Important! Read this syllabus before the next class. It contains information you need to know!

Instructor: Dr. Chris Barker  
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Phone: (936) 468-2340  
Office: Rm. 305, Miller Science 
Department: Geology 
College: Science and Mathematics

Class meeting time/place: Tues/Thurs, 11 am to 12:15 pm; Rm 110, AGRI

Office Hours: Mon: 8-9 am, 10-11 am; Tues: 9-11 am, 1-2 pm; Wed: 10-11 am, 1-2 pm; Thurs: 9-11 am. Come by to ask questions, etc. If my office hours are inconvenient, call or email to ask questions or schedule an appointment.


Objective: This 3-credit hour course is a survey of geology, the study of the physical world. It covers everything from rocks and minerals to global plate tectonics. You will learn about volcanoes, earthquakes, floods, landslides, the sea floor, colliding continents, mountains and lots more. We will discuss how the environment affects you and how you effect it. In the associated lab you will work with minerals, rocks, maps, etc.

Grades from the lecture and the lab will not be combined; you will get separate grades for each.

Course Requirements: You will attend lectures, read the textbook, study your notes; take three exams, plus a Final. Home-works, quizzes, writing assignments, etc. may be assigned depending upon your learning needs. I will give notice of any such assignments.

TESTS
EXAM 1 ................. Thurs., Feb. 11  
(May include questions over this syllabus!)
EXAM 2 ................. Thurs., Mar. 10  
EXAM 3 ................. Thurs., April 21  
FINAL ...... Tues., May 10; 10:30am-12:30  
(The Final is comprehensive!)

Course Calendar:
Most of the following topics will be covered, though the order may vary slightly. The approximate time spent on each topic may be adjusted to meet the needs of the class.

* = topics that might not be addressed.

<table>
<thead>
<tr>
<th>Topic and Chapter:</th>
<th>Approx. % of course</th>
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<tbody>
<tr>
<td>Basic Concepts (1, 2)</td>
<td>12</td>
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<tr>
<td>Matter and Minerals (3)</td>
<td>10</td>
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<tr>
<td>Igneous Rocks &amp; Volcanism (4, 5)</td>
<td>12</td>
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<tr>
<td>Weathering &amp; Sedim. Rocks (6, 7)</td>
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<td>Metamorphic Rocks (8)</td>
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<td>Plate Tectonics (2)</td>
<td>10</td>
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<td>Rivers and Floods (12)</td>
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<td>Ground Water (13)</td>
<td>5</td>
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<td>Mass Movement (11) *</td>
<td>5</td>
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<td>Earthquakes (9)</td>
<td>7</td>
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<td>Structural Geology (10)</td>
<td>5</td>
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<tr>
<td>Glacial Landscapes (14) *</td>
<td>3</td>
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<tr>
<td>Desert Landscapes (15) *</td>
<td>3</td>
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<tr>
<td>Shoreline Processes (16) *</td>
<td>3</td>
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Geology of Texas (after Index) * 3
Environmental Geology (24) 4

Grade Distribution:
Lecture: (totals 100%)
Test 1 = 23.5 %
Test 2 = 23.5 %
Test 3 = 23.5 %
Final Exam = 27.5 %
Attendance and Participation = 2 %

Grade Scale: 90-100 = A; 80-89 = B;
70-79 = C; 60-69 = D; 59 or less = F

If other assignments (such as homeworks, research paper, etc.) are added, the grade elements above will be adjusted to reflect that fact.

** Very important: No outside or extra work can be done to improve your grade. Your lecture grade is based solely on your test scores!**

Therefore, you must prepare yourself well for each test. Do this by attending all lectures, paying attention in class, taking good notes, reading your textbook and studying effectively.

A word of caution: Many professors at SFA divide the semester into 3 tests and a final. Unfortunately, that means you will occasionally have clusters of tests within a few days of each other. During a 'test week' there may not be enough hours in the day to study for all tests. As a result, you might be tempted to 'blow off' a test by not really studying for it.

