

# Computer Science Minor

## Overview

Having a **Minor in Computer Science (CS)** can enhance your employment opportunities. Offered by the Department of Computer and Information Sciences, the CS minor's coursework consists of three programming courses, one introductory theory course and one CS elective course. Prior to starting the CS minor's courses, students must take (or place out of) precalculus and an introductory programming course. Many of our CS minors come from related fields, such as Engineering, Information Science and Technology, and Math. Students on both Main Campus and Temple University Japan Campus may declare this minor.

**Campus Location:** Main and Japan

## Undergraduate Contact Information

### Main Campus

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

Sally Kyvernitis, Faculty Advisor  
Science, Education and Research Center, Room 330  
215-204-2030  
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### Temple Japan Campus

Students interested in more information or declaring this minor should contact the TUJ Academic Advising Center (AAC), [aac@tuj.temple.edu](mailto:aac@tuj.temple.edu), Room 102, TUJ Building.

## Minor Requirements

Students desiring a minor in Computer Science are required to satisfy the following:<sup>1</sup>

Code	Title	Credit Hours
Select one of the following: <sup>2</sup>		4
CIS 1051 or CIS 1951	Introduction to Problem Solving and Programming in Python Honors Introduction to Problem Solving and Programming in Python	
CIS 1057	Computer Programming in C	
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
CIS 2107	Computer Systems and Low-Level Programming	4
CIS 2168	Data Structures	4
Select one of the following: <sup>3</sup>		3-4
CIS 2033	Computational Probability and Statistics	
CIS 2082	Independent Research I	
CIS 2166	Mathematical Concepts in Computing II	
CIS 3203	Introduction to Artificial Intelligence	
CIS 3207	Introduction to Systems Programming and Operating Systems	
CIS 3211	Automata, Computability, and Languages	
CIS 3217	Computer Architecture	
CIS 3219	Computer Graphics and Image Processing	
CIS 3308	Web Application Programming	

CIS 3319	Wireless Networks and Security
CIS 3374	Quality Assurance & Testing
CIS 3441	Software Security
CIS 3513	Introduction to iOS Application Development
CIS 3515	Introduction to Mobile Application Development
CIS 3603	User Experience Design
CIS 3605	Introduction to Digital Forensics
CIS 3715	Principles of Data Science
CIS 4319	Computer Networks and Communications
CIS 4331	Principles of Database Systems
CIS 4350	Seminar on Topics in Computer Science
CIS 4360	Seminar on Topics in Computer Science
CIS 4419	Securing the Internet of Things
CIS 4515	Advanced Mobile Application Development
CIS 4517	Data-Intensive and Cloud Computing
CIS 4523	Knowledge Discovery and Data Mining
CIS 4524	Analysis and Modeling of Social and Information Networks
CIS 4526	Foundations of Machine Learning
CIS 4615	Ethical Hacking and Intrusion Forensics

**Total Credit Hours****23-24**

- <sup>1</sup> All of the listed CIS courses have Math course prerequisites of MATH 1022 Precalculus or higher.
- <sup>2</sup> Students may earn placement credit for this introductory programming course requirement. Please see the Computer Science faculty advisor for more information.
- <sup>3</sup> Some of the listed electives have prerequisites in addition to the core requirements.

Although the Computer Science minor can be completed in three semesters, it is best to allocate at least four semesters.

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