



## SYLLABUS

### **PTYS 594A: Planetary Geology Field Studies**

**Kuiper 312, Fridays 3:00 pm to 5:00 pm**

#### **Description of Course**

This course provides students with first-hand experience relating to geologic features and processes operating on the Earth as analogs for features/processes on the surfaces of other planetary bodies. This semester, Fall 2018, the field trip will focus on sedimentological processes, diagenesis, weathering, and erosion by investigating geological units associated with the Petrified Forest and Canyon de Chelly in Northern Arizona. This trip involves camping and moderate hiking. Students need to supply their own camping materials. Students may enroll in the course up to 10 times for credit.

#### **Course Prerequisites or Co-requisites**

This course is intended for Graduate Students within the Department of Planetary Sciences. However, other students may enroll with prior consent from the Instructor.

#### **Instructor and Contact Information**

Instructor: Dr. Christopher Hamilton

Instructor's Office Location: Kuiper 430

Instructor's Telephone Number: +1-301-305-3818

Instructor's E-mail address: [hamilton@lpl.arizona.edu](mailto:hamilton@lpl.arizona.edu)

Office Hours: By Appointment

Course Website: "Desire2Learn" (D2L)

#### **Course Format and Teaching Methods**

Course information will be made available through D2L with two planning sessions held prior to the field trip on August 31 and September 7. The field trip itself will be held on September 8–10, and a post-field trip meeting will be held on October 26. Students are expected to complete a research report prior to leaving for the field and present the report during the field trip. Students are also expected to take field notes to document their observations of relevant geological outcrops. Teaching methods therefore include a combination of in-class lectures and fieldwork, with students being required to participate in both of these activities.

#### **Course Objectives and Expected Learning Outcomes**

The objective of the course is for students to develop skills related to geological observation and description, linking their understanding of terrestrial geology with the remote sensing of planetary surfaces. Additional learning outcomes include developing an improved understanding of geological, geophysical, and geochemical processes relevant to the study of a wide range of planetary bodies.

## Absence and Class Participation Policy

Assignments are due at the beginning of class on (or before) the due date. If an assignment is due, you are responsible for turning it in, even if you are absent from class. Late work will generally not be accepted. Absences for university-approved activities for which you have in advance a note of dean's approval will be excused, or other arrangements will be made. If you will be absent due to a religious holiday, please let me know in advance. Absences for other reasons will not be excused unless special dispensation was received prior to the deadline.

The UA's policy concerning Class Attendance, Participation, and Administrative Drops is available at: <http://catalog.arizona.edu/policy/class-attendance-participation-and-administrative-drop>

The UA policy regarding absences for any sincerely held religious belief, observance or practice will be accommodated where reasonable, <http://policy.arizona.edu/human-resources/religious-accommodation-policy>.

Absences pre-approved by the UA Dean of Students (or Dean Designee) will be honored. See: <https://deanofstudents.arizona.edu/absences>

Participating in the course and attending lectures and other course events are vital to the learning process. As such, attendance is required at all lectures and discussion section meetings. Students who miss class due to illness or emergency are required to bring documentation from their health-care provider or other relevant, professional third parties. Failure to submit third-party documentation will result in unexcused absences.

## Course Communications

Lectures, homework assignments and general information related to the course will be available online on the following class websites:

The University of Arizona's D2L Website: <https://d2l.arizona.edu/d2l/login/>

Announcements will also be sent through the D2L website, so please ensure that you regularly check emails sent to your address registered with D2L.

## Required Texts or Readings

There are no required text or readings, but students are expected to independent research information presented within the field trip report using peer-reviewed sources of information with appropriate references.

## Required or Special Materials

Field books, hand lenses, and other educational materials required for the field will be provided.

All other materials (e.g., camping equipment) will not be provided and are the student's responsibility to obtain.

## Required Extracurricular Activities

Participation in the field trip on September 8–10 is required.

## Assignments and Examinations: Schedule/Due Dates

**Research Report:** Students are expected to prepare a 3–5 page report related to their choice of topic prior to the field trip. A list of suggested topics will be posted on D2L on Monday, August 20. However, students are also encouraged to propose their own topic (with instructor approval). Topic selections are due by Friday, August 24. Selections must be sent to the Instructor electronically and will be assigned on a first come, first serve basis. Final reports are due electronically on Tuesday, September 4.

