
GE credits: Science & Engineering, Visual Literacy, Writing Experience

Lectures: MWF 1:10-2:00 pm via Zoom (all sections, A01-04). The lectures and some discussion presentations will be recorded. Lecture Zoom links and recordings are available through the Zoom menu in Canvas.

Instructor: Professor Sarah Stewart
Email: sts@ucdavis.edu
Office hour: 11:00 - 11:50 am on Fridays in Zoom. Use the same link as for MWF lectures.
About Sarah: I grew up in an Air Force family and lived in Sacramento when I was a child. I study planet formation and evolution with a focus on planetary collisions. I have a laboratory with 2 cannons (Links to an external site.) that are used to conduct impact experiments and I model collisions like the Moon-forming giant impact.

Teaching Assistants:

<table>
<thead>
<tr>
<th>TA</th>
<th>Email</th>
<th>Office Hours</th>
<th>Office Hours Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Megan Harwell</td>
<td><a href="mailto:megharwell@ucdavis.edu">megharwell@ucdavis.edu</a></td>
<td>Mon 2:10-3:00</td>
<td>Zoom</td>
</tr>
<tr>
<td>Michael Huh</td>
<td><a href="mailto:mchuh@ucdavis.edu">mchuh@ucdavis.edu</a></td>
<td>Wed 2:10-3:00</td>
<td>Zoom</td>
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About Megan: I was born and raised in the Los Angeles area and have studied and worked in Indiana and New Mexico. I have studied crater formation, asteroid deflection, and airburst-like events and am a first year PhD student in Sarah’s group. When I have time, I enjoy knitting, hiking, and skiing.

About Michael: I am a Los Angeles native and a geoscientist who studies rocks from the bottom of the ocean. I decipher the chemical signature recorded in these rocks so that I can paint a clearer picture as to what the Earth’s
mantle looks like chemically. With this information I am trying to answer questions such as, where did Earth’s water come from (meteorites, comets, the Sun, etc)? or what information from Earth’s infancy is still recorded in the mantle? When not thinking about rocks, I thoroughly enjoy spending time with my wife and one-year old baby.

Discussion sections & TAs:

<table>
<thead>
<tr>
<th>Section</th>
<th>Day</th>
<th>Time</th>
<th>Location</th>
<th>TA</th>
</tr>
</thead>
<tbody>
<tr>
<td>A01</td>
<td>Tuesday</td>
<td>3:10-4:00 pm</td>
<td>Zoom</td>
<td>Michael Huh</td>
</tr>
<tr>
<td>A02</td>
<td>Monday</td>
<td>12:10-1:00 pm</td>
<td>Zoom</td>
<td>Megan Harwell</td>
</tr>
<tr>
<td>A03</td>
<td>Tuesday</td>
<td>11:00-11:50 am</td>
<td>Zoom</td>
<td>Michael Huh</td>
</tr>
<tr>
<td>A04</td>
<td>Wednesday</td>
<td>12:10-1:00 pm</td>
<td>Zoom</td>
<td>Megan Harwell</td>
</tr>
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A note about discussion section: You must attend the discussion section for which you are officially registered. If you need to miss a particular discussion section on a given week, you should talk to the TAs about attending a different section in advance.

Course Goals:

- Practice applying quantitative skills and scientific reasoning to understand scientific problems and concepts
- Practice and improve your reading, writing and visual communication skills to learn and explain scientific concepts
- Create links between concepts to appreciate the diversity of planets and our place in the universe
- Build the skills to be a lifelong learner, informed citizen, and space exploration enthusiast

Help/Questions/Issues:

We encourage you to ask questions and notify us of any problems as soon as possible. For discussion section related questions (assignments, grades, term papers), your TA is your first point of contact. If you have questions about the material from lecture you can contact the professor or either TA. Between the three of us, you have several options to see us in office hours to go over material or answer questions.

Computer requirements:
You will need access a computer or tablet and internet that will allow you to operate basic computer software and access and navigate Canvas, Zoom and other websites. You will need the ability to view lecture materials online, complete quizzes, written assignments and timed exams using Canvas and other basic computer programs. You will need a video camera and microphone to participate in discussions and breakout sessions. If you do not have access to these resources or lose access to these resources, please contact the professor and we will work together to ensure your success.

**Textbook:**
You are not required to purchase a physical book for this course. The assigned readings and instructor recordings are a required and will be source material for quizzes and exams.

