

PURDUE UNIVERSITY  
 Department of Physics  
 B.S. with Honors Physics Major  
 (7PH)  
 (effective Fall 2008)  
 Typical Plan of Study

| Sem | Physics Department Requirements  |                                  | College of Science Requirements  |   | Electives   | Credits |
|-----|--|----------------------------------|--|---|---|---------|
| 1   | <b>Phys 172(H) (4 cr.)**</b><br>Mechanics  | Ma 165 (4 cr.)<br>Calculus I     | Chm 115<br>(4 cr.)   | CS 177/159/180<br>(3 - 4 cr.)             | <sup>®</sup> Phys 217(H)<br>(1 cr.)<br><br><sup>€</sup> Sci 130 (1 cr.) | 15 - 18 |
| 2   | <b>Phys 272(H) (4 cr.)***</b><br>E&M   | Ma 166 (4 cr.)<br>Calculus II    | Chm 116<br>(4 cr.)   | <sup>β</sup> Engl 106 or 108 (4 or 3 cr.) | <sup>€</sup> Sci 130 (1 cr.)  | 15 - 17 |
| 3   | <sup>∞</sup> Phys 312 (3 cr.)<br>(Mathematical Physics I)<br><b>Phys 344 (4 cr.)</b><br>(Modern Physics)<br><sup>∞</sup> Phys 340 (1 cr.)<br>(Modern Physics Lab)                                  | Ma 261 (4 cr.)<br>Calculus III   | <sup>β</sup> Foreign Language/ Culture/ Diversity (3 cr.)                      |   |   | 15      |
| 4   | <b>Phys 313 (3 cr.)</b><br>(Mathematical Physics II)<br><b>Phys 422 (3 cr.)</b> (Optics)   | Science Electives<br>(3 - 4 cr.) | Foreign Language/ Culture/ Diversity (3 cr.)<br>Writing & Presentation (3 cr.) |   | <sup>®</sup> Phys235 (1cr)<br><br>Seminar In<br>Careers In<br>Physics   | 15 - 17 |
| 5   | <b>Phys 410 (3 cr.)</b> Intern Mech I<br><b>Phys 450 (2 cr.)</b> Optics Lab<br><b>Phys 460 (3 cr.)</b> Quant Mech I  |                                  | Foreign Language/ Culture/ Diversity (3 cr.)<br>Great Issues (3 cr.)           |   | Free Elective<br>(3 cr.)  | 17      |
| 6   | <b>Phys 411 (2 cr.)</b> Intern Mech II<br><b>Phys 461 (3 cr.)</b> Quant Mech II<br><b>Phys 430 (3 cr.)</b> ( Intern. E & M I)  |                                  | Multidisciplinary (3 cr.)<br>Gen Ed (3 cr.)<br>Gen Ed (3 cr.)                  |   |   | 17      |
| 7   | <b>Phys 416 (4 cr.)</b> Therm&Stat Mech<br><b>Phys 431 (2 cr.)</b> (Intern. E & M II)<br><b>Phys 593 (≥3 cr.)</b> Advanced Lab   | Science Electives<br>(3 - 4 cr.) | Statistics (301, 350, 503, 511)<br>3 cr.                                       |   |   | 15 - 16 |
| 8   | <b>Phys 536 / 580 (3 - 4 cr.)</b><br>Electronic Techniques / Computational Physics<br><b>Physics /Astro Elective (≥ 500 level) (3 cr.)</b><br><b>Physics /Astro Elective (≥ 500 level) (3 cr.)</b> |                                  | Gen Ed (3 cr.)   |   | Free Elective<br>(3 cr.)  | 15 - 16 |

<sup>∞</sup>Phys 312 = Phys 290F; Phys 340= Phys 342L

<sup>β</sup> Foreign Language and English Composition are interchangeable in terms of when they are taken.

\*\*Phys (152 + 290D) or Phys (162, 163) are acceptable substitutes

\*\*\*Phys 241, 261, with Phys (252) or Phys 271 with 271L are acceptable substitutes

<sup>€</sup> MANDATORY. To be taken in Semester 1 or 2

<sup>®</sup> Optional but Strongly Recommended.