BACHELOR OF SCIENCE–Physics Major Track C (Education)
2017-2018 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. **(AS=Associate degree)**

Entrance Writing Sample Placement Test:_____

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   ____3   CST 100, 105, 110,111, 112, or 126
COMM 101R, 103R, 112R

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, LIBS 120G   ____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, 102 111, 112, 115, 220, REL 230, 231, or 232
250E, 303E, 344E, 345E, 441E,
442E, or other 'P' or 'E' course

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
CS300T, DNTH 440T, ENGL307T, GEOG 306T, HIST 300T, HIST
304T, HIST 389T, HIST 386T/SCI 302T, IT 360T, MUSC 335T,
POLS 350T, STEM 110T, STEM 370T, WMST 390T, COMM
372T, PHIL 383T, or other 'T' course

Physics Course Requirements grade/credit   Transfer
MATH 211Calculus I   ____4   _____
MATH 212 Calculus II   ____4   _____
MATH 307 Differential Equations   ____3   MATH 280
CHEM 121N/122N Chemistry I**   ____4   CHM 111 or 113
CHEM 123N/124N Chemistry II **   ____4   CHM 112 or 114
CS 150 Intro to Programming   ____4   _____
PHYS 103N Introductory Astronomy   ____4   _____
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: November 2, 2017