

GLY2100C - Historical Geology

[Jump to Today](#)

GLY2100C – Historical Geology

Course Information Spring 2024

Dr. Joseph Meert

Credits: 4

Pre-requisites: Physical Geology GLY2010C, Environmental and Engineering Geology GLY 2030C or instructor permission.

Room/Time: Williamson 202 Tuesday Periods 4-5 (10.40am-12.35pm) and Thursday Period 5 (11.45am-12.35pm).

Special Notice: Exams will be scheduled 2 weeks in advance along with the study guide. Exams are given on Tuesdays to take advantage of the 2 hour block.

Office Hours: TBD jmeert@ufl.edu

Office: Williamson 361 or 112 Wm (Neil Opdyke Laboratory). I will let you know which one on the office hour days.

Email: jmeert@ufl.edu

Lab Syllabus/Schedule:

[Coming Shortly](#)

Lab Instructor: Samuel Kwafo

Office Hours: TBD

Office: TBA

Email: skwafo@ufl.edu

Lab Room: Williamson Hall Rm 215.

Suggested Text: *Evolution of the Earth* by Prothero & Dott. Not required as all test questions come from the lecture.

Course Description:

Evolution of the earth and its life, including the major physical events and evolutionary changes recorded in the geologic past.

Course Objectives (Tied to Student Learning Outcomes-SLO's):

1. Review key introductory geological concepts including: plate tectonics, evolution, stratigraphy ([SLO1, 2, 3, 5, 6](#))
 - [Links to an external site.](#))
 - Review/introduce the scientific method and how this is applied in gathering geological evidence. Develop skills for observing, interpreting and analyzing the rock record to tell the geological story. ([SLO1, 2, 3,5](#))
 - [Links to an external site.](#))
 - Travel through geological time to understand how major geological events in Earth's history are reflected and recorded in the rock record and the modern landscape. ([SLO1, 2, 3, 4, 6](#))
 - [Links to an external site.](#))
 - Be able to apply geological skills, knowledge and understanding of key concepts to decide how to approach an unknown area to discover its geological history ([SLO 5, 6](#))
 - [Links to an external site.](#))
 - Improve communication in a team and life-long learning skills ([SLO7](#))
 - [Links to an external site.](#))
 - Learn (memorize) Geological Time Scale (No dates/no rates)
 - The **primary goal** for this course is for you to be able to observe, interpret and analyze the rock record to understand geological history as recorded in crustal rocks ([SLO1, 2, 3, 4, 5, 6](#))
 - [Links to an external site.](#))
 - Understand the significance of CRT and DEI in Historical Geology ([SLO1, 3](#))
8. [Links to an external site.](#))

CANVAS: All course announcements, assignments and exercises will be posted to the Canvas website. Your grades will also be updated on the Canvas website. If you fail to check CANVAS, you may not use that as an excuse for a late/absent assignment.

Expectations:

Cell Phones/Laptops: I expect each of you to read this [article \(Links to an external site.\)](#) before the first class. Cell phones/laptops are not really necessary for this course unless otherwise indicated. Your attention/engagement is more important.

I will put considerable effort into this class and therefore, I 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**. I want you to succeed and I am willing and available to help, but I cannot help unless you **ASK FOR HELP**. Please come to me as soon as you start falling behind. If you come to me the day before the final exam it will be 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 part of your class participation grade.

Attendance/Absences:

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 at random times and will form part of your class participation grade. If you are going to be absent you need to email me **BEFORE** the scheduled class time and provide a subsequent written excuse from a doctor (for illness) or family member (for a death in the family). I expect you to be **on-time** to every class. I understand that sometimes lateness is unavoidable. If you are late on a test day you will not be given extra time.

Communication Development:

This course is also used to help you learn to communicate your science effectively and efficiently. Communicating science is important as you will be asked to write technical reports, communicate your findings to the general public, engage in public speaking as well as preparing meaningful data tables, graphs and presentations. These skills are used in a variety of classroom and lab exercises throughout the semester.

Late Work:

Assignments will be due **before** class unless otherwise stated. I will accept late work up to three working days (M-F) after the original deadline with a deduction of 10% for each day i.e. if your work is graded at 90% and it is 3 days late you will received a grade of 60%. After this, **NO** late work will be accepted. You will lose 5% if you hand it in late on the date due, but before 5pm. Penalties will be determined by 5pm each day. If you have a written excuse from a doctor (for illness) or family member (for a death in the family) **AND** let me 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. Make-up exams are highly discouraged, but will be granted if a written excuse is provided.

Assessment and Grade Weighting:

See the grade weighting listed below. Each exam is 14.99% of your grade and the exams are non-cumulative although each assumes you've mastered the concepts previously addressed.

