

Instructor: Prof. Giacinto Piacquadio

Stony Brook University

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Class hours: Thursdays 4:00 pm to 4:55 pm in **Melville Library W4540**

First day of class: September 8

No classes on November 24

Last day of class: December 4

Office hours: Mondays, 2:45 pm to 3:45 pm, or by appointment

Course Description

A selection of the interrelations between physics and other scientific and technological fields, using modern examples from engineering, medicine, and applied mathematics, among others. The course is taught as a seminar and includes guest lecturers, tours of laboratories, and discussion of classic and current research projects. Appropriate for physics and non-physics majors alike.

Course Objectives

Understand the science behind several aspects of our day-to-day life.

Enhance written communication skills

Themes

The course will be focused on two main themes: (1) energy and climate (2) use and impact of radiation, and focus on the interrelation between different fields.

Students' Work

- Weekly problem assignments
- Several reading and writing assignments

Course Grading

75 % problem sets

25 % written assignments

Attendance

Mandatory. A full letter grade lowered for every three lectures missed.

Resources

Energy for Future Presidents, Richard Muller, W. W. Norton, New York, 2012

Other documents/references will be uploaded to blackboard (a subset of these will be assigned as readings)

Date	Lecture
Sept. 8	<i>Lecture 1</i>
Sept. 15	<i>Lecture 2</i>
Sept. 22	<i>Lecture 3</i>
Sept. 29	<i>Lecture 4</i>
Oct. 6	<i>Lecture 5</i>
Oct. 13	<i>Lecture 6</i>
Oct. 20	<i>Lecture 7</i>
Oct. 27	<i>Lecture 8</i>
Nov. 3	<i>Lecture 9</i>
Nov. 10	<i>Lecture 10</i>
Nov. 17	<i>Lecture 11</i>
Dec. 1	<i>Lecture 12</i>
Dec. 8	<i>Lecture 13</i>

DISABILITY SUPPORT SERVICES (DSS) STATEMENT: If you have a physical, psychological, medical, or learning disability that may impact your course work, please contact Disability Support Services (631) 632-6748 or <http://studentaffairs.stonybrook.edu/dss/>. They will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential.

Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and Disability Support Services. For procedures and information go to the following website: <http://www.stonybrook.edu/ehs/fire/disabilities/asp>.

ACADEMIC INTEGRITY STATEMENT: Each student must pursue his or her academic

goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty are required to report any suspected instance of academic dishonesty to the Academic Judiciary. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the academic judiciary website at <http://www.stonybrook.edu/uaa/academicjudiciary/>

CRITICAL INCIDENT MANAGEMENT: Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of Judicial Affairs any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, and/or inhibits students' ability to learn.

CLASS PROTOCOL Cell Phones should be turned off. Students may bring a soft drink to class.

CLASS RESOURCES Textbook + blackboard webpage ([link](#))