GENERAL INFORMATION

GEOLOGY 303, SPRING SEMESTER, 2006

Geology Building 2.324, the Boyd Auditorium

Lecture section 1:  MW 2→3 p.m. (unique numbers 25185 through 25240)
Lecture section 2:  TTh 11→12 noon (unique numbers 25245 through 25300)
Each unique number corresponds to a unique combination of lecture and lab meeting times.

Professors:  Leon E. Long, Geology Building 4.156
Office hours:  MW 9→10, TTh 10→11, or by appointment
Office phone:  471-7562
Home phone:  459-7838
e-mail:  leonlong@mail.utexas.edu

Jenny Cooke, Geology Building 3.216DA
Office hours:  MW 3→4, TTh 2→3, or by appointment
Office phone (cell):  789-8618
Home phone:  292-7214
e-mail:  mcooke@mail.utexas.edu

Drs. Long and Cooke take turns lecturing to both lecture sections.


Website:  We invite you to visit the GEO 303 website:  http://www.geo.utexas.edu/courses/303/

Lab:  You are already registered to attend one 2-hour laboratory session per week in Geology Building 2.306. Participation in laboratory is required in order to pass the course. There will be no labs during the first several days of class.  Labs begin on Monday, January 23.

Weights assigned to grades:

<table>
<thead>
<tr>
<th>Grade Type</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>1st quiz</td>
<td>18%</td>
</tr>
<tr>
<td>2nd quiz</td>
<td>17%</td>
</tr>
<tr>
<td>Laboratory grade</td>
<td>35%</td>
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<tr>
<td>Lecture final exam</td>
<td>30%</td>
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Assignment of final grade:  The grades will be curved, but the boundaries between letter grades are determined by the instructors' judgment and are different every semester. Typically the A/B boundary is in the mid-80s, the B/C boundary is in the mid-70s, the C/D boundary is in the mid-60s, and below the mid-50s is an F. All of these approximations may be give-or-take several percentage points.

Absences:  Drs. Long and Cooke take an understandably dim view of unexcused absences from quizzes. Unexcused absences generally will result in a grade of zero. Please contact one of the instructors as soon as possible if you have missed a quiz for a legitimate reason.

Students with disabilities:  Upon request, UT provides appropriate academic accommodations for qualified students with disabilities. For more information, contact the Office of the Dean of Students at 471-6259 or 471-4641, or see the web site:  http://deanofstudents.utexas.edu/
Objectives of Geology 303

GEO 303 is a one-semester survey of the entire field of geological science. We recognize that you probably have had no formal instruction in geology. Polls show that nearly all of you have taken high school biology, 75% or more have had chemistry, and nearly as many of you have taken physics. We will draw upon certain elementary concepts in these other sciences, and they will be reviewed when they are discussed in GEO 303. Mathematics in this course consists of simple arithmetic.

Geology draws heavily from these other disciplines. The earth is complex and not many aspects of it can be studied in isolation in a laboratory. This very complexity means also that geology includes a greater variety of subject material than many other sciences have. We may classify the subject of geology into three main areas: the **configuration** of the earth (the shapes, sizes, and compositions of its parts), the **processes** that constantly change the configuration, and the **origin** and **history** of the earth. GEO 303 treats all of these categories, emphasizing one or another of them differently along the way. The lectures present the more theoretical subjects, and in lab you will have opportunity to look at minerals, rocks, fossils, and maps, go into the field locally in Austin, and hold discussions as part of a small group.

In addition, you are invited to participate in two optional activities. They are a one-day field trip west of Austin to visit the Llano Uplift, scheduled for February 11, and a brown-bag lunch discussion (time to be announced) about how geology fits into your larger philosophical or theological worldview.

**SCHEDULE OF LECTURE TOPICS**

**Part I. Introduction to the earth** (Chapters 1, 2, 3, 5, 7, 9, and 11)
- Origin of the solar system; the earth’s constituent parts
- Chemistry of the earth; crystals and minerals
- Igneous, sedimentary, and metamorphic rocks
- Measurement of geologic time, earliest earth history

**Part II. History and development of life** (Chapters 12, 13, and 15)
- Origin of life
- Stratigraphy, fossils
- Processes of organic evolution
- Geologic history of vertebrate animals

**Part III. Geophysics, plate tectonics** (Chapters 16, 21, and 22)
- Earthquakes, seismic waves
- Earth’s deep interior
- Continental and oceanic crust, and the mantle
- Gravity, isostasy, origin of mountains
- Earth magnetism
- Physiographic features of the ocean basins
- Continental drift, plate tectonics

