GEOL 4172 – Field Methods

2024 / Spring Semester
GEOL 4172.001
Field Methods

Instructors

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Office Hours: MW 12-2 pm, T 2-3 pm
Other times by appointment

Class meeting time and place: 2:30 – 5:00 PM, Thursday, 326 Miller Science Bld.
• Most class meetings will be at field locations.

Text and Materials:


2. Field Equipment:
   • Brunton Compass
   • Rock Hammer
   • Hand lens
   • Acid bottle with dilute HCl
   • Clip board
   • Color Charts

3. Drafting materials (used in GEOL 3038)

Course Requirements:

Ten Class Projects – Complete during the semester
Field Trip to Southern Oklahoma (April 4-7)

Program Learning Outcomes:

1. Demonstrate knowledge of fundamental geoscience concepts. (Concepts)
2. Execute geoscience procedures and methods accurately, appropriately, and safely. (Geoscience Skills)
3. Demonstrate proficiency in interpretation and communication of geoscience information. (*Scientific Communication*)
4. Apply geoscience concepts, skills, and scientific communication to identify, analyze, and interpret geoscience phenomena. (*Research*)

**Student Learning Outcomes:**

1. Learn to use the Brunton compass
2. Take accurate measurements with the Brunton compass
3. Construct cross sections, measured section and profiles
4. Construct geologic maps from field data

**Course Calendar***:

<table>
<thead>
<tr>
<th>Week</th>
<th>TOPIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Rock Garden Brunton Compass Project</td>
</tr>
<tr>
<td>2</td>
<td>Strike and Dip of Joints Project</td>
</tr>
<tr>
<td>3</td>
<td>Cross-bedding Project</td>
</tr>
<tr>
<td>4</td>
<td>Pace and Compass Project</td>
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<tr>
<td>5</td>
<td>Pace and Compass Project</td>
</tr>
<tr>
<td>6</td>
<td>Pace and Compass Project (Drafting)</td>
</tr>
<tr>
<td>7</td>
<td>Stratigraphic Section Project (Lake Nacogdoches)</td>
</tr>
<tr>
<td>8</td>
<td>Stratigraphic Section Project (Lake Nacogdoches)</td>
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<tr>
<td>9</td>
<td>Spring Break</td>
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<tr>
<td>10</td>
<td>ACAT Exam</td>
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<tr>
<td>11</td>
<td>Easter Break Cross-Section Profiles</td>
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<tr>
<td>12</td>
<td>Field Trip Southeastern Oklahoma)</td>
</tr>
<tr>
<td>13</td>
<td>Working with FT Data</td>
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<tr>
<td>14</td>
<td>Easter Break</td>
</tr>
<tr>
<td>15</td>
<td>Local Mapping Project (Lanana Creek Trail North)</td>
</tr>
<tr>
<td>16</td>
<td>Local Mapping Project (Lanana Creek Trail South)</td>
</tr>
</tbody>
</table>

*Project location, order or type may change due to weather conditions*

**Field Trip:**

This class has a mandatory field trip to Oklahoma. This is a great trip to see spectacularly folded and faulted rocks in the Arbuckle and Ouachita Mountains of Oklahoma. On this field trip you will use things you have learned in the lecture, lab, and field methods. This will also be a chance for you to take your field camp supplies for a trial run and get used to mapping techniques you will use this summer.

**Attendance Policy:**

Do not miss scheduled classes unless you have a doctor’s excuse or official university excuse. Announcements for class locations will be made through SFA email and D2L on the Wednesday prior to our class meeting. Should there be a day when it is raining making it impossible to go to the field, class will be held Miller Science, Room 326.
Grading:

