COMPUTING FOUNDATIONS GRADUATE CERTIFICATE

Banner Code: EC-CERG-CMFD

Website: https://cec.gmu.edu/academics/graduate-programs

Admissions & Policies

Admissions

In addition to general admission requirements of the university, applicants to the certificate are normally expected to have earned a GPA of 3.00 or higher in the last 60 credits of undergraduate study. Applicants must also submit a goals statement and a resume.

Policies

The program will allow substitution of course requirements on a case-by-case basis, depending on prior undergraduate preparation.

Students are assumed to have had prior preparation in algebra. Students who intend to undertake more advanced or specialized coursework, or degree studies in computing beyond what is taught in the certificate program, may need to supplement their learning with additional preparation in subjects such as calculus or statistics.

Requirements

Certificate Requirements

Total credits: 18

This certificate may be pursued on a full-or part-time basis.

All students complete four required (core) courses, then two of three additional courses, depending on their future plans and interests.

Core Courses

Code	Title	Credits
COMP 501	Computer Programming Foundations I	3
COMP 502	Mathematical Foundations of Computing I	3
COMP 503	Computer Systems Foundations I	3
COMP 511	Computer Programming Foundations II	3
Total Credits		12

Restricted Electives

Students select two of the following courses to complete the certificate. Students who plan to apply the certificate toward the MS degree program in Computer Science or the MS degree program in Software Engineering must select COMP 512 and COMP 513.

Code	Title	Credits
Select two from the following:		6
COMP 512	Mathematical Foundations of Computing II	
COMP 513	Computer Systems Foundations II	
CS 504	Principles of Data Management and Mining	
Total Credits		6

Program Outcomes

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Students will learn:

- Important mathematical underpinnings of computing.
- Essential design principles of computer systems.
- Techniques for developing software for computer systems.
- To design, develop, test, and debug moderate-size programs to perform useful functions and provide effective solutions to problems.