



**Portland
Community
College**

Computer Information Systems, Cybersecurity & Network Administration Degrees and Certificates 2025-2026 Advising Guide

Computer Information Systems (CIS) is Portland Community College's **Information Technology (IT)** program. The CIS department offers Associate of Applied Science (AAS) degrees in:

Computer Information Systems (CIS)

Cybersecurity (CYBR)

Network Administration (CISN)

Web Development and Design (WBD) – refer to the [Web Development Advising Guide](https://spot.pcc.edu/computers/pdf/cis_wdd_advising_sheet.pdf) at https://spot.pcc.edu/computers/pdf/cis_wdd_advising_sheet.pdf

Please note:

Computer Information Systems is NOT Computer Science! Please read **page 2** to understand the differences.

The degrees in the CIS program prepare students for entry-level work in the **IT industry**. Please see the jobs each degree leads to on **page 6**.

Our **one-year Certificate in Computer Information Systems** is equal to the first year of the AAS degree in CIS and prepares students for entry-level jobs in **IT Tech Support**.

Our **Advanced Certificates** are designed for **IT professionals**, who already work in the industry. Some of them can also be completed along with one's AAS Degree.

Our CIS classes are offered **mostly online (some with scheduled meetings and some without)**.

International Students on the **F-1 Visa**, who **must take at least 9 credits of in person classes every term**, will **not** be able to fulfill this federal government requirement for these degrees. If you are studying at PCC on an F-1 visa, you will need to choose a different major.

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Computer Information Systems and **Computer Science** are two completely different majors

Computer Information Systems is PCC's Information Technology (IT) program. It's preparing students for entry level work in IT Tech Support, Software Testing, and Database Development, to name a few (see page 6)

Not one CIS class transfers towards any requirements in a bachelor's degree in computer science.

Computer Science is the study of **computer programming** and **computational theory**. A bachelor's degree in computer science is preparing students for work as a Software Engineer, Software Developer, AI (artificial intelligence) Developer and/or Game Developer.

Computer Science is a transfer major only at PCC; there are no certificates or associate degrees in computer science.

Please read my **computer science advising guide** for more information about this major:
https://spot.pcc.edu/computers/pdf/cs_advising_sheet.pdf

Transfer Options for CIS Students

Computer Information Systems (CIS) classes do **not** transfer to Portland State University, Oregon State University or University of Oregon, because these schools do not offer bachelor degrees in information systems or information technology.

The one transfer path is with Western Oregon University (WOU). Western Oregon University offers a [bachelor's degree in information systems](#), with a concentration offered in cybersecurity. Their degree can be completed on their Monmouth, OR campus or entirely online.

What classes should I register into for my first term?

Your first term classes depend on the results of your **placement test scores** or your prior coursework at another regionally accredited college or university within the United States. Please see below for recommended First Term Course Registrations.

Do not take MTH 58 (math literacy I) for your math requirement

CIS 122 (intro to programming logic) requires MTH 60 (intro to algebra I) as a prereq. If you test *below* MTH 65, you must take MTH 60 and then MTH 65 to meet your math competency requirement.

I tested into WR 121, MTH 60 (or higher) and am not required to take any reading class

Your first term classes would be:

Full Time Schedule (12 credits)	Part Time Schedule (8 credits)
CIS 120 or CIS 121 (see page 4) – 4 credits	CIS 120 or CIS 121 (see page 4) – 4 credits
WR 121 – English Composition – 4 credits	MTH 60** – intro to algebra I – 4 credits
MTH 60** – intro to algebra I – 4 credits	
<i>**if you scored into a math class higher than MTH 60, take that class (MTH 65, MTH95, etc.)</i>	<i>**if you scored into a math class higher than MTH 60, take that class (MTH 65, MTH95, etc.)</i>

I tested into MTH 20 and/or WR 115, WR 90, WR 80, and/or a RD class

You cannot yet register into our CIS classes. Please start with your MTH, WR and RD classes.

