

**GLY2010C – Physical Geology
Fall, 2021 (course numbers 13766 and 19538)
Instructor: Dr. Matthew Smith**

Credits: 4

Pre-requisites: None

Room/Time: Lecture: Williamson Hall Room 202 MWF Period 4: 10:40-11:30am. Lab Meets in Wm 141, and lab meeting time is dependent on the section/class number.

Office Hours: MWF 12:30-1:30 pm, T 1:30-2:30 pm or by appt. or email for an appointment. Office hours will be held in person in WM 269 and via zoom (or phone). Zoom join URL: <https://ufl.zoom.us/j/4902865705>

Email: Please use the mail tool within Canvas. Alternatively, I can be reached at mcsmith@ufl.edu;

Office: Williamson 269; 352-392-2106

Any time my door is open you are welcome to ask if I have time to see you and if not, I will gladly arrange a suitable time for you to come back.

Teaching Assistants: Mr. Carson Beattie, carsonbeattie@ufl.edu

Office: Wm 107 **Office Hours:** Wednesday and Friday at 11:30 – 12:30

Lab Section Meeting times: Class number 13766 (section 0563) meets Monday Periods 8 and 9 (3:00-4:55pm) and class number 19638 (section 0796) meets Tuesday periods 6 and 7 (12:50-2:45pm)

Lab Room: Williamson Hall Room 141.

Please see separate lab syllabus provided by your lab section TA for further information about the lab and TA Office hours. Lab will not meet the first week of classes during drop/add.

Required Texts: The class is a part of the All Access program. You will have immediate access to electronic versions of both the text and lab manual along with access to the Norton online learning system smartwork. **You are required to opt in by the specified deadline** to maintain access. Loose leaf print copies of the lab manual are available for an additional fee. NOTE: We do not use the publisher online learning platform (Smartwork) or other supplemental materials so if you prefer to simply buy print copies of the two required texts rather than use UF All Access that is fine.

Required Texts:

1. Earth: Portrait of a Planet 6th Edition by Stephen Marshak, published by Norton.
2. Laboratory Manual for Introductory Geology 4th Edition by Allan Ludman and Stephen Marshak, published by Norton.

Due to the structure of teaching and learning in this course, you will find it **impossible** without these materials. **For lab**, you will often need printed copies of some exercises, so the loose-leaf lab **print copies are strongly recommended** unless you are willing to print out materials.

Required Texts: *Earth: Portrait of a Planet 6th Edition by Stephen Marshak, published by Norton.*

Laboratory Manual for Introductory Geology 4th Edition by Allan Ludman and Stephen Marshak, published by Norton.

Due to the structure of teaching and learning in this course, you will find it **impossible** without these texts. E-texts of these materials are available as a bundle through the UF All Access program.

Course Fees: \$4.88 additional fee (total) for Materials and Supplies and Equipment Use and Maintenance.

Course Description:

The focus of this course is how processes operating within the Earth system shape its surface, control its environment and influence the evolution of systems operating within it.

Course Schedule:

The schedule for each session, quizzes, exams and cancelled classes is available online on the Canvas course website. Descriptions and readings for each module are also provided on the website. A tentative schedule is provided at the end of this syllabus for your reference now, but please refer to the schedule on the canvas website once class begins.

Important Dates: Exam 1: 10/1/21; Exam 2: 11/3; Exam 3: Finals week during the scheduled final exam period for MWF period 4 classes.

Course Objectives:

1. Learn about the processes and events that shape the planet around you, so you can better understand the environment in which you live.
2. Further your understanding of the process of scientific inquiry as a means to refine critical thinking skills.
3. Improve communication and general performance in a team. Develop life-long independent learning skills.

Course Design:

Your instructor will be using a Team Based Learning approach to teach this course. During the first class you will be placed in small teams that will be permanent for the semester. Course content will be broken into 12 modules with assigned readings. Each module will start with an assigned pre-reading and/or video lecture that must be completed prior to the first day of that module. The first day of the module will consist of an Individual Readiness Assurance Test (I-RAT) and Team Readiness Assurance Test (T-RAT) based on the reading. These tests will be short and multiple-choice. Length will vary with each module from 5-15 questions. Please see the class schedule. The same test will be completed individually and as a team. Pre-readings are designed to provide you with the base knowledge to understand each topic. Class activities will then focus on conceptual understanding and application of the content through discussion and teamwork. Aspects of the application activities will be handed in for individual and team

grading. All teamwork will be completed in class except in cases where the teams may opt to meet outside of class

Course Communication and Canvas e-learning Site:

ALL course announcements (including time-sensitive ones) will be sent out via Canvas Announcements tool, therefore it is very important that you set your personal settings so that you receive notifications of Canvas announcement immediately. Course materials, schedules, surveys, quizzes, readings, assignments etc. will be posted to the Canvas e-learning site: <https://lss.at.ufl.edu/>. ALL email communications MUST be sent from (and will be sent to) your gatorlink accounts or be sent through the Canvas email tool. Before sending me a question via email please check the syllabus and class website for the answer to your query. This will help me attend emails quickly. If you do not get a reply in 48 hours, please do not hesitate to resend your email.

