces operating system concepts for single-user systems. Topics include hardware management, file and memory management, system configuration/optimization, and utilities. Upon completion, students should be able to perform operating systems functions at the support level in a single-user environment. This course is taught within the Microsoft IT Academy as a Microsoft Official Academic Course (MOAC).

NOS-130BB Windows Single User 1 1 0 1.5

Requisites: Take 1 group; Option: Take DMA-010 DMA-020 DMA-030 DMA-040(S23170) DMA-050(S23171) DMA-060(S23172) NOS-110(S20980); Option: Take DMA-010 DMA-020 DMA-030 DMA-040(S23170) DMA-050(S23171) DMA-060(S23172) CTI-130(S22512); Option: Take DMA-010

This course introduces operating system concepts for single-user systems. Topics include hardware management, file and memory management, system configuration/optimization, and utilities. Upon completion, students should be able to perform operating systems functions at the support level in a single-user environment. This course introduces operating system concepts for single-user systems. Topics include hardware management, file and memory management, system configuration/optimization, and utilities. Upon completion, students should be able to perform operating systems functions at the support level in a single-user environment. This course is taught within the Microsoft IT Academy as a Microsoft Official Academic Course (MOAC).

NOS-220 Linux/Unix Administration I 2 2 0 3

Requisites: Take NOS-120(S24396); Take previously. Required.

This course introduces the Linux file system, group administration, and system hardware controls. Topics include installation, creation and maintaining file systems, NIS client and DHCP client configuration, NFS, SMB/Samba, Configure X, Gnome, KDE, basic memory, processes, and security. Upon completion, students should be able to perform system administration tasks including installation, configuring and attaching a new Linux workstation to an existing network.

NOS-221 Linux/UNIX Administration II 2 2 0 3

Requisites: Take NOS-220; Take previously. Required.

This course includes skill building in configuring common network services and security administration using Linux. Topics include server-side setup, configuration, basic administration of common networking services, and security administration using Linux. Upon completion, students should be able to setup a Linux server and configure common network services including security requirements.

NOS-222 Linux/UNIX Administration III 2 2 0 3

Requisites: Take NOS-221; Take previously. Required.

This course includes technical topics in preparing an enterprise Linux system for common uses. Topics include advanced study of hardware, installation, boot process, file system administration, software administration, user administration, system administration, kernel services, configuration, securing services, and troubleshooting. Upon completion, students should be able to administer an enterprise Linux system.

NOS-231 Windows Administration II 2 2 0 3

Requisites: Take NOS-230(S24041); Take previously. Required.

This course covers the management of a Windows Server operating system. Emphasis is placed on the deployment of print services, network services, Active Directory, group policies and access controls. Upon completion, students should be able to deploy and manage services on a Windows Server operating system.

NOS-232 Windows Administration III 2 2 0 3

Requisites: Take NOS-230(S24041); Take previously. Required.

This course covers management and configuration of a highly available Windows Server operating system. Emphasis is placed on the implementation of business continuity and disaster recovery procedures for network services and access controls. Upon completion, students should be able to manage and configure a highly available Windows Server operating system.

NOS-233 Windows Administration IV 2 2 0 3

Requisites: Take NOS-230(S24041); Take previously. Required.

This course covers the design of a Windows Server operating system. Emphasis is placed on the design of network infrastructure, Active Directory, group policies and access controls. Upon completion, students should be able to design and manage services on a Windows Server operating system.

NURSING (NUR Prefix)

NUR-111 Introduction to Health Concepts 4 6 6 8

Requisites:

This course introduces the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts within each domain including medication administration, assessment, nutrition, ethics, interdisciplinary teams, informatics, evidence-based practice, individual-centered care, and quality improvement. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

NUR-112 Health-Illness Concepts 3 0 6 5

Requisites: Take NUR-111; Take previously. Required.

This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of acid-base, metabolism, cellular regulation, oxygenation, infection, stress/coping, health-wellness-illness, communication, caring interventions, managing care, safety, quality improvement, and informatics. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

NUR-113 Family Health Concepts 3 0 6 5

Requisites: Take NUR-111; Take previously. Required.

This course is designed to further develop the concepts within the three domains of the individual, healthcare, and

nursing. Emphasis is placed on the concepts of oxygenation, sexuality, reproduction, grief/loss, mood/affect, behaviors, development, family, health-wellness-illness, communication, caring interventions, managing care, safety, and advocacy. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

NUR-211 Health Care Concepts 3 0 6 5
Requisites: Take NUR-111; Take previously. Required.
This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of cellular regulation, perfusion, infection, immunity, mobility, comfort, behaviors, health-wellness-illness, clinical decision-making, caring interventions, managing care, and safety. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

NUR-212 Health System Concepts 3 0 6 5
Requisites: Take NUR-111; Take previously. Required.
This course is designed to further develop the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of grief/loss, violence, health-wellness-illness, collaboration, managing care, safety, advocacy, legal issues, policy, healthcare systems, ethics, accountability, and evidence-based practice. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course

NUR-213 Complex Health Concepts 4 3 15 10
Requisites: Take NUR-111; Take previously. Required.Take NUR-112 NUR-113 NUR-114 NUR-211 NUR-212; Take either previously or concurrently. Required.
This course is designed to assimilate the concepts within the three domains of the individual, healthcare, and nursing. Emphasis is placed on the concepts of fluid/electrolytes, metabolism, perfusion, mobility, stress/coping, violence, health-wellness-illness, professional behaviors, caring interventions, managing care, healthcare systems, and quality improvement. Upon completion, students should be able to demonstrate the knowledge, skills, and attitudes necessary to provide quality, individualized, entry level nursing care.

NUR-214 Nsg Transition Concepts 3 0 3 4
Requisites: Take ENG-111(S13673) PSY-150 PSY-241 BIO-168(S11555) BIO-169(S11629) BIO-155; Take previously. Required.
This course is designed to introduce concepts within the three domains of the individual, healthcare, and nursing as the LPN transitions to the ADN role. Emphasis is placed on the concepts within each domain including evidenced-based practice, quality improvement, communication, safety, interdisciplinary team, clinical decision-making, informatics, assessment, caring, and health-wellness-illness. Upon completion, students should be able to provide safe nursing care incorporating the concepts identified in this course.

OPERATIONS MANAGEMENT (OMT Prefix)

OMT-112 Materials Management 3 0 0 3
Requisites:
This course covers the basic principles of materials management. Emphasis is placed on the planning, procurement, movement, and storage of materials. Upon completion, students should be able to demonstrate an understanding of the concepts and techniques related to materials management.

OMT-154 Customer Satisfaction 2 0 0 2
Requisites: Take CTS-118; Take previously. Required.
This course is a study of quality issues relating to customer satisfaction and long-term customer support. Topics include quality through the eyes of the customer, clarifying customer expectations, resolving customer dissatisfaction, and building individual and long-term commitment to quality. Upon completion, students should be able to understand quality issues related to enhancing customer satisfaction (both internal and external) to ensure long-term customer loyalty.

OMT-260 Issues in Operations Management 3 0 0 3

Requisites: Take 1 group; Option: Take ISC-121(S20650) ISC-130 ISC-210 OMT-112(S24143); Option: Take ISC-121(S20650) ISC-131 ISC-210 OMT-112(S24143); Option: Take ISC-121(S20650) ISC-132(S23492) ISC-210 OMT-112(S24143); Option: Take ISC-121(S20650

This course presents a variety of topics that highlight contemporary problems and issues related to operations management. Emphasis is placed on production and operations planning, environmental health and safety, materials management, and quality systems. Upon completion, students should be able to demonstrate the ability to make decisions and resolve problems in an operations management environment.

OFFICE SYSTEMS TECHNOLOGY (OST Prefix)

OST-080 Keyboarding Literacy 1 2 0 2

Requisites:

This course is designed to develop elementary keyboarding skills. Emphasis is placed on mastery of the keyboard. Upon completion, students should be able to demonstrate basic proficiency in keyboarding.

OST-122 Office Computations 2 2 0 3

Requisites: Take MAT-050; Take previously. Required.

This course covers the keypad touch method using the electronic calculator (10-key) and mathematical functions used in office applications. Topics may include budgets, discounts, purchasing, inventory, and petty cash. Upon completion, students should be able to solve a wide variety of numerical problems commonly encountered in an office setting.

OST-132 Keyboard Skill Building 1 2 0 2

Requisites: Take OST-080(S12295) OST-131 or OST-134(S22142); Take previously. Required.

This course is designed to increase speed and improve accuracy in keyboarding. Emphasis is placed on diagnostic tests to identify accuracy and speed deficiencies followed by corrective drills. Upon completion, students should be able to keyboard rhythmically with greater accuracy and speed.

OST-134 Text Entry & Formatting 2 2 0 3

Requisites: Take OST-080(S12295) or OST-131; Take previously. Required.

This course is designed to provide skills needed to increase speed, improve accuracy, and format documents. Topics include letters, memos, tables, and business reports. Upon completion, students should be able to produce documents and key timed writings at speeds commensurate with employability.

OST-135 Advanced Text Entry and Formatting 2 2 0 3

Requisites: Take OST-134(S22142); Take previously. Required.

This course is designed to incorporate computer application skills in the generation of office documents. Emphasis is placed on advanced document production with increased speed and accuracy. Upon completion, students should be able to make independent decisions regarding planning, style, and method of presentation.

OST-136 Word Processing 2 2 0 3

Requisites:

This course is designed to introduce word processing concepts and applications. Topics include preparation of a variety of documents and mastery of specialized software functions. Upon completion, students should be able to work effectively in a computerized word processing environment.

OST-137 Office Software Applications 2 2 0 3

Requisites:

This course introduces the concepts and functions of software that meets the changing needs of the community. Emphasis is placed on the terminology and use of software through a hands on approach. Upon completion, students should be able to use software in a business environment.

OST-138 Advanced Software Applications 2 2 0 3

Requisites: Take OST-137(S22113) CIS-111(S21059) or CIS-110(S21058); Take previously. Required.

This course is designed to improve the proficiency in the utilization of software applications used in business offices through a hands-on approach. Emphasis is placed on in-depth usage of software to create a variety of documents applicable to current business environments. Upon completion, students should be able to master the skills required to design documents that can be customized using the latest software applications.

OST-141 Medical Office Terms I 3 0 0 3

Requisites: Take 1 group; Option: Take RED-090 ENG-090; Option: Take DRE-098(S23643); Option: Take ENG-111(S24022); Take previously. Required.

This course uses a language-structure approach to present the terminology and vocabulary that will be encountered in medical office settings. Topics include word parts that relate to systemic components, conditions, pathology, and disorder remediation in approximately one-half of the systems of the human body. Upon completion, students should be able to relate words to systems, pluralize, define, pronounce, and construct sentences with the included terms.

OST-142 Medical Office Terms II 3 0 0 3

Requisites: Take MED-121 or OST-141(S24691); Take previously. Required.

This course is a continuation of OST 141 and continues the study, using a language-structure approach, of medical office terminology and vocabulary. Topics include word parts that relate to systemic components, conditions, pathology, and disorder remediation in the remaining systems of the human body. Upon completion, students should be able to relate words to systems, pluralize, define, pronounce, and construct sentences with the included terms.

OST-148 Medical Insurance and Billing 3 0 0 3

Requisites: Take 1 group; Option: Take RED-090 ENG-090; Option: Take DRE-098(S23643); Option: Take ENG-111(S24022); Take previously. Required.

This course introduces fundamentals of medical insurance and billing. Emphasis is placed on the medical billing cycle to include third party payers, coding concepts, and form preparation. Upon completion, students should be able to explain the life cycle of and accurately complete a medical insurance claim.

OST-149 Medical Legal Issues 3 0 0 3

Requisites: Take 1 group; Option: Take RED-090 ENG-090; Option: Take DRE-098(S23643); Option: Take ENG-111(S13673); Take previously. Required.

This course introduces the complex legal, moral, and ethical issues involved in providing health-care services. Emphasis is placed on the legal requirements of medical practices; the relationship of physician, patient, and office personnel; professional liabilities; and medical practice liability. Upon completion, students should be able to demonstrate a working knowledge of current medical law and accepted ethical behavior.

OST-153 Office Finance Solutions 2 2 0 3

Requisites: Take CIS-110(S21058) CIS-111(S21059) or OST-137(S24689); Take previously. Required.

This course introduces basic bookkeeping concepts. Topics include entering data in accounts payable and receivable, keeping petty cash records, maintaining inventory, reconciling bank statements, running payroll, and generating simple financial reports. Upon completion, students should be able to demonstrate competence in the entry and manipulation of data to provide financial solutions for the office.

OST-155 Legal Terminology 3 0 0 3

Requisites:

This course covers the terminology appropriate to the legal profession. Topics include legal research, court systems, litigation, civil and criminal law, probate, real and personal property, contracts and leases, domestic relations, equity, and corporations. Upon completion, students should be able to spell, pronounce, define, and accurately use legal terms.

OST-156 Legal Office Procedures 2 2 0 3

Requisites: Take OST-134(S13818); Take previously. Required.Take 1 group; Option: Take OST-136(S22144) OST-155(S22150) OST-134(S11818); Option: Take OST-136(S22144) OST-155(S22150) OST-134(S22142); Take previously. Required.

This course covers legal office functions involved in the operation of a law office. Emphasis is placed on procedures in the law office involving the court system, legal research, litigation, probate, and real estate, personal injury, criminal, and civil law. Upon completion, students should be able to demonstrate a high level of competence in performing legal office duties. This course focuses on document preparation for legal documents and pleadings in many different fields of law.

OST-164 Office Editing 3 0 0 3

Requisites: Take 1 group; Option: Take RED-090 ENG-090; Option: Take DRE-098(S23643); Option: Take ENG-111(S24022); Take previously. Required.

This course provides a comprehensive study of editing skills needed in the workplace. Emphasis is placed on grammar, punctuation, sentence structure, proofreading, and editing. Upon completion, students should be able to use reference materials to compose and edit text.

OST-165 Advanced Office Editing 2 2 0 3

Requisites: Take OST-164(S24696); Take previously. Required.

This course is designed to develop proficiency in advanced editing skills needed in the office environment. Emphasis is placed on the application of creating effective electronic office documents. Upon completion, students should be able to apply advanced editing skills to compose text.

OST-181 Office Procedures 2 2 0 3

Requisites:

This course introduces the skills and procedures needed in today's office. Topics include effectively interacting with co-workers and the public, processing simple financial and informational documents, and performing functions typical of today's offices. Upon completion, students should be able to display skills and decision-making abilities essential for functioning in the total office context.

OST-184 Records Management 2 2 0 3

Requisites:

This course includes the creation, maintenance, protection, security, and disposition of records stored in a variety of media forms. Topics include alphabetic, geographic, subject, and numeric filing methods. Upon completion, students should be able to set up and maintain a records management system.

OST-233 Office Publications Design 2 2 0 3

Requisites: Take OST-136(S22144); Take previously. Required.

This course provides entry-level skills in using software with desktop publishing capabilities. Topics include principles of page layout, desktop publishing terminology and applications, and legal and ethical considerations of software use. Upon completion, students should be able to design and produce professional business documents and publications.

OST-236 Advanced Word Processing 2 2 0 3

Requisites: Take OST-136(S22144); Take previously. Required.

This course develops proficiency in the utilization of advanced word processing functions. Emphasis is placed on advanced word processing features. Upon completion, students should be able to produce a variety of complex business documents.

OST-241 Medical Office Transcription I 2 2 0 3

Requisites: Take MED-121 or OST-141(S24691); Take previously. Required.Take 1 group; Option: Take OST-141(S24691) OST-134(S22142) OST-164(S24696); Option: Take MED-121 OST-134(S22142) OST-164(S24696); Take previously. Required.

This course introduces current transcription techniques as applied to medical documents. Emphasis is placed on accurate transcription, proofreading, editing and use of reference materials as well as vocabulary building. Upon

completion, students should be able to prepare accurate and usable medical documents in the covered specialties.

OST-243 Med Office Simulation 2 2 0 3
Requisites: Take OST-148(S11620); Take previously. Required.
This course introduces medical systems used to process information in the automated office. Topics include traditional and electronic information resources, storing and retrieving information, and the billing cycle. Upon completion, students should be able to use the computer accurately to schedule, bill, update, and make corrections. This course is a unique concentration requirement in the Medical Office Administration program.

OST-247 Procedure Coding 2 2 0 3
Requisites: Take MED-121 or OST-141(S24691); Take previously. Required.Take 1 group; Option: Take OST-141(S24691) OST-142(S24692) OST-148(S24693); Option: Take OST-141(S24691) MED-122 OST-148(S24693); Option: Take MED-121 OST-142(S24692) OST-148
This course provides in-depth coverage of procedural coding. Emphasis is placed on CPT and HCPCS coding systems. Upon completion, students should be able to properly code procedures and services performed in a medical facility.

OST-248 Diagnostic Coding 2 2 0 3
Requisites: Take MED-121 or OST-141(S24691); Take previously. Required.Take 1 group; Option: Take OST-141(S24691) OST-142(S24692) OST-148(S24693); Option: Take OST-141(S24691) MED-122 OST-148(S24693); Option: Take MED-121 OST-142(S24692) OST-148
This course provides an in-depth study of diagnostic coding. Emphasis is placed on ICD coding system. Upon completion, students should be able to properly code diagnoses in a medical facility.

OST-264 Medical Auditing 3 0 0 3
Requisites: Take OST-247(S24704) OST-248(S24705); Take previously. Required.Take 1 group; Option: Take OST-142(S24692) OST-247(S24704) OST-248(S24705); Option: Take MED-122 OST-247(S24704) OST-248(S24705); Take previously. Required.
This course provides instruction on how to apply regulations and policies to perform medical record audits for provider services. Emphasis is placed on understanding the scope of an audit, statistical sampling methodologies, performing a medical record audit, and compiling data for reports to improve the revenue cycle for healthcare services. Upon completion, students should be able to perform a medical audit.

OST-284 Emerging Technologies 1 2 0 2
Requisites: Take OST-140 or OST-137(S22113); Take previously. Required.
This course provides opportunities to explore emerging technologies. Emphasis is placed on identifying, researching, and presenting current technological topics for class consideration and discussion. Upon completion, students should be able to understand the importance of keeping abreast of technological changes that affect the office professional.

OST-286 Professional Development 3 0 0 3
Requisites: Take OST-134(S22142) or OST-136(S22144); Take previously. Required.
This course covers the personal competencies and qualities needed to project a professional image in the office. Topics include interpersonal skills, health lifestyles, appearance, attitude, personal and professional growth, multicultural awareness, and professional etiquette. Upon completion, students should be able to demonstrate these attributes in the classroom, office, and society.

OST-288 Medical Office Administration Capstone 2 2 0 3
Requisites: Take OST-148(S24693) or HMT-210(S24675); Take previously. Required.Take 1 group; Option: Take OST-137(S24689) OST-141(S24691) OST-148(S24693); Option: Take OST-137(S24689) OST-141(S24691) HMT-210(S24675); Option: Take OST-137(S24689)
This course is designed to be a capstone course for the medical office professional and provides a working knowledge of medical office procedures. Emphasis is placed on written and oral communication skills, practice management, electronic health records, medical office procedures, ethics, and professional development. Upon

completion, students should be able to demonstrate the skills necessary to manage a medical office.

OST-289 Office Administration Capstone 2 2 0 3
Requisites: Take 1 group; Option: Take OST-134(S22142) OST-164(S24696); Option: Take OST-136(S22144) OST-164(S24696); Take previously. Required.Take 1 group; Option: Take OST-134(S22142) OST-164(S24696) OST-138(S24690) CTS-130(S24366);
This course is designed to be a capstone course for the office professional and provides a working knowledge of administrative office procedures. Emphasis is placed on written and oral communication skills, office software applications, office procedures, ethics, and professional development. Upon completion, students should be able to adapt in an office environment.

PHLEBOTOMY (PBT Prefix)

PBT-100 Phlebotomy Technology 5 2 0 6
Requisites: Take PBT-101; Take either previously or concurrently. Required.
This course provides instruction in the skills needed for the proper collection of blood and other specimens used for diagnostic testing. Emphasis is placed on ethics, legalities, medical terminology, safety and universal precautions, health care delivery systems, patient relations, anatomy and physiology, and specimen collection. Upon completion, students should be able to demonstrate competence in the theoretical comprehension of phlebotomy techniques.

PBT-101 Phlebotomy Practicum 0 0 9 3
Requisites: Take PBT-100; Take either previously or concurrently. Required.
This course provides supervised experience in the performance of venipuncture and microcollection techniques in a clinical facility. Emphasis is placed on patient interaction and application of universal precautions, proper collection techniques, special procedures, specimen handling, and data management. Upon completion, students should be able to safely perform procedures necessary for specimen collections on patients in various health care settings.

PROCESS CONTROL INSTRUMENTATION (PCI Prefix)

PCI-170 DAQ and Control 3 3 0 4
Requisites: Take ELC-112(S23481) or ELC-131(S23482); Take previously. Required.
This course is a survey of data acquisition and control applications in an industrial setting. Topics include remote I/O systems, PC-based data acquisition, real-time monitoring, and other related topics. Upon completion, students should be able to demonstrate an understanding of data acquisition circuits.

PCI-171 Fieldbus Systems 3 3 0 4
Requisites: Take ELC-128(S23522); Take previously. Required.
This course is a survey of fieldbus systems found in the industrial setting. Topics include industrial data communication fieldbus and control networks for linking various control systems in an industrial environment. Upon completion, students should be able to demonstrate an understanding of fieldbus systems used to connect control systems.

PCI-172 SCADA Systems 3 3 0 4
Requisites:
This course is a survey of SCADA systems found in the industrial setting. Topics include single and/or multiple machine operator interfaces utilizing hardware and software systems running SCADA or HMI software for system monitoring and control. Upon completion, students should be able to demonstrate an understanding of the utilization and implementation of custom and commercial SCADA or HMI software.

PCI-261 Process Measurement 2 3 0 3
Requisites: Take ATR-215(S21583); Take previously. Required.
This course introduces the concepts associated with the measurement of different process variables. Topics include theory and applications involved with the process variables of flow, level, pressure, and temperature. Upon completion, students should be able to understand basic process measurements and demonstrate the ability to

calibrate process control instrumentation.

PHYSICAL EDUCATION (PED Prefix)

PED-110 Fit and Well for Life 1 2 0 2
Requisites:
This course is designed to investigate and apply the basic concepts and principles of lifetime physical fitness and other health-related factors. Emphasis is placed on wellness through the study of nutrition, weight control, stress management, and consumer facts on exercise and fitness. Upon completion, students should be able to plan a personal, lifelong fitness program based on individual needs, abilities, and interests. Classes will be individually structured to accommodate and enhance various levels of fitness.

PED-111 Physical Fitness I 0 3 0 1
Requisites:
This course provides an individualized approach to physical fitness utilizing the five major components. Emphasis is placed on the scientific basis for setting up and engaging in personalized physical fitness programs. Upon completion, students should be able to set up and implement an individualized physical fitness program.

PED-112 Physical Fitness II 0 3 0 1
Requisites: Take PED-111; Take previously. Required.
This course is an intermediate-level fitness class. Topics include specific exercises contributing to fitness and the role exercise plays in developing body systems. Upon completion, students should be able to implement and evaluate an individualized physical fitness program.

PED-113 Aerobics I 0 3 0 1
Requisites:
This course introduces a program of cardiovascular fitness involving continuous, rhythmic exercise. Emphasis is placed on developing cardiovascular efficiency, strength, and flexibility and on safety precautions. Upon completion, students should be able to select and implement a rhythmic aerobic exercise program.

PED-114 Aerobics II 0 3 0 1
Requisites: Take PED-113; Take previously. Required.
This course provides a continuation of a program of cardiovascular fitness involving rhythmic exercise. Emphasis is placed on a wide variety of aerobic activities which include cardiovascular efficiency, strength, and flexibility. Upon completion, students should be able to participate in and design a rhythmic aerobic exercise routine.

PED-117 Weight Training I 0 3 0 1
Requisites:
This course introduces the basics of weight training. Emphasis is placed on developing muscular strength, muscular endurance, and muscle tone. Upon completion, students should be able to establish and implement a personal weight training program.

PED-119 Circuit Training 0 3 0 1
Requisites:
This course covers the skills necessary to participate in a developmental fitness program. Emphasis is placed on the circuit training method which involves a series of conditioning timed stations arranged for maximum benefit and variety. Upon completion, students should be able to understand and appreciate the role of circuit training as a means to develop fitness.

PED-121 Walk, Jog, Run 0 3 0 1
Requisites:
This course covers the basic concepts involved in safely and effectively improving cardiovascular fitness. Emphasis is placed on walking, jogging, or running as a means of achieving fitness. Upon completion, students should be able to understand and appreciate the benefits derived from these activities.

PED-122 Yoga I 0 2 0 1

Requisites:

This course introduces the basic discipline of yoga. Topics include proper breathing, relaxation techniques, and correct body positions. Upon completion, students should be able to demonstrate the procedures of yoga.

PED-123 Yoga II 0 2 0 1

Requisites: Take PED-122; Take previously. Required.

This course introduces more detailed aspects of the discipline of yoga. Topics include breathing and physical postures, relaxation, and mental concentration. Upon completion, students should be able to demonstrate advanced procedures of yoga.

PED-125 Self-Defense: Beginning 0 2 0 1

Requisites:

This course is designed to aid students in developing rudimentary skills in self-defense. Emphasis is placed on stances, blocks, punches, and kicks as well as non-physical means of self-defense. Upon completion, students should be able to demonstrate basic self-defense techniques of a physical and non-physical nature.

PED-126 Self-Defense: Intermediate 0 2 0 1

Requisites: Take PED-125; Take previously. Required.

This course is designed to aid students in building on the techniques and skills developed in PED 125. Emphasis is placed on the appropriate psychological and physiological responses to various encounters. Upon completion, students should be able to demonstrate intermediate skills in self-defense stances, blocks, punches, and kick combinations.

PED-129 Golf-Intermediate 0 2 0 1

Requisites: Take PED-128; Take previously. Required.

This course covers the more advanced phases of golf. Emphasis is placed on refining the fundamental skills and learning more advanced phases of the games such as club selection, trouble shots, and course management. Upon completion, students should be able demonstrate the knowledge and ability to play a recreational round of golf.

PED-130 Tennis-Beginning 0 2 0 1

Requisites:

This course emphasizes the fundamentals of tennis. Topics include basic strokes, rules, etiquette, and court play. Upon completion, students should be able to play recreational tennis. Individualized instruction along with group drills promote stroke development and basic strategy for in class play.

PED-131 Tennis-Intermediate 0 2 0 1

Requisites: Take PED-130; Take previously. Required.

This course emphasizes the refinement of playing skills. Topics include continuing the development of fundamentals, learning advanced serves, and strokes and pace and strategies in singles and doubles play. Upon completion, students should be able to play competitive tennis. Personalized stroke improvement is stressed along with the introduction of advanced strokes and drills which promote consistency and the use of more advanced strategy.

PED-138 Archery 0 2 0 1

Requisites:

This course introduces basic archery safety and skills. Topics include proper techniques of stance, bracing, drawing, and releasing as well as terminology and scoring. Upon completion, students should be able to participate safely in target archery. Individualized instruction on fundamental skills enhance performance during class shooting and competition.

PED-139 Bowling-Beginning 0 2 0 1

Requisites:

This course introduces the fundamentals of bowling. Emphasis is placed on ball selection, grips, stance, and delivery along with rules and etiquette. Upon completion, students should be able to participate in recreational bowling.

Classes stress individualized correction of the approach and delivery along with the introduction of spot bowling and league bowling.

PED-142 Lifetime Sports 0 2 0 1
Requisites:
This course is designed to give an overview of a variety of sports activities. Emphasis is placed on the skills and rules necessary to participate in a variety of lifetime sports. Upon completion, students should be able to demonstrate an awareness of the importance of participating in lifetime sports activities.

PED-144 Volleyball-Intermediate 0 2 0 1
Requisites: Take PED-143; Take previously. Required.
This course covers more advanced volleyball techniques. Emphasis is placed on refining skills and developing more advanced strategies and techniques. Upon completion, students should be able to participate in competitive volleyball.

PED-145 Basketball-Beginning 0 2 0 1
Requisites:
This course covers the fundamentals of basketball. Emphasis is placed on skill development, knowledge of the rules, and basic game strategy. Upon completion, students should be able to participate in recreational basketball.

PED-146 Basketball-Intermediate 0 2 0 1
Requisites: Take PED-145; Take previously. Required.
This course covers more advanced basketball techniques. Emphasis is placed on refining skills and developing more advanced strategies and techniques. Upon completion, students should be able to play basketball at a competitive level.

PED-147 Soccer 0 2 0 1
Requisites:
This course introduces the basics of soccer. Emphasis is placed on rules, strategies, and fundamental skills. Upon completion, students should be able to participate in recreational soccer.

PED-148 Softball 0 2 0 1
Requisites:
This course introduces the fundamental skills and rules of softball. Emphasis is placed on proper techniques and strategies for playing softball. Upon completion, students should be able to participate in recreational softball.

PED-150 Baseball - Beginning 0 3 0 1
Requisites:
This course covers the fundamentals of baseball. Emphasis is placed on skill development, knowledge of the rules, and basic game strategy. Upon completion, students should be able to participate in recreational baseball.

PED-169 Orienteering 0 2 0 1
Requisites:
This course introduces the various types of orienteering and proper orienteering techniques. Emphasis is placed on defining various types of orienteering and recognizing and drawing topographic map symbols. Upon completion, students should be able to draw topographic map symbols and negotiate a 3-5 km cross-country orienteering course in a specified time period.

PED-177 Ice Skating 0 2 0 1
Requisites:
This course introduces the fundamentals of ice skating. Emphasis is placed on basic positioning, balance, and form on ice. Upon completion, students should be able to demonstrate skills necessary for recreational ice skating.

PED-186 Dancing for Fitness 0 2 0 1
Requisites:
This course is designed to develop movement and recreational dance skills, safety, fitness, coordination, and techniques used to teach various groups. Emphasis is placed on participation and practice with adapting dances for ages and ability levels. Upon completion, students should be able to demonstrate knowledge of fitness through social, folk, and square dance participation and instruction.

PED-217 Pilates I 0 2 0 1
Requisites:
This course provides an introduction to the pilates method of body conditioning exercise. Topics include instruction in beginning and intermediate pilates exercises using a mat or equipment, history of pilates method, and relevant anatomy and physiology. Upon completion, students should be able to perform beginning and intermediate exercises, and possess an understanding of the benefits of conditioning the body's core muscles.

PED-233 Ju-Jitsu 0 3 0 1
Requisites:
This course introduces martial arts using the ju-jitsu form. Topics include proper conditioning exercises, proper terminology, historical foundations, etiquette, and drills. Upon completion, students should be able to perform skills and techniques related to this form of martial arts.

PED-239 Kickboxing 0 3 0 1
Requisites:
This course introduces martial arts using the kickboxing form. Topics include proper conditioning exercises, proper terminology, historical foundations, etiquette, and drills. Upon completion, students should be able to perform skills and techniques related to this form of martial arts.

PHILOSOPHY (PHI Prefix)

PHI-215 Philosophical Issues 3 0 0 3
Requisites: Take ENG-111(S24022); Take previously. Required.Take ENG-111(S24022); Minimum grade C; Take previously. Required.
This course introduces fundamental issues in philosophy considering the views of classical and contemporary philosophers. Emphasis is placed on knowledge and belief, appearance and reality, determinism and free will, faith and reason, and justice and inequality. Upon completion, students should be able to identify, analyze, and critically evaluate the philosophical components of an issue.

PHI-240 Introduction to Ethics 3 0 0 3
Requisites: Take ENG-111(S24022); Take previously. Required.Take ENG-111(S24022); Minimum grade C; Take previously. Required.
This course introduces theories about the nature and foundations of moral judgments and applications to contemporary moral issues. Emphasis is placed on moral theories such as consequentialism, deontology, and virtue ethics. Upon completion, students should be able to apply various ethical theories to moral issues such as abortion, capital punishment, poverty, war, terrorism, the treatment of animals, and issues arising from new technologies.

PHARMACY (PHM Prefix)

PHM-110 Introduction to Pharmacy 3 0 0 3
Requisites:
This course introduces pharmacy practice and the technician's role in a variety of pharmacy settings. Topics include medical terminology and abbreviations, drug delivery systems, law and ethics, prescription and medication orders, and the health care system. Upon completion, students should be able to explain the role of pharmacy technicians, read and interpret drug orders, describe quality assurance, and utilize pharmacy references.

PHM-111 Pharmacy Practice I 3 3 0 4

Requisites: Take PHM-110(S12770) PHM-115(S12800); Take either previously or concurrently. Required.

This course provides instruction in the technical procedures for preparing and dispensing drugs in the hospital and retail settings under supervision of a registered pharmacist. Topics include drug packaging and labeling, out-patient dispensing, hospital dispensing procedures, controlled substance procedures, inventory control, and non-sterile compounding. Upon completion, students should be able to perform basic supervised dispensing techniques in a variety of pharmacy settings.

PHM-115 Pharmacy Calculations 3 0 0 3

Requisites:

This course provides an introduction to the metric, avoirdupois, and apothecary systems of measurement and the calculations used in pharmacy practice. Topics include ratio and proportion, dosage determinations, percentage preparations, reducing and enlarging formulas, dilution and concentration, aliquots, specific gravity and density, and flow rates. Upon completion, students should be able to correctly perform calculations required to properly prepare a medication order.

PHM-115A Pharmacy Calculations Lab 0 2 0 1

Requisites:

This course provides an opportunity to practice and perform calculations encountered in pharmacy practice. Emphasis is placed on ratio and proportion, dosage calculations, percentage, reduction/enlargement formulas, aliquots, flow rates, and specific gravity/density. Upon completion, students should be able to perform the calculations required to properly prepare a medication order.

PHM-120 Pharmacology I 3 0 0 3

Requisites:

This course introduces the study of the properties, effects, and therapeutic value of the primary agents in the major drug categories. Topics include nutritional products, blood modifiers, hormones, diuretics, cardiovascular agents, respiratory drugs, and gastrointestinal agents. Upon completion, students should be able to place major drugs into correct therapeutic categories and identify indications, side effects, and trade and generic names.

PHM-125 Pharmacology II 3 0 0 3

Requisites: Take PHM-120; Take previously. Required.

This course provides a continuation of the study of the properties, effects, and therapeutic value of the primary agents in the major drug categories. Topics include autonomic and central nervous system agents, anti-inflammatory agents, and anti-infective drugs. Upon completion, students should be able to place major drugs into correct therapeutic categories and identify indications, side effects, and trade and generic names.

PHM-132 Pharmacy Clinical 0 0 6 2

Requisites:

This course provides an opportunity to work in pharmacy settings under a pharmacist's supervision. Emphasis is placed on effective communication with personnel, developing proper employee attitude, and dispensing of medications. Upon completion, students should be able to demonstrate an understanding of pharmacy operations, utilize references, dispense medications, prepare patient charges, and efficiently operate computers.

PHM-133 Pharmacy Clinical 0 0 9 3

Requisites:

This course provides an opportunity to work in pharmacy settings under a pharmacist's supervision. Emphasis is placed on effective communication with personnel, developing proper employee attitude, and dispensing of medications. Upon completion, students should be able to demonstrate an understanding of pharmacy operations, utilize references, dispense medications, prepare patient charges, and efficiently operate computers.

PHM-134 Pharmacy Clinical 0 0 12 4

Requisites:

This course provides an opportunity to work in pharmacy settings under a pharmacist's supervision. Emphasis is

placed on effective communication with personnel, developing proper employee attitude, and dispensing of medications. Upon completion, students should be able to demonstrate an understanding of pharmacy operations, utilize references, dispense medications, prepare patient charges, and efficiently operate computers.

PHM-135 Pharmacy Clinical 0 0 15 5
Requisites:
This course provides an opportunity to work in pharmacy settings under a pharmacist's supervision. Emphasis is placed on effective communication with personnel, developing proper employee attitude, and dispensing of medications. Upon completion, students should be able to demonstrate an understanding of pharmacy operations, utilize references, dispense medications, prepare patient charges, and efficiently operate computers.

PHM-150 Hospital Pharmacy 3 3 0 4
Requisites: Take PHM-118; Take either previously or concurrently. Required.
This course provides an in-depth study of hospital pharmacy practice. Topics include hospital organizational structure, committee functions, utilization of reference works, purchasing and inventory control, drug delivery systems, and intravenous admixture preparation. Upon completion, students should be able to explain hospital organization/committee functions, interpret and enter patient orders, fill unit-dose cassettes, and prepare intravenous admixtures.

PHM-155 Community Pharmacy 2 2 0 3
Requisites:
This course covers the operational procedures relating to retail pharmacy. Emphasis is placed on a general knowledge of over-the-counter products, prescription processing, business/inventory management, and specialty patient services. Upon completion, students should be able to provide technical assistance and support to the retail pharmacist.

PHM-160 Pharm Dosage Forms 3 0 0 3
Requisites:
This course is a study of pharmaceutical dosage forms and considerations in their manufacture. Topics include bioavailability, routes of administration, tablets, capsules, solutions, syrups, suspensions, elixirs, aerosols, transdermals, topicals, ophthalmics, otics, and other dosage forms. Upon completion, students should be able to describe the characteristics of the major dosage forms and explain how these characteristics affect the action of the drug.

PHM-165 Pharmacy Prof Practice 2 0 0 2
Requisites:
This course provides a general overview of all aspects of pharmacy technician practice. Emphasis is placed on pharmacy law, calculations, compounding, pharmacology, and pharmacy operations. Upon completion, students should be able to demonstrate competence in the areas required for the Pharmacy Technician Certification Examination.

PHYSICS (PHY Prefix)

PHY-110 Conceptual Physics 3 0 0 3
Requisites:
This course provides a conceptually-based exposure to the fundamental principles and processes of the physical world. Topics include basic concepts of motion, forces, energy, heat, electricity, magnetism, and the structure of matter and the universe. Upon completion, students should be able to describe examples and applications of the principles studied.

PHY-110A Conceptual Physics Lab 0 2 0 1
Requisites: Take PHY-110; Take either previously or concurrently. Required.
This course is a laboratory for PHY 110. Emphasis is placed on laboratory experiences that enhance materials presented in PHY 110. Upon completion, students should be able to apply the laboratory experiences to the

concepts presented in PHY 110.

PHY-131 Physics-Mechanics 3 2 0 4
Requisites: Take MAT-121(S23927) or MAT-171(S23934); Take previously. Required.
This algebra/trigonometry-based course introduces fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analysis, vectors, motion, forces, Newton's laws of motion, work, energy, power, momentum, and properties of matter. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields.

PHY-151 College Physics I 3 2 0 4
Requisites: Take MAT-171(S23934) or MAT-271(S23939); Take previously. Required.Take MAT-171(S24997) or MAT-271(S23939); Minimum grade C; Take previously. Required.
This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vectors, linear kinematics and dynamics, energy, power, momentum, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.

PHY-152 College Physics II 3 2 0 4
Requisites: Take PHY-151(S16517); Take previously. Required.Take PHY-151(S20924); Minimum grade C; Take previously. Required.
This course uses algebra- and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating-current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.

PHY-251 General Physics I 3 3 0 4
Requisites: Take MAT-271(S13631); Take previously. Required.Take MAT-272(S13612); Take either previously or concurrently. Required.Take MAT-271(S13631); Minimum grade C; Take previously. Required.
This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vector operations, linear kinematics and dynamics, energy, power, momentum, rotational mechanics, periodic motion, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.

PHY-252 General Physics II 3 3 0 4
Requisites: Take MAT-272(S13612) PHY-251; Take previously. Required.Take MAT-272(S13612) PHY-251; Minimum grade C; Take previously. Required.
This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating-current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.

PLUMBING (PLU Prefix)

PLU-110AC Modern Plumbing 2 3 0 3
Requisites:
This course introduces the tools, equipment, and materials associated with the plumbing industry. Topics include safety, use and care of tools, recognition and assembly of fittings and pipes, and other related topics. Upon completion, students should be able to safely assemble various pipes and fittings in accordance with state code requirements.

PLU-110BC Modern Plumbing 2 3 0 3

Requisites: Take PLU-110AC; Take either previously or concurrently. Required.

This course introduces the tools, equipment, and materials associated with the plumbing industry. Topics include safety, use and care of tools, recognition and assembly of fittings and pipes, and other related topics. Upon completion, students should be able to safely assemble various pipes and fittings in accordance with state code requirements.

PLU-110CC Modern Plumbing 0 9 0 3

Requisites: Take PLU-110BC; Take either previously or concurrently. Required.

This course introduces the tools, equipment, and materials associated with the plumbing industry. Topics include safety, use and care of tools, recognition and assembly of fittings and pipes, and other related topics. Upon completion, students should be able to safely assemble various pipes and fittings in accordance with state code requirements.

PLU-115 Basic Plumbing 2 6 0 4

Requisites:

This course covers the basic installation and maintenance of plumbing systems and components. Topics include safe use of tools, implementation of standard practices, and installation/maintenance of piping, fittings, valves, appliances and fixtures used in plumbed systems. Upon completion, students should be able to install/maintain basic plumbing systems, components, appliances, and fixtures through appropriate use of plumbing tools and standard practices.

PLU-120 Plumbing Applications 4 15 0 9

Requisites:

This course covers general plumbing layout, fixtures, and water heaters. Topics include drainage, waste and vent pipes, water service and distribution, fixture installation, water heaters, and other related topics. Upon completion, students should be able to safely install common fixtures and systems in compliance with state and local building codes.

PLU-120AB Plumbing Applications 4 6 0 5

Requisites:

This course covers general plumbing layout, fixtures, and water heaters. Topics include drainage, waste and vent pipes, water service and distribution, fixture installation, water heaters, and other related topics. Upon completion, students should be able to safely install common fixtures and systems in compliance with state and local building codes.

PLU-124 Plumbing Business Operations 2 0 0 2

Requisites:

This course introduces plumbing contractor and plumbing business regulations and success strategies. Topics include plumbing business organization, structure, operations, bonds and insurance, municipal and state licensure requirements, state examinations, ethical and legal issues, and best practices for ensuring successful plumbing business operations. Upon completion, students should be able to demonstrate how to develop and sustain a successful plumbing business.

PLU-130 Plumbing Systems 3 9 0 6

Requisites:

This course covers the maintenance and repair of plumbing lines and fixtures. Emphasis is placed on identifying and diagnosing problems related to water, drain and vent lines, water heaters, and plumbing fixtures. Upon completion, students should be able to identify and diagnose needed repairs to the plumbing system.

PLU-140 Intro to Plumbing Codes 1 2 0 2

Requisites:

This course covers plumbing industry codes and regulations. Emphasis is placed on North Carolina regulations and the minimum requirements for plumbing materials and design. Upon completion, students should be able to research and interpret North Carolina plumbing codes.

