

# Professional Geology

GLY 4930 / 6932



## Course Description

Catalog listing: Survey of topics and skills relevant to modern geoscience careers and professional geology certifications.

About the course: This course explores how geologic principles are applied in mining, environmental remediation, water resources, land management, alternative energy, space and other in-demand geoscience careers. A significant portion of the course will be focused on preparing for professional certification exams.

We will also build your professional toolkit for success in industry by learning from geo-professionals from a variety of geoscience careers and course content including geo-ethics and responsible / sustainable resource development, resume and interview skills, exploring the use of technology in industry and more.

### Student Learning Outcomes (SLO):

1. Identify and apply the basic scientific concepts and terminology of various geologic industries.
2. Explore geoscience career paths in a variety of geology-based jobs in industry.
3. Discuss the complexities of topics of geo-ethics and sustainable resource development.
4. Strengthen career “soft skills” such as resumes, interviewing and communication.

## COURSE DETAILS

**Prerequisites and Course Information:** 3 credit hours. Prerequisite is three previous geoscience courses or instructor permission. This course is intended for geoscience majors, and student are expected to start the course with knowledge of basic geologic terminology and principles is expected.

**Format:** This course is offered in a hybrid format to enable both on-campus and UF Online students to participate.

## Instructor:

**Dr. Anita Marshall (she/her)**

Email: [anita.marshall@ufl.edu](mailto:anita.marshall@ufl.edu), or message through Canvas.

Office Phone: See Canvas

Office Location: Williamson 255

### Office Hours:

Tuesdays 10:00am – 12:00pm or by appointment in person or on Zoom.

## When and Where:

**Friday 1:00 - 3:50 pm**

On-campus students:  
Williamson Hall 210

Online students:  
Zoom (see Canvas for link)

## Course Materials:

**No required text.** Course materials will be provided.

**Optional:** If you would like to purchase your own copies of the ASBOG prep materials, we will be using materials from [REG Review](#).

# COURSE MATERIALS (continued)

**Materials & Supplies:** There is no Supply Fee associated with this course. You will need a way to keep notes in class. Paper notebooks, tablets or laptops are all good options, whatever works best for you. PowerPoint files for lectures will be posted before class starts on the class Canvas page to aid in note-taking. Any other needed materials will be provided. We will be creating our own flashcards and quiz materials for the exam prep portion of the course, note cards will be provided, but if you are particular about your note cards, feel free to bring your own.

**A Canvas page for each week lists everything you need to read and do to be prepared for class on Friday.** These pages are ready at least a week in advance of any due dates. Lecture slides will also be added to the page before class if you need them for note-taking purposes.

## YOUR RESPONSIBILITIES

- Read each week's webpage on Canvas to understand what you need to do each week.
- Check the announcements on Canvas and your e-mail regularly - it is the only way I can directly communicate with you outside of class.
- Complete course assignments and activities in a timely fashion.
- Attend and participate in class to the best of your ability. For on campus students, that means attending class in person. For online students, please work out a participation plan with the instructor if you can't attend synchronously.

## COURSE DELIVERABLES

Each deliverable will be graded, but your goal is progress, not perfection. It's ok if you struggle with assignments – we will be working on challenging material. Your final grade will consider evidence of positive progress over the semester. You will be allowed to revise and resubmit when it is beneficial for your learning and time allows. I want everyone to succeed in this course!

**Prep Work:** Each week, you will need to complete a small online activity that encourages you to keep up with assigned materials so you are prepared for class. This can take the form of a short quiz or written summary. Prep Work will be due on Friday at 11:00 am EST each week. This will give me a chance to see how everyone did before class starts. Each quiz is worth 20 points. Your lowest quiz grade will be dropped, even if it's a zero/missing. Prep Work is worth 25% of your overall grade.

**Assignments:** Assignments are any activities completed outside of class time. Each assignment is worth 20 points and the lowest Assignment grade is dropped, even if it is a zero/missing. Assignments count for 20% of your overall grade.

**In-class Activities:** Each week we will be working on something in class. From discussions to games to sharpen our geology knowledge, or activities lead by our guest instructors, each week will have a deliverable to be completed during class. Activities will be designed in such a way as to enable our virtual students to participate with the class. In-class activities are worth 20 points each, lowest grade will be

dropped. For Online students that can't participate in real time, we will work out a plan for when and how to turn in these deliverables. Activities count for 25% of your total grade.