<table>
<thead>
<tr>
<th>Project</th>
<th>Description</th>
<th>Points</th>
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</thead>
<tbody>
<tr>
<td>Project 1</td>
<td>Rock Garden Exercise</td>
<td>100</td>
</tr>
<tr>
<td>Project 2</td>
<td>Strike and dip of joints</td>
<td>100</td>
</tr>
<tr>
<td>Project 3</td>
<td>Strike and dip of cross-bedding</td>
<td>100</td>
</tr>
<tr>
<td>Project 4</td>
<td>Pace and Compass Map</td>
<td>100</td>
</tr>
<tr>
<td>Project 5</td>
<td>Profile – Cross section</td>
<td>100</td>
</tr>
<tr>
<td>Project 6</td>
<td>La Nana Creek Exercise</td>
<td>100</td>
</tr>
<tr>
<td>Project 7</td>
<td>Stratigraphic Section Project</td>
<td>100</td>
</tr>
<tr>
<td>Project 8</td>
<td>Southern Arbuckle Mts. Map</td>
<td>100</td>
</tr>
<tr>
<td>Project 9</td>
<td>Northern Arbuckle Mts. Map</td>
<td>100</td>
</tr>
<tr>
<td>Project 10</td>
<td>Local Mapping Project</td>
<td>100</td>
</tr>
</tbody>
</table>

____ 1000 Pts

Possible

____% (Your total points divided by the points possible.)

100-90% = A; 89-80% = B; 79-70% = C; 69-60% = D; 59-0% F

Academic Integrity (4.1)

The Code of Student Conduct and Academic Integrity outlines the prohibited conduct by any student enrolled in a course at SFA. It is the responsibility of all members of all faculty, staff, and students to adhere to and uphold this policy.

Articles IV, VI, and VII of the new Code of Student Conduct and Academic Integrity outline the violations and procedures concerning academic conduct, including cheating, plagiarism, collusion, and misrepresentation. Cheating includes, but is not limited to: (1) Copying from the test paper (or other assignment) of another student, (2) Possession and/or use during a test of materials that are not authorized by the person giving the test, (3) Using, obtaining, or attempting to obtain by any means the whole or any part of a non-administered test, test key, homework solution, or computer program, or using a test that has been administered in prior classes or semesters without permission of the Faculty member, (4) Substituting for another person, or permitting another person to substitute for one’s self, to take a test, (5) Falsifying research data, laboratory reports, and/or other records or academic work offered for credit, (6) Using any sort of unauthorized resources or technology in completion of educational activities.

Plagiarism is the appropriation of material that is attributable in whole or in part to another source or the use of one’s own previous work in another context without citing that it was used previously, without any indication of the original source, including words, ideas, illustrations, structure, computer code, and other expression or media, and presenting that material as one’s own academic work being offered for credit or in conjunction with a program course or degree requirements.

Collusion is the unauthorized collaboration with another person in preparing academic assignments offered for credit or collaboration with another person to commit a violation of any
provision of the rules on academic dishonesty, including disclosing and/or distributing the contents of an exam.

Misrepresentation is providing false grades or résumés; providing false or misleading information in an effort to receive a postponement or an extension on a test, quiz, or other assignment for the purpose of obtaining an academic or financial benefit for oneself or another individual or to injure another student academically or financially.

Withheld Grades Semester Grades Policy (5.5)

Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the coursework because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course to compute the grade point average. For additional information, go to https://www.sfasu.edu/policies/course-grades-5.5.pdf.

Students with Disabilities

To obtain disability-related accommodations, alternate formats, and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services promptly may delay your accommodations. For additional information, go to http://www.sfasu.edu/disabilityservices/.

Student Wellness and Well-Being

SFA values students’ overall well-being, mental health and the role it plays in academic and overall student success. Students may experience stressors that can impact both their academic experience and their personal well-being. These may include academic pressure and challenges associated with relationships, emotional well-being, alcohol and other drugs, identities, finances, etc.

If you are experiencing concerns, seeking help, SFA provides a variety of resources to support students’ mental health and wellness. Many of these resources are free, and all of them are confidential.

On-campus Resources:
The Dean of Students Office (Rusk Building, 3rd floor lobby)
www.sfasu.edu/deanofstudents
936.468.7249
dos@sfasu.edu
The Health and Wellness Hub “The Hub”
Location: corner of E. College and Raguet St.

To support the health and well-being of every Lumberjack, the Health and Wellness Hub offers comprehensive services that treat the whole person – mind, body and spirit. Services include:
- Health Services
- Counseling Services
- Student Outreach and Support
- Food Pantry
- Wellness Coaching
- Alcohol and Other Drug Education

Crisis Resources:
- Burke 24-hour crisis line: 1.800.392.8343
- National Suicide Crisis Prevention: 9-8-8
  - Suicide Prevention Lifeline: 1.800.273.TALK (8255)
- Crisis Text Line: Text HELLO to 741-741