

ASEN 5210 Remote Sensing Seminar

Material is preliminary and subject to change

Instructor: Professor Tomoko Matsuo (Tomoko.Matsuo@colorado.edu)

Seminar Time: Friday 2:30-3:20pm, AERO 114

Office Hour: Friday 3:20pm-3:50pm, AERO 403, or by appointment, AERO 467

Canvas Webpage: <https://canvas.colorado.edu/>

Course Overview

The Remote Sensing Seminar Series covers subjects pertinent to remote sensing of the Earth and space, including oceanography, meteorology, vegetation monitoring, geology, geodesy and space science, with an emphasis on techniques for extracting geophysical information from data from airborne and spaceborne platforms.

Course Objectives

The goal of this course is (1) to expose students to a wide range of current remote sensing research topics being conducted in academia and industry and (2) to provide students with opportunities to actively engage in technical discussions with faculty and researchers.

Course Structure and Expectations

This course consists of weekly seminars presented by faculty and researchers. The speakers will provide reading materials such as journal publications, conference papers, technical reports, and magazine articles to introduce the students to the subject area. The presentations will be 40-45 minutes, followed by a Q&A session. All students enrolled are expected to read assigned materials in advance, attend each seminar, and actively participate in discussions. Starting with the second seminar, one student will be assigned in each seminar to (1) help set up the seminar room and assist the speaker, (2) take attendance, (3) lead the discussions, (4) take notes for the seminar and Q&A session, and (5) post a one-page summary of the seminar and discussion to the Canvas course webpage. The student's responsibilities include requesting reading materials from the speaker and distributing them to the class one week in advance.

Seminar Schedule

The table below shows the tentative schedule of seminars.

Date	Speaker	Affiliation	Titles/Topics
8/30	Gary Wick	NOAA	NOAA's Sensing Harzards With Operational Unmanned Technology (SHOUT) Experiment: Observations and Forecast Impacts
9/6	Zheng Xiang	CU-LASP	Recent observations and simulations of energetic electrons from cosmic ray albedo neutron decay (CRAND) in near-Earth space
9/13	Katelynn Greer	CU-LASP	Investigating the Thermosphere-Ionosphere System Through Earth's FUV Emissions
9/20	Carlos Deccia	CU-AES	Geodesy: From a Well to Grace and Beyong
9/27	Javier Marti	DIVIROD	Practical Aspects of Commercializing Science: Personal Career Perspective
10/4	Lakshimi Kantha	CU-AES	Radar Remote Sensing
10/11	Byungwoon Park	Sejong University	TBD

		Seoul, Korea	
10/18	Christopher Williams	CU-AES	Radar Remote Sensing
10/25	Mark Tschudi	CU-AES	Follow That Ice! Tracking Arctic Sea Ice and Related Properties
11/1	Jeff Thayer	CU-AES	TBD
11/8	Zoltan Sternovsky	CU-AES/LASP	TBD
11/15	Craig DeForest	SwRI	Analyzing Images is Harder than You Think
11/22	Raymond Kokaly	USGS	Hyperspectral Remote Sensing Airborne Imaging Spectroscopy
12/6	Jenny Yang	CU-AES	Global GPS Precise Positioning During Major Geomagnetic Storms
12/13	No Seminar		Reading Day

Course Grading

This is a pass/fail course. The grades are based on attendance and participation, and efforts in leading assigned seminars. The passing grade is 75%.

70% Seminar attendance and participation: 70% (5% for each seminar and 14 seminars in total)

30% Leading seminars: 30%

100% Total

Disabilities

If you qualify for accommodations because of a disability, please submit your accommodation letter from Disability Services to me in a timely manner so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities in the academic environment. Information on requesting accommodations is located on the [Disability Services website](#). Contact Disability Services at 303-492-8671 or dsinfo@colorado.edu for further assistance. If you have a temporary medical condition or injury, see [Temporary Medical Conditions](#) under the Students tab on the Disability Services website.