**Part IV. Processes at the earth’s surface** (Chapters 23 and 24)
- Sedimentary depositional systems
- Glaciers, Ice Ages, and climate

**Part V. Humanity and natural resources** (Chapter 25)
- Geology of petroleum
- Humanity’s future as viewed by a geologist

Chapters 4, 6, 8, 10, 14, 17, 18, 19, 20 (perhaps), 26, and 27 are covered in lab.
# LECTURES, READING ASSIGNMENTS, AND EXAMS

<table>
<thead>
<tr>
<th>Material on</th>
<th>Dates of lectures</th>
<th>Reading assignment</th>
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</thead>
<tbody>
<tr>
<td>Quiz 1</td>
<td>January 17 (or 18) through February 14 (or 15): 9 lectures</td>
<td>Chapters 1, 2, 3, 5, 7, 9, 11, and 12 through page 214, inclusive</td>
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<tr>
<td>Quiz 2</td>
<td>February 16 (or 20) through March 28 (or 29): 9 lectures</td>
<td>Chapters 12 (following page 214), 13, 15, 16, and 21 through page 431, inclusive</td>
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Wednesday, February 1. Last day to drop GEO 303 for a possible refund.

Saturday, February 11. All-day field trip (approximately 10 hours) to the Llano Uplift west of Austin. Transportation by air-conditioned bus equipped with restroom is free; participation is voluntary and all are invited. Also invited at a modest expense are guests who are not students in GEO 303 as long as bus space is available; priority goes to students registered for GEO 303.

Monday, February 20, 7:30 p.m., Geol. B. 2.324. **Review session** for Quiz 1; participation is voluntary.

Tuesday, February 21 (or Wednesday, February 22). **Quiz 1** covering first 9 lectures, and textbook chapters mentioned above.

Monday, March 13 through Friday, March 17, **Spring Break Holiday** (no lectures or labs).

Monday, March 27. Last day to drop GEO 303 with a $Q$ (= Quit with no academic penalty) except for urgent and substantiated, nonacademic reason approved by your dean. Last day to change registration in GEO 303 from a letter grade to pass/fail, or the opposite.

Monday, April 3, 7:30 p.m., Geol. B. 2.324. **Review session** for Quiz 2; participation is voluntary.

Tuesday, April 4 (or Wednesday, April 5). **Quiz 2** covering lecture material since Quiz 1 (i.e., second group of 9 lectures) and corresponding portion of the textbook.

Thursday, May 4, no lecture. This is necessary to make the MW and TTh lecture sections have the same number of lectures. Spring semester classes begin on a Tuesday, and so the same lecture is given on Tuesday/Wednesday and on Thursday/Monday.

Monday, May 8, 10 a.m., Geol. B. 2.324. "Extended office hours" for questions and summaries of class topics; participation is voluntary.

## LECTURE FINAL EXAMINATION

A **special time and date** will be arranged for the lecture final exam with both lecture sections together. This unified examination will **not** occur during a period designated in the Course Schedule for classes that meet TTh at 11 a.m. or MW at 2 p.m. We anticipate Thursday, May 11, 7-10 p.m. in a room to be assigned, subject to confirmation by the Office of Official Publications. If you must take some other final exam on this day and hour, we will provide an alternative time and place to take the GEO 303 final exam.
GEOLOGY 303 LABORATORY

Grade in laboratory

Laboratory sessions are conducted by Teaching Assistants (TAs), who are graduate students pursuing masters or Ph.D. degrees in geological science. Performance in the laboratory accounts for 35 percent of your total grade in GEO 303. Grades from the lecture examinations and laboratory will be weighted together and calculated as one combined grade for the course. Thus you will either pass or fail the entire course, not the lecture or laboratory separately.

The 35 possible points in the laboratory will be distributed as follows:

• 33% on a laboratory mid-semester examination to be given during the week of Monday, March 6 through Friday, March 10.

• 32% on a laboratory final examination to be given during the week of Monday, May 1 through Friday, May 5.

• 35% on attendance, participation in discussions, and performance on exercises and short quizzes.

Homework assignments and short quizzes

Your TA has the option to conduct unannounced quizzes. There will also be homework assignments and discussion topics to prepare. Performance on such quizzes and exercises and participation in class constitutes 35% of your laboratory grade, or 12% of the course grade.

