

**History of Science 2133 / Fall 2010**  
**Physical Sciences 212**  
**TuTh 9:00-10:15**

**Prof. Katherine Pandora**

Office Hours: Tu/Th 10:30-11:30,

Th 1:30-2:20, *and by appt.*

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# science & popular culture

Ideas *about* science and ideas *from* science appear in our everyday lives in ways we take for granted: in the news sites we visit, in the tv shows and commercials we see, in the *Far Side* cartoons we tape to our office doors, in our interactions with nature in theme parks like Sea World – or even when you say, “He’s no Einstein!” or “If they could put a man on the moon, why can’t they . . . [fill in the blank]?” In this class we’ll look closely at what happens when science and popular culture meet.

We’ll study how science & scientists have been portrayed in media culture from the scientific revolution to our own time, and also explore how ideas about nature and science merge at entertainment sites such as museums and zoos, and think about the call of the wild in a highly technological age. We’ll consider the tensions between scientific experts and the lay public about core values such as skepticism, contemplate the search for ghosts and other fantastic creatures in an age of experimental proof, probe how science fiction relates to science fact, and analyze videos from the cold war era that taught hundreds of thousands of schoolkids how to survive a nuclear attack and much more! In looking closely at what happens when science and popular culture meet, you’ll even learn to see the present-day as future history.

The goals for this course are for students to gain an awareness of how science is an aspect of the wider culture in different eras; to analyze the historical roots of contemporary practices; and to develop critical thinking skills that will be useful as citizens living in a world continuing to be shaped by the scientific enterprise.

The structure for this course is a “hybrid” format: that means that for roughly half the time we will meet in our classroom together, and for the other half you will be accessing course materials via the web for online “lab” assignments, and posting in online discussion forums that will allow you to interact with others in the class (primarily in small groups) and to develop and share ideas and experiences in a fuller way than typically occurs in a traditional lecture-only course. The face-to-face in-class sessions are designed to connect with the online work and vice-versa. We will meet in-class on Tu/Th for the first two weeks and the last two weeks of the course. For weeks 3-14, we will meet in-class on Tuesdays only, because the Thursday class-time will be replaced

with online lab sessions that you can complete when you wish, as long as you meet the deadline for posting (typically, Monday of the next week).

My goals for transitioning this course to a hybrid structure are: 1) to take advantage of an abundance of online materials (especially multimedia ones) that aren't found in books; 2) to allow for more active learning and creativity on the part of students; 3) to provide flexibility in scheduling to allow you to work at a pace that works best for you; and to 4) provide better opportunities for student-to-student awareness of each others' ideas.

### **Required texts:**

*The Ghost Hunters: William James and the Search for Scientific Proof of Life After Death* / Deborah Blum

*The Cambridge Companion to Science Fiction* / Edward James and Farah Mendelsohn, eds.  
*Something Incredibly Wonderful Happens: Frank Oppenheimer and the World He Made Up* / K.C. Cole

*grayson* / Lynne Cox

## **Overview of Course Assignments and Examinations**

- 1) *Ghost-Hunters* Take-Home Essay (due week 5, 9/21): 4-5 pp. (approx 1000-1350 words) **10%**
- 2) *Science Fiction* Take-Home Essay (due week 8, 10/12): 4-5 pp. (approx. 1000-1350 words) / **15%**
- 3) *Something Incredibly Wonderful Happens* Take-Home Essay (due week 11, 11/2) 4-5 pp. (approx 1000-1350 words) / **15%**
- 4) *grayson* Take-Home Essay (due week 13, 11/16): 4-5 pp. (approx. 1000-1350 words) / **10%**
- 5) Individual Final Project (**Due Monday, December 13th, at 8-10 a.m., the Final Exam time for this class, in PHSC 212**). The Final Project is worth **25%** of the course grade (7-8 pp., approx. 1800-2400 words).
- 6) Online Postings: First Five Introductory Assignments (weeks 1-2) – graded s/u collectively; a full **5%** if completed satisfactorily.
- 7) Online Postings for Online Lab Assignments (weeks 3-13): **20%** of the course grade. Your grade will be assigned based on satisfactory, sustained completion of the posting response assignments (no more than 2 missed postings) and qualitative assessment of your 4 best postings, as selected by you for me to grade.

## **Rules of the Road**

**Attendance:** Attendance is required. Two unexcused absences are allowed for our in-class portion, and two unexcused posting absences are allowed for the online assignments; exceeding these limits will result in your course grade being lowered by one letter grade. Students are expected to use the allowed unexcused absences for an illness or injury not serious enough to receive medical attention, or for personal or family considerations. Three tardies equals one absence.

**Electronic Devices:** During classtime, all external communication devices should be turned off. Computers are for note-taking only; if used for any other purpose this privilege will be revoked.

**Academic Misconduct: Cheating will not be tolerated.** Cheating includes, but is not limited to, copying the work of another student, using the written work of another author without attribution, or any conduct that seeks to compromise the examination process. *Such conduct will result in an automatic F on that exam and the student can be referred to the Dean for disciplinary action.*

**Due Dates:** Assignments will not be accepted if turned in late.

**Religious Holidays:** It is the policy of the University to excuse the absences of students that result from religious observances and to provide without penalty for the rescheduling of examinations and additional required class work that may fall on religious holidays. Please see me in advance.

**Students with Disabilities:** Any student in this course who has a disability that may prevent him or her from fully demonstrating his or her abilities should contact me as soon as possible, so we can discuss accommodations necessary to ensure your full participation and to facilitate your educational opportunities.

**Grading Scale:** The letter grades for this course conform to a 4 point scale, as follows:

4.0-3.5 = A (A=4.0, A- = 3.7, A-/B+=3.5)

3.49-2.5 = B (B+ = 3.3, B = 3.0, B- = 2.7, B-/C+=2.5)

2.49-1.5 = C (C+ = 2.3, C = 2.0, C- = 1.7, C-/D+=1.5)

1.49-0.5 = D (D+ = 1.3, D= 1.0, D- = 0.7)

0.5 and below = F