

**2019 - 2020 Old Dominion University Catalog**  
**Bachelor of Science in Physics**  
**Concentration E: Dual Degree Program with MBA (w/ 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). Associate in Science recommended for ease of transfer.*

**YEAR 1 - FRESHMAN (30 CREDITS)**

**FALL SEMESTER (16 credits)**

General Education and Major Coursework:

MATH 211 (4 credits)  
 ENGL 110C  
 Oral Communication  
 Language and Culture I (May be waived, see catalog for details)  
 Human Creativity

VCCS Equivalency:

MTH 173, 263 or 273\*  
 ENG 111\*  
[Transfer Guide](#)  
[Transfer Guide](#)  
[Transfer Guide](#)

**SPRING SEMESTER (14 credits)**

General Education and Major Coursework:

MATH 212 (4 credits)  
 ENGL 211C or 231C  
 CS 150 (4 credits)  
 Language and Culture II (May be waived, see catalog for details)

VCCS Equivalency:

MTH 174, 264, or 274\*  
 ENG 112, 210, 115 or 131\*  
 CSC 201 or EGR 126\*

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**YEAR 2 - SOPHOMORE (32 CREDITS)**

**FALL SEMESTER (17 credits)**

General Education and Major Coursework:

CHEM 121N and 122N (4 credits)  
 PHYS 261N (4 credits)  
 Literature  
 Information Literacy and Research: CS 120G or CS 121G  
 Human Behavior

VCCS Equivalency:

CHM 111\*  
 See note below\*  
[Transfer Guide](#)  
[Transfer Guide](#)  
[Transfer Guide](#)

**SPRING SEMESTER (15 credits)**

General Education and Major Coursework:

CHEM 123N and 124N (4 credits)  
 PHYS 262N (4 credits)  
 MATH 312 or 285 (4 credits)  
 Impact of Technology

VCCS Equivalency:

CHM 112\*  
 See note below\*  
 MTH 265 or 277\*  
[Transfer Guide](#)

**YEAR 3 - JUNIOR (31 CREDITS)**

**FALL SEMESTER (15 credits)**

General Education and Major Coursework:

MATH 307 or 280  
 PHYS 355  
 PHYS 323  
 PHYS 303  
 Philosophy and Ethics

VCCS Equivalency:

MTH 267 or 279\*  
  
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Major Coursework:

MATH 316, 401, 421 or 422\*\*  
 PHYS 319  
 PHYS 413  
 PHYS 425  
 MBA 600 (1 credit)  
 Interpreting the Past

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**YEAR 4 - SENIOR (32 CREDITS)**

**FALL SEMESTER (16 credits)**

Major Coursework:

PHYS 452  
 PHYS 454  
 PHYS 499W or 489W & 490W\*\*  
 PHYS 420, 453 or 456\*\*  
 MBA 601 (1 credit)  
 MBA 602 (1 credit)  
 MBA course\*\* (2 credits)

**SPRING SEMESTER (16 credits)**

Major Coursework:

Approved Physics Seminar (1 credit)  
 PHYS 313, 411, 415, 416 or 417\*\*  
 MBA 603 (1 credit)  
 MBA 604 (1 credit)  
 MBA courses\*\* (10 credits)

**YEAR 5 - (28 CREDITS)**

**FALL SEMESTER (14 credits)**

MBA course\*\* (2 credits)  
 MBA course\*\* (2 credits)  
 MBA course\*\* (2 credits)  
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**SPRING SEMESTER (14 credits)**

MBA course\*\* (2 credits)  
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\*\*Please consult the catalog and your ODU advisor for MBA coursework.

The Upper Division General Education is satisfied by M.B.A. Pre-Core and Core Curriculum. Students must maintain a 3.0 GPA in these courses to continue in the program.

Concentration E is a Bachelor of Science in physics and Master of Business Administration dual degree program. After students have satisfactorily completed their undergraduate requirements, they complete the remaining requirements in the M.B.A. program. Students must earn a minimum of 150 credits (120 for the undergraduate degree and 30 for the graduate degree).

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.

Note: PHYS 261N and 262N have no VCCS equivalency. However, if you must take Physics courses for the AS degree, you should take PHY 221, 231 or 241 and PHY 222, 232 or 242. These courses transfer as PHYS 231N and PHYS 232N. The Department will assess student's proficiency and substitute for PHYS 261N and 262N if eligible.