

Geol G420 - Regional Geology Field Trip

Spring 2009. Geologic History and Paleontology of the Colorado Plateau and Great Basin (and other things on the way)

Instructor: Ben Dattilo, Office in Science Building 234, Telephone: 260-481-6250;

dattilob@ipfw.edu

Secondary instructor: Raymon Gildner, Office Science Building 230A, Telephone: 260-481-0249

gildnerr@ipfw.edu

Meeting times: 24 hours a day! Leave Fort Wayne May 15, 2009 6:00 AM. Return May 29, 5:00 PM

Online resources: we will use Blackboard Vista: Access through <http://my.ipfw.edu>, through <http://elearning.ipfw.edu>,

Official Description (from the catalogue):

Field investigation of selected regions of North America for study of mineralogic, lithologic, stratigraphic, structural, paleontologic, geomorphological, or other geological relationships. Six to fifteen days in the field.

Preparation for Course

C: G100 and written consent of instructor.

Cr. 1-2.

Notes

May be repeated. If you are majoring in this discipline, you may want to consider the Science and Engineering Research Semester. See information under Arts and Sciences (Part 3).

Dual Level Course

Eligible for graduate credit.

Goals of this course

This field course is free-form and varies in content. This year we introduce geologic fieldwork in the Colorado Plateau and Great Basin, with additional stops in the Midwest. This course offers some opportunities that might be unique in your undergraduate experience.

- The instructors listed above will facilitate the course, but most of the content will be offered by guest “field guides” who are REAL geologists conducting REAL research in their respective areas.
- Rocks will be visible everywhere, not hidden by vegetation!
- You will have a taste of a physically-demanding form of field geology which involves hiking long distances to rocks that are exposed, in some cases, miles from the road.
- You will participate in some real research projects, gathering
- There are two themes to this fieldtrip: Paleontology (because that is what your instructors know best), and impact structures (because they are REALLY cool).

Itinerary

May 15 (Friday)

- (Depart)

May 16 (Saturday)

- **Kevin Evans** <http://courses.missouristate.edu/KevinEvans/impacts.htm> will discuss the decaturville and Weabeau impact structures of south central Missouri

May 17 (Sunday)

- (Travel)

May 18 (Monday)

- Petrified Forest National Park
- Meteor Crater.
- Sunset Crater
- Grand Canyon National Park

May 19 (Tuesday)

- Hoover Dam/Las Vegas (for “Laundry”)

May 20 (Wednesday)

- Arrow Canyon Range—help collect samples of a rare Upper Cambrian sponge Reef

May 21 (Thursday)

- Leif Tapanila <http://www.isu.edu/~tapaleif/> Will guide us in a walk through the Devonian Alamo Breccia
- Drive through a Caldera

May 22 (Friday), 23 (Saturday), 24 (Sunday)

- **James F. Miller** <http://geosciences.missouristate.edu/miller.htm> or **Ben Dattilo** will be leading several stops
- Geologic History of Utah
- Stops in the Cambrian of Ibex
- REAL research project, biostratigraphy of the Lower/Middle Ordovician Crystal Peak Dolomite where you will measure sections and collect samples
- REAL research project on “Miller’s” Reef, a fascinating lower Ordovician Stromatolitic-sponge reef . You will collect lots of bulky samples (fun!).
- A look at Jurassic Stock/contact metamorphism
- Cambrian Stratigraphy and trilobite collecting in Marjum Canyon.

May 24 (Sunday)

- Antelope Island, Great Salt Lake, Utah.

May 25 (Monday)

- Drive along Wasatch Front
- “Prehistoric Museum” at College of Eastern Utah.

May 26 (Tuesday)

- Rod Scheetz BYU. Will give us a tour of Dinosaurs and Mesozoic stratigraphy in the Moab, Utah area
- Liz Glowiak will discuss her employment at the Uranium Mill tailings pile near Moab, UT.

May 27 (Wednesday)

- Herb Meyer presents Paleontology and stratigraphy of Florissant Fossil Beds

May 28 (Thursday) -May 29 (Friday)

- Return to Fort Wayne