ERSC 3320 Field Geology I Spring 2010

Class Day and Time: Wednesday 12:00 – 12:50 and Friday 12:00 – 4:00

Faculty Team:  
Dr. Jeff Connelly jbconnelly@ualr.edu 569-3543  
Dr. Beth McMillan memcmillan@ualr.edu 569-3024  
Dr. Jamey Jones jvjones@ualr.edu 683-7743  
Wm. Jay Sims wjsims@ualr.edu 371-7613

Classroom:  
SCLB 165 and other sites to be announced

Department Office:  
FH 307 Telephone is 569-3546

Office Hours:  
By posted times or appointment with individual faculty

Dept Website:  
http://ualr.edu/earthsciences/

Required Supplies:  
Procedures in Field Geology, Tom Freeman (1999)  
Geology Field Notebook  
Appropriate clothes/footwear for cold and wet weather  
USB memory stick, 512 mb minimum (USB pen/ flash/jump drive)

See the attached list for other required or recommended field and office supplies

Prerequisites and Catalog Description
Prerequisites: ERSC 1302, ERSC 1102, ERSC 1303, ERSC 1103. Introduction to geologic field methods. Topics include: outcrop description; map and aerial photo interpretation; navigation skills; stratigraphic section measurement; cross-section construction; GPS and GIS techniques; computer drafting techniques; and geologic mapping in the Ouachita Mountains. Two hours lecture, three hours laboratory per week. Three credit hours.

Assignments and Grading
Your course grade will be determined on the basis of weekly assignments, a literature review paper on the Ouachita Mountains, and a poster presentation highlighting the results of a geological mapping project at a locality west of Little Rock. Due dates for the assignments and projects are listed on the attached schedule. Please turn in all assignments on time. Ten percent of an assignment’s grade will be deducted for each day late. Note: attendance as a thinking adult in class is required - class participation and professionalism will be included in your final grade.

Grades will be entered in Blackboard so that you can track your progress and performance during the semester. Letter grades are assigned based on the following standard categories: 100–90=A, 89–80=B, 79–70=C, 69–60=D, <60=F. Final letter grades will be determined at the discretion of the instructors based on the distribution of numerical averages (i.e., curving is possible).

We are here to facilitate your understanding of the material through explanation, illustration, and demonstration. You are responsible for your own learning. Class attendance, participation, and professionalism are required. You must come to class prepared. This means to have thoughtfully read and taken notes on pre-reading and other assignments and to be up-to-date on your field work. Realize that for a meaningful and productive college experience, for every hour

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spent in class you need a minimum of two hours preparation and reflection outside of class for true learning to occur.

Students are responsible for ALL material covered that was missed due to illness, etc. All assignments and homework must be turned in at the beginning of class on the date due or earlier to the Faculty Lead for that assignment.

Attendance Policy
Attendance is expected for each class. If you are not able to make one of the classes, you must:

• Notify the faculty with a legitimate excuse (we determine what legitimate is) BEFORE class (e.g., e-mail, voicemail, call department secretary)
• Meet with the lead faculty member for the missed class within two class days of the missed class to get the assignment.
• Complete the assignment as per arrangement with the lead faculty's instructions.

If you follow these steps, you will receive a grade of 'excused' for the assignment. This means you will not be penalized for missing the assignment and that a final grade will be normalized to reflect the excused absence. If you do not follow these steps, the result is no credit (0 points) for the missed class/assignment.

*NOTE*: During class, all audible phones and pagers must be turned off (unless you are the sole caregiver and emergency contact for a child in K-12th grade - then set to vibrate or very low volume; however, abuse of this privilege will result in loss of this privilege). Students not complying may be dismissed from the class after faculty consultation.

