Fond du Lac Tribal and Community College

COURSE OUTLINE

Date submitted: 11/20/07                  Date approved:
Department and Course Number: PHYS 1010-1011
Title of Course: General Physics I & II
Number of credits: Lecture 4 Lab 1

Catalog/Course Description:
Calculus-level general physics course designed for science and engineering majors. Concepts in mechanics, electricity, magnetism, heat, light, sound, and modern physics will be examined.

Placement for Success prerequisites: (See instruction sheet)
Prerequisite: Concurrent enrollment in Calculus sequence

Reading: English/Writing: Math: Level 4

Recommended course materials and resources, e.g. textbooks, workbooks, study guides, lab manuals, videos, guest lecturers. If applicable.

Text determined on a yearly basis depending on availability and content.
Three-Ring Binder, Metric Ruler, Colored Pencils, and Calculator with trig functions.
Handouts, Overheads, Slides, and Videos.

Relationship of proposed course to the department mission and goals
Provides general education credits suitable for transfer to four-year degree programs. Serves as a basis for knowledge for more advanced studies in the physical sciences.

Course goals:
Goal: To promote an understanding of calculus-based physics concepts and their relevancy to the student's everyday world.
Learning outcomes: (A minimum of one learning outcome shall be provided for each course goal)

State a minimum of two assessment instruments for each learning outcome.

Outcome: Students will demonstrate and communicate physics concepts through scientific inquiry and laboratory activities.

Assessment:

- in class question and answers
- lab journals
- problem solving exercises
- student presentations
- exams
- attendance

Course content:
(Provide an outline of major topics covered in course)

Physics I:
- Fundamentals of Matter, Energy, Space, and Time
- Describing and Analyzing Motion
- Force, Work, and Motion
- Equilibrium
- Circular Motion
- Momentum
- Rotational Motion
- Mechanical Properties of Matter
- Harmonic Motion
- Fluids
- Waves

Physics II:
- Thermal Properties of Matter
- Thermodynamics
- Electricity
- Electric Fields
- Electric Current
- Magnetic Fields
- Electromagnetism
- Capacitance and Inductance
- Light
- Lenses and Optics
- Particles and Waves
- Relativity
- The Atom

Placement for Success prerequisite
Check one of each area--English, reading, and math

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