**Mock FG Exam or Final Project:** For your cumulative assessment in this course, you will have two options, either is worth 25% of your overall grade:

1. Take a mock version of the FG exam (yes, the full 4-hour slog). Your grade will not be based on your test grade, but on your self-evaluation of your performance conducted after. Where did you do well? What do you need to work on? What is your game-plan to get you where you need to be? I will provide a detailed rubric to aid in this self-evaluation process.
2. If you really don't want to take the mock Exam, you may write a research paper, on a current and important topic in Economic or Professional Geology. You will need to develop your topic and have it approved by me around the mid-point of the course. This will be more robust than a typical term paper and will require you to interact with a professional working geologist for some of the content. You will build this over the second part of the semester (instead of turning it in all at once at the end). Detailed guidance on steps and expectations will be provided.

**Participation:** Weekly attendance and participation is expected. Just as in a professional work setting, you cannot simply skip class. If you are sick or need to miss class for other reasons, you must proactively inform your instructor and take responsibility for catching up on what you missed. You will be expected to engage in class discussions and activities and ask questions for the guest instructors. We are practicing the collaboration and collegiality that makes for a successful and enjoyable workplace. See the section "Religious Observances, Military Duty & other Unavoidable Absences" for more information on expected absences.

For online students who may be participating asynchronously, you will to work with me early in the course to define what weekly participation looks like for you. Participation is worth 5% of your total grade

## GRADING & ABSENCE POLICIES

**Plagiarism:** This course encourages collaboration, but you are ultimately responsible for your own work. 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." See the [UF Conduct Code](#) website for more information. You will receive a zero on plagiarized work and may face other penalties, so please do your own work!

**Appropriate Use of Artificial Intelligence:** AI programs are not a replacement for human creativity and critical thinking. You are free to use AI tools to enhance your understanding of the course content, but you need to be aware of the potential biases and pitfalls of AI, and its potential to both aid and suppress learning. You are responsible for ensuring that you are providing assignment responses that are high-quality and correct. Simply put: if you write something for this class using ChatGPT you will not be marked down for using ChatGPT; you will be marked down because the ideas are generic, expressed poorly, or contain elements that are not referenced, inaccurate or off-base. It is your responsibility to review and ensure the appropriateness and accuracy of assignment submissions.

**Weighting:** Grades for each type of activity are weighted to balance out how they impact your final grade:

- Prep Work 25% of total
- Assignments 20% of total
- In-class Activities 25% of total
- Exam or Paper 25% of total
- Participation 5% of total

**Grading Scale:** See <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx> for UF grading policies. Final grades for this course will be assigned with the following criteria:

% Grade	Letter Grade	GPA Value
90 +	A	4.0
85-90	B+	3.5
80-84.9	B	3.0
75-79.9	C+	2.5
70-74.9	C	2.0
65-69.9	D+	1.5
59-65.9	D	1
< 58.9	E	0

**Late Policy & Missed Work:** Requirements for class attendance and make-up work are consistent with university policies. [See UF Academic Regulations and Policies for more information regarding the University Attendance Policies.](#)

**Religious Observances, Military Duty & other Unavoidable Absences:** Students who anticipate the necessity of missing deadlines due to religious observances and ceremonies must provide notice of the dates to the instructor, in writing (email is fine) at least one week in advance of the missed class days so accommodations to be made. For other unavoidable absences, contact me as soon as you know the dates. Please do not wait until after you have missed assignments to ask for an exception - especially near the end of the semester.

NOTE: Personal/family vacations scheduled during the semester don't count as unavoidable absences!

## COURSE SCHEDULE

This schedule is subject to change as the semester progresses. The amount of effort you need to put in each week will vary depending on how familiar you are with the topic. Weekly assignments should be done BEFORE class on Friday.

