# INTRODUCTION TO THE EARTH

# GEO SCI 100-402 SPRING 2019

**TUESDAY, 500-650**

**LAPHAM N103**

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| --- | --- |
| **Instructor**  Gina Seegers Szablewski | 13077010_1112767775450744_9077317243471611198_n.jpg |
| **Contact Information** | Lapham 320, [szablews@uwm.edu](mailto:szablews@uwm.edu), 414-229-3746 |
| **Office Hours** | Tuesday 3-4 pm and Thursday 10-11 am, or by appointment |
| **Required Text**  **(digital)** | *Exploring Geology,* 5th Edition, Stephen J. Reynolds et al., McGraw-Hill, 2019 |
| **Geology Dept. Office** | Lapham 366, 414-229-4561 |

***WHY STUDY GEOLOGY?***

As the title of this course suggests, this class is about Earth. We will discover just how relevant geology is to your everyday life, and how geologic processes shape where and how we live. Through our study of geology, we will learn how the scientific process works and what a geologist does. We will learn about plate tectonics and how it controls Earth’s geography, topography, volcanic processes, and earthquakes. We will learn about Earth’s ever-changing climate and how glaciers covered and sculpted the Wisconsin landscape. We will begin to grasp the concept of deep time and learn how and why Earth’s surface and climate have changed, sometimes dramatically, over the planet’s 4.6 billion-year history. And we will discuss the importance of fresh water, both in shaping Earth’s surface and as our most important natural resource. By the end of this class, you will be able to demonstrate that you can use the concepts and critical thinking skills from this course to evaluate scientific information so you can make intelligent decision regarding geologic, scientific, and environmental issues that will affect your life. I hope to share with you my passion for science and science education and show you that being a geologist is fun and full of adventure.

*This is a photo I took in Iceland on a UWM-sponsored field trip; studying places such as this, and sharing it with you, is what I do!*

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# LECTURE SCHEDULE

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| --- | --- | --- | --- | --- |
| **Dates** | **Lecture Topic** | **Reading Assignment** | **Learnsmart**  **Due 1159 am** | **Quiz**  **Due 1159 pm** |
| January 22 | Class Expectations, Nature of Geology | Chapter 1 | January 22 | January 27 |
| January 29 | Investigating Geologic Questions | Chapter 2 | January 29 | February 3 |
| February 5 | Plate Tectonics | Chapter 3 | February 5 | February 10 |
| February 12 | Igneous Environments | Chapter 5 | February 12 | February 17 |
| February 19 | Volcanoes | Chapter 6 | February 19 | February 24 |
| February 26 | Metamorphism and Deformation | Chapter 8 | February 26 | March 3 |
| March 5 | Earthquakes | Chapter 12 | March 5 | March 10 |
| March 12 | **EXAM 1** |  |  |  |
| March 26 | Geologic Time | Chapter 9 | March 26 | March 31 |
| April 2 | Sedimentary Environments | Chapter 7 | April 2 | April 7 |
| April 9 | Weathering and Unstable Slopes | Chapter 15 | April 9 | April 14 |
| April 16 | Water Resources | Chapter 17 | April 16 | April 21 |
| April 23 | Climate and Weather | Chapter 13 | April 23 | April 28 |
| April 30 | Glaciers | Chapter 14 | April 30 | May 5 |
| May 7 | Planetary Geology | Chapter 19 | May 7 | May 12 |
| May 14 | **EXAM 2** |  |  |  |

# *Note: This schedule is subject to change at the discretion of the instructor. Changes will be announced in lecture.*

# GRADING

Thelecture portion of this class is worth 60%.

Exams – 30% total

Quizzes – 15% total

Learnsmart – 15% total

Lab– 40% total



I will round up grades to the nearest whole number. For those final grade averages on the borderline between two grades, I will take into consideration class participation, lecture and lab attendance, and extra credit effort. All lectures grades will be kept up to date on the Canvas gradebook throughout the semester; your TA will keep your lab grade in a separate Canvas gradebook, and I will add your lab grade to the lecture gradebook at the end of the semester.

**CANVAS**

We are using *Canvas* for our learning management system in this class. If Canvas is new to you or you need some help on how to use it, visit <https://community.canvaslms.com/docs/DOC-10701>. Make sure to start your online assignments in Canvas. This is also where you will find study guides, links to films we watch in class, and class announcements.

