

GLY4750L-08B7(14493) - Geologic Field Method

Syllabus (GLY4750L) Field Methods Fall 2019 W8-9

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Office Hours: Monday 10:30 a.m.-12:30 pm (Reitz Union Food Court). Details provided via canvas each week.

Teaching Assistant: Scott Miller

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Office Hours: Friday 10:00 a.m.-12:00 p.m. (Reitz Union Food Court). Details provided via canvas each week.

Text: None required, materials will be handed out in class.

Field Trip: October 18-22 (Note: All Geology course instructors are aware of the trip). Field trip is mandatory

Supplies Required:

Adobe Illustrator or CorelDraw (computer graphic arts packages; (UFApps gives you access to CorelDraw 7). Metal ruler, geology field notebook (yellow rite-in-the-rain suggested), protractor (full circle works better than semi-circle), colored pencils, brunton compass (on loan from department), GPS (on loan from department), calculator, tracing paper.

Grading:

Grades are based on the percentage of points earned over the semester. These vary slightly from year to year, but a good estimate is between 750-900 points. I know this is less transparent, but after I grade every assignment I update you on your grade based on total points so far. In other words, you always know your standing after every assignment, quiz or test. Expect that we will have a number of quizzes on the geological time scale. You cannot be a geologist without a concept of deep time. Note: You must pass this course with a grade of "C" or better to take Structural Geology (Spring Semester) and Field Camp (Summer A).

Grading Scale (based on 100%)

A: >92%

A-: 89-91.9%

B+: 86-88.9%

B: 83-85.9%
B-: 79-82.9%
C+: 76-78.9%
C: 73-75.9%
C-: 69-72.9%
D+: 66-68.9%
D: 63-65.9%
D-: 59-62.9%
F: <59%

Weekly Schedule (May be altered depending on weather or needs of cohort)

Week 1 (August 21): Introduction to the course. Review supply requirements. Begin on topographic maps and discuss scale.

Week 2 (August 28): More work with topographic maps. legend information, latitude, longitude, magnetic north versus true north, contour rules, rule of V's, vertical exaggeration, elevation cross-sections. Production of Index maps, additional elevation cross-sections. Quiz on geological time scale.

Week 3 (Sept 4): Measure pace outdoors, hand out Bruntons and GPS. Introduction to the Brunton compass and how to use for sighting and back-sighting. Outdoor Brunton and pace exercise. Brunton work with inclinometer; Strike and dip exercises. Section measurement using Jacobs staff. Quiz on topographic maps and geological time scale.

Week 4 (Sept 11): Simple geological maps with monoclinial dips and the use of structural contours in geology. The difference between and structural contour and a topographic contour. In-class exercise on structural contours. Quiz on geological time scale.

Week 5 (Sept 18): Geological maps. More complexity including the use of structural contours to complete a geological map. More in class work on these maps. Quiz on the geological time scale.

Week 6 (Sept 25): (Meert/Miller at GSA) Exam on topographic maps, scale, strike and dip and geological time scale.

Week 7 (Oct 2): Geological maps additional complexities.

Week 8: (Oct 9): Geological maps, additional complexities.

Week 9: (Oct 16): Field Trip Prelude and preparation for the trip. Review of Bowen's reaction series, Goldich stability series, basic rock descriptions and field notes organization. Common sedimentary structures in the field.

Week 10: (Oct 23): Geological maps, introduction to stereonets.

Week 11: (Oct 30): Geological maps of increasing complexity. Final sets of Geological maps. Stereonets part II

Week 12: (Nov 6): Meert gone: Maps, stereonets and cross-section using real geological maps

Week 13: (Nov 13): Stereonets and geological maps

Week 14: (Nov 20): Final exam review and practice

Week 15: (Nov 27): Thanksgiving vacation, no class

Week 16: (Dec 4): (Meert/Miller gone) Final Exam

Academic Honesty

We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity. On all work submitted for credit by students at the university, the following pledge is either required or implied:

"On my honor, I have neither given nor received unauthorized aid in doing this assignment."

Course Evaluations

"Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/> (<https://gatorevals.aa.ufl.edu/students/>). Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/> (https://urldefense.proofpoint.com/v2/url?u=https-3A_ufl.bluera.com_ufl_&d=DwMFAg&c=sJ6xIWYx-zLMB3EPkvcnVg&r=y2HjEMjRMHJhfdvLrqJZIYczRsfp5e4TfQjHuc5rVHg&m=WXko6OK_Ha6T00ZVAsEaSh99qRXHOgMNFRywCoehRho&s=itVU46DDJnlg4CW6efJOOLgPjdzsPvCghyzJoFONs&e=)). Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/> (<https://gatorevals.aa.ufl.edu/public-results/>).

Additional Information

The geological time scale should be downloaded from the following link: <http://www.geosociety.org/science/timescale/timescl.pdf>

Here's how we will progress

Quiz 1: Know the 4 Eons of Geological time and their age range.

Quiz 2: Know the 4 Eons of Geological time along with the Eras of the Phanerozoic and their age ranges

Quiz 3: All of Quiz 1 and 2 material plus the periods of the Paleozoic and their age ranges

Quiz 4: All of Quiz 1-3 plus the periods of the Mesozoic and their age ranges

Quiz 5: All of Quiz 1-4 plus the periods of the Cenozoic and their age ranges.

After that, you should know the entire time scale.

Notes/Hints: People who do well in this course (A's and B's) all have the following habits/management skills:

- (1) They begin work on the problem sets during class rather than leaving once the instructor explains the process.
- (2) They continue to work on the projects step-by-step rather than waiting until the day before to finish the project.
- (3) They are active and curious in the classroom and in the field. They ask questions until they are clear.
- (4) They save their Corel/Adobe drawings every 5 minutes.
- (5) They come to **office hours** and every class!
- (6) They grasp the importance of scale in geology.
- (7) Common Question: Adobe or Corel? Either will work. You need to become proficient in one or the other. I would suggest you buy earlier editions of these programs. For Corel, pre-2015 is fine. For adobe anything pre-subscription is fine. Adobe subscriptions are ridiculously expensive, but the non-subscription older versions are fine and cheaper. Corel is easily the cheapest and you don't need the most recent version.

Course Summary:

Date	Details
Wed Aug 28, 2019	 Topo 1 (https://ufl.instructure.com/courses/381563/assignments/3982781) due by 11:59pm