Classroom Behavior

Students and faculty each have responsibility for maintaining an appropriate learning environment. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation or political philosophy. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records. For more information, see the policies on [Classroom Behavior](#) and the [Student Code of Conduct](#).

Academic Honor Code

All students enrolled in a University of Colorado Boulder course are responsible for knowing and adhering to the Honor Code. Violations of the policy may include: plagiarism, cheating, fabrication, lying, bribery, threat, unauthorized access to academic materials, clicker fraud, submitting the same or similar work in more than one course without permission from all course instructors involved, and aiding academic dishonesty. All incidents of academic misconduct will be reported to the Honor Code (honor@colorado.edu; 303-492-5550). Students who are found responsible for violating the academic integrity policy will be subject to nonacademic sanctions from the Honor Code as well as academic sanctions from the faculty member. Additional information regarding the Honor Code academic integrity policy can be found at the [Honor Code Office website](#). Violations of the Honor Code include any act of

academic dishonesty which is defined as follows. Any act in which a student gains, or attempts to gain, an unfair academic advantage over other students. These acts may include, but are not limited to:

- I. **Plagiarism:** Portrayal of another's work or ideas as one's own.
- II. **Cheating:** Using prohibited notes or study aids, allowing another party to do one's work/exam and turning in that work/exam as one's own, copying another student's course work, and collaborating on course work when prohibited.
- III. **Fabrication:** Falsification or creation of data, research, or resources, altering a graded work without the prior consent of the course instructor.
- IV. **Lying:** Deliberate falsification with the intent to deceive in written or verbal form as applied to an academic submission.
- V. **Bribery:** Providing, offering, or taking rewards in exchange for a grade, or, an assignment, or in the aid of Academic Dishonesty.
- VI. **Threat:** An attempt to intimidate a student, staff, or faculty member for the purpose of receiving an unearned grade or in an effort to prevent the reporting of an Honor Code violation, or in connection with any other form of Academic Dishonesty.
- VII. **Unauthorized Access:** Gaining unauthorized access to protected academic information including, but not limited to: CU-SIS; a faculty member's computer, files, and/or office; or secure information on an online server.
- VIII. **Clicker Fraud:** Using, or having someone else use, clicker technology fraudulently in an effort to receive academic credit.
- IX. **Resubmission:** Submitting the same or similar work for credit more than once without permission from all course instructors involved.
- X. **Aiding Academic Dishonesty:** Intentionally facilitating any act which may help a student to gain an unfair academic advantage including, but not limited to, any of the aforementioned acts.

Any act of academic dishonesty will result in an F for this course and will become a permanent part of the student's academic record.

Misconduct, Discrimination, Harassment and/or Related Retaliation

The University of Colorado Boulder (CU Boulder) is committed to fostering a positive and welcoming learning, working, and living environment. CU Boulder will not tolerate acts of sexual misconduct (including sexual assault, exploitation, harassment, dating or domestic violence, and stalking), discrimination, and harassment by members of our community. Individuals who believe they have been subject to misconduct or retaliatory actions for reporting a concern should contact the Office of Institutional Equity and Compliance (OIEC) at 303-492-2127 or cureport@colorado.edu. Information about the OIEC, university policies, [anonymous reporting](#), and the campus resources can be found on the [OIEC website](#). Please know that faculty and instructors have a responsibility to inform OIEC when made aware of incidents of sexual misconduct, discrimination, harassment and/or related retaliation, to ensure that individuals impacted receive information about options for reporting and support resources.

Religious Holidays

Campus policy regarding religious observances requires that faculty make every effort to reasonably and fairly deal with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. All dates for seminars are listed in the course schedule. Please review the [course schedule](#) and let me know if certain dates conflict with your religious obligations. See the [campus policy regarding religious observances](#) for full details.

Other Policies

Please be respectful of others during seminars. This includes turning off your cell phone before seminars and not talking during seminars unless you have the floor. Details about all of the university policies can be found on the web at <http://www.colorado.edu/policies/index.htm>