However, if you bomb a test, you will be stuck with that low grade. There is no way to get that grade opportunity back. Your final grade will be lower than it might have been, because "no outside or extra work can be done to improve your grade."

The only solution for the test week crunch is to study ahead. Study every week for every class. Don't wait until just before the test to start studying! Don't spend three weeks chilling and one night frantically cramming. I've been there. I've tried it. It doesn't work.

TEST FORMAT. Exams will be mostly or all multiple choice, possibly with some fill in the blank and short essay questions. You may be asked to reproduce drawings done in the lecture, or answer questions about a drawing.

NOTE: Always bring a # 2 pencil and a 50-question Scantron (Form 882) to tests. Be careful that your scantron does not get crumpled, folded or dog-eared—because then it won't scan.

Make-up exams will be given only for documented excused absences. Contact me immediately if you miss a test. Make-up exams must be completed within a week of the original test date.

The Final Exam will be comprehensive (as required by our college). This means you are actually tested twice over most material: once on the hour exam and again on the Final.

When deciding whether to round up a student’s grade at the end of the semester, I will consider the following: (1) The trend of your exam grades: were they improving? (2) Your class attendance, including tardies. (3) Your attitude in class: paying attention, asking questions, not talking or distracting people around you. (4) Attending possible review sessions, etc.

ELECTRONIC DEVICES. Laptops and other types of computers, cell phones, iPods, iPads, cameras, camcorders and all other electronic devices CANNOT BE USED IN THIS CLASSROOM (except with permission of the instructor) and must be turned off and put away. This is because we have had problems with students surfing the web, texting, facebooking, emailing, playing games, watching movies and/or listening to music, etc., during lecture! If you are caught doing any of that, you will be asked to leave for the day and/or I may confiscate the device. If it happens more than once, you will be moved to the front row for the remainder of the semester, and/or dropped from the class.

During TESTS, ALL ELECTRONIC DEVICES must be turned off and put completely away. Failure to observe this rule may result in an automatic F for a test!
ATTENDANCE POLICY: In the classroom I will present a significant amount of material that is not in the textbook. My experience is that there is usually a direct correlation between lecture attendance and test performance; therefore, I consider lecture attendance mandatory. I usually take attendance. If you have missed a class and have an excused absence or a valid reason for missing, explain it to me after class on the next class day and I will make sure that you don't get counted as absent.

Regarding attendance, a few students have wondered, "Why should I come to class if I can get the notes from someone else?" That sounds logical, but if you don't come to class you miss the context in which the material was presented. You don't hear the emphasis given to certain words, you don't see the professor waving his arms and jumping around to bring home a point, and most important, you don't hear any of the verbal comments made by the instructor about the material written on the board—comments that might be very important in clarifying concepts. The students who were in class remember all of that context, but someone who just copies the notes misses all of that.

NOTE: Because attendance is so important, if you have more than 4 unexcused absences during the semester your grade may be lowered to the next lower grade! (Example: a C might become a D.) ALSO IMPORTANT: After the first two absences, each additional unexcused absence results in the loss of progressively more of the 2% of your grade labeled "attendance and participation." When you get more than 4 unexcused absences, you lose all of that 2%—plus are potentially subject to having your grade lowered. So—don't miss class!

One semester I saw a month's worth of notes taken by an "A" student in one of my Intro classes. They were reasonably good notes, but were a little too brief, had some errors, and the drawings didn't look much like what I put on the board. Nonetheless, they were adequate for that student because she got an A. But they would have been of limited use to anyone else.

The bottom line: someone else's notes are not going to help you all that much. (BUT, if you miss a day, ALWAYS get the notes from someone because those notes are better than nothing!)

Another illuminating story: One day I was annoyed because there were so many absent students. After class, I looked at the average test grade of the students who were in class that day versus the average grade of the slackers who were not. Guess what? The average grade of the people who were in class was 13 points higher than the average grade of the absentees! That's a difference of more than a letter grade! Obviously, people who come to class do way better on tests.