**CONNECT**

*Connect* is the online system from McGrawHill that contains your text and your assignments. Within *Connect,* you will find your electronic text (called *Smartbook*), your *Learnsmar*t assignments, and your quizzes. You will access *Connect* through your *Canvas* account. There are a few purchase options depending on what is best for you.

**HOW TO REGISTER FOR CONNECT:**

1. Go to your *Canvas* account for this class. Find the link to *How to Register for* *Connect* on the *Home* page in the *Basics* module.
2. Access is required and costs $85: codes are available through the campus bookstore or directly from McGrawHill.
3. If you want a black and white printout of the text, order it from *Connect* for about $25.
4. Registration is open January 18 – February 15.
5. There is a free 2-week trial.

If you want a hardcopy, you can buy one from the bookstore that comes with a code for *Connect*; that currently is about $130 for a new, loose-leaf copy. I have old texts in the library on 2-hour reserve.

**PROBLEMS WITH CONNECT - WHAT TO DO**

1. Try a different browser.
2. Delete your browsing history.
3. Make sure that popups from *Connect* are not blocked.
4. Contact Customer Support at [http://www.connectstudentsuccess.com](http://www.connectstudentsuccess.com/).
   1. Calling them is the quickest way to get help if you need it.
5. Talk to me before or after class, or email me, if you have done all this and are still having trouble.

Make sure your computer is in good working order before trying to complete your online work, especially the quizzes. This means having your software up-to-date, making sure that popups from *Connect* are allowed, and that you have a good connection. The *Connect* site has a built-in computer check program to make sure you have what you need. Use the McGrawHill helpline and the campus computer support, too. If your computer isn’t up to snuff, you have access to many computers on campus that will work with this program. It is up to you to handle these computer issues.

There is a *Smartbook* app. Access comes with your regular account, but you do need to get it from the app store. Make sure to link it to your *Connect* account.

**SMARTBOOK/LEARNSMART**

There are three steps to using the *Smartbook* successfully: read, practice (*Learnsmart*), and recharge. Read lets you see what we are going to cover in the chapter in a preview and is the material you need to read. *Smartbook* highlights the sections that your instructor thinks are a little more important than others, so you can concentrate on those. Practice is trying out your new knowledge and getting credit for it by completing it by the due date. Your *Smartbook* is personal and will change in response to how well you do in practice. And the recharge bit is for when you are preparing for an exam. Take the time to review “How to Use Smartbook” in *Connect* so you get all the benefits of this system. *Connect* is designed to help you study more efficiently with the time you have.

**HOW TO USE SMARTBOOK**

1. Read the assigned material while practicing your knowledge with the *Learnsmart* probes.
2. Complete the assignment by the due date listed in the schedule above; due dates are also listed in your *Connect* calendar.
3. Your grade is based on how much of the material you cover by the due date; these cannot be submitted late.
4. 2 of the lowest scores, including 0s, will be dropped from your grade.
5. After the due date, go back and recharge your knowledge to prepare for exams. You can practice the assignments as many times as you want. Use the Self-Study tab to do this.

***Connect*** will generate individualized reports for you in a variety of ways so you can see how you are doing and make any necessary changes. I get the same reports for every individual in class, as well as for the class as a whole; I use the data to shape how I teach. You should use the data to shape how and what you study.

* **Smartbook/Learnsmart Learning Objectives:** Learn new vocabulary and processes; prepare for lecture; assess your strengths and weaknesses; prepare for exams

**QUIZZES**

For each chapter, I have assigned one quiz. The quizzes consist of multiple-choice, matching, and drag-and-drop questions that may contain tables, graphs, illustrations, and photographs. They usually have about 10-12 questions.

**HOW TO TAKE A QUIZ**

1. Take the chapter quiz after we have covered the material in class.
2. You have 20 minutes to take each quiz, and you can take each quiz 2 times.
3. Complete the quiz by the due date listed in the schedule above. You can submit the quiz late with a 10% reduction in score for every day past the due date.
4. 2 of the lowest scores, including 0s, will be dropped from your grade.

