

# EARTH MATERIALS

GLY3202C, SECTION 5358, 13H4, 2A32 and 1E42, 3 CREDIT HOURS, FALL 2019

**INSTRUCTOR:** Dr. Matthew Smith

Office number: Williamson Hall, Room 269, Email address: [mcsmith@ufl.edu](mailto:mcsmith@ufl.edu)

**OFFICE HOURS:** Virtual Office Hours to be held via zoom: MWRF 12:30-1:30  
(Note I can adjust these as needed once the term begins to best meet student needs)

Additionally, students can contact the instructor to schedule an online meeting at other times via Zoom. Currently no physical office hours are scheduled,

**TA:** Megan Borel; Email: [meganborel@ufl.edu](mailto:meganborel@ufl.edu) ; Office Hours M/W 10-11 am  
Carson Beattie; Email: [carsontbeattie@ufl.edu](mailto:carsontbeattie@ufl.edu) ; Office Hours T/R 7-8 pm

**COURSE WEBSITE:** Maintained in Canvas. Accessed via <http://elearning.ufl.edu>

**COURSE COMMUNICATIONS:** For any class-related questions, students should use the **Course Questions Discussion Forum**. This will benefit all students that might have similar questions. The instructor will regularly answer all questions and participate in this forum. Students should check if the question they have has already been answered in the forum before posting. *Private questions should be sent to the instructor through the course management system, or to their personal e-mail address (this would include questions about grades, late work, etc.).*

**REQUIRED COURSE MATERIALS:** 1. Textbook: Earth Materials: Introduction to Mineralogy and Petrology by Cornelis Klein and Anthony Philpotts, Cambridge University Press, 2013. 2. Web access to the Pearson Mastering Geology Site for this course. Note that this is a course specific site and one must purchase and gain the access to this course site from the Canvas course website. 3. The Rock and Mineral Lab kit designed for this course (GLY3202C). Note this is a custom designed kit for this course and the ONLY place it can be acquired is through the UF bookstore.

**Notes on acquiring required materials: Lab Kit (UF GLY3202C Rock and Mineral Kit)**

You will need to rent the rock and mineral kit for this course through the UF bookstore. Kits are shipped with a return postage label, and students will be charged up to \$200 if the kits are not returned (or are returned in poor condition). Note there are kits for other courses but they cannot be used for this course. This kit is specifically designed for this course. Be sure to order your kit as soon as possible so that it can be shipped to you before you need it for module 2.

**COURSE FEES:** \$9.60 additional fee (total) for Materials and Supplies and Equipment Use and Maintenance.

**COURSE DESCRIPTION:**

The focus of this course is learning to identify common minerals and rock and to be able to associate these geologic materials with the processes and environments that led to their formation. It is divided into 10 topical modules. Each module will be comprised of some combination of reading assignments, lecture videos, lab assignments, quizzes and discussions. Additional detail is provided below in the course policies sections. Students should reference the course Calendar for module start /end dates and due dates of individual course assignments, discussions and assessments. A table of module titles and tentative dates is provided at the end of this document.

**GENERAL EDUCATION:** GLY3202C, Earth Materials is NOT a GenEd physical science (P) course. This course is an upper division course intended for students majoring (or getting a minor) in the Department of Geological Sciences or other closely related fields.

**PREREQUISITE KNOWLEDGE AND SKILLS:** This course presumes that students have had at least one basic introductory geology course that addressed the subject of Earth materials (particularly minerals and rocks). Some review materials are provided to refresh students on the basics that are addressed in courses of this type.

**COURSE GOALS:**

1. Understand how composition and structure control mineral physical properties and understand the criteria by which minerals and rocks are classified.
2. Recognize the most common rock-forming minerals, their compositions and be able to identify them based on their macroscopic and microscopic characteristics.
3. Recognize and be able to identify common types of igneous, sedimentary and metamorphic rocks based on their macroscopic and microscopic characteristics.
4. Be able to associate common types of igneous, sedimentary and metamorphic rocks with the processes that lead to their formation and the environments in which they form.

## **COURSE POLICIES:**

This is a full semester online course comprised of 10 different modules. Modules will last between 1 and 2 weeks depending on the module. Students will be required to complete a set of assignments, discussions and assessments for each module. Specific due dates can be found in the Calendar and on the Syllabus page in Canvas. Start and end dates for each module are detailed below. As this is an online course, students must plan to have regular Internet access and time to explore the resources available on the various ideas and topics that we will be covering.

## **REQUIREMENTS:**

Students are expected to:

- Complete all module assignments and assessments in a timely fashion.
  - Each module\* includes reading assignments, video lectures with accompanying PowerPoint presentations (available as .pdf files), one or more assessments, and some combination of assignments and discussions (either or both).
- Actively participate in all module discussions as specified in each module (discussions take different forms in different modules).
- Complete three proctored exams (exams cover only the materials covered since the previous exam and are as such non-cumulative)
- Check the course announcements and class e-mail at least three times a week.

\*Module 10 only has a lab assignment and a discussion.

