GENERAL ANNOUNCEMENTS 2016-2017 (Proposed)

Physics and Astronomy

The Wiess School of Natural Science

**Tab 2: Undergraduate Requirements**

Program Learning Outcomes for Minor in Physics

Upon completing the minor in Physics, students will be able to:

1. Acquire and demonstrate a solid foundation of knowledge in physics. This includes:
   - Basic Mechanics
   - Basic Electromagnetism
   - Maxwell’s equations in differential form
   - Waves, interference, and diffraction
   - Special relativity
   - The Schroedinger equation and the wave formulation of Quantum Mechanics
2. Acquire and demonstrate knowledge in a number of advanced physics topics of their choosing.
3. Recognize the importance of science in issues affecting their everyday lives. They use scientific approaches and think critically in evaluating articles in the scientific and popular press.

Requirements for the Minor in Physics

Students pursuing the minor in Physics must complete:

- A minimum of 35 credit hours, comprising 26 credit hours core requirements (8-10 courses depending on course selection) and an additional 9 credit hours (three courses minimum) from departmental (PHYS) offerings at the 300-level or above.

**CORE REQUIREMENTS**

Students must complete a total of 26 credit hours (8-10 courses depending on course selection) to satisfy the Physics minor’s Core Requirements.

- PHYS 101 *Mechanics (with Lab)* [4 credit hours] and PHYS 103 *Mechanics Discussion* [0 credit] or PHYS 111 *Mechanics (with lab)* [4 credit hours]
- PHYS 102 *Electricity and Magnetism (with Lab)* [4 credit hours] and PHYS 104 *E & M Discussion* [0 credit] or PHYS 112 *Electricity and Magnetism (with lab)* [4 credit hours]
- MATH 101 *Single Variable Calculus I* [3 credit hours]
- MATH 102 *Single Variable Calculus II* [3 credit hours]
- MATH 211 *Ordinary Differential Equations and Linear Algebra* [3 credit hours] or MATH 221 *Honors Calculus* [3 credit hours]
- MATH 212 *Multivariable Calculus* [3 credit hours] or MATH 222 *Honors Calculus IV* [3 credit hours]
- PHYS 201 *Waves and Optics* [3 credit hours]
- PHYS 202 *Modern Physics* [3 credit hours]

**ELECTIVES**

To fulfill the remaining Physics minor requirements, students must complete a total of 9 additional credit hours (a minimum of 3 courses) from departmental (PHYS) course offerings at the 300-level or above.

As of April 5, 2016