



ESCI 101 ~ Principles of Earth Science I

ESCI 101 ~ Principles of Earth Science I (4 credits) University of South Dakota Spring 2008

Contact Information:

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Office Hours: During the day and most evenings (except Monday and Wednesday, I teach at the University Center on these days).

Feel free to email me anytime with questions. I will check email frequently during office hours. I will generally reply to your email within 24 hours unless I am out of town (which I will announce through the discussion area or through an email). I may or may not check my email over the weekends, depending on my schedule, so please do not expect a prompt reply if you send an email on Friday afternoon or over the weekend.

Course Description:

Catalog Description: The study of Earth's composition, landforms, geological processes, oceans and atmosphere. Laboratory includes study of minerals, rocks, topographic maps, and landforms.

Additional Description: This course is designed to introduce you to the physical processes that operate on the surface and within the Earth. Emphasis will be on large-scale processes, such as mountain building, plate tectonics, volcanism, and seismicity. We will also discuss surficial systems including: rivers, mass wasting, groundwater, and landscape development. Additionally, we will discuss environmental aspects of geology and geologic hazards. The Earth is a dynamic planet and has been evolving for 4.6 billion years. We will attempt to understand our planet's genesis through an understanding of Earth processes, as well as, examine environmental issues that affect our planet today.

Course Requirements:

Required Textbooks and Other Materials: The following materials are required for the

class and are available through the USD Bookstore (NOT the University Center bookstore). Please make sure that you have both the textbook and lab kit prior to the beginning of class.

Essentials of Geology, 2nd Edition, by Stephen Marshak (<http://www.wwnorton.com> - ISBN-13: 978-0-393-92815-0) You can always purchase an E-book (on online version of the textbook which is cheaper than the print copy), directly from the publisher (see address above).

Geology - Laboratory Manual for Distance Learning, by Ruhle (lab manual includes rocks and minerals, streak plate, glass plate, and hand lens; topographic map; and CD-ROMS) (<http://www.kendallhunt.com> - ISBN 13: 978-0-7575-0479-2) - **This lab kit is ONLY available through the USD Bookstore.**

Other Supplies: You will also need the following lab supplies: calculator, metric ruler (with mm-divisions), graph paper, drawing compass, and protractor.

Technology Requirements: See the USD Online Learning Guide (<http://www.usd.edu/ce/Orientation.pdf>) for hardware and software requirements. It is important to have access to Adobe Acrobat Reader, MS Word and Excel, and movie players.

Course Information:

Online Courses: ESCI 101 is entirely an online class, which means that you can complete the class in the comfort of your own home. However, this course is not an independent study nor is done on your own schedule. This course is set up to follow a strict SCHEDULE with weekly "lectures" and laboratories. Quizzes and homework assignments also have deadlines.

Many of you may be new to the online format and you may find that this course differs significantly from what you have experienced before in a traditional lecture format. In order to succeed in an online class, it is very important that you maintain a **high level of self-motivation**. Students report that online classes take more work, more time, and better organizational skills to succeed. If you were taking this course in a traditional setting you would spend 5-6 hours in class, not to mention study time outside of class. Expect to **at least** spend that much time each week on this course.

You will need to check the course website often (daily is suggested), keep up with assignments and readings, and contact me whenever you have questions. The responsibility is on your shoulders (though I will do what I can to help)!

Study Tips: A lot of material will be covered each week, and it will be impossible to learn all of that information in one or two sittings. It is easy to fall behind in this course and it will be difficult to make up lost ground. It is important that you stay on schedule. A weekly schedule will be posted to help you stay on track. It is important to let me know as soon as possible if you start to fall behind so that we can work together to get you back on schedule.

Course Format: ESCI 101 will be divided into three major topics. Following the introduction, these topics are: 1. the building blocks: minerals and rocks, 2. plate tectonics and time, and 3. earth surface processes. There will be an exam after each of the three major categories and these exams will be comprehensive but not cumulative, meaning you will need to

understand material from preceding topics, but will not be asked specific questions about those topics.

Class lecture notes are posted on the course website and are the main source of course information. The textbook chapters will help you to understand the information. Other useful information and links are also posted and can be used to supplement that course notes and the textbook. A PDF file of the course notes (minus key words) are attached to each lecture note page and can be printed out and filled in while going through the lecture notes online. There will appear to be a lot of information on the website and it may seem overwhelming. There is a reason for this madness and that is to be able to try and reach out to students with different learning styles. It is not always necessary to go to every link. Necessary actions will be noted.

Grades:

Letter grades will be assigned based upon a percentage of total points earned in both lecture and laboratory. The grading scale is 90-100% A, 80-89% B, 70-79% C, 60-69% D, and below 60% F. Grades will be posted online.

Lab assignments:	30%
Homework & other assignments:	10%
Quizzes:	10%
3 Exams:	50% (~15% each)
Total:	100%

Lab Assignments: Hands-on laboratory assignments are important to the understanding of geology. There will be a **laboratory exercise EVERY WEEK** and the material will be posted on the website, connected through the weekly schedule. These lab exercises will generally involve using items in the lab kit and going to other websites. Answers to the lab assignments will be submitted as online forms or as attachments to email. Each lab will be completed during the week and will be due by midnight on the day they are due. Deductions will be made on late labs. All labs not turned in before the Wednesday of the Exam week that those particular topics are covered will not count for credit. (For example Labs 1-5 must be turned in by Wednesday, October 3rd for partial credit). You **MUST** pass the laboratory component in order to pass the course.