**COURSE TECHNOLOGY:** Access to and on-going use of a computer is required for all students. Competency in the basic use of a computer is required. Course work will require use of a computer and a broadband connection to the Internet. In addition, students are required to have speakers and a webcam to take the proctored exams. For additional information on UF College of Liberal Arts and Sciences policy regarding computer requirements you can visit: <http://it.clas.ufl.edu/policies/student-computer-requirement/>

## GRADING POLICIES:

Information regarding UF grading policies and grade point assignment can be found at: <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

Grades for the course will be based on the following:

Assignment	Points or percentage
Module Quizzes	20%, (13 quizzes*, 2 attempts for each quiz with the highest score counting, drop lowest score)
Assignments	25%
Module Discussions	10 %
Three ProctorU Exams	45 % (15% each)

\*There are 9 module quizzes (modules 1-9) and 4 mineral ID quizzes (modules 2,3,7,9)

## GRADING SCALE:

Grade	%	Grade Points Earned	Grade	% Points	Grade Points Earned
A	≥93	4.0	C	73 – 76	2.0
A-	90 – 92	3.67	C-	70 – 73	1.67
B+	87 – 89	3.33	D+	64 – 66	1.33
B	83 – 86	3.0	D	60 – 63	1.0
B-	80 – 83	2.67	D-	57 – 59	0.67
C+	77– 79	2.33	E	< 56	0

**MODULES QUIZZES (20 %):** Module quizzes (modules 1-9) are timed and not proctored. The time allowed varies depending on the length of the quiz. You are allowed 2 attempts at each quiz with your highest score counted. The quizzes need to be completed by 11:55 PM on the last day of each module. To account for any technical or personal circumstances that might hinder the performance on a quiz, the lowest quiz grade will be dropped at the end of the semester. Should you encounter technical difficulties you should contact the computing helpdesk immediate to document the incident (392-HELP or <http://helpdesk.ufl.edu/>). The schedule for the quizzes can be found on the class website.

**DISCUSSIONS (10 %):** Online discussion will be used for further exploration of the topics we study each week and to provide a forum for student interaction. Often an initial post will be due as well as a follow-up response to your peers' posts. Due dates are listed relative to the initial post submission. Specific instruction for the number and timing of posts required is provided in the instructions for each discussion. Each student will be assessed by their participation in the Discussion Forum. For each module that contains a Discussion Forum, students will be expected to post a thoughtful, detailed response (i.e., "yes," "no," "I agree," or "I disagree" answer is not sufficient) according to the *Substantive Post Guidelines* and *Discussion rubric* that has been provided. Deadlines for discussion posts are listed on the course Calendar. Typically the initial post will be due around the middle of the module with a follow-up response being due two days later. Pay close attention to the deadlines for individual modules. Please check the course Calendar for the specific due dates and remember to exercise courtesy and proper etiquette when responding to others' posts.

**ASSIGNMENTS (25 %):** Each Module has associated Lab assignments. All module assignments are due no later than 11:55PM on the last day of the module.

**PROCTORED EXAMS (15% EACH, 45% TOTAL):** Three proctored exams (using Honorlock) will comprise a total of 45% of your grade. Exams occur after Modules 3, 6 and 10 (the last will happen during finals week). Honorlock requires the use of the Chrome browser (along with a downloaded plugin) and a working webcam/microphone. Additional details regarding using Honorlock will be provided in a separate document.

**ATTENDANCE AND MAKE-UP POLICY:** Requirements for class attendance and makeup exams, assignments, and other work in this course are consistent with UF attendance policy which can be found at: <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>. All absences are treated the same in that it is the responsibility of the student to contact the instructor in order to discuss recuperation of material missed and the completion of missed assignments. Missed exams and quizzes can only be made up with an excused absence. An exemplary list of generally acceptable reasons for an excused absence are detailed in the UF attendance policy linked above. Since absences are circumstantial, determination of what beyond this list constitutes an excused

absence is subject to the discretion of the instructor. In general, notifying the instructor about potential conflicts as soon as possible can mitigate problems and allow for planned recuperation. Medical notes, receipts, or any other evidence of an emergency can help in a similar manner.

**LATE ASSIGNMENT POLICY:** Work submitted after the stated deadline may be penalized. A 5% grade penalty may be assessed for work up to twenty-four hours late; with an additional 5% assessed for each additional day the work is late, up to one week. *This policy will be used for assignments only. Discussions, quizzes, and exams must be turned in by the assigned due date.*

**Important Dates:** See canvas calendar for a listing of all important dates. Exam 1 Sept. 28<sup>th</sup> – Modules 1-3; Exam 2 Nov. 2 – Modules 4-6; Exam 3 Dec. 15 – Modules 7-10

#### UF POLICIES:

**University Policy on Accommodating Students with Disabilities :** Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center. [Click here to get started with the Disability Resource Center](#). It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester. You must submit this documentation prior to submitting assignments or taking the quizzes or exams. Accommodations are not retroactive, therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations.

**Student Evaluation of Course and Instructor:** Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at [gatorevals.aa.ufl.edu/students/](http://gatorevals.aa.ufl.edu/students/). Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via [ufl.bluera.com/ufl/](http://ufl.bluera.com/ufl/). Summaries of course evaluation results are available to students at [gatorevals.aa.ufl.edu/public-results/](http://gatorevals.aa.ufl.edu/public-results/).

