BS Physics in 4 Years  
with Computational Physics Concentration 2017-2018

Department of Physics & Astronomy

Catalog Year: Fall 2017-2018  ◆  Catalog Expires: Summer 2028  ◆  Graduation: Spring 2021

<table>
<thead>
<tr>
<th>1st Year</th>
<th>2nd Year</th>
<th>3rd Year</th>
<th>4th Year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td><strong>Second Semester</strong></td>
<td><strong>Third Semester</strong></td>
<td><strong>Fourth Semester</strong></td>
</tr>
<tr>
<td>→ ENG 101 English Composition I</td>
<td>→ ENG 102 Composition II</td>
<td>→ PHYS 180 Engineering Physics I</td>
<td>→ PHYS 300 Introduction to Physics &amp; Scient Computing</td>
</tr>
<tr>
<td>→ MATH181 Calculus I*</td>
<td>→ MATH 182 Calculus II</td>
<td>→ PHYS 180 Engineering Physics I lab</td>
<td>→ PHYS 411 Modern Physics I</td>
</tr>
<tr>
<td>Choose First Year Seminar (SCI-101 recommended)</td>
<td>Choose Humanities Field 1</td>
<td>MATH 283 Calculus III</td>
<td>PHYS 413 Intermediate Laboratory I</td>
</tr>
<tr>
<td>→ Choose Fine Arts</td>
<td>HIST 100 or PSC 101 US NV Constitution</td>
<td>Choose Second Year Seminar</td>
<td>Science, Math, Computer Science or Engineer. 100-400</td>
</tr>
<tr>
<td>Choose Social Science Field 1**</td>
<td></td>
<td>CS 135 Computer Science I</td>
<td>Choose Social Science Field 2</td>
</tr>
<tr>
<td><strong>Total First Semester:</strong></td>
<td><strong>Total Second Semester:</strong></td>
<td><strong>Total Third Semester:</strong></td>
<td><strong>Total Fourth Semester:</strong></td>
</tr>
<tr>
<td>15</td>
<td>14</td>
<td>14</td>
<td>14</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Fifth Semester</strong></th>
<th><strong>Sixth Semester</strong></th>
<th><strong>Seventh Semester</strong></th>
<th><strong>Eighth Semester</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>→ PHYS 181 Engineering Physics II</td>
<td>→ PHYS 404 Computational Techniques in Physics</td>
<td>→ PHYS 467 Thermodynamics</td>
<td>→ MATH 365 Computational Linear Algebra</td>
</tr>
<tr>
<td>→ PHYS 181 Engineering Physics II lab</td>
<td>→ PHYS 421 Electricity &amp; Magnetism</td>
<td>→ PHYS 481 Quantum Mechanics I</td>
<td>→ MATH 493 Special Problems</td>
</tr>
<tr>
<td>→ MATH 182 Engineering Physics III</td>
<td>→ PHYS 423 Mechanics I</td>
<td>Science, Math, Computer Science or Engineer. 100-400</td>
<td>Science, Math, Computer Science or Engineer. 100-400</td>
</tr>
<tr>
<td>→ PHYS 182L Engineering Physics III lab</td>
<td>Choose Social Science Field 3</td>
<td>Upper division General Electives 300-400</td>
<td>Upper division General Electives 300-400</td>
</tr>
<tr>
<td>Choose Social Science Field 2</td>
<td></td>
<td>Total Fifth Semester:</td>
<td>Total Sixth Semester:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td><strong>Total Fifth Semester:</strong></td>
<td><strong>Total Sixth Semester:</strong></td>
<td><strong>Total Seventh Semester:</strong></td>
<td><strong>Total Eighth Semester:</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
<td>16</td>
</tr>
</tbody>
</table>

### Notes

- A course has a prerequisite—see reverse side for course sequences or go to the UNLV online catalog at [http://catalog.unlv.edu/](http://catalog.unlv.edu/)

- A minimum of six (6) credits are required, to be composed of a three-credit multicultural course and a three-credit international course that may simultaneously fulfill other general education requirements. A single course may not simultaneously meet both the multicultural and international requirements. Discuss with your Academic Advisor!

- The minimum number of semester credits required for a bachelor’s degree for a student graduating under the regulations of the 2016 - 2017 Undergraduate Catalog is 120. At least half of the credits required for a baccalaureate degree at the institution must be earned at a four-year institution.

- A candidate for the baccalaureate degree must complete the last 30 UNLV semester credits in uninterrupted resident credit as a declared major in the degree-granting college. A student must declare a major prior to enrolling in their last 30 UNLV resident credits.

- In order to graduate, an undergraduate student must have a minimum cumulative grade point average of 2.00 for the total of all college-level credit attempted at the University of Nevada, Las Vegas (UNLV GPA). College and department GPA requirements must also be met.

---

College of Sciences Advising Center: MPE A-130; 702-895-2077; www.unlv.edu/sciences/advising; sci.advising@unlv.edu

Department of Physics & Astronomy: BPP-209; (702) 895-3563; www.physics.unlv.edu; admin@physics.unlv.edu
LOWER DIVISION PREREQUISITE COURSE SEQUENCES FOR BS PHYSICS/COMPUTATIONAL MAJORS

Lower Division Math Sequence
- MATH 95 Intermediate Algebra (3 credits) Grade C
- MATH 96 Intermediate Algebra (3 credits) Grade C
- MATH 120 Precalculus (3 credits) Grade C
- MATH 127 Precalculus B (3 credits) Grade C
- MATH 181 Calculus I (4 credits) Grade C
- MATH 211 Calculus II (4 credits) Grade C
- MATH 231 Calculus III (4 credits) Grade C

Recommended for Math Majors only

Lower Division Chemistry Sequence
- CHEM 121 General Chemistry I (4 credits) Grade C
- CHEM 122A General Chemistry II (4 credits) Grade C
- CHEM 211 Organic Chemistry I (6 credits) Grade C
- CHEM 212 Organic Chemistry II (6 credits) Grade C
- CHEM 214 Organic Chemistry III (6 credits) Grade C

Majors: Biology, Chemistry

Lower Division Computer Science Sequence
- CS 155 Computer Science I (3 credits) Grade C
- CS 262 Computer Science II (3 credits) Grade C

Lower Division Engineering Physics Sequence
- PHYS 181 Engineering Physics I (4 credits) Grade C
- PHYS 182 Engineering Physics II (3 credits) Grade C
- PHYS 183 Engineering Physics III (3 credits) Grade C
- PHYS 181 Engineering Physics I lab (1 credit) Grade C
- PHYS 182 Engineering Physics II lab (1 credit) Grade C
- PHYS 183 Engineering Physics III lab (1 credit) Grade C

Lower Division English Sequence
- ENG 110 English Composition I (3 credits) Grade C
- ENG 111 English Composition II (3 credits) Grade C
- ACT 20 SAT 540 Math placement exam (18-24)
- ACT 23 SAT 540 Math placement exam (25-27)
- ACT 25 SAT 560 Math placement exam (28-30)
- ACT 28 SAT 600 Math placement exam

Majors: Biology, Chemistry, Math, Physics, Option Geology

Read the UNLV Catalog for Upper Division Course Prerequisites: http://catalog.unlv.edu/

UNLV College of Sciences Advising Center, MPE A-130; sci.advising@unlv.edu; 702-895-2077