PLU-145 Plumbing Measurement and Calculations 1 2 0 2

Requisites:

This course is designed to contextualize installation and layout measurements, conversions, and pipe slope calculations, that are common to the plumbing industry. Topics include measurement, calculating and converting fractions and whole numbers, transferring print measurements to the worksite, and calculating pipe slopes for various industry layout requirements. Upon completion, students should be able to demonstrate an understanding of plumbing measurements, calculations, and pipe slope determination, unique to the plumbing industry.

PLU-160 Plumbing Estimates 1 2 0 2

Requisites: Take PLU-140; Take either previously or concurrently. Required.

This course covers techniques for estimating quantities of materials and cost of installation for various types of plumbing systems. Topics include design of systems, codes, material take-offs, pricing, and public relations. Upon completion, students should be able to order materials needed for installation from a designed system.

PLU-211 Commercial/Ind Plumbing 2 2 0 3

Requisites:

This course covers the installation of various commercial and industrial piping. Topics include piping in steam, gas, air, fire sprinklers, and other related topics. Upon completion, students should be able to select and install various piping systems for a variety of applications.

PLU-212 Advanced Commercial and Industrial Plumbing 1 4 0 3

Requisites: Take PLU-211; Take previously. Required.

This course expands upon commercial water and gas lines that meet specific requirements for commercial and industrial plumbing applications. Topics include plumbing code, galvanized, copper, black steel, cast, and schedule 80 pipe, appropriate industry-accepted rough-in assembly procedures, and sweating and brazing of common fittings and pipes. Upon completion, students should be able to demonstrate an understanding of rough-in procedures for commercial and industrial water and gas piping in accordance with plumbing schematics and state plumbing codes.

PLU-214 Backflow Preventer Installation 1 2 0 2

Requisites: Take PLU-120; Take previously. Required.

This course introduces various type of backflow devices commonly used in the plumbing industry along with the associated installation documentation required by local municipalities. Topics include dual check valves, double check valve assemblies, vacuum breakers and reduced principal assemblies, and the associated installation documentation. Upon completion, students should be able to demonstrate how to properly install, test, and repair backflow devices, and complete the associated installation documentation required by local municipalities.

PLU-220 Commercial Rough-In Plumbing 2 6 0 4

Requisites: Take PLU-120; Take previously. Required.

This course introduces industry-acceptable rough-in procedures for commercial piping installations. Topics include acceptable commercial plumbing rough-in installation procedures involving cast iron, polyvinyl chloride (PVC), galvanized, steel, and other popular piping materials, in conjunction with various plumbing fixtures commonly used in commercial facilities. Upon completion, students should be able to demonstrate an understanding of the proper procedures for properly installing pipes and fittings following layout plans on a commercial plumbing project. null null

PLU-225 Commercial Trim-Out Procedures 2 6 0 4

Requisites: Take PLU-120; Take previously. Required.

This course introduces industry-acceptable trim-out procedures associated with commercial plumbing applications. Topics include setting of commercial fixtures including water closets, urinals, water coolers, three compartment sinks, and other fixtures commonly used in commercial facilities. Upon completion, students should be able to demonstrate an understanding of how to properly install plumbing fixtures utilizing plumbing plans on commercial projects.

POWER MECHANICS (PME Prefix)

PME-111 Harvest and Spraying Equipment 2 6 0 4
Requisites:
This course covers the theory, design principles of operation, adjustments, troubleshooting and repair of harvesting and spraying equipment. Emphasis is placed on set-up, troubleshooting and repair of systems. Upon completion, students should be able to diagnose, adjust or repair new and used harvesters and sprayers in accordance with manufacturer's specifications.

PME-112 Consumer Products 1 2 0 2
Requisites:
This course introduces compact utility, lawn and garden tractors, and other related equipment and attachments. Topics include set-up, adjustments and general servicing of equipment. Upon completion, students should be able to set-up, adjust, service and repair equipment.

PME-117 Equipment Braking Systems 2 3 0 3
Requisites:
This course covers fundamental theory, adjustments, and repair of hydraulic and pneumatic braking systems used primarily in mobile construction equipment. Emphasis is placed on braking systems used in construction equipment including pneumatic, hydraulic, dynamic, and inboard brakes. Upon completion, students should be able to use proper diagnostic procedures to identify, repair, or replace components.

PME-118 Undercarriage Components 1 2 0 2
Requisites:
This course covers the fundamentals, function, repair, adjustments, and safety requirements of undercarriage components on track-equipped machines. Topics include identification, measurement, wear points, adjustments, and operation of components on track-equipped machines. Upon completion, students should be able to properly measure, adjust, rebuild or replace undercarriage components.

PME-121 Component Controls 1 3 0 2
Requisites:
This course covers specific operating controls used on modern equipment. Emphasis is placed on the mechanical, hydraulic, and electronic controls in powertrains, guidance controls, and implements used on agricultural equipment. Upon completion, students should be able to identify, diagnose, adjust, and repair control systems used on modern equipment.

PME-122 Agricultural Telematics 2 3 0 3
Requisites:
This course covers the set-up, activation, and programming for computerized and guidance controls for agricultural harvesting and planting equipment. Emphasis is placed on set-up, troubleshooting and repair of system. Upon completion, students should be able to install, program, and troubleshoot the system.

PME-221 Const Equip Servicing 1 2 0 2
Requisites:
This course covers the servicing requirements for construction equipment. Topics include pre-delivery, after-sales check, routine servicing, and thousand-hour service. Upon completion, students should be able to locate service points, make minor service adjustments, and perform other routine servicing.

PROJECT MANAGEMENT TECHNOLOGY (PMT Prefix)

PMT-110 Introduction to Project Management 3 0 0 3
Requisites: Take 1 group; Option: Take MAT-143(S23945) CTS-115(S20996) CTI-120(S22511); Option: Take MAT-143(S23945) CTS-115(S20996) CIS-110(S21058); Take previously. Required.
This course introduces project management fundamentals and principles for organizing, planning, implementing, and controlling nonroutine activities to achieve schedule, budget and performance objectives. Topics include project life cycles; work breakdown structures; responsibility matrixes; as well as planning and control methods such as PERT/CPM and Gantt charts. Upon completion, students should be able to demonstrate knowledge, strategies, and techniques needed to create and execute plans for project development and management.

PMT-111 Project Management Assessing Risk 3 0 0 3
Requisites:
This course provides various ways to identify, analyze, and mitigate the full range of project risks. Topics include risk management planning, risk identification, qualitative risk analysis, quantitative risk analysis, risk response planning, as well as risk monitoring and control. Upon completion, students should be able to demonstrate knowledge of risk management processes and application of risk management techniques to case study problems.

PMT-210 Project Management Issues 2 2 0 3
Requisites:
This course is designed to explore various development and management techniques and tools of integrated project schedules and plans. Emphasis is placed on project control methods from a scheduling perspective, including critical path networking, float analysis, and schedule performance predictability and accomplishment. Upon completion, students should have a clear understanding of accepted techniques for schedule development and management.

PMT-215 Project Management Leadership 3 0 0 3
Requisites:
This course provides an overview of the importance of project teams and human resource management in the planning, scheduling, and controlling of multi-project programs. Topics include the role of projects in organizations; alternative organizational systems; program management methodologies; team management and leadership; legal/ethical issues; and conflict identification/resolution. Upon completion, students should be able to identify and exhibit the behaviors needed for effective project management and team leadership.

POLITICAL SCIENCE (POL Prefix)

POL-110 Introduction to Political Science 3 0 0 3
Requisites: Take 1 group; Option: Take RED-090 ENG-090; Option: Take ENG-111(S13673); Option: Take DRE-098(S23643); Take previously. Required.
This course introduces basic political concepts used by governments and addresses a wide range of political issues. Topics include political theory, ideologies, legitimacy, and sovereignty in democratic and non-democratic systems. Upon completion, students should be able to discuss a variety of issues inherent in all political systems and draw logical conclusions in evaluating these systems.

POL-130 State & Local Government 3 0 0 3
Requisites: Take 1 group; Option: Take RED-090 ENG-090; Option: Take ENG-111(S13673); Option: Take DRE-098(S23643); Take previously. Required.
This course includes state and local political institutions and practices in the context of American federalism. Emphasis is placed on procedural and policy differences as well as political issues in state, regional, and local governments of North Carolina. Upon completion, students should be able to identify and discuss various problems associated with intergovernmental politics and their effect on the community and the individual.

POL-220 International Relations 3 0 0 3

Requisites: Take 1 group; Option: Take RED-090 ENG-090; Option: Take ENG-111(S24022); Option: Take DRE-098(S23643); Take previously. Required.

This course provides a study of the effects of ideologies, trade, armaments, and alliances on relations among nation-states. Emphasis is placed on regional and global cooperation and conflict, economic development, trade, non-governmental organizations, and international institutions such as the World Court and UN. Upon completion, students should be able to identify and discuss major international relationships, institutions, and problems.

PHYSCIAL FITNESS TECHNOLOGY (PSF Prefix)

PSF-110 Exercise Science 4 0 0 4

Requisites: Option: Take DRE-098(S23643); Option: Take DMA-010 DMA-020 DMA-030 DMA-040(S23170) DMA-050(S23171); Take previously. Required.

This course is a survey of scientific principles, methodologies, and research as applied to exercise and physical adaptations to exercise. Topics include the basic elements of kinesiology, biomechanics, and motor learning. Upon completion, students should be able to identify and describe physiological responses and adaptations to exercise.

PSF-111 Fitness & Exer Testing I 3 2 0 4

Requisites: Option: Take DRE-098(S23643); Option: Take DMA-010 DMA-020 DMA-030 DMA-040(S23170) DMA-050(S23171); Take previously. Required.

This course introduces the student to graded exercise testing. Topics include various exercise testing protocols with methods for prescribing exercise programs based on exercise tolerance tests and the use of various equipment and protocols. Upon completion, students should be able to conduct specific exercise tests and the use of various equipment.

PSF-114 Phys Fit Theory & Instr 4 0 0 4

Requisites: Take PSF-110; Take previously. Required.

This course provides information about related components of fitness and general information about the industry. Topics include the study of the components of fitness, theories of exercise and fitness, and information about the industry. Upon completion, students should be able to identify fitness components and demonstrate these in an exercise setting.

PSF-116 Pvnt & Care Exer Injuries 2 2 0 3

Requisites: Option: Take DRE-098(S23643); Option: Take DMA-010 DMA-020 DMA-030 DMA-040(S23170) DMA-050(S23171); Take previously. Required.

This course provides information about the care and prevention of exercise injuries. Topics include proper procedures, prevention techniques, and on-site care of injuries. Upon completion, students should be able to demonstrate the knowledge and skills necessary to prevent and care for exercise related injuries.

PSF-120 Group Exercise Instruction 2 2 0 3

Requisites: Take PSF-110; Take previously. Required.Take PSF-110; Minimum grade C; Take previously. Required.

This course introduces the concepts and guidelines of instructing exercise classes. Topics include program designs, working with special populations, and principles of teaching and monitoring physical activity. Upon completion, students should be able to demonstrate basic skills in instructing an exercise class and monitoring workout intensity.

PSF-210 Personal Training 2 2 0 3

Requisites: Take PSF-110 PSF-111; Take previously. Required.Take PSF-110 PSF-111; Minimum grade C; Take previously. Required.

This course introduces the student to the aspects of personal (one-on-one) training. Topics include training systems, marketing, and program development. Upon completion, students should be able to demonstrate personal training techniques and competencies of same.

PSF-212 Exercise Programming 2 2 0 3

Requisites: Take PSF-110; Take previously. Required.Take PSF-110 PSF-111; Minimum grade C; Take previously. Required.

This course provides information about organizing, scheduling, and implementation of physical fitness programs. Topics include programming for various age groups, competitive activities and special events, and evaluating programs. Upon completion, students should be able to organize and implement exercise activities in a competent manner.

PSF-218 Lifestyle Chng & Wellness 3 2 0 4

Requisites: Take PSF-110; Minimum grade C; Take previously. Required.

This course introduces health risk appraisals and their application to lifestyle changes. Topics include nutrition, weight control, stress management, and the principles of exercise. Upon completion, students should be able to conduct health risk appraisals and apply behavior modification techniques in a fitness setting.

PSYCHOLOGY (PSY Prefix)

PSY-118 Interpersonal Psychology 3 0 0 3

Requisites:

This course introduces the basic principles of psychology as they relate to personal and professional development. Emphasis is placed on personality traits, communication/leadership styles, effective problem solving, and cultural diversity as they apply to personal and work environments. Upon completion, students should be able to demonstrate an understanding of these principles of psychology as they apply to personal and professional development.

PSY-150 General Psychology 3 0 0 3

Requisites: Take 1 group; Option: Take ENG-090 RED-090; Option: Take ENG-111(S13673); Option: Take DRE-098(S23643); Take previously. Required.

This course provides an overview of the scientific study of human behavior. Topics include history, methodology, biopsychology, sensation, perception, learning, motivation, cognition, abnormal behavior, personality theory, social psychology, and other relevant topics. Upon completion, students should be able to demonstrate a basic knowledge of the science of psychology.

PSY-239 Psychology of Personality 3 0 0 3

Requisites: Take PSY-150; Take previously. Required.Take PSY-150; Minimum grade C; Take previously. Required.

This course covers major personality theories and personality research methods. Topics include psychoanalytic, behavioristic, social learning, cognitive, humanistic, and trait theories including supporting research. Upon completion, students should be able to compare and contrast traditional and contemporary approaches to the understanding of individual differences in human behavior.

PSY-241 Developmental Psychology 3 0 0 3

Requisites: Take PSY-150; Take previously. Required.Take PSY-150; Minimum grade C; Take previously. Required.

This course is a study of human growth and development. Emphasis is placed on major theories and perspectives as they relate to the physical, cognitive, and psychosocial aspects of development from conception to death. Upon completion, students should be able to demonstrate knowledge of development across the life span.

PSY-249 Psychology of Aging 3 0 0 3

Requisites: Take PSY-150; Take previously. Required.

This course covers the particular needs and behaviors of the maturing adult. Emphasis is placed on psychosocial processes; biological and intellectual aspects of aging; adjustments to retirement, dying, bereavement; and the stereotypes and misconceptions concerning the elderly. Upon completion, students should be able to show an understanding of the psychological factors related to the aging process.

PSY-259 Human Sexuality 3 0 0 3

Requisites: Take PSY-150; Take previously. Required.Take PSY-150; Minimum grade C; Take previously. Required.

This course provides the biological, psychological, and sociocultural aspects of human sexuality and related research. Topics include reproductive biology, sexual and psychosexual development, sexual orientation, contraception, sexually transmitted diseases, sexual disorders, theories of sexuality, and related issues. Upon completion, students should be able to demonstrate an overall knowledge and understanding of human sexuality.

PSY-263 Educational Psychology 3 0 0 3

Requisites: Take PSY-150; Take previously. Required.Take PSY-150; Minimum grade C; Take previously. Required.

This course examines the application of psychological theories and principles to the educational process and setting. Topics include learning and cognitive theories, achievement motivation, teaching and learning styles, teacher and learner roles, assessment, and developmental issues. Upon completion, students should be able to demonstrate an understanding of the application of psychological theory to educational practice.

PSY-265 Behavioral Modification 3 0 0 3

Requisites: Take PSY-150; Take previously. Required.Take PSY-150; Minimum grade C; Take previously. Required.

This course is an applied study of factors influencing human behavior and strategies for behavioral change. Emphasis is placed on cognitive-behavioral theory, behavioral assessment, practical applications of conditioning techniques, and maintenance of adaptive behavior patterns. Upon completion, students should be able to implement basic learning principles to effect behavioral changes in self and others.

PHARMACEUTICAL TECHNOLOGY (PTC Prefix)

PTC-110 Industrial Environment 3 0 0 3

Requisites:

This course introduces the pharmaceutical industry, including a broad overview of work in this field. Emphasis is placed on good manufacturing practices (GMP), work conduct, company organization, job expectations, personal safety, hygiene, and company rules and regulations. Upon completion, students should be able to follow good manufacturing practice regulations and inspect a pharmaceutical manufacturing facility for compliance with GMP.

PTC-120 Pharmaceutical Quality Control 3 2 0 4

Requisites: Take PTC-110; Take previously. Required.

This course covers the principles and techniques of quality control as found in the pharmaceutical industry. Emphasis is placed on lot inspection, sampling procedures, control charts, vendor auditing, statistical analysis, and Military Standard 105. Upon completion, students should be able to apply and follow the appropriate statistical sampling plans for Pharmaceutical Product Lot Acceptance.

PTC-210 Pharmaceutical Industrial Processes 3 2 0 4

Requisites:

This course examines the manufacturing processes for selected pharmaceutical dosage forms. Emphasis is placed on manufacturing and testing of tablets, capsules, sustained release drugs, solutions, emulsions, suspensions, creams, ointments, aerosols, and sterile products. Upon completion, students should be able to demonstrate the processing steps and test procedures for these dosage forms.

PTC-212 Applied Microbiology 3 2 0 4

Requisites: Take BIO-110(S13284) or BIO-111(S13307); Take previously. Required.

This course covers microbiology as it applies to the pharmaceutical industry. Emphasis is placed on types of microorganisms and identification, culture, sterilization, and contamination control. Upon completion, students should be able to explain how microbiology and microbiological control are important to the pharmaceutical industry.

PTC-214 Parenteral Processes 3 2 0 4
Requisites:
This course covers quality assurance for injectable products. Emphasis is placed on environmental monitoring and sterility, pyrogen, particulate, and package integrity testing. Upon completion, students should be able to demonstrate competence in these test procedures.

PTC-222 Pharmaceutical Process Control 2 2 0 3
Requisites:
This course provides a systematic study of the control of all processes within the pharmaceutical industry. Topics include production economics, plant layout, computer-integrated manufacturing, planning and controls, materials management, routing and scheduling, progress reports, and relationship with quality control. Upon completion, students should be able to demonstrate an understanding of process flow controls, economic considerations, and materials management in modern pharmaceutical manufacturing.

PTC-228 Pharmaceutical Issues 1 0 0 1
Requisites:
This course provides a forum for discussion of current pharmaceutical topics. Emphasis is placed on events, news, regulations, and technology in pharmaceutical manufacturing. Upon completion, students should be able to demonstrate an understanding of the dynamic nature of the pharmaceutical industry.

RADIOGRAPHY (RAD Prefix)

RAD-110 Rad Intro & Patient Care 2 3 0 3
Requisites: Take RAD-111(S13029) RAD-151; Take either previously or concurrently. Required.
This course provides an overview of the radiography profession and student responsibilities. Emphasis is placed on basic principles of patient care, radiation protection, technical factors, and medical terminology. Upon completion, students should be able to demonstrate basic skills in these areas.

RAD-111 RAD Procedures I 3 3 0 4
Requisites:
This course provides the knowledge and skills necessary to perform standard radiographic procedures. Emphasis is placed on radiography of the chest, abdomen, extremities, bony thorax and pelvis. Upon completion, students should be able to demonstrate competence in these areas.

RAD-112 RAD Procedures II 3 3 0 4
Requisites: Take RAD-110 RAD-111(S13029) RAD-151; Take previously. Required.Take RAD-121(S24945) RAD-161; Take either previously or concurrently. Recommended.
This course provides the knowledge and skills necessary to perform standard radiographic procedures. Emphasis is placed on radiography of the skull, spine, and gastrointestinal, biliary, and urinary systems. Upon completion, students should be able to demonstrate competence in these areas.

RAD-121 Image Production I 2 3 0 3
Requisites: Take RAD-110 RAD-111(S13029) RAD-151; Take previously. Required.
This course provides the basic principles of radiographic image production. Emphasis is placed on image production, x-ray equipment, receptor exposure, and basic imaging quality factors. Upon completion, students should be able to demonstrate an understanding of basic principles of radiographic image production.

RAD-122 Image Production II 1 3 0 2
Requisites: Take RAD-112(S13039) RAD-121(S22447) RAD-161; Take previously. Required.
This course is designed to continue to develop the concepts and principles in the field of radiologic technology. Emphasis is placed on advanced digital principles and production. Upon completion, students should be able to demonstrate an understanding of advanced principles of digital imaging production.

RAD-131 Radiographic Physics I 1 3 0 2

Requisites: Take RAD-121(S23863); Take previously. Required.Take RAD-122(S22448) RAD-171(S12024); Take either previously or concurrently. Required.

This course introduces the principles of radiation characteristics and production. Emphasis is placed on imaging equipment. Upon completion, students should be able to demonstrate a basic understanding of radiation characteristics and production.

RAD-141 Radiation Safety 2 0 0 2

Requisites: Take RAD-121(S24945) RAD-112(S24944) RAD-161; Take previously. Required.

This course covers the principles of radiation protection and radiobiology. Topics include the effects of ionizing radiation on body tissues, protective measures for limiting exposure to the patient and personnel, and radiation monitoring devices. Upon completion, students should be able to demonstrate an understanding of the effects and uses of radiation in diagnostic radiology.

RAD-151 RAD Clinical Ed I 0 0 6 2

Requisites: Take RAD-110 RAD-111(S13029); Take either previously or concurrently. Required.

This course introduces patient management and basic radiographic procedures in the clinical setting. Emphasis is placed on mastering positioning of the chest and extremities, manipulating equipment, and applying principles of ALARA. Upon completion, students should be able to demonstrate successful completion of clinical objectives.

RAD-171 RAD Clinical Ed III 0 0 9 3

Requisites: Take RAD-112(S13039) RAD-121(S13711) RAD-161; Take previously. Required.

This course provides experience in patient management specific to advanced radiographic procedures. Emphasis is placed on applying appropriate technical factors to all studies and transitioning to mastering positioning of advanced studies. Upon completion, students should be able to demonstrate successful completion of clinical objectives.

