

2025 - 2026 Old Dominion University Catalog

Bachelor of Science in Physics - Professional (BS)(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 (26-32 CREDITS)

FALL SEMESTER (12-15 credits)

General Education and Major Coursework:

MATH 211 (4 credits)

ENGL 110C

CS 151 or 153 (4 credits)

PHYS 120 or 309** (1 credit)

Language and Culture I

(May be waived; see requirement details)

VCCS Equivalency:

MTH 173, 263 or 273*

ENG 111*

CSC 221 (If CSC 221 is taught in C++
, transfers as CS 150, if taught in Java,
as CS 151, if taught in Python, as CS
153)*

[Transfer Equivalency Guide](#)

SPRING SEMESTER (14-17 credits)

General Education and Major Coursework:

MATH 212 (4 credits)

ENGL 211C or 231C

PHYS 261N, 231N, or PHYS 226N

Human Behavior

Language and Culture II

(May be waived; see requirement details)

VCCS Equivalency:

MTH 174, 264, or 274*

ENG 112, 210, 115 or 131*

See note below*

[Transfer Equivalency Guide](#)

[Transfer Equivalency Guide](#)

YEAR 2 - SOPHOMORE (31 CREDITS)

FALL SEMESTER (15 credits)

General Education and Major Coursework:

CHEM 121N and 122N (4 credits)

MATH 312 or 285 (4 credits)

PHYS 262N, 232N, or 227N (4 credits)

Information Literacy and Research: CS 120G or CS
121G or OEAS 130G

VCCS Equivalency:

CHM 111*

MTH 265 or 277*

See note below*

[Transfer Equivalency Guide](#)

SPRING SEMESTER (16 credits)

General Education and Major Coursework:

CHEM 123N and 124N (4 credits)

MATH 307 or 280

PHYS 319

Oral Communication

Interpreting the Past

VCCS Equivalency:

CHM 112*

MTH 267 or 279*

[Transfer Equivalency Guide](#)

[Transfer Equivalency Guide](#)

YEAR 3 - JUNIOR (30 CREDITS)

FALL SEMESTER (15 credits)

Major Coursework:

PHYS 303

PHYS 420, 453, or 456

PHYS 323

PHYS 355

PHYS 120 or 309** (1 credit)

Philosophy and Ethics

VCCS Equivalency:

[Transfer Equivalency Guide](#)

SPRING SEMESTER (15 credits)

Major Coursework:

MATH 316, 401, 421 or 422**

PHYS 413

ASTP 313, ASTP 414, ASTP 495, PHYS 411, PHYS 415, PHYS 416 or PHYS 417**

PHYS 452

Human Creativity

Upper-Division General Education Course or
Course for Minor

VCCS Equivalency:

[Transfer Equivalency Guide](#)

YEAR 4 - SENIOR (33 CREDITS)

FALL SEMESTER (18 credits)

General Education and Major Coursework:

PHYS 425

PHYS 452

PHYS 499W or 489W & 490W (C or better
required)

Impact of Technology

Elective (if needed)

Upper-Division General Education Course or
Course for Minor

VCCS Equivalency:

[Transfer Equivalency Guide](#)

SPRING SEMESTER (15 credits)

General Education and Major Coursework:

ASTP 313, ASTP 414, ASTP 495, PHYS 411, PHYS 415, PHYS 416 or PHYS 417**

PHYS 454

Literature

Course for Minor or Elective**

Course for Minor or Elective**

VCCS Equivalency:

[Transfer Equivalency Guide](#)

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

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

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 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.

This 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.