Geological Time Scale: Part of the 'pop' quiz score will be how well you know the geological time scale available [here. \(Links to an external site.\)](#)

Grading Criteria:

Three major performance areas will determine your grade: **Individual Performance, Team Performance, Class Participation and Labs.**

Grade Weights:

1. Exams (3 exams 14.99% each)	44.97%
1. Pop Quizzes/In class stuff	25.03%
2. Labs	30%...

Total: 100%

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 including the decisions made by the class online survey. Final course grade will be based on an individual's standing in the overall distribution of total individual scores in the class. There is no limit to the number of A's earned in this class, but the mean grade will be placed in the B category. There will be no down grading. Letter grades are as follows:

A=92% or above, A-= 89-91.9%, B+=86-88.9%, B=82-85.9%, B-=79-81.9%, C+=76-78.9%, C=72-75.9%, C-=69.5-71.9%, D+=67-69.4%, D=63-66.9%, D-=60-62.9%, E=<60%.

Syllabus is subject to change – including the number of assignments and grading.

Course Schedule (Extremely Flexible!). This course moves as quickly/slowly as required. Sometimes we get hung up on a certain topic and that's fun. Othertimes, we move quickly.

<u>Week #</u>	<u>Topic</u>	<u>Suggested Reading</u>
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1	Science/Philosophy : BAD Science vs good Debates	Class Discussions and
2	Basic Concepts/Review of Intro Course	Chapter 2,3,7
3	Time, Relative and Absolute	Chapters 1,4 &5
4.	Origin/Evolution of the Earth	Chapter 6

EXAM 1- Covering the above topics

5.	Precambrian #1:CRT	Chapter 8
6.	Precambrian #2	Chapter 9
7.	Evolution and Early Life :DEI	Chapter 9
8.	Early Paleozoic/Sauk Sequence	Chapter 10

EXAM 2- Covering the above topics

9.	Late Ordovician	Chapter 11
10.	Middle Paleozoic	Chapter 12
11.	Late Paleozoic	Chapter 13
12.	Why life goes extinct	None

Exam 3-Covering the above topics

13.	Mesozoic Life-1	Chapter 14
14.	Mesozoic Life-2	Chapter 14
15.	Cenozoic and Hominids	Chapters 15,16
16.	Summary	None

Final Exam-Optional, but cumulative and can replace lowest exam grade

Tentative Lab Schedule:

Lab 1- Jan 15-17 Survey Online Completion

Lab 2- Jan 22-24 [How do Geologists Study the Rock Record- Written Report](#)

Lab 3- Jan 29-31: Geological Maps and Cross Sections Part 1: Topo Maps

Lab 4- Feb 5-7: [Geological Maps and Cross Sections Part 2](#)

Lab 5- Feb 12-14: [Mineral Evolution](#): Identify rock forming minerals

Lab 6- Feb 19-21: [Rock Evolution: ID Major Rock Types](#)

Lab 7- Feb 26-28: Plate Tectonics and Supercontinent Evolution

Lab 8- Mar 4-6: Precambrian Life and Climate

Week 9- Spring Break No Classes

Lab 9- Mar 18-20: Paleozoic Life and Times

Lab 10- Mar 25-27: Permian Extinction and Mesozoic Life

Lab 11- Apr 1- 3: Cenozoic Life

Lab 12- Apr 8-10: Visit to FLMNH

Lab 13- Apr 15-17: Hominid Evolution

Lab 14: Lab Final Exam

January 2024

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

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. *Note that CHATBOT papers/answers/essays are considered plagiarism.*

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>

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.

Course Summary:

Date	Details	Due
Tue Jan 9, 2024	Assignment In Class Assignment: Small Groups	due by 12:35pm

Date	Details	Due
Thu Jan 25, 2024	Assignment Time Scale Quiz 1	due by 11:59pm
Tue Feb 20, 2024	Assignment Exam 1	due by 11:59am
Tue Apr 2, 2024	Assignment Exam 2	due by 11:59pm
Tue Apr 23, 2024	Assignment Exam 3	due by 11:59pm
Fri Apr 26, 2024	Calendar Event University of Florida GatorEvals – Spring 2023 Main Project Assignment Final Grade Assignment Lab 1- How is geologic research conducted? Assignment Lab 10- Paleozoic Life Assignment Lab 11- Mesozoic Life Assignment Lab 12- KT Extinction Assignment Lab 13- Hominin Skull Activity Assignment Lab 2- Geologic Maps, Cross-Sections, and Structure Contours Assignment Lab 3- Geologic Maps and Geologic Structures: A Texas Example Assignment Lab 4- Mineral Identification Assignment Lab 5- Rock Identification Assignment lab 6: Life on Earth Assignment Lab 7- Introduction to paleontology Assignment Lab 8- Geography of Phanerozoic Geology using Google Earth (GPGuGE) Assignment Lab 9- Precambrian Interview Quiz Lab exam Assignment Roll Call Attendance Calendar Event University of Florida GatorEvals – Spring 2021 Calendar Event University of Florida GatorEvals – Spring 2021 Calendar Event University of Florida GatorEvals – Spring 2021 Calendar Event University of Florida GatorEvals – Spring 2021 Calendar Event University of Florida GatorEvals – Spring 2021 Calendar Event University of Florida GatorEvals – Spring 2021	11:59pm