

## 2019-2020 Old Dominion University Catalog

### Bachelor of Science in Computational Modeling and Simulation Engineering (with VCCS Equivalencies)

*Sample four year curriculum with a suggested ordering of courses. Students may re-order as needed.*

*\* indicates not automatically waived with transferrable associates degree, C or better required for transfer. Courses in green are waived by the completion of an Associate degree (Not eligible for Applied Associate degrees). As in Engineering recommended for ease of transfer.*

#### YEAR 1 - FRESHMAN (33 CREDITS)

##### FALL SEMESTER (16 credits)

<u>General Education and Major Coursework:</u>	<u>VCCS Equivalency:</u>
MATH 211	MTH 173, 263, or 273*
ENGL 110C (C or better required)	ENG 111*
CHEM 121N/122N**	CHM 111*
ENGN 110	EGR 120 or 124*
COMM 101R	CST 100, 105 or 110*

##### SPRING SEMESTER (17 credits)

<u>General Education and Major Coursework:</u>	<u>VCCS Equivalency:</u>
MATH 212	MTH 174, 264, or 274*
CHEM 123N**	CHM 112*
CS 150 or ENGN 150	ITP 132, CSC 201, EGR 125 or EGR 126*
PHYS 231N	PHY 231 or 241*
MSIM 111	Dept. approval upon admission

#### YEAR 2 - SOPHOMORE (31 CREDITS)

##### FALL SEMESTER (15 credits)

<u>Major Coursework:</u>	<u>VCCS Equivalency:</u>
MSIM 201	EGR 218*
STAT 330	MTH 283*
PHYS 232N	PHY 232 or 242*
CS 250	CSC 210 or ITP 232*
CS 252	ITN 171 or 271*

##### SPRING SEMESTER (16 credits)

<u>General Education and Major Coursework:</u>	<u>VCCS Equivalency:</u>
MSIM 205	EGR 230*
MSIM 281 (1 credit)	EGR 230*
MATH 307 (280)	MTH 267, 279 or 291*
ENGL 231C (C or better required)	ENG 115 or 131*
Human Creativity	<a href="#">Transfer Guide</a>
Literature	<a href="#">Transfer Guide</a>

#### YEAR 3 - JUNIOR (32 CREDITS)

##### FALL SEMESTER (16 credits)

<u>General Education and Major Coursework:</u>	<u>VCCS Equivalency:</u>
CS 330	
CS 381	
MSIM 320	
MSIM 382	
Human Behavior	<a href="#">Transfer Guide</a>
Approved Program Elective	

##### SPRING SEMESTER (16 credits)

<u>General Education Major Coursework:</u>	<u>VCCS Equivalency:</u>
MSIM 331	
MSIM 383 (1 credit)	
Interpreting the Past	<a href="#">Transfer Guide</a>
MSIM 410	
MSIM 451	
Upper-Division General Education course/Option D Course I	

#### YEAR 4 - SENIOR (31 CREDITS)

##### FALL SEMESTER (16 credits)

<u>General Education and Major Coursework:</u>	<u>VCCS Equivalency:</u>
MSIM 441	
MSIM 487W (C or better required)	
Upper-Division General Education course/Option D Course II	
ENMA 401	
Approved MSIM Technical Elective I	

##### SPRING SEMESTER (15 credits)

<u>General Education and Major Coursework:</u>	<u>VCCS Equivalency:</u>
ENMA 480 (Satisfies Philosophy and Ethics)	
MSIM 488	
Approved Program Elective	
Approved MSIM Technical Elective II	
Impact of Technology (Department Requirement)	<a href="#">Transfer Guide*</a>

**TOTAL CREDIT HOURS: 127**

*This 4-year plan does not include 6 credits in Language and Culture, but this requirement may be waived; see ODU catalog for details.*

**\*\*Students in the Modeling and Simulation Engineering Program may substitute BIOL 121N/122N and BIOL 123N in place of the CHEM 121N/CHEM 122N and CHEM 123N requirement**

The General Education requirements in Information Literacy and Research and Philosophy and Ethics are met through the major.

*Requirements for graduation include a minimum cumulative grade point average of 2.00 overall and in the major, a grade of C or better in all courses required for the major, including prerequisite courses, 120 credit hours, which must include both a minimum of 30 credit hours overall and 12 credit hours in upper-level courses in the major program from Old Dominion University, completion of ENGL 110C, ENGL 211C or 221C or 231C, and a writing intensive (W) course in the major with a grade of C or better, and completion of Senior Assessment.*