RAD-211 Radiographic Procedures III 2 3 0 3

Requisites: Take RAD-122(S24946) RAD-141 RAD-171(S24947); Take previously. Required.

This course provides the knowledge and skills necessary to perform standard and specialty radiographic procedures. Emphasis is placed on radiographic specialty procedures, advanced imaging, radiographic pathology and image analysis. Upon completion, students should be able to demonstrate an understanding of these areas.

RAD-231 Image Production III 1 3 0 2

Requisites: Take RAD-122(S24946) RAD-141 RAD-171(S24947); Take previously. Required.

This course is designed to continue to develop the concepts and principles in the field of radiologic technology. Emphasis is placed on complex imaging production and principles, quality control and quality assurance in the imaging sciences. Upon completion, students should be able to demonstrate an understanding of advanced radiographic equipment and quality control programs.

RAD-251 RAD Clinical Ed IV 0 0 21 7

Requisites: Take RAD-122(S24946) RAD-171(S24947); Take previously. Required.Take RAD-211(S24948) RAD-231(S24949); Take either previously or concurrently. Required.

This course provides the opportunity to continue mastering all basic radiographic procedures and to attain experience in advanced areas. Emphasis is placed on equipment operation, pathological recognition, pediatric and geriatric variations, and a further awareness of radiation protection requirements. Upon completion, students should be able to demonstrate successful completion of clinical objectives.

RAD-261 Radiographic Clinical Education V 0 0 21 7

Requisites: Take RAD-251(S25000); Take previously. Required.Take RAD-271(S24951); Take either previously or concurrently. Required.

This course is designed to enhance expertise in all radiographic procedures, patient management, radiation protection, and image production and evaluation. Emphasis is placed on developing an autonomous approach to the diversity of clinical situations and successfully adapting to those procedures. Upon completion, students should be able to demonstrate successful completion of clinical objectives.

RAD-271 Radiography Capstone 2 3 0 3
Requisites: Take RAD-211(S24948) RAD-231(S24949) RAD-251(S11897); Take previously. Required.
This course provides an opportunity to exhibit problem-solving skills required for certification. Emphasis is placed on critical thinking and integration of didactic and clinical components. Upon completion, students should be able to demonstrate the knowledge required of an entry-level radiographer.

REAL ESTATE APPRAISAL (REA Prefix)

REA-210 Site Value Cost Approach 1 0 0 1
Requisites: Take REA-219; Take previously. Required.
This course teaches the concepts and methodology used for determining site value and the valuation of residential improvements using the cost approach. Topics include methods in site valuation, replacement/reproduction cost, estimating accrued depreciation, concepts/definitions, and case studies. Upon completion, students should be able to understand the concepts and applications of site valuation and cost approaches for residential properties.

REA-215 Basic Appraisal Procedure 2 0 0 2
Requisites: Take REA-214; Take previously. Required.
This course introduces procedures used to develop an estimate of value and how the various principles of value relate to the application of such procedures. Topics include an overview of approaches to value, valuation procedures, property description and residential applications. Upon completion, students should be able to identify and utilize the approaches to value for residential properties.

REA-217 National Uniform Standards of Professional Appraisal Practice 1 0 0 1
Requisites: Take REA-215; Take previously. Required.
This course introduces all aspects of the appraisers146 conduct, ethics and competency. Topics include appraisal standards, reviews, reports, and the confidentiality provisions as set forth by the Appraisal Standards Board. Upon completion, students should be able to sit for the national Uniform Standards of Professional Appraisal Practice (USPAP) examination.

REA-219 Residential Market Analysis 1 0 0 1
Requisites: Take REA-217; Take previously. Required.
This course introduces students to the components of a market analysis and how to test for and analyze highest and best use. Topics include market fundamentals, characteristics and definitions, supply/demand analysis, use of market analysis, test constraints and application of the highest/best use, special considerations and case studies. Upon completion, students should be able to analyze residential markets and know the test constraints for highest and best use.

REFRIGERATION (REF Prefix)

REF-116 Commercial Systems I 2 6 0 4
Requisites: Take AHR-115; Take previously. Required.
This course introduces and compares various commercial refrigeration systems. Topics include service, repair, and diagnostic procedures for commercial systems and components, as well as evacuation, charging, startup, and evaluation. Upon completion, students should be able to use appropriate tools, instruments, and procedures to service and install basic refrigeration systems or components.

RELIGION (REL Prefix)

REL-110 World Religions 3 0 0 3
Requisites: Take 1 group; Option: Take RED-090 ENG-090; Option: Take ENG-111(S13673); Option: Take DRE-098(S23643); Take previously. Required.
This course introduces the world's major religious traditions. Topics include Primal religions, Hinduism, Buddhism, Islam, Judaism, and Christianity. Upon completion, students should be able to identify the origins, history, beliefs,

and practices of the religions studied.

REL-211 Introduction to Old Testament 3 0 0 3
Requisites: Take 1 group; Option: Take RED-090 ENG-090; Option: Take ENG-111(S13673); Option: Take DRE-098(S23643); Take previously. Required.
This course is a survey of the literature of the Hebrews with readings from the law, prophets, and other writings. Emphasis is placed on the use of literary, historical, archeological, and cultural analysis. Upon completion, students should be able to use the tools of critical analysis to read and understand Old Testament literature.

REAL ESTATE (RLS Prefix)

RLS-112 Broker Prelicensing 5 0 0 5
Requisites:
This course provides basic instruction in real estate principles and practices. Topics include law, finance, brokerage, closing, valuation, management, taxation, mathematics, construction, land use, property insurance, and NC License Law and Commission Rules. Upon completion, students should be able to demonstrate basic knowledge and skills necessary for real estate sales.

SUBSTANCE ABUSE (SAB Prefix)

SAB-110 Substance Abuse Overview 3 0 0 3
Requisites:
This course provides an overview of the core concepts in substance abuse and dependence. Topics include the history of drug use/abuse, effects on societal members, treatment of addiction, and preventive measures. Upon completion, students should be able to demonstrate knowledge of the etiology of drug abuse, addiction, prevention, and treatment.

SAB-120 Intake and Assessment 3 0 0 3
Requisites: Take DRE-098(S23643); Take previously. Required.
This course develops processes for establishment of client rapport, elicitation of client information on which therapeutic activities are based, and stimulation of client introspection. Topics include diagnostic criteria, functions of counseling, nonverbal behavior, collaterals and significant others, dual diagnosis, client strengths and weakness, uncooperative clients, and crisis interventions. Upon completion, students should be able to establish communication with clients, recognize disorders, obtain information for counseling, and terminate the counseling process.

SAB-125 SA Case Management 2 2 0 3
Requisites: Take DRE-098(S23643) DMA-010 DMA-020 DMA-030; Take previously. Required.
This course provides case management activities, including record keeping, recovery issues, community resources, and continuum of care. Emphasis is placed on establishing a systematic approach to monitor the treatment plan and maintain quality of life. Upon completion, students should be able to assist clients in the continuum of care as an ongoing recovery process and develop agency networking.

SAB-135 Addictive Process 3 0 0 3
Requisites: Take DRE-098(S23643); Take previously. Required.
This course explores the physical, emotional, psychological, and cultural aspects of the addictive process. Emphasis is placed on addictions to food, sex, alcohol, drugs, work, gambling, and relationships. Upon completion, students should be able to identify the effects, prevention strategies, and treatment methods associated with addictive disorders.

SAB-210 Sub Abuse Counseling 2 2 0 3
Requisites: Take DRE-098(S23643); Take previously. Required.
This course provides theory and skills acquisition by utilizing intervention strategies designed to obtain therapeutic

information, support recovery, and prevent relapse. Topics include counseling individuals and dysfunctional families, screening instruments, counseling techniques and approaches, recovery and relapse, and special populations. Upon completion, students should be able to discuss issues critical to recovery, identify intervention models, and initiate a procedure culminating in cognitive/behavioral change.

SAB-240 Sab Issues in Client Serv 3 0 0 3

Requisites: Take DRE-098(S23643); Take previously. Required.

This course introduces systems of professional standards, values, and issues in substance abuse counseling. Topics include confidentiality, assessment of personal values, professional responsibilities, competencies, and ethics relative to multicultural counseling and research. Upon completion, students should be able to understand and discuss multiple ethical issues applicable to counseling and apply various decision-making models to current issues.

INFORMATION SYSTEMS SECURITY (SEC Prefix)

SEC-110 Security Concepts 2 2 0 3

Requisites: Take CTI-120(S22511); Take previously. Required.

This course introduces the concepts and issues related to securing information systems and the development of policies to implement information security controls. Topics include the historical view of networking and security, security issues, trends, security resources, and the role of policy, people, and processes in information security. Upon completion, students should be able to identify information security risks, create an information security policy, and identify processes to implement and enforce policy.

SEC-150 Secure Communications 2 2 0 3

Requisites: Take NET-126(S24383); Take previously. Required.

This course provides an overview of current technologies used to provide secure transport of information across networks. Topics include data integrity through encryption, Virtual Private Networks, SSL, SSH, and IPSec. Upon completion, students should be able to implement secure data transmission technologies.

SEC-160 Security Administration I 2 2 0 3

Requisites: Take 1 group; Option: Take SEC-110(S23204) NET-110(S21056); Option: Take SEC-110(S23204) NET-125(S24501); Take previously. Required.

This course provides an overview of security administration and fundamentals of designing security architectures. Topics include networking technologies, TCP/IP concepts, protocols, network traffic analysis, monitoring, and security best practices. Upon completion, students should be able to identify normal network traffic using network analysis tools and design basic security defenses.

SEC-193A Selected Topics in Security Concepts 1 4 0 3

Requisites:

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

SEC-210 Intrusion Detection 2 2 0 3

Requisites: Take SEC-160(S24399); Take previously. Required.

This course introduces the student to intrusion detection methods in use today. Topics include the types of intrusion detection products, traffic analysis, and planning and placement of intrusion detection solutions. Upon completion, students should be able to plan and implement intrusion detection solution for networks and host-based systems.

SIMULATION AND GAME DEVELOPMENT (SGD Prefix)

SGD-111 Introduction to Simulation and Game Development 2 3 0 3
Requisites:
This course provides students with an introduction to simulation and game development. Topics include setting, storytelling, narrative, character design, interface design, game play, internal economy, core mechanics, game genres, AI, the psychology of game design and professionalism. Upon completion, students should be able to demonstrate knowledge of the major aspects of simulation and game design and development.

SGD-112 Simulation and Game Development Design 2 3 0 3
Requisites: Take DRE-098(S23643) DMA-050(S23171); Take previously. Required.Take SGD-113; Take concurrently. Required.
This course introduces the fundamentals of simulation and game design. Topics include industry standards and design elements for simulation and games. Upon completion, students should be able to design simple simulations and/or games.

SGD-114 3D Modeling 2 3 0 3
Requisites: Take SGD-116; Take previously. Required.
This course introduces the tools required to create three-dimensional (3D) models. Emphasis is placed on exploring tools used to create 3D models. Upon completion, students should be able to create and animate 3D models using 3D modeling tools.

SGD-115 Physically-Based Modeling 2 2 0 3
Requisites: Take MAT-121(S23927) or MAT-171(S23934); Take previously. Required.
This course introduces fundamental physical concepts as applied to the simulation and game design fields. Topics include hands-on programming of vectors, matrices, graphical analyses, forces, laws of motion, work, energy, momentum, properties of matter, and problem-solving methods. Upon completion, students should be able to demonstrate an understanding of the principles studied as applied to the simulation and game design fields.

SGD-116 Graphic Design Tools 2 2 0 3
Requisites: Take DRE-098(S23643) DMA-050(S23171); Take previously. Required.
This course introduces students to computer-based graphic design tools and their use within the context of simulation and game design. Topics include texture creation, map creation, and introduction to advanced level graphic design techniques. Upon completion, students should be able to competently use and explain industry-standard graphic design software.

SGD-117 Art for Games 2 3 0 3
Requisites: Take DRE-098(S23643) DMA-050(S23171); Take previously. Required.
This course introduces students to the basic principles of art and how they apply to simulations and games. Emphasis is placed on learning to develop industry quality concept art for characters and other assets, as well as techniques needed to create such art. Upon completion, students should be able to create their own industry standard concept art for use in SGD projects.

SGD-122 Simulation and Game Database Programming 2 3 0 3
Requisites:
This course covers the creation and application of databases for simulation and game development. Emphasis is placed on various database and software development kits. Upon completion, students should be able to apply their knowledge of databases to the creation of simulations and games.

SGD-125 Simulation and Game Artificial Intelligence 2 3 0 3
Requisites: Take SGD-113 CSC-134(S21066) or CSC-151; Take previously. Required.
This course introduces the artificial intelligence concepts related to simulation and game development. Emphasis is placed on expert systems. Upon completion, students should be able to describe the basic concepts and procedures

related to the development of artificial intelligence systems used in simulation and games.

SGD-135 Serious Games 3 0 0 3
Requisites: Take SGD-111(S21240) SGD-112 SGD-116 ENG-111(S24022); Take previously. Required.
This course provides students with an overview of serious games and their applications in immersive learning and education. Emphasis is placed on developing games for education, corporate training, and medical/military simulations. Upon completion, students should be able to design their own serious games.

SGD-158 SGD Business Management 3 0 0 3
Requisites: Take ENG-111(S13673) SGD-111(S21240) SGD-112; Take previously. Required.
This course introduces the business side of the interactive game industry. Emphasis will be placed on licenses, serious games, psychological profiling, publisher/developer relations, and contract negotiation skills. Upon completion, students should be able to understand how a game evolves from concept to the customer.

SGD-159 SGD Production Management 3 0 0 3
Requisites: Take SGD-111(S21240); Take previously. Required.
This course introduces the techniques and methods used in interactive game production and how to manage a project. Emphasis is placed on scheduling, production plans, marketing and budgeting. Upon completion, students should be able to manage a team, track production, and understand the process of project management.

SGD-161 Simulation and Game Animation 2 3 0 3
Requisites: Take SGD-116; Take previously. Required.
This course introduces the fundamental principles of animation used in simulation and game development. Emphasis is placed on historical survey of animation, aspects of the animation process and animation techniques. Upon completion, students should be able to produce character sketches, morph simple objects, create walk and run cycles and develop professional storyboards.

SGD-162 Simulation and Game 3-D Animation 2 3 0 3
Requisites: Take SGD-114; Take previously. Required.
This course introduces the fundamental principles of 3D animation used in simulation and game development. Emphasis is placed on a historical survey of 3D animation, aspects of the 3D animation techniques. Upon completion, students should be able to produce 3D character sketches, morph simple objects, create walk and run cycles and develop professional storyboards.

SGD-163 Simulation and Game Documentation 2 3 0 3
Requisites: Take ENG-111(S13673) SGD-111(S21240); Take previously. Required.
This course introduces the techniques and methods used to create simulation and game production and design documents. Emphasis is placed on the design document to include scheduling, production plans, marketing and budgeting. Upon completion, students should be able to create design and produce documents for any simulation or game.

SGD-165 Simulation and Game Character Development 2 3 0 3
Requisites: Take SGD-162; Take previously. Required.
This course introduces the concepts needed to create fictional personality for use in digital videos, animations, simulations and games. Topics include aspects of character, developing backgrounds, mannerisms and voice. Upon completion, students should be able to develop characters and backgrounds for simulations and games.

SGD-166 Simulation and Game Physiology and Kinesiology 3 0 0 3
Requisites:
This course introduces the principles of simulation and game development. Topics include analysis of the human form and other living organisms. Upon completion, students should be able to demonstrate an understanding of the physiology and kinesiology concepts related to simulation and game development.

SGD-167 Simulation and Game Ethics 3 0 0 3
Requisites: Take ENG-111(S13673) SGD-111(S21240); Take previously. Required.
This course introduces principles of philosophy and ethics as they relate to simulation and game development. Topics include moral philosophy and ethics. Upon completion, students should be able to discuss philosophical and ethical issues related to simulation and game development.

SGD-168 Mobile Simulation and Game Programming I 2 3 0 3
Requisites: Take SGD-113 CIS-115(S24352) CSC-134(S21066) or CSC-151; Take previously. Required.
This course introduces the mobile simulation and game programming process. Topics include mobile simulation/game programming, performance tuning, animation, sound effects, music, and mobile networks. Upon completion, students should be able to apply simulation/game programming concepts to the creation of mobile simulations and games.

SGD-171 Flash Simulation and Game Programming 2 3 0 3
Requisites: Take SGD-111(S21240) or SGD-116; Take previously. Required.
This course introduces the Flash programming environment for use in simulation and game development. Topics include timeline effects, extensibility layers, alias text, globalization tools, ActionScript and lingo programming. Upon completion, students should be able to create a simple simulation or game using Flash.

SGD-172 Virtual Simulation and Game Environments 2 3 0 3
Requisites: Take SGD-116 SGD-114; Take previously. Required.
This course covers the use of virtual reality tools and techniques in simulation and game development. Emphasis is placed on acquiring the skills necessary to create scalable virtual characters and environments for use in simulations and games. Upon completion, students should be able to create a simple game or simulation in a virtual environment.

SGD-180 Simulation & Game Devel Hypertext Markup Language Programming I 2 3 0 3
Requisites: Take SGD-113 CIS-115(S24352) CSC-134(S21066) or CSC-151; Take previously. Required.
This course provides an introduction to using HTML based technologies as it relates to simulation and game development presented in a browser context. Emphasis is placed on creating webpages that use HTML, CSS and Javascript to create game content that is usable in a variety of platforms. Upon completion, students should be able to design and create an HTML based games or simulations.

SGD-212 Simulation and Game Development Design II 2 3 0 3
Requisites: Take SGD-112; Take previously. Required.Take SGD-112; Minimum grade C; Take previously. Required.Take SGD-116; Take previously. Required.
This course covers the advanced principles of simulation and game design. Topics include advanced design concepts in simulation and game development. Upon completion, students should be able to design an advanced simulation or game.

SGD-213 Simulation Game Development Programming II 2 3 0 3
Requisites: Take SGD-113 CSC-134(S21066) CSC-151 or CSC-153; Take previously. Required.
This course covers advanced programming concepts used to create simulations and games. Emphasis is placed on acquiring advanced programming skills for use in creating simulations and games. Upon completion, students should be able to program an advanced simulation or game.

SGD-214 3D Modeling II 2 3 0 3
Requisites: Take SGD-114; Take previously. Required.
This course introduces the tools used to create and animate advanced 3 dimensional models. Emphasis is placed on identifying and utilizing the tools required to create and animate advanced 3D models. Upon completion, students should be able to create and animate advanced 3D models using 3D modeling tools.

SGD-237 Rigging 3D Models 2 3 0 3

Requisites: Take SGD-114; Take previously. Required.Take SGD-162; Take either previously or concurrently. Required.

This course covers the fundamentals of rigging 3D models for animation. Emphasis is placed on learning how to properly weight a model, rig it with a skeleton, and create fluid movement. Upon completion, students should be able to demonstrate the ability to properly rig 3D models.

SGD-244 3D Modeling III 2 3 0 3

Requisites: Take SGD-214; Take previously. Required.

This course is designed to further a student's knowledge in creating visually compelling 3D models through the use of industry-standard software. Emphasis is placed on learning how to develop accurate textures and normal maps. Upon completion, students should be able to develop industry caliber 3D models.

SGD-271 Advanced Flash Programming 2 3 0 3

Requisites: Take SGD-171; Take previously. Required.

This course is designed to expand students' previous knowledge of the Flash programming environment. Emphasis is placed on learning advanced Flash techniques for use in the simulation and game industry. Upon completion, students should be able to create industry-quality simulations or games using Flash.

SGD-274 Simulation and Game Level Design II 2 3 0 3

Requisites: Take SGD-174; Take previously. Required.

This course introduces the advanced tools used to create levels for real-time simulations and games. Topics include advanced level guide and architecture theory, concepts related to "critical path" and "flow," game balancing, playtesting and storytelling. Upon completion, students should be able to design complex levels using industry standard tools.

SGD-280 Simulation & Game Devel Hypertext Markup Language Programming II 2 3 0 3

Requisites: Take SGD-180; Take previously. Required.

This course is designed to expand knowledge of HTML based technologies as it relates to simulation and game development. Emphasis is placed on creating advanced webpages that use HTML, CSS and Javascript to create game content that is usable in a variety of platforms. Upon completion, students should be able to design and create an advanced industry standard quality HTML based games or simulations.

SGD-285 Simulation and Game Software Engineering 2 3 0 3

Requisites: Take SGD-212 SGD-213(S21266) or SGD-214; Take previously. Required.Take 1 group; Option: Take SGD-212 SGD-213(S23019); Option: Take SGD-214 SGD-213(S23019); Take previously. Required.

This course introduces object oriented software engineering concepts related to simulation and game development. Topics include systematic approaches to the development, operation and maintenance of simulations and games. Upon completion, students should be able to apply software engineering techniques to the development of simulations and games.

SGD-288 Simulation and Game Development Portfolio Design 1 2 0 2

Requisites: Take SGD-289(S22278); Take either previously or concurrently. Required.

This course covers the organization and presentation of a simulation and game design portfolio and appropriate related materials. Emphasis is placed on development and evaluation of the portfolio, design and production of a resume and self-promotional materials, and interview techniques. Upon completion, students should be able to prepare and professionally present an effective portfolio and related self-promotional materials.

SGD-289 Simulation and Game Development Project 2 3 0 3

Requisites: Take SGD-212 SGD-213(S21266) SGD-214 or SGD-285(S22374); Take previously. Required.Take 1 group; Option: Take SGD-212 SGD-163 SGD-164 SGD-134 SGD-165; Option: Take SGD-212 SGD-163 SGD-164 SGD-134 SGD-285(S22374); Take previously. Required.

