# BACHELOR OF SCIENCE IN PHYSICS
## RECOMMENDED COURSE SEQUENCE - EFFECTIVE Fall 2013-Update

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall Semester</th>
<th>Spring Semester</th>
<th>Sumner</th>
<th>Credits</th>
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</thead>
</table>
| Freshman | PHYS 1100 Fun of Physics  
PHYS 2303 Contemporary Physics  
MATH 2413 or 2417 Calculus 1<sup>a</sup>  
CHEM 1311 General Chemistry 1  
CHEM 1111 Chemistry Laboratory 1  
RHET 1302 Rhetoric  
UNIV 1010 Freshman and NATS 1101 1<sup>st</sup> year NSM Seminars | PHYS 2325 Mechanics or PHYS 2421 Honors Physics I<sup>*</sup>  
PHYS 2125 Mechanics Laboratory  
MATH 2414 or 2419 Calculus 2<sup>a</sup>  
CHEM 1312 General Chemistry 2  
CHEM 1112 Chemistry Lab 2  
HUMA 1301 Exploration of the Humanities | Fall 16  
Spring 15 - 16  
Total Hrs 31 - 32 |
| Sophomore | PHYS 2326 EM and Waves or PHYS 2422 Honors Physics II<sup>*</sup>  
PHYS 2126 Electromagnetism Laboratory  
MATH 2415 or 2451 Multivariable Calculus  
MATH 2418 Linear Algebra  
HIST 1301 Themes in American History | PHYS 3411 Theoretical Physics  
MATH 2420 Ordinary Differential Equations.  
PHYS 4311 Thermodynamics/Statistical Mechanics  
PHYS 3327 Electronics with Laboratory | Fall 15 - 16  
Spring 14  
Total Hrs 60 - 62 |
| Junior | PHYS 4301 Quantum Mechanics 1  
PHYS 3416 Electricity and Magnetism  
PHYS 3330 Numerical Methods and Computational Techniques  
GOVT 2305 Government 1  
HIST 1302 Issues in American History | PHYS 4302 Quantum Mechanics 2  
PHYS 3312 Classical Mechanics  
PHYS 4373 Physical Measurements Lab  
Social Science Elective 3 credit hours  
Elective – 3 credit hours | REU  
Fall 16  
Spring 15  
Total Hrs 91- 93 |
| Senior | PHYS 4352 Concepts of Modern Physics  
PHYS Elective - 3 credit hours  
GOVT 2306 Government 2  
Elective - 2 credit hours  
Upper Lever elective (Non-physics) - 3 credit hours | PHYS 4328 Optics  
PHYS 4390 or PHYS 4399 Advanced Writing (or Thesis)  
PHYS Elective - 3 credit hours  
ARTS 1301 Exploration of the Arts  
Upper Level elective (Non-physics) - 3 credit hours | Fall 14  
Spring 15  
Total Hrs 120 - 122 |

Notes:

<sup>a</sup> Either math sequence MATH 2413, 2414, 2415 or MATH 2417, 2419, 2451 required.

<sup>a</sup> MATH 2413 or MATH 2417 is a prerequisite for PHYS 2325 and MATH 2414 or MATH 2419 is a corequisite for PHYS 2325.

<sup>a</sup> MATH 2414 or MATH 2419 is a prerequisite for PHYS 2326.

<sup>*</sup> PHYS 2421 Honors Physics I is a recommended substitution for PHYS 2325. (Requires a minimum grade of B+ in either MATH 2413 or MATH 2417)

<sup>*</sup> PHYS 2422 Honors Physics II is a recommended substitution for PHYS 2326.

51 Hours of upper division courses (course numbers beginning with 3 or greater) are required for all degrees.

Research Experiences for Undergraduates (REUs) during the summer are highly recommended for Physics majors planning to continue their education in graduate school. Formal REU programs exist at many universities, national laboratories, and even overseas, and usually offer a stipend typical of a graduate teaching assistantship. Announcements for REU programs usually appear online in December and application deadlines usually range from late January to early March. Requirements vary, but students are often eligible if they have completed their freshman year.