At the end of your first attempt for each quiz, you will see what questions you got wrong without the correct answer. I suggest writing down these problematic questions and finding the answers before proceeding. I use a pool of questions for each quiz, so on the second attempt, you may see some of the same and some different questions.

* **Quiz Learning Objective**: Demonstrate knowledge of basic course concepts; apply vocabulary and processes introduced in class and **Learnsmart**; relate terms and processes

Quiz and *Learnsmart* extensions are granted only for exceptional circumstances, **which do NOT include adding the class late or your computer not working properly.** Contact me in person if you need an extension. See the schedule for exact due dates, although due dates occasionally change and are announced in lecture. See the Exam section below for excused absences.

**STUDY GUIDES**

I post a ***What to Know (WTK)*** for each chapter in Canvas. Each is a guide to discern the core content of that chapter (the “what your teacher thinks is really important about this chapter”). I don’t cover all the *WTK* in class, but I do expect you to know all the material. I chose the words I use in the *WTK* very carefully – “list” means to be able to name or identify items, while “describe” means you should be able to explain a concept.

**HOW TO USE THE WTKs**

1. Print off and review the WTK before beginning the *Learnsmart* assignment for each chapter.
2. As you read and study, keep track of the material you know and that you need help with.
3. Bring the WTK to class, and again, keep track of the material you know and that you need help with.
4. Ask me to cover, in an email or in class, the material you are struggling with.

**CONCEPT SKETCHES**

We will be doing a fair amount of concept sketchesin class together, as geology is a very visual subject. These sketches are important to understanding the material and will be included in detail on exams. I strongly recommend drawing these along with me in class and making sure you have the materials to do so. A few colored pencils may help. These sketches will only be covered in class. They will also be kept in the binder in the geology office but be warned – taking a photo of the sketch to “study” it has very little learning potential compared to drawing it and listening to me explain it in class. A list of the concept sketches you need to know are included in the WTK study guides.

**LECTURE**

* I expect you to attend all lectures, barring illness and excused absences (see below in the Exam section). You are responsible for understanding all material discussed in class.
* I do not post my lecture notes online, as they consist primarily of images. I keep a binder of my lecture notes in the geology office for you to use if you have missed a class.
* The lecture I deliver in class for each topic reflects how you did on *Learnsmart*, and I will be concentrating on topics you struggled with as a whole. As an individual, if you would like me to cover something you are struggling with, let me know either with an email or by raising your hand in class.
* Lecture will incorporate videos, drawings, chapter investigations, local examples, and current events.

**LECTURE EXAMS**

* Exams are closed-book, closed-note exercises and are entirely written, consisting of short answer and fill-in-the-blank questions, and recreating concept sketches. They will include material from lecture, from the chapter investigations, and from your reading assignments. Use the WTK study guides for each chapter – if you know the material listed, you will be successful on the exams.
* You must have an *excused* absence from missing a test (illness with a doctor’s note, military leave, and emergency situations) – contact me as soon as possible to discuss the problem. If you have prior knowledge of a time conflict, you must let me know (in person) before the exam starts. You will have one week from the original test date to makeup the exam. An unexcused absence will result in the total loss of points for that test. You must be able to backup any excuse you present to me for missing an exam. Social and vacation plans that occur during exam periods are not excused absences.
* Do not schedule your vacation/break to begin before the semester is over; this is not a valid excuse.
* There is no final exam.

**LABORATORY**

* Attendance at each lab session is mandatory, and you must attend your assigned lab section. You can’t just show up in a different lab if you miss your regular lab session.
* Lab makeups follow the same policy of exam makeups and are at the discretion of your TA and our lab manager.
* Lab sessions will begin the week of January 28. They meet in Lapham 241. Required supplies include a pencil, ruler, lab manual, and lab packet.
* There is a separate Canvas page for lab with the information and content you need.
* Contact Rob Graziano, lab manager with any lab issues or problems: 229-3648 or [graziano@uwm.edu](mailto:graziano@uwm.edu)
* Labs are a separate part of this class and I have no input into your lab grade.