Expectations:

Your instructor will put considerable effort into this class and therefore, they expect the same from you. It is vitally important that you understand all the major concepts covered. This is an important class for developing geological thinking– you must keep up with readings, class assignments and lab assignments. It will be **impossible to catch up**. Your instructor is committed to helping you succeed and is willing and available to help. However, they cannot help unless you **ASK FOR HELP**. Please go to them as soon as you start falling behind. The last week of classes is way too late.

Class Participation:

Class participation is very important – you should be actively engaged in answering questions and listening to other answers given. You are also expected to ask questions during class about topics you do not understand. There will always be several other students who will benefit from you asking a question. The more engaged you are, the more you will get out of this class. There will be team-based class activities and peer review will form a significant portion of your grade. With regards to class discussions, this is a **judgment free-zone** where getting answers wrong is equally, if not more valuable, to your learning than getting answers right.

Note: Depending on circumstances surrounding the ongoing pandemic, at the instructor's discretion a HI-FLEX option may be made available for those students that need or prefer it (in person class will still meet as well). Should a HI-FLEX option be made available students will be notified through a canvas announcement prior to its implementation.

Attendance/Absences: 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/>.

You are expected to attend **ALL** classes and labs and do the assigned readings. There is a strong positive correlation between attendance and final grade. Attendance will be taken during non-graded team activities and will form part of your *lecture class assignments/participation* grade. If you are going to be absent you need to email your instructor **BEFORE** the scheduled class time and provide a subsequent written excuse from a doctor (for illness) or family member (for a family emergency). You are expected

to be **on-time** to every class. No extra time will be provided if you are late on a test day. If you are late/absent for an RAT and provide a written excuse (as above), your instructor will provide a make-up test for the individual grade and you will be awarded the team grade achieved by your team in your absence.

Late Work Policy and Make-ups:

Any late individual assignments will incur a late penalty. I will accept late work up to five working days (M-F) after the original deadline with a deduction of 10% (of the total points) for each working day i.e. if your work is graded at 90% and it is 3 working days late you will receive a grade of 60%. No penalties are accrued on the weekend. After this, NO late work will be accepted. If you have a written excuse from a doctor (for illness) or family member (for a family emergency) AND let the instructor know within a week of the assignment being due, you will not be penalized for late work as long as it is handed in by a re-scheduled date. If you have a preexisting conflict with one of the scheduled exams, an alternative meeting with the instructor must be made at least one week prior to the exam. In case of sudden illness or family emergency, please notify the instructor as soon as possible (within no more than 1 week). Appropriate documentation may be required. No make-ups will be permitted for other, unexcused absences.

Etiquette, Disabilities, Cheating:

All students are expected to adhere to the student honor code (<http://www.dso.ufl.edu/judicial/honorcode.php>). Cheating and plagiarism will not be tolerated and any assignment/exam, and where there is evidence of either students will be given a zero. Multiple offences may result in automatic failure of the course, at the discretion of your instructor. No texting, calling, radios, MP3 players, emailing or social media-ing during class. Please show courtesy to your instructor, TAs and classmates by turning up on-time and leaving on-time (not early) and avoiding unnecessary disturbances during class. For students with Disability Resource Center accommodations the Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. 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. The Dean of Students Disability Resource Center website is <http://www.dso.ufl.edu/drc>.

U Matter, We Care:

Your wellbeing is important to the University of Florida (and your instructor/TAs). The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact umatter@ufl.edu so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

Assessment and Grading:

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

There will be short multiple-choice Individual Readiness Assurance Tests and Team Readiness Assurance Tests (RATs, same tests for individual and team) at the beginning of each module. There will be three hourly exams. All tests and exams will be closed book and closed phone. Team grades for tests and assignments will be the same for each team member. The team assignment/participation grade will comprise lecture assignments and discussions, attendance during non-graded team activities, peer review, questionnaires and surveys as relevant.

