

**Science 103 – Physical Science
Spring 2006 – Marian College**

Instructor: Dr. John Buben
Phone: 955-6065
Email: jbuben@marian.edu
Office Hours: MWF 10:00 – 11:00 am
 T 1:30 – 2:30 pm
 and by appointment (250 MH)

Class: MWF 1:00 – 1:50 pm (355 MH)
Help Session: To be determined
Credit: Three (3) credit hours

Course Description: An introduction to the physical sciences for students who are nonscience majors. The course will focus on the physical laws and principles that govern our universe, and some basic concepts of chemistry.

Required Text: The Physical Universe, eleventh edition, by K.B. Krauskopf and A. Beiser, McGraw Hill, 2006

Laboratory Option: A concurrent laboratory (Sci 104A or 104B) will be conducted in conjunction with, but independent of this course.

Learning Objectives: Upon completion of this course students should understand the vocabulary, calculations, and concepts related to:

1. The scientific method and our solar system
2. The principles of motion.
3. The concepts of work and energy.
4. The relationship between matter and temperature.
5. Electricity and magnetism.
6. Various forms and properties of waves.
7. The structure and properties of atoms.
8. The nature of compounds, solutions, and acid-base chemistry.
9. Chemical reactions.
10. Organic molecules, fuels, and nutrition.

Grading: Course grades will be based on the following criteria:

Homework Assignments	25%
Midcourse Exams (4)	60%
Final Exam	15%

Dates for the exams will be announced at least one week in advance.

Homework: Homework will be assigned each week, and will be graded. Students will be expected to use calculators and do mathematical calculations.

Grading Scale: A : 90% B+ : 84% C+ : 74% D+ : 64%
 A- : 87% B : 80% C : 70% D : 60%
 B- : 77% C- : 67%

Course Outline: We will cover most of the content in Chapters 1 –12 of our text. Topics to be covered include: The Scientific Method; Motion; Energy; Matter and Temperature; Electricity and Magnetism; Waves; Atomic Structure; Molecules and Solutions; Chemical Reactions; and an Introduction to Organic Chemistry.

Attendance:

Regular class attendance is expected. Students who repeatedly miss class may receive a grade penalty. Unexcused absences from an exam will likely result in a grade penalty.