

SCIENTIFIC COMPUTING

About this Program

College: Herbert Wertheim College of Engineering

Credits: 9

Subplan Code: ENG_GCT17

SLO Dashboard (<https://public.tableau.com/app/profile/uf.oipr4918/viz/UFStudentLearningOutcomesCertificatesOnly/StudentLearningOutcomes/?publish=yes>)

Certificates must comply with the Graduate Certificate Policy

Required Courses

required courses

Code	Title	Credits
EML 6577	Verification, Validation, and Uncertainty Quantification	3
Electives		6
Total Credits		9

Electives

Approved Electives

Code	Title	Credits
CEN 5035	Software Engineering	
CEN 6070	Software Testing and Verification	
CES 5010	Probabilistic and Stochastic Methods in Civil Engineering	
COP 5556	Programming Language Principles	
COP 5618	Concurrent Programming	
EEL 6533	Data Analytics and Decision Sciences	
EEL 6763	Parallel Computer Architecture	
EGM 6342	Fundamentals of Computational Fluid Dynamics	
EGM 6352	Advanced Finite Element Methods	
EMA 6804	Quantum Methods in Computational Materials Science	
EMA 6808	Error Analysis and Optimization Methodologies in Materials Research	
EML 5526	Finite Element Analysis and Application	
EOC 6850	Numerical Simulation Techniques in Coastal and Ocean Engineering	
ESI 6529	Digital Simulation Techniques	
ESI 6546	Stochastic Modeling and Analysis	
EGM 7819	Computational Fluid Dynamics	
EMA 6803	Classical Methods in Computational Materials Science	
EML 6386	Computational Nanomechanics and Nanomaterials	