Data Science and Programming Support Services (A25590DS)

Program Planning Guides

2018 – 2019

Degree

Data Science and Programming Support Services - ***Day***

Data Science and Programming Support Services - ***Evening***

Certificates

C25590DS	**Database Programming - Microsoft**
C25590OR	**Database Programming - Oracle**
C25590SS	**Database Programming - SAS**
C25590PY	**Python Programming**

IT - Data Science and Programming Support Services (A25590DS)

A.A.S. Degree (Day)

PROGRAM PLANNING GUIDE

Updated: Fall 2018

Courses taken more than 5 yrs. ago may not receive transfer credit. Consult your advisor for details.

Curriculum By Semester					
			Hours Per Week		
			Class	Lab	Credits
FIRST SEMESTER					
CSC	120	Computing Fundamentals I	3	2	4
CSC	121	Python Programming	2	3	3
CTI	110	Web, Pgm, and DB Foundations	2	2	3
ENG	111	Writing and Inquiry	3	0	3
MAT	152	Statistical Methods	3	2	4
SECOND SEMESTER					
CSC	122	Python Applications Development	2	2	3
CTI	120	Network & Sec Foundations	2	2	3
CTS	115	Info Sys Business Concepts	3	0	3
DBA	120	Database Programming I	2	2	3
WEB	115	Web Markup and Scripting	2	2	3
FIRST SUMMER SEMESTER					
CSC	124	Intro to Programming for Data Science	2	2	3
DBA	125	Database Reporting	2	2	3
THIRD SEMESTER					
CSC	152	SAS	2	3	3
CSC	221	Advanced Python Programming	2	2	3
DBA	130	Introduction to NoSQL Databases	2	2	3
DBA	240	Database Analysis/Design	2	3	3
		Major Elective	-	-	3
FOURTH SEMESTER					
COM	120	Introduction to Interpersonal Communication	3	0	3
ECO	151	Survey of Economics	3	0	3
		DBA Elective	-	-	3
		Project Elective	-	-	3
		Humanities/Fine Art Elective	3	0	3

GRADUATION REQUIREMENT: **Credit Hours 68**

IT - Data Science and Programming Support Services (A25590DS)

A.A.S. Degree (Day)

PROGRAM PLANNING GUIDE

General Education Electives					
			Hours Per Week		
			Class	Lab	Credits
Humanities and Fine Arts Electives					
(choose 3 credit hours from the following courses)					
HUM	110	Technology and Society	3	0	3
HUM	115	Critical Thinking	3	0	3
HUM	230	Leadership Development	3	0	3
PHI	240	Introduction to Ethics	3	0	3
Required Electives					
Major Electives					
(choose a minimum of 3 credit hours from the following courses)					
CSC	130	Computing Fundamentals II	2	3	4
CSC	151	Java Programming	2	3	3
CSC	153	C# Programming	2	3	3
CSC	154	Software Development	2	2	3
CSC	227	Cloud Application Development	2	3	3
CSC	256	Software Quality Assurance	2	2	3
DBA	224	SAS DB Programming II	2	2	3
DBA Electives					
(choose a minimum of 3 credit hours from the following courses)					
DBA	220	Oracle DB Programming II	2	2	3
DBA	221	SQL Server DB Programming II	2	2	3
Project Electives					
(choose a minimum of 3 credit hours from the following courses)					
CSC	289	Programming Capstone	1	4	3
WBL	111	Work-Based Learning	0	10	1
WBL	112	Work-Based Learning	0	20	2
WBL	113	Work-Based Learning	0	30	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.

IT - Data Science and Programming Support Services (A25590DS)

A.A.S. Degree (Evening)

PROGRAM PLANNING GUIDE

Updated: Fall 2018

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Curriculum By Semester					
			Hours Per Week		
			Class	Lab	Credits
FIRST SEMESTER					
CSC	120	Computing Fundamentals I	3	2	4
CTI	110	Web, Pgm, and DB Foundations	2	2	3
ENG	111	Writing and Inquiry	3	0	3
SECOND SEMESTER					
CSC	121	Python Programming	2	3	3
CTS	115	Info Sys Business Concepts	3	0	3
MAT	152	Statistical Methods	3	2	4
FIRST SUMMER SEMESTER					
CSC	122	Python Applications Development	2	2	3
DBA	120	Database Programming I	2	2	3
THIRD SEMESTER					
CSC	124	Intro to Programming for Data Science	2	2	3
CSC	221	Advanced Python Programming	2	2	3
WEB	115	Web Markup and Scripting	2	3	3
FOURTH SEMESTER					
CSC	152	SAS	2	3	3
CTI	120	Network & Sec Foundations	2	2	3
DBA	130	Introduction to NoSQL Databases	2	2	3
SECOND SUMMER SEMESTER					
COM	120	Introduction to Interpersonal Communication	3	0	3
DBA	125	Database Reporting	2	2	3
FIFTH SEMESTER					
DBA	240	Database Analysis/Design	2	3	3
ECO	151	Survey of Economics	3	0	3
		Major Elective	-	-	3
SIXTH SEMESTER					
		DBA Elective	-	-	3
		Project Elective	-	-	3
		Humanities/Fine Art Elective	3	0	3

