Computer Science (CS)
2024-2025 Advising Guide

Students interested in completing a **Bachelor of Science Degree in Computer Science** at an **Oregon University** can complete freshman and sophomore ("Lower Division") coursework at PCC and then transfer to one of the following Oregon Universities to complete their Bachelor of Science degree.

Oregon State University – Bachelor's Degree in Computer Systems
https://eecs.oregonstate.edu/undergraduate-programs/computer-science
> **Note**: OSU also offers **applied options** in computer science that combine different majors with CS – see link above

Oregon Technology – Bachelor's Degree in Software Engineering Technology
https://www.oit.edu/academics/degrees/software-engineering-technology

Portland State University – Bachelor's Degree in Computer Science
https://www.pdx.edu/computer-science/

University of Oregon – Bachelor's Degree in Computer Science
https://scds.uoregon.edu/cs/undergraduate-programs

Western Oregon University – Bachelor's Degree in Computer Science
https://wou.edu/cs/

Where to find information in this Advising Guide

Frequently Asked Questions

What is Computer Science?

Computer Science is the study of **computer programming** or software development. Computer Scientists learn how to design, develop, test and apply new software systems.

Computer Science is found in a wide variety of jobs, including Software Engineering, Artificial Intelligence, Computer Systems, Video Game Development and Cybersecurity, such as Penetration Testing.

Does PCC offer an Associate's Degree in Computer Science?

No. Computer Science is a transfer major only at PCC; there is no certificate or associate's degree in computer science.

What jobs does a bachelor's degree in Computer Science prepare students for?

The Bachelor of Science degree in Computer Science prepares students for jobs such as:

- Software Development
- Software Engineering
- Game Development
- AI (Artificial Intelligence) Developer
- Cybersecurity

Is Computer Information Systems the same thing as Computer Science?

No. CIS and CS are two completely different majors!

CIS is PCC's **Information Technology (IT)** program. CIS prepares students for work in IT Tech Support, Network Technician, Software Testing, and Network Security, to name a few. **Not one CIS class** transfers towards any requirements in a bachelor's degree in computer science.

What language are PCC's CS classes taught in?

Our CS 160 (exploring computer science) class is an introduction to programming class taught in Python.

Our CS 161A (programming I), CS 161B (programming II) and CS 162 (computer science II) classes are taught in C++; starting with CS 161B students are also introduced to Linux.

What would my first term classes be?

That depends on two things: (1) your reading, writing and math placement tests and/or your completion of WR and MTH classes at PCC or another college or university and (2) your background in programming.

It is recommended that students complete at least MTH 65 (Intro to algebra II) before taking their first Computer Science (CS) class: CS 160 or CS 161A.

If you are **new** to programming, new to college and wish to be full-time:

If you score into WR 121 and MTH 60 or 65	If you score into WR 121 and MTH 95 or higher:
WR 121 English Comp (4 credits)	WR 121 English Comp (4 credits)
MTH 60 or 65 (4 credits)	MTH 95 or higher (4-5 credits)
PSY 201A psychology (4 credits)	**CS 160 exploring CS (4 credits)**

If you have a **background** in programming already, but are new to college:

If you score into WR 121 and MTH 60 or 65	If you score into WR 121 and MTH 95 or higher
WR 121 English Comp (4 credits)	WR 121 English Comp (4 credits)
MTH 60 or 65 (4 credits)	MTH 95 or higher (4-5 credits)
PSY 201A psychology (4 credits)	**CS 161A Programming I (4 credits)**

Can I skip CS 160 and go directly into CS 161A (programming and problem solving I)?

Yes. However, CS 161A will assume you have the knowledge of CS 160 (exploring computer science), which is an intro to programming class.

Can I skip CS 161A and go directly into CS 161B (programming and problem solving II)?

No. But if you believe you have the background to skip CS 161A and be successful in CS 161B, please go to this link and complete the CS 161B entrance exam.

CS 161B entrance exam link:
https://www.pcc.edu/testing/proctored-exams/cs-161b-entrance-exam/

If you completed a college-level English Composition and Math class and/or have college credits and/or a degree from a regionally accredited college or university within the United States:

Please email an unofficial copy of your college transcripts and your PCC student ID number ("G number") to your assigned Advisor and ask for a placement test override and advice on your first term classes.

Please note: *if your last math class was completed more than three years ago, you may need to take the math placement test to determine your first math class at PCC.*

> CS 133G, CS 233G, and CS 133U do **not** transfer into a **computer science** degree at any of the Oregon Universities

Transfer Information for Computer Science majors at PCC

As an Oregon Community College, PCC has transfer agreements with the Public Oregon Universities. This means PCC advisors can help you choose classes that will transfer to the public **Oregon University** you intend to transfer to for computer science.

These include: Oregon State University, Oregon Technology, Portland State University, University of Oregon, and Western Oregon University

Each University has the right to determine what their lower division requirements should be for their Bachelor of Science degrees. For this reason, each University has slightly **different** lower division requirements for their computer science degree.

As a result: students cannot complete two years of classes at PCC that will meet the lower division requirements for ALL Universities for computer science. Students need to decide on their transfer school **by the end of their First Year**.

Universities outside of Oregon

PCC advisors cannot tell you if our classes transfer to a university *outside of* Oregon.

If you are interested in transferring to a university outside of Oregon for Computer Science, it is your responsibility to find out if that university will transfer in PCC's computer science classes.

In many cases, it is in the ***student's best interest to transfer to a community college*** within the same state as their transfer university to ensure their classes will transfer smoothly to that university. For example, California and Washington State Universities give **strong admissions preference** to transfer students from in-state community colleges.

Sample Three Term Plan of classes that will transfer to all of the Oregon Universities.

This plan assumes the student tests into MTH 251 (calculus I) and WR 121 (English Composition); has no transfer credits, wants to go full-time and intends to transfer to an Oregon University. Your plan may look different.

Term One	Term Two	Term Three
CS 160 exploring CS	CS 161A Programming I	CS 161B Programming II
MTH 251 calculus I	MTH 252 calculus II	PSY 201A psychology
WR 121 English Comp	COMM 111 pblc speak	WR 227 tech writing

Oregon Technology and Oregon State University's Computer Systems degree requires additional math beyond MTH 252, including MTH 253 (calculus III) and MTH 254 (vector calculus).

Portland State University requires MTH 253 (calculus III) or MTH 261 (applied linear algebra) after MTH 252.

Western Oregon University, University of Oregon and Oregon State University's Applied Options in Computer Science require no additional lower division math after MTH 252

CS 133G, CS 233G, and CS 133U do **not** transfer into a **computer science** degree at any of the Oregon Universities