Main book: *Astronomy* by OpenStax

Optional supplementary reading: *The Cambridge Guide to the Solar System* (by Lang), 2nd edition. The library has an electronic copy of the text (note that access is limited to 2 users at a time). This book is also usually available used for very low cost (under $30) from online sellers for those that want a physical copy. Note that we won’t be using this book in class, but it is it is a good book for background reading.

**Class structure:**
GEL 036 is 4 units, composed of 3 hours of general lecture (MWF) and 1 hour of a discussion section (M, T, or W).

**Lecture:** It is important to come to class. You will spend *much* less time attending class and listening to lecture, asking questions, seeing images and listening to explanations than trying to teach material to yourself.

**Discussion sections:** Discussion section material and homework are posted on Canvas. Each GEL 36 discussion section meets once a week to discuss a topic in planetary science. The TAs will go over discussion topics & assignments with you in your section each week.

The discussion sections are intended to be straightforward and relevant. The discussion section activities (homework and writing assignments) are **worth 50% of the overall class grade**, so it is important to attend and accumulate the points. The sections are key to fulfilling the general education objectives for **writing experience and visual literacy**. The sections will walk you through the writing assignments to make this part of the course as straightforward as possible. **Discussion section attendance is part of your grade!**
Note that the timing of a particular discussion topic does not always overlap with lecture topics. In the long run of the course, the topics complement each other and will be integrated by the end of the quarter.

Course Assignments and Grading Structure:

- **Writing assignments** = 30% (assignment 1=20%; assignment 2=10%)
- **Discussion sections** (participation/attendance and homework/exercises) = 20%
- **Final exam (Wednesday March 17 at 1 pm)** = 20%
- **Midterm exam** (in class) = 15%
- **Online quizzes** (based on lecture and assigned readings) = 15%

Grading standards:

<table>
<thead>
<tr>
<th>An excellent student is one who</th>
<th>A satisfactory student is one who</th>
<th>A student who needs improvement</th>
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<tr>
<td>Attends class regularly and is prompt. Comes to class prepared to engage fully in the activities. Participates in class and is supportive of the participation of their peers. Is willing to ask questions and ask for help from peers, the TAs and the instructor. Completes excellent work and submits it on time. Learns to independently reflect upon, digest, and connect concepts covered in the course. Solicits and incorporates feedback</td>
<td>Attends some of class. Comes to class prepared enough to participate intermittently. Does not participate regularly in class, interrupts or ignores the participation of their peers. Asks for help both from peers, TAs, and the instructor occasionally. Completes satisfactory work and submits it on time. Has adequate study habits but does not fully master the course content. Incorporates some feedback into their work.</td>
<td>Attends class infrequently. Comes to class unprepared and will rarely participate in the activities. Does not participate in class, interrupts, or actively shuts down the participation of their peers. Will not ask for help from peers, TAs or the instructor. Completes work that needs improvement or is not on time. Does not study effectively. Will not incorporate feedback into their work.</td>
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into their work.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage Range</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>90.0-100%</td>
<td>An excellent student</td>
</tr>
<tr>
<td>B</td>
<td>80.0-89.99%</td>
<td>Working towards being an excellent student</td>
</tr>
<tr>
<td>C</td>
<td>70.0-79.99%</td>
<td>A satisfactory student</td>
</tr>
<tr>
<td>D</td>
<td>60.00-69.99%</td>
<td>Working towards being a satisfactory student</td>
</tr>
<tr>
<td>F</td>
<td>0.0-59.99%</td>
<td>Needs improvement</td>
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Letter + and - will be used, with the expectation of the top and bottom 3% of each letter grade. Do not expect a grading curve at the end of the course. If there are any adjustments to the scale they will be minor. You can guarantee earning a specific letter grade by successfully completing the course material corresponding to the scale above. Once the final grades have been posted, the grades are final. Only data entry errors will be corrected.

**There is a penalty for late discussion section and writing assignments:** (0-24 hrs late; -25%), (24-48 hours late; -50%), (> 48 hours late; no credit). Exceptional circumstances for late course work must be arranged in advance with the TAs.

Quizzes will be online via Canvas. They will be brief (5-10 questions) and available for a several day window. They are just designed to help you keep up with course material and get experience seeing questions similar to what will be on the midterm and final exam. They are open note/open book without a time limit. You can take the quiz up to 2 times keeping the highest score. But you will not see the correct answers until the quiz closes. No late or make up quizzes unless there are exceptional circumstances.

