

## Syllabus 29:225

## Special Topics in Physics: Fundamental Contributions in Plasma Physics, Space Physics, and Astrophysics

**Semester:** Fall 2012  
**Instructor:** Gregory Howes  
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**Office Hours:** 1:30-2:30pm T, 1-3pm W, or by appointment  
**Department:** Physics & Astronomy, 203 Van Allen Hall, Prof. Mary Hall Reno, Chair

**Catalog Description:** This discussion-based course will focus on reading of some of the seminal contributions to the scientific literature in plasma physics, space physics, and astrophysics. In addition to reading classic papers, reading and critiquing recent papers will help to develop a critical eye in reading the literature. Finally, the course will develop skills in performing efficient and thorough reviews of the literature.

**Meeting:** Tuesday and Thursday 12:15 pm - 1:30 pm  
618 Van Allen Hall

**Textbooks:** No required texts, all required reading can be obtained from University of Iowa Library subscriptions to electronic journals, or else will be made available to the class on the course website.

**Website:** <http://www.physics.uiowa.edu/~ghowes/teach/phys225/index.html>

**Grading:** Grading for this course is Satisfactory/Unsatisfactory (S/U)  
Reading, Attendance, and Participation: 65%  
Homework Assignments: 15%  
Final Project: 20%

**Attendance:** You will be allowed to miss up to 6 class meetings. If circumstances arise that require you to miss more than 6 meetings, you must justify your absences with the instructor.

**Homework:** Reading assignments must be completed *before* each class meeting. The assignments will be posted on the course website with at least one week notice. Please refer to the Course Calendar on the website for the topic for each class meeting and the current reading list. In addition to the Final Project, there will be three homework assignments over the course of the semester: (i) a literature search on a topic unfamiliar to you, (ii) in teams of two, leading the class discussion on the paper of the day, and (iii) an annotated bibliography with at least 10 references summarized as a preliminary step to completing your final project.

**Final Project:** The Final Project is a 5–10 page (not including the reference list) literature review on a topic of your choice (your thesis topic is an excellent choice), including a minimum of 20 references covered.

**Topics:**

1. Reading Fundamental Contributions in the Literature
2. Developing a Critical Eye for Reading the Literature
3. Learning Strategies for Effective Literature Reviews
4. Writing up Literature Reviews for Publication

## **The College of Liberal Arts and Sciences Policies and Procedures**

### **Administrative Home**

The College of Liberal Arts and Sciences is the administrative home of this course and governs matters such as the add/drop deadlines, the second-grade-only option, and other related issues. Different colleges may have different policies. Questions may be addressed to 120 Schaeffer Hall or see the Academic Handbook. <http://clas.uiowa.edu/students/handbook>

### **Electronic Communication**

University policy specifies that students are responsible for all official correspondences sent to their University of Iowa e-mail address (@uiowa.edu). Faculty and students should use this account for correspondences. (Operations Manual, III.15.2. Scroll down to k.11.)

### **Accommodations for Disabilities**

A student seeking academic accommodations should first register with Student Disability Services and then meet privately with the course instructor to make particular arrangements. See [www.uiowa.edu/~sds/](http://www.uiowa.edu/~sds/) for more information.

### **Academic Honesty**

All CLAS students have, in essence, agreed to the College's Code of Academic Honesty: "I pledge to do my own academic work and to excel to the best of my abilities, upholding the IOWA Challenge. I promise not to lie about my academic work, to cheat, or to steal the words or ideas of others; nor will I help fellow students to violate the Code of Academic Honesty." Any student committing academic misconduct is reported to the College and placed on disciplinary probation or may be suspended or expelled (CLAS Academic Policies Handbook).

### **CLAS Final Examination Policies**

The final examination schedule for each class is announced around the fifth week of the semester by the Registrar. Final exams are offered only during the official final examination period. No exams of any kind are allowed during the last week of classes. All students should plan on being at the UI through the final examination period. Once the Registrar has announced the dates and times of each final exam, the complete schedule will be published on the Registrar's web site.

### **Making a Suggestion or a Complaint**

Students with a suggestion or complaint should first visit with the instructor (and the course supervisor), and then with the departmental DEO. Complaints must be made within six months of the incident (CLAS Academic Policies Handbook).

### **Understanding Sexual Harassment**

Sexual harassment subverts the mission of the University and threatens the well-being of students, faculty, and staff. All members of the UI community have a responsibility to uphold this mission and to contribute to a safe environment that enhances learning. Incidents of sexual harassment should be reported immediately. See the UI Comprehensive Guide on Sexual Harassment for assistance, definitions, and the full University policy.

### **Reacting Safely to Severe Weather**

In severe weather, class members should seek appropriate shelter immediately, leaving the classroom if necessary. The class will continue if possible when the event is over. For more information on Hawk Alert and the siren warning system, visit the Public Safety web site.