Week	Topic
1: 1/13 – 1/17	<b>Introduction to Professional Geology</b>
2: 1/21 – 1/24	<b>The FG/PG Exams – what, why, how</b>
3: 1/27 – 2/3	<b>Geo-Ethics</b>
4: 2/10 – 2/14	<b>Soft Rock Mining – aggregates, mineral sands and phosphates</b>

5: 2/17 – 2/21	<b>Hard Rock Mining – Ores</b>
6: 2/24 – 2/28* *Dr. Marshall away. Guest instructor TBD	<b>Fossil Fuels – oil, gas &amp; coal</b>
7: 3/3 – 3/7	<b>Non-fossil Fuels – nuclear, geothermal, hydro, solar and Rare Earths</b>
8: 3/10 – 3/14	<b>Hydrogeology</b>
<b>SPRING BREAK</b>	
9: 3/24 – 3/28	<b>Environmental Monitoring and Remediation</b> <u>To Do:</u>
10: 3/31 – 4/4	<b>Field Geology and Geophysics</b> <u>To Do:</u>
11: 4/7 – 4/11	<b>Engineering Geology</b> <u>To Do:</u>
12: 4/14 – 4/18	<b>Geologic Hazards</b> <u>To Do:</u>
13: 4/21 – 4/23* <i>*short week, no Friday classes.</i>	<b>Wrap up</b>
14: 4/28 – 5/2	<b>FINALS WEEK</b>

## ACCESSIBILITY, INCLUSION & RESPECT

**Respect & Inclusion:** Everyone should feel welcome to share their thoughts in a respectful way in this class. If something in the course material, instruction or class interactions make you feel excluded or uncomfortable, please let me or the TA know so we can address it. We will do our best to call you by the name you prefer and with the correct pronunciation. You can specify your pronouns on the Canvas course page, privately to us, or in class. Please correct us if we say your name or pronouns incorrectly – we want to get it right.

**UF Statement 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: <https://disability.ufl.edu/get-started/>. 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.

**My Personal Statement on Accessibility:** We all learn differently. You don't have to have a formally recognized disability to find yourself having difficulty with some aspect of the college learning environment. Please let me know if something in the course material presents a barrier to your full participation so we can work together to find a reasonable solution – *even if you don't have, or don't yet have, a formal accommodation letter.* And please contact me during the semester if your accommodation needs change so we can re-adjust.

**Masking Policy:** Masking is optional on campus and welcome in my classroom, especially if you are sick. There will be no tolerance for harassment regarding mask wearing. Medically vulnerable students, staff and faculty are part of our campus community and deserve access to educational spaces like everyone else.

## NEED HELP?

**Instructor Help:** Office hours are for your benefit - ask questions, get assignment help, discuss class topics or geoscience degrees and career options, or just say hello. Office hours are hosted in our offices and on Zoom with live captioning available. While I have a limited window of time listed for office hours, you can always set up an appointment at a time that works for you.

**Emailing the Instructor:** I teach multiple large classes – my inbox can get out of hand at times. I try my best, but please don't expect an immediate reply to emails. Please tell me which class you are in somewhere in the email -it's very helpful! If it's not regarding sensitive info (like grades or accommodations), faster replies are often achieved by emailing the TA, or by posting your question on the Class Questions Discussion thread on Canvas where anyone can answer.

**Mental Health and well-being:** College life can take a toll on your mental health. If you are mentally or emotionally struggling for any reason, you can contact the [Counseling and Wellness Center](#). They have one-click access to people who can help. If these struggles are negatively impacting your performance your courses, I encourage you to contact the [Dean of Students Care Area](#) - a support team that facilitates temporary accommodations, authorization to make up missing course work, etc. Additionally, if you are comfortable doing so, please reach out to me and I will provide any accommodations in this course that I can.

**Food Pantry:** The Field and Fork Pantry is a resource on the University of Florida campus committed to supporting anyone in the UF community experiencing food insecurity. <https://pantry.fieldandfork.ufl.edu/>

**Financial Assistance:** UF's [Aid-A-Gator](#) program has small grants available to help students with unexpected financial needs.

**Technical Support:** For issues with technical difficulties with the Canvas page, please contact the UF Help Desk: <http://helpdesk.ufl.edu>, or (352) 392-4357.

## STUDENT FEEDBACK & COURSE EVALUATION

**Student Feedback and Course Evaluation:** 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 <https://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 <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

## UF POLICIES

**University Policy on Academic Misconduct:** Academic honesty and integrity are fundamental values of the University community. Students should be sure that they understand the UF Student Conduct Code: <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>, which includes the Honor Pledge.

**UF Undergraduate Student Handbook:** The student handbook has all the details on UF policies for students. <https://dso.ufl.edu/resources/student-handbook/>

*That was a ton of information – thanks for reading to the end!*