

Meeting times: Monday, 3:00 - 4:50 114 Bretske Hall  
Instructor: J. W. Mies, Ph.D. 105 Bretske Hall  
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Text: Selected papers on the geology of Costa Rica

Prerequisites: GEOL 111, 181, and approval of instructor

Hours: 3 credit hours (course is listed as variable credit, 1 to 6 hours)

Description: GEOL 496 gives students the opportunity to study the geology of a region based on a department-sponsored geologic expedition.

#### TENTATIVE LECTURE SCHEDULE

Date	Topic
Jan 8	Introduction to Geology 496, FAQs about the Costa Rica trip
15	<b>Holiday, no class</b>
22	Review/overview of plate tectonics
29	Convergent tectonics, anatomy of a convergent boundary
Feb 5	Tectonic setting of Costa Rica, Middle America trench, Cocos plate
12	Convergent-boundary volcanism and the Costa Rican volcanic arc
19	Forearc and backarc basins—characteristics and analysis, review
26	<b>EXAM 1</b>
Mar 5	Discussion of selected papers and specific field trip stops
12	<b>Spring Break, no class</b>
19	Discussion of selected papers and specific field trip stops
26	Discussion of selected papers and specific field trip stops
Apr 2	Discussion of selected papers and specific field trip stops
9	Discussion of selected papers and specific field trip stops
16	Summary, review
23	<b>EXAM 2</b>

Field trip logistics will be discussed as necessary throughout the semester.

## GRADES AND RELATED MATTERS

Because the grade for this class depends in part on the field trip to Costa Rica, which will not occur until after the end of the Spring semester, all students will initially receive an *incomplete*. The incomplete will be replaced with the deserved grade after all course materials have been turned in and graded, on or about August 1.

The *final numerical grade* for the class will be computed as follows.

20 % Exam 1 (Feb 26)	_____	x 0.20 = _____.
20 % Exam 2 (April 23)	_____	x 0.20 = _____.
15 % Avg. of 4 to 6 assignments	_____	x 0.15 = _____.
15 % Field note book (due May 7)	_____	x 0.15 = _____.
20 % Final report (due by June 15)	_____	x 0.20 = _____.
10 % <b>Attendance</b> and participation	_____	x 0.10 = _____.
TOTAL ( <i>Final numerical grade</i> ) =		_____.

The *final letter-grade* for this class will conform to the following scale, based upon the computed *final numerical grade*.

F 59.9, D=60-69.9, C=70-79.9, B=80-89.9, A=90-100

## EXAMS

Exam 1 will test a basic understanding of convergent tectonics, the geology of Costa Rica, its geologically significant geographic features, and important logistical aspects of the field trip. Preparation for Exam 1 should also provide a preparation for student-led discussions scheduled for the second half of the semester.

Exam 2 will emphasize class discussions subsequent to Exam 1, but will also include questions related to material covered prior to Exam 1.

## STUDENT-LED DISCUSSIONS

Student-led discussions of selected papers and specific field-trip stops are scheduled for after the first exam. Students should be knowledgeable about the subject and prepared to engage the class in discussion, but should not compose or memorize a presentation, per se. Students are encouraged to make use of visual aids (e.g. overhead transparencies, PowerPoint presentations, etc.). Discussions are tentatively scheduled to begin on March 5. Topics should be decided upon by mid February.

## ASSIGNMENTS

Four to six assignments related to the geology and geography of Costa Rica are anticipated.

## FIELD NOTE BOOK

During the field trip, students are expected to keep field note books, in which they should describe each field stop and their thoughts as to the significance of each stop. (This should be done while at the stop.)

Field stop descriptions should include the date, time of day, a stop number, the location of the stop, a description of rocks and structures present, and reference to any photographs taken. Sketches or schematic diagrams are useful to show relationships among outcrops and features within them.

Field note books will be collected at the conclusion of the trip, May 7, and will be available to students within a week.

## FINAL REPORT

Each student is expected to submit an independently prepared final report, based largely upon his/her notes and embellished with his/her photos. The report should summarize the geology of Costa Rica with appropriate citation of sources of information (articles discussed in class, etc.); it should document the field trip and describe the geologic significance of important field stops; and it should serve as a lasting memento of the class and the field-trip experience.

The final report is due by June 15. Students are advised to start work on their reports immediately following the field trip, while the experience is still fresh in their minds.

## OTHER POLICIES

Students are expected to attend class regularly and to actively participate in discussions. Attendance and participation will be considered in the final grade.

Students are expected to be punctual, attentive, and respectful of others, both in class and while in the field.

Assignments are expected to be turned in on time. Late assignments will be accepted in only the most adverse circumstances (e.g. serious illness or accident). Documentation of the circumstance (e.g. doctor's note) may be required.

All students are expected to follow the UTC honor code.

**ATTENTION:** If you are a student with a disability and think that you might need special assistance or special accommodation(s) in this class or any other class, call the Office for Students with Disabilities/College Access Program at 425-4006 or come by the office, 110 Frist Hall.

This syllabus is subject to minor changes.

