

**Climate and Space 747**  
**Student seminar**  
**Fall 2023**

**Instructor:** Enrico Landi ([elandi@umich.edu](mailto:elandi@umich.edu))

**Credits:** 1 (usually feels like 4)

**Lecture:** In person:  
*Time:* Wednesday 9:30am-10:30am  
*Location:* 2238 CSRB  
Zoom:  
*Time:* Only when strictly necessary, following Canvas Announcement  
*Address:* <https://umich.zoom.us/j/99044578567>  
*Passcode:* 150600

**Office Hours:** Zoom (same as remote class):  
*Time:* Anytime, upon request  
*Address:* <https://umich.zoom.us/j/99044578567>  
*Passcode:* 150600

**Course description:**

The goal of this course is to help students to develop the necessary skills to write a successful proposal to a US funding agency, and to deliver a successful talk on their research topic. Students will select, together with their Ph.D. advisor, a research topic they would like to propose to NASA's Future Investigators in NASA Earth and Space Science and Technology (FINESST) program. Each section of the proposal text will be built, with comments from the instructor as well as from the other students during the Peer Reviews. The final product of this course will be a *full, submittable proposal*, made of the sections developed during the course, which will be evaluated by the instructor. This proposal will be presented by each student to the class during a talk at the end of the course, whose duration will depend on schedule and class size, and will be announced during the course.

**Prerequisites:** None

**Requirements:** None

**Writing:** You will be expected to write each and every section of the proposal following the guidelines of the FINESST program, in the order specified in the syllabus. **Each writing assignment needs to be sent to the instructor by the deadline noted in the syllabus** (early submissions are welcome). Late submission will count as a missed assignment and *will not be reviewed by the instructor*.

Use of technology such as ChatGPT is forbidden; furthermore, **it is harmful for your future as a scientist as it prevents you from learning how to write**. Those who want to use it anyway, will do it (*without* Instructor's permission) because it is impossible to check, **but they will do so at their own peril**.

**Talk:** The pdf file of the final talk needs to be sent to the instructor **by 5:00pm of the day before the talk is scheduled** (earlier submissions are welcome). This gives time to the instructor to test them into his ancient laptop.

**Lectures:** The lectures are an indispensable part of the course. They will begin promptly at 9:30am. Please **arrive on time and do not leave before the end**, because both behaviors will disrupt other students. In order to maintain focus and attention during lectures, **all electronic devices (phones, tablets, personal computers) must be turned off during class**.

The Peer Review (see below) is a fundamental part of this course and will be part of the final evaluation, and requires your active participation.

All presentations files, description of the assignments, and any other relevant material will be posted on Canvas right after the lecture in which they have been introduced (Canvas> Files).

**Peer Reviews:** Peer Review requires active participation from each student, and has four main goals:

1. Each student will receive feedback not only from the instructor, but also from fellow students;
2. Students will be exposed to different writing styles, which can help them develop their own;
3. Students will be exposed to research outside their field; and
4. Students will get used to the tasks of reviewing someone else's work: such a task is a normal activity for a scientist

For the Peer Review, students will be given one or more proposals from other students (depending on proposal length and class size), will read them, and will provide feedback to the proposal author. Everything must be done within the hour, so that reviewers will have limited time to read the text. This way, the authors are forced to be as clear and easy to read as possible, because the reviewer will only have time to read the text once.

**Honor code:** We will follow all policies of the Honor Code, which can be found at

<http://www.engin.umich.edu/students/honorcode>.

Plagiarism will not be tolerated. Plagiarized work will receive a failing grade and will also result in further disciplinary action.

**REQUIRED BOOKS** No books are required.

### **ASSESSMENT**

This course is Pass/Fail. To pass this course, students must have:

1. Completed their final proposal
2. Successfully given their final talk
3. Participated actively to each Peer Review and asked a lot of questions during lecture!