Make-up labs, late papers

If for any reason you must miss a laboratory session, there will be no make-up laboratory as such. Your laboratory TA teaches more than one section, and if she or he is willing, you may make arrangements with your TA (or another TA) to attend a later section in which the same material is being taught.

Homework assignments will not be accepted late. Their solution will be discussed when they are turned in, and therefore persons who submit late papers would have an unfair advantage.

Office hours, problems

Each TA will maintain office hours this semester, and will notify you of office hours and room location. If you should have problems in laboratory that cannot be handled by your Teaching Assistant, you should contact:

Prof. Leon Long
Office phone: 471-7562
e-mail: leonlong@mail.utexas.edu
GEO 303 on the web: Blackboard, web site, and eGradebook

Note: the discussion below is full of computer jargon. See the Glossary for several explanations or definitions.

**Course Web Site** to access: [http://www.geo.utexas.edu/courses/303/](http://www.geo.utexas.edu/courses/303/)
We have a “public” GEO 303 web site accessible to the entire world. This site holds general information and material related to the lab. This web site is also linked within Blackboard.

**UT Direct** to access: [https://utdirect.utexas.edu/](https://utdirect.utexas.edu/)
To access Blackboard and eGradebook, you must first access UT Direct via your UT-EID.

- Web browser: (freely available from Bevoware or from producers’ web sites)
  - Internet Explorer 5.2 or higher for Macintosh
  - Internet Explorer 6.0 or higher for Windows
  - Netscape Navigator 4.7 or higher
- UT-EID (Electronic IDentification—what you use to access UT Direct)

**Blackboard** to access: [https://courses.utexas.edu/webapps/login](https://courses.utexas.edu/webapps/login)
We have also posted material to Blackboard, a UT supported computer-based course management system that is accessible only to those enrolled in GEO 303.

**How to access Blackboard:**
- Use a web browser to access: [https://courses.utexas.edu/webapps/login](https://courses.utexas.edu/webapps/login)
- You will be asked to provide your UT-EID and password.
- There will be a link for each course in which you are enrolled, including “06S INTRODUCTION TO GEOLOGY (your unique number).” For more information on how to access and use Blackboard, see this web site: [http://www.utexas.edu/cc/blackboard/tutorials/student/index.html](http://www.utexas.edu/cc/blackboard/tutorials/student/index.html)
- You will need the ability to open, close, and save files and attachments, in particular a PDF reader (Adobe Acrobat Reader, which is free software)
- Also recommended is an e-mail account.

**Uses of Blackboard in GEO 303:**
Below are definitions and uses of the major subunits in the Blackboard facility.

- **Announcements** regarding logistics of GEO 303 (example, schedule of review sessions)
- **Syllabus** an electronic copy of this document
- **Faculty Information** how to contact the professors
- **Course Documents** where we post figures from class, copies of class handouts, etc. This is the most important domain in Blackboard. Among other things, we will post condensed lecture notes here immediately before each quiz and before the lecture final exam.
- **Discussion Board** where to raise questions related to GEO 303 (see rules for discussion below)
- **eGradebook** link to eGradebook.

**How to post to a discussion board:**
- Click the discussion board button.
- You may read or add to an existing discussion by clicking on an existing “forum,” and add a new “thread” to the discussion. You may post a message to the existing thread (this is difficult to explain in detail, but rather self explanatory if you try it).

**Electronic Posting of Grades**

Exam, quiz, and laboratory grades will be posted on eGradebook. eGradebook is part of the “Class Information Pages” or CLIPS, accessible from UT Direct. You can also access eGradebook from Blackboard and the GEO 303 course website. eGradebook is password protected with your UT-EID.
and password, and your grades will be available only to you and your instructors. The eGradebook
web address is: https://utdirect.utexas.edu/diia/egb

Rules for Use of GEO 303 Blackboard Discussion Boards

Blackboard discussion boards are available to all GEO 303 students, TAs, and professors. Everyone can
read anything that you post to a discussion board, and your identity, although encrypted in your user-
name, ultimately cannot be concealed. In a sense you are a "public figure" to be held accountable for
your words and actions. Thus normal courtesy and civility are expected of everyone. Your peers will
also think better of you if you think carefully about constructing good phraseology, spelling, and gram-
mar before you send forth a message. Before posting a message, it would be a good idea to run it
through a spelling checker.

