

2023 - 2024 Old Dominion University Catalog

Modeling & Simulation Engineering (BSCE) Dual Degree with Computer Science (BSCS) (with VCCS Equivalencies)

The five-year plan is a suggested curriculum to complete this degree program in five years. It is just one of several plans that will work and is presented only as broad guidance to students. Each student is strongly encouraged to develop a customized plan in consultation with their academic advisor. Additional information can also be found in Degree Works.

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)
 Human Creativity

VCCS Equivalency:
 EGR 120, 121, 122, 124*
 CHM 111*
 MTH 173, 263, or 273*
 ENG 111*
[Transfer Equivalency Guide](#)

SPRING SEMESTER (17 credits)

General Education and Major Coursework:
ECE 111
 CHEM 123N
 MATH 212
 ENGN 150
 PHY 231N

VCCS Equivalency:
ITE 119*
 CHM 112*
 MTH 174, 264, or 274*
 EGR 125 or 126*
 PHY 221, 231 or 241*

YEAR 2 - SOPHOMORE (32 CREDITS)

FALL SEMESTER (16 credits)

General Education and Major Coursework:
 MATH 307 (280)
 ECE 201**
COMM 101R
 PHYS 232N
 ENGL 211C or 231C (C or better required)

VCCS Equivalency:
 MTH 267, 279, 289, or 291*
 EGR 260 or 271*
CST 100 or 105*
 PHY 222, 232 or 242*
 ENG 112, 113, 115, 131, or 137*

SPRING SEMESTER (16 credits)

General Education and Major Coursework:
 ECE 202**
 ECE 287**^
 CS 250
 CS 252
 CS 381
 Human Behavior

VCCS Equivalency:
 EGR 261 or 272*
 EGR 262 or EGR 271 + 272*
 CSC 210 or ITP 232*
 ITN 171 or 271*

[Transfer Equivalency Guide](#)

YEAR 3 - JUNIOR (33 CREDITS)

FALL SEMESTER (17 credits)

General Education and Major Coursework:
 ECE 241
 ECE 302
 CS 330
 CS 390
 CS 315
 Literature

VCCS Equivalency:
 EGR 265, 270, or 277*
[Transfer Equivalency Guide](#)

SPRING SEMESTER (16 credits)

General Education and Major Coursework:
 ECE 313
 ECE 341
 ECE 304
 CS 361
 CS 450 or CS 418

VCCS Equivalency:

YEAR 4 - SENIOR (33 CREDITS)

FALL SEMESTER (15 credits)

Major Coursework:
 MATH 316
 ECE 306
 CS 350
 ENMA 480 (Satisfies Philosophy and Ethics)
 ECE Technical Elective I

VCCS Equivalency:

SPRING SEMESTER (18 credits)

General Education and Major Coursework:
 ECE 320
 ECE 346
 ECE 348
 CS 417
 CS 355
 CS Upper Level Elective I

VCCS Equivalency:

YEAR 5 (31 CREDITS)

FALL SEMESTER (17 credits)

General Education and Major Coursework:
 ECE 406
 ECE 443
 ECE 484W (C or better required)
 ECE 486
 CS 410
 CS Upper Level Elective II

VCCS Equivalency:

SPRING SEMESTER (14 credits)

General Education and Major Coursework:
 ECE 487
 CS 471
 CS 411W
 CS Upper Level Elective III
 Interpreting the Past

VCCS Equivalency:

[Transfer Equivalency Guide](#)

TOTAL CREDIT HOURS: 162

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.

Modeling & Simulation Engineering & Computer Science majors 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.

The Upper Division General Education requirement is met through the built-in minor in Computer Science and through the completion of a second major/degree.

* C or better required for transfer.

** CHEM 120 is for online program students only

**From ECE 111 and other ECE required courses satisfy the Computer Science Information Literacy & Research requirement of CS 121G. ENGN 150 satisfies the CS 150 requirement in Computer Science curriculum. 1

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 231C, and a writing intensive (W) course in the major with a grade of C or better, and completion of Senior Assessment.