# **COMPUTER SCIENCE MAJOR, BA**

Campus: NYC, Westchester

## **Major Completion Summary**

Requirement	Credits
University Core Requirements	44-55
Major Requirements	40-41
Minor	15-18
Open Electives	1-18
Total Credits	120

### **University Core Requirements (44-55 Credits)**

See complete University Core (https://catalog.pace.edu/undergraduate/university-core-curriculum/) requirements.\*

\*Students pursuing a BA in Computer Science are required to complete MAT 131 Calculus I and CS 121 Introduction to Computer Science from the Foundation Requirements.

#### **Major Requirements (40-41 Credits)**

•	· · · · · · · · · · · · · · · · · · ·	
Code	Title	Credits
Computer Science Required Courses <sup>1</sup>		
CS 113	Mathematical Structures for Computer Science	4
CS 121	Introduction to Computer Science <sup>2</sup>	4
CS 122	Object-Oriented Programming	4
CS 232	Computer Organization	4
CS 241	Data Structures and Algorithms	4
CS 242	Algorithms and Computing Theory	4
CS 291	Professional Computing Seminar	1
CS 491	Software Engineering	4
<b>Advanced Electives in Computer Scientific</b>	ence	
Select one of the following course	es:	
CS 488	Internet and Distributed Computing	4
or CS 312	Research Methods in Computers and Society	
or CS 361	Programming Languages and Implementation	
or CS 371	Operating Systems and Architecture	
Plus two additional CS electives at the 300 level or higher.		
CS Elective		4
CS Elective		4
Mathematics Courses		
MAT 131	Calculus I <sup>2</sup>	4
MAT 234	Introduction to Probability and Statistical Analysis <sup>2</sup>	4
or CS 377	Mathematical Foundations of Machine Learning	

Students must earn a grade of "C" or better in each prerequisite course to take subsequent CS courses.

### Minor (15-18 credits)

A minor is required for students pursuing a BA in Computer Science. Students can take a minor from within the Seidenberg School, or they can pursue a minor offered by another School at Pace.

#### **Seidenberg Minors**

<sup>&</sup>lt;sup>2</sup> Course is taken as part of the University Core Requirements.

#### 2 Computer Science Major, BA

- Computer Information Technology
- · Information Assurance in the Criminal Justice System
- · Game Development
- Cybersecurity

Popular minors offered by other Pace schools for students pursuing a BA in Computer Science include Digital Design, Mathematics, Economics, Marketing and General Business. Students must complete required courses as approved by the relevant school.

Once the minor requirement is fulfilled, the completion of 120 credits can be satisfied through elective courses.

# **Open Electives (1-18 Credits)**

Code	Title	Credits
Open Electives		
Select 1-18 credits		1-18
Total Credits		1-18