

# 2024 - 2025 Old Dominion University Catalog

## Computer Engineering (BSCE) Dual Degree with Cyber Operations (BS Cybersecurity) (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 (30 CREDITS)

#### FALL SEMESTER (15 credits)

General Education and Major Coursework:

ENGN 121  
CHEM 121N/122N\*\*  
MATH 211  
ENGL 110C

VCCS Equivalency:

(EGR 121 + ITE 152)\* or waived w/ AS  
CHM 111 or (CHEM 111 +112+ 113)\*  
MTH 173, (MTH 175 + 176), 263, or 273\*  
ENG 111 or ENGL 114\*

#### SPRING SEMESTER (15 credits)

General Education and Major Coursework:

COMM 101R  
MATH 212  
ENGN 122  
PHYS 231N

VCCS Equivalency:

[Transfer Equivalency Guide](#)  
MTH 174, 264, or 274\*  
EGR 125 or 126\*  
PHY 221, 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  
ECE 250

VCCS Equivalency:

MTH 267, 279, 289, or 291\*  
See Below\*  
EGR 265 (NOVA only), 270, or 277\*  
PHY 222, 232 or 242\*  
CS 210 or ITP 232\*

#### SPRING SEMESTER (16 credits)

General Education and Major Coursework:

ECE 202  
ECE 287  
CS 261  
CS 252  
CS 381  
CYSE 200T  
ENGL 231C

VCCS Equivalency:

See Below\*  
See Below\*  
ITN 171 or 271\*  
CSC 208 or MTH 288\*  
ENG 113, 115, 131, or 137\*

### YEAR 3 - JUNIOR (31 CREDITS)

#### FALL SEMESTER (15 credits)

General Education and Major Coursework:

ECE Elective: (ECE 302, ECE 306, ECE 314, or ECE 350)  
ECE 355  
ECE 341  
CS 361  
CRJS 215S or SOC 201S

VCCS Equivalency:

CSC 202\* (PVCC only)  
\*See Below

#### SPRING SEMESTER (17 credits)

General Education and Major Coursework:

ECE 304  
ECE 346  
ECE 381  
CS 330 or CS 350  
ENMA 480

VCCS Equivalency:

### YEAR 4 - SENIOR (27 CREDITS)

#### FALL SEMESTER (12 credits)

General Education and Major Coursework:

ECE 481W  
CYSE 301  
ECE 443  
CS 471

VCCS Equivalency:

#### SPRING SEMESTER (15 credits)

General Education and Major Coursework:

ECE 482  
ECE 419  
ECE 455  
CYSE 406 or CRJS 406  
[Interpreting the Past](#)

VCCS Equivalency:

[Transfer Equivalency Guide](#)

### YEAR 5 (33 CREDITS)

#### FALL SEMESTER (18 credits)

General Education and Major Coursework:

ECE 416  
CYSE 425W  
CS 467  
ECE 470 or MSIM 470  
Cyber Approved Program Elective  
[Human Creativity](#)

VCCS Equivalency:

[Transfer Equivalency Guide](#)

#### SPRING SEMESTER (15 credits)

General Education and Major Coursework:

CS 390  
CS 466  
CYSE 368 or IDS 494  
PHIL 355E  
[Literature](#)

VCCS Equivalency:

ITN 290  
[Transfer Equivalency Guide](#)

**TOTAL CREDIT HOURS: 158**

[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 seeking two degrees must complete a minimum of 150 credit hours.

Minor: This program automatically satisfies a minor in Computer Science.

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 and through the completion of a second major/degree.

Computer Engineering and Cyber Operations 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.

ENGN 121 and other ECE required courses satisfy the Cyber Operations Information Literacy & Research requirement. ENGN 122 satisfies the CS 150 requirement in Cyber Operations curriculum. ECE 346 satisfies the CS 170 requirement in Cyber Operations curriculum. ECE 443 satisfies the CS 270 requirement in Cyber Operations curriculum. ECE 416, ECE 419, and ECE 455 are required courses for CyOps curriculum & Technical electives for CpE curriculum.

Cyber Approved Program Elective remaining options: CS 476, CYSE 407, ECE 483, and IT 417.

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.

\* C or better required for transfer.

\*\* CHEM 120 is for online program students only

**VCCS Equivalencies Continued**

(ECE 201, 202 & 287) = (EGR 271 + 272)

ECE 201 = EGR 260

ECE 201 = EGR 271

ECE 201 = EGR 251 (Brightpoint CC/NOVA/GCC/PVCC only)

ECE 202 = EGR 252, EGR 261, EGR 272

ECE 287 = (EGR 255 +261) GCC only

ECE 287 = (EGR 255 + 263) Brightpoint CC only

ECE 287 = EGR 262

SOC 201S = SOC 200 or SOC 201 or SOC 202, or (SOC1 101 + SOC1 102) or (SOC1 102 + SOC1 103) or SOC1 104 or SOC1 105 or SOC1 106

CRJS 215S = ADJ 107 or ADJ 201 or (ADJU 201 +202) or SOC 236 or SOC1 188

