

Phys 089: Physics and Science Fiction, Spring 2016

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Office hours: by appointment, before and after class.

Lectures Tu, Th 1:00-2:15 pm 104 Thaw **G. Dutt**

E-mail: We frequently use e-mail for announcements and distributing course material. Please, read your e-mail regularly, and make sure that your account is not over quota!

INTRODUCTION

This course tries to build an understanding of physical and scientific principles through critical and analytical exploration of stories, books, TV shows, and movies in the genre of science fiction. Three credits.

OBJECTIVE

Students should leave the class with a basic understanding of the scientific method, important principles in physics, the processes involved in scientific inquiry, and the ability to learn on their own to keep up with changing views and scientific developments.

TEXTBOOK:

This semester, we will use a new book which has just been published by a physics professor at CMU.

Exploring Science through Science Fiction by Barry B. Luukkala.

The book is available for free online on our library website, but you can also purchase a print copy which is quite inexpensive (~\$20 from Amazon and other online retailers). There are also several other books that I can recommend, and will post in the courseweb site.

ASSIGNMENTS:

The assignments will be announced in class and on Courseweb. Readings may be assigned both from the textbook and other sources, such as stories and novels, which will usually be on reserve in the Engineering Library. Videos may be assigned, which will typically be on reserve in the Stark Media Services at Hillman Library. I will use clicker questions during the class to make sure that you are reading the material.

I will assign additional homework problems. The homeworks will be graded on courseweb and similar questions will be graded through clicker quiz questions in class. So if you don't do the homework before class, you will lose those points.

COURSEWEB:

There is a CourseWeb site associated with this course. It can be accessed through your <http://my.pitt.edu> account. The site has:

- Important announcements
- hand-outs, reading assignments, homeworks, and additional course materials
- Grade information
- Discussion board (good for comments and suggestions)

GRADING

- Homework and Quizzes (announced and unannounced): 10%
- Attendance & Class participation (recorded through clickers, discussion board): 5%
 - Typically zero missed classes or one missed class and good participation will earn full points.
 - Improper use of clickers or discussion board is grounds for expulsion from the class for that week.
- Exams:

There will be 3 tests and one final exam. The first three tests are equal value (20%) each and make up 60% of your grade. Each of the first three tests will cover approximately one-third of the course material. The final is worth 25% and will be cumulative.
- 5% maximum for extra credit work (book or movie reports, scientific articles, explorations) or projects announced during the semester.

STATEMENT OF ACADEMIC HONESTY

Plagiarism is a serious transgression. All work submitted for a grade is to be written by the student. Each time a quote is used from another source, it must be properly cited in the text (a short citation in the text and a listing in the reference section at the end of the document). An automatic failing grade for the assignment will be issued for submitted work not written by the student or referenced in the text. Tendering work (giving work to another student to be copied) is not permitted. Copying graded assignments from another student is not allowed. All written assignments must be the student's own work.

Students in this course will be expected to comply with the [University of Pittsburgh's Policy on Academic Integrity](#). Any student suspected of violating this obligation for any reason during the semester will be required to participate in the procedural process, initiated at the instructor level, as outlined in the University Guidelines on Academic Integrity. This may include, but is not limited to, the confiscation of the examination of any individual suspected of violating University Policy. Furthermore, no student may bring any unauthorized materials to an exam, including dictionaries and programmable calculators.

Tutors

Physics tutors are available. Check the schedule here:

http://www.physicsandastronomy.pitt.edu/resource_room

Cautions

If you have the flu, please notify me by phone or e-mail and stay home for 24 hours after the fever has gone. I will meet with you when you return and you will not be penalized for missing class.

If I have the flu and have to cancel class, I will send an email from the Blackboard account to your email account.

SPECIAL ACCOMMODATIONS FOR DISABILITY

If you have a disability that requires special testing or other accommodations, you need to notify both the instructor and the Office of Disability Resources and Services no later than the 2nd week of the term. You may be asked to provide documentation of your disability to determine the appropriateness of accommodations. The Office of Disability Resources and Services is located in the William Pitt Union,

Room 216. Call 648-7890 (Voice or TDD) to schedule an appointment.