This course will introduce you to some of the processes that shape the solid Earth and to the techniques scientists use to solve problems. The course is one of three offered by the Department of Geosciences as an introduction to the study of the Earth. The other two courses examine processes on the surface of the Earth (GEO102), and in the oceans (GEO103). All three are Baccalaureate Core Courses in the Perspectives category, and include an introduction to basic concepts of earth science, the relationship of those principles to public policy debates, and a bit about the historical evolution of ideas in earth science. The courses have two overall goals: to help you understand some important scientific principles, and to make you think about the use and misuse of scientific inquiry in society. We do not intend to turn you all into geologists, but we do want to have you leave this class with an understanding of how the Earth works and how scientists approach problems. By the end of the course, we expect that you will have and understanding of geologic time and the age of the Earth, what the Earth is made of and how it formed, how the Earth changes over time and the rates at which those changes occur, and the impact of geological science and resource issues on politics and society.

There are three important parts to this course: lectures, labs, and the assigned readings. The lectures review the fundamental principles of geology, but from a perspective different than that of the book. The lectures will emphasize demonstration, observation, and critical thinking. A lot of the required detail will come from reading the textbook. We will also talk about the many applied aspects of geology -- some current problem or topic that might help give you some insights about "why bother" with earth science. The lab exercises will give you hands-on experience with the kinds of procedures a geologist might use in studying particular problems. There is another section of this course taught by a different instructor, and we are coordinating the content of our lectures and the overall schedule, but the exact sequence of topics covered will differ a bit and the presentation may differ. So don't panic if you have friends in the other section who provide a somewhat different report on what happened in a specific week.

You need to do three things to do well in this class:

1. **Do the assigned readings before the lectures.** There is a great deal of information in the book that we will not be able to cover in class, but it is an important part of the course. You should read the material before class as background preparation, and read it again carefully after the lecture.

2. **Attend lectures.** The lectures will emphasize and expand on what I think are the most important points, so the exams are based on the lectures. Also, the lectures will include significant amounts of supplementary material not found in the book. I like to have fun in class, and try to provide entertaining examples and explanations. Please feel free to ask questions during the lecture. If you are confused, you can bet that other people are too – someone has to ask.

3. **Go to lab and complete the lab exercises carefully.** Subjects are usually covered in lab shortly after they are covered in lecture. Before you go to lab you should be up to date on the reading for the lectures, have read over the lab exercise, and answered the questions assigned in the syllabus. Your lab TA will give a short introduction each week, and will be available to help you with the exercises. Geology is something you really have to do hands-on; there isn't much substitute for actually looking at rocks, maps, etc. if you want to understand them. On a practical note, the lab is the largest part of your grade (see below) so don't miss any.
Grades will be based on: Homework problems (15%), Mid-term examination (20%), Final examination (25%), and Laboratory work (40%). There will also be various opportunities to earn extra credit.

Homework: There will be 3 homework problem sets assigned in class. Each problem set will be worth 5% for a total of 15% of your grade.

Exams: There will be a mid-term exam and a final exam. The final will be cumulative, although very heavily weighted to the second half of the class. It is important that you take exams at the scheduled time so we can make consistent evaluations of your work. It is impossible to give a good makeup exam in a class this size. If you have an incredibly good reason, such as a medical emergency with a note from your doctor, we may be able to arrange a makeup exam, but it will be mostly essay questions rather than the multiple choice questions of the scheduled exams.

Lab (in Wilkinson 129): NO LABS THE FIRST WEEK OF CLASSES. Lab is the BIGGEST part of your grade in this course. You can't pass the course without doing the labs, and you can't get a good grade without putting some effort into them and turning them all in. A good lab grade will significantly improve a weak exam performance. The easiest way to get a low lab grade is to skip labs. There are 8 lab exercises, but we will only use your best 7 scores to calculate your grade, so you can mess up on one lab without hurting your grade if you have good scores in all of the other labs. If you have a good reason for missing a lab, it may be possible to make up that lab the following week (at 6PM on Thursday), but the makeup lab is for unavoidable absences only. It is not for convenience and you cannot simply show up at the makeup lab. You have to sign up for it in advance by contacting your TA as soon as possible after you miss your scheduled lab (but no later than two days after). Your TA will get your name on the list for the makeup lab—if your name is not on that list we cannot guarantee that there will be room for you. Almost all of the lab sections are completely full, so do not try to attend lab sections other than the one in which you are registered.

Extra credit: There will be various opportunities to earn extra credit during the term. Some possible examples are attending a special lecture or taking a pop quiz.

Etiquette: A class this size requires some pretty hard-nosed rules to be successful. Everyone wants and deserves an opportunity to get a good grade and learn something interesting. Because of the large size of this classroom it can be noisy and hard to hear the lecture. This is particularly true if your neighbor is eating, reading the paper, or talking. Our commitment to you is to be on time, organized, and ready for class. We ask the same of you, and out of courtesy to your colleagues that you not eat, talk, read, or walk around during class. And never, ever, talk on your cell phone in class. If you have an unavoidable schedule conflict, please sit in the back of the room on the day you need to leave early. Behaviors disruptive to the learning environment will not be tolerated and will be referred to the Office of Student Conduct for disciplinary action.

Cheating: Copying homework assignments, copying lab answers without doing them, reading off someone else’s exam paper, or any other way of not doing your own work is cheating. There are many ways you can rationalize or excuse it but it is still cheating. This is a big class, with lots of different kinds of exercises, and some of you will choose to cheat on some part of the work or another and will find a way to do it. However, we know that nearly all of you will do your own work, work hard, and try to take something of value from the course. We assume that, as university students, you are adults and we should treat you as such. We prefer to approach the course with an attitude of trust and cooperation, so we are not going to serve as police nor approach these exercises with undue grading paranoia. However, we also have a great deal of experience and will be observant in grading labs, homework, and exams. If we do document that you have cheated, we will do everything possible to exert the maximum penalty. For further details on OSU’s policies on academic honesty see http://osu.orst.edu/admin/stucon/achon.htm

What if you're having problems? The 101 course number means it is designed for freshman and sophomores, not that it is easy. The point of the course is to try to teach you something about how the Earth works. If you're having trouble in lecture or lab, come see me or a TA. We all have office hours, phones, and e-mail; pick the contact form that you're most comfortable with. Believe us, we'd MUCH rather talk to you as the problems develop than talk to you when the quarter is almost over and the damage is done. Even if we look busy, we are not "too busy". And any problem is appropriate—conceptual trouble, time trouble, medical or other problems. And, of course, we're equally pleased to talk with you if you're NOT having problems but just want some more information about something.