Homework: Several homework assignments that supplement the lecture topics, but are not necessarily lab assignments will be assigned throughout the course. The exercises will be described individually in the course website.

Exams and Quizzes: Exams and quizzes will include questions related to readings, lecture notes, laboratory assignments, discussions, and other assignments. Quizzes will focus mostly on the lecture notes (with additional information from the readings). These quizzes are meant to keep you on track and will be 15-30 minutes in length and will be done online.

The three exams will be closed-book/notes and will need to be supervised by a CE approved proctor (see information about proctors in the USD online learning guide). The exams will be mailed to each proctor and the proctor will mail the exams back to me for grading. Exams will be a combination of multiple choice, fill-in-the blank, short answer, essays, and

sketching. Each exam will be comprehensive but not cumulative, meaning you will need to understand material from preceding topics, but will not be asked specific questions about those topics. Exams **MUST** be taken during the allotted days. Other arrangements can be made, but you must contact me.

Extra Credit: Extra credit will be available, but extra credit means extra work. Do not rely on extra credit to save your grade.

Policy on Cheating: Cheating includes, but is definitely not limited to, providing or copying answers on exams, labs or assignments; swapping papers; stealing or plagiarizing. If you cheat, at minimum you will receive a zero on the exam/lab/assignment. Further action may occur depending on the extent of cheating. See the plagiarism policy in the online handbook. Working together on assignments and labs is not cheating and is actually encouraged, but it is important to answer questions in your own words and to specify that you worked together and with whom you worked with.

University Policy on Cheating:

No credit can be given for a dishonest assignment. At the discretion of the instructor, a student caught engaging in any form of academic dishonesty may be:

- 1) given a zero for that assignment,
- 2) allowed to rewrite and resubmit the assignment for credit,
- 3) assigned a reduced grade for the course,
- 4) dropped from the course, and
- 5) failed in the course.

Disability Statement: If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and the Director of the Office of Disability Services, (Service Center 199; 677-6389) as early as possible in the semester.

Freedom in Learning Statement: Students are responsible for learning the content of any course of study in which they are enrolled. Under Board of Regents and University policy, student academic performance shall be evaluated solely on an academic basis and students should be free to take reasoned exception to the data or views offered in any course of study. Students who believe that an academic evaluation is unrelated to academic standards but is related instead to judgment of their personal opinion or conduct should contact the dean of the college which offers the class to initiate a review of the evaluation.

See tentative schedule below

ESCI 101 ~ Schedule (tentative)

Week #	Lecture Topic:	Lecture Reading (Marshak)	Lab Topic
1: Jan. 16 th - 19 th	The Earth	Prelude p. 1-7 Ch. 1 p. 8-34	Lab 1: The Earth
2: Jan. 20 th - 26 th	Plate Tectonics	Ch. 2 p. 35-77	Lab 2: Plate Tectonics
3: Jan. 27 th - Feb. 2 nd	Minerals	Ch. 3 p. 78-94	Lab 3: Minerals
4: Feb. 3 rd - 9 th	The Rock Cycle	Interlude A & B p. 95-101, 174-179	
	Igneous Rocks	Ch. 4 p. 102-120	Lab 4: Igneous Rocks
5: Feb. 10 th - 16 th	Sediments/ Sedimentary Rocks	Ch. 5 p. 121-15	Lab 5: Sedimentary Rocks
6: Feb. 17 th - 23 rd	EXAM 1	Exam 1 must be in the mail to CE by Saturday, Feb 23rd	
	Metamorphic Rocks	Ch. 6 p. 153-173	Lab 6: Metamorphic Rocks
7: Feb. 24 th - Mar. 1 st	Volcanism	Ch. 7 p. 180-205	Lab 7: Volcanism
8: Mar. 2 nd - 8 th	Earthquakes Earth's Interior	Ch. 8 p. 206-239 Interlude C p. 240- 247	Lab 8: Earthquakes
9: Mar. 9 th - 15 th	Deformation	Ch. 9 p. 248-272	Lab 9: Deformation
10: Mar. 16 th - 22 nd	SPRING BREAK (NO CLASS - I will be out of reach)		
11: Mar. 23 rd - 29 th	Geologic Time	Ch. 10 p. 283-305	Lab 10: Geologic Time
12: Mar. 30 th - Apr. 5 th	EXAM 2	Exam 2 must be in the mail to CE by Saturday, Feb. 5th	
	Mass Wasting	Ch. 13 p. 273-390	Lab 11: Topographic Maps
13: Apr. 6 th - 12 th	Groundwater	Ch. 16 p. 450-472	Lab 12: Groundwater & Streams
14: Apr. 13 th - 19 th	Streams	Ch. 14 p. 391-414	
15: Apr. 20 th - 26 th	Oceans & Coasts	Ch. 15 p. 418-449	Lab 13: Oceans
16: Apr. 27 th - May 3 rd	Energy Resources	Ch. 12: 329-351	
	EXAM 3	Exam 3 must be in the mail to CE by Tuesday, May 6th	
17: May 4 th - 9 th	EXAM 3		

* Note homework and quizzes are not listed on the above schedule.