**Academic Honesty:** By enrolling in this course, you agree to the University's Honor Code: <http://www.dso.ufl.edu/sccr/honorcodes/honorcode.php>.

**University Policy on Academic Conduct:** UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Failure to comply with this code will result in a failing (E) grade in this course. Breaching the code

will not be tolerated and will be dealt with strictly and swiftly. If you are unsure if what you are doing would constitute breaking the code, contact the instructor. For example, working as a group in lab is a good way to bounce ideas and learn from each other. However, each student still needs to turn in their own individual work and come to their own justifiable conclusions.

**Class Conduct:** All students are expected to follow the Student Conduct Code outlined here: <http://www.dso.ufl.edu/sccr/honorcodes/conductcode.php>

Punctuality is important, especially since quizzes are given at the start of class. All students are expected to behave professionally and responsibly. If there are conflicts with the course material or instructor, it is important to communicate this to the proper authorities as soon as possible. The microscopes are expensive and sensitive devices, therefore food and drink are not allowed in the labs. Thin sections are fragile, so students must follow proper microscope handling techniques. You will be assigned a microscope lab access code. Security of the lab facility is paramount and you are not allowed to give your access code to anyone. The lab door should never be propped open.

Netiquette: Communication Courtesy: All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats.

<http://teach.ufl.edu/docs/NetiquetteGuideforOnlineCourses.pdf>

UF Online handbook: Additional information can be found on <http://handbook.ufonline.ufl.edu/>

### **Getting Help:**

For issues with technical difficulties for E-learning, please contact the UF Help Desk at:

- [helpdesk@ufl.edu](mailto:helpdesk@ufl.edu)
- (352) 392-HELP - select option 2
- <http://helpdesk.ufl.edu/>

Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from The Help Desk when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request a make-up.

Other resources are available at <http://www.distance.ufl.edu/getting-help> for:

- Counseling and Wellness resources
- Disability resources
- Resources for handling student concerns and complaints
- Library Help Desk support

### **Campus Resources:**

#### **Health and Wellness**

- *U Matter, We Care:* If you or someone you know is in distress, please contact [umatter@ufl.edu](mailto:umatter@ufl.edu), 352-392-1575, or visit [U Matter, We Care website](#) to refer or report a concern and a team member will reach out to the student in distress.
- *Counseling and Wellness Center:* [Visit the Counseling and Wellness Center website](#) or call 352-392-1575 for information on crisis services as well as non-crisis services.

- *Student Health Care Center*: Call 352-392-1161 for 24/7 information to help you find the care you need, or [visit the Student Health Care Center website](#).
- *University Police Department*: [Visit UF Police Department website](#) or call 352-392-1111 (or 9-1-1 for emergencies).
- *UF Health Shands Emergency Room / Trauma Center*: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road,
- Gainesville, FL 32608; [Visit the UF Health Emergency Room and Trauma Center website](#).

### **Academic Resources**

- *E-learning technical support*: Contact the [UF Computing Help Desk](#) at 352-392-4357 or via e-mail at [helpdesk@ufl.edu](mailto:helpdesk@ufl.edu).
- [Career Connections Center](#): Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services.
- [Library Support](#): Various ways to receive assistance with respect to using the libraries or finding resources.
- [Teaching Center](#): Broward Hall, 352-392-2010 or to make an appointment 352-392-6420. General study skills and tutoring.
- *Student Complaints On-Campus*: [Visit the Student Honor Code and Student Conduct Code webpage for more information](#).

*On-Line Students Complaints*: [View the Distance Learning Student Complaint Process](#).

Should you have any complaints with your experience in this course please visit <http://www.distance.ufl.edu/student-complaints> to submit a complaint.

**Disclaimer regarding recording of live sessions:**

Although this class is taught asynchronously with no live class meetings, we will occasionally have live help/review sessions held by Zoom. These may be audio visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

**Tentative Schedule (refer to Canvas course site schedule for details and changes during the term)**

<b>Module</b>	<b>Approximate Dates (check Canvas Course site for actual dates)</b>
Module 1: Introduction to Earth Materials	Aug. 31 – Sept 8
Module 2: Mineral Classification	Sept9 – Sept. 18
Module 3: Crystal Structures and Crystallography	Sept. 19 – Sept. 25
Module 4: Introduction to Optical Mineralogy	Sept. 26 – Oct. 9 Exam 1 Sept. 28 <sup>th</sup> – Modules 1-3
Module 5: Igneous Processes	Oct. 10 – Oct. 16
Module 6: Origin of Igneous Rocks	Oct. 17 – Oct. 28
Module 7: Sedimentary Processes	Oct. 29 – Nov. 6 Exam 2 Nov2 – Modules 4-6
Module 8: Origin of Sedimentary Rocks	Nov. 7 – Nov. 18
Module 9: Metamorphic Processes	Nov. 19 – Nov. 24
Module 10: Origin of Metamorphic Rocks	Nov. 30 – Dec. 9 Exam 3 Dec. 15 – Modules 7-10