Exams will be online via Canvas. The exams are open book like the quizzes but have a time limit such that preparation is essential. Study guides will be provided. **There will be no makeup exams except in cases of university excused absences.**
### Course Expectations and Policies

<table>
<thead>
<tr>
<th>Student Responsibilities</th>
<th>Instructor and TA responsibilities</th>
<th>Community responsibilities</th>
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<tbody>
<tr>
<td>Attend lectures.</td>
<td>Come to class prepared.</td>
<td>Be respectful of every person in the course.</td>
</tr>
<tr>
<td>Come to class prepared.</td>
<td>Generate prompt and constructive feedback.</td>
<td>Be willing to work with and learn from everyone.</td>
</tr>
<tr>
<td>Submit complete work on time.</td>
<td>Foster an environment where students feel safe asking questions, and for help.</td>
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</tr>
<tr>
<td>Attend and participate in section discussions.</td>
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<tr>
<td>Ask questions, ask for help.</td>
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**Attendance:**

**Main lecture:** Attendance is not mandatory nor taken. However, it is assumed you are in class and therefore you are responsible for any material presented. Lecture recordings are only a supplemental resource and should not be used in place of attending lecture. Sometimes recordings will fail in which case you will miss the information if you did not attend. In class participation includes breakout sessions and in-class Canvas-based discussion questions.

**Discussion section:** Attendance is mandatory. There are no make-ups for in-section activities without a valid excuse (i.e., illness or emergency). If you miss a discussion section, your first point of contact about make-ups for valid excuses is your TA.

**Online Lecture Recordings:**

Zoom lectures will be recorded. The recording will capture the presenter’s audio, video and computer screen. In these cases, student audio and video will be recorded if they share their computer audio and video during the recorded session. The recordings will only be accessible to students enrolled in the course to review materials. The Zoom recordings will be stored on the Zoom server will not be shared with or accessible to the public and will be deleted after the course ends. The Instructor will retain a personal copy for the purpose of improving the course in the future.
The University and Zoom have FERPA Links to an external site, compliant agreements in place to protect the security and privacy of UCD Zoom accounts. Students who do not wish to be identified on a recording should:

1. Choose a Zoom Profile Name that does not include any personal identifying information like their name or UCD Net ID
2. Not share their computer audio or video during recorded Zoom lectures

Students are expected to be interactive with audio and video in breakout sessions held during the lecture meeting times and in discussion sections. In these small group settings, students are encouraged to change their Zoom profile name to their preferred name and to provide personal pronouns: e.g., Sarah (she/her)

Policy on sharing class resources:

By enrolling in this class, all students agree to not upload the recordings to other platforms. The online course resources, notes, videos, and quizzes contain copyrighted images and no course material should be uploaded to 3rd party commercial website, including, but not limited to Course Hero without written consent of the course instructor. This is in direct violation of the student code of academic conduct, specifically the subsection:

Misuse of an instructor’s course materials or the materials of others:

- Posting or sharing any course materials of an instructor without the explicit written permission of that instructor.
- Purchasing or copying assignments or solutions, to complete any portion of graded work, without the instructor’s permission.
- Unauthorized use of another student's work.

So please do not do it.

Zoom Etiquette:

By enrolling in this class, you agree to follow community principles for Zoom etiquette, including muting your microphone and interacting professionally in chat.
Collaboration policy:
Activities in discussion sections are meant to be group-oriented and participatory. Homework assignments from sections should be completed on your own. Homework that appears to be copied will be sent to Student Judicial Affairs.

Plagiarism:
This course includes writing assignments that satisfy the Gen Ed writing requirement. The papers must be original work with no collaboration. Explanations of proper citation style and plagiarism are included in the term paper assignment. Refer to UC Davis site on Academic Integrity [Links to an external site.]

Code of Academic Conduct:
All students enrolled in GEL 036 are required to read the Student Code of Academic Conduct [Links to an external site.]

Accessibility and Special Accommodations:
If you have concerns regarding accessibility or have a need for special accommodations for exams or lectures, please contact the UC Davis Student Disability Center (http://sdc.ucdavis.edu). After they confirm the need in consultation with you (the student), they will notify me and we can work together to find a solution. However, keep in mind this must be done well in advance of an exam and it is the student’s responsibility to initiate the process early enough in the academic term. Logistics for accommodations related to exams must be finalized no later than 2 weeks prior to the first exam.