

# Data Science: Computational Analytics Minor

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## Overview

Data Science is an interdisciplinary field of study about methods and systems to extract knowledge or insights from large quantities of data coming in various forms. Offered by the Department of Computer and Information Sciences, the **Minor in Data Science: Computational Analytics** is designed for students interested in developing expertise in data science, with specialization in computational analytics.

**Campus Location:** Main

## Undergraduate Contact Information

Jamie Payton, Chair  
Science, Education and Research Center, Room 304  
215-204-8450

Gene Kwatny, Vice Chair  
Science, Education and Research Center, Room 304  
215-204-8450

Andrew Rosen, Faculty Advisor  
Science, Education and Research Center, Room 349  
215-204-3193  
andrew.rosen@temple.edu

## Minor Requirements

### Prerequisites

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

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

## Required Courses

Students desiring a Minor 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 2168	Data Structures	4
CIS 3715	Principles of Data Science (S)	4
CIS 4526	Foundations of Machine Learning (F)	3
CIS 4517	Data-Intensive and Cloud Computing (S)	3

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<b>Total Credit Hours</b>		<b>20-22</b>
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<b>Code</b>	<b>Title</b>	<b>Credit Hours</b>
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(F) - Fall only course

(S) - Spring only course

**Residency Requirements:** At least 3 courses required for the minor must be completed at Temple. At least 3 CIS courses must be completed at Temple.