BACHELOR OF SCIENCE–Physics Major Track B (Professional)
2011-2012 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**

<table>
<thead>
<tr>
<th>A. Skills</th>
<th>grade/credit</th>
<th>VCCS transfer equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written Communication –6 hours</td>
<td>ENGL 110C English Composition I</td>
<td>3 AS/ENG 111</td>
</tr>
<tr>
<td>Oral Communication –3 hours</td>
<td>satisfied in the major by</td>
<td></td>
</tr>
<tr>
<td>Mathematics –3 hours</td>
<td>MATH 162M</td>
<td>satisfied in the major by</td>
</tr>
<tr>
<td>Language and Culture –0-6 hours</td>
<td>AS/TOEFL</td>
<td></td>
</tr>
</tbody>
</table>

BS students' competence must be at the 102 or 111 level. Consult transfer guide for all equivalencies.

| Information Literacy –3 hours | CS 120G or CS 121G |

<table>
<thead>
<tr>
<th>B. Ways of Knowing</th>
<th>grade/credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Creativity –3 hours</td>
<td>ARTH 121A, ARTS 122A, DANC 185A, MUSC 264A, THEA 241A, COMM/THEA 270A</td>
</tr>
<tr>
<td>History –3 hours</td>
<td>HIST 100H, 101H, 102H, 103H, 104H, 105H</td>
</tr>
<tr>
<td>Literature –3 hours</td>
<td>ENGL 112L, 114L, FLET 100L</td>
</tr>
<tr>
<td>Philosophy and Ethics –3 hours</td>
<td>PHIL 110P, 120P, 140P, 211, 212, 220, REL 230, 231, or 232</td>
</tr>
<tr>
<td>Natural Science and Technology –8 hours</td>
<td>Met in the major</td>
</tr>
</tbody>
</table>

**Physics Course Requirements**

<table>
<thead>
<tr>
<th>VCCS transfer equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>AS/ART 101, 102, 111</td>
</tr>
<tr>
<td>AS/ENG 210, 115, or 131</td>
</tr>
<tr>
<td>AS/ENG 210, 115, or 131</td>
</tr>
</tbody>
</table>

**Physics Course Requirements**

<table>
<thead>
<tr>
<th>Physics Course Requirements</th>
<th>grade/credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 211C Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 212 Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 312 Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>MATH 307 Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>MATH 316 or 401 or 421 or 422</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 121N/122N Chemistry I**</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 123N/124N Chemistry II **</td>
<td>4</td>
</tr>
<tr>
<td>CS 150 Intro to Programming</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 231N University Physics I*</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 323N University Physics II*</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 323 Modern Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 355 Math Methods</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 319 Analytical Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 320 Electricity &amp; Magnetism</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 352 Intro. Quantum Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 303 Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 413 Methods of Exp. Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 454 Thermal Physics</td>
<td>3</td>
</tr>
<tr>
<td>One course from:</td>
<td></td>
</tr>
<tr>
<td>PHYS 420, 453 or 456</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 499W or 498W/490W Thesis</td>
<td>3</td>
</tr>
<tr>
<td>Approved Physics Seminar</td>
<td>1</td>
</tr>
<tr>
<td>Two courses from:</td>
<td></td>
</tr>
<tr>
<td>PHYS 311, 313, 332, 350, 411, 415, 416, 417</td>
<td>3</td>
</tr>
<tr>
<td>credits 4xx</td>
<td></td>
</tr>
</tbody>
</table>

*Physics majors must earn a grade of “C” or better in PHYS 231 and PHYS 232. **(CHEM 137N/138N) or (CHEM 121N/122N/123N/124N)

**Upper Division General Education**

Satisfied by any University approved 2nd major, minor, cluster, or two upper-division courses (6 credits) outside of and not required by the major.

120 HOURS AND A 2.0 GRADE POINT AVERAGE IN THE MAJOR, MINOR, AND OVERALL ARE NEEDED TO GRADUATE.

**Additional Graduation Requirements:**

- Passage of Exit Writing Exam
- Application for Graduation
- Passage of Physics Exit Exam
- Senior Assessment

**Physics Minor: (12 credits at 300-400 level)**

- PHYS 319
- PHYS 320
- 6 additional credits at 300-400 level

edited: May 12, 2011