The Software Engineering program trains graduates with the necessary software development skills to plan, analyze, design, validate, implement, deploy, and manage software systems.

Software Engineering Area of Concentration within the A.A.S. in STEM Technology

The Software Engineering Area of Concentration within the A.A.S. in STEM Technology prepares graduates for a career where they are able to apply engineering principles to analyze, design, develop, test, and implement software in a number of fields.

This program covers system development life cycle, object oriented programming, mobile app development, C++, C#, Java, Python, R, SAS, and database management systems. The program is designed to prepare graduates for a career as a programmer, software architect, software developer, software engineer, or systems analyst.

Software Specialist Certificate

The Software Specialist Certificate program prepares students for a career as a software specialist. Students will be prepared to perform such tasks as maintaining and implementing database management systems, computer applications, and operating systems. Students will be prepared to analyze organizational software needs, devise solutions, and maintain PC software and hardware systems.

At the completion of the program, students will be able to:

- Identify problem requirements that demonstrate understanding of user needs.
- Explain solutions that satisfy problem requirements.
- Design problem solution that solves the requirements.
- Integrate application software to facilitate requirement solutions.

Growth Potential

The median annual wage for software developers was $105,590 in 2018. Employment of software developers is projected to grow 21 percent from 2018 to 2028.


For more information:

James Hatch • 301.624.2769 • jhatch@frederick.edu
Financial Assistance

Frederick Community College (FCC) provides a tuition payment plan for students who wish to spread payment over several months. Scholarship and loan assistance is available for eligible students. For complete scholarship information, contact Financial Aid at 301.846.2620.

Internship Program

Internships help students integrate what is taught in school with what is required in the workplace. Students take internships to develop knowledge and skills valued by employers. Students in certain programs are eligible to receive credit for internships.

Transfer Note

Students can transfer the equivalent of 60 credits to any four-year institution in Maryland. To find more information about how credits will transfer from FCC to a state four-year institution visit artsys.usmd.edu or contact Counseling & Advising at 301.846.2471. Students who plan to transfer should speak with an advisor or program manager from their chosen transfer institution before selecting elective courses.

View required course listings: frederick.edu/software