I completed a college-level English Composition and Math class at a regionally accredited college or university within the United States.

Please send the CIS academic advisor or any advisor at PCC a copy of your transcripts (an unofficial copy is fine for this purpose) and your PCC student ID number (“G number”) and ask for a placement test override. Please see below for suggested First Term classes.

Full Time Schedule (12 credits)	Part Time Schedule (8 credits)
CIS 120 or CIS 121 – 4 credits	CIS 120 or CIS 121 – 4 credits
See suggested classes below	See suggested classes below

Additional classes you can take your first term for the AAS Degrees in CIS, CYBR and CISN:

CIS 145 (computer hardware) can be taken with CIS 120 or CIS 121.

CIS 184C (intro to security) can be taken with CIS 121.

CIS 122 (intro to programming logic) can be taken with CIS 121 *if you tested into MTH 65 or higher or completed MTH 60 or higher.***

Your one social science general education class, such as **PSY 201A** (Psychology) or **SOC 204** (Sociology)

One or both of your required business electives: **BA 111** (accounting), **BA 205** (business communications), and **BA 226** (business law) work for all three Degrees.

****if you are starting with CIS 120 (digital literacy) or new to programming, we **do not recommend you take CIS 122 your first term.****

Should I start with CIS 120 (Digital Literacy) or CIS 121 (Information Systems & Programming)?

CIS 120 is a **digital literacy class** and covers the following topics:

- Microsoft Word, **Excel**, PowerPoint, and **Access**
- File management - how to create and organize folders and files on your computer
- How to search for and download a software application
- what an operating system is and what it does
- what the hardware components of a computer are

Students who ***don't*** know all of the above bullet items, should start with CIS 120.

Students who ***do*** know the content of CIS 120, should start with CIS 121 (IS & programming)

CIS 120 is not a required class for any of the CIS Certificates or AAS Degrees. However, CIS 120 would apply as one **CIS Elective** in the AAS Degree in CIS, the AAS Degree in CYBR, the AAS Degree in CISN and the one-year certificate in CIS.

CIS 121 (information systems and programming) is the first ***required class*** in all of our AAS Degrees and the one-year certificate in CIS. Students starting with CIS 121 are expected to know the content of CIS 120 (digital literacy).

I already have a background in IT – can I get credit for the beginning CIS classes?

As a community college, our programs are designed for those new to college and new to the major. As a result, we do not offer challenge exams or college credit for life or work experience. In addition, some of the CIS classes in our certificates cannot be substituted out due to Accreditation and State requirements.

Please meet with the CIS advisor to discuss your situation. Please note that it can take 1-2 weeks to set up an advising appointment and 1-3 weeks for the CIS department to review substitution requests. Please plan accordingly.

The CIS program is a heavily Online* program

It's important to know that the CIS program is a **heavily online program**. Not only can many of the CIS Certificates and AAS Degrees be done entirely with online classes, many of our CIS classes are *only* offered online.

*There are two types of online classes: online with no scheduled classes and online with weekly zoom lectures. Students can complete the AAS Degree in CIS, CYBR or CISN with a combination of online (no scheduled classes) and online (scheduled zoom classes).

When CIS classes are offered on-campus, they are offered on the Sylvania Campus. Only our beginning CIS classes (CIS 120, CIS 121 and CIS 122) are sometimes offered at other PCC campuses (Cascade, Rock Creek, or Southeast).

New Students should complete the **online start guide for online learners** before starting their first term classes: <https://www.pcc.edu/online/students/osg/>

Students receiving military funding, who need **one on-campus class per term** to receive their **housing allowance** benefits, will not always be able to find an in person class each term to meet this requirement.

Students on the F-1 Visa, who need **to take at least 9 credits of on-campus classes per term** will **not** be able to meet the US government F-1 visa requirement for any of the CIS certificates or AAS Degrees.

