

# LEARNING SCIENCE THROUGH SCIENCE FICTION

Ph 378U or Sci 355U

SYLLABUS FOR FALL 2007

8/15/2007

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You are welcome to stop by either 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 us, leave a message or the appropriate email and we will negotiate a satisfactory time.

Class Hours 2-3:50 M & W 250 Cramer Hall

This class is offered under two options:

#13098 Ph 378U as a physics course for those who need science credits.  
#13358 Sci 355U as part of the Science for the Liberal Arts cluster.

NOTE: If you have special disability needs, please contact the instructor on or before the first class meeting.

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.

Reading Materials:

***Rocheworld*** -- Robert L. Forward  
***Cosm*** -- Gregory Benford

***Rocheworld*** is available at the campus bookstore. ***Cosm*** is out of print, so you may need to order it from Amazon or Alibris. Please do so quickly, so you have it available when it is needed next month!

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

Reference material:

As soon as you are properly registered for one of the two course numbers, you have access to the course website that has extensive background material on scientific topics.

[www.webct.pdx.edu](http://www.webct.pdx.edu)

Your ID is your ODIN username.

Password is the last 4 digits of your PSU ID #.

Grading:

We will presume that you are putting out your best effort on the course, completing most assignments on time (and completing all assignments by the end of the course), and dealing with the assigned subject material. We 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.

We intend to read almost all of the things you write during the quarter, and to make comments to you on them. In order to allow us to read your work as easily as possible, we 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 us to insert comments at appropriate places.

Written work will be “graded” using the following system:

work satisfactory in content and form	check mark
work especially insightful	plus sign
work minimal or with little content	minus sign
work not about the assigned topic	zero sign

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

We **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.