This course provides students with the opportunity to create a functional simulation or game with minimal instructor support. Emphasis is placed upon verbal and written communication, skill documentation, professional presentation

and user training. Upon completion, students should be able to create and professionally present a fully functional simulation or game.

SIMULATION (SIM Prefix)

SIM-120 Simulation Technology Maintenance 2 4 0 4

Requisites:

This course covers the functionality of simulation equipment while focusing on equipment management and error prevention. Topics include general and preventative maintenance of low, mid, and high-fidelity simulators and task trainers, troubleshooting healthcare simulators and task trainers, internet technology services basics, and simulation support equipment maintenance and troubleshooting. Upon completion, students should be able to create preventive maintenance plans for simulation equipment and task trainers, troubleshoot common mechanical problems, apply internet technology basics, formulate purchase requests for education/industry procurement, develop purchase request for equipment and supply orders, and organize instructional supplies and equipment used in healthcare simulation.

SIM-130 Simulation Pharmacology 2 4 0 4

Requisites:

This course is designed to provide students opportunities to apply pharmacology principles in the simulated patient environment and to record the effects of medication administration. Topics include the introduction to pharmacology basics, medication preparation and administration in simulation, identifying and utilizing routes of administration, protocol and formulary development, and understanding common disease and traumatic physiology. Upon completion, students should be able to apply pharmacology basics in healthcare simulation, identify discipline specific medications, protocols, and standard of care, design and manage medication kits and dispensary systems, calculate common medication dosages and flow-rates, and summarize medical and traumatic scenarios used in healthcare simulation.

SIM-140 Medical Equipment in Simulation 2 2 0 3

Requisites:

This course is designed to help students understand the human body systems in relationship to medical equipment utilized in healthcare as it applies to the healthcare simulation environment. Topics include incorporating diagnostic and treatment equipment used in healthcare simulation which includes: advanced airway tools, cardiovascular monitoring devices, vascular access devices, gastrointestinal devices, urinary evacuation devices and prioritizes maintenance activities for these devices. Upon completion, students should be able to demonstrate proficiency in the utilization of monitoring and treatment devices used in healthcare simulation, explain how these devices are utilized in healthcare, support maintenance activities, and evaluate educational technology tools used to support healthcare simulation.

SIM-150 Healthcare Simulation Lab I 0 6 0 2

Requisites: Take SIM-110; Take previously. Required.

This course provides practical application of skills taught in previous simulation courses as it applies to the healthcare simulation environment. Topics include operating a simulation lab while working with healthcare educators from different disciplines, performing as a Healthcare Simulation Technologist under faculty directed supervision, and assisting in the maintenance of equipment in the simulation laboratory environment. Upon completion, students should be able to design and implement basic healthcare simulations, troubleshoot common problems with simulators, operate low, mid, and high-fidelity simulators and task trainers, maintain and clean simulation equipment following scenarios, and participate in session debriefings.

SIM-160 Simulation Program Fundamentals 2 4 0 4

Requisites:

This course covers the basic concepts of simulation hardware and software applications and its impact in the simulation environment. Topics include scenario development and execution using simulation software, developing simulation trends that represent human physiology, operating simulations in an "on-the-fly" mode, and participation in evaluation and debriefing sessions. Upon completion, students should be able to design basic scenarios using

healthcare simulator software, write scenarios to meet specific stakeholder criteria for evaluation, compose simulation trends using human physiological criteria, produce an "on-the-fly" scenario for a basic life support scenario, and understand simulation evaluation and debriefing strategies.

SIM-210 Environmental Designs in Simulation 2 4 0 4

Requisites:

This course covers the principles of instructional design and high-fidelity simulation standards to develop, pilot, revise, and implement new simulation scenarios. Topics include scenario development, simulator programming and operation, scenario evaluation, scene staging, patient moulage, and basic organization and utilization of standardized patients. Upon completion, students should be able to design high-fidelity scenarios for advanced providers, write programming code for high-fidelity simulators, independently operate high-fidelity simulators, participate in faculty led evaluation of student performance during debriefing sessions, stage the simulation lab, apply basic moulage and develop standardized patient protocols and policies.

SIM-230 Advanced Life Support Scenario Development 3 4 0 5

Requisites:

This course covers the management and development of case-based advanced life support scenarios and focuses on the delivery of instruction to advanced providers. Topics include the delivery of advanced life support scenarios, coordinating emergency response teams during simulations, scenario development for the advanced life support provider, and intra-disciplinary coordination of team dynamics. Upon completion, students should be able to design advanced life support scenarios for the advanced provider, support American Heart Association standards of Advanced Cardiac Life Support through scenario implementation, develop evaluation tools to assist faculty during debriefing session, and coordinate intra-disciplinary medical teams during advanced life support scenarios.

SIM-240 Pediatrics, Obstetrical, and Special Simulations 3 4 0 5

Requisites:

This course covers the design and implementation of case-based simulation scenarios using pediatrics, obstetrical, and other specialty simulators. Topics include pediatric advanced life support scenarios, obstetrical and gynecological emergencies, and other specialty simulators. Upon completion, students should be able to integrate pediatric advanced life support scenarios in simulation, design OB/GYN scenarios for the advanced providers, setup and operate specialty mannequins and simulators, and design simulation environments to support these scenarios.

SIM-250 Management Systems for Simulation 2 4 0 4

Requisites:

This course covers the management of electronic course records, operating learning management systems, online simulation support materials, and student documentation. Topics include the utilization of a variety of learning management systems available for healthcare simulations, integration of online support materials and student documentation protocols, and the management of cloud-based video portfolios for educators. Upon completion, students should be able to operate learning management systems, design and implement advanced simulations, creates student portfolios within learning management systems, manage cloud-based portfolios, develops student documentation protocols, and integrates online support materials.

SIM-260 Healthcare Simulation Lab III 0 6 0 2

Requisites: Take SIM-210 SIM-220 SIM-250; Take previously. Required.

This course provides the practical application of skills taught in previous simulation courses as it applies to the healthcare simulation environment. Topics include operating a simulation lab while working with healthcare educators from different disciplines, performing as a Healthcare Simulation Technologist under faculty directed supervision, and assisting in the maintenance of equipment in the simulation laboratory environment. Upon completion, students should be able to manage a simulation laboratory as a Healthcare Simulation Technologist, design and implement advanced simulations using existing simulation technologies and standardized patient populations, troubleshooting simulation equipment, and leads peer review and debriefing sessions.

SIM-270 **Simulation Capstone** 2 4 0 4

Requisites: Take SIM-260; Take previously. Required.

This course provides an opportunity to demonstrate problem-solving skills as a Healthcare Simulation Technologist. Emphasis is placed on critical thinking, integration of didactic and psychomotor skills, and affective performance in simulation. Topics include, "Putting it All Together" simulation in the community, discipline specific scenario development, simulation systems administration, advanced AV systems, and advanced simulation moulage and scene staging. Upon completion, students should be able to create healthcare scenarios that reflect common patient presentations, compose and deliver advanced life support scenarios, produce debriefing videos, participates in faculty led simulation evaluations, and demonstrates ability to troubleshoot simulator errors.

SOCIOLOGY (SOC Prefix)

SOC-210 **Introduction to Sociology** 3 0 0 3

Requisites: Take 1 group; Option: Take RED-090 ENG-090; Option: Take ENG-111(S13673); Option: Take DRE-098(S23643); Take previously. Required.

This course introduces the scientific study of human society, culture, and social interactions. Topics include socialization, research methods, diversity and inequality, cooperation and conflict, social change, social institutions, and organizations. Upon completion, students should be able to demonstrate knowledge of sociological concepts as they apply to the interplay among individuals, groups, and societies.

SOC-220 **Social Problems** 3 0 0 3

Requisites: Take 1 group; Option: Take RED-090 ENG-090; Option: Take ENG-111(S13673); Option: Take DRE-098(S23643); Take previously. Required.

This course provides an in-depth study of current social problems. Emphasis is placed on causes, consequences, and possible solutions to problems associated with families, schools, workplaces, communities, and the environment. Upon completion, students should be able to recognize, define, analyze, and propose solutions to these problems.

SOC-225 **Social Diversity** 3 0 0 3

Requisites: Take 1 group; Option: Take RED-090 ENG-090; Option: Take ENG-111(S13673); Option: Take DRE-098(S23643); Take previously. Required.

This course provides a comparison of diverse roles, interests, opportunities, contributions, and experiences in social life. Topics include race, ethnicity, gender, sexual orientation, class, and religion. Upon completion, students should be able to analyze how cultural and ethnic differences evolve and how they affect personality development, values, and tolerance.

SOC-230 **Race and Ethnic Relations** 3 0 0 3

Requisites: Take 1 group; Option: Take RED-090 ENG-090; Option: Take ENG-111(S13673); Option: Take DRE-098(S23643); Take previously. Required.

This course includes an examination of the various aspects of race and ethnicity and how these lead to different experiences, opportunities, problems, and contributions. Topics include prejudice, discrimination, perceptions, myths, stereotypes, and intergroup relationships. Upon completion, students should be able to identify and analyze relationships among racial and ethnic groups within the larger society.

SOC-242 **Sociology of Deviance** 3 0 0 3

Requisites: Take 1 group; Option: Take RED-090 ENG-090; Option: Take ENG-111(S24022); Option: Take DRE-098(S23643); Take previously. Required.

This course provides an overview of deviant behavior and the processes involved in its definition, causation, prevention, control, and treatment. Topics include theories of causation, social control, delinquency, victimization, criminality, the criminal justice system, punishment, rehabilitation, and restitution. Upon completion, students should be able to identify and analyze issues surrounding the nature and development of social responses to deviance.

SPANISH (SPA Prefix)

SPA-111 Elementary Spanish I 3 0 0 3

Requisites: Take 1 group; Option: Take ENG-090 RED-090; Option: Take DRE-098(S23643); Take previously. Required.Take SPA-181; Take either previously or concurrently. Required.

This course introduces the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Spanish and demonstrate cultural awareness.

SPA-112 Elementary Spanish II 3 0 0 3

Requisites: Take SPA-111; Take previously. Required.Take SPA-111; Minimum grade C; Take previously. Required.Take SPA-182(S13968); Take either previously or concurrently. Required.

This course is a continuation of SPA 111 focusing on the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Spanish and demonstrate further cultural awareness.

SPA-181 Spanish Lab 1 0 2 0 1

Requisites: Take 1 group; Option: Take ENG-090 RED-090; Option: Take DRE-098(S23643); Take previously. Required.Take SPA-111; Take either previously or concurrently. Required.

This course provides an opportunity to enhance acquisition of the fundamental elements of the Spanish language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of various supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Spanish and demonstrate cultural awareness.

SPA-182 Spanish Lab 2 0 2 0 1

Requisites: Take SPA-111; Take previously. Required.

This course provides an opportunity to enhance acquisition of the fundamental elements of the Spanish language. Emphasis is placed on the progressive development of basic listening, speaking, reading, and writing skills through the use of various supplementary learning media and materials. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Spanish and demonstrate cultural awareness.

SPA-211 Intermediate Spanish I 3 0 0 3

Requisites: Take SPA-112; Take previously. Required.Take SPA-112; Minimum grade C; Take previously. Required.Take SPA-281; Take either previously or concurrently. Required.

This course provides a review and expansion of the essential skills of the Spanish language. Emphasis is placed on the study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future.

SPA-212 Intermediate Spanish II 3 0 0 3

Requisites: Take SPA-211; Take previously. Required.Take SPA-282; Take either previously or concurrently. Required.

This course provides a continuation of SPA 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication.

SPA-281 Spanish Lab 3 0 2 0 1

Requisites: Take SPA-182(S13968); Take previously. Required.Take SPA-182(S13968); Minimum grade C; Take previously. Required.Take SPA-211; Take either previously or concurrently. Required.

This course provides an opportunity to enhance the review and expansion of the essential skills of the Spanish language. Emphasis is placed on the study of authentic and representative literary and cultural texts through the use

of various supplementary learning media and materials. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future.

SPA-282 Spanish Lab 4 0 2 0 1
Requisites: Take SPA-281; Take previously. Required.Take SPA-212; Take either previously or concurrently. Required.
This course provides an opportunity to enhance the review and expansion of the essential skills of the Spanish language. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts through the use of various supplementary learning media and materials. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication.

SURVEYING (SRV Prefix)

SRV-110 Surveying I 2 6 0 4
Requisites: Take 1 group; Option: Take MAT-121(S24993); Option: Take MAT-171(S24997); Option: Take DMA-060(S24985) DMA-070(S24987) DMA-080(S24988); Option: Take DMA-065(S24986); Take either previously or concurrently. Required.
This course introduces the theory and practice of plane surveying. Topics include the precise measurement of distances, angles, and elevations; bearing, azimuth and traverse computations; topography and mapping. Upon completion, students should be able to use/care for surveying equipment, collect field survey data, perform traverse computations and create a contour map.

SRV-111 Surveying II 2 6 0 4
Requisites: Take SRV-110(S12339); Take previously. Required.Take SRV-110(S23990); Take previously. Required.
This course introduces route surveying and roadway planning and layout. Topics include simple, compound, reverse, spiral, and vertical curves; geometric design and layout; planning of cross-section and grade line; drainage; earthwork calculations; and mass diagrams. Upon completion, students should be able to calculate and lay out highway curves; prepare roadway plans, profiles, and sections; and perform slope staking.

SRV-210 Surveying III 2 6 0 4
Requisites: Take SRV-110(S12339); Take previously. Required.Take CIV-125(S21521) SRV-110(S22362); Take previously. Required.
This course introduces boundary surveying, land partitioning, and calculations of areas. Topics include advanced traverses and adjustments, preparation of survey documents, and other related topics. Upon completion, students should be able to research, survey, and map a boundary.

SRV-220 Surveying Law 2 2 0 3
Requisites: Take SRV-110(S12339); Take previously. Required.
This course introduces the law as related to the practice of surveying. Topics include surveyors' responsibilities, deed descriptions, title searches, eminent domain, easements, weight of evidence, riparian rights, and other related topics. Upon completion, students should be able to identify and apply the basic legal aspects associated with the practice of land surveying.

SRV-240 Topo/Site Surveying 2 6 0 4
Requisites: Take SRV-110(S12339); Take previously. Required.Take CIV-125(S21521) SRV-110(S22362); Take previously. Required.
This course covers topographic, site, and construction surveying. Topics include topographic mapping, earthwork, site planning, construction staking, and other related topics. Upon completion, students should be able to prepare topographic maps and site plans and locate and stake out construction projects.

SRV-250 Advanced Surveying 2 6 0 4

Requisites: Take SRV-111; Take previously. Required.Take SRV-111 CIV-125(S21521); Take previously. Required.

This course covers advanced topics in surveying. Topics include photogrammetry, astronomical observations, coordinate systems, error theory, GPS, GIS, Public Land System, and other related topics. Upon completion, students should be able to apply advanced techniques to the solution of complex surveying problems.

SUSTAINABILITY TECHNOLOGY (SST Prefix)

SST-110 Introduction to Sustainability 3 0 0 3

Requisites:

This course introduces sustainability issues and individual contributions toward environmental sustainability. Topics include management processes needed to maximize renewable/non-renewable energy resources, economics of sustainability, and reduction of environmental impacts. Upon completion, students should be able to discuss sustainability practices and demonstrate an understanding of their effectiveness and impacts.

SST-140 Green Building and Design Concepts 3 0 0 3

Requisites:

This course is designed to introduce the student to sustainable building design and construction principles and practices. Topics include sustainable building rating systems and certifications, energy efficiency, indoor environmental quality, sustainable building materials and water use. Upon completion, students should be able to identify the principles and practices of sustainable building design and construction.

SURGICAL TECHNOLOGY (SUR Prefix)

SUR-110 Intro to Surgical Technology 3 0 0 3

Requisites: Take SUR-111(S14251); Take either previously or concurrently. Required.

This course provides a comprehensive study of peri-operative care, patient care concepts, and professional practice concepts within the profession of surgical technology. Topics include: introductory concepts, organizational structure and relationships, legal, ethical and moral issues, medical terminology, pharmacology, anesthesia, wound healing management concepts, and the technological sciences. Upon completion, students should be able to apply theoretical knowledge of the course topics to the practice of surgical technology.

SUR-111 Periop Patient Care 5 6 0 7

Requisites: Take SUR-110(S16542); Take either previously or concurrently. Required.

This course provides the surgical technology student the theoretical knowledge required to function in the pre-operative, intra-operative, and post-operative role. Topics include asepsis, disinfection and sterilization, physical environment, instrumentation, equipment, peri-operative patient care, and peri-operative case management. Upon completion, students should be able to apply the principles and practice of the peri-operative team member to the operative environment.

SUR-122 Surgical Procedures I 5 3 0 6

Requisites: Take SUR-110(S21499) SUR-111(S14251); Take previously. Required.Take SUR-123; Take either previously or concurrently. Required.

This course provides an introduction to selected basic and intermediate surgical specialties that students are exposed to the first clinical rotation. Emphasis is placed on related surgical anatomy, pathology, and procedures that enhance theoretical knowledge of patient care, instrumentation, supplies, and equipment. Upon completion, students should be able to correlate, integrate, and apply theoretical knowledge of the course topics to the clinical operative environment.

SUR-123 Sur Clinical Practice I 0 0 21 7

Requisites: Take SUR-110(S23183) SUR-111(S23184); Take previously. Required.Take SUR-122(S24471); Take either previously or concurrently. Required.Take SUR-122(S10714) SUR-122(S16544); Take either previously or concurrently. Recommended.

This course provides clinical experience with a variety of perioperative assignments to build upon skills learned in SUR 111. Emphasis is placed on the scrub and circulating roles of the surgical technologist including aseptic technique and basic case preparation for selected surgical procedures. Upon completion, students should be able to prepare, assist with, and dismantle basic surgical cases in both the scrub and circulating roles.

SUR-135 SUR Clinical Practice II 0 0 12 4

Requisites: Take SUR-123; Take previously. Required.Take SUR-134(S24472); Take either previously or concurrently. Required.

This course provides clinical experience with a variety of perioperative assignments to build skills required for complex perioperative patient care. Emphasis is placed on greater technical skills, critical thinking, speed, efficiency, and autonomy in the operative setting. Upon completion, students should be able to function in the role of an entry-level surgical technologist.

SUR-137 Professional Success Preparation 1 0 0 1

Requisites:

This course provides employability skills and an overview of theoretical knowledge in preparation for certification. Topics include test-taking strategies, resume preparation, interviewing strategies, communication skills, and teamwork concepts. Upon completion, students should be able to prepare a resume, demonstrate appropriate interview techniques, and identify strengths and weaknesses in preparation for certification.

SUR-210 Advanced Sur Clinical Practice 0 0 6 2

Requisites:

This course is designed to provide individualized experience in advanced practice, education, circulating, and managerial skills. Emphasis is placed on developing and demonstrating proficiency in skills necessary for advanced practice. Upon completion, students should be able to assume leadership roles in a chosen specialty area.

SUR-211 Advanced Theoretical Concepts 2 0 0 2

Requisites:

This course covers theoretical knowledge required for extension of the surgical technologist role. Emphasis is placed on advanced practice in complex surgical specialties, educational methodologies, and managerial skills. Upon completion, students should be able to assume leadership roles in a chosen specialty area.

SOCIAL WORK (SWK Prefix)

SWK-110 Intro to Social Work 3 0 0 3

Requisites:

This course examines the historical development, values, orientation, and professional standards of social work and focuses on the terminology and broader systems of social welfare. Emphasis is placed on the various fields of practice including those agencies whose primary function is financial assistance, corrections, mental health, and protective services. Upon completion, students should be able to demonstrate an understanding of the knowledge, values, and skills of the social work professional.

SWK-113 Working With Diversity 3 0 0 3

Requisites:

This course examines and promotes understanding, sensitivity, awareness, and knowledge of human diversity. Emphasis is placed on professional responsibilities, duties, and skills critical to multicultural human services practice. Upon completion, students should be able to integrate and expand knowledge, skills, and cultural awareness relevant to diverse populations.

TRANSPORTATION TECHNOLOGY (TRN Prefix)

TRN-110 Introduction to Transport Technology 1 2 0 2
Requisites:
This course covers workplace safety, hazardous materials, environmental regulations, hand tools, service information, basic concepts, vehicle systems, and common transportation industry terminology. Topics include familiarization with major vehicle systems, proper use of various hand and power tools, material safety data sheets, and personal protective equipment. Upon completion, students should be able to demonstrate appropriate safety procedures, identify and use basic shop tools, and describe government regulations regarding transportation repair facilities.

TRN-120 Basic Transportation Electricity 4 3 0 5
Requisites:
This course covers basic electrical theory, wiring diagrams, test equipment, and diagnosis, repair and replacement of batteries, starters, and alternators. Topics include Ohm's Law, circuit construction, wiring diagrams, circuit testing, and basic troubleshooting. Upon completion, students should be able to properly use wiring diagrams, diagnose, test, and repair basic wiring, battery, starting, charging, and electrical concerns.

TRN-120A Basic Transportation Electrical Lab 0 3 0 1
Requisites: Take TRN-120; Take either previously or concurrently. Recommended.
This course provides a lab that allows students to enhance their understanding of electrical components and circuits used in the transportation industry. Topics include inspection, diagnosis, and repair of electrical components and circuits using appropriate service information for specific transportation systems. Upon completion, students should be able to diagnose and service electrical components and circuits used in transportation systems.

