Data Science: Computational Analytics Certificate

Overview

Offered by the Department of Computer and Information Sciences, the **Certificate in Data Science: Computational Analytics** is designed to allow students with strong mathematical and programming backgrounds to develop expertise in big data analytics and machine learning. This certificate is available to all undergraduate students and professional non-degree-seeking students.

Campus Location: Main

Program Code: ST-DSCA-CERT

Undergraduate Contact Information

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Learn more about the undergraduate certificate in Data Science: Computational Analytics.

Certificate Requirements

Prerequisites

Students desiring a Certificate in Data Science: Computational Analytics must have already completed the following or have equivalent industry experience:

Code	Title	Credit Hours
CIS 1068	Program Design and Abstraction	4
or CIS 1968	Honors Program Design and Abstraction	
CIS 1166	Mathematical Concepts in Computing I	4
or CIS 1966	Honors Mathematical Concepts in Computing I	
MATH 1041	Calculus I	4
or MATH 1941	Honors Calculus I	
MATH 1042	Calculus II	4
or MATH 1942	Honors Calculus II	
MATH 2043	Calculus III	4
or MATH 2943	Honors Calculus III	
Total Credit Hours		**20**

Required Courses

Students desiring a Certificate in Data Science: Computational Analytics must complete the following courses:

Code	Title	Credit Hours
Select one of the following:		3-4
CIS 2033	Computational Probability and Statistics	
MATH 3031	Probability Theory I	
STAT 2103	Statistical Business Analytics	
BIOL 3312	Biostatistics (F)	

Select one of the following:		3-4
CIS 2166	Mathematical Concepts in Computing II	
MATH 2045	Differential Equations with Linear Algebra	
MATH 2101	Linear Algebra	
MATH 2103	Linear Algebra with Computer Lab (F)	
CIS 3715	Principles of Data Science (S)	4
CIS 4526	Foundations of Machine Learning	3
Total Credit Hours		**13-15**

Code	**Title**	**Credit Hours**

(F) - Fall only course

(S) - Spring only course

Residency Requirements: At least 2 courses required for the certificate must be completed at Temple.