# Physics

**Department of Physical Sciences**

**Department Chair:**Andrea Del Vecchio

**Physics Program Faculty: Professors** Del Vecchio, Rivers, Snowman; **Assistant Professors** Padmanabhan, Young

Students **must** consult with their assigned advisor before they will be able to register for courses.

Physics B.S.

Course Requirements

Courses

|  |  |  |  |
| --- | --- | --- | --- |
| PHYS 101 | Physics for Science and Mathematics I | 4 | F, Sp, Su |
| PHYS 102 | Physics for Science and Mathematics II | 4 | F, Sp, Su |
| PHYS 103 | Calculus Applications in Mechanics | 1 | F |
| PHYS 104 | Calculus Applications in Electricity and Magnetism | 1 | F |
| PHYS 306W | Quantum Mechanics Laboratory | 1 | Sp (odd years) |
| PHYS 307 | Quantum Mechanics I | 3 | Sp (odd years) |
| PHYS 310W | Thermodynamics Laboratory | 1 | Sp (even years) |
| PHYS 311 | Thermodynamics | 3 | Sp (even years) |
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|  |  |  |  |
| PHYS 401 | Advanced Electricity and Magnetism I | 4 | Sp (even years) |
| PHYS 403 | Classical Mechanics | 4 | Sp (odd years) |
| PHYS 413W | Advanced Physics Laboratory | 3 | F |

THREE COURSES from

|  |  |  |  |
| --- | --- | --- | --- |
| PHYS 309 | Nanoscience and Nanotechnology | 4 | F (even years) |
| PHYS 312 | Mathematical Methods in Physics | 3 | F |
| PHYS 315 | Optics | 4 | Sp (odd years) |
| PHYS 320 | Analog Electronics | 4 | F (odd years) |
| PHYS 321 | Digital Electronics | 4 | Sp (even years) |
| PHYS 402 | Advanced Electricity and Magnetism II | 3 | As needed |
| PHYS 407 | Quantum Mechanics II | 3 | As needed |
| PHYS 409 | Solid State Physics | 3 | As needed |

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Cognates

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|  |  |  |  |
| MATH 212 | Calculus I | 4 | F, Sp, Su |
| MATH 213 | Calculus II | 4 | F, Sp, Su |
| MATH 314 | Calculus III | 4 | F, Sp |
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|  |  |  |  |
| TWO COURSES from |  |  |
| BIOL 111 | Introductory to Biology I | 4 | F, Sp, Su |
| BIOL 112 | Introductory to Biology II | 4 | F, Sp, Su |
| CHEM 103 | General Chemistry I | 4 | F, Sp, Su |
| CHEM 104 | General Chemistry II | 4 | Sp, Su |
| CSCI 102 | Computer Fundamentals for Cyber Security | 4 | F, Sp |
| CSCI 157 | Introduction to Algorithmic Thinking in Python | 4 | F, Sp |
| CSCI 211 | Computer Programming and Design | 4 | F, Sp |
| PSCI 211 | Introduction to Astronomy | 4 | F, Sp |
| PSCI 212 | Introduction to Geology | 4 | F, Sp |
| PSCI 217 | Introduction to Oceanography | 4 | F, Sp |
| Any additional MATH course at the 300-level or above\* |  | 3-4 |  |

\*NOTE: **A second MATH course at the 300-level or above is allowed, but MATH 491 does not count for this category.**

Total Credit Hours: 56-61

Physics Minor

Course Requirements

The minor in physics consists of a minimum of 17 credit hours, at least nine of which must be at the 300-level or above.

*Note: Connections courses cannot be used to satisfy these requirements.*