OLD DOMINION UNIVERSITY 2010-2011 Catalog
Bachelor of Science—Physics Major/Research and Professional Tracks
with VCCS equivalencies in (parentheses)
(* indicates not automatically waived with transferrable associates degree, C or better required for transfer. For specific science equivalencies for the various emphasis areas, please see transfer guide).

LOWER DIVISION GENERAL EDUCATION
(Tracks A, B, E,
Track C- ref to Physics Education,
Track D- ref to Electrical Engineering)

A. Skills
Written Communication
ENGL 110C _______ 3(ENG 111)
ENGL 211C, 221C, or 231C _______ 3(See transfer guide)
Oral Communication
Satisfied in major by PHYS 499W.
Mathematics
Satisfied in major
Language and Culture
Proficiency through 102F _______ 0-6(See transfer guide)
Information Literacy and Research
CS 120G or 121G _______ 3(See transfer guide)
(Satisfied by TLED 430 for teacher education)

B. Ways of Knowing
Human Creativity _______ 3(See transfer guide)
ARTH 121A, ARTS 122A, MUSC 264A, DANC 185A, THEA 241A, COMM/THEA 270A
Interpreting the Past _______ 3(See transfer guide)
HIST 100H, 101H, 102H, 103H, 104H, or 105H
Literature _______ 3(See transfer guide)
ENGL 112L, 114L, or FLET 100L
Philosophy & Ethics _______ 3(See transfer guide)
PHIL 110P, 120P, 140P, 230E, 250E, 303E, 344E, 345E, 441E, or 443E
The Nature of Science
Satisfied in major
Human Behavior _______ 3(See transfer guide)
ANTR 110S; COMM 200S; CRJS 215S; ECON 200S, 201S, 202S; FIN 210S, GEOG 100S, 101S; POLS 100S, 101S, 102S; PSYC 201S, 203S; SOC 201S; WMST 201S
Impact of Technology _______ 3(See transfer guide)
COM 372T, CS 300T, DANT 440T, or ENGL 307T, GEOG 306T, HIST 300T, 304T, 386T, 389T, IT 360T, MUSC 335T, OEAS 302K, PHIL 383T, POLS 350T, STEM 110T, 370T, or WMST 390T

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<thead>
<tr>
<th>Track A - Research Track</th>
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<tbody>
<tr>
<td>MATH 211 Calculus I _______ 4 (MTH 173, 273)*</td>
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<td>MATH 212 Calculus II _______ 4 (MTH 174, 274)*</td>
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<tr>
<td>MATH 307 (280) Ordinary _______ 3</td>
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<tr>
<td>Differential Equations</td>
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<td>MATH 312 (285) Calculus III _______ 4</td>
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<td>Foundations of Chemistry I &amp; II</td>
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<td>*CHEM 137N-138N Accelerated General Chemistry I &amp; II may be taken instead</td>
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<td>PHYS 231N-232N University Physics _______ 8(PHY 231, 241 and PHY 232, 242)*</td>
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<td>PHYS 323 Modern Physics _______ 3 (PHY 243)*</td>
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<td>PHYS 319 Analytical Mechanics _______ 3</td>
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<td>PHYS 320 Electricity and Magnetism _______ 3</td>
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<td>PHYS 456 Intern. Quantum Mech. _______ 3</td>
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<td>PHYS 499W Senior Thesis _______ 3</td>
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<td>PHYS 120 or 309 Seminar _______ 1</td>
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### Track D - Dual degree in Physics & Electrical Engineering

**Common Course Requirements**

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**Approved PHYS seminar**

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**Physics Course Requirements**

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**Engineering Course Requirements**

(see Electrical & Computer Engineering for more detail)

ENGN 110, 111, 401, ECE 200, 201, 202, 241, 487, 303, 304, 313, 332, 381, 387, 485, 486, 487, ECE technical electives 1, 2, and 3, and approved elective
### Track E: B.S. in Physics and M.B.A.

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<tr>
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*UPPER DIVISION GEN ED met by MBA core.

### UPPER DIVISION GENERAL EDUCATION

**Option A.** Approved Disciplinary Minor (a minimum of 12 hours determined by the department), or second degree or second major

**Option B.** Interdisciplinary Minor (specifically 12 hours, 3 of which may be in the major)

**Option C.** International Business and Regional Courses or an approved Certification Program such as teaching licensure

**Option D.** Two Upper-Division Courses from outside the College of Sciences and not required by the major (6 hours)

Requirements for graduation include a minimum cumulative grade point average of 2.50 overall and in the major, 120 credit hours, passage of the Exit Examination of Writing Proficiency, and completion of Senior Assessment.