**EXTRA CREDIT**

* **Optional geology field trip to Devil’s Lake and Baraboo, Wisconsin**: April 2019 date TBD. Approximately times are 7:45 am to 6:00 pm. Cost about $30. Participating students will increase their class grade by 2% by completing all the following: signing the University waiver, attending the field trip on UWM-sponsored transportation (bus), and completing and submitting the field trip assignment successfully. Your TA will have the field trip tickets. You will be charged for the field trip if you sign up and don’t show up.
* When possible, arrangements can be made to make the field trip accessible to students who need accommodations due to a physical disability. The student must make these arrangements in conjunction with the instructor at least two weeks prior to the field trip.
* **Optional self-guided tour of the geological exhibits at the Milwaukee Public Museum:** Students who complete the answer sheets for this tour (80%) will increase their class grade by 2%. Tour answer sheets are available on the geology 100 lab Canvas page. You must provide proof of museum admission by attaching your wristband to the completed answer sheets. Return completed work to your TA at the date established by your TA. Museum admission is free on the first Thursday of every month. Otherwise, admission is $14 with your UWM ID.

**TEACHING POLICIES**

We expect that students in this course behave honorably and abide by all relevant University policies. Cheating, dishonesty, and destructive or disruptive behavior will not be tolerated. All work handed in for credit must be entirely your own. Make sure you are clear on the definition of **academic misconduct** at the university, as I take these policies very seriously. Students working with the Student Accessibility Center must present the appropriate documentation to me within the first two weeks of the semester and 72 hours prior to each exam. If you will need accommodation in order to meet any of the requirements of this course, please contact me as soon as possible. See <https://uwm.edu/secu/wp-content/uploads/sites/122/2016/12/Syllabus-Links.pdf> for more information regarding university policies.

**COPYRIGHT**

The syllabus, presentations, exam questions, study guides, concept sketches, and assignments used in this class are either my creations and/or supplied by the textbook publisher and are to be used solely for educational purposes. In no way, shape, or form may this content, part of this content, or your summary of this content be sold for profit.

**EMAIL**

Remember your email etiquette and sign your name on your email so I know whom it is coming from. Put a note like “**Geo 100-402**” in the subject section of the email so I don’t erase it and I know which class you are in. I usually check my email at least once a day during the week, but sometimes not at all on the weekends. Again, if you have a serious issue or complaint, please come and see me in person as soon as possible.

**LEARNING IN THE UNIVERSITY**

As a student, learning is your job and your responsibility. Not only are you here to learn, you are also here to learn how to learn and how to communicate effectively. I expect you to learn the material presented in this class and to apply this knowledge. Memorizing and learning are not the same. I am more than willing to spend extra time with you to help you understand the material covered. Utilize the office hours I have available.

**HELPFUL HINTS FOR BEING SUCCESSFUL IN THIS CLASS**

* **Attend lecture** – There is a direct relationship between lecture attendance and success in this class. You will succeed in this class (and learn something) by attending lecture and studying the text.
* **Stay in lecture** – If you need to leave lecture early, please sit in the back of class. Otherwise, show up on time and stay the entire class-time.
* **Do your homework** – It is meant to help you learn the material, not just something to keep us both busy.
* Spend 4-6 hours per week studying the material discussed in lecture. Keep up weekly with the material.
* **Study for exams:** Use the ***What to Know*** guides to aide in your study for the exams; if you are comfortable with the material on the guides, you should do well.
* While studying for exams, don’t try to guess the exam material. Use your time to learn the material covered.
* **Participate in lecture** – Ask questions.
* Come to me personally with any problems or issues early in the semester when we can work out a remedy; these are often difficult to handle within the last few weeks of the semester.
* **Respect –** For me, for your fellow students, and for yourself. There are a large number of students in this class.
* Students who are talking, listening to music, texting, using social media, etc. will be asked to leave lecture. Both students and professors find these habits distracting and disrespectful.

**GER STATEMENT**

This course meets the following learning outcomes as included in the **UWM General Education Requirements in the Division of Natural Sciences**:

* Students will be able to understand and apply the major concepts on a natural science discipline, including its breadth and relationship to other disciplines
* Students will be able to explain and illustrate the relationships between experiments, models, theories, and laws
* Students will be able to demonstrate an understanding of the processes of generating and testing data, and apply this knowledge to the solution of problems

This course also addresses the following **UW System Shared Learning Goals**:

* Knowledge of Human Cultures and the Natural World
* Critical and Creative Thinking Skills
* Effective Communication Skills