It is pretty simple: if you skip class, you miss a lot of information—and getting someone's notes is a poor substitute. Remember this: every time you cut a class—in any course—you are lowering your own grade! If you miss more than a few classes, your chances of failing the course go way up.

TARDINESS. When students arrive late it is distracting to everyone in the class. Therefore, please DO NOT HABITUALLY COME LATE TO CLASS. This means you need to anticipate the parking problems that are part of life at SFA (and every other large university).

Leaving the classroom during the lecture, except for illness or restroom emergency, or sleeping during class, counts as one tardy. Talking during class, if it disturbs your classmates, or me, counts as a tardy. Two tardies will count as one absence!

If you come to class late you will also miss the sign-in sheet as it comes by. If that does happen, come to the front at the end of class and sign the sheet and put a large "T" next to your name.

Remember, if you forget to sign-in, there is nothing I can do later to take that absence off your record!

DISRUPTIVE BEHAVIOR. A studious atmosphere must be maintained in the classroom so that everyone can concentrate on the material. Disruptive behavior, including but not limited to, whispering, talking, laughing, making noises, coming in late, walking around during lecture, or using electronic devices will not be tolerated if it disturbs your classmates or the professor. Here is what the university has to say on this topic:

"Acceptable Student Behavior":
Classroom behavior should not interfere with the instructor’s ability to conduct the class or the ability of other students to learn from the instructional program (see the Student Conduct Code, policy D-34.1). Unacceptable or disruptive behavior will not be tolerated. Students who disrupt the learning environment may be asked to leave class and may be subject to judicial, academic or other penalties. This prohibition applies to all instructional forums, including electronic, classroom, labs, discussion groups, field trips, etc. The instructor shall have full discretion over what behavior is appropriate / inappropriate in the classroom. Students who do not attend class regularly or who perform poorly on class projects/exams may be referred to the Early Alert (iCare) Program. This program provides students with recommendations for resources or other assistance that is available to help SFA students succeed.

COURSE EVALUATION. At the end of the semester you will be asked to evaluate the course online. Your evaluations are very important because they help professors improve their courses. The evaluation period is usually the last couple of weeks of the semester, but it often ends BEFORE final exams begin. Important: Students who do not complete the on-line evaluation may receive an incomplete for the course! I will remind you about evaluations near the end of the semester.

READING THE TEXTBOOK. I strongly suggest that you read assigned chapters or sections from the textbook before that topic is covered in class. Look at the list of "Topics" on the first page of this syllabus to see which chapters to read. You are not responsible for everything in the text, but you need to assimilate the main points—furthermore, there will always be some questions on the tests that come directly from the textbook! Ideally, you should read and highlight your text, and then skim over it each morning before entering the classroom. Reading the text will also help you prepare for lab, which covers some topics not addressed in the lecture. Primarily, the text should be read because it will improve your understanding of the lecture and lab material. That will help you do better on tests. Reading the textbook could easily increase your final grade by at least a letter! "What if I get behind in the reading, and it's the night before the test—should I read the textbook or study my notes?" If you have limited time—and lots of material to learn—I suggest you spend it studying your notes because most of the questions come from the lecture. You should read the textbook well in advance of tests.

INSTRUCTIONAL METHODS. Most of what I want you to know will be presented during classroom lectures. Please feel free to ask questions at any time. I like students to ask questions because that stimulates discussion and helps clarify concepts for everyone.

FIELD TRIPS. Geology is the study of the Earth, and the Earth is OUT THERE! (Outside of the classroom.) Which is why most upper-level geology courses have field trips. This course does not have a field trip, but the SFA Geology department offers several weekend field trip mini-courses that are open to all students. You can take these short courses for additional college credit. These courses are conducted over a single weekend and have no test or term paper. Your grade for the field trip is based on notes you take at locations of geologic interest—which are at some of the most scenic spots in Texas and nearby states. Being able to see geology in the real world makes learning easy and fun. Countless students have told us that these weekend field trips were the most enjoyable courses they had at SFA.

