2024 - 2025 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 (30 CREDITS)

FALL SEMESTER (15 credits)		SPRING SEMESTER (15 credits)	
General Education and Major Coursework:	VCCS Equivalency:	General Education and Major Coursework:	VCCS Equivalency:
ENGN 121	(EGR 121 + ITE 152)* or waived w/ AS	Human Creativity	Transfer Equivalency Guide
CHEM 121N/122N**	CHM 111 or (CHEM 111 +112+ 113)*	MATH 212	MTH 174, 264, or 274*
MATH 211	MTH 173, (MTH 175 + 176), 263, or 273*	ENGN 122	EGR 125 or 126*
ENGL 110C	ENG 111 or ENGL 114*	PHYS 231N	PHY 221, 231, or 241*

YEAR 2 - SOPHOMORE (33 CREDITS)

FALL SEMESTER (16 credits)		SPRING SEMESTER (17 credits)	
General Education and Major Coursework:	VCCS Equivalency:	General Education and Major Coursework:	VCCS Equivalency:
MATH 307 (280)	MTH 267, 279, 289, or 291*	ECE 202	See Below*
ECE 201	See Below*	ECE 287	See Below*
ECE 250	CS 210 or ITP 232*	CS 261	
PHYS 232N	PHY 222, 232 or 242*	CS 252	ITN 171 or 271*
ENGL 231C	ENG 113, 115, 131, or 137*	CS 381	CSC 208 or MTH 288*
		Human Behavior	Transfer Equivalency Guide
		COMM 101R	Transfer Equivalency Guide

YEAR 3 - JUNIOR (32 CREDITS)

FALL SEMESTER (17 credits)		SPRING SEMESTER (15 credits)	
General Education and Major Coursework:	VCCS Equivalency:	General Education and Major Coursework:	VCCS Equivalency:
ECE 241	EGR 265, 270, or 277*	ECE 381	
ECE 302		ECE 341	
CS 330		ECE 304	
CS 390		CS 361	CSC 202* (PVCC only)
CS 315		CS 450 or CS 418	
Literature	Transfer Equivalency Guide		

YEAR 4 - SENIOR (33 CREDITS)

FALL SEMESTER (15 credits)		SPRING SEMESTER (18 credits)	
Major Coursework:	VCCS Equivalency:	General Education and Major Coursework:	VCCS Equivalency:
MATH 316	MTH 266 or MTH 285*	ECE 320	
ECE 306		ECE 346	
CS 350		ECE 348	
ENMA 480		CS 417	
ECE Technical Elective I		CS 355	
		CS Upper Level Elective I	

YEAR 5 (31 CREDITS)

FALL SEMESTER (17 credits)		SPRING SEMESTER (14 credits)	
General Education and Major Coursework:	VCCS Equivalency:	General Education and Major Coursework:	VCCS Equivalency:
ECE 406		ECE 482	
ECE 443		CS 471	
ECE 481W		CS 411W	
ENMA 410		CS Upper Level Elective III	
CS 410		Interpreting the Past	Transfer Equivalency Guide
CS Upper Level Elective II			

TOTAL CREDIT HOURS: 160

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.

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 a built-in minor in computer science and through the completion of a second major/degree.

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.
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.

ENGN 121 satisfies the CS Information Literacy & Research requirement of CS 121G. ENGN 122 satisfies the CS 150 req in CS curriculum. ECE 304 satisfies the STAT 330 requirement in CS curriculum. ENMA 480 satisfies the CS Philosophy & Ethics requirement. Computer Engineering- Modeling & Simulation Engineering Major students pursuing the dual degree with Computer Science have one remaining ECE 400-level Technical Elective course. ECE 346 satisfies the CS 170 requirement in CS curriculum. ECE 443 satisfies the CS 270 requirement in CS curriculum.

** 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, 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