



University Extension
Professional Studies

LEVERAGE WHAT YOU KNOW



POSTGRADUATE CERTIFICATE IN COMPUTER SCIENCE

WHAT YOU'LL LEARN

- Introductory and intermediate analysis of data structures and algorithms
- Application of discrete structures in computer science
- Introductory topics in computer organization, including number representation, memory organization, and assembly language programming
- Principles of software construction, such as debugging, component integration, and maintenance
- Operating system design and core principles and practices

Start your journey into a career in computer science by building on your education and work experience in the sciences or engineering. Learn the foundations of data structures and algorithms, so you can write efficient programs that work well in real-world scenarios. Understand the details of how computers actually work via courses on computer organization and operating systems design, with hands-on labs. Learn how to construct reliable and maintainable programs by building new skills in core programming, testing, performance evaluation, and more.

After the program is completed, use your certificate to confidently apply for a MS in computer science program and get ready for the next chapter in your career.



TOTAL UNITS: 24



COMPLETION TIME: 9-18 MONTHS



TUITION: \$7,944



LEARNING FORMAT: In-Person



CONNECT WITH AN ADVISOR
extension.ucr.edu/advisors

951.827.4105 | extension.ucr.edu

POSTGRADUATE CERTIFICATE IN COMPUTER SCIENCE

 **CONNECT WITH AN ADVISOR**
extension.ucr.edu/advisors

TAKE YOUR CAREER TO A HIGHER LEVEL

There are several reasons why, Bachelor's degree in hand, you might be considering continuing your studies. An upgraded education section on your resume can open the door to a new career, or, if you're already working, lead to a promotion and a higher salary. While you're working, going back to school is an excellent way to stay current in rapidly changing fields, or, if you've been away from the workforce for a while, to quickly get caught up in the latest trends, concepts, and advances.

This program is a partnership between UCR University Extension and UCR Department of Computer Science, and provides a certificate for the successful completion of the computer science department's bridge program. The bridge program aims to broaden participation in computing by opening new pathways to graduate degrees in Computer Science. Courses are completed through the concurrent enrollment process.

KEY BENEFITS INCLUDE:

- UC Quality Curriculum
- Enhanced Employability
- Intercultural Management Competencies
- Instruction from Professional Leaders in the Industry
- Professional Endorsements

CAREER INFORMATION

 <p>IN-DEMAND FIELD Jobs are projected to grow at a rate of 9% over the next 5 years.</p>	 <p>STRONG EARNING POTENTIAL Median Salary \$145,080</p>	
 <p>VARIETY OF JOBS TO CHOOSE FROM</p> <ul style="list-style-type: none"> • Computer Scientist • Computer Specialist • Control System Computer Scientist • Research Scientist • Scientific Programmer Analyst 	 <p>SKILLS FOR SUCCESS</p> <ul style="list-style-type: none"> • Complex Problem Solving • Critical Thinking • Judgment and Decision Making 	 <p>REALITY CHECK. WHAT YOU WILL DO ON THE JOB.</p> <ul style="list-style-type: none"> • Analyze data to identify or resolve operational problems • Apply information technology to solve business or other applied problems • Monitor the performance of computer networks

Source: O*NET Online, Workforce Characteristics Wages and Employment Trends 2022-2032



POSTGRADUATE CERTIFICATE IN COMPUTER SCIENCE



CONNECT WITH AN ADVISOR
extension.ucr.edu/advisors

STUDY PLAN

Prerequisites

CS 9A-C or equivalency

AND CS/MATH 11 or equivalency (required for those outside of STEM backgrounds)

OR

CS 10A-B or equivalency

AND CS/MATH 11 or equivalency (required for those outside of STEM backgrounds)

OR

Pass Self-Assessment (in development by CS faculty)

Required Courses

QUARTER		UNITS
1	Introduction to Data Structures and Algorithms CS 010C (CS XRC010C)	4
2	Discrete Structures CS 111 (CS XRC111)	4
3	Machine Organization and Assembly Language Programming CS 061 (CS XRC061)	4
4	Software Construction CS 100 (CS XRC100)	4
5	Intermediate Data Structures and Algorithms CS 141 (CS XRC141)	4
6	Design of Operating Systems CS 153 (CS XRC153)	4

ARE YOU READY FOR YOUR NEXT STEP?

Schedule an appointment with an [Advisor](https://extension.ucr.edu/advisors) to get started. extension.ucr.edu/advisors