TRN-130 Intro to Sustainable Transportation 2 2 0 3
Requisites:
This course provides an overview of alternative fuels and alternative fuel vehicles. Topics include composition and use of alternative fuels including compressed natural gas, biodiesel, ethanol, hydrogen, and synthetic fuels, hybrid/electric, and vehicles using alternative fuels. Upon completion, students should be able to identify alternative fuel vehicles, explain how each alternative fuel delivery system operates, and perform minor repairs.

TRN-140 Transportation Climate Control 1 2 0 2
Requisites:
This course covers the theory of refrigeration and heating, electrical/electronic/pneumatic controls, and diagnosis and repair of climate control systems. Topics include diagnosis and repair of climate control components and systems, recovery/recycling of refrigerants, and safety and environmental regulations. Upon completion, students should be able to diagnose and repair vehicle climate control systems.

TRN-140A Transportation Climate Control Lab 1 2 0 2
Requisites: Take TRN-140; Take either previously or concurrently. Recommended.
This course provides experiences for enhancing student skills in the diagnosis and repair of transportation climate control systems. Emphasis is placed on reclaiming, recovery, recharging, leak detection, climate control components, diagnosis, air conditioning equipment, tools and safety. Upon completion, students should be able to describe the operation, diagnose, and safely service climate control systems using appropriate tools, equipment, and service information.

TRN-180 Basic Welding for Transportation 1 4 0 3
Requisites:
This course covers the terms and procedures for welding various metals used in the transportation industry with an emphasis on personal safety and environmental health. Topics include safety and precautionary measures, setup/operation of MIG equipment, metal identification methods, types of welds/joints, techniques, inspection methods, cutting processes and other related issues. Upon completion, students should be able to demonstrate a basic knowledge of welding operations and safety procedures according to industry standards.

TRN-180A **Basic Welding for Transportation Lab** 0 3 0 1
Requisites: Take TRN-180; Take either previously or concurrently. Recommended.
This course provides a laboratory experience for enhancing student skills in welding and cutting procedures associated with the transportation industry. Emphasis is placed on safety and precautionary measures, setup/operation of MIG equipment, metal identification, welds/joints, techniques, inspection of welds/joints, cutting processes and other related topics. Upon completion, students should be able to demonstrate a basic knowledge of welding operations and safety procedures according to industry standards.

WORK-BASED LEARNING (WBL Prefix)

WBL-111 **Work-Based Learning I** 0 0 0 1
Requisites:
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

WBL-112 **Work-Based Learning I** 0 0 0 2
Requisites:
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

WBL-113 **Work-Based Learning I** 0 0 0 3
Requisites:
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

WBL-115 **Work-Based Learning Seminar I** 1 0 0 1
Requisites: Take WBL-111 WBL-112 WBL-113 or WBL-114; Take either previously or concurrently. Required.
This course description may be written by the individual colleges.

WBL-122 **Work-Based Learning II** 0 0 0 2
Requisites:
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

WBL-123 **Work-Based Learning II** 0 0 0 3
Requisites:
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

WBL-131 **Work-Based Learning III** 0 0 0 1
Requisites:
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and

satisfactorily perform work-related competencies.

WBL-132 Work-Based Learning III 0 0 0 2
Requisites:
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

WBL-133 Work-Based Learning III 0 0 0 3
Requisites:
This course provides a work-based learning experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

WEB TECHNOLOGIES (WEB Prefix)

WEB-110 Internet/Web Fundamentals 2 2 0 3
Requisites: Take DRE-098(S23643) DMA-030 DMA-010 DMA-020; Take previously. Required.
This course introduces World Wide Web Consortium (W3C) standard markup language and services of the Internet. Topics include creating web pages, search engines, FTP, and other related topics. Upon completion, students should be able to deploy a hand-coded website created with mark-up language, and effectively use and understand the function of search engines. Topics include HTML, XHMTL.

WEB-115 Web Markup and Scripting 2 2 0 3
Requisites: Take WEB-110(S22058) or CTI-110(S22510); Take previously. Required.
This course introduces Worldwide Web Consortium (W3C) standard client-side Internet programming using industry-established practices. Topics include JavaScript, markup elements, stylesheets, validation, accessibility, standards, and browsers. Upon completion, students should be able to develop hand-coded web pages using current markup standards. Students will also be exposed to industry standard development tools and practices with these technologies.

WEB-125 Mobile Web Design 2 2 0 3
Requisites: Take WEB-140; Take previously. Required.
This course introduces students to web design for mobile devices. Topics include planning an effective mobile Web site, industry standard Mobile Markup Language, CSS3, multimedia, m-commerce, social media, testing and publishing. Upon completion, students should be able to plan, develop, test, and publish Web content designed for mobile devices.

WEB-140 Web Development Tools 2 2 0 3
Requisites: Take DRE-098(S23643) DMA-030 DMA-010 DMA-020; Take previously. Required.
This course provides an introduction to web development software suites. Topics include the creation of web sites and applets using web development software. Upon completion, students should be able to create entire web sites and supporting applets.

WEB-141 Mobile Interface Design 2 2 0 3
Requisites: Take DRE-098(S23643) DMA-030; Take previously. Required.
This course covers current design standards and emerging approaches related to the design and development of user interfaces for mobile devices. Emphasis is placed on research and evaluation of standard and emerging practices for effective interface and user experience design. Upon completion, students should be able to design effective and usable interfaces for mobile devices.

WEB-151 Mobile Application Development I 2 2 0 3

Requisites: Take CSC-151; Take previously. Required.

This course introduces students to programming technologies, design and development related to mobile applications. Topics include accessing device capabilities, industry standards, operating systems, and programming for mobile applications using an OS Software Development Kit (SDK). Upon completion, students should be able to create basic applications for mobile devices.

WEB-179 JAVA Web Programming 2 3 0 3

Requisites:

This course introduces the development of dynamic, database-driven web applications using the JAVA programming languages. Topics include Object Oriented Programming JAVA Server Pages, servlets, database interactions, and form handling. Upon completion, students should be able to create and modify JAVA-based internet applications.

WEB-182 PHP Programming 2 2 0 3

Requisites: Take CIS-115(S24352) WEB-110(S22058) or CTI-110(S22510); Take previously. Required.

This course introduces students to the server-side, HTML-embedded scripting language PHP. Emphasis is placed on programming techniques required to create dynamic web pages using PHP scripting language features. Upon completion, students should be able to design, code, test, debug, and create a dynamic web site using the PHP scripting language.

WEB-187 Programming for Mobile Devices 2 2 0 3

Requisites:

This course introduces content development for mobile electronic devices with a focus on business-related, social media, and entertainment applications. Emphasis is placed on developing web content and creating applications for mobile devices, including internet/business practices and techniques for delivery on mobile platforms. Upon completion, students should be able to develop web content and business or entertainment applications for use on mobile electronic devices.

WEB-210 Web Design 2 2 0 3

Requisites: Take WEB-140; Take previously. Required.

This course introduces intermediate to advanced web design techniques. Topics include customer expectations, advanced markup language, multimedia technologies, usability and accessibility practices, and techniques for the evaluation of web design. Upon completion, students should be able to employ advanced design techniques to create high impact and highly functional web sites. Students will develop a working knowledge of using CSS and employing within a website.

WEB-211 Advanced Web Graphics 2 2 0 3

Requisites: Take WEB-111(S22416); Take previously. Required.Take WEB-111(S22416); Take previously. Required.

This course covers the advanced concepts related to the creation and manipulation of graphic images for web delivery. Topics include graphics acquisition, use of masks and channels, advanced special effects, advanced photo manipulation, and other related topics. Upon completion, students should be able to create, manipulate, and optimize web graphics with advanced techniques and maintain an online coursework portfolio.

WEB-213 Internet Marketing and Analytics 2 2 0 3

Requisites: Take WEB-140; Take previously. Required.

This course introduces students to Search Engine Optimization (SEO), Search Engine Marketing (SEM) and web analytics. Topics include Search Engine Optimization (SEO), Pay Per Click advertising (PPC), Search Engine Marketing (SEM), web analytics, eye-tracking software and email marketing. Upon completion, students should be able to set up, monitor and maintain SEO optimized websites; and develop strategies for online marketing and advertizing plans.

WEB-214 Social Media 2 2 0 3

Requisites: Take ENG-111(S24022) DMA-010 DMA-020 DMA-030; Take previously. Required.

This course introduces students to social media for organizations. Topics include social media, marketing strategy, brand presence, blogging, social media analytics and technical writing. Upon completion, students should be able to utilize popular social media platforms as part of a marketing strategy, and work with social media analytics tools.

WEB-225 Content Management Systems 2 2 0 3

Requisites: Take WEB-182(S24403) DBA-110; Take previously. Required.

This course introduces students to Content Management Systems (CMS) designed for the publication of Web content to Web sites. Topics include individual user accounts, administration menus, RSS-feeds, customizable layout, flexible account privileges, logging, blogging systems, creating online forums, and modules. Upon completion, students should be able to register and maintain individual user accounts and create a business website and/or an interactive community website.

WEB-250 Database Driven Websites 2 2 0 3

Requisites: Take DBA-110 WEB-110(S22058) or CTI-110(S22510); Take previously. Required.

This course introduces dynamic (database-driven) website development. Topics include the use of basic database CRUD statements (create, read, update and delete) incorporated into web applications, as well as in software architecture principles. Upon completion, students should be able to design and develop database driven web applications according to industry standards.

WEB-251 Mobile Application Development II 2 2 0 3

Requisites: Take WEB-151; Take previously. Required.Take CIS-115(S24352); Take previously. Required.

This course covers advanced applications and custom programming to develop applications for mobile devices. Topics include device capabilities, OS specific Software Development Kits (SDK), scripting for functionality and designing interactivity. Upon completion, students should be able to demonstrate effective programming techniques to develop advanced mobile applications.

WEB-260 E-Commerce Infrastructure 2 2 0 3

Requisites: Take WEB-250(S24410) WEB-182(S24403); Take previously. Required.

This course introduces the concepts and tools to implement electronic commerce via the Internet. Topics include application and server software selection, securing transactions, use and verification of credit cards, publishing of catalogs, documentation, and site administration. Upon completion, students should be able to setup a working e-commerce Internet web site.

WEB-287 Web E-Portfolio 1 2 0 2

Requisites: Take WEB-210(S22061); Take previously. Required.

This course covers the creation and organization of a web-based e-portfolio that includes a resume, references, and comprehensive academic and work samples. Emphasis is placed on creating an e-portfolio with solid design and demonstrable content, the production of a resume and self-promotional materials, and interview techniques. Upon completion, students should be able to present their own domain with included professional e-portfolio elements of resume, sample work, and related self-promotional materials.

WEB-289 Internet Technologies Project 1 4 0 3

Requisites: Take CTI-110(S22510) CTI-120(S22511) CTS-115(S20996); Take previously. Required.

This course provides an opportunity to complete a significant Web technologies project from the design phase through implementation with minimal instructor support. Emphasis is placed on project definition, documentation, installation, testing, presentation, and training. Upon completion, students should be able to complete an Internet project from the definition phase through implementation.

WELDING (WLD Prefix)

WLD-112 Basic Welding Processes 1 3 0 2
Requisites:
This course introduces basic welding and cutting. Emphasis is placed on beads applied with gases, mild steel fillers, and electrodes and the capillary action of solder. Upon completion, students should be able to set up welding and oxy-fuel equipment and perform welding, brazing, and soldering processes.

WLD-115 SMAW (Stick) Plate 2 9 0 5
Requisites:
This course introduces the shielded metal arc (stick) welding process. Emphasis is placed on padding, fillet, and groove welds in various positions with SMAW electrodes. Upon completion, students should be able to perform SMAW fillet and groove welds on carbon plate with prescribed electrodes.

WLD-115AB SMAW (Stick) Plate 2 3 0 3
Requisites:
This course introduces the shielded metal arc (stick) welding process. Emphasis is placed on padding, fillet, and groove welds in various positions with SMAW electrodes. Upon completion, students should be able to perform SMAW fillet and groove welds on carbon plate with prescribed electrodes.

WLD-115BB SMAW (Stick) Plate 0 6 0 2
Requisites: Take WLD-115AB; Take either previously or concurrently. Required.
This course introduces the shielded metal arc (stick) welding process. Emphasis is placed on padding, fillet, and groove welds in various positions with SMAW electrodes. Upon completion, students should be able to perform SMAW fillet and groove welds on carbon plate with prescribed electrodes.

WLD-116 SMAW (stick) Plate/Pipe 1 9 0 4
Requisites: Take WLD-115(S10891); Take previously. Required.Take WLD-115(S23304); Take previously. Required.
This course is designed to enhance skills with the shielded metal arc (stick) welding process. Emphasis is placed on advancing manipulative skills with SMAW electrodes on varying joint geometry. Upon completion, students should be able to perform groove welds on carbon steel with prescribed electrodes in the flat, horizontal, vertical, and overhead positions.

WLD-121 GMAW (MIG) FCAW/Plate 2 6 0 4
Requisites:
This course introduces metal arc welding and flux core arc welding processes. Topics include equipment setup and fillet and groove welds with emphasis on application of GMAW and FCAW electrodes on carbon steel plate. Upon completion, students should be able to perform fillet welds on carbon steel with prescribed electrodes in the flat, horizontal, and overhead positions.

WLD-121BB GMAW (MIG) FCAW/Plate 0 6 0 2
Requisites: Take WLD-121AB; Take either previously or concurrently. Required.
This course introduces metal arc welding and flux core arc welding processes. Topics include equipment setup and fillet and groove welds with emphasis on application of GMAW and FCAW electrodes on carbon steel plate. Upon completion, students should be able to perform fillet welds on carbon steel with prescribed electrodes in the flat, horizontal, and overhead positions.

WLD-121C GMAW (MIG) FCAW/Plate 2 0 0 2
Requisites:
This course introduces metal arc welding and flux core arc welding processes. Topics include equipment setup and fillet and groove welds with emphasis on application of GMAW and FCAW electrodes on carbon steel plate. Upon completion, students should be able to perform fillet welds on carbon steel with prescribed electrodes in the flat, horizontal, and overhead positions.

WLD-121L GMAW (MIG) FCAW/Plate 0 6 0 2

Requisites: Take WLD-121C; Take either previously or concurrently. Required.

This course introduces metal arc welding and flux core arc welding processes. Topics include equipment setup and fillet and groove welds with emphasis on application of GMAW and FCAW electrodes on carbon steel plate. Upon completion, students should be able to perform fillet welds on carbon steel with prescribed electrodes in the flat, horizontal, and overhead positions.

WLD-122 GMAW (MIG) Plate/Pipe 1 6 0 3

Requisites: Take WLD-121(S13138); Take previously. Required.Take WLD-121(S13138) WLD-115(S10891); Take previously. Required.

This course is designed to enhance skills with the gas metal arc (MIG) welding process. Emphasis is placed on advancing skills with the GMAW process making groove welds on carbon steel plate and pipe in various positions. Upon completion, students should be able to perform groove welds with prescribed electrodes on various joint geometry.

WLD-131 GTAW (TIG) Plate 2 6 0 4

Requisites: Take WLD-115(S23304); Take previously. Required.

This course introduces the gas tungsten arc (TIG) welding process. Topics include correct selection of tungsten, polarity, gas, and proper filler rod with emphasis placed on safety, equipment setup, and welding techniques. Upon completion, students should be able to perform GTAW fillet and groove welds with various electrodes and filler materials.

WLD-132 GTAW (TIG) Plate/Pipe 1 6 0 3

Requisites: Take WLD-131(S10437); Take previously. Required.Take WLD-131(S10437) WLD-121(S13138); Take previously. Required.

This course is designed to enhance skills with the gas tungsten arc (TIG) welding process. Topics include setup, joint preparation, and electrode selection with emphasis on manipulative skills in all welding positions on plate and pipe. Upon completion, students should be able to perform GTAW welds with prescribed electrodes and filler materials on various joint geometry. Orbital welding fundamentals will be introduced during this course.

WLD-151 Fabrication I 2 6 0 4

Requisites: Take WLD-115(S10891) WLD-141(S11462) WLD-110(S10913); Take previously. Required.

This course introduces the basic principles of fabrication. Emphasis is placed on safety, measurement, layout techniques, cutting, joining techniques, and the use of fabrication tools and equipment. Upon completion, students should be able to perform layout activities and operate various fabrication and material handling equipment.

WLD-215 SMAW (stick) Pipe 1 9 0 4

Requisites: Take WLD-115(S10891) or WLD-116; Take previously. Required.

This course covers the knowledge and skills that apply to welding pipe. Topics include pipe positions, joint geometry, and preparation with emphasis placed on bead application, profile, and discontinuities. Upon completion, students should be able to perform SMAW welds to applicable codes on carbon steel pipe with prescribed electrodes in various positions.

WLD-231 GTAW (TIG) Pipe 1 6 0 3

Requisites: Take WLD-132; Take previously. Required.

This course covers gas tungsten arc welding on pipe. Topics include joint preparation and fit up with emphasis placed on safety, GTAW welding technique, bead application, and joint geometry. Upon completion, students should be able to perform GTAW welds to applicable codes on pipe with prescribed electrodes and filler materials in various pipe positions.

WLD-251 **Fabrication II** 1 6 0 3

Requisites: Take WLD-151(S11114); Take previously. Required.

This course covers advanced fabrication skills. Topics include advanced layout and assembly methods with emphasis on the safe and correct use of fabrication tools and equipment. Upon completion, students should be able to fabricate projects from working drawings.

WLD-261 **Certification Practices** 1 3 0 2

Requisites: Take WLD-115(S10891) WLD-121(S13138) WLD-131(S10437); Take previously. Required.

This course covers certification requirements for industrial welding processes. Topics include techniques and certification requirements for prequalified joint geometry. Upon completion, students should be able to perform welds on carbon steel plate and/or pipe according to applicable codes.

WLD-262 **Inspection & Testing** 2 2 0 3

Requisites: Take WLD-116; Take previously. Required.

This course introduces destructive and non-destructive testing methods. Emphasis is placed on safety, types and methods of testing, and the use of testing equipment and materials. Upon completion, students should be able to understand and/or perform a variety of destructive and non-destructive testing processes.

CAMPUS LOCATIONS AND CONTACT INFORMATION

CAMPUSES AND CENTERS

Courses are offered at Wake Technical Community College locations throughout Wake County.

All Wake Technical Community College policies (academic; student services; administrative) apply to all students, regardless of campus and center locations or mode of instructional delivery, unless expressly defined by the college.

SOUTHERN WAKE CAMPUS

9101 Fayetteville Road (401S)
Raleigh, North Carolina 27603
919-866-5000
http://maincampus.waketech.edu

The 138-acre Southern Wake Campus first opened its doors in 1963. It offers Associate in Arts, Associate in Science, and Associate in Engineering degrees for college transfer, as well as career programs in Applied Engineering and Technologies, Business and Public Services Technologies, and Computer Technologies. It is home to college administration, including the President's Office and the Wake Tech Foundation. It also offers a physical education building/gymnasium, and specialized training labs for culinary arts, cosmetology, automotive, heavy equipment, and skilled trades.

NORTHERN WAKE CAMPUS

6600 Louisburg Road (401N)
Raleigh, North Carolina 27616
919-532-5502
http://northerncampus.waketech.edu

The 127-acre Northern Wake Campus offers an extensive college transfer program, business and IT programs, and a variety of Workforce Continuing Education (non-credit) classes, many offered in the evening and on weekends. The campus is home to Wake Tech's Corporate and Business Solutions division, which provides customized training. Career programs in Baking & Pastry Arts, Electrical, HVAC, and Welding start in 2017. Northern Wake has the distinction of being the first college campus in the nation to have all buildings LEED (Leadership in Energy and Environmental Design) certified by the U.S. Green Building Council. The campus is also home to classes for students in the Wake Early College High School. Student services include admissions, counseling, and financial aid, and the campus has a library, chemistry and biology labs, a bookstore, and tennis and volleyball courts.

WESTERN WAKE CAMPUS

Millpond Village
3434 Kildaire Farm Road
Cary, North Carolina, 27518
919-335-1000
http://westerncampus.waketech.edu

The Western Wake Campus offers the Associate in Arts degree for college transfer. It is home to Wake Tech's Small Business Center and the Wake Tech/Wells Fargo Center for Entrepreneurship, which provide seminars, workshops, and other resources for entrepreneurs and small business owners. Workforce Continuing Education classes include computer skills, medical office assisting, BioWork, and English as a Second Language. Western Wake offers non-credit classes in human resources development, computer skills, art, horticulture, ESL, online GED preparation, and more. Support services include a library, computer lab, tutoring, and financial aid.

PERRY HEALTH SCIENCES CAMPUS

2901 Holston Lane (behind WakeMed Raleigh)
Raleigh, North Carolina 27610
919-747-0400
http://healthsciencescampus.waketech.edu

Wake Tech's Perry Health Sciences Campus, adjacent to WakeMed, offers 14 medical programs, preparing students for careers in nursing, radiography, dental hygiene, emergency medical science, and other high-

demand health care professions. Wake Tech partners with Wake Med and other local institutions to provide hands-on clinical training and work-based learning experiences. The campus features a state-of-the-art nursing simulation suite, a dental hygiene clinic, and an EMS ambulance bay. It is also home to the Wake Early College of Health and Sciences, a partnership with Wake County Public Schools that allows students to work toward a high school diploma and an associate degree at the same time.

PUBLIC SAFETY EDUCATION CAMPUS

321 Chapanoke Road
Raleigh, North Carolina 27603
919-866-6100
http://www.waketech.edu/about-wake-tech/locations/public-safety-education-campus

Wake Tech's Public Safety Education Campus is a CALEA® Accredited Training Academy offering a state-of-the-art forensics lab, an Incident Command Center, simunition and defensive tactics rooms, and a mock courtroom and jail. The campus offers Associate in Applied Science degrees in Criminal Justice and Fire Protection Technology, Basic Law Enforcement Training, and in-service training for law enforcement and corrections officers, fire and rescue personnel, EMS technicians, and SBI and Homeland Security personnel. This campus also offers Workforce Continuing Education (non-credit) programs such as barbering, hospitality and Nurse Aide.

