

Data Science Associate of Science

General Program Information: 410 287-1000 or information@cecil.edu

The Data Science program offers students an introduction to the field of data science, including the processing, manipulation, analysis, interpretation, and ethical use of data. Specifically, this program focuses on the mathematical and computer science-related aspects of the field. Students will be positioned to transfer to a four-year program or entry-level positions in the industry.

	General Education Requirements (30 credits)	General Education Code	Credits
EGL 101	College Composition	E	3
EGL 102	Composition & Literature	H	3
SPH 121 or HUM 101	Interpersonal Communication or Introduction to Critical Inquiry	H	3
SCI	Science Electives with Lab ¹	S/SL	7
MAT 127	Introduction to Statistics	M	4
SOC SCI	Social and Behavioral Science Electives	SS	6
ELECT	General Education Electives ²		4

	Program Requirements (30 credits)	General Education Code	Credits
DSC 201	Data Science I		3
CSC 105	Geographic Information System I	I	3
CSC 109	Introduction to Programming		3
CSC 110	Ethics in Information Technology	I	3
CSC 230	Advanced Programming in Python		3
MAT 128	Introduction to Statistics II	M	4
MAT 201	Calculus I with Analytic Geometry	M	4
MAT 202	Calculus II with Analytic Geometry	M	4
MAT 236	Discrete Structures		3

Total Credits Required in Program: 60

¹ At least one of the science courses must include a lab.

² Students placed below MAT 201 will need to use 4 credits to complete MAT 191 as a prerequisite to MAT 201. Students placed in MAT 201 may take any general education electives.

Program Learning Goals:

Upon successful completion of this program, students will be able to:

- Apply **advanced** mathematical and statistical principles to analyze data.
- Utilize relevant software to manipulate and analyze data.
- Interpret and communicate results obtained from data analysis.
- Discuss the ethical collection and use of data.