

SCIENTIFIC COMPUTING MCGS

All students must meet the Requirements for the micro-Certificate of Graduate Study (mCGS)

OVERVIEW

The Scientific Micro-Certificate program trains students on theoretical and practical skills of scientific computing, preparing them for a wide range of job opportunities in the public sector, industry, and academia. Students completing the program acquire in-depth knowledge of numerical methods for scientific computing, their implementations (including coding), and their applications to real-world problems in science and engineering.

SPECIFIC REQUIREMENTS

Requirements for Admission to Graduate Studies for the micro-Certificate of Graduate Study

All existing UVM graduate students with a 3.0 or above GPA who have successfully completed the prerequisites for the two required certificate courses will be admitted into the program. These students need to enroll in the mCGS-SC no later than having finished their first course that will count toward the program.

Minimum Degree Requirements

This mCGS-SC requires a total of 9 credits (3 courses), which consist of 1 required core course and 2 electives from a pre-approved list.

Requirement Description		Credits
Required Core Course (Select 1)		
MATH 5737	Gr Intro to Numerical Anyl	3
or CS 5737	Gr Intro to Numerical Anyl	
or		
CEE 5980	Numerical Methods for Engineer	3
or ME 5980	Numerical Methods for Engineer	
Electives (6 credits needed)		
EE 6130	Convex Optimization	3
MATH 6737	Numerical Diff Equations	3
ME 5520	Computational Solid Mechanics	3
ME 6550	Multiscale Modeling	3
Special Topics or other relevant elective courses may be taken with permission from the Program Coordinator		