

## Professional Physics Concentration: Plan of Study #1

The degree courses are in boldface. The plan below is only a suggested sequence, but courses must be taken with observance of prerequisites. Pre- and co-requisites are indicated in brackets.

|           | Fall   |  | Spring  |
|-----------|--|--|---|
| Freshman  | <b>PHYS 115</b> [ <i>MATH 131</i> ] <b>4</b><br><b>PHYS 115L</b> <b>1</b><br><b>MATH 131</b> [ <i>see catalog for math requirement</i> ] <b>4</b><br>English course <sup>1</sup> <b>3</b><br>(Basic skills course, if needed <sup>1</sup> , UNIV 101, or one FS) <b>3</b><br>15 hrs.   |  | <b>PHYS 116</b> [ <i>PHYS 115, MATH 132</i> ] <b>4</b><br><b>PHYS 116L</b> [ <i>PHYS 115L</i> ] <b>1</b><br><b>MATH 132</b> [ <i>MATH 131</i> ] <b>4</b><br>COMM 101 <b>3</b><br>Found. Stud. Course <b>3</b><br>15 hrs.  |
| Sophomore | <b>PHYS 306</b> [ <i>PHYS 116, 116L</i> ] <b>2</b><br><b>PHYS 307</b> [ <i>PHYS 116, 116L</i> ] <b>2</b><br><b>PHYS 321<sup>4</sup></b> [ <i>PHYS 116, MATH 132</i> ] <b>2</b><br><b>CHEM 105</b> [ <i>see catalog for math requirement</i> ] <b>3</b><br><b>CHEM 105L</b> <b>1</b><br>Found. Stud. Course <b>3</b><br>Found. Stud. Course <b>3</b><br>16 hrs. |  | <b>PHYS 308</b> [ <i>PHYS 116, 116L</i> ] <b>3</b><br><b>PHYS 308L</b> [ <i>PHYS 116, 116L</i> ] <b>1</b><br><b>PHYS 322<sup>4</sup></b> [ <i>PHYS 321</i> ] <b>2</b><br><b>PHYS 310<sup>2</sup></b> [ <i>PHYS 116, MATH 132</i> ] <u>or</u> <b>3</b><br><b>PHYS 341<sup>2</sup></b> [ <i>PHYS 215, PHYS 321</i> ] <b>3</b><br><b>CHEM 106</b> [ <i>CHEM 105/L</i> ] <b>3</b><br><b>CHEM 106L</b> [ <i>CHEM 105/L</i> ] <b>1</b><br>Found. Stud. Course <b>3</b><br>16 hrs. |
| Junior    | <b>PHYS 311<sup>3</sup></b> [ <i>PHYS 310</i> ] <u>or</u> <b>3</b><br><b>PHYS 342<sup>3</sup></b> [ <i>PHYS 341</i> ] <b>3</b><br><b>PHYS 315<sup>4</sup></b> [ <i>PHYS 216L</i> ] <b>1</b><br><b>MATH 231</b> [ <i>MATH 132</i> ] <b>4</b><br>Found. Stud. Course <b>3</b><br>Found. Stud. Course <b>3</b><br>14 hrs.   |  | <b>PHYS 341<sup>2</sup></b> [ <i>PHYS 215, PHYS 321</i> ] <u>or</u> <b>3</b><br><b>PHYS 310<sup>2</sup></b> [ <i>PHYS 116, MATH 132</i> ] <b>3</b><br><b>PHYS 316<sup>4</sup></b> [ <i>PHYS 315</i> ] <b>1</b><br><b>PHYS 497<sup>4</sup></b> [ <i>PHYS 216, PHYS 322</i> ] <b>3</b><br>English 305T <b>3</b><br>Found. Stud. Course <b>3</b><br>Found. Stud. Course <b>3</b><br>16 hrs.  |
| Senior    | <b>PHYS 342<sup>3</sup></b> [ <i>PHYS 341</i> ] <u>or</u> <b>3</b><br><b>PHYS 311<sup>3</sup></b> [ <i>PHYS 310</i> ] <b>3</b><br><b>PHYS 405</b> <b>1</b><br>Found. Stud. Course <b>3</b><br>Found. Stud. Course <b>3</b><br>Found. Stud. Course <b>3</b><br>Option <b>2</b><br>15 hrs.   |  | <b>MATH 333</b> [ <i>Math 231</i> ] <b>3</b><br><b>PHYS 420<sup>4</sup></b> [ <i>PHYS 216</i> ] <b>3</b><br>Option <b>3</b><br>Option <b>3</b><br>Option <b>3</b><br>15 hrs.  |

[Prerequisite]    [Pre- or Co-requisite]

<sup>1</sup>Specific requirements are determined by proficiencies met upon entering. You may need one semester of English (107) or two (101 & 105). One basic skills course is built into the schedule, but you may need more. Additional courses reduce the number of “Option” courses later in the curriculum. One Foundational Studies UDIE course may be replaced by completion of a minor or second major.

<sup>2</sup> PHYS 310 and 341 are offered on an alternating basis in spring semesters.

<sup>3</sup> PHYS 311 and 342 are offered on an alternating basis in fall semesters.

<sup>4</sup> PHYS 321 & 322, 315 & 316, 420, and 497 are offered every other year. PHYS 321 & 322 alternate with 315 & 316. PHYS 316 and 497 are offered in the same spring semester; 322 and 420 are offered in the same spring semester.

