

2025 - 2026 Old Dominion University Catalog

Bachelor of Science in Mechanical Engineering (BSME) (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). A.S. in Engineering recommended for ease of transfer.*

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	ENGN 122	EGR 125, 126 or CSC 221*
ENGL 110C (C or better required)	ENG 111 or ENGL 114*	COMM 101R	Transfer Equivalency Guide
MATH 211	MTH (MTH 261+262) or 263*	MATH 212	MTH 264*
CHEM 121N/122N**	CHM 111*	PHYS 231N	PHY 241*
YEAR 2 - SOPHOMORE (33 CREDITS)			
FALL SEMESTER (17 credits)		SPRING SEMESTER (16 credits)	
General Education and Major Coursework:	VCCS Equivalency:	General Education and Major Coursework:	VCCS Equivalency:
PHYS 232N	PHY 242*	MAE 205 (C or better required)	EGR 245*
MATH 312 (285)	MATH 265*	MAE 220 (C or better required)	EGR 246*
MAE 204 (C or better required)	EGR 140 or 240*	MAE 225 (1 credit)	EGR 247*
MAE 201 (C or better required)		MATH 307 (280)	MTH 267 or 289 *
MAE 203 (1 credit)		ENGL 211C (C or better required)	ENG 112 or ENGL 115*
MAE 230	CAD 238, 241, 242, 243; or EGR 122*	Interpreting the Past	Transfer Equivalency Guide
YEAR 3 - JUNIOR (31 CREDITS)			
FALL SEMESTER (16 credits)		SPRING SEMESTER (15 credits)	
General Education and Major Coursework:	VCCS Equivalency:	General Education and Major Coursework:	VCCS Equivalency:
MAE 303 (C or better required)		MAE 332 (C or better required)	
MAE 305		MAE 336	
MAE 311 (C or better required)		MAE 315	
MAE 340		Philosophy and Ethics (ENMA 480 preferred)	
Literature	Transfer Equivalency Guide	Human Behavior	Transfer Equivalency Guide
Human Creativity	Transfer Equivalency Guide		
YEAR 4 - SENIOR (30 CREDITS)			
FALL SEMESTER (15 credits)		SPRING SEMESTER (15 credits)	
Major Coursework:	VCCS Equivalency:	Major Coursework:	VCCS Equivalency:
MAE 433		MAE 435	
MAE 434W (C or better required)		**MAE Option Course	
MAE 436		**MAE Option Course	
MAE Option Course		*Upper-Division General Education	
STAT 330	MTH 283	***Upper-Division General Education	

TOTAL CREDIT HOURS: 124

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 four-year plan is a suggested curriculum to complete this degree program in four 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.

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

****MAE Option Course** In the senior year, students should select their three elective courses to support a chosen speciality area. Examples include: □

1) Power/Energy: 3 courses from MAE 411, 412, 413, 414, 417, 438, 440 □

2) Mechanical Systems Design: 3 courses from MAE 404, 422, 431, 438, 440, or 441 □

3) Aerospace: 3 courses from MAE 403, 406, 417, 420 (or 440), 438, 460 □

4) Alternative combinations may be selected □

*****Upper Division General Education** (choose 1)

Option D (suggested): 6 hours of elective upper-division work from outside of and not required by the student's major and college.

Option A: Any University-approved minor (minimum of 12 hours determined by the department), second degree, or second major

Option B: Any University-approved interdisciplinary minor (specifically 12 hours, 3 can be in the major)

Important Notes: Graduates of this program are eligible to take the Fundamentals of Engineering (FE) exam in Virginia and many other states. Course prerequisites are strictly enforced. Please refer to the University Catalog for prerequisites of all courses.

Requirements for graduation include a minimum cumulative grade point average of 2.00 overall and in the major, a grade of C or better in all courses required for the major, including prerequisite courses, 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.