

**2019 - 2020 Old Dominion University Catalog**  
**Bachelor of Science in Physics**  
**Concentration B - Professional (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 (14 credits)**

**SPRING SEMESTER (16 credits)**

General Education and Major Coursework:

MATH 211 (4 credits)  
 ENGL 110C  
 CS 150 (4 credits)

Language and Culture I  
 (May be waived, see catalog for details)

VCCS Equivalency:

MTH 173, 263 or 273\*  
 ENG 111\*  
 CSC 201 or EGR 126\*

[Transfer Guide](#)

General Education and Major Coursework:

MATH 212 (4 credits)  
 ENGL 211C or 231C

Human Creativity  
 Human Behavior  
 Language and Culture II  
 (May be waived, see catalog for details)

VCCS Equivalency:

MTH 174, 264, or 274\*  
 ENG 112, 210, 115 or 131\*

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**YEAR 2 - SOPHOMORE (29 CREDITS)**

**FALL SEMESTER (15 credits)**

**SPRING SEMESTER (14 credits)**

General Education and Major Coursework:

CHEM 121N and 122N (4 credits)  
 MATH 312 or 285 (4 credits)  
 PHYS 261N (4 credits)

Information Literacy and Research: CS 120G or CS 121G

VCCS Equivalency:

CHM 111\*  
 MTH 265 or 277\*  
 See note below\*

[Transfer Guide](#)

General Education and Major Coursework:

CHEM 123N and 124N (4 credits)  
 MATH 307 or 280  
 PHYS 262N (4 credits)

Interpreting the Past

VCCS Equivalency:

CHM 112\*  
 MTH 267 or 279\*  
 See note below\*

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

**FALL SEMESTER (16 credits)**

**SPRING SEMESTER (15 credits)**

Major Coursework:

PHYS 303  
 PHYS 319  
 PHYS 323  
 PHYS 355  
 PHYS 120 or 309\*\* (1 credit)

Philosophy and Ethics

VCCS Equivalency:

[Transfer Guide](#)

Major Coursework:

MATH 316, 401, 421 or 422\*\*  
 PHYS 413  
 PHYS 454  
 PHYS 452

Impact of Technology

VCCS Equivalency:

[Transfer Guide](#)

**YEAR 4 - SENIOR (30 CREDITS)**

**FALL SEMESTER (15 credits)**

**SPRING SEMESTER (15 credits)**

General Education and Major Coursework:

PHYS 425  
 PHYS 420, 453, or 456\*\*  
 PHYS 499W or 489W & 490W (C or better required)

Oral Communication

Upper Division Gen. Ed. Coursework:

300-/400-level course (Option D)

VCCS Equivalency:

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General Education and Major Coursework:

Select two of the following: PHYS 311, 313, 332, 411, 415, 416 or 417\*\*\* (6credits)  
 Elective\*\*

Literature

Upper Division Gen. Ed. Coursework:

300-/400-level course (Option D)

VCCS Equivalency:

[Transfer Guide](#)

\*\*Please consult with your ODU advisor for elective coursework.

\*\*With at least three credits at the 400-level.

Note: Upper division general education (minor) has other options, see catalog for requirements.

Concentration B (Professional) is designed for students who wish to create a specialized program of study which combines a strong foundation in physics with strong preparation in another field. Such other fields include engineering, medicine, computer science, business, and communications, to name a few.

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.