**Report Presentation:** The field report will be presented by in the field by each student are expected to be 10 to 15 minutes in length.

**Field Notebooks:** Field notebooks will also be collected and evaluated at the end of the field trip.

## Final Examination or Project

The field trip report will serve as the final project. This course does not include quizzes, midterms, or a final examination.

## Grading Scale and Policies

Grading for this course will be: S, P, F (Superior, Pass, Fail) based on:

Participation	10%
Field Trip Report	50%
Field Trip Presentation	20%
Field Notebook	20%

Grades are assigned as follows:  $S \geq 90\%$ ,  $90\% > P \geq 50\%$ , and  $F < 50\%$ .

**Requests for incomplete (I) or withdrawal (W)** must be made in accordance with University policies, which are available at <http://catalog.arizona.edu/policy/grades-and-grading-system#incomplete> and <http://catalog.arizona.edu/policy/grades-and-grading-system#Withdrawal> respectively.

## Scheduled Topics/Activities

**August 20:** Research report topics posted on D2L.

**August 24:** Research report topic selections required. Please e-mail the instructor with your choice of topic, which will be assigned on a first-come first-serve basis.

**August 31:** First fieldtrip-planning session. Kuiper Room 312 from 3:00 pm to 5:00 pm. During his class period we will also have an invited speaker present from 3:30 pm to 4:30 pm. The speaker will be: Karen Francis-Begay, Assistant Vice President, Tribal Relations.

**September 4:** Final report due electronically.

**September 7:** Second fieldtrip-planning session. Kuiper Room 312 from 3:00 pm to 5:00 pm.

**September 8–10:** Meeting at 7:00 am at the LPL loading bay on Saturday, September 8, our group will pack and depart by 8:00 am. Proceeding to the Petrified Forest for two brief excursions and several overlook stops. We will camp near Chinle. The following day, Sunday, September 9, we will meet with local rangers for an all day hike into Canyon de Chelly, including maintenance efforts for the trail. On Monday, September 10, we will visit several overlooks into Canyon de Chelly and depart for Tucson before noon, with an anticipated arrival time of 8:00 pm. During the field trip students will present their reports at locations relevant to their topics.

**October 26:** Third and final fieldtrip meeting in Kuiper Room 312 from 3:00 pm to 5:00 pm. The purpose of this meeting is to discuss fieldtrip outcomes and decide on the destination of the Spring 2019 fieldtrip.

## Classroom Behavior Policy

To foster a positive learning environment, students and instructors have a shared responsibility. We want a safe, welcoming, and inclusive environment where all of us feel comfortable with each other and where we can challenge ourselves to succeed. To that end, our focus is on the tasks at hand and not on extraneous activities (e.g., texting, chatting, reading a newspaper, making phone calls, web surfing, etc.).

Students are asked to refrain from disruptive conversations with people sitting around them during lecture. Students observed engaging in disruptive activity will be asked to cease this behavior. Those who continue to disrupt the class will be asked to leave lecture or discussion and may be reported to the Dean of Students.

The use of personal mobile electronics, such as smart phones, is distracting to the other students and the instructor. Their use can degrade the learning environment. Therefore, students are not permitted to use these devices during the class period. Electronic recording within the classrooms is strictly prohibited.

## **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.

When our class meets at a campus location: Please be aware that the accessible table and chairs in this room should remain available for students who find that standard classroom seating is not usable.

## **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>.

The University Libraries have some excellent tips for avoiding plagiarism, available at <http://new.library.arizona.edu/research/citing/plagiarism>.

*Selling class notes and/or other course materials to other students or to a third party for resale is not permitted.* Violations to this and other course rules are subject to the Code of Academic Integrity and may result in course sanctions. Additionally, students who use D2L or UA e-mail to sell or buy these copyrighted materials are subject to Code of Conduct Violations for misuse of student e-mail addresses. This conduct may also constitute copyright infringement.

## **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 classroom is a place where everyone is encouraged to express well-formed opinions and their reasons for those opinions. We also want to create a tolerant and open environment where such opinions 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-assistance>

## **Confidentiality of Student Records**

<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.