

BACHELOR OF SCIENCE–Physics Major Track C (Education)
2019-2020 Old Dominion University Catalog

NAME _____

UIN: _____

Students earning the AS, AA, or AA&S (or university parallel) degree from a Virginia Community College automatically satisfy the lower division general education requirements. **Courses marked with * require a grade of C or better to transfer, even with the AS degree. The remaining lower division courses are automatically satisfied by the AS (including foreign language), regardless of the grade earned.** Additionally, courses in which a grade of "C-" or below were earned will not transfer. Therefore, Community College degree holders may require additional credits to meet the 120 credit hour graduation minimum.

Entrance Writing Sample Placement Test: _____

(AS=Associate degree)

Entrance Math Placement Test: _____

LOWER DIVISION GENERAL EDUCATION REQUIREMENTS

A. Skills grade/credit VCCS transfer equivalent

Written Communication–6 hours

ENGL 110C English Composition I _____ 3 AS/ENG 111
ENGL 211C, 231C _____ 3 AS/ENG 112, 210, or 115, 131

Oral Communication–3 hours

COMM 101R, 103R, 112R _____ 3 CST 100, 105, 110, 111, 112, or 126

Mathematics–3 hours

MATH 162M _____ satisfied in the major

Language and Culture –0-6 hours

_____ AS/HS/TOEFL

BS students' competence must be at the 102 or 111 level.

Consult transfer guide for all equivalencies.

Information Literacy–3 hours

CS 120G, CS 121G, OEAS 130G _____ 3 AS/ITE 119
or ECE 111 + CS 122

B. Ways of Knowing

Human Creativity--3 hours

ARTH 121A, ARTS122A, _____ 3 AS/ART 100–106, 111 114;

DANC 185A, MUSC 264A _____ MUS 121, 122, 125;
THEA 241A, COMM/THEA 270 _____ CST 130, 141, 142, 151, 152, 231, 232, 250;

History--3 hours

HIST 100H, 101H, 102H, 103H, _____ 3 HIS 101, 102, 111, 121, 122, 203, 204, 231, 232, 253, 254
104H, 105H

Literature--3 hours

ENGL 112L, 114L, FLET 100L _____ 3 AS/ENG 125, 236, 237, 241–246, 251–256, 267, or 268

Philosophy and Ethics–3 hours

PHIL 110P, 120P, 140P, 230E, _____ 3 AS/PHI 100, 101, 102 250E, 303E, 344E, 345E, 441E, 442E, or other 'P' or 'E' course
REL 230, 231, or 232

Natural Science and Technology–8 hours Met in the major

Human Behavior–3 hours

_____ 3 AS ANTR 110S, CRJS 215S, ECON 200S, ECON 201S, ECON 202S, GEOG 100S, GEOG 101S, POLS 100S, POLS 101S, POLS 102S, PSYC 201S, PSYC 203S, SOC 201S, COMM 200S, WMST 201S, FIN 210S

The Impact of Technology–3 hours _____ 3 AS

CHEM 175T, CS300T, DNTH 440T, ENGL307T, GEOG 306T, HIST 304T, HIST 389T, HIST 386T, SCI 302T, IT/CYSE 200T, IT 360T, MUSC 335T, POLS 350T, STEM 110T, STEM 370T, THEA 280T, WMST 390T, COMM 372T, PHIL 383T, or other 'T' course

<u>Physics Course Requirements</u>	<u>grade/credit</u>	<u>Transfer</u>
MATH 211Calculus I	4	_____
MATH 212 Calculus II	4	_____
MATH 312 Calculus III	4	_____
MATH 307 Differential Equations	3	<u>MATH 280</u>
CHEM 121N/122N Chemistry I**	4	<u>CHM 111 or 113</u>
CHEM 123N/124N Chemistry II **	4	<u>CHM 112 or 114</u>
CS 150 Intro to Programming	4	_____
PHYS 103N Introductory Astronomy	4	<u>or PHYS 104N</u>
PHYS 261N University Physics I*	4	_____
PHYS 262N University Physics II *	4	_____
PHYS 323 Modern Physics	3	_____
PHYS 355 Math Methods	3	_____
PHYS 319 Analytical Mechanics	3	_____
PHYS 425 Electromagnetism I	3	_____
PHYS 303 Laboratory	3	_____
PHYS 413 Methods of Exp. Physics	3	_____
PHYS 499W or 489W/490W Thesis *	3	_____
Approved Physics Seminar	1	_____

***Physics majors must earn a grade of "C" or better in PHYS 261, PHYS 262 and PHYS 499W**

(or both PHYS 489W and PHYS 490W)

**** (CHEM 137N/138N) or (CHEM 121N/122N/123N/124N)**

Professional Education Requirements:

STEM 101: Step 1—Inquiry Approaches to Teaching STEM	1
STEM 102: Step 2—Inquiry Based STEM Lesson Design	1
STEM 201: Knowing and Learning in Math & Science Educ.	3
STEM 202: Classroom Interactions in STEM Education	3
STEM 401: Project-Based Instruction in STEM Education	3
SCI 468W: Research Methods in Mathematics and Science	3
STEM 402: Perspectives on Science and Mathematics	3
STEM 485: Apprentice Teaching	9

UPPER DIVISION GENERAL EDUCATION

Satisfied by Secondary Education Endorsement.

120 HOURS AND A 2.75 GRADE POINT AVERAGE IN THE MAJOR, EDUCATION, AND OVERALL ARE NEEDED TO GRADUATE.

NO COURSE WITH A GRADE OF LESS THAN C- CAN BE USED TO SATISFY GRADUATION REQUIREMENTS.

Additional Graduation Requirements:

Application for Graduation _____
Passage of Physics Exit Exam _____
Senior Assessment _____

edited: October 25, 2019