

2023 - 2024 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). As in Engineering recommended for ease of transfer.*

YEAR 1 - FRESHMAN (33 CREDITS)

FALL SEMESTER (16 credits)

General Education and Major Coursework:
 MATH 211 (C or better required)
 CHEM 121N/122N (C or better required)
 ENGL 110C (C or better required)
ENGN 110
COMM 101R

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

SPRING SEMESTER (17 credits)

General Education and Major Coursework:
 MATH 212 (C or better required)
 MET 230
 PHYS 231N (C or better required)
 ENGN 150
MAE 111

VCCS Equivalency:
 MTH 174, 264, or 274*
 CAD 238, 241, 242, 243; EGR 110, 122
 PHY 221, 231 or 241*
 EGR 125 or EGR 126*

YEAR 2 - SOPHOMORE (34 CREDITS)

FALL SEMESTER (18 credits)

General Education and Major Coursework:
 PHYS 232N
 MATH 312 (285)
 MAE 204 (C or better required)
 MAE 201 (C or better required)
 MAE 203 (1 credit)
 ENGL 211C or 231C (C or better required)

VCCS Equivalency:
 PHY 222, 232 or 242*
 MTH 265, 275 or 277*
 EGR 140 or 240*
 ENG 112, 113, 115, 131, or 137*

SPRING SEMESTER (16 credits)

General Education and Major Coursework:
 MAE 205 (C or better required)
 MAE 220 (C or better required)
 MAE 225 (1 credit)
 MATH 307 (280)
 STAT 330
Interpreting the Past

VCCS Equivalency:
 EGR 245*
 EGR 246*
 EGR 247*
 MTH 267, 279, 289 or 291*
 MTH 245 or 283*
[Transfer Equivalency Guide](#)

YEAR 3 - JUNIOR (34 CREDITS)

FALL SEMESTER (16 credits)

General Education and Major Coursework:
 MAE 303 (C or better required)
 MAE 305 (1 credit)
 MAE 311 (C or better required)
 MAE 340
Literature
Human Creativity

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

SPRING SEMESTER (18 credits)

General Education and Major Coursework:
 MAE 312
 MAE 332 (C or better required)
 MAE 336
 MAE 315
Philosophy and Ethics (ENMA 480 preferred)
Human Behavior

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

YEAR 4 - SENIOR (27 CREDITS)

FALL SEMESTER (15 credits)

Major Coursework:
 MAE 433
 MAE 434W (C or better required)
 MAE 436
 MAE Option Course
 Upper-Division General Education

VCCS Equivalency:

SPRING SEMESTER (12 credits)

Major Coursework:
 MAE 435
 MAE Option Course
 MAE Option Course
 Upper-Division General Education

VCCS Equivalency:

TOTAL CREDIT HOURS: 128

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.

This 4-year plan does not include 6 credits in Language and Culture, but this requirement may be waived; see ODU catalog for details.

Senior Electives: 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 with advisor approval.

General Education requirements in Information Literacy and Research and Impact of Technology are met through the major. For additional information consult the department undergraduate handbook.

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 231C,