

Minnesota State University Moorhead

PHYS 161: College Physics II & Lab

A. COURSE DESCRIPTION

Credits: 4

Lecture Hours/Week: *.*

Lab Hours/Week: 4

OJT Hours/Week: *.*

Prerequisites:

This course requires any of these seven prerequisite categories

1. Both of these

MATH 127 - College Algebra

MATH 143 - Trigonometry

Or

2. PHYS 160 - College Physics I & Lab

Or

3. MATH 142 - Pre-Calculus

Or

4. MATH 229 - Topics in Calculus

Or

5. MATH 261 - Calculus I

Or

6. MATH 262 - Calculus II

Or

7. MATH 323 - Multi-Variable and Vector Calculus

Corequisites: None

MnTC Goals: None

Concepts and principles of elementary physics presented in a guided activity-based format which integrates lecture and laboratory using cooperative group learning techniques. Includes thermal physics, electromagnetism, and optics.

B. COURSE EFFECTIVE DATES: 03/04/2013 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

D. LEARNING OUTCOMES (General)

1. Become familiar with a variety of physics concepts including electricity and magnetism, sound, light, and waves.
2. Develop critical thinking skills.
3. Develop estimating and unit analysis skills.
4. Participate in inquiry-based experiences.
5. Become familiar with the scientific method.
6. Develop laboratory skills and technical writing skills.
7. Develop data analysis and error analysis within a laboratory experiment.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted