

Software Development Major

The Bachelor of Science in Software Development degree program at Charter Oak State College provides students with a comprehensive education in various aspects of software development. Students will learn to work with a diverse range of programming languages, mobile and web technologies, web application frameworks, project management, and databases. The program is designed to be project-driven, and students will have the opportunity to learn from experienced faculty who are actively involved in the industry. Upon completion of the program, students will be well-prepared to pursue a career in software development and obtain relevant industry-recognized credentials.

All major requirements must be completed with a grade of 'C' or higher. This major requires 48 credits.

In order to earn a Bachelor's degree at Charter Oak, all Major, General Education, Liberal Arts, elective, and Upper Division credit must equal 120 or more credits

Major Requirements

CSS 101: Cybersecurity Fundamentals	3 cr
ITE 105: Computer Information Systems	3 cr
ITE 107: Integrated IT Systems and Emerging Technologies	3 cr
ITE 115: Program Logic and Design with Python	3 cr
ITE 220: Networking & Data Communications	3 cr
Data Structures and Algorithms	3 cr
Software Development Process Overview	3 cr
Web-based Development	3 cr
Database Design & Development	3 cr
Object Oriented Programming and Architectures	3 cr
DevOps Methodology	3 cr
MGT 101: Principles of Management	3 cr
MGT 460: Fundamentals of Project Management	3 cr
Agile Development and Management	3 cr
Choose one of the following:	3 cr
ITE 330: Systems Analysis and Design	
ITE 345: Computer Ethics	
ITE 410: Software Engineering	
ITE 225: Computer Organization	
Information Systems Practicum	
ITE 495: Capstone	3 cr

Program Learning Outcomes

Students who graduate with a major in Software Development will be able to:

- apply learned knowledge and techniques to develop software systems designed to solve specific problems;
- develop requirements, build designs, implement & test code and deploy on a variety of architectures;
- utilize the foundations of software development in current and future computer languages;
- develop the necessary project management and improvement skills required in the IT industry;
- appraise the importance of databases in modern applications and develop the skills to build them;
- execute the necessary skills necessary to explain the network and associated components relevant to modern development; and
- recognize the importance of security in both the network and applications running on the Internet.