

# Data Science and Programming Support Services (A25590DS)

## A.A.S. Degree (Part Time)

### PROGRAM PLANNING GUIDE

**Updated: Fall 2025**

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

#### Curriculum By Semester

			Hours Per Week		
			Class	Lab	Credits
<b>FALL SEMESTER</b>					
CSC	120	Computing Fundamentals I	3	2	4
CTI	110	Web, Pgm, and DB Foundations	2	2	3
NOS	110	Operating Systems Concepts	2	3	3

<b>SPRING SEMESTER</b>					
CSC	121	Python Programming	2	3	3
CSC	113	Artificial Intel Fundamentals	2	2	3
		Mathematics Elective	3	2	3

<b>SUMMER I SEMESTER</b>					
DBA	120	Database Programming I	2	2	3
CTI	120	Network & Sec Foundations	2	2	3

<b>FALL SEMESTER</b>					
ENG	111	Writing and Inquiry	3	0	3
CSC	249	Data Structure & Algorithms	2	3	3
		English and Communication Electives	3	0	3

<b>SPRING SEMESTER</b>					
BAS	150	Intro to Analytical Programming	2	3	3
CSC	221	Advanced Python Programming	2	2	3
CTS	115	Info Sys Business Concepts	3	0	3

<b>SUMMER II SEMESTER</b>					
CSC	227	Cloud Application Development	2	2	3
		Social and Behavioral Sciences Elec	3	0	3

<b>FALL SEMESTER</b>					
CSC	154	Software Development	2	2	3
BAS	120	Intro to Analytics	3	0	3
		Major Elective	-	-	3

<b>SPRING SEMESTER</b>					
BAS	121	Data Visualization	2	3	3
BAS	220	Applied Analytical Programming	2	3	3

Registrar's Office Approved 4/11/25

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		Humanities and Fine Arts Electives	-	-	3
		Project Elective	-	-	2

**GRADUATION REQUIREMENT**

**Credit Hours 69**

**General Electives**

			Hours Per Week		
			Class	Lab	Credits

**English and Communication Electives**

(choose 3 credit hours from the following courses)

COM	110	Intro to Communication	3	0	3
COM	120	Intro Interpersonal Com	3	0	3
COM	231	Public Speaking	3	0	3

**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
PHI	240	Introduction to Ethics	3	0	3

**Mathematics Electives**

(choose 3 credit hours from the following courses)

MAT	121	Algebra/Trigonometry I	2	2	3
MAT	143	Quantitative Literacy	2	2	3
MAT	152	Statistical Methods I	3	2	4
MAT	171	Precalculus Algebra	3	2	4
MAT	172	Precalculus Trigonometry	3	2	4
MAT	271	Calculus I	3	2	4

**Social and Behavioral Sciences Electives**

(choose 3 credit hours from the following courses)

ECO	151	Survey of Economics	3	0	3
ECO	251	Principles of Microeconomics	3	0	3
ECO	252	Prin of Macroeconomics	3	0	3
POL	120	American Government	3	0	3
PSY	118	Interpersonal Psychology	3	0	3
PSY	150	General Psychology	3	0	3
SOC	210	Introduction to Sociology	3	0	3

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<b>Major Elective</b>					
(choose a minimum of 3 credit hours from the following courses)					
CSC	114	Artificial Intelligence I	2	3	3
CSC	122	Python Application Development	2	2	3
CSC	124	Intro to Data Science Prog	2	3	3
DBA	130	Intro to noSQL Databases	2	2	3
DBA	240	Database Analysis/Design	2	3	3

Project Electives					
			Hours Per Week		Credits
			Class	Lab	
(choose a minimum of 2 credit hours from the following courses)					
CSC	289	Programming Capstone	1	4	3
WBL	111 MK	Work-Based Learning I-DBA	0	10	1
WBL	112 MK	Work-Based Learning I-DBA	0	20	2
WBL	113 MK	Work-Based Learning I-DBA	0	30	3
WBL	121 MK	Work-Based Learning II-DBA	0	10	1
WBL	122 MK	Work-Based Learning II-DBA	0	20	2
WBL	123	Work-Based Learning III-DBA	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 as WBL 112, over two semesters as WBL-111 and WBL-112 or over one semester as WBL-113.