The field trips are in the latter part of the semester, but if you want to go on one, you have to sign up for them immediately because they fill quickly—and if you wait past the first week of classes, you will have to pay a late registration fee. The Field Trips count as upper level electives and are a great way to get 1 or 2 hours of college credit for a fun weekend outing!

The field trips are listed as various sections of GOL 471 – look at the on-line course catalog (under "Geology") or at the flyers in the hall to see which trips are being offered. You can sign up for them on-line by adding them to your current group of classes. (If you have any trouble registering for them, contact Shana Scott in the geology department, phone 3701.) For more information about the field trips, go to: www.geology.sfasu.edu/FieldTrips.html

Hint: The Hill Country Field Trip is our most popular trip and goes to beautiful places like Enchanted Rock and Pedernales Falls State Parks—
and fun places like Luckenbach and Cooper's Bar-B-Que!

**Hot Tip!** By going on the field trip you will learn more about geology in general and almost certainly do better in this class as a result.

**WHAT YOU NEED TO KNOW and HOW TO STUDY.** What do I expect you to know? You are responsible for all the material covered in class, and for major concepts and facts in the text. This is a science survey course and for that reason, you will have to learn many new terms and concepts. It is like learning a new language—in this case, the language of geology. The first step is to **memorize the new terms** and their meanings.

**LEARNING AND STUDY TIPS:**
• **Note Taking:** Seasoned students know that the things a professor says about the material are as important as what is written on the board or shown on a slide. Therefore, they try to get lots of those verbal gems of information into their notes.
• **Drawings:** Drawings convey a great deal of information. You should be able to reproduce any drawing from lecture or answer questions about any drawing. I often put drawings on tests.
• **Review Sheets:** Review sheets are a good idea. But I think you should make them. Doing so is a very effective way to study.
• **Studying:** **DO NOT WAIT UNTIL THE NIGHT BEFORE A TEST TO START STUDYING!** There is usually far too much material to learn effectively in one night. Study on a regular basis. Read the textbook **before** the corresponding lecture, not the night before the test.
• **Here is my best tip for effective studying:** form a small study group of 3 to 4 people and meet on a regular basis. Look for classmates who seem serious about learning, exchange contact information, and meet every couple of weeks for 3 or 4 hours to go over the material in a given unit. Meeting in a small group can be much more effective than studying by yourself because when you talk about the material, you use different cognitive processes than when just reading. The most effective way to learn anything is to teach it to someone else, and that is what you do when you study in a small group. Furthermore, someone in your group might understand part of the material better than you, or might have written down something the professor said that helps you understand the material better.

Do your group studying in advance of the exam, and then, on the night before the test, review the material by yourself. Finally, get a good night's sleep. Don't stay up all night studying! If you do, your brain won't work effectively in the morning.

If you need more help, go to the AARC and ask for suggestions for studying. And of course you can also come by my office to ask questions—or request that I conduct a review session before a test.

• **S.I.** We may have S.I. (supplemental instruction) for this class. Such sessions will be conducted by a student who did well in this class and I strongly urge everyone to take advantage of the weekly S.I. sessions if they are available. You can probably bring your grade up by a full letter by regularly attending the S.I. sections.

**A philosophical question: Why study science if you are not going to be a science major?** The reason almost every university in the world has a science requirement is because the life-style we live today is based on science. Science explains how the physical world works. Science gives us the ability to harness electricity, find energy resources, grow abundant crops, develop medicines and make cool gadgets like iPhones and hybrid cars. Without a basic understanding of science—both its limitations and potential—you can't really make informed decisions in the work place, the market place or the voting booth.

**WHY YOU SHOULD TRY TO MAKE AN "A" IN THIS COURSE.** Actually, you should try to make an A in every course you take. Why? Because good grades result in a good GPA—and a good GPA is your ticket to the good life. A high GPA will win you scholarships, it will get you into honors classes, it will later get you into better jobs or a more prestigious graduate school. Each of those in turn are stepping stones to more satisfying—and more lucrative—jobs.

