Tentative Syllabus

Physics 101: Earth, Air, Fire, and Water
Fall Semester 2005

Place: Sci Auditorium

Time: 10:30 to 11:30 MWF

Instructor: Dr. Matthew Benacquista
Office: Sci 216
Office Telephone: 657-2022
Department Telephone: 657-2031
Email: benacquista@msubillings.edu
Office Hours: 2:00-3:00 MTWF and by arrangement.

Text: Physical Science (6\textsuperscript{th} edition) by Tillery.

Course Description:

This course will provide the student with a basic understanding of everyday physics. We will study motion including Newton’s Laws, rotational motion, force, energy, and momentum. We will also cover wave motion, thermodynamics, electricity and magnetism, the nature of light, elements of quantum mechanics, and an introduction to nuclear physics. If time permits, Einstein’s theory of special relativity will be discussed. This course emphasizes a conceptual understanding of physics. However, physics is a problem-solving science, and some mathematics (arithmetic and basic algebra) is necessary to fully appreciate the subject. It is expected that students have these basic math skills. Several (4 to 5) homework problems will be assigned each week, but will not be graded. The homework will be discussed in class as needed.

Assessment:

Grades will be determined by four 1-hour exams and a comprehensive final exam, on the following chapters:

- Exam 1: Chapter 1: What is Science and Chapter 2: Motion
- Exam 2: Chapter 2: Motion (cont.) and Chapter 3: Energy
- Exam 3: Chapter 4: Heat and Temperature and Chapter 5: Wave Motion
- Exam 4: Chapter 6: Electricity and Chapter 7: Light
- Final Exam: Chapters 1 - 7, Chapter 8: Atoms, and Chapter 13: Nuclear Reactions
Grading:

The hour exams will be worth 70% of the final grade and the final exam worth 30% of the final grade.

Grades will be assigned on the following basis:

- 90% to 100%  A
- 80% to 89%  B
- 65% to 79%  C
- 50% to 64%  D
- less than 50%  F

Make-up Policy:

Make-up exams must be scheduled in advance of the scheduled hour exam. Failure to do so will result in a 0 for that exam.

Academic Honesty:

It has been my experience that the vast majority of students taking this course are honest, hard-working students who enjoy learning. In fairness to these students, I do not tolerate cheating on exams. A student caught cheating on an exam will receive an “F” for the course.