Students with Disabilities
It is the policy of the University of Arkansas at Little Rock to create inclusive learning environments. If there are aspects of the instruction or design of this course that result in barriers to your inclusion or to accurate assessment of achievement—such as time-limited exams, inaccessible web content, or the use of non-captioned videos—please notify the instructor as soon as possible. Students are also welcome to contact the Disability Resource Center, telephone 501-569-3143 (v/tty). For more information, visit the DRC website at http://ualr.edu/disability/.

Academic Integrity
For UALR policies regarding student academic integrity, refer to the Dean of Students website (http://ualr.edu/deanofstudents/index.php/home/academic-integrity/). Academic dishonesty cannot be condoned or tolerated in the university community. Such behavior is considered a student conduct violation and students found responsible of committing an academic offense on the campus, or in connection with an institution-related or sponsored activity, or while representing the university or academic department, will be disciplined by the university. Cheating or other dishonest behavior will not be tolerated, and penalties will be imposed at the discretion of the instructor. In general, if you are caught cheating, you will receive a score of zero on that exercise and will not have a chance to make it up.

You will often, if not always, have the opportunity to work in groups during laboratory exercises. Unless a group report is specifically requested, you must turn in your own work in your own words.
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<thead>
<tr>
<th>Week</th>
<th>Date</th>
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<th>Exercise</th>
<th>Instructor</th>
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<td>13-Jan</td>
<td>Wed</td>
<td>Course intro and overview</td>
<td>ERSC faculty</td>
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<td></td>
<td>15-Jan</td>
<td>Fri</td>
<td>Ex. 1 - Library resources</td>
<td>Sims</td>
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<td>20-Jan</td>
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<td>Geologic equipment</td>
<td>Ex. 1 due</td>
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<td>22-Jan</td>
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<td>Ex. 2 - Pace and compass map</td>
<td>Jones McMillan</td>
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<td>3</td>
<td>27-Jan</td>
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<td>Global Positioning System (GPS) basics</td>
<td>No class - ice storm</td>
<td>Ex. 2 due</td>
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<td>3-Feb</td>
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<td>Field safety and preparation</td>
<td>Ex. 3 due</td>
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<td>5-Feb</td>
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<td>Ex. 3 - GPS mapping on campus</td>
<td>Jones McMillan</td>
<td>Paper annotated references due</td>
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<td>10-Feb</td>
<td>Wed</td>
<td>Sedimentary rock description and measurement</td>
<td>Ex. 4 due</td>
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<td>12-Feb</td>
<td>Fri</td>
<td>Ex. 4 - Outcrop description/sketch @ I-430 outcrop</td>
<td>McMillan</td>
<td>Paper outline due</td>
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<td>6</td>
<td>17-Feb</td>
<td>Wed</td>
<td>Topographic map and aerial photograph overview</td>
<td>Ex. 5 due</td>
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<td>19-Feb</td>
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<td>Ex. 5 - Stratigraphic section measurement</td>
<td>McMillan</td>
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<td>7</td>
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<td>Air photo interpretation</td>
<td>Ex. 6 due</td>
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<td>26-Feb</td>
<td>Fri</td>
<td>Ex. 6 - Air photo mapping</td>
<td>Jones McMillan</td>
<td>Paper abstract due</td>
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<td>3-Mar</td>
<td>Wed</td>
<td>Introduction to Buzzard Mountain Project</td>
<td>Ex. 6 due</td>
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<td>5-Mar</td>
<td>Fri</td>
<td>Ex. 78 - Stratigraphic section measurement at Buzzard Mountain, Ferndale</td>
<td>Connelly Jones</td>
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<td>10-Mar</td>
<td>Wed</td>
<td>Geological mapping methods</td>
<td>Ex. 7 due</td>
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<td>12-Mar</td>
<td>Fri</td>
<td>Geological mapping at Buzzard Mountain, Ferndale</td>
<td>Connelly Jones</td>
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<td>10</td>
<td>17-Mar</td>
<td>Wed</td>
<td>Discussion of Ouachita Mts. Papers</td>
<td>Map check</td>
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<td>19-Mar</td>
<td>Fri</td>
<td>Geological mapping at Buzzard Mountain, Ferndale</td>
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<td>11</td>
<td>24-Mar</td>
<td>Wed</td>
<td>Spring Break - independent mapping</td>
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<td>26-Mar</td>
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<td>12</td>
<td>31-Mar</td>
<td>Wed</td>
<td>Feedback on Ouachita Mts. Papers</td>
<td>Connelly Jones</td>
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<td>2-Apr</td>
<td>Fri</td>
<td>Geological mapping at Buzzard Mountain, Ferndale</td>
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<td>13</td>
<td>7-Apr</td>
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<td>Introduction to computer methods</td>
<td>Connelly Jones</td>
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<td></td>
<td>9-Apr</td>
<td>Fri</td>
<td>Geological mapping at Buzzard Mountain, Ferndale</td>
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<td>14</td>
<td>11-13 Apr</td>
<td>Wed</td>
<td>GSA SC Branson, MO</td>
<td>Geological map due</td>
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<td></td>
<td>14-Apr</td>
<td>Fri</td>
<td>Poster layout</td>
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<td>16-Apr</td>
<td>Fri</td>
<td>Map completion, poster preparation</td>
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<td>15</td>
<td>21-Apr</td>
<td>Wed</td>
<td>Geological cross-section overview</td>
<td>Cross-sections due</td>
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<td>23-Apr</td>
<td>Fri</td>
<td>Cross-section construction</td>
<td>Jones</td>
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<td>16</td>
<td>28-Apr</td>
<td>Wed</td>
<td>Poster consultation</td>
<td>Poster completion</td>
<td>Cross-sections due</td>
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<td>30-Apr</td>
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<td>4-May</td>
<td>Tues</td>
<td>Consultation day - Poster presentations</td>
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List of required and recommended gear for UALR Field Geology I

