

PTYS 596A – Planetary Surface Processes Seminar

Kuiper Space Sciences Building Room 309 Wed. 2:30 pm-3:30 pm

Instructor: Lynn Carter, lmcarter@email.arizona.edu

Office Hours: By appointment, 533A Kuiper Space Sciences Building.

Course Description: This seminar course will focus on discussion of planetary surfaces and their evolution, including geology of rocky planets and moons, icy surfaces and moons, regolith development, surface-atmosphere interactions, sub-surface structure and interiors, and climate change. The course will involve the exchange of scholarly information in a small group setting, including presentations and discussions of student research, reviews of recent science results and discussion of proposal ideas. Students will be expected to lead 1-2 presentations and participate in group discussions. This course is intended for graduate students; senior undergraduates may be able to enroll with permission of the instructor.

Course Learning Objectives:

- Students will expand their expertise in the subject area by reviewing, reporting, and discussing current research/literature in the topic area with other students, postdocs, and faculty.
- Students will incorporate and apply theoretical and practical (e.g., field studies, spacecraft mission data) knowledge to the development of their own research ideas.
- Students will demonstrate their understanding of planetary surface processes and improve their presentation skills by leading 1-2 presentations.
- Students will develop science critical thinking and team work skills by analyzing the work of others, asking/answering questions, and providing constructive comments during the discussion.

Course Learning Outcomes: Upon completion of the course, students will be able to knowledgeably describe and discuss the planetary surfaces research topics covered in the course, including critical analysis of the topics. They will also have improved presentation skills in an informal setting.

Grading Scale and Policies:

Grades will be determined by participation and 1-2 presentations during the semester. Students will be expected to lead either one 50-60 min discussion/presentation, or lead two 20-30 minute discussions. Students should read any papers for discussion prior to the class period, and are expected to participate by asking questions and contributing to the discussion when others are presenting.

This seminar is informal and the presentations should also be informal, including time for discussion and expanding with background material as needed. Students may present their research results, research proposal ideas, summaries of key results from workshops they attended, reviews of current topics of interest, reviews of journal articles, or other topics relating to planetary surfaces research. Topics should be approved by the instructor and will be discussed during the first meeting of the semester.

This course is a pass/fail course. To pass, students must attend all sessions for the full hour (unless there is a prior approval from instructor), participate in the discussion on at least a few occasions, and must give presentations as specified above. S grades may be obtained for going

above and beyond, for example giving more than the required presentations, presenting something more complicated like lab tours or demonstrations, or helping to organize the seminar or find external speakers.

Threatening Behavior Policy:

The UA Threatening Behavior by Students Policy prohibits threats of physical harm to any member of the University community, including to oneself. See <http://policy.arizona.edu/education-and-student-affairs/threatening-behavior-students>.

Accessibility and Accommodations:

At the University of Arizona we strive to make learning experiences as accessible as possible. If you anticipate or experience physical or academic barriers based on disability or pregnancy, you are welcome to let me know so that we can discuss options. You are also encouraged to contact Disability Resources (520-621-3268) to explore reasonable accommodation. **For additional information on the Disability Resource Center and reasonable accommodations, please visit <http://drc.arizona.edu>.** If you have reasonable accommodations, please plan to meet with me to discuss accommodations and how I can help you be successful in the class.

Code of Academic Integrity:

Students are encouraged to share intellectual views and discuss freely the principles and applications of course materials. However, graded work/exercises must be the product of independent effort unless otherwise instructed. Students are expected to adhere to the UA Code of Academic Integrity as described in the UA General Catalog. See: <http://deanofstudents.arizona.edu/academic-integrity/students/academic-integrity>.

UA Nondiscrimination and Anti-Harassment Policy:

The University is committed to creating and maintaining an environment free of discrimination; see <http://policy.arizona.edu/human-resources/nondiscrimination-and-anti-harassment-policy>. Our seminar is a place where everyone is encouraged to ask questions and express well-formed opinions and their reasons for those opinions. We want to create a tolerant and open environment where comments and questions can be expressed without resorting to bullying or discrimination of others.

Additional Resources for Students:

- UA Academic policies and procedures are available at <http://catalog.arizona.edu/policies>.
- Student Assistance and Advocacy information is available at <http://deanofstudents.arizona.edu/student-assistance/students/student-a...>

Confidentiality of Student Records:

All student records, including grades, will be handled according to FERPA guidelines. <http://www.registrar.arizona.edu/personal-information/family-educational-rights-and-privacy-act-1974-ferpa?topic=ferpa>

Subject to Change Statement:

Information contained in the course syllabus, other than the grade and absence policy, may be subject to change with advance notice, as deemed appropriate by the instructor.