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

<table>
<thead>
<tr>
<th>Subject</th>
<th>grade/credits</th>
<th>VCCS transfer equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Composition–6 hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGL 110C English Composition I</td>
<td>3</td>
<td>AS/ENG 111</td>
</tr>
<tr>
<td>ENGL 111C, 131C</td>
<td>3</td>
<td>AS/ENG 210, 115, or 131</td>
</tr>
</tbody>
</table>

**Oral Communication–3 hours**

- satisfied in the major by
- Phys 499W

#### Mathematics-3 hours

- MATH 162M
- Satisfied in the major

**Foreign Language Skills–0-6 hours**

- AS/HS/TOEFL

BS students’ competence must be at the 102.

Consult transfer guide for all equivalencies.

**Computer Skills–3 hours**

- CS 149D or higher
- satisfied in the major by
- CS 150 or 155

#### B. Perspectives

**Fine and Performing Arts–3 hours**

- ART 121A, 122A, DANC 185A, MUSC 264A, THEA 241A, COMM/THEA 270A
- 3
- AS/ART 101, 102, 111, 112, 113, 114, 115;
- MUS 121, 122;
- SPD130, 141, or 142

**History–6 hours (Choose any 2)**

- HIST 101H, 102H, 103H, 104H, 105H
- 3
- AS/Choose two from
- HIS 101, 102, 111, 112, 121, 122, 201, 202, 203, 204, 231, 232, 251, 252, 253, or 254

**Literature--3 hours**

- ENGL 112L, 144L, FLET 100L
- 3
- AS/ENG 112, 235, 237, 241, 242, 246, 267 or 268

**Philosophy–3 hours**

- PHIL 110P, 120P, 150P
- 3
- AS/PHI 100, 101, 102, 211, 212, 220, REL 230, 231, or 232

**Natural Science and Technology–11 to 12 hours**

Eight credit hours of Natural Science with labs in sequence. Additionally, 3-4 credit hours of Natural Science or Technology are required. See transfer guide for specific transfer equivalencies.

**AS**

- Met in the major

**Social Science–6 hours**

1. Social Science I
   - 3
   - AS

2. Social Science II
   - 3
   - AS

  --Must be two separate disciplines.

---

**Physics Course Requirements**

<table>
<thead>
<tr>
<th>Subject</th>
<th>grade/credit</th>
<th>Transfer</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 211 Calculus I</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MATH 212 Calculus II</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MATH 312 Calculus III</td>
<td>4</td>
<td>MATH 285</td>
</tr>
<tr>
<td>MATH 307 Differential Equations</td>
<td>3</td>
<td>MATH 280</td>
</tr>
<tr>
<td>MATH 316 or 401 or 421 or 422</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CHEM 115N College Chemistry I</td>
<td>4</td>
<td>CHM 111 or 113</td>
</tr>
<tr>
<td>CHEM 116N College Chemistry II</td>
<td>4</td>
<td>CHM 112 or 114</td>
</tr>
<tr>
<td>CS 150 Intro to Programming</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>PHYS 231N University Physics I</td>
<td>4</td>
<td>*</td>
</tr>
<tr>
<td>PHYS 232N University Physics II</td>
<td>4</td>
<td>*</td>
</tr>
<tr>
<td>PHYS 323 Modern Physics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PHYS 319 Analytical Mechanics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PHYS 320 Electricity &amp; Magnetism</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PHYS 352 Intro. Quantum Mechanics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PHYS 303 Laboratory</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PHYS 413 Methods of Exp. Physics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PHYS 454 Thermal Physics</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

One course from:

- PHYS 420, 453 or 456
- PHYS 499W Senior Thesis

Approved Physics Seminar

Two courses from:

- PHYS 311, 313, 322, 350, 411, 415, 416, 417 with at least three credits

---

*Physics majors must earn a grade of “C” or better in PHYS 231 and PHYS 232.*

### UPPER DIVISION GENERAL EDUCATION

Satisfied by any University approved 2nd major, minor, or cluster.

**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)**

<table>
<thead>
<tr>
<th>Subject</th>
<th>grade/credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 319</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 320</td>
<td>3</td>
</tr>
</tbody>
</table>

Six additional credits at 300-400 level

---

edited: 5/25/08