



# **GEOL 103: Dynamic Earth**

## **Syllabus**

**Dr. Antun Husinec**

**Fall 2008**

### **General Description**

This course is designed to provide you with a basic overview of the science of geology. It is recommended not only for potential geology majors but for all interested college students. A background in geology, the study of the Earth is fundamental to understanding the complex interactions of the natural world. Basic concepts will be supplemented by specific examples of geological and environmental problems affecting the world today. We will cover a diverse array of topics from Plate Tectonics to Hydrology to Earth's place in the Universe.

### **Should I Take This Course?**

This is an introductory level course in geology and will be taught at the appropriate college level. It is the main pathway into the geology major and fulfills the distribution requirement for a science course with a laboratory session. The content is neither extremely difficult nor excessively easy. Many opportunities to do well and improve your grade are built into the class as described below. On average, it will require about 3 hours of preparation (this includes reading and diagnostic quiz taking) for each class period and to master the material. If you don't like going outdoors for lab, don't have enough time, or can't make it to class you should probably rethink your options. Otherwise you should do fine and enjoy it.

### **When to Show Up**

- Class: 143 Brown Hall
- Laboratory: 143 Brown Hall. There are lab sections M, T, W, and Th at 1. You must sign up for a lab section to take this course.

## Who is the Instructor and How to Reach Him

- Dr. Antun Husinec, Assistant Professor of Geology
- Office: 105 Brown Hall, phone: x5248, e-mail: [ahusinec@stlawu.edu](mailto:ahusinec@stlawu.edu)
- By appointment or open door policy (if the door is open, stop in)
- Each lab section has a different instructor and teaching assistant:
  - Monday: Dr. Shrady, [cshrady@stlawu.edu](mailto:cshrady@stlawu.edu)
  - Tuesday: Dr. Smith, [casmith@stlawu.edu](mailto:casmith@stlawu.edu)
  - Wednesday: Dr. Husinec, [ahusinec@stlawu.edu](mailto:ahusinec@stlawu.edu)
  - Thursday: Dr. Chiarenzelli, [jchiarenzelli@stlawu.edu](mailto:jchiarenzelli@stlawu.edu)

## Stuff you Really Need

- Marshak, S., *Earth: Portrait of a Planet*, 3<sup>rd</sup> Edition, W. W. Norton and Company; available from the bookstore
- Hand lens for field trips and rock and mineral ID; available from the bookstore or on-line, e.g. <http://www.kooters.com/handlens.html>
- The student web-site for your text. This is how you access the Diagnostic Quizzes and has numerous other useful features such as animations, flashcards, etc. to help you master the material. The more time you spend with this, the more likely it is you will do well in the course. <http://www.wwnorton.com/college/geo/earth3/>

## Stuff you Should Check Out

- New York State Geological Highway Map, Education Leaflet 33, Available from the New York State Museum's Publication Department. <http://www.nysm.nysed.gov/publications/geolpub.html>
- Earth revealed is a wonderful series of geological videos for the visual learner. [http://library.stlawu.edu/search/X?\(Earth%20Revealed\)&Da=&Db=&SORT=D](http://library.stlawu.edu/search/X?(Earth%20Revealed)&Da=&Db=&SORT=D)

## How you will be evaluated

- 3 exams- 30% (10% each)
- Cumulative final exam- 20%
- Laboratory work- 40% (note: you will turn in all lab work to your lab instructor who will assign you lab grade)
- Hometown project- 5%
- Attendance-5%
- Diagnostic Quizzes- 1/3 point extra credit for each quiz completed on time

## Grading Scale

Percent range	Final grade	Percent range	Final grade
97.01 or more	<b>4</b>	76.01-79.00	<b>2.25</b>
94.01-97.00	<b>3.75</b>	73.01-76.00	<b>2</b>
91.01-94.00	<b>3.5</b>	70.01-73.00	<b>1.75</b>
88.01-91.00	<b>3.25</b>	67.01-70.00	<b>1.5</b>
85.01-88.00	<b>3</b>	64.01-67.00	<b>1.25</b>
82.01-85.00	<b>2.75</b>	61.01-64.00	<b>1</b>
79.01-82.00	<b>2.5</b>	61.00 or less	<b>0</b>

## How to Do Well

*Put the time in!*

- Come to class. Attendance will be taken randomly and counts for 5% of your grade
- Hand work in on time. **Please note that as part of department policy late work cannot be accepted by your instructor.**
- Take the optional Diagnostic Quizzes on time, they give you extra points and are good review. They give you immediate feedback.
- Note that there are 4 exams. Your lowest exam grade will be dropped. **Note** that if extenuating circumstances, e.g. illness, family crisis, etc. interferes with you taking an exam on time **you must make contact with me prior to the exam in order to discuss taking it at another time.** Otherwise, missing an exam = zero on that exam and you may drop it as your lowest score.
- Use your text book web-site and ANGEL (see below)
- Ask questions in or outside of class. I *want* to help you succeed!
- Attend lab and hand in lab work on time (late work is not accepted). **Note that the laboratory portion of the course is worth a whopping 40% of your grade. Please note that it is impossible to make up a laboratory section after the week it is scheduled.** Space permitting you may be able to make arrangements to attend an alternative lab section the same week. Check with the instructor of the lab you wish to attend.

