

2023 - 2024 Old Dominion University Catalog

Electrical Engineering (BSEE) Dual Degree with Modeling & Simulation Engineering (BSCE) (with VCCS Equivalencies)

The four-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. Students seeking two degrees must complete a minimum of 150 credit hours.

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 120, 121, 122, 124*
CHM 111*
MTH 173, 263, or 273*
ENG 111*
CST 100 or 105*

SPRING SEMESTER (17 credits)

General Education and Major Coursework:

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

VCCS Equivalency:

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

YEAR 2 - SOPHOMORE (37 CREDITS)

FALL SEMESTER (19 credits)

General Education and Major Coursework:

MATH 307 (280)
ECE 201**
CS 381
PHYS 232N
ENGL 211C or 231C (C or better required)
Human Creativity

VCCS Equivalency:

MTH 267, 279, 289, or 291*
EGR 260 or 271*
MTH 288*
PHY 222, 232 or 242*
ENG 112, 113, 115, 131, or 137

General Education and Major Coursework:

ECE 202**
ECE 287**^
ECE 241
MATH 312 (285)
CS 250
CS 252

VCCS Equivalency:

EGR 261 or 272*
EGR 262 or EGR 271 + 272*
EGR 265, 270, or 277*
MATH 265, 275 or 277*
CSC 210 or ITP 232*
ITN 171 or 271*

YEAR 3 - JUNIOR (34 CREDITS)

FALL SEMESTER (16 credits)

General Education and Major Coursework:

ECE 302
ECE 304
ECE 306
ECE 313
ECE 341

VCCS Equivalency:

General Education and Major Coursework:

ECE 303
ECE 320
ECE 346
ECE 348
ECE 381
Interpreting the Past

VCCS Equivalency:

[Transfer Equivalency Guide](#)

YEAR 4 - SENIOR (34 CREDITS)

FALL SEMESTER (17 credits)

Major Coursework:

ECE 323
ECE 332
ECE 406
ECE 484W (C or better required)
ECE 485W (C or better required)
ECE 486

VCCS Equivalency:

General Education and Major Coursework:

ECE 387
ECE 487
ENMA 480 (Satisfies Philosophy and Ethics)
Technical Elective
Human Behavior
Literature

VCCS Equivalency:

[Transfer Equivalency Guide](#)
[Transfer Equivalency Guide](#)

TOTAL CREDIT HOURS: 138

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.

Electrical & Computer Engineering 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.

Electrical & Computer Engineering students pursuing the double major/degree need their final technical elective course to be a 400-level ECE technical elective course.

* 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

^ 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.

^^Non-major Engineering Elective includes options of any three-credit course from BME, CEE, CS, ENMA (except ENMA 480), MAE, & MSIM.. Consider looking into VCCS equivalents.

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.