## Professional Physics Concentration: Plan of Study #2

The degree courses are in boldface. The plan below is only a suggested sequence, but courses must be taken with observance of prerequisites. Pre- and co-requisites are indicated in brackets.

|           | Fall   |  | Spring  |
|-----------|--|--|---|
| Freshman  | <b>PHYS 115</b> [ <i>MATH 131</i> ] <b>4</b><br><b>PHYS 115L</b> <b>1</b><br><b>MATH 131</b> [ <i>see catalog for math requirement</i> ] <b>4</b><br>English course <sup>1</sup> <b>3</b><br>(Basic skills course, if needed <sup>1</sup> , UNIV 101, or one FS) <b>3</b><br>15 hrs.   |  | <b>PHYS 116</b> [ <i>PHYS 115, MATH 132</i> ] <b>4</b><br><b>PHYS 116L</b> [ <i>PHYS 115L</i> ] <b>1</b><br><b>MATH 132</b> [ <i>MATH 131</i> ] <b>4</b><br>COMM 101 <b>3</b><br>Found. Stud. Course <b>3</b><br>15 hrs.  |
| Sophomore | <b>PHYS 306</b> [ <i>PHYS 116, 116L</i> ] <b>2</b><br><b>PHYS 307</b> [ <i>PHYS 116, 116L</i> ] <b>2</b><br><b>CHEM 105</b> [ <i>see catalog for math requirement</i> ] <b>3</b><br><b>CHEM 105L</b> <b>1</b><br>Found. Stud. Course <b>3</b><br>Found. Stud. Course <b>3</b><br>Found. Stud. Course <b>3</b><br>17 hrs.           |  | <b>PHYS 308</b> [ <i>PHYS 116, 116L</i> ] <b>3</b><br><b>PHYS 308L</b> [ <i>PHYS 116, 116L</i> ] <b>1</b><br><b>PHYS 310</b> <sup>2</sup> [ <i>PHYS 116, MATH 132</i> ] <u>or</u> <b>3</b><br><b>PHYS 341</b> <sup>2</sup> [ <i>PHYS 215, PHYS 321</i> ] <b>3</b><br><b>CHEM 106</b> [ <i>CHEM 105/L</i> ] <b>3</b><br><b>CHEM 106L</b> [ <i>CHEM 105/L</i> ] <b>1</b><br>Found. Stud. Course <b>3</b><br>14 hrs. |
| Junior    | <b>PHYS 311</b> <sup>3</sup> [ <i>PHYS 310</i> ] <u>or</u> <b>3</b><br><b>PHYS 342</b> <sup>3</sup> [ <i>PHYS 341</i> ] <b>3</b><br><b>PHYS 321</b> <sup>4</sup> [ <i>PHYS 116, MATH 132</i> ] <b>2</b><br><b>MATH 231</b> [ <i>MATH 132</i> ] <b>4</b><br>Found. Stud. Course <b>3</b><br>Found. Stud. Course <b>3</b><br>15 hrs. |  | <b>PHYS 341</b> <sup>2</sup> [ <i>PHYS 215, PHYS 321</i> ] <u>or</u> <b>3</b><br><b>PHYS 310</b> <sup>2</sup> [ <i>PHYS 116, MATH 132</i> ] <b>3</b><br><b>PHYS 322</b> <sup>4</sup> [ <i>PHYS 321</i> ] <b>2</b><br><b>PHYS 420</b> <sup>4</sup> [ <i>PHYS 216</i> ] <b>3</b><br>English 305T <b>3</b><br>Found. Stud. Course <b>3</b><br>Found. Stud. Course <b>3</b><br>17 hrs.                                |
| Senior    | <b>PHYS 342</b> <sup>3</sup> [ <i>PHYS 341</i> ] <u>or</u> <b>3</b><br><b>PHYS 311</b> <sup>3</sup> [ <i>PHYS 310</i> ] <b>3</b><br><b>PHYS 315</b> <sup>4</sup> [ <i>PHYS 216L</i> ] <b>1</b><br><b>PHYS 405</b> <b>1</b><br>Found. Stud. Course <b>3</b><br>Found. Stud. Course <b>3</b><br>Option <b>3</b><br>14 hrs.           |  | <b>MATH 333</b> [ <i>Math 231</i> ] <b>3</b><br><b>PHYS 316</b> <sup>4</sup> [ <i>PHYS 315</i> ] <b>1</b><br><b>PHYS 497</b> <sup>4</sup> [ <i>PHYS 216, PHYS 322</i> ] <b>3</b><br>Option <b>3</b><br>Option <b>3</b><br>Option <b>3</b><br>16 hrs.  |

[Prerequisite]    [Pre- or Co-requisite]

<sup>1</sup>Specific requirements are determined by proficiencies met upon entering. You may need one semester of English (107) or two (101 & 105). One basic skills course is built into the schedule, but you may need more. Additional courses reduce the number of “Option” courses later in the curriculum. One Foundational Studies UDIE course may be replaced by completion of a minor or second major.

<sup>2</sup> PHYS 310 and 341 are offered on an alternating basis in spring semesters.

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<sup>4</sup> PHYS 321 & 322, 315 & 316, and 497 are offered every other year. PHYS 321 & 322 alternate with 315 & 316. PHYS 316 and 497 are offered in the same spring semester; 322 and 420 are offered in the same spring semester.