

# Laboratory Syllabus: GEO SCI 100 *Introduction to the Earth, Fall 2009*

~~For lab classes that meet on **WEDNESDAY**~~

Department of Geosciences, University of Wisconsin-Milwaukee

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## Teaching Assistant for Lab Section \_\_\_\_\_:

Name: \_\_\_\_\_ Office: \_\_\_\_\_ Phone: \_\_\_\_\_

e-mail: \_\_\_\_\_

Office hours: \_\_\_\_\_

## Manager of Laboratory Instruction:

Name: Rob Graziano Office: Lapham 342 Phone: 229-3648

e-mail: graziano@uwm.edu

Office hours: Thurs 1:30-2:30 pm and by appointment

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**LOCATION:** LAPHAM 241

## **ATTENDANCE:**

- **YOUR ATTENDANCE AT EACH LAB SESSION IS MANDATORY.**
- **YOU MUST ATTEND THE LAB SECTION IN WHICH YOU ARE REGISTERED.**
- **THERE ARE NO MAKE-UP LABS.**
- **YOUR LAB GRADE IS PARTLY BASED ON ATTENDANCE.**

## **REQUIRED TEXTS AND OTHER ITEMS YOU MUST BRING TO LAB CLASS EVERY WEEK:**

**Lab Manual:** *Rutford and Carlson*, 2009, *Zumberge's Laboratory Manual for Physical Geology*, 14th Edition. Available at the Union Bookstore, Panther Books, or on-line textbook sites. (Note: A reduced price was negotiated with the publisher, so your best price will be at one of the two bookstores on campus.)

**Lab Copy Packet:** *Graziano*, Fall, 2009, *Geo Sci 100 Lab Lessons/Assignments Packet*. Available ONLY at *Clark Graphics* on Oakland Ave, just north of Locust, after Sept. 8, 2009.

\* Be aware that if you forget to bring your lab manual or assigned lesson or assignment to class, your lab instructor will NOT provide copies of any of these materials after the week of Sept. 14 (and you will lose points.)

**Lab Supplies (pen or pencil, ruler, scientific calculator.)** Ruler should have both metric and English units. An adequate scientific calculator need not have any graphing or programming capabilities, but should have basic arithmetic and trigonometric [e.g., sin, cos, tan] functions. (This type of calculator costs as little as \$15.) Cell phones are NOT to be used as your calculator. An optional lab supply item that will be convenient, but is not required, is a USB flash drive.

**PLEASE ALSO BRING: YOUR enthusiasm and willingness to participate within a group setting:** Nearly all lab lessons will be conducted in a "cooperative" or "group learning" format, so your participation within your group is essential to your success and your colleagues' success.

## LAB LESSONS

Most laboratory lessons will be conducted in a ‘group learning’ format, whereby your ‘success’ in class depends largely on the success of your randomly chosen group. Completed lab assignments must be turned in during class (along with your other group member’s assignments). Lab lessons are completed partly in the lab book, but mostly on the lab lesson handouts provided in the ‘Lab Lesson and Assignments’ packet. Each lab lesson will count for 10 pts. that can only be earned by participation during your lab class. Students who attend a lab class other than their own scheduled lab class cannot earn full credit for the lab lesson (maximum 8 pts.). Students who arrive to class after the lab lesson has begun cannot earn full credit for the lab lesson (maximum 9 pts.) Your participation (or lack there-of), within your group will affect your group’s learning success and subsequent grade.

## LAB PREP ASSIGNMENTS

It is essential that you come to lab prepared each week. The best way to be prepared (based on polling of previous Geo Sci 100 students!!!!) is to read the assigned reading material AND complete a weekly ‘lab prep’ assignment. Your ‘Lab Prep’ assignment is provided in the ‘Lab Lessons and Assignments’ copy packet. These assignments specify the assigned reading from the lab book and include a series of basic questions or exercises, typically taken directly from the reading. Your TA will collect these assignments weekly, but only grade them on eight random weeks. Lab-prep assignments are ONLY accepted for grade if turned in at the start of class.

## LAB HOMEWORK ASSIGNMENTS

There will be three required lab homework assignments as shown below. Late policy for these three assignments for partial credit will be established by your TA.

	<u>Points</u>	<u>Assigned:</u> <sup>1</sup>	<u>Due:</u> <sup>1</sup>
<i>Mineral Use/Significance</i> Assignment	10 pts.	Sept 23	Oct 7
<i>Greene Gallery</i> <sup>2</sup> / <i>Downtown Virtual Tour</i> Assignment	20 pts	Oct 7	Oct 28
<i>Geologic Problem</i> Assignment	30 pts	Nov 4	Dec 9
OPTIONAL <i>Milw. Public Museum Extra Credit</i> Assign.	2% bonus	Sept 9	Dec 9

<sup>1</sup>These dates ONLY apply to LAB CLASSES that meet on Wednesday.

