LEARNING SCIENCE THROUGH SCIENCE FICTION  
Ph 378U or Sci 355U  

SYLLABUS FOR FALL 2014  
8/29/2014  

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Regular Office hours: M & W 4 – 5:15 or by appointment  

You are welcome to stop by my office and chat anytime about anything pertaining to the course or to Physics or to whatever you are currently reading. If you have trouble finding me, leave a message or the appropriate email and we will negotiate a satisfactory time.  

Class Hours  
2-3:50 M & W  SRTC 101  

This class is offered under two options:  
# 13068 Ph 378U as a physics course for those who need science credits.  
# 13333 Sci 355U as part of the Science for the Liberal Arts cluster.  

Requests for Academic Accommodation: Students who have a learning disability that may affect their performance should contact the Disability Resource Center, 116 Smith Memorial Student Union, Phone: 503-725-4150, Email: drc@pdx.edu Fax: 503-725-4103, TTY or Relay: 503-725-6504. If you have a documented disability and are registered with the Disability Resource Center please meet with the instructor as soon as possible so that accommodations can be made.  

Policy on Academic Honesty: Any type of academically and ethically dishonest work (plagiarism, copying someone else's work, etc.) may result in an automatic "F" for the assignment and, when appropriate, a report filed with the Office of Student Affairs. The PSU Bulletin includes the following statement on Academic Honesty: "The Student Conduct Code, which applies to all students, prohibits all forms of academic cheating, fraud, and dishonesty. These acts include, but are not limited to, plagiarism, buying and selling of course assignments and research papers, performing academic assignments including tests and examinations) for other persons, unauthorized disclosure and receipt academic information, and other practices commonly understood to be academically dishonest."  

Goals for the term:  
Learn how to read fiction for the science content as well as the plot and characters.  
Develop critical analysis skills for the proposed scientific speculation.  
Understand how science enhances projections of future societies and situations.  
Develop skills in writing about science, and in critiquing the stories and videos of others.  

Assignments for the Term:  
Read and discuss two (assigned) novels.  
Read a third novel of your choice, and write a final paper about the scientific concepts it contains.  
View in-class videos and discuss the concepts involved.  
Write short essays weekly on assigned topics.
Access to most course materials (except books and videos) is at the Desire2Learn site for the course. To access this site, go to https://d2l.pdx.edu/. Then click on “PSU Faculty, Staff, and Students …”. Then enter your ODIN username and password. If you are registered for the class, you should see “WIC: SCI THROUGH SCI FI” as an option. Click on that, and you will see icons for the syllabus, assignments, writing, and science modules. You are reading the syllabus; this module also contains a list of some “soft” science fiction that is recommended reading BUT NOT FOR THE FINAL ASSIGNMENT. The other modules are self-explanatory.

**Reading Materials:**
- *Rocheworld* -- Robert L. Forward
- *Cosm* -- Gregory Benford

*Rocheworld* is available at the campus bookstore as an e-book with lifetime ownership. *Cosm* is also available as an e-book. The bookstore has information about both, and some used hardcopies as well.

**Reading assignments:**
- week 1 through 4  Read *Rocheworld*
- week 5 through 7  Read *Cosm*
- week 8 through 10  Read novel of your choice for the term paper

**Grading:**
I will presume that you are putting out your best effort on the course, completing assignments on time, and dealing with the assigned subject material. I also assume that you will be present for almost all of the class sessions, and that you will participate in discussions and class activities. If this is all true, you can expect to receive at least a B grade. An A grade will mean that you have been particularly insightful, imaginative and creative in at least a part of the work.

I intend to read all of the things you write during the quarter, and to make comments to you on them. In order to allow me to read your work as easily as possible, I require that your papers (apart from in-class free writes) be done on a word processor, that they be spell-checked and in general proof-read as carefully as possible, and that they be neatly printed in a reasonable type face – probably 10 or 12 point. Space-and a half or double spacing of lines makes it easiest for me to insert comments at appropriate places.

Written work will be “graded” using the following system:
- work satisfactory in content and form  3 points
- work especially insightful     4 – 5 points
- work minimal or with little content  0 - 2 points
- work not about the assigned topic  0 – 1 point

I am more interested in content and organization than in form. I will try to indicate errors in grammar, punctuation, spelling, etc. *I expect this to be improving steadily.* If you are having a particularly hard time doing the writing, I will be happy to direct you to places where you can receive help.

Assignments are due at the beginning of class on the day noted on each assignment. In a departure from previous years, late papers will be downgraded 0.5 points per week past the due date. This will permit timely discussion in class of the assignments and will make it more difficult for students to fall behind in their assignments.

I strongly suggest that you keep a journal during the term. It will be particularly useful to you to make notes during your reading, since this will give you topics to bring up in class discussions, and will help you find appropriate references in the novels to use in discussing the assigned topics on the weekly essays. All the topics are given in advance on the website so that you will be aware of the sort of things you need to look out for as you read the novels. You would be well-advised to print out all of the assignments before beginning your reading, and noting relevant sections of the books on each page. Much class time will be devoted to in-class lectures to provide the scientific background required by most of the assignments.