

COMPUTER TECHNOLOGIES

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 Requirements68 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

COMPUTER TECHNOLOGIES

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 Requirements13 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 Requirements12 Credit Hours