RTP CAMPUS

10908 Chapel Hill Road
Morrisville, North Carolina 27560
http://www.waketech.edu/about-wake-tech/locations/rtp-campus

The RTP Campus is located on NC Highway 54 near I-540 in Morrisville, NC. Its next-generation learning environment will be dedicated to the needs of individuals and corporations in Western Wake County and Research Triangle Park. Plans for the 94-acre site include up to 10 instructional buildings, with the capacity to serve as many as 7,000 students. Curriculum (for-credit) programs will include college transfer as well as Business Administration, Business Analytics, Cyber Security, Data Storage and Virtualization, and more. The RTP Campus will also house Wake Tech's Corporate and Business Solutions division, offering customized corporate training.

All Wake Tech campuses feature a library and study areas; an Individualized Learning Center (ILC) for reading, writing, and math tutoring; wireless internet access; a photo ID office; and support services that include admissions, advising, career counseling, disability support, and financial aid.

BELTLINE EDUCATION CENTER

3200 Bush Street
Raleigh, North Carolina 27609
919-334-1500
http://www.waketech.edu/about-wake-tech/locations/beltline-education-center

The Beltline Education Center is the hub of operations for Wake Tech's Workforce Continuing Education Division. It also houses Wake Tech's College & Career Readiness programs, designed to help adults improve math, reading, and writing skills. College & Career Readiness includes the High School Credential (GED® test) and Adult High School programs, as well as English as a Second Language (ESL) classes, and Adult Basic Education (ABE TOPS), a program for adults with intellectual disabilities. The facility is home to Wake Tech's Advanced Manufacturing Center, with customized training space for local businesses and individuals, and a non-degree Cosmetology program with a lab and salon.

EASTERN WAKE EDUCATION CENTER

519 Industrial Drive
Zebulon, North Carolina 27597
http://www.waketech.edu/about-wake-tech/locations/eastern-wake-education-center

The Eastern Wake Education Center provides non-credit training for residents living in the eastern part of Wake County. Classes include job search skills and career readiness classes (fee-waived for the unemployed or underemployed); high school equivalency diploma preparation; Notary Public education; vocational classes taught in English and Spanish; and sustainability classes, including energy audit training in Wake Tech's BPI Test Center.

VERNON MALONE COLLEGE AND CAREER ACADEMY (VMCCA)

2200 S. Wilmington Street
Raleigh, North Carolina 27603
919-856-8119
ctehs.wcpss.net
http://www.wcpss.net/vernonmalonecca

Vernon Malone College and Career Academy is a Career and Technical Education (CTE) High School – a collaboration between Wake Tech, Wake County Public Schools, and Wake County Government. The academy provides a strong academic foundation along with education and training in eight career programs, including Biopharmaceutical Technology, Collision Repair, Cosmetology, Facilities Technology, Geomatics Technology, Nurse Aide, Simulation & Game Development, and Welding. Students complete the requirements for high school graduation while earning college credits that can be applied toward an associate's degree, diploma, or certificate at Wake Tech. Wake Tech also offers evening classes in these areas for adults pursuing degrees or seeking career advancement.

NORTH WAKE COLLEGE AND CAREER ACADEMY (NWCCA)

931 Durham Road
Wake Forest, North Carolina 27587
919-694-8650
ctehs.wcpss.net
http://www.wcpss.net/northwakecca

This new Career and Technical Education High School opens August 2017 and will offer certificates in Culinary Arts, Hospitality Management, Hardware Support and Repair, Early Childhood Education, and Emergency Medical Science. It will serve 400 students interested in pursuing educational credentials in career and technical fields while they complete the requirements for high school graduation.

BIONETWORK CAPSTONE CENTER

NC State University
850 Oval Drive
Raleigh, North Carolina 27695
919-515-0232
http://www.waketech.edu/about-wake-tech/locations/directions

Wake Tech provides hands-on training in a simulated biomanufacturing facility with state-of-the-art classrooms, industrial grade equipment laboratories, and a certified cleanroom suite. Courses taught by industry experts focus on biomanufacturing skills sets, including good manufacturing practices (GMP), aseptic manufacturing, operations in biotechnology processes, industrial microbiology, good laboratory practices (GLP), HPLC, and validation. The Capstone Center is part of the statewide BioNetwork program.
http://www.ncbionetwork.org/educational-resources/instructional-videos/bionetwork-capstone-center.

CAMPUS LOCATIONS AND CONTACT INFORMATION

CONTACT INFORMATION

SERVICE/LOCATION	WEB ADDRESS	PHONE
Southern Wake Campus 9101 Fayetteville Road (401S) Raleigh NC 27603	http://maincampus.waketech.edu	919-866-5000
Northern Wake Campus 6600 Louisburg Road (401N) Raleigh NC 27616	http://northerncampus.waketech.edu	919-532-5502 or 5501
Western Wake Campus 3434 Kildaire Farm Road Cary NC 27518	http://westerncampus.waketech.edu	919-335-1000
Perry Health Sciences Campus: 2901 Holston Lane Raleigh NC 27610	http://healthsciencescampus.waketech.edu	919-747-0400
Public Safety Education Campus (PSEC) 321 Chapanoke Road Raleigh NC 27603	http://www.waketech.edu/about-wake-tech/locations/public-safety-education-campus	919-866-6100
RTP Campus Paramount Parkway Morrisville NC 27560	http://www.waketech.edu/about-wake-tech/locations/rtp-campus	919-866-5000
Beltline Education Center 3200 Bush Street Raleigh NC 27609	http://www.waketech.edu/about-wake-tech/locations/beltline-education-center	919-334-1500
Eastern Wake Education Center (EWEC) 519 Industrial Drive Zebulon NC 27597	http://www.waketech.edu/about-wake-tech/locations/eastern-wake-education-center	919-866-5727
Vernon Malone College and Career Academy (VMCCA) 2200 S. Wilmington Street Raleigh, NC 27603	http://www.wcpss.net/vernonmalonecca	919-856-8119
North Wake College and Career Academy (NWCCA) 931 Durham Road Wake Forest, NC 27587	http://www.wcpss.net/northwakecca	919-694-8650
BioNetwork Capstone Center	http://www.waketech.edu/about-wake-tech/locations/directions	919-515-0232
Calendars/Deadlines	http://www.waketech.edu/calendar/	919-866-5500
Admissions	http://admissions.waketech.edu/	919-866-5000
Advising	http://www.waketech.edu/student-services/advising	919-866-5000
Basic Skills (GED, Adult High School, etc.)	http://basicskills.waketech.edu/	919-866-5280 919-334-1500
Campus Police	http://www.waketech.edu/about-wake-tech/administrative-offices/campus-police	919-866-5943 (Non-Emergency)
eLearning	http://www.waketech.edu/student-services/online-learning	919-866-5618
Workforce Continuing Education	http://conted.waketech.edu/	919-866-5800
Curriculum Education	http://curred.waketech.edu/	919-866-5000
Career and Employment Resources	http://www.waketech.edu/about-wake-tech/careers-employment/careers	919-866-5695
Wake Tech Foundation	http://foundation.waketech.edu/	919-866-5924
ITS Services and Support (Helpdesk/WebAdvisor/student portal, etc.)	http://its.waketech.edu/service.php	919-866-7000

CAMPUS LOCATIONS AND CONTACT INFORMATION

SOUTHERN WAKE CAMPUS

SERVICE	SOUTHERN WAKE CAMPUS	PHONE
Admissions	Student Services, Room 121 http://admissions.waketech.edu	919-866-5420
Advising	Student Services, Room 121 http://advising.waketech.edu/	919-866-5474
Campus Police	Holding Hall, Room 148 http://www.waketech.edu/about-wake-tech/administrative-offices/campus-police	919-866-5943 (Non-Emergency)
Career and Employment Resources	Holding Hall, Suite 150 http://www.waketech.edu/about-wake-tech/careers-employment/careers	919-866-5695
Cashier's Office	Montague Hall, 1st floor	919-866-5900
College Bookstore	Beside Student Services Building http://www.waketech.edu/student-services/wake-tech-bookstore	919-772-4204
Open Computer Labs ***Student ID required***	ILC 124 http://www.waketech.edu/student-services/computer-labs	919-866-5119 *Additional computer resources available at each library and ILC location
Work-Based Learning	Holding Hall, Room 168A http://www.waketech.edu/about-wake-tech/careers-employment/careers	919-866-5693
Disability Support Services	Holding Hall, Room 124 http://www.waketech.edu/student-services/disability-support-services	919-866-5670
Financial Aid	Student Services, Room 015 http://www.waketech.edu/student-services/financial-aid	919-866-5410
Individualized Learning Center (ILC) (Reading, writing, and math tutoring)	ILC Building ***(Student ID required)*** http://www.waketech.edu/student-services/individualized-learning-center	919-866-5276
Library (open computer areas) ***Student ID required***	Library Education Building, 1st floor http://www.waketech.edu/student-services/libraries	919-866-5644
Photo I.D.	Holding Hall, Room 102 http://www.waketech.edu/student-life/student-activities/college-id-badges	919-866-5867
Registration & Student Records (Curriculum Education)	Student Services Building, Room 254 http://www.waketech.edu/student-services/registration-student-records	919-866-5700

SGA (Student Activities)	Student Services Building, Room 128 http://www.waketech.edu/student-life/student-government-association	919-866-5407
Veterans Services	Student Services Building, Room 143 http://www.waketech.edu/student-services/veterans-affairs	919-866-5417
OPEN COMPUTER AREAS *STUDENT ID REQUIRED		
Southern Wake Campus Library Microsoft Office available	Library Education, 1st Floor http://library.waketech.edu/	919-866-5644
Open Computer Lab	ILC Building, Room 124 http://www.waketech.edu/student-services/computer-labs	919-866-5119
WORKFORCE CONTINUING EDUCATION		
Registration	Student Services Building http://www.waketech.edu/programs-courses/non-credit/register-online	919-866-5800

NORTHERN WAKE CAMPUS

SERVICE	NORTHERN WAKE CAMPUS (401 North)	PHONE
Admissions	Building NB, Room 225	919-532-5502
Advising	Building NB, Room 239 http://www.waketech.edu/about-wake-tech/locations/northern-wake-campus/academic-advising	919-532-5502
Campus Police	Building B, Room 234	919-866-5943 (Non-Emergency)
Career and Employment Resources	Building B, Suite 137B http://www.waketech.edu/about-wake-tech/careers-employment/careers	919-866-5695
Cashier's Office	Building NC, Room 236D	919-532-5507
College Bookstore	Building B, Room 225 or online: http://www.waketech.edu/student-services/wake-tech-bookstore	919-790-9306
Corporate Solutions	http://www.waketech.edu/programs-courses/non-credit/build-your-business/corporate-solutions	919-532-5813
Disability Support Services	Building A, Room 218D	919-532-5505
eLearning	Building E, Room 250	919-532-5830
Financial Aid	Building NC, Room 218	919-532-5504
Individualized Learning Center (Reading, writing, and math tutoring)	Building B, Room 213 http://www.waketech.edu/student-services/individualized-learning-center	919-532-5548

CAMPUS LOCATIONS AND CONTACT INFORMATION

Library ***Student I.D. required***	Building B, Room 239 http://www.waketech.edu/student-services/libraries	919-532-5550
Photo I.D. and Parking Decals	Building ND, Room 103	919-532-5867
Registration & Student Records Services	Building NB, Room 216	919-532-5574
SGA (Student Activities)	Building NB, Room 156	919-532-5654
Veteran Services	http://www.veterans.waketech.edu	919-866-5099
OPEN COMPUTER AREAS *Student ID Required		
Open Computer Lab	Building B, Room 216 http://www.waketech.edu/student-services/computer-labs	919-532-5584 *Additional computer resources available at each library and ILC location
WORKFORCE CONTINUING EDUCATION		
Registration	Building C, Lobby, Room 315	919-532-5501
Online Classes **www.ed2go.com/waketech**	Building B, Room 417	919-532-5581

PERRY HEALTH SCIENCES CAMPUS

SERVICE	PERRY HEALTH SCIENCES CAMPUS	PHONE
Advising/Admissions	HS2 Building, Room 102	919-747-0402
Campus Police	HS2 Building, Room 135	919-866-5943 (Non-Emergency)
Career and Employment Resources	HS2, Suite 347	919-866-6160
Cashier's Office	HS2 Building., Room 131	919-747-0010
College Bookstore	HS2 Building, Room 2, (ground level)	919-890-5520
Disability Support Services	HS2 Building, Room 111	919-334-1510
eLearning Testing Center	Health Science Building (HS), Room 428	919-747-0100
Financial Aid	HS2 Building, Room 104	919-747-0047
Individualized Learning Center (Reading, writing, math, and computer tutoring; Health Sciences Skills lab) ***Student I.D. required***	ILC Building http://www.waketech.edu/student-services/individualized-learning-center	919-747-0233
Library	Health Education Building (HEB), Room 123 http://www.waketech.edu/student-services/libraries	919-747-0002
Photo ID	Allied Health Building (AHB), Rooms 303/304	919-747-5867
Registration & Student Records	Student Services Center, HS2, Room 102 (Limited services)	919-747-0402
SGA (Student Activities)	HS2 Building, Room 157	919-747-0092
OPEN COMPUTER AREAS *Student ID Required		
Open Computer Lab	ILC, Room 514 http://www.waketech.edu/student-services/computer-labs	919-747-0042

CAMPUS LOCATIONS AND CONTACT INFORMATION

WORKFORCE CONTINUING EDUCATION		
Registration	Allied Health Building (AHB), Room 312	919-747-0077

WESTERN WAKE CAMPUS

SERVICE	WESTERN WAKE CAMPUS	PHONE
Admissions/Advising/ Student Success Counseling	Room 255	919-335-1059
Campus Police	(Contact 1st floor receptionist) http://www.waketech.edu/about-wake-tech/administrative-offices/campus-police	919-866-5943 (Non-Emergency)
Career and Employment Resources	Office Suite 255, Office A http://www.waketech.edu/about-wake-tech/careers-employment/careers	919-866-5695
Cashier's Office	Room 100A	919-335-1049
Financial Aid	Room 255	919-335-1040
Individualized Learning Center (Reading, writing, math, and computer tutoring) ***Student I.D. Required***	Learning Resource Center, Suite 200E http://www.waketech.edu/student-services/individualized-learning-center	919-335-1028
Library ***Student ID required***	Learning Resource Center, Suite 200B http://www.waketech.edu/student-services/libraries	919-335-1029
Photo I.D.	Room 254	919-335-1045
Student Lounge	Room 261	N/A
OPEN COMPUTER AREAS *Student ID Required		
Open Computer Lab ****Photo ID Services Available***	Room 254 http://www.waketech.edu/student-services/computer-labs	919-335-1045
WORKFORCE CONTINUING EDUCATION		
Registration	1st and 2nd floor reception areas Suites 100 and 200	919-335-1000 919-335-1001
Business and Industry Center	Suite 200	919-335-1001

SERVICE	PUBLIC SAFETY EDUCATION CAMPUS	PHONE

CAMPUS LOCATIONS AND CONTACT INFORMATION

Admissions/Advising/ Student Success Counseling	Room 1716 W, Th 8 a.m.–5 p.m.	919-866-5468
Campus Police	Room 1428 M–F, 8 a.m.–5 p.m.	919-866-5943 (Non-Emergency)
Cashier's Office	Room 1718 M–F, 8 a.m.–5 p.m.	919-866-6108
Disability Support Services	Room 1714 By appointment	919-866-5670
Financial Aid	Room 1714 Monday, 1–3 p.m.	919-866-6137
Individualized Learning Center (Reading, writing, math, and computer tutoring) ***Student I.D. required***	Room 1611 http://www.waketech.edu/student-services/individualized-learning-center	919-866-6123
Library ***Student ID required***	Room 1615 M–F, 9 a.m.–3 p.m. http://www.waketech.edu/student-services/libraries	919-866-6107
Photo ID	Front Desk M–F, 8 a.m.–4:30 p.m.	919-866-6100

PUBLIC SAFETY EDUCATION CAMPUS (PSEC)

All Wake Technical Community College policies (academic; student services; administrative) apply to all students, regardless of campus and center locations or mode of instructional delivery, unless expressly defined by the college.

CREDENTIALS DIRECTORY

BOARD OF TRUSTEES

Each community college in North Carolina is governed by a volunteer board of trustees, with specific duties defined by state law. Among their responsibilities, trustees establish policies for the college to follow, approve the college's budget each year and serve as advocates for the college. When there is a vacancy in the college's presidency, the trustees are responsible for choosing a new president.

Wake Tech is served by 12 appointed trustees. Four are appointed by the Governor of North Carolina, four are appointed by the Wake County Commissioners and four are appointed by the Wake County Board of Education. These trustees are appointed to four-year terms of office, and the appointments are staggered so that the board always has a blend of experienced and new trustees.

In addition to the 12 appointed trustees, the college's Student Government Association president serves as an ex-officio member of the Wake Tech Board of Trustees. The SGA president is encouraged to share ideas and concerns with the board but does not vote on board issues.

The college president serves as secretary to the Wake Tech Board of Trustees but is not considered a member of the board.

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CREDENTIALS DIRECTORY

Curriculum and Workforce Continuing Education Faculty

(Last updated on 4-16-2018)

Addison, Trinika K., M.S. ..... Instructor, Biology

Albahrawy, Diane B., J.D. ..... Associate Department Head, Business Administration

Albing, Virginia A., M.A. ..... *Instructor, Adult Basic Education*

Albright, Tammy, A.A.S., CMA (AAMA) ..... *Associate Professor, Medical Assisting*

Algood, Willeena J., M.Ed., R.N. ..... *Professor, Nursing*

Allen, Benjamin T., M.A. ..... Instructor, *Philosophy*

Allen, DeeDee A., Ph.D. . ..... *Associate Professor, Chemistry*

Allen, John T., M.S. ..... *Instructor, Criminal Justice*

Allen, Kathryn M., Ph.D. . ..... *Instructor/Advisor, ABE*

Allen, Phyllis A., B.S. ..... *Assistant Professor, Pre-Curriculum Mathematics*

Alston, Estelle M., B.S., R.T. (R)(CT) ARRT ..... *Instructor, Radiography*

Aman, Natalie, M.A. ..... *Instructor, Supply Chain Management*

Anderton-Brown, Alecia, M.S. ..... *Instructor, Networking Technology*

Annis, John G., M.P.A. ..... *Associate Professor, Criminal Justice*

Applebaum, Lee ..... *Instructor, Automotive Systems Technology*

Archambault, Michel B., M.S. ..... *Instructional Program Specialist, Adult Basic Education*

Arias, Hugo, B.S. ..... *Instructor/Coordinator HEP*

Arias, Sophia, M.A. ..... *Instructor, Philosophy*

Arnette, Robyn M., M.A. ..... *Instructor, Psychology*

Asfari, Amin, M.S. ..... *Instructor, Criminal Justice Technology*

Atkins, Margaret, J.D. ..... *Instructor, Business Administration*

Atkinson, Kevin D., B.A. ..... *Assistant Professor, Pre-Curriculum*

Atkinson, Kimberly A., B.S. ..... *Instructor, Office Administration*

Auman, Stacey, M.S. ..... *Instructor, Mathematics and Sciences*

Averre, Patricia, M.S., R.N. ..... *Instructor, Nursing*

Ayangma, Alain, M.S. ..... *Instructor, Mathematics*

Aydlett, Thomas, M.S. ..... *Instructor, Mathematics*

Baggett, Vickie W., M.Ed., M.S., R.N., ... *Associate Professor, Psychiatric Mental Health*

CREDENTIALS DIRECTORY

Baggott, Kathleen L., B.A. ..... *Instructional Program Specialist, ESL*

Bagliani, William M., M.A. ..... *Instructor, History*

Baker, Susan M., M.S. ..... *Instructor, Nursing Assistant*

Bales, Philip, A.A. ..... *Instructor, Culinary Technology*

Ball, Donald H., Ph.D. ..... *Professor, English*

Ball, Eric A., M.S. ..... *Associate Professor, Accounting*

Ballard, Robert L., A.A.S. ..... *Instructor, Automotive Systems*

Ballard, Susan E., B.A. ..... *Instructor/ESL Teaching Certificate Program Specialist, Languages and Lifelong Learning*

Barbour, Angela W., A.A.S. ..... *Assistant Professor, Esthetics Technology*

Barthelmess, Tara K., B.F.A ..... *Instructor, Interior Design*

Bartlett, Eugene R., Ph.D. ..... *Associate Professor, Biology*

Barton, Denise H., M.B.A. ..... *Professor, Business Administration*

Beaman, Thomas E., M.A. ..... *Associate Professor, Anthropology*

Beech, Jacquelyn, M.S. ..... *Associate Professor, Psychology*

Bell, Megan Nichols, M.A. ..... *Instructor, Communication*

Benitez, Juan A. ..... *Instructor, Correction Education*

Berry, Alden C., M.B.A. ..... *Assistant Professor, Criminal Justice Technology*

Berry, Heather L., M. A. ..... *Assistant Professor, English as a Foreign Language*