The following uses of the GEO 303 Blackboard discussions are FORBIDDEN:
• Dirty, obscene, or inappropriate jokes
• Anything that insults a person's race, gender, religious faith, or sexual orientation
• Reference to athletic teams or events
• Negotiation to buy or sell something
• Reference to social events (unless you would like to throw a party just for GEO 303 students)
• Appeals on behalf of any private or public do-good organization (religious, charity, fight against dis-
 ease, etc.), no matter how worthy

The guiding principle here is that GEO 303 Blackboard discussion boards are meant only for the busi-
ness at hand. The Computation Center endorses (and will enforce) the "no-no" list above. If you wish
to indulge in something on that list, send a personal e-mail message.

With adherence to these minimal requests, we hope that the GEO 303 Blackboard discussion boards will
become an excellent forum by which you may seek help from your peers, TAs, and professors, or men-
tor others. You are welcome to ask questions, make comments, form study groups, whatever.

Address your message to the discussion board only if you intend for a large audience to read it. If your
message is intended just for an individual, use e-mail instead.

Geology has important religious implications (origins, creation, organic evolution, etc.) and political
implications (utilization of natural resources, minimizing pollution, etc.), and sometimes the GEO 303
discussion boards carry some highly opinionated exchanges. We welcome this! However, just as the
United States Senate has learned through experience that it must have rules to limit debate, so must we.
If someone violates the rules above, the message may be deleted and her/his privilege to post future
messages on the board may be revoked at the discretion of Drs. Long and Cooke.

Access to Computers at UT

You do not have to own a computer to access the computer-based GEO 303 resources. All libraries and
the SMF (Student Microcomputer Facility) have public computers for student use for free, but many re-
quire you to set up an IF (Individually Funded) account. Use of the computers via the IF account is free,
but other services such as printing will be charged to your IF account.

To set up an IF account Subscribe online (using UT-EID) at this site:
https://utdirect.utexas.edu/its/account/user_agreement.WBX

Consult this site for more information: http://www.utexas.edu/its/account/index.html

Procedure to Obtain E-mail (if you do not already have an e-mail account)

Information may be found at this web site: http://www.utexas.edu/computer/email/
Your ITAC fees support **free** access e-mail for all students through the UMBS (University Mailbox Service). Consult: http://www.utexas.edu/its/umbs

To activate your mailbox, go directly to this web site: http://mail.utexas.edu/login

You may access your UT UMBS e-mail account (ending with “@mail.utexas.edu”) with several programs including Eudora, Outlook, or Pine, or with a browser by using Webmail. With Webmail, you can access your e-mail from any computer using a standard Web browser (Explorer, etc.) and thus any computer connected to the Internet will do.

A UMBS e-mail account limits the amount of information (messages and attachments) to 100 megabytes. If your “inbox” contains more than this amount, future incoming mail will be returned to the sender. If you send a critical e-mail message to a course instructor when your mailbox is full, that person will be out of touch, unable to respond to you.

**GEO 303, Computers, and You: a Glossary of Terms**

Note: if a term appears in *italics*, look for a separate heading to describe that term.

Adobe Acrobat Reader: This free software allows you to view and print PDF files, a common format of web documents. Download from: http://www.adobe.com/products/acrobat/readstep2.html

Bevoware: UT’s free software bundle that includes many basic utilities such as e-mail, anti-virus, printer drivers, browsers, etc. Consult: http://www.utexas.edu/its/bevoware/

Blackboard: a web site for UT courses restricted to enrolled students by *UT-EID*.

CLIPS: Class Information PageS, a web site with information about courses you are enrolled in, including *eGradebook* accessible with *UT-EID*.
   Consult: https://utdirect.utexas.edu/nrport/clips_menu.WBX

eGradebook: a web site where you can access your grades for this class using your *UT-EID*.
   Consult: https://utdirect.utexas.edu/diia/egb

IF account: individually funded user number that permits you to use the University's network services. The IF account is free (for use of computers in the SMF), but your IF account will be billed for services such as *TELESYS* (UT’s dial-up by modem service), printing, and data storage.
   Consult: http://www.utexas.edu/cc/account/

SMF: Student Microcomputer Facility, pronounced "Smerf." Located on the second floor of the Flawn Academic Center, UT campus. Also a computer named SMF.

TELESYS: high-speed modem system that provides dial-up access to UT's Computation Center and other computers on and off campus. Cost is $10/month, or $45 for the fall semester.

UT Direct: The directory of secure web sites accessible with your *UT-EID*.

UT-EID: UT Electronic IDentifier that allows you to use secure services that require you to identify yourself. To gain access to the service (such as Blackboard) you must also use a personal password.
   Consult: https://utdirect.utexas.edu/nlogon/eid_suite/faqs/general_faq.WBX