Grade Weights:

Course Component	Weighting (%)
Individual RATs	10
Team RATs	15
Lecture Class Assignments/Participation	5
Team Participation	* See notes below
3 Hourly Exams	45
Lab Assignments & Quizzes <i>See lab syllabus for grade weighting</i>	25

Peer Review:

There will be three periods of anonymous peer evaluation that will form part of your team participation grade – one after modules 1-4, one after modules 5-8 and one at the end of the course. Each individual will evaluate the contributions of all the other team members by assigning an average of 10 points to the other team members. For example, a member of a 6-person team will have 50 points to distribute to the other members of their team. Limitations are that you must differentiate between your point assignments. You must give at least one score of 11 or higher (max. 15) and at least one score of 9 or lower. Individual peer review scores will be the average of points awarded by all the other team members. Your peer review score will be used to moderate your team RAT score. For example, if you were awarded 10, 10, 11, 9, 9 by your 5 team mates your average score would be $49/5 = 9.8$ or 98%. As long as you score 95% or higher on peer review your team RAT score will not be affected. If you score less than 95% on peer review your team RAT average will be reduced by 1% for each percent below 95% on your peer review. Eg. If your peer review was a 90% your TRAT average would be multiplied by 0.95, if the peer review was 85% the TRAT average would be multiplied by 0.9, etc.

Determination of Final Grades:

Raw scores will be weighted according to the grade weights for each performance area as set out in the grade weighting section. Letter grades are as follows:

A=93% or above, A-= 90-93%, B+=87-90%, B=83-87%, B-=80-83%, C+=77-80%, C=73-77%, C-=70-73%, D+=67-70%, D=63-67%, D-=60-63%, F=<60%.

Syllabus is subject to change – including the number of assignments and grading.
You will be notified in a reasonable time frame if there are any changes.

General Education Information

GLY2010C Physical Geology is a GenEd physical science (P) course. Physical science courses provide instruction in the basic concepts, theories and terms of the scientific method in the context of the physical sciences. Courses focus on major scientific developments and their impacts on society, science and the environment, and the relevant processes that govern physical systems. Students will formulate empirically-testable hypotheses derived from the study of physical processes, apply logical reasoning skills through scientific criticism and argument, and apply techniques of discovery and critical thinking to evaluate outcomes of experiments.

General Education Program Student Learning Outcomes

Category	Institutional Definition	Institutional SLO
Content	Content is knowledge of the terminology, concepts, methodologies and theories used within the subject area.	Students demonstrate competence in the terminology, concepts, methodologies and theories used within the subject area.
Critical Thinking	Critical thinking is characterized by the comprehensive analysis of issues, ideas, and evidence before accepting or formulating an opinion or conclusion.	Students carefully and logically analyze information from multiple perspectives and develop reasoned solutions to problems within the subject area.
Communication	Communication is the development and expression of ideas in written and oral forms.	Students clearly and effectively communicate knowledge, ideas, and reasoning in written or oral forms appropriate to the subject area.

Physical and Biological Sciences Subject Area Student Learning Outcomes

Content	Critical Thinking	Communication
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Identify, describe, and explain the basic concepts, theories and terminology of natural science and the scientific method within the subject area. Identify, describe, and explain the major scientific developments within the subject area and the impacts on society and the environment. Identify, describe, and explain relevant processes that govern biological and physical systems within the subject area.	Formulate empirically-testable hypotheses derived from the study of physical processes or living things within the subject area. Apply logical reasoning skills effectively through scientific criticism and argument within the subject area. Apply techniques of discovery and critical thinking effectively to solve experiments and to evaluate outcomes	Communicate scientific findings clearly and effectively using oral, written and/or graphic forms. Write effectively in several forms, such as research papers and laboratory reports.
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This course challenges students to investigate physical, historical, economic and societal aspects of geology. Successful completion of all aspects of this course requires students to demonstrate ability in each of the *Student Learning Outcomes* listed above.

UF POLICIES:

Disclaimer regarding recording of live sessions:

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session. Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Note: In the event of Zoom meetings (for example, an evening review session), these may be audio visually recorded by the instructor 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.

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/. 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/ . Summaries of course evaluation results are available to students at gatorevals.aa.ufl.edu/public-results/ .

Academic Honesty: By enrolling in this course, you agree to the University's Honor Code: <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>

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 honor 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 Conduct Code specifies a number of behaviors that are in violation of this code and the possible sanctions. Click [here](#) to read the Conduct Code. 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. 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.

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/>

Campus Resources:

Health and Wellness

U Matter, We Care: If you or someone you know is in distress, please contact 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.

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.

Writing Studio: 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers.

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](#).

