Florida Institute of Technology

ADDING A NEW COURSE TO THE CURRICULUM

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)

☐ 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 Resistitd to 25 characters, including spaces Gen. Physical Science

CATALOG TITLE General Physical Science

CATALOG DESCRIPTION OF COURSE 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
☐ Corequisite

Grade to be Issued
☒ A, B, C, D, F
☐ A, B, C, D, F, CEU
☐ CEU
☐ S, U
☐ P, F
☐ Other

Additional Restriction

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

SUBJECT Alpha Prefix (e.g., CS9) 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 below and forward to Catalog Director.

[Signatures and dates]

REGISTRAR'S USE ONLY

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SCARRES Operator Init Date

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RG-271-1601
EDS1021
General Physical Science
Credit Hours: 3
Pre Req: None

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:
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
• Einstein's Theory of Relativity
• 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. This thing Called Change: Electricity and Magnetism
6. Some Useful Applications
7. Waves: A Different Kind of Motion
8. All Things are Made of Atoms
9. Structure of the Atom
10. Look What We Can Do
11. Molecules, Liquid, Gas, Hydrocarbons and Polymers: Theory and Application
12. The Nucleus: Radioactivity and Radiation
13. Half-lives and Radiometric Dating
14. $E = mc^2$: Fission and Fusion
15. Structure of the Earth and Atmosphere
16. Atmosphere, Ozone Holes and Global Warming

Grading:
Mini-projects/homework (15)  30%
Discussion board postings (10)  10%
Quizzes  20%
Exams  40%

Grade Scale:
A  90-100
B  80-89
C  70-79
D  60-69
F  0-59