GRADUATION REQUIREMENT: **Credit Hours 68**

IT - Data Science and Programming Support Services (A25590DS)

A.A.S. Degree (Evening)

PROGRAM PLANNING GUIDE

General Education Electives					
			Hours Per Week		
			Class	Lab	Credits
Humanities and Fine Arts Electives					
(choose 3 credit hours from the following courses)					
HUM	110	Technology and Society	3	0	3
HUM	115	Critical Thinking	3	0	3
HUM	230	Leadership Development	3	0	3
PHI	240	Introduction to Ethics	3	0	3

Required Major Electives					
Major Electives					
(choose a minimum of 3 credit hours from the following courses)					
CSC	151	Java Programming	2	3	3
CSC	153	C# Programming	2	3	3
CSC	154	Software Development	2	2	3
CSC	227	Cloud Application Development	2	3	3
CSC	256	Software Quality Assurance	2	2	3
DBA	224	SAS DB Programming II	2	2	3
DBA Electives					
(choose a minimum of 3 credit hours from the following courses)					
DBA	220	Oracle DB Programming II	2	2	3
DBA	221	SQL Server DB Programming II	2	2	3

Project Electives					
(choose a minimum of 3 credit hours from the following courses)					
CSC	289	Programming Capstone	1	4	3
WBL	111	Work-Based Learning	0	10	1
WBL	112	Work-Based Learning	0	20	2
WBL	113	Work-Based Learning	0	30	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.

IT - Data Science and Programming Support Services (A25590DS)

Database Programming - Microsoft (C25590SQ)

Certificate

(Day and Evening)

PROGRAM PLANNING GUIDE

Updated: Fall 2018

Prereq: DBA-120 and MAT-121 or higher

Courses taken more than 5 yrs. ago may not receive transfer credit. Consult your advisor for details.

Curriculum					
			Hours Per Week		
			Class	Lab	Credits
CSC	153	C# Programming	2	3	3
CSC	253	Advanced C# Programming	2	2	3
DBA	221	SQL Server DB Programming II	2	2	3
DBA	240	Database Analysis/Design	2	3	3

GRADUATION REQUIREMENT: **Credit Hours 12**

IT - Data Science and Programming Support Services (A25590DS)

Database Programming - Oracle (C25590OR)

Certificate

(Day and Evening)

PROGRAM PLANNING GUIDE

Updated: Fall 2018

Prereqs: DBA-120

Courses taken more than 5 yrs. ago may not receive transfer credit. Consult your advisor for details.

Curriculum					
			Hours Per Week		
			Class	Lab	Credits
CTS	115	Info Sys Business Concepts	3	0	3
DBA	125	Database Reporting	2	2	3
DBA	220	Oracle DB Programming II	2	2	3
DBA	240	Database Analysis/Design	2	3	3

GRADUATION REQUIREMENT: **Credit Hours 12**

These four courses provide a student with Oracle database programming skills. All of the courses offered are part of the **A25590DS AAS degree**

IT - Data Science and Programming Support Services (A25590DS)

Database Programming - SAS (C25590SS)

Certificate

(Day and Evening)

PROGRAM PLANNING GUIDE

Updated: Fall 2018

Prereq: DBA-120 and MAT-152

Courses taken more than 5 yrs. ago may not receive transfer credit. Consult your advisor for details.

Curriculum					
			Hours Per Week		
			Class	Lab	Credits
CSC	124	Intro to Programming for Data Science	2	2	3
CSC	152	SAS	2	3	3
DBA	224	SAS DB Programming II	2	2	3
DBA	240	Database Analysis / Design	2	3	3

GRADUATION REQUIREMENT: **Credit Hours 12**

These four courses provide a student with general programming skills for databases. All of the courses offered are part of the **A25590DS AAS degree**

IT - Data Science and Programming Support Services (A25590DS)

Python Programming (C25590PY)

Certificate

(Day and Evening)

PROGRAM PLANNING GUIDE

Updated: Fall 2018

Prereqs: C25590PF and MAT-152

Courses taken more than 5 yrs. ago may not receive transfer credit. Consult your advisor for details.

Curriculum					
			Hours Per Week		
			Class	Lab	Credits
CSC	122	Python Application Development	2	2	3
CSC	124	Intro to Programming for Data Science	2	2	3
CSC	130	Computing Fundamentals II	2	3	4
CSC	221	Advanced Python	2	3	3

GRADUATION REQUIREMENT: **Credit Hours 13**

These four courses provide a student with Python and R programming skills. All of the courses offered are part of the **A25590DS AAS degree**