

# MASTER OF SCIENCE IN COMPUTER SCIENCE

Combining sound Computer Science concepts with real-world skills, CUW's MS CS program will help you develop your mind and spirit for the challenges of Computer Science vocations.

Computer Science involves the creation of technology used to solve problems along with a foundational understanding of how existing technology is implemented. Today, every business and enterprise requires Computer Science in order to function productively, efficiently and competitively in the global economy. Succinctly, computer science is the engine powering the implementation and optimization of current technology.

The MS in CS will prepare the student to be a highly proficient computer scientist, able to create complex hardware and software systems, a manager of complex information technology (IT) systems, a leader of a technical team, or a successful student in a Ph.D. program in computer science or in a related field.

Building on the student's undergraduate background in the field, the program is designed to deepen the student's skills and knowledge in the principal areas of computer science. Problem solving, collaboration, creative design processes, close contact with professional literature, writing, presentation, and ethical practices grounded in a Christian worldview are incorporated throughout the program.

Our program is designed to meet the needs not only of current CS professionals and new graduates interested in CS, but also those who enjoy creating technology to solve problems. It will provide you with the foundational knowledge and skills to understand computer systems and their relationship to business problems.

Our MS CS program emphasizes ethical computing. How a Christian professional responds to the needs of clients, users and society in general is of paramount importance within our program. A Christian worldview is integrated within the curriculum and each course.

Note: The program may allow up to 6 transfer credits, with approval by the Program Director.

## Program Learning Outcomes

- A solid, classic foundation in graduate-level computer science
- Excellent preparation for professional positions in software development and other technical and design oriented pursuits in computing
- Excellent preparation for Ph.D.-level study in computer science or related fields
- Intense, focused classroom instruction with an immersive experience

## Curriculum

Code	Title	Hours
<b>Required Technical Courses</b>		
CSC 510	Vocation and Ethical Computing	3
CSC 515	Applied Artificial Intelligence	3
CSC 520	User Experience	3
CSC 525	Data Security and Information Assurance	3
CSC 540	Applied Computer Networking	3

CSC 548	Mobile Computer Architecture	3
<b>Total Hours</b>		<b>18</b>

## Select from one of the following Concentrations

Code	Title	Hours
<b>Software Engineering Concentration</b>		
CSC 530	Database Administration	3
CSC 543	Advanced Algorithms	3
CSC 549	Language Theory	3
CSC 560	Applied Restful APIs and Integrations	3
<b>Total Hours</b>		<b>12</b>

Code	Title	Hours
<b>Information Systems Concentration</b>		
CSC 530	Database Administration	3
CSC 545	System Analysis and Design	3
CSC 550	System Administration and Maintenance	3
CSC 552	Advanced Networking	3
<b>Total Hours</b>		<b>12</b>

Code	Title	Hours
<b>Business Data Applications Concentration</b>		
CSC 530	Database Administration	3
MBA 534	Mastering Analytics and Decision Making	3
MBA 562	Financial Analyses to Drive Business Growth	3
MBA 569	Management Science and Analytics	3
<b>Total Hours</b>		<b>12</b>