Geology equipment to be carried in the field:
Good quality, comfortable daypack
Rock hammer (these will be provided unless you bring your own)
Brunton compass (these will be provided unless you bring your own)
Hand lens (10x, Bausch & Lomb Hastings Triplet is recommended)
Hardback field notebook (these will be available for purchase - $10)
Map board (plexiglas map boards will be made available for purchase - $10)
Mechanical pencils – at least 2, 0.5 mm, 2H or harder lead
Colored pencils (8 colors minimum)
Waterproof pens
Waterproof markers
Erasers – tube eraser or extra erasers for mechanical pencils
Protractor and short ruler (look for combined protractor-rulers)
Pocket knife or multi-tool
Acid bottle w/ 10% HCl (these will be provided)
Field belt or vest
Field pouch or vest

Recommended personal equipment to be carried in the field:
Water bottles or hydration system (carry at least 1 quart)
Sturdy, broken-in field boots & socks (wicking socks and liners are recommended)
Rain gear (jacket and pants recommended) and extra light-weight layers
Gloves and winter hat
Lightweight hat/bandana
Lightweight, breathable field clothing (quick-drying material recommended)
Sun-screen, SPF lip balm, sunglasses
Extra pencils and lead
Insect repellant

Recommended equipment for office work:
Longer (12”) ruler or straight-edge
White-out
Scotch tape
Scissors
Tracing paper and stereonet from structural geology
Graph paper (10 squares to the inch, commonly called Cross Section paper)
Extra colored pencils
Pencil sharpener
Black drafting pens (at least three line widths, for example, the Pigma MICRON in sizes 005, 02, and 05)
Red drafting pens (as above) for structural features (fold axial traces, etc.)
Calculator

Optional field gear:
Camera
Binoculars
GPS receiver (Garmin recommended)
Cell phone and car charger
Plastic container for lunch/snacks
Small first aid kit (band-aids, tape, pain relievers, etc.)

Note: Many, if not all, of these supplies will be used in ERSC 4320: Field Geology II