Sediments and Strata Lab, Geology 109L

Spring 2020 – Social Distancing Version

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Labs and more information are posted on the Canvas class page.
TAs: Sydney Salley, Alex Lombardo, and Erick Aguirre Palafox

The Goals of the Labs are to help you become acquainted with sedimentary rocks and the diverse methods for interpreting them. The labs are opportunities for you to put the ideas discussed in class to use as a geologist. They will help you cement the grains of ideas into a rock-solid understanding of how to extract information from sedimentary sequences.

Format of the Labs: The labs will be entirely online, with no hand-on activities or field trips, for our health and safety.

Due to the skewed enrollment in the different lab sessions (15 in MW 1-4; 5 in MW 4-7; 3 in TH 1-4) and the need to do everything online, we will be flexible with the lab schedule. All 3 TAs will help with all sections. The goal is to provide you with quality interaction time without everyone on a videoconference for 6 hours per week for this one class. We are still working out the details, but here are the current plans (feedback welcome!):

1. Dawn will prerecord introductions to each lab and post them on YouTube – which is super reliable and accessible and has been since 2007.
2. One of the TAs will provide an interactive introduction to each new lab in an online format. (This will be recorded for later use and for those who can't connect.)
    a. To attend the interactive session, you will go to Canvas -> Media Gallery -> Launch Live Room. (Dawn will provide a YouTube video of how this works.) You can join with just audio and watch the TA, or you can also include your own video feed.
    b. The TA will answer questions from anyone online. Questions can be asked either verbally or through the Canvas Chat (not the live room chat).
    c. After the initial questions are asked and answered (likely the first hour of lab), people can leave the live room to do their work on their own timing. This will reduce the internet load and computation for your computer/phone. Additional questions can be asked through Canvas Chat, and you can rejoin the live room with the TA for verbal questions.
    d. You can share your work with the TA by sharing a file, a photo of it, or your computer screen. Be sure to tell them where to find it.
    e. If you want to use the live room for working with a small group of other students, the TA can create a breakout group for you. You can also use other technologies of your choice. Be sure to write up and turn in your own work, though. (See collaboration policy below.)
3. TA Office Hours:
    a. The TAs will hold office hours using a similar process.

We will re-evaluate the timing of TA availability and the technology in response to your feedback and our experiences using these techniques. Please let us know what works and doesn't!

Here is the tentative schedule, which will be modified in response to what actually happens:

Date	Topic
March 30-31	Introduction, technology troubleshooting, etc. (nothing turned in)
April 1-7	Lab 1: Using and annotating images to interpret sedimentary particles on Mars
April 8-16	Lab 2: Interpreting sedimentary particles on Mars
April 20-23	Lab 3: Naming sedimentary rocks
April 27-30	Lab 4: Sedimentary Structures and the Interpretation of Paleocurrents
May 4-7	Lab 5: Sedimentary Structures on Mars
May 11-14	Lab 6: Fence Diagrams
May 18-21	Lab 7: Stratigraphic column and facies analysis of the Murray formation, Mars
May 27-June 4	Lab 8: Facies Analysis & Correlations of Stratigraphic Columns, Book Cliffs, Earth

Grading

100% on labs. Point distributions will be determined as the labs are written.

Collaboration: I encourage you to talk about the labs with your fellow students because that increases understanding. However, each student must do and turn in their own work. Also, sketches, etc. should be your own work. Doing this work will help you learn the material. If you have any doubts about whether a particular collaboration is allowed, ask yourself, "Does what we're doing improve the understanding of all of us?" If the answer is yes, it's probably allowed. Or if the answer to "Would someone benefit more if they did the work by themselves?" is yes, then it probably isn't a good collaboration. Please ask me or a TA if you are in doubt!

OPTIONAL NON-GRADED FIELD TRIP: One of the key skills geologists normally learn in sed/strat lab is how to measure stratigraphic columns. This has to be done in the field; it just isn't the same online. Thus, I will offer an optional field trip for all students in lab once shelter-in-place restrictions are lifted. There is absolutely no requirement that you participate; rather, it's an opportunity for you to learn some useful skills if you wish. The timing of the trip will likely be during fall quarter for those continuing as students at UCD (so it isn't overly hot). For graduating seniors, we will see what we can manage near the end of the quarter or during the summer.