Getting Help:

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

- 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

F21 GLY2010C Physical Geology
Course Information

F21GLY 2010C Physical Geology Tentative Schedule					Tentative Lab Schedule
All dates and lesson plans below are subject to change given reasonable notice.					
Numbers in () on RAT days refer to the proposed number of questions on the test.					
Week	Day	Date	Lesson	Tentative Lesson Plan	
1	M	23-Aug	1	Introductions	No Lab Meetings.
	W	25-Aug	2	Course Introduction and Balan Intro to TBL Workshop	
	F	27-Aug	3	Practice RAT; Other Course Intro and Syllabus Highlights	
2	M	30-Aug	4	UNIT 1: RAT - ORIGINS & EARTH STRUCTURE (10)	Geologic time/history
	W	1-Sep	5	Unit 1 minilecture/Application	
	F	3-Sep	6	Unit 1 Application	
3	M	6-Sep	7	Labor Day	Self guided field trip to the Florida Museum
	W	8-Sep	8	UNIT 2: RAT - CONTINENTAL DRIFT, SEAFLOOR SPREADING, PLATE TECTONICS (15)	
	F	10-Sep	9	Unit 2 minilecture/application	
4	M	13-Sep	10	Unit 2 Application	Plate Tectonics and its driving forces
	W	15-Sep	11	Unit 2 Application	
	F	17-Sep	12	UNIT 3: RAT - MINERALS (10); Unit 3 Application - SILICATE POLYMERIZATION	
5	M	20-Sep	13	Unit 3 Mini lecture/Application	Minerals
	W	22-Sep	14	Unit 3 Application	
	F	24-Sep	15	UNIT 4: RAT - ROCKS, IGNEOUS ROCKS (10)	
6	M	27-Sep	16	Unit 4 Minilecture/Application -	Igneous Rocks
	W	29-Sep	17	Unit 4 Application -	
	F	1-Oct	18	Exam 1 Units 1-4	
7	M	4-Oct	19	UNIT 5: RAT - SEDIMENTARY ROCKS (10)	Sedimentary Rocks
	W	6-Oct	20	Unit 5 Minilecture/Application -	
	F	8-Oct	21	Homecoming	
8	M	11-Oct	22	Unit 5Application -	TBA
	W	13-Oct	23	Unit 5Application -	
	F	15-Oct	24	UNIT 6: RAT - METAMORPHIC ROCKS (10)	
9	M	18-Oct	25	Unit 6 Application	Metamorphic rocks, Field Trip SF Rock cycle garden
	W	20-Oct	26	UNIT 7: RAT - VOLCANOES (10)	
	F	22-Oct	27	Unit 7 mini lecture/Application	
10	M	25-Oct	28	Unit 7 Application	Topo Maps and Map interpretation
	W	27-Oct	29	UNIT 8: RAT - EARTHQUAKES (10)	
	F	29-Oct	30	Unit 8 mini lecture/Application	
11	M	1-Nov	31	Unit 8 Application, Primer on Radiometric Dating	Earthquakes and Earthquake hazards
	W	3-Nov	32	Exam 2 Units 5-8	
	F	5-Nov	33	UNIT 9: RAT - DEFORMATION & MOUNTAIN BUILDING (10)	
12	M	8-Nov	34	Unit 9 Mini lecture/Application	Geologic Time refresher, Interpretation of Geologic Structures
	W	10-Nov	35	Unit 9 Application	
	F	12-Nov	36	UNIT 10: RAT - Stream systems and Flood Hazards (10)	
13	M	15-Nov	37	Unit 10 mini lecture/Application	Hogtown Creek Field Trip, Stream and Flooding Processes
	W	17-Nov	38	Unit 10 mini lecture/Application	
	F	19-Nov	39	UNIT 11: RAT - Florida Groundwater Processes and resources (10)	
14	M	22-Nov	40	Unit 11 mini lecture/Application	No Lab. Thanksgiving Week
	W	24-Nov	41	Thanksgiving	
	F	26-Nov	42	Thanksgiving	
15	M	29-Nov	43	Unit 11 Application	Groundwater and Karstification; Bat Cave Field Trip
	W	1-Dec	44	UNIT 12: RAT - COASTLINES (10)	
	F	3-Dec	45	Unit 12 mini lecture/Application	
16	M	6-Dec	46	Unit 12 Application	TBA
	W	8-Dec	47	Unit 12 Application	
	F	10-Dec		Reading Day	
Finals Week*			Exam 3 : UNITS 9-12		
*Will be held during the Scheduled Final exam period for this class (classes that meet MWF period 4).					