# APPLIED ENGINEERING & TECHNOLOGIES

## 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 | | 3 |

*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 | 111 | Introduction to Landscape Arch Tech | 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 |

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ARC  235   Architectural Portfolio ...................................................... 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**