

Approx. program length:

4 years

Credits:

120

Cost per credit:

\$398

[Tuition Guarantee](#)

Format:

Online

Bachelor of Science in Computer Science

Gain the skills to create the applications people use every day — or manage the IT professionals who do. Our computer science degree equips you with the knowledge to apply information technology theory and principles to address real-world business challenges. You can also use elective courses to earn a certificate in cybersecurity, networking, cloud computing and much more.

You'll learn how to:

- Design a minimum viable product (MVP) in wireframe or cloud-based application and present it to potential investors
- Analyze a complex computing problem and apply principles of computing to identify solutions
- Evaluate a computing-based solution to meet a given set of requirements
- Make informed judgments in computing practice based on legal and ethical principles
- Apply computer science theory and software development fundamentals to produce computing-based solutions

Projected job growth:

21%

According to [Bureau of Labor Statistics](#)

What can you do with a Bachelor of Science in Computer Science?

A BSCS degree can prepare you to be:

- Application developer
- Application integration engineer
- Applications developer
- Computer consultant
- Information technology analyst (IT analyst)
- Software architect
- Software developer
- Software development engineer
- Software engineer
- Technical consultant

According to the [Bureau of Labor Statistics](#). BLS projections are not specific to University of Phoenix students or graduates.

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Institutional accreditation

University of Phoenix is accredited by the Higher Learning Commission (HLC), hlcommission.org. Since 1978, University of Phoenix has been continually accredited by the Higher Learning Commission and its predecessor.

Total credits required:

120

Requirements and prerequisites

You'll need 120 credits to complete this online computer science degree. An academic counselor will help you select the courses needed to complete your degree. Your course schedule may vary based on transferable credits or credits earned through the University's Prior Learning Assessment.

18 Core Courses

Here's where you'll pick up the bulk of your program-specific knowledge. By the time you finish these courses, you should have the confidence and skills needed in this field.

- CSS/200: FOUNDATIONS OF COMPUTER SCIENCE
- PRG/211: ALGORITHMS AND LOGIC FOR COMPUTER PROGRAMMING
- WEB/240: WEB DESIGN FUNDAMENTALS
- MTH/221: DISCRETE MATH FOR INFORMATION TECHNOLOGY
- DAT/210: Data Programming Languages
- PRG/420: JAVA PROGRAMMING I
- PRG/421: JAVA PROGRAMMING II
- DAT/305: Data Structures for Problem Solving
- CSS/421: COMPUTER ORGANIZATION AND ARCHITECTURE
- CSS/325: ETHICS IN COMPUTER SCIENCE
- NTC/362: FUNDAMENTALS OF NETWORKING
- MTH/360: LINEAR ALGEBRA
- POS/355: INTRODUCTION TO OPERATING SYSTEMS
- BSA/385: INTRO TO SOFTWARE ENGINEERING
- CSS/422: SOFTWARE ARCHITECTURE
- CSS/430: ALGORITHMIC THEORY AND PRACTICE
- CSS/440: ARTIFICIAL INTELLIGENCE AND BIG DATA TRENDS
- CSS/450: COMPUTER SCIENCE CAPSTONE

15 General Education

Select from a variety of courses that help lay the foundation for all our degree programs. Because communication, math and writing skills aren't just universally applicable in IT — they're useful in daily life.

- GEN/201: FOUNDATIONS FOR UNIVERSITY SUCCESS
- PSY/110: PSYCHOLOGY OF LEARNING
- ENG/100: CRITICAL READING AND COMPOSITION
- HUM/115: CRITICAL THINKING IN EVERYDAY LIFE
- FP/100T: EVERYDAY ECONOMICS AND FINANCES
- ENG/200: RHETORIC AND RESEARCH
- BIS/221T: INTRODUCTION TO COMPUTER APPLICATIONS AND SYSTEMS
- CIS/207T: INFORMATION SYSTEMS FUNDAMENTALS
- CYB/110: Foundations of Security
- MTH/220T: COLLEGE ALGEBRA
- CHM/150: GENERAL CHEMISTRY I
- CHM/151: GENERAL CHEMISTRY II
- NTC/248: FOUNDATIONS OF NETWORKING
- MTH/280: CALCULUS I
- MTH/290: CALCULUS II

6 Electives

Elective courses allow you to learn about topics you're interested in. That means you'll have a degree that's unique to you and your education goals.

- CIS/291: PC AND DEVICE FUNDAMENTALS
- CIS/293: NETWORK TROUBLESHOOTING AND SUPPORT
- CIS/295: INTRODUCTION TO PC AND MOBILE OPERATING SYSTEMS
- CIS/297: COMPUTER SECURITY AND OPERATIONAL SUPPORT FUNDAMENTALS
- NTC/260: FOUNDATIONS OF CLOUD SERVICES
- POS/221: WINDOWS SERVER CONFIGURATIONS

Schedule

Your academic counselor will help schedule your courses for a computer science degree.

What you'll learn

When you earn your online Bachelor of Science in Computer Science, you'll be equipped with a concrete set of skills you can apply on the job.

[Download learning outcomes](#)

Topics covered in this degree include:

- Java programming
- Software development
- Computer architecture
- Ethics in computer science
- Computer application and theory