Berry, Matthew W., A.A.S. ..... *Instructor, Automotive Systems*

Berry, Rebecca L., M.A. ..... *Associate Professor, History*

Best, Mariah C., M.B.A. ..... *Instructor, Business Administration*

Betancourt, Kenneth M., A. A. ..... *Instructor, Automotive Systems Technology*

Bishop, Valerie, M. A. ..... *Instructor, Cosmetology*

Blackman, Robert, M.Ed. ..... *Instructor, Radiography*

Blackwell, Donald ..... *Instructor, Plumbing Technology*

Blanchard, Brandi, M.S. ..... *Instructor, Office Administration*

Blatchford, Deanna C., M.S. ..... *Instructor, Pre-Curriculum Mathematics*

Bonner, Diane, Ph.D. ..... *Instructor, Biopharmaceutical, Applied Engineering and Technologies*

Boone, Sarah, M.F.A. ..... *Instructor, English*

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Bouknight-Lyons, Cyntria, M.S. ..... *Instructor, Computer Information Technology*

Bouknight, Ivory S., M.P.H. ..... *Instructor, Adult Education*

Bowen, Jimmy M., M.S. ..... *Instructional Program Specialist, Adult Secondary Education*

Bowden, Nicholas, M.A. ..... *Instructor, English*

Bowers, Joshua M., M.A. ..... *Associate Professor, Mathematics*

Boyd, Charlotte A., A.A.S. ..... *Instructor, Cosmetology*

Brackett, Holly F., M.G.I.S.T. ..... *Instructor, Surveying Technology*

Branch-Johnson, Saundra D., A.S. ..... *Instructor, Cosmetology*

Breneman, Reed M., M.A. ..... *Instructor, Pre-Curriculum Integrated Reading and Writing*

Breivogel, Kimberly B., M.S., M.A. ..... *Associate Professor, Psychology*

Broden, Jane A., B.A. ..... *Associate Professor, Hospitality Management*

Brousseau, Laurie E., A.A.S. ..... *Instructor, Medical Office Administration*

Browder, Ela K., M.Ed. ..... *Instructor, English*

Brown, Ian C., M.S. ..... *Instructor, Geology*

Brust, Jason K., M. ..... *Instructor, Music*

Buchanan, Debra L., M.A. ..... *Instructor, Communications, Arts, Humanities and Social Sciences*

Buck, Jocelyn W., M.A. ..... *Associate Professor, Health and Fitness*

Budd, Benita A., M.A. ..... *Professor, English*

Burford, Brandon S., M.A. ..... *Instructor, English*

Burk, Cheryl A., M.Ed. ..... *Associate Professor, Pre-Curriculum Integrated Reading and Writing*

Burkart, Kirsten M., M.A. ..... *Associate Professor, English*

Burns, Charles L., M.S., M.B.A. ..... *Instructor, Chemistry*

Burton, Sloan M., B.A. ..... *Instructor, Architectural Technology*

Cade, Christine, Ph.D. ..... *Instructor, Chemistry, Mathematics and Sciences*

Cahoon, Elizabeth R., M.S. ..... *Instructor, Health and Fitness*

Campbell, Ethel, CDA, RDH, M.S. ..... *Instructor, Dental Hygiene & Dental Assisting*

Campilongo, Xiomara, M.A. ..... *Instructor, Spanish*

Campos Rosa, Suya, A.A.S. ..... *Instructor, Hospitality Management*

Carapelle, Beverly, M.A. ..... *Associate Professor, History*

CREDENTIALS DIRECTORY

Carawon, Robert E., M.A. . ..... *Instructor, Computer Information Technology*

Card, David O., M. ..... *Associate Professor, Architectural Technology*

Carino, Gloria G., B.A. ..... *Instructor/Coordinator, Math Center*

Carr, Jeffrey, J.D. ..... *Instructor 9M, Business Administration*

Carreno-Zingaro, Carrie, Ph.D. ..... *Assistant Professor/Site Coordinator, ILC*

Cash, Vanessa J., A.A.S., NCEMT-P ..... *Associate Professor, Emergency Medical Science*

Castellow¸ Elizabeth S., M.A. ..... *Associate Professor, Spanish*

Ceciliano, Lisa U., B.A. ..... *Instructional Program Specialist, ESL*

Chao, Frank G., Ph.D. ..... *Associate Professor, Database Administration*

Chapman, James J., J.D. ..... *Assistant Professor, Criminal Justice Technology*

Cheatham, Tracy M., M.S. ..... *Associate Professor, Chemistry*

Chen, Chen-Pi Peter, M.A. ..... *Associate Professor, Database Administration*

Chen, Cheng, M.Ed. ..... *Instructor, Chinese*

Cheng, Ngee C., M.S. ..... *Instructor, Electronics Engineering*

Chew, Kristine, M.A. ..... *Instructor, Anthropology*

Chilton, Jimmie H., Ph.D. ..... *Instructor, Physics*

Christie, Mary E., M. ..... *Instructor, Biology*

Church, Elizabeth M., M.A. ..... *Associate Professor, Spanish*

Clark, Lesley, A.A.S., R.T. (R) (ARRT) ..... *Assistant Professor, Radiography*

Clayton, Jo Anne, M.S. ..... *Associate Professor, Sociology*

Clinton, Wendy, M.S. ..... *Instructor, Mathematics*

Corbett, Benjamin L., M.A. ..... *Associate Dean*, Arts, *Humanities and Social Sciences*

Corbett, Donna, B.A. ..... *Instructor*, *Correction Education*

Corley, Bethany P., M.Ed. ..... *Instructor, Mathematics*

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Cox, George, M.A. ..... *Instructor, Simulation and Game Development*

Cox, Samantha P., M.B.A., CPA ..... *Associate Professor, Accounting*

CREDENTIALS DIRECTORY

Crews, Brandon P., B.F.A. ..... *Associate Professor, Simulation & Game Development*

Cruz, Omayra, M.A. ..... *Instructor, English*

Cui, Hong, M.S. ..... *Associate Professor, Computer Programming/Database Administration*

Cunningham, Maureen G., M.Ed. ..... *Instructor, Pre-Curriculum Integrated Reading and Writing*

D'Agata, Nicolas, M.S. ..... *Instructor, Web Technologies*

Daniel, Linda R., M.S. ..... *Associate Professor, Biology*

Daniels, Cindy M., M.Ed. ..... *Instructor, Dental Assisting*

Daniels, John, M.A. ..... *Instructor, Human Services Technology*

Darvish, Ali, M.S. ..... *Instructor, Computer Information Technology*

Davis, Arthur P., M.A. ..... *Instructor, Emergency Medical Science*

Davis, Elizabeth R., Ph.D. ..... *Instructor, Psychology*

Davis, Howard, M.A. ..... *Instructor, Humanities, Arts, Social Sciences*

Davis, Joseph, M.S. ..... *Instructor, Geology*

Davy, Sheryl F., M.A. ..... *Instructor, English as a Foreign Language*

Dawson, Debra A., M.A. ..... *Instructor, Early Childhood Education*

DeAlba, Marlys A., M.L.A. ..... *Assistant Professor, Architectural Technology*

Decain, Mark., M.B.A. ..... *Instructor, Computer Information Technology*

Dees, Lori A., M.A. ..... *Associate Professor, English*

Degen, Daniel, B.S. ..... *Instructor/Coordinator Student Transitional Programs, Adult Secondary Education*

DeMarco, Leslie, A.A.S. ..... *Instructor, Baking and Pastry*

Dennis, Phillip S., Ph.D. ..... *Instructor, English*

Deyneka, Alexandra, M.A. ..... *Instructor, Art*

Diamond, Ian R., B.S. ..... *Instructor, ESL*

Didonato, Cathleen C., M.Ed. ..... *Instructor, Communications*

Dimichelo, Danielle C., M.B.A. ..... *Instructor, Business Administration*

Dixit, Ajit S., Ph.D. ..... *Associate Professor, Chemistry*

Dixon, Cocoa T., M.S. ..... *Instructor, Biology*

Dockery, Tyler, M.A. ..... *Instructor, Advertising & Graphic Design*

Dolganiuc, Viorica , M.A. ..... *Instructor, ESL*

CREDENTIALS DIRECTORY

Donaldson, Aaron M., M.A. ..... *Instructor, Site Coordinator, ILC*

Donaldson, William C., M.S. ..... *Instructor, Electrical Engineering Technology*

Doughney, Erin P., M.S. ..... *Instructor, Biology*

Drummond, Mattie E., B.S. ..... *Instructor, Medical Laboratory Technology*

Dumey, Stephen M., A.A.S. ..... *Instructor, Collision Repair and Refinishing Technology*

Eatmon, Justin L., M.F.A. ..... *Instructor, English*

Eddington, Lora M., M.S., M.B.A. ..... *Professor, Engineering*

Edgerton, Calvin R., B.S. ..... *Professor, Construction Management*

Edwards, Gloria W., B.S. ..... *Instructional Program Specialist, ABE*

Edwards, Verna, M.I.S. ..... *Instructor, Computer Information Technology*

Egan, Gerard W., A.A.S., ASE Certified Master Automobile Technician/*Associate Professor, Automotive Systems Technology*

Emadi, Shahrzad D., M.S. ..... *Assistant Professor/Center Coordinator, ILC Mathematics*

Emerson, Earle ..... *Instructor, Emergency Medical Science*

Enkema, Philip B., M.S. ..... *Instructional Design Director, Computer Programming and Database Management*

Eskandari, Aisha, A.A.S. ..... *Instructor, Simulation and Game Development*

Etheridge, John R., M.A. ..... *Assistant Professor, English*

Evans, Julie C., A.S. ..... *Instructor, Advertising and Graphic Design*

Evarts, Jennifer L., M.A. ..... *Associate Professor, English*

Fadri, Maria, Ph.D. ..... *Instructor, Biology*

Faircloth, Kimberly, B.S. ..... *Assistant Professor, Office Administration*

Fargo, Patrick, M.S. ..... *Instructor, Computer Information Technology*

Fenton-Glass, Julie, M.A. ..... *Associate Professor, English*

Fields, Jacqueline G., B.S. ..... *Assistant Professor, Pre-Curriculum Mathematics*

Finch, Dwan, M.S. ..... *Instructor, Nursing*

Finch, Joanne H., M.A. ..... *Instructional Program Specialist, ASE*

Fine, Donald, M.S. ..... *Instructor, Geomatics, Applied Engineering and Technologies*

Fishback, Kimberly A., Ph.D. ..... *Associate Professor, Biology*

Fleggas, Elena, M.A. ..... *Instructor, English*

Fleming, Rhoderick E., B.S. ..... *Associate Professor, Pre-Curriculum Mathematics*

CREDENTIALS DIRECTORY

Ford, Leighton, M.A. ..... *Instructor, Mathematics*

Foster, Brandon L., M.S. ..... *Associate Professor, Biology*

Foster, Cynthia R., B.S. ..... *Associate Professor, Simulation and Game Development*

Foster, Patricia, M. ..... *Instructor, Psychology*

Fowler, Cindy M., M.Ed. ..... *Instructor, Pre-Curriculum Mathematics*

Fox, Allison, Ph.D. ..... *Instructor, Art*

Fox, Damian, M.F.A. ..... *Instructor, Simulation and Game Development*

Fox, Sarah, M.A. ..... *Instructor, Spanish*

Fraccola, Stephanie A., A.A.S., NCEMT-P ..... *Associate Professor, Emergency Medical Science*

Frear, Lori A., Ph.D. ..... *Associate Professor, Biology*

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COLLEGE CATALOG INDEX

A

ABE TOPS 108
ACCUPLACER Exam 11
Absences 44
Absences for Religious Observances 44
Academic Integrity 61
Academic Progress, Financial Aid 33
Academic Progress, Satisfactory 48
Academic Recognition 50
Academic Standing Levels 49
Acceptable Use, Computer 81
Accreditation 4
Adding a Course 44
Administration 390
Admissions, Workforce Continuing Education 105
Admissions, Curriculum Education 10
Adult Basic Education 107
Adult High School Diploma Program 108
Advanced Placement (AP) Credit 19
Advising 71
Alcohol and Drug Policy 92
Alumni 58
Appeal, Academic Penalties 62
Appeal, Grievance 69
Application 10
Applied Engineering & Technologies Programs 120
Apprenticeship Training 104
Associate of Arts Degree 158
Associate in Fine Arts Degree in Visual Arts (AFA) 159
Associate of Science Degree 160
Associate of Engineering Degree (A.E.) 161
Athletics 57
Attendance Policy 44
Attorney Involvement in Proceedings 69
Audits 45

B

BAT (Behavior of Concern and Threat Report) 88
Basic Law Enforcement Training 104
Beltline Education Center 382
BioNetwork Capstone Center 108, 383
Biowork Program 104
Blogs 82
Board of Trustees 390
Bookstore 70
Business & Public Service Technologies Programs 139
Business and Corporate Solutions 104
Business Industry Certifications 26

C

Campus Locations 381
Campus Police & Safety 87
Campus Use Policies 81
Career and College Promise Program 11
Career and Employment Resources 73
Carolina's Assoc. Gen. Contr. Art. Agreement 24
Cell Phones 84
Certificates 114
Challenge Examinations 17
Change of Name, Address, E-Mail 29
Change of Program of Study 29
Cheating 62
Children on Campus 91
Class Schedules, Curriculum 16
CLEP 17
Clery Act 87
Clubs, Student 57
Code of Conduct 63
Collaborative Agreements 118
College Goals 3
College ID 71
College and Career Readiness Program 107
College/University Transfer 158
Communication with Students Policy (E-mail) 81
Complaints, Other 69
Computer Technologies Programs 162
Computer Concepts 22
Contact Information 384
Continuous Enrollment 32
Copyright Infringement and Intellectual Property 102
Core Values, Wake Tech 3
Corporate and Business Solutions 109
Corporate Training 111
Corrections and Detention Training (Con. Ed.) 104
Counseling Services (Student Success) 72
Course Descriptions 199
Course Grade Appeal Process 63
Course Load 13
Course Registration Information, General 13
Course Repetition, Curriculum Education 48
CAP Credentials 22
Credentials Directory (Academic) 391
Criminal Background Checks 119
Critical Success Factors 52
Curriculum and Workforce Continuing Ed Faculty 391
Curriculum Class Schedules 16
Curriculum Ed (for credit) Programs of Study 114
Curriculum Registration Dates 16
Customized Training Program 104

D

DANTES Standardized Subject Tests (DSST) 20
Deans, Directors, and Department Heads 411
Dean's List 50
Death of a Student 79
Degrees 114
Detention Training, and Corrections 104
Diplomas 114
Direct Loans 37
Disability Support Discrimination 2
Disability Support Services (DSS) 74
Discrimination and Due Process 60
Dropping a Course 45
Dress Code and Hygiene, Student 83
Drug Abuse Prevention Program 92
Drug and Alcohol Policy 92

COLLEGE CATALOG INDEX

E

Eastern Wake Education Center 382
Education Services and Technology 110
E-mail for Students 81
Emergency Exit Procedures 91
Emergency Closings 93
Emergency Medical Services (EMS) Program 112
Employment Resources, and Career 73
English as a Foreign Language (EFL) 14
English as a Second Language (ESL) 104
Enrollment Requirements, Financial Aid 38
Enrollment Status, Curriculum Students 46
Enrollment Steps (Curriculum) 10
Equal Access 2

F

Faculty Members 391
Family Educational Rights and Privacy Act (FERPA) 29
Federal Suppl. Educ. Opportunity Grants (FSEOG) 36
Federal Work Study Program 36
Fees (Curriculum) 77
Fees (Workforce Continuing Education) 106
Financial Aid 33
Financial Aid Refunds and Repayments 38
Fines, Parking 96
Fire Service Training 104
First Aid 92
Food and Beverages 83
Forgivable Education Loans for Service (NCFELS) . 37
Fostering Bright Futures 72
Foundation 9
French Placement Exam 21

G

G.I. Bill 34
Goals, College 3
Grading Policy, Workforce Continuing Education .. 105
Grading Policy, Curriculum Education 46
Graduation 50
Graduation Fee 78
Graduation Requirements 50
Grants 35
Grievance Procedures 60

H

Harassment, Sexual 100
Health Sciences Programs 187
High School Articulation Agreement 26
High School Equivalency Preparation (HSEP) 108
High School Equivalency Program (HEP) 108
History, of Wake Tech 3
Hospitality Programs 104
Housing 84
Human Resources Development 104
Hybrid Courses 75
Hygiene, Student Dress Code and 83

I

ID, College 71
Individualized Learning Center (ILC) 74
Industry Training 104
Insurance and Accidents, Student 91
Intellectual Property, Copyright Infringement & 102
International Baccalaureate (IB) Credit 25
International Learning (Con Ed) 104
International Students 14
Internet Usage Policy 81
Iraq and Afghanistan Service Grant (IASG) 36

J,K

JST (Joint Services Transcripts) 21

L

Law Enforcement In-Service Training 104
Learning Management System (LMS) Retention Schedule 102
Length of Programs 119
Libraries 74
Limited Enrollment Programs 13
Locations, Campus 381
Loans 37
Lost and Found 56

M

Male Mentoring Program, Pathways 72
Media Coverage 86
Media Production and Learning Support Services .. 75
Memberships, College 6
Military and Veterans Resource Center 57
Misrepresentation, College 6
Mission Statement, Wake Tech 3

N

NC Community College Grant Program (NCCCG) .. 36
NC DAP (Placement Exam) 11
NC Education Lottery Scholarship (NCELS) 36
Non-Credit Computer Education 104
Non-Discriminatory Policy 10
North Wake College and Career Academy 383
Northern Wake Campus 381
Nurse Aid I Program (NA I) 104

O

Occupational Services 110

COLLEGE CATALOG INDEX

Official Communication with Students (E-Mail) 81
Off-Campus Sites..... 81
Office of Volunteerism and [Student] Leadership..... 72
Online Learning 74
Open Door Policy..... 10

P

Parking Fines..... 96
Parking Permits..... 94
Pathways Male Mentoring Services..... 72
Pell Grants, Federal..... 35
Perry Health Sciences Campus 381
Pets on Campus 83
Placement Testing 11
Plagiarism 62
Plus-50 Programs 110
Police, Campus & Safety 87
Policy Changes, Changes to..... 81
Pre-Curriculum..... 46
Prerequisites..... 46
President's Award for Excellence..... 50
President's Staff..... 390
Prior Learning 17
Professional Dev. and Corp Training 110
Professional Services & Vocational Training 110
Program Approvals 6
Program Placement Requirements..... 12
Programs and Services, Wake Tech..... 4
Programs of Study (Curriculum, For Credit)..... 114
Public Safety Education Campus..... 382
Public Safety Training..... 112
Public Telephones 56
Publications Policy..... 84

Q,R

RTP Campus 382
Readmitted Students 14
Records, Security of Student 29
Refund Policy, Curriculum Education..... 79
Refund Policy, Workforce Continuing Education ... 106
Refunds, Financial Aid 38
Registration and Records (WCE)..... 105
Registration and Records (Curriculum Ed) 15
Religious Observances, Absences 44
Repayment, Financial Aid..... 38
Residency Classification..... 16
Rights and Responsibilities, Students..... 59
Roller Blading/Skate Boarding 84

S

SACSCOC Accreditation 4
Satisfactory Academic Progress, Academic 39
Satisfactory Academic Progress, Financial Aid..... 39
Scholarships 38
Security (Campus Police) 87
Self-Supporting Classes Fee 106
Sex Crimes Prevention Act..... 2
Sexual Misconduct Policy (Title IX) 98
Skate Boarding/ Roller Blading..... 84
Small Business Center 104
Smoking/Tobacco Use 83
Social Networking Policy 83
Solicitation 84
Southern Wake Campus 381
Spanish Placement Exam 21
Special/Visiting Students..... 11
Staff Directory.....Online Only
Steps to Enrollment (Curriculum Students) 10
Student Advocacy and Support 72
Student Centers..... 56
Student Clubs..... 57
Student Code of Conduct 59
Student Directory Information..... 31
Student Government Association (SGA) 57
Student Grievance Procedures (Code of Conduct) 67
Student ID 71
Student Insurance and Accidents..... 91
Student Leadership (O.V.A.L.) 72
Student Records and Information (FERPA)..... 29
Student Rights and Responsibilities 59
Student Services Vison, Value, Mission 56
Student Success..... 72
Study Skills Center (ILC) 74
Substitute Effective Teacher Training..... 110

T

Tardiness..... 44
Technology Services & Special Programs..... 110
Telephone Numbers..... 384
Testing Center..... 75
Threat Assessment & Violence Prevention 88
Title IX (Sexual Misconduct) Policy 98
Tobacco Use 83
Traffic Rules and Regulations 95
Transcripts for Incoming Students..... 11
Transcript Requests 16
Transfer Credits..... 27
Transfer Students, Financial Aid for 35
Transportation 84
Tuition..... 77
Tuition Refund Policy..... 79

U

University/College Transfer 158
Updates to Catalog.....http://updates.waketech.edu

V

Vaccination Policy 14
Vernon Malone College and Career Academy (VMCCA) 383
Veteran Affairs Educational Benefits 34
Veterans and Military Resource Center..... 57
Vision Statement, Wake Tech 3
Visiting/Special Students..... 11

Visitors on Campus 91
Violence Prevention 88
Volunteers, Student (O.V.A.L.) 72

W

Wake Tech Mission Statement 3
Wake Tech/Wells Fargo Center 104
Weapons 86, 87, 88, 90
Website Policy 82
Wellness Services 72
Western Wake Campus 381
Who's Who Among Students in Amer. Jr. Coll. 50
William D. Ford Federal Direct Loan Program 37
Withdrawal, Curriculum Education 44
Withdrawal, Financial Aid 41
Withdrawal, Workforce Continuing Education 106
Work-Based Learning 72
Work Study Program 36
Workforce Continuing Education (non-credit) 104
Workforce Continuing Education Units (CEU's) 105

X,Y,Z

None at this time

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