Employers naturally want to hire people who were A or B students in college because that high GPA tells them that this is a person who is smart and works hard. It is a simple fact of life that employers want to hire people who did well in college; that’s why you should always try to make a B or better in every course you take.
By the way, if you stay up half the night playing computer games, will you be clear-headed the next day? Probably not. That is self-destructive behavior.

**HOW DO YOU MAKE AN A IN THIS COURSE?** Don't miss any classes, take good detailed notes, stay mentally engaged during the lecture (don't daydream or nod off), ask questions, read your textbook in advance of lectures and take advantage of your professor's office hours. For each test, study early, thoroughly and effectively. Take advantage of S.I. sessions. If you are struggling, ask for help! The students who do all of these things are usually the ones who make an A.

**Good luck! Have fun learning about the Earth!**

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**The fine print!**
(No questions will be asked over the following material.)

**COLLEGE AND UNIVERSITY POLICIES / GENERAL COURSE INFORMATION:**

**Academic Integrity (A-9.1)**
Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism.

**Definition of Academic Dishonesty**
Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification or invention of any information, including citations, on an assigned exercise; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism are (1) submitting an assignment as if it were one's own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been purchased or otherwise obtained from an Internet source or another source; and (3) incorporating the words or ideas of an author into one's paper without giving the author due credit.

Please read the complete policy at [http://www.sfasu.edu/policies/academic_integrity.asp](http://www.sfasu.edu/policies/academic_integrity.asp)

**Withheld Grades Semester Grades Policy (A-54)**
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 course work 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 for the purpose of computing the grade point average.

The circumstances precipitating the request must have occurred after the last day in which a student could withdraw from a course. Students requesting a WH must be passing the course with a minimum projected grade of C.

**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 in a timely manner may delay your accommodations. For additional information, go to [http://www.sfasu.edu/disabilityservices/](http://www.sfasu.edu/disabilityservices/).

**Pedagogical Statement for Introductory Geology:**

**Number of Credit Hours:** Four

**Course Prerequisites and Co-requisites:** None

**Program Learning Outcomes** (General teaching goals):
Demonstrate knowledge of the fundamental core geologic concepts (mineralogy, petrology, structural geology, stratigraphy, geophysics and geochemistry). *(Concepts)*
Execute geologic procedures and methods accurately, appropriately and efficiently. *(Skills)*
Apply principles of logic and reasoning to develop and analyze geologic problems. *(Logic - Reasoning)*
Demonstrate competence in using various geologic tools, including technology, to formulate, represent, and solve problems. *(Critical thinking - Problem Solving)*
Demonstrate proficiency in communicating geologic information in an appropriate form to the expected audience. *(Communication)*

**Student Learning Outcomes** (some of these apply only to the lab)
At a minimum, the student is expected to understand and apply the following concepts to the environment:
Understand and apply method and appropriate technology to the study of natural sciences. This assessment will evaluate the ability to use equipment necessary to identify minerals, such as hand lens, glass plates, and streak plates. These are basic tools used by geologists when differentiating minerals.
To recognize scientific and quantitative methods and the differences between these approaches and other methods of inquiry and to communicate findings, analyses, and interpretation both orally and in writing. This assessment will
evaluate the ability to determine stream gradient which could be useful when determining to location of a structure.

Identify and recognize the differences among competing scientific theories. This assessment will evaluate the ability to understand the role of plate tectonics in the formations of rocks.

Demonstrate knowledge of the major issues and problems facing modern science, including issues that touch upon ethics, values, and public policies. This assessment will evaluate the ability to understand, for example, the critical role of water in today's society. An understanding of rock porosity and permeability is necessary for an appreciation of the water dilemma.

Demonstrate knowledge of the interdependence of science and technology and their influence on, and contribution to, modern culture. This assessment will evaluate the ability to understand destructive places to dwell in stream-drainage areas. A focus on floodplains and cut-banks of rivers will be addressed.