MINOR IN MODELING & SIMULATION ENGINEERING:

REQUIREMENTS AND PLAN OF STUDY

REQUIREMENTS: To enter the program, you must have already completed calculus (MATH 211) and one college-level computer-programming course (CS 150 or equivalent).

To successfully earn the minor, you must:

- Successfully complete 12 or more credit hours of approved modeling and simulation engineering coursework at the 200-, 300-, and 400- level.
    - If you have transfer credits, you must complete least six credit hours of the upper-level courses in the minor from Old Dominion University.
- Pass each course required for the minor.
- Satisfy all pre- or co-requisite requirements for the courses selected.
- Achieve a cumulative grade point average of 2.00 for all courses required for the minor (exclusive of lower-level courses, prerequisites and co-requisites).

PLAN OF STUDY:

There are two tracks in the minor in Modeling and Simulation Engineering:

Simulation Application

- Good fit with majors in electrical, computer, or mechanical engineering, mathematics, physics, and computer science
- Teaches skills to go beyond current computer simulation tools in order to model and study complex systems

Simulation Development

- Good fit with majors in computer science and engineering
- Develops skills in discrete event simulation development, with a focus on software development for simulations

TO DECLARE: To declare a minor in Modeling and Simulation Engineering, complete the Plan of Study on the next page and submit to MSVE@odu.edu.

The chief departmental advisor for the Department of Modeling, Simulation and Visualization Engineering will review the precise course of study in the minor and declare it upon approval.

ODUOnline
OLD DOMINION UNIVERSITY

Plan of Study: Minor in Modeling and Simulation

Name: _____ UIN: _____ Major: _____ Intended Graduation Date: _____	Your campus designation: ☐ Norfolk/On Campus ☐ ODU*Online* (Distance Learning) Select your minor track: ☐ Simulation Application ☐ Simulation Development

Complete the Plan of Study for your chosen track below by filling in the yellow column.

Simulation Application Track

Course	Pre-/Co-requisites	Semester Offered	Plan to Take In:	Comments
STAT 330: Probability and Statistics	"C" or better in MATH 211	Fall Spring Summer	_____ Semester	
MSIM 205: Discrete Event Simulation	STAT 330 *MSIM 201 – waived* *MSIM 281 – waived*	Spring	_____ Semester	
MSIM 320: Continuous Simulation	MATH 307 (or MATH 280) PHYS 232N (or PHYS 227N) (co-requisite)	Fall	_____ Semester	
MSIM 410: Systems Modeling *OR* MSIM 451: Analysis for M&S	MSIM 320 (pre/co-requisite) MSIM 205 MSIM 205 and STAT 330	Spring Spring	_____ Semester	

Simulation Development Track

Course	Pre-/Co-requisites	Semester Offered	Plan to Take In:	Comments
STAT 330: Probability and Statistics	"C" or better in MATH 211	Fall Spring Summer	_____ Semester	
MSIM 205: Discrete Event Simulation	STAT 330 *MSIM 201 – waived* *MSIM 281 – waived*	Spring	_____ Semester	
MSIM 331: Simulation Software Design	CS 330 CS 381 MSIM 205	Spring	_____ Semester	
MSIM 408: Introduction to Game Development *OR* MSIM 441: Computer Graphics & Visualization	CS 361 or MSIM 331 CS 250	Spring Fall	_____ Semester	

**When appropriate, other course work can be developed in consultation with the Chief Departmental Advisor for the Department of Modeling, Simulation and Visualization Engineering. For further information email MSVE@odu.edu.*