What are the minimum recommended specifications for a computer for the CIS program?

Operating System: The CIS department recommends **PCs running Windows 11** – Home or Pro Edition. Chromebooks, iPads, and similar devices **cannot** run the applications and software requirements of this program.

CPU: Intel i7 (or better) or AMD Ryzen 5 (or better) is recommended.

Memory (RAM): minimum of 16 GB of RAM is required.

Storage (Disk Space): 250GB is recommended. Solid state (SSD) is preferred.

USB: One or more USB 3 or USB C ports

Microphone/Camera – A computer microphone and web camera are required for Remote classes.

WiFi (Wireless Networking)

What jobs do each of the AAS Degrees prepare students for?

AAS Degree in Computer Information Systems

This degree has a required four-term sequence in programming as well as a required class in SQL. This degree is best for students, who wish to target IT jobs such as:

- Junior Programmer
- Software Tester
- Database Developer
- Junior Data Analyst

AAS Degree in Cybersecurity

This degree requires a two term sequence in both Unix/Linux and Windows Server Exchange, and both the intro to security class (CIS 184C) and cybersecurity class (CIS 284C). Only two terms of programming are required. This degree is best for students, who wish to target IT Jobs such as:

- IT Tech Support
- Computer Support Specialist
- Junior Information Security Analyst
- Junior Penetration Tester
- Risk Analyst

AAS Degree in Network Administration

This degree requires classes in both Unix/Linux and Windows Server exchange as well as a computer hardware class. Only two terms of programming are required. This degree is best for students, who wish to target IT Jobs such as:

- IT Tech Support
- Computer Support Specialist
- Linux systems administrator
- Windows systems administrator

AAS Degree in Web Development and Design

- Junior Web Developer
- Junior html/css Developer

Please refer to the [Advising Guide for the AAS Degree in Web Development and Design](#) for more information.

Sample **First Year Plans** for the AAS Degrees in CIS, CYB and CISN

****Please refer to the [Advising Guide for the AAS Degree in Web Development and Design](#) for a Sample Academic Plan for that degree****

These plans assume the student has tested into WR 121 and MTH 65; is going full-time, has no transfer credits and is starting with CIS 121. Your academic plan may look different.

AAS Degree in Computer Information Systems: First Year Plan

Term One	Term Two	Term Three	Term Four
CIS 121 IS & program	CIS 122 intro program.	CIS 133Y Python I	CIS 275 intro SQL
WR 121 English Comp	CIS 179 data comm I	CIS 140M windows OS	CIS 233Y Python II
MTH 65 intro algebra II	CIS 184C intro security	CIS 125D dbase app	WR 227 tech writing

AAS Degree in Network Administration: First Year Plan

Term One	Term Two	Term Three	Term Four
CIS 121 IS & program	CIS 122 intro program.	CIS 133Y Python I	CIS 140L intro to UNIX
WR 121 English Comp	CIS 179 data comm I	CIS 140M windows OS	CIS 240M ms server
MTH 65 intro algebra II	CIS 184C intro security	CIS 182 cloud comp.	WR 227 tech writing

AAS Degree in Cybersecurity: First Year Plan

Term One	Term Two	Term Three	Term Four
CIS 121 IS & program	CIS 122 intro program.	CIS 133Y Python I	CIS 284C cybersecurity
WR 121 English Comp	CIS 179 data comm I	CIS 140M windows OS	CIS 240M ms server
MTH 65 intro algebra II	CIS 184C intro security	CIS 140L intro to UNIX	WR 227 tech writing

1. Note that the first two terms of classes are **the same** for all three degrees
2. The beginning classes noted in Term One and Two are offered *every term*, so your first two terms of classes can be the same no matter what term you start.
3. There are *multiple* ways to map out your classes! Please view these Sample First Year Plans as one possible way your first year of classes might be mapped out. Every student's plan will look different.

Academic Advising

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