<sup>2</sup>The *Greene Gallery* assignment will require you to visit the Greene Geological Gallery (LAP 168) at some point during the assigned time period. Hours that the Greene Gallery will be open will be announced no later than September 8th. Students unable to attend the Greene Gallery during *open hours* will need to set an appt. with your TA or Rob Graziano. The Greene Gallery WILL NOT BE OPEN DURING THANKSGIVING BREAK.

## LAB QUIZZES

There will be six 10-point quizzes administered at the end of lab class on random weeks at the discretion of your TA. These ‘post-lab’ quizzes will cover material completed during that day’s lab. The quizzes will be administered after the lab lesson is completed and turned in, and each group has had a few minutes to preview and discuss a sample quiz. Since the post-lab quizzes will be assessing each group’s mastery of that day’s lesson, each group will typically be given a few minutes to discuss a sample post-lab quiz prior to taking the actual quiz individually. Post-lab quiz scores will be “group graded” using a formula that will factor in 75% of your quiz score and 25% of your group’s average quiz score. Your lowest quiz score will be dropped.

## LAB TESTS

There will be two lab tests, as per the *Schedule* below. Tests will be practical, “hands-on” tests where you will be asked to either move around the room to different stations or share resources (e. g., maps, models, etc). **YOU MUST ATTEND YOUR SCHEDULED LAB TEST.**

## GEO SCI 100 LAB CLASS SCHEDULE – for LAB CLASSES that meet on WEDNESDAY

<u>Date</u>	<u>Lab Lesson or Test</u>	<u>DUE (at start of class!)</u>
Sept. 2	NO LAB CLASS <sup>3</sup>	
Sept. 9	Lesson #1: Intro., Sci. Method, Gen'l Science Refresher	
Sept. 16	Lesson #2: Plate Tectonics (w/ Geowall™ demo), Earthquakes	L#2 Prep
Sept. 23	Lesson #3: Minerals	L#3 Prep
Sept. 30	Lesson #4: Igneous Rocks	L#4 Prep
Oct. 7	Lesson #5: Sedimentary Rocks	L#5 Prep, <b>HW #1</b>
Oct. 14	Lesson #6: Metamorphic Rocks	L#6 Prep,
Oct. 21	<b>LAB TEST #1</b> (covers Lessons #1 - #6)	
Oct. 28	Lesson #7: Topographic Maps, w/ Geowall™ Demo	L#7 Prep, <b>HW #2</b>
Nov. 4	Lesson #8: Geologic Time	L#8 Prep
Nov. 11	Lesson #9: Streams, w/ Flume Demo	L#9 Prep
Nov. 18	Lesson #10: Groundwater/Glacial Geology	L#10 Prep,
Nov. 25	NO LAB CLASS <sup>3</sup>	
Dec. 2	<b>LAB TEST #2</b> (covers Lessons #7 - #10)	
Dec. 9	Lesson #11: Wisconsin Geology	L#11, <b>HW #3, Optional MPM Assign.</b>

**<sup>3</sup>Note: There are NO LAB CLASSES scheduled Sept 2-4, 7, Nov 24-29 or Dec 14,15)**

### LAB GRADING

Lab is worth 40% of your total course grade, so failure to participate in the lab portion of the course will allow you a maximum of 60% for the entire course (so, essentially an 'F' for the course). Your lab grade is comprised of 400 possible points, where every 10 points = 1% of your total course grade. The 400 possible points for lab are distributed as follows:

		<b>% lab grade</b>	<b>% course grade</b>
• Attendance/participation/ lab lessons	110 pts.	27.5%	11%
• Quizzes/tests	50/100 pts.	37.5%	15%
• Lab prep assignments	80 pts.	20%	8%
• <u>Homework assignments</u>	60 pts.	15%	6%
Total	400 points	100%	40%

### EXTRA CREDIT

Up to 3% extra credit for the course can be earned through completion of two extra credit options. The two primary extra credit options offered for this course are: (1) an all-day class field trip to Devil's Lake and Baraboo on a Saturday, November 7<sup>th</sup>, 2009 and (2) a self-guided tour and homework assignment to be completed at the Milwaukee Public Museum anytime prior to **your TA's deadline**. Qualifying extra credit earnings will be added to your total course grade (lecture+lab) at the end of the semester.

