

# 2023-24 AAS Programming & Software Development Map

Course Sequencing		
Year	Quarter	Subject
First Year	Fall	CS 101 (Intro to Computers & Info Tech)
		MATH& 141 (Precalculus 1), 142 (Precalculus 2), 144 (Precalculus 1 & 2), 146 (Intro to Stats), &148
		(Business Calculus) OR <u>&amp;151</u> (Calculus 1)
		HDEV 101 OR 102 (Creating Academic Success OR College Connections)
		FYI 101 (First Year Introduction)
	Winter	CS 102 (Programming Fundamentals) OR 131 (Computer Science I C++)
		CS 106 (Database Systems)
		CS 150 (Computer Security)
	Spring	CS 228 (Windows Server)
		<u>CS 202</u> (Programming Fundamentals 2) OR <u>162 (</u> C++2)
	Summer	<u>CS 117</u> (Computer Ethics)
		CS 118 (Customer Service)
		ENGL& 101 (English Comp 1)
Second Year	Fall	CS& 141 (Computer Science 1 Java)
		CS 262 (Game Programming Design & Development),
		<u>CS Elective</u> - choose from <u>127</u> (Windows Configuration), <u>206</u> (Database Design), <u>221</u> (SQL Server
		Administration) OR <u>260</u> (Data Structures in C++)
	Winter	<u>CS 236</u> (Advanced Object Oriented Programming) <u>CS 250</u> (HTML5-JavaScript/JQuery)
		<u>CS Elective</u> - choose from <u>123</u> (PC Hardware), <u>221</u> (SQL Server Administration) OR <u>260</u> (Data
		Structures in C++)
	Spring	CS Elective - choose from 206 (Database Design), 221 (SQL Server Administration), 225 (SQL
		Server Programming) OR <u>260</u> (Data Structures in C++)
		PSYC& 100 (General Psychology), SOC& 101 (Intro to Sociology) or &201 (Social Problems)
		CMST 104 (Speech Essentials), 110 (Communication Behavior), <u>&amp;210</u> (Interpersonal
		Communication), <u>&amp;220</u> (Public Speaking) or <u>260</u> (Multicultural Communication)

The plan above is only a sample. If you want to see all of the courses we offer, please visit our online catalog here!

## **BEFORE YOU START**

Ready to get started? To begin working towards the AAS degree, you simply need to apply and be accepted to CBC. You can apply online at <u>www.columbiabasin.edu</u>.

# ABOUT THE PROGRAM

The study of Computer Science (CS) will provide students with limitless opportunities in the Information Technology (IT) workforce. With current technologies integrated into the CS curriculum, connections with area employers and skills gained from cyber competitions, the CS program prepares students like you for success!

## You may be interested in a career in Computer Science if you:

- Enjoy playing games and writing code
- Enjoy solving complex problems and designing solutions
- Express creativity through use of an ever-expanding set of tools
- Are interested in finding a solution to fight against hackers and to mitigate everyday cyber vulnerabilities

Our connections extend beyond the classroom and facilitate internships as well as contests where students can earn awards of recognition, and volunteer work in the community to enhance your holistic growth. Students can also build new connections of their own within our thriving extra-curricular clubs run by students like you.

## **Program Level Outcomes for Computer Science**

Program learning outcomes are the knowledge, skills and abilities that students will achieve before they graduate. The outcomes below were developed by the faculty in the Computer Science program at CBC with input from accrediting bodies, advisory committees, employers, etc. This collaboration ensures that the outcomes are relevant for careers that this degree leads to.

Throughout the Computer Science program, students will accomplish the following Program Level Outcomes (PLOs):

- 1. Solve a problem using appropriate computing algorithms and techniques.
- 2. Analyze impact of computer systems on organizations, society and the individual.
- 3. Apply concepts relating to computer systems (database systems, security, hardware, software, programming languages and networks).
- 4. Perform the basics of computer and network security.
- 5. Discuss the professional, ethical and societal issues and responsibility.
- 6. Communicate with customers, supervisors and co-workers.
- 7. Identify risks, assess threats and develop solutions to protect computer assets and data.

## **OUT OF CLASS TO DO'S**

- Contact your instructors and/or the CBC Career Services Center to find an internship, observation/shadowing experience, or a job in the programming and software development field.
- Visit the Academic Success Center for quiet study space, small group study, supplemental instruction and tutoring assistance.

## **CAREER OPPORTUNITIES**

Computer Science graduates are prepared to work in an ever-changing world. Job opportunities with highly competitive salaries are open in many different fields. Software developers create and implement software programs, maintain and optimize existing software, design and update software databases, test software for stability and functionality, and recommend improvements to existing programs as necessary.

#### FAQs

**Class Times/Delivery Format** Classes are offered in a variety of formats, including in-person, online and hybrid.

*Length of Program* Full-time students can complete the AAS in two years.

*Which Quarter Can I Begin?* You can begin any quarter!

## APPLY FOR FINANCIAL AID OR OTHER FUNDING

#### Please complete:

**The FAFSA application:** The Free Application for Federal Student Aid (FAFSA) provides financial aid for U.S. citizens and eligible non-citizens, such as permanent residents. Visit the <u>FAFSA website</u> to create your FSA ID and to complete your application.

#### OR

**The WASFA application:** The Washington Application for State Financial Aid (WASFA) is for DACA or HB 1079 undocumented students. Visit the <u>Washington Student Achievement Council website</u> to complete your WASFA application.

Did you know??? You can apply for CBC scholarships two times every year! Click here for more information!

**PLEASE NOTE:** This document represents a sample plan for degree completion with this program of study. Actual course selection and sequence may vary and should be discussed individually with your Completion Coach. Completion Coaches can also help you plan other experiences to enrich your education such as internships, research, learning communities, and campus involvement and community-based learning.

Office Hours: Monday to Thursday 7 am to 4:30 pm; Friday 7 am to noon



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