## WEB RESOURCES

Some aspects of this course are available through UTC's online course delivery system (Blackboard), which can be accessed at:

<http://utconline.utc.edu>

Your user name for logging on to the system is your UTCID (mix of letters and numbers). Your password for Blackboard is the same as your password for your UTC e-mail (Onenet) and for your access to the Lupton Library databases. If you change your password in Blackboard, you also change your password on both of these other systems. If you forget your password, follow the "Forgot Password" links from either the Onenet (<http://onenet.utc.edu/>) or Blackboard (<http://bb2.utc.edu/webapps/login>) login pages.

Documentation on student use of Blackboard is available at:

<http://utconline.utc.edu/BB6Students.html>

Some other web sites

Photos of past trips, www links	<a href="http://www.utc.edu/Faculty/Jonathan-Mies/">http://www.utc.edu/Faculty/Jonathan-Mies/</a>
Maps of Costa Rica	<a href="http://www.centralamerica.com/cr/maps/mapcosta.htm">http://www.centralamerica.com/cr/maps/mapcosta.htm</a>
CIA factbook (all sorts of info)	<a href="https://www.cia.gov/cia/publications/factbook/index.html">https://www.cia.gov/cia/publications/factbook/index.html</a>
Consular Information Sheet	<a href="http://travel.state.gov/travel/cis_pa_tw/cis/cis_1093.html">http://travel.state.gov/travel/cis_pa_tw/cis/cis_1093.html</a>
Tips for travelers to Cent. Am.	<a href="http://travel.state.gov/travel/tips/regional/regional_1172.html">http://travel.state.gov/travel/tips/regional/regional_1172.html</a>
Embassy of Costa Rica	<a href="http://www.costarica-embassy.org/">http://www.costarica-embassy.org/</a>
U.S. Embassy, San Jose	<a href="http://usembassy.or.cr/">http://usembassy.or.cr/</a>
La Nacion Ditigal (newspaper)	<a href="http://www.nacion.co.cr/">http://www.nacion.co.cr/</a>
COCORI (Complete Costa Rica)	<a href="http://www.cocori.com/">http://www.cocori.com/</a>
Fantastic photos of Arenal	<a href="http://www.cocori.com/photo/imaren">http://www.cocori.com/photo/imaren</a>
Cloudforest information	<a href="http://www.cloudforestalive.org/">http://www.cloudforestalive.org/</a>
AM Costa Rica (newspaper)	<a href="http://www.amcostarica.com/">http://www.amcostarica.com/</a>
costaricamap.com	<a href="http://www.costaricamap.com/index.html">http://www.costaricamap.com/index.html</a>
currency exchange/conversion	<a href="http://www.xe.com/ucc/">http://www.xe.com/ucc/</a> (\$1 USD = 520 Costa Rican Colones)

## TRIP TO COSTA RICA

Tentative dates: April 28 to May 7, 2005 (10 days, 9 nights).

Faculty leaders: J. W. Mies and A. E. Holmes

Estimated Expense:

Airfare	\$350 to \$500	Round trip, Chattanooga (CHA), Atlanta (ATL), or Nashville (BNA) to San Jose, CR (SJC)
Lodging	\$170 to \$190	9 nights, shared rooms in hotels, cabinas, villas
Meals	\$150 to \$200	10 days @ \$15 to \$20/day; more if you eat real well
Park fees	\$ 60	6 parks @ approx. \$10/each
Exit tax	\$ 26	Required to leave Costa Rica (Be sure to set aside \$26 for the exit tax.)
TOTAL	\$ 756 to \$976	plus passport fees, souvenirs, etc.

Note that some funds may be available to students from the office of International Education.

**TRIP TO COSTA RICA (CONT'D)**

Requirements for travel to Costa Rica (from [http://travel.state.gov/travel/cis\\_pa\\_tw/cis/cis\\_1093.html](http://travel.state.gov/travel/cis_pa_tw/cis/cis_1093.html)):

**ENTRY AND EXIT REQUIREMENTS:** For entry into the country, Costa Rican authorities require that U.S. citizens present valid passports that will not expire for at least thirty days after arrival, and a roundtrip/outbound ticket. A \$26 exit tax is required to leave Costa Rica.

U.S. passport information: (from [http://travel.state.gov/passport/passport\\_1738.html](http://travel.state.gov/passport/passport_1738.html)):

Note that a passport application may take more than 6 weeks to be processed; plan accordingly. For an additional \$60 (expedited service), you can have your passport in about 2 weeks.

A new passport costs \$97 (\$67 passport fee plus \$30 execution fee).

With expedited service, expect to pay \$157, plus shipping, for a new passport.

Renewal of an expired passport costs \$67 (no execution fee).

With expedited service, expect to pay \$127, plus shipping, for a renewal.

A passport application can be downloaded from

[http://travel.state.gov/passport/forms/forms\\_841.html](http://travel.state.gov/passport/forms/forms_841.html) .

The completed application can be filed at either the downtown Post Office (900 Georgia Ave.) or the Chattanooga Main Post Office(6050 Shallowford Rd.).

**EMAIL (firstname-lastname@utc.edu)**

To enhance student services, the University will use your UTC email address (firstname-lastname@utc.edu) for communications. (See <http://onenet.utc.edu> for your exact address.) Please check your UTC email on a regular basis. If you have problems with accessing your email account, contact the Help Desk at 423-425-2676.

At times during this class, it will be very important that we are able to communicate efficiently. Please check your email and Blackboard announcements frequently.