## ANGEL

There is an ANGEL site for this course. It contains a variety of course documents including, past exams, the syllabus, a calendar with important course dates and lecture PowerPoints. Please contact Information Technology (x5770 or x5595) if you have problems accessing it.

## Laboratory

- **Note that the laboratory portion of the course is worth 40%** of your grade. **Please note that it is impossible to make up a laboratory section after the week it is scheduled.** Space permitting you may be able to make arrangements to attend an alternative lab section the same week. Check with the instructor of the lab you wish to attend.
- Each lab is due the following week at the beginning of your laboratory period. In other words, if your lab starts at 1:15 Tuesday, then your lab is due the following Tuesday at 1:30 p.m. Labs are to be placed in your laboratory instructor's box outside Brown 143. **Please note that as part of department policy late labs cannot be accepted by your instructor.**
- Many of the labs will be fieldtrip labs- check the attached schedule. Please wear appropriate clothing (e.g. rain gear if it is raining) and footwear good for very moderate hiking (i.e. not flip flops or high heels).

## Deadlines to Remember

8/28	Classes begin
9/5	Last day to: Add a course, Change sections within the same course, Drop a course
11/7	Last day to Withdraw
12/	Final Exam

*\*\*\* Note that those with documented learning disabilities will be accommodated to the fullest extent possible in accordance with University policies, please notify your instructor.*

## Honor code

At St. Lawrence, all members of the University community have a responsibility to see that standards of honesty and integrity are maintained. It is the responsibility of each student to learn and understand the standards of academic integrity expected at St. Lawrence, as expressed in the University's academic honor code. Additional information regarding academic honesty, plagiarism and academic dishonesty procedures and penalties can be found in the Student Handbook.

**Schedule of Lecture Discussions**  
**Fall 2008**  
**Geol 103: Dynamic Earth**  
**12:40-2:10 PM; T, Th**

<b>Class</b>	<b>Date</b>	<b>Day</b>	<b>Topic</b>	<b>Reading Assignment*</b>	<b>On-line Quiz #</b>
1	28-Aug	Th	Introductions		
2	2-Sep	T	Cosmology and Birth of the Earth	1	1
3	4-Sep	Th	Journey to Center of the Earth	2	2
4	9-Sep	T	Drifting Continents and Spreading Seas	3	3
5	11-Sep	Th	Plate Tectonics	4	4
<b>6</b>	<b>16-Sep</b>	<b>T</b>	<b>Exam #1</b>		
7	18-Sep	Th	Patterns in Nature: Minerals	Appendix A, 5	5a,b
8	23-Sep	T	Minerals, Up from the Inferno: Igneous Rocks	Interlude A, 6	6a
9	25-Sep	Th	Magma and Igneous Rocks, Sediments	6	6b
10	29-Sep	T	Sediments, Soils and Sedimentary Rocks	7	7
11	2-Oct	Th	Metamorphism: A Process of Change	8	8a
	<b>7-Oct</b>	<b>T</b>	<b>National Geological Conference- NO CLASS</b>		
<b>12</b>	<b>9-Oct</b>	<b>Th</b>	<b>Exam #2</b>		
13	14-Oct	T	Metamorphism	8	8b
	<b>16-Oct</b>	<b>Th</b>	<b>Mid Semester Break</b>		
14	21-Oct	T	Volcanoes	Interlude B, 9	9a
15	23-Oct	Th	Volcanoes, Earthquakes	Interlude C, 10	9b
16	28-Oct	T	Earthquakes	10	10a
17	30-Oct	Th	Deformation and Mountain Building	11	11a, b
<b>18</b>	<b>4-Nov</b>	<b>T</b>	<b>Exam #3</b>		
19	6-Nov	Th	Mountain Building, Deep Time	Interlude D, 12	12a
20	11-Nov	T	Deep Time	12	12b
21	13-Nov	Th	Energy Resources	14	14a,b
22	18-Nov	T	Mineral Resources	15	15a,b
23	20-Nov	Th	Running Water	Interlude E, 17	17
	<b>24-Nov</b>	<b>T</b>	<b>Thanksgiving Break</b>		
24	26-Nov	Th	Oceans and Coasts	18	18
<b>25</b>	<b>2-Dec</b>	<b>T</b>	<b>Exam #4</b>		
26	4-Dec	Th	Groundwater	19	19a,b
27	8-Dec	T	Glacier and Ice Ages	22	22
28	10-Dec	Th	Catch-up/Review for Final		
			<b>Final Exam</b>		

\*Marshak, Earth:Portrait of a Planet, 3rd Edition

\*\* Quizzes are optional but must be taken by midnight of the date indicated to count for credit