# 2017-18 Degree Plan

Physics (EPS Concentration Climate Focus), BS

College of Arts & Sciences: Department of Physics & Astronomy (4 Year Plan)

<table>
<thead>
<tr>
<th>Term 1</th>
<th>Hours Towards Degree: 16</th>
<th>Hours</th>
<th>Minimum Grade</th>
<th>Notes</th>
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<tbody>
<tr>
<td>PHYC 160: General Physics</td>
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<td>PHYC 160L: General Physics Laboratory</td>
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<td>ENGL 110: Accelerated Composition or ENGL 111: Composition I and ENGL 112: Composition II or ENGL 113: Enhanced Composition</td>
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<td>CHEM 121: General Chemistry I</td>
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<td>CHEM 123L: General Chemistry I Lab</td>
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<td>MATH 162: Calculus I</td>
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<td>PHYC 167: Problems in General Physics</td>
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**Term Hours:** 16

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<td>PHYC 161: General Physics</td>
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<td>PHYC 161L: General Physics Laboratory</td>
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<td>ENGL 120: Composition III</td>
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<td>MATH 163: Calculus II</td>
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<td>CHEM 122: General Chemistry II</td>
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<td>CHEM 124L: General Chemistry II Lab</td>
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<td>PHYC 168: Problems in General Physics</td>
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**Term Hours:** 16

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<th>Term 3</th>
<th>Hours Towards Degree: 47</th>
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<tr>
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<td>EPS 436</td>
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<td>PHYC 262: General Physics</td>
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<td>PHYC 262L: General Physics Lab</td>
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<td>PHYC 267: Problems in General Physics</td>
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<td>MATH 264: Calculus III</td>
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**Term Hours:** 15
### Term 4

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<th>Course</th>
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<tr>
<td>Second Language</td>
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<tr>
<td>PHYC 330: Introduction to Modern Physics</td>
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<td>PHYC 331: Problems in Introduction to Modern Physics</td>
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<td>ENVS 101: The Blue Planet</td>
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<td>ENVS 102L: The Blue Planet Laboratory</td>
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<td>MATH 316: Applied Ordinary Differential Equations</td>
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<td>PHYC 290: Computational Physics</td>
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**Term Hours:** 17

### Term 5

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<tr>
<td>PHYC 303: Analytical Mechanics I</td>
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<tr>
<td>PHYC 313: Problems in Analytical Mechanics I</td>
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<tr>
<td>EPS Elective 1</td>
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<tr>
<td>Social Behavioral Science</td>
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<td>PHYC 366:</td>
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<td>Fine Arts</td>
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**Term Hours:** 17

### Term 6

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<tr>
<td>EPS Elective 2</td>
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<td>PHYC 304: Analytical Mechanics II</td>
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<td>PHYC 314: Problems in Analytical Mechanics II</td>
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<tr>
<td>Humanities</td>
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<td>MATH 314: Linear Algebra with Applications</td>
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<td>PHYC 405: Electricity and Magnetism I</td>
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<td>PHYC 415: Problems in Electricity and Magnetism I</td>
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**Term Hours:** 17

### Term 7

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<tr>
<td>EPS Elective 3</td>
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<tr>
<td>PHYC 301: Thermodynamics and Statistical Mechanics</td>
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<td>PHYC 311: Problems in Thermodynamics and Statistical Mechanics</td>
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<td>Math Minor Elective I</td>
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**Term Hours:** 13
Term 8

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<td>EPS Elective 4</td>
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<tr>
<td>PHYC 307L: Junior Laboratory</td>
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<td>Social Behavioral Science</td>
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<tr>
<td>Math Minor Elective II</td>
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Term Hours: 12

**Crucial course:** (A crucial course is a predictor for success in obtaining this degree. It should be taken in the term indicated in order to ensure timely progress to graduation.)

**Degree Plan Notes**

- Minimum graduation GPA = 2.00. Keep in mind that minimum grades on road map are for individual coursework only. Students must maintain a minimum of a 2.0 cumulative GPA for admission and graduation from the College of Arts and Sciences.
- A Math Minor is automatically earned.
- *Physics 167, 168, and 267 are 1 credit hour Recitation Sections associated with Physics 160, 161 and 262, respectively. These recitation sessions are practice in solving problems from the associated lecture courses. They are optional, but very **EPS 101 and 105L are recommended, but a motivated student could opt to gain this background on their own by reading. This should be determined in advising. Such a student may add another EPS elective instead in an appropriate semester.
- The Departmental Honors Program requires 2 semesters of an Honors Section of Physics 456. The student and faculty mentor present a mutually agreeable topic to the department for approval. Also, the University requires a GPA of at least 3.25. See the Honors web page for more information at [http://panda.unm.edu/AcadAdv/honors.html](http://panda.unm.edu/AcadAdv/honors.html)
- CONC Electives: This concentration requires a minimum of 6 electives, including EPS 101 and PHYC 327 as gateway classes. Four additional electives may be chosen from the following list (a student can mix classes across these subject areas, depending on interest, but should work closely with their advisor to determine the best set of classes). These electives are generally chosen because they require the PHYC 160 series as pre-reqs, but students are encouraged to contact the instructors of the classes to identify themselves as Physics majors with an EPS concentration. Climate/Atmosphere: EPS 436 Climate Dynamics (3), EPS 437 Applied Meteorology (3), EPS 439 Paleoclimatology (3) Solid Earth Geophysics: PHYS 327 Introduction to Solid Earth Geophysics (3); EPS 488 Scanning Electron Microscopy (3); PHYC 4XX/EPS 564? Geodynamics or geological fluid mechanics (Roy & course number TBD); EPS 457L Mathematical Modeling in the Geosciences (3); Introduction to Seismology, Applied Seismology, Signal Processing, Inverse Theory â†© these course numbers TBD by newly hired geophysics faculty; EPS 450 Volcanology (with permission of instructor) (3) Hydrology: EPS 476 Physical Hydrology (3), EPS 462 Hydrogeology (3), or with permission of instructor, EPS 443 Aquifers and Reservoirs (3).

**CJ 130 or PHIL 156 or ENGL 219 or ENGL 220s**

- CJ 130: Public Speaking
- ENGL 219: Tech & Professional Writing
- ENGL 220: Expository Writing
- PHIL 156: Reasoning & Critical Thinking