

Space Sciences Seminar Syllabus

Space501 Winter 2024

Organization:

Instructor: Prof. Mark B. Moldwin and Dr. Nishtha Sachdeva

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Class Hours: Mon 12-1pm (though could be asynchronous)

Location: CSRB 2424 or Virtual

Schedule for Seminars: Please Sign Up for a date.

<https://docs.google.com/spreadsheets/d/1YojFOgamIrgTi9tN9qhwDvflMX7KXgREibXT4BMVl3Q/edit?usp=sharing>

[Join Zoom Meeting](#)

ID: 95813758820

Passcode: 676334

Resources:

<https://www.bu.edu/teaching-writing/resources/teaching-the-hidden-curriculum/>

Course format:

This seminar series is targeted to students, post-docs, and faculty in different areas of space science or those interested in learning more about Space Physics. During the Pandemic we will meet in person or via zoom and the seminar consists of attending about 10-12 Space Physics seminars inside or outside UM, writing a short report about one of the seminars (see report template), present one in person or video recorded seminar on your work, and participate in discussions and critique other participants presentation. The topics covered encompass the full range of space physics at the department from ionosphere and upper atmosphere to the magnetosphere, planetary space environments and the heliosphere, including both observational techniques and results as well as model results and their applications. In addition, we will include discussions around the Hidden Curriculum – professional development topics usually not covered in a formal course (networking, coding, well-being, time management etc.)

Students who take the class for credit are expected to:

- Give one in person or virtual seminar during the term. The seminar can be a presentation about your research (or a practice talk for a conference) or an overview talk about a space physics topic agreed upon with the professor. The talk should last from 25-50 minutes. Ideally for those not Space Physics students, the topic has a “hook” that connects to techniques or methods that could be used in space sciences.
- Critique ALL of the other students’ seminars (it will be announced which students are enrolled and therefore should be critiqued). Upload via CANVAS.
- Keep notes during the attended seminars so that you can summarize the key points and explain the methodology and big picture. Also presenting notes on the presentation (visuals, analogies, story-telling).

Expected learning outcomes are broadened knowledge of space physics, increased awareness of the variety of research topics and their interconnections at the department as well as awareness of the variety of research methods and tools available at the department. You will learn presentation, scientific argumentation and discussion skills. In addition, awareness of the skills and topics of the “Hidden Curriculum” will provide opportunities for you to take better control of your academic and professional developments

Prerequisites

Graduate standing

Grades and exam:

There is no exam, and the grades are Pass/Fail. To pass, students are required to give one seminar, review and critique ALL other student presentations, and to complete and upload reports after attending at least ten (10) seminars (and all of the other students).

Policies:

Engineering Honor Code: This class is being taught through the College of Engineering, and thus all involved are subject to the College of Engineering Honor Code whether or not you are enrolled in an Engineering class. Full details of the Honor Code can be found at the Honor Code website (<http://honorcode.engin.umich.edu/>). Please do not hesitate to ask questions about Honor Code policies.

Accommodations for students with disabilities: Participants with special needs are strongly encouraged to talk to the instructor as soon as possible to gain maximum access to course information. All discussions will remain confidential. The University of Michigan policy is to provide, on a flexible and individualized basis, reasonable accommodations to students who have documented disability conditions (e.g., physical, learning, psychiatric, vision, hearing, or

systemic) that may affect their ability to participate in course activities or to meet course requirements. Students with disabilities are encouraged to contact UM Services for Students with Disabilities (<https://ssd.umich.edu/>) and their instructor to discuss their individual needs for accommodations.

Need Help?

A great web-resource designed to make things “easy” to find is <https://maizelink.umich.edu/>. Everything from academics to well-being.