PHY 1033 Fall 2016 Course Information

This weekly seminar course will introduce you to a variety of research fields in physics, especially those pursued here in our Physics Department. You will meet and talk with several physics faculty, as well as your fellow physics students and graduate students. There will be informal presentations by faculty and graduate students, and several senior undergraduate physics majors. You will learn how to make the most of your physics education at FIU, about physics career options, and how physics research is done.

One goal of this experience is to help you make the most of your physics degree. A second goal is to encourage scientific discourse throughout your life. We will ask for feedback throughout the course, but feel free to let us know anytime how to improve the course.

Attendance: This is a seminar course and needs your input to be successful. Attendance is therefore required and counts towards your grade. You may have one excused absence during the term.

Contributing to the Discussions: This is an informal discussion-based course, so you must not only come to the class, but you must also contribute to the discussions. Contributing includes posing questions, answering questions, and offering opinions, as well as several assignments that will be given out in class.

Seminar Surveys: We will encourage scientific discourse throughout the course by asking you to fill out one-page surveys when we have guest speakers. The goal of the survey is to get you to think about the topic; they should take only a short time to complete. Each survey will be graded on the following scale:

Score 2: Your work is essentially complete and free of most major errors. Your work is meeting our expectations.
Score 1: Your work is missing some important components or has some important errors.
Score 0: Your work was not submitted according to the directions or no meaningful attempt is evident in your work.
Score 3: Your work is unusually exemplary and goes far beyond our expectations for this particular assignment. This score is rarely assigned and you should be very proud of your efforts.

Assignments: During the semester, you will be responsible for the following assignments:

- Providing information about three graduate school programs to Graduate School Discussion board
- Providing information about three REU programs to the REU Discussion board
- Providing information about three jobs to the Jobs Discussion board
- Student presentations (see below)
- Faculty interview (see below)

Other assignments may be also be made in class.

Student Presentation: The class will be broken into groups of 3-4 students. Each group will be responsible for one 10-minute presentation on a physics-related topic of your choice. The topic must be approved by one of the instructors. Ideas for topics can come from magazines, newspapers, the web, or your imagination. The goal is to pick a topic that you find interesting and think your fellow classmates will enjoy. Your group is to record your presentation and upload it to a specific channel on YouTube. You will be responsible for viewing all the presentations and turning in comment sheets (that we will provide).

Interviews: One of the goals of the course is to meet people in the Physics department. To encourage that, everyone will interview at least one person in the physics department and relay his/her story to the rest of the class. You may interview faculty, researchers, and graduate students. We'll provide a list of candidates; each person may only be interviewed by one person. To get credit, you must post a short (one-two paragraphs) write-up of your interview to the Interview Discussion Board.

Grading: The grade breakdown is:

Attendance	25%
Discussion / Assignments	25%
Seminar Surveys	25%
Presentation	12.5%
Interview	12.5%

How to fail this course: In our experience, the best way to do poorly in this class is to miss assignments. If you don't do the assignments (most of which are pretty simple and quick to do, we think) and/or the surveys, you're guaranteed a grade less than 75%, which is a C at best. Ditto for the presentation and interview. And come to class! It's just one hour a week, for heaven's sake!

Interesting Links: Here are links with useful information about careers, topics, meetings, recent discoveries...

American Physical Society: http://www.aps.org
American Institute of Phyics: http://www.aip.org
American Astronomical Society: http://www.aas.org
American Association of Physics Teachers: http://www.aapt.org
Physics Central: http://www.physicscentral.com
National Science Foundation Research Experience for Undergraduates (REU) sites: http://www.nsf.gov/crssprgm/reu/list_result.cfm?unitid=69
Science Undergraduate Laboratory Internships: http://science.energy.gov/wdts/suli/
Society of Physics Students information on careers in physics: http://www.spsnational.org/cup/profiles/index.html

How to Write a Personal Statement: http://www.mdsg.umd.edu/topics/research-experiences-undergraduates/how-write-personal-statement

Information and programs to help underrepresented students apply to graduate school: http://astrobetter.com/wiki/tiki-index.php?page=Grad+App+Resources