

BACHELOR OF SCIENCE–Physics Major Track E (BS Physics and MBA)

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:** _____**LOWER DIVISION GENERAL EDUCATION REQUIREMENTS****A. Skills** grade/credit VCCS transfer equivalentWritten Communication--6 hoursENGL 110C English Composition I _____ 3 AS/ENG 111ENGL 211C, 231C _____ 3 AS/ENG 112, 210, or 115, 131Oral Communication--3 hoursCOMM 101R, 103R, 112R _____ 3 CST 100, 105, 110, 111, 112, or 126Mathematics--3 hoursMATH 162M _____ ✓ satisfied in the majorLanguage 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 hoursCS 120G, CS 121G, LIBS 120G _____ 3 AS/ITE 119
or ECE 111 + CS 122**B. Ways of Knowing**Human Creativity--3 hoursARTH 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 hoursHIST 100H, 101H, 102H, 103H, _____ 3 HIS 101, 102, 111, 121, 122, 203, 204, 231, 232, 253, 254
104H, 105HLiterature--3 hoursENGL 112L, 114L, FLET 100L _____ 3 AS/ENG 125, 236, 237, 241--246, 251--256, 267, or 268Philosophy and Ethics--3 hoursPHIL 110P, 120P, 140P, 230E, _____ 3 AS/PHI 100, 101, 102, 250E, 303E, 344E, 345E, 441E, 442E, or other 'E' or 'P' course
REL 230, 231, or 232Natural Science and Technology--8 hours Met in the majorHuman 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

Entrance Math Placement Test: _____**Physics Course Requirements** grade/credit Transfer

MATH 211 Calculus I* _____ 4 _____

MATH 212 Calculus II _____ 4 _____

MATH 312 Calculus III _____ 4 MATH 285MATH 307 Differential Equations _____ 3 MATH 280

MATH 316 or 401 or 421 or 422 _____ 3 _____

CHEM 121N/122N Chemistry I** _____ 4 CHM 111 or 113CHEM 123N/124N Chemistry II** _____ 4 CHM 112 or 114

CS 150 Intro to Programming _____ 4 _____

PHYS 261N University Physics I _____ 4 _____ *

PHYS 262N University Physics II _____ 4 _____ *

PHYS 303 Laboratory _____ 3 _____

PHYS 323 Modern Physics _____ 3 _____

PHYS 355 Math Methods _____ 3 _____

PHYS 319 Analytical Mechanics _____ 3 _____

PHYS 413 Methods of Exp. Physics _____ 3 _____

PHYS 425 Electricity & Magnetism _____ 3 _____

PHYS 452 Intro. Quantum Mechanics _____ 3 _____

PHYS 454 Thermal Physics _____ 3 _____

One course from: _____

PHYS 420, 453 or 456 _____ 3 _____

PHYS 499W or 489W/490W Thesis* _____ 3 _____

Approved Physics Seminar _____ 1 _____

One course from: _____

PHYS 311, 313, 332, 350, _____ 3 _____
411, 415, 416, 417.***Physics majors must earn a grade of "C" or better in****MATH 211, PHYS 261, PHYS 262 and PHYS 499W (or both PHYS 489W and PHYS 490W).****** (CHEM 137N/138N) or (CHEM 121N/122N/123N/124N)****UPPER DIVISION GENERAL EDUCATION**

Satisfied by MBA CORE Curriculum, taken Senior Year – each course grade must be B or better for admittance to MBA program:

ACCT 601 Accounting for Managers _____ 3 _____

BNAL 600 Foundations of Statistics _____ 3 _____

ECON 604 Mgmt. Econ & Trade _____ 3 _____

FIN 605 Financial Management _____ 3 _____

MGMT 602 Organizational Mgmt. _____ 3 _____

MKTG 603 Market Management _____ 3 _____

For Physics degree only: 120 HOURS AND A 2.0 GRADE**POINT AVERAGE IN THE MAJOR, MINOR, AND OVERALL ARE NEEDED TO GRADUATE.****Additional B.S. Graduation Requirements:**

Application for Graduation _____

Passage of Physics Exit Exam _____

Senior Assessment _____

For MBA: Additional 30 credits hours in MBA program. For detailed information on MBA courses and concentrations, please refer to the MBA information in the Old Dominion University Graduate Catalog: <http://catalog.odu.edu/>

edited: November 2, 2017