## SCHEDULE OF LECTURES AND ASSIGNMENTS

(BLACK: IN PERSON CLASS; MAGENTA: REMOTE CLASS; RED: CANCELED CLASS; BLUE: ASSIGNMENT)

### WEEK 1

AUG 30 WED 9:30AM: LECTURE - COURSE PRESENTATION (*REMOTE CLASS*)

### WEEK 2

SEP 5 TUE 6:00PM: ASSIGNMENT - PROPOSAL TOPIC AND ABSTRACT

SEP 6 WED 9:30AM: LECTURE - THE PROPOSAL JOURNEY

### WEEK 3

SEP 13 WED 9:30AM: LECTURE - WRITING A SUCCESSFUL PROPOSAL

### WEEK 4

SEP 19 TUE 6:00PM: ASSIGNMENT - THE INTRODUCTION AND THE SCIENCE GOALS (1ST DRAFT)

SEP 20 WED 9:30AM: LECTURE - THE PROPOSAL IN THE SCIENTIST'S LIFE

### WEEK 5

SEP 25 MON 6:00PM: ASSIGNMENT - THE INTRODUCTION AND THE SCIENCE GOALS (2ND DRAFT)

SEP 27 WED 9:30AM: PEER REVIEW - INTRODUCTION AND THE SCIENCE GOALS

### WEEK 6

OCT 2 MON 6:00PM: ASSIGNMENT - REVIEW OF ASSIGNED PROPOSALS

OCT 4 WED 9:30AM: DISCUSSION ON ASSIGNED PROPOSALS

OCT 6 FRI 6:00PM: ASSIGNMENT - METHODOLOGY AND TIMELINE

### WEEK 7

OCT 11 WED 9:30AM: *NO CLASS — PROPOSAL WRITING WEEK*

### WEEK 8

OCT 16 MON 6:00PM: ASSIGNMENT - FULL PROPOSAL (1ST DRAFT)

OCT 18 WED 9:30AM: PEER REVIEW - FIRST PROPOSAL DRAFT

### WEEK 9

OCT 25 WED 9:30AM: LECTURE - THE TALK IN THE SCIENTIST'S LIFE

OCT 27 FRI 6:00PM: ASSIGNMENT - RESEARCH READINESS STATEMENT

### WEEK 10

OCT 31 TUE 5:00PM: ASSIGNMENT - FINAL TALK OF SCHEDULED SPEAKERS (PDF FORMAT)

NOV 1 WED 9:30AM: FINAL TALKS - FIRST GROUP

NOV 3 FRI 6:00PM: ASSIGNMENT - DATA MANAGEMENT PLAN, ACKNOWLEDGEMENTS,  
MENTORING PLAN

**WEEK 11**

NOV 7 TUE 5:00PM: ASSIGNMENT - FINAL TALK OF SCHEDULED SPEAKERS (PDF FORMAT)  
NOV 8 WED 9:30AM: FINAL TALKS - SECOND GROUP

**WEEK 12**

NOV 14 TUE 5:00PM: ASSIGNMENT - FINAL TALK OF SCHEDULED SPEAKERS (PDF FORMAT)  
NOV 15 WED 9:30AM: FINAL TALKS - THIRD GROUP  
NOV 17 FRI 6:00PM: ASSIGNMENT - FULL PROPOSAL (2ND DRAFT)

**WEEK 13**

NOV 22 WED 9:30AM: *NO CLASS — THANKSGIVING*

**WEEK 14**

NOV 28 TUE 5:00PM: ASSIGNMENT - FINAL TALK OF SCHEDULED SPEAKERS (PDF FORMAT)  
NOV 29 WED 9:30AM: FINAL TALKS - FOURTH GROUP  
DEC 1 FRI 6:00PM: ASSIGNMENT - FULL PROPOSAL (FINAL VERSION)

**WEEK 15**

DEC 6 WED 9:30AM: *NO CLASS — INSTRUCTOR TRAVEL*

**NOTES:**

- 1 - ALL ASSIGNMENTS (TALKS, PROPOSAL SECTIONS, FULL PROPOSAL) IN PDF FORMAT
- 2 - INSTRUCTOR WILL *ALWAYS* BE AVAILABLE FOR QUESTIONS UNTIL THE OFFICIAL END OF CLASS AND THE FINAL ASSIGNMENT DEADLINE.