

Physics 490 : Senior Seminar Spring 2005

The purpose of this class is to develop skills for communicating scientific knowledge. There are two main parts to the course. First: reading, questioning, and discussing scientific articles. Second: writing papers and giving presentations on a research project of your choosing.

Professor:	Phone	Office	E-mail
Dr. Julie A. Rathbun	x2927	Duke 111	julie_rathbun@redlands.edu

Class meetings: W 1:00 PM – 2:20 Duke 111 or Duke 122

Goals:

1. To critically read scientific literature and engage in scientific discourse
2. To communicate results through scientific writing and oral presentations
3. To develop the ability to supply constructive criticism when evaluating the work of peers

Course Policies

Assignments are due at the beginning of class on the day indicated. All assignments turned in after this time will receive a **late penalty of 10% per day**. If you have a pressing reason to extend a due date, you must request an extension well in advance of the original due date. I reserve the right to schedule pop quizzes if students are failing to attend meetings or come to meetings prepared.

Grading:

Journal articles		50%
Summaries	20%	
Participation	30%	
Includes: Discussion, questions & presentation of journal articles and other students' projects		
Research project		50%
Outline & drafts	10%	
Presentation for faculty	10%	
Final paper	10%	
Non-technical paper	10%	
Presentation for others	10%	

Papers & Presentations

You are expected to be able to share your research with professionals and the general public, two very different audiences. As such, you will write 2 papers, one for each audience. You will also give 2 presentations: one to the physics department (in March) and one open to the entire university population (in Mayterm).

Tentative Schedule:

Jan 14, 1:00-2:20 outline and summary due, discussion of projects & writing style, make calendar for student paper presentations

Jan 19 paper disc. Led by Julie; students bring article summary. Also must turn in articles for next few discussions

Jan 26 Student led discussion / bring in summary

Feb 2 Student led discussion / bring in summary

Feb 9 Student led discussion / bring in summary

Feb 16 first draft due, discussion of technical vs. non-technical paper

Feb 23 discussion of first draft, each student must bring in summary of other student's projects

Mar 9 presentation practice

Mar 16 second draft due, discussion

Mar 23 Presentation to Faculty

Mar 30 Discussion of grad school and job applications

Apr 6 Non-technical draft due, discussion

Apr 13 presentation practice

Final version of both papers due during finals week (Wed, 4/20 most likely)

Presentation to University (during MayTerm)