- Field trip<sup>4</sup> earns you 2%: Students will earn 2% extra credit for the field trip option if they: (A) pay the \$20 fee; (B) sign both the *University Liability Waiver* and *Conditions Agreement* forms; (C) attend the field trip, on University-provided transportation (i. e., bus) [*Sorry, you can't take your own car or meet us*

out there!]; (D) successfully complete the field trip assignment distributed at the beginning of the trip; and (E) turn in the assignment at the end of the trip.

- **Milw. Public Museum earns you 2%:** Students will earn 2% extra credit for the museum option if they: (A) visit the museum; (B) provide proof of their museum admission by attaching their admission wristband to their completed assignment; (C) complete the MPM extra credit assignment in the back of your copy packet ; (D) submit their own completed assignment and proof of admission to your TA by **your TA's deadline** and (E) receive a grade of 80% or better on the assignment.
- **Both field trip & Milw. Public Museum earns you 3%:** Students will earn a total of 3% extra credit if they complete all requirements for BOTH extra credit options.

Additional extra credit points will be available in lab through extra credit questions on quizzes or tests. Most extra credit questions will be posted for a week prior to class in the Geo Sci 100 display case outside Rm. 241 for you to research the answer and anticipate the question on a lab quiz or test. Extra credit points may also be available for exceptional homework assignments.

<sup>4</sup>**Additional Field Trip Details:** You can learn more about the field trip on the Geo Sci 100 course web site: <http://www.uwm.edu/Course/422-100/>. Field trip tickets will go on sale Mon, Oct. 5<sup>th</sup>, 2009 for the Sat., Nov. 7<sup>th</sup> field trip, and are available from your TA or from Rob Graziano. Field trip spaces are limited, and are granted on a first-come, first-served basis - so sign up early! When possible, arrangements can be made to make the trip accessible to students who need accommodations due to a physical disability; however, the student must make these arrangements in conjunction with the lecture instructor at least one week prior to the field trip.

### **OTHER RULES, RESOURCES, AND RECOMMENDATIONS**

- Turn off your phones and MP3 players when you enter lab class!! **TEXT MESSAGING, PHONE CONVERSATIONS, BROWSING, DOWNLOADING, ETC ARE NOT ALLOWED DURING CLASS.** Students using their phones during class will be asked to leave and receive a ZERO for the remainder of class.
- Students are strongly encouraged to utilize the abundant resources and references available on the course website at [www.uwm.edu/course/422-100/](http://www.uwm.edu/course/422-100/), esp. for homework assignments.
- Students are strongly encouraged to monitor postings in the glass display cabinet at the entrance of the lab classroom, LAP 241. Weekly extra credit questions will be posted in this cabinet.
- Students are encouraged to learn their TA's name! (*Some TAs have to learn up to 72 names!*)
- Labeled study specimens are available in the Greene Geological Gallery and in the display cabinet around the corner from the lab classroom (across from Lap 236). Photos of labeled specimens are available on the Geosciences Dept. website.
- This course is conducted under the conventional honor code: work you hand in for credit must be entirely your own. Any student suspected of unethical practices will receive a course grade of F, and be referred to University administration for disciplinary action in accordance with University policy and codes.
- Students have a responsibility to treat lab resources with care and respect. Any student who damages, defaces or destroys a laboratory resource (map, specimen, model, computer, or other instrument, etc.) may be ejected from that lab session, assigned a grade of ZERO for that lab, and held financially responsible for replacing the damaged resource.
- If you know in advance that you will not be able to attend a regularly scheduled lab class, you must contact your TA or the manager of lab instruction as far in advance as possible, to be eligible to make-up the lab lessons, quizzes or exams. You must then provide written documentation of your medical illness or emergency, family or military leave, or other verifiable extraneous circumstance to explain your absence from lab. Upon consideration of the verifiable reason for your planned absence and review of written supporting documentation, your TA may (based on your individual circumstances) make alternate arrangements with you to attend another one of their labs, OR make-up the missed lab lesson, quiz or test at another mutually agreeable time within one week of the regularly scheduled lab class. **NOTE THAT IF YOU MISS A LAB CLASS WITHOUT PRIOR NOTIFICATION TO YOUR TA OR THE MANAGER OF LAB INSTRUCTION, YOU WILL NOT BE ELIGIBLE TO MAKE-UP THE LAB LESSON, SUBSEQUENTLY EARNING A GRADE OF ZERO FOR THE MISSED LAB LESSON, QUIZZES, OR EXAM.**