

# Course Change Request

## New Course Proposal

Date Submitted: 01/20/22 2:20 pm

Viewing: **GEOL 752 : Earth Sciences in Academia**

Last edit: 02/17/22 11:27 am

Changes proposed by: muhen

Programs  
referencing this  
course

[: Geology and Earth Sciences, PhD](#)

Are you completing this form on someone else's behalf?

No

Effective Term: Fall 2022

Subject Code: GEOL - Geology

Course Number: 752

Bundled Courses:

Is this course replacing another course? No

Equivalent Courses:

Catalog Title: Earth Sciences in Academia

Banner Title: Earth Sciences in Academia

Will section titles  
vary by semester? No

Credits: 2

Schedule Type: Lecture

### In Workflow

1. AOES Chair
2. SC Curriculum Committee
3. SC Associate Dean
4. Assoc Provost-Graduate
5. Registrar-Courses
6. Banner

### Approval Path

1. 01/20/22 12:07 pm  
Mark Uhen  
(muhen): Rollback to Initiator
2. 01/31/22 2:27 pm  
Mark Uhen  
(muhen): Approved for AOES Chair

**Hours of Lecture or Seminar per week:** 2

**Repeatable:** May be only taken once for credit, limited to 3 attempts (N3) **Max Allowable Credits:** 6

**Default Grade Mode:** Graduate Regular

**Recommended Prerequisite(s):**

**Recommended Corequisite(s):**

**Required Prerequisite(s) / Corequisite(s) (Updates only):**

**Registrar's Office Use Only - Required Prerequisite(s)/Corequisite(s):**

And/Or	(	Course/Test Code	Min Grade/Score	Academic Level	)	Concurrency?

**Registration Restrictions (Updates only):**

**Registrar's Office Use Only - Registration Restrictions:**

**Field(s) of Study:**

**Class(es):**

**Level(s):**

**Degree(s):**

**School(s):**

**Catalog Description:**

Earth Sciences in Academia prepares students for a career as a geoscientist in academia. It includes teaching and learning, pedagogy, research administration, and professional ethics.

**Justification:**

What: Creating a new course.

Why: No similar courses exist. Most graduate programs in geology do not include any instruction on how to perform as a faculty member or administrator and this type of instruction will help those students who want to enter academia to do so with the knowledge, skills, and abilities needed to succeed.

**Does this course cover material which crosses into another department?** No

**Learning Outcomes:**

After completing this course, students will be able to: Understand the roles of geoscientists in academia; Develop the skills to teach geoscience concepts to undergraduate and graduate students and to appropriately evaluate student learning; Develop grant writing and grant evaluation skills; Develop lab management skills; Understand and abide by ethical codes for geologic disciplines.

**Attach Syllabus**

[GEOL 752 Earth Sciences in Academia.pdf](#)

**Additional Attachments**

**Staffing:**

Dr. Mark D. Uhen will lead teaching of this course, with additional instruction from other department members as needed.

**Relationship to Existing Programs:**

This course will also be available to students in the Earth Systems Science Master's degree.

**Relationship to Existing Courses:**

This course will be distinct from all other graduate courses in the Geology Program in that it is not science or analysis based, but rather about practical aspects of functioning as a faculty member in a geoscience department.

**Additional Comments:**

**Reviewer Comments**

Mark Uhen (muhen) (01/20/22 12:07 pm): Rollback: title

## **GEOL 752 Earth Science in Academia**

2 credits

### Instructor Information

Instructor Contact Information: Dr. Mark D. Uhen; Office location, 277A Research Hall  
Office Hours, 10:30-11:30 Mondays or by appointment; email: muhen@gmu.edu; phone; 703-993-5264

### Description

Geology in Academia prepares students for a career as a geoscientist in academia. It includes teaching and learning, pedagogy, research administration, and professional ethics.

### Textbook

No textbook is required. Weekly readings will be provided via Blackboard Course Content by the instructor.

### Course Structure

This course will involve 2 hours per week of classroom instruction. In addition, students will work with their own dissertation advisor each week to further explore each of the topics covered from the perspective of their own advisor.

### Student Responsibilities

Students are expected to have read the syllabus and be familiar with expectations and due dates. The syllabus will be posted on the Blackboard system and students are expected to pay attention to any changes that are made over the course of the semester.

Students are expected to check their Mason email and the Blackboard system regularly for information about the course. Students are expected to have read the syllabus and be familiar with expectations and due dates. The syllabus, including the schedule is posted on Blackboard and students are expected to pay attention to any changes that are made over the course of the semester. Failure to be aware of information posted to a student's Mason email account or on Blackboard is not a valid excuse for missing assignments, assignment instructions, tests, presentations or student responsibilities of any kind.

This course operates under the rules of the [George Mason University Honor System and Code](#). Please be familiar with the code. Quizzes and exams are closed book and your answers must be your own.

Students are expected to be respectful of the instructor and each other during class. Demonstrate that respect by please, not talking out of turn during class, turning off your cell phone and instant messaging during class, and trying not to disturb class if you enter late or leave early.

If you are a student with a disability and you think that you need academic accommodations, contact the [Office of Disability Services](#) at 703-993-2472 or [ods@gmu.edu](mailto:ods@gmu.edu) immediately if you have not already done so. All academic accommodations must be arranged through that office. You must then bring the accommodation recommendations to your instructor(s) immediately.

### Learning Objectives

- Understand the roles of geoscientists in academia
- Develop the skills to teach geoscience concepts to undergraduate and graduate students and to appropriately evaluate student learning
- Develop grant writing and grant evaluation skills
- Develop lab management skills
- Understand and abide by ethical codes for geologic disciplines

### Assessment

Students will also complete four projects over the term, each constituting 25% of the course grade. These include: a proposal for a new course in their area of research expertise; a curriculum vitae; a grant proposal to be submitted by the student; a critical review of an issue of current faculty interest or concern.

### Grade scale:

A+ = 97 - 100%, A = 94 - 97%, A- = 90 - 94%, B+ = 87 - 90%, B = 84 - 87%, B- = 80 - 84%, C = 70 - 80%, F = 0 - 70%

### Course Topics

Week 1. Introduction: Scientific Method, Roles of Earth Scientists in Academia

Week 2. Learning Modalities

Week 3. Pedagogy

Week 4. Course Development

Week 5. Curriculum Vitae Writing

Week 6. Curriculum Vitae Review

Week 7. Research Development

Week 8. Grant Writing

Week 9. Broader Impacts

Week 10. Grant Review

Week 11. Faculty Responsibilities

Week 12. Current Issue Development

Week 13. Current Issue Discussion and Review

## Week 14. Ethical issues for Earth Science Faculty and Administrators