

## 2022 - 2023 Old Dominion University Catalog

### Bachelor of Science in Computer Engineering - Modeling & Simulation Engineering Major (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 is recommended for ease of transfer.*

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

##### FALL SEMESTER (16 credits)

General Education and Major Coursework:

ENGN 110  
CHEM 121N/122N  
MATH 211  
ENGL 110C (C or better required)  
COMM 101R

VCCS Equivalency:

EGR 121, 120, or 124\*  
CHM 111\*  
MTH 173, 263, or 273\*  
ENG 111\*  
CST 100, 105 or 110\*

##### SPRING SEMESTER (17 credits)

General Education and Major Coursework:

ECE 111  
CHEM 123N  
MATH 212  
ENGN 150  
PHYS 231N

VCCS Equivalency:

EGR 122, or ITE 119\*  
CHM 112\*  
MTH 174, 264, or 274\*  
EGR 125\*  
PHY 231 or 241\*

#### YEAR 2 - SOPHOMORE (33 CREDITS)

##### FALL SEMESTER (17 credits)

General Education and Major Coursework:

MATH 307 (280)  
ECE 201\*\*  
ECE 241\*\*  
PHYS 232N  
ENGL 231C (C or better required)

VCCS Equivalency:

MTH 267, 279 or 291\*  
EGR 260 or 271\*  
EGR 270 or 277\*  
PHY 232 or 242\*  
ENG 115 or 131\*

##### SPRING SEMESTER (16 credits)

General Education and Major Coursework:

ECE 202\*\*  
ECE 287\*\*<sup>^</sup>  
CS 250  
CS 252  
CS 381

VCCS Equivalency:

EGR 261 or 272\*  
EGR 262 or EGR 271 + 272\*  
CSC 210 or ITP 232\*  
ITN 171 or 271\*

Literature

[Transfer Equivalency Guide](#)

#### YEAR 3 - JUNIOR (31 CREDITS)

##### FALL SEMESTER (16 credits)

General Education and Major Coursework:

ECE 302  
ECE 313 (4 credits)  
ECE 341  
ECE 306  
ECE 304

VCCS Equivalency:

##### SPRING SEMESTER (15 credits)

General Education and Major Coursework:

ECE 346  
ECE 348  
ECE 320  
ECE 406

VCCS Equivalency:

Interpreting the Past

[Transfer Equivalency Guide](#)

#### YEAR 4 - SENIOR (32 CREDITS)

##### FALL SEMESTER (17 credits)

General Education and Major Coursework:

ECE 484W (C or better required)  
ECE 486 (2 credits)  
ECE Technical Elective  
ENMA 480 (Satisfies Philosophy and Ethics)  
Human Creativity  
Upper Division General Education

VCCS Equivalency:

[Transfer Equivalency Guide](#)

##### SPRING SEMESTER (14 credits)

General Education and Major Coursework:

ECE 487 (2 credits)  
ECE Technical Elective  
ECE Technical Elective  
Human Behavior

VCCS Equivalency:

Upper Division General Education

[Transfer Equivalency Guide](#)

**TOTAL CREDIT HOURS: 128**

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

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

The Upper Division General Education requirement is met through the built-in minor in Computer Science.

Modeling & Simulation Engineering majors (BSCOME) must earn a grade of C or better in all 200-level ECE courses and all CS courses prior to taking the next course in the sequence.

\* C or better required for transfer.

\*\*From John Tyler Community College only: EGR 251 = ECE 201; EGR 261 = ECE 202; EGR 255 + EGR 263 = ECE 287

& from Germanna Community College: EGR 251 = ECE 201; EGR 252 = ECE 202; EGR 255 + EGR 261 = ECE 287

& from Northern Virginia Community College: EGR 251 = ECE 201; EGR 252 = ECE 202; EGR 265 = ECE 241

<sup>^</sup> EGR 271 (4 cr) + EGR 272 (4 cr) = ECE 201 (3 cr) + ECE 202 (3 cr) + ECE 287 (2 cr) requirements. Both EGR 271 & EGR 272 must be completed to receive credit for ECE 287.

Requirements for graduation include a minimum cumulative grade point average of 2.00 overall and in the major and 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.