This course is available for student registration only after the approval process has been completed.

**Subject:** EDS  
**Course No.:** 1021  
**Credit Hours:** 3  
**Term to be Added to the File:** Spring 2008  
**Class Hours:** 45 hours  
**Lecture Hours:**  
**Lab Hours:**  
**Contact Hours (CEU Only):**

**Department:** Science & Mathematics  
**Education**  
**Schedule Type:** Virtual Classroom (H)  
(E.g., Lecture, Lab or Special Project)

- [ ] College of Aeronautics-23  
- [ ] College of Psychology and Liberal Arts-25  
- [ ] College of Business-24  
- [ ] College of Science-26  
- [ ] College of Engineering-01  
- [ ] University College Extended Studies-27

**Computer Title:** Restricted to 25 characters, including spaces  
**General Physical Science**

**Catalog Title:** Limited to 350 characters, including spaces  
**Introduces the concepts and applications of the physical sciences for non-science majors. Includes the processes and history of science, thermodynamics, electricity, waves, chemical reactions, nuclear energy, relativity and the formation of the Earth and the universe. (Requirement: Must be enrolled in University Alliance.)**

In addition, you may attach a course syllabus and/or more detailed description.

**Restrictions**  
- [ ] Prerequisite:  
  - Course Number  
- [ ] Corequisite:  
  - Course Number

**Grades to Be Issued**  
- [x] A, B, C, D, F  
- [ ] A, B, C, D, E  
- [ ] CEU  
- [ ] S, U  
- [ ] P, F  
- [ ] Other

**Additional Restrictions**  
(E.g., Major, Class Level, Department Head Approved)

**If this course replaces a course currently offered in Banner, please indicate old course information**

**Subject:** Alpha Prefix (e.g., CS)  
**Course No.:** (e.g., 1301)

**Approvals:** Upon completion of appropriate department approvals, submit form to Chair, Graduate Council, or Chair, Undergraduate Curriculum Committee for approval before and forward to Catalog Director.

**Date:** 4-26-07  
**Date:** 4-26-07

**Catalog Director**

**Registrar’s Use Only:**  
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- Date

**Distribution:**  
- Original—Registrar  
- Copy—Academic Unit

**Florida Institute of Technology—Office of the Registrar**

150 West University Boulevard, Melbourne, FL 32901-6975  
Tel: (321) 674-8114  
Fax: (321) 674-7827

Course Description:
Introduces the concepts and applications of the physical sciences for non-science majors. Includes the processes and history of science, thermodynamics, electricity, waves, chemical reactions, nuclear energy, relativity and the formation of the Earth and the universe.
(Requirement: Must be enrolled in University Alliance.)

Objectives:
The students will understand and appreciate:
- science as a way of knowing by the use of the scientific method of investigation
- the history of science
- energy and the laws of thermodynamics
- the concepts of electricity and magnetism
- the properties of waves
- the structure of the atom and quantum mechanics
- chemical bonding and the properties of materials
- radioactivity, and nuclear energy
- stars, the formation of the universe and our solar system
- the changing earth (e.g. plate tectonics) and atmospheric cycles

Tentative Course Outline:
1. Highlights in Physical Science: Ptolemy to Kepler
2. Highlights in Physical Science: Galileo to Einstein
3. Energy
4. Heat
5. Electricity and Magnetism
6. Waves: A Different Kind of Motion
7. The Atom
8. Molecules, Liquid, Gas, Hydrocarbons and Polymers: Theory and Application
9. The Nucleus: Radioactivity and Radiation
10. Half-lives and Radiometric Dating
11. \(E = mc^2\) Fission and Fusion
12. Cosmology
13. Structure of the Earth and other Planets
14. Plate Tectonics
15. Atmosphere, Ozone Holes and Global Warming

Grading:
Mini-projects/homework (15) 30%
Discussion board postings (10) 10%
Quizzes 20%
Exams 40%
James Trefil, Robert M. Hazen
Paperback
616 pages
October 2006
Other Available Formats: Hardcover

The Sciences: An Integrated Approach has been used by over 100,000 students nationwide since it was published and is the leading text on the market for the integrated science course. Unlike any of its competitors, it fully integrates physics, chemistry, astronomy, earth sciences, and biology for students with little or no science background.

Applauded by students and instructors for its easy-to-read style and detail appropriate for non-science majors, the fifth edition has thoroughly updated content bringing the most up-to-date coverage to the students in all five disciplines. The fifth edition marks the first time Wiley Plus is available with The Sciences - providing the text with an additional dimension in which students can, among other things, do homework and solve problems that relate to the science disciplines covered.

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