

# Course Change Request

Date Submitted: 02/16/22 4:55 pm

Viewing: **GEOL 340 : Modern Methods in Geology**

Last approved: 05/11/21 5:02 am

Last edit: 02/16/22 4:55 pm

Changes proposed by: jbazaz

Catalog Pages  
referencing this  
course

[Department of Atmospheric, Oceanic and Earth Sciences  
Geology \(GEOL\).](#)

Select modification type:

**Substantial**

## In Workflow

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

## Approval Path

1. 02/16/22 5:05 pm  
Mark Uhen  
(muhen): Approved  
for AOES Chair

## History

1. May 11, 2021 by  
Mark Uhen (muhen)

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

**No** ~~Yes~~

Effective Term: Spring 2022

Subject Code: GEOL - Geology

Course Number: 340

Bundled Courses:

Is this course replacing another course? No

Equivalent Courses:

Catalog Title: Modern Methods in Geology

Banner Title: Modern Methods in Geology

**Will section titles  
vary by semester?** No

**Credits:** 3

**Schedule Type:** Lecture

**Hours of Lecture or Seminar per  
week:** 3

**Repeatable:** May be only taken once for credit, limited to 3 attempts (N3) **Max Allowable Credits:** 9

**Default Grade  
Mode:** Undergraduate Regular

**Recommended  
Prerequisite(s):**  
GEOL 101 **and or** GEOL **103, or GEOL** 102

**Recommended  
Corequisite(s):**  
GGS 311, GEOL 302, GEOL 304, GEOL 308, GEOL 317

**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:**

An introduction to common types of datasets, including geologic map products, reflection seismic data, and outcrop photogrammetry, that geologists use in the workforce to complement field-based and observational methods of geology such as outcrop, core or sample descriptions. The class will focus on both learning about the applications of the various data types as well as developing skills in accessing, plotting, and making geologic interpretations of the data.

**Justification:**

What: Adding GEOL 103 to GEOL 101.

Why: The previously 4-credit GEOL 101 has been decoupled into GEOL 101 (3cr), GEOL 103 (1cr).

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

**Learning Outcomes:**

Students will gain familiarity and skill with digital and analog methods for producing and analyzing both observational (e.g. outcrop descriptions) and quantitative (e.g. digital elevation datasets) geologic data sets. Students will also be introduced to introductory GIS and digital field methods in geology that are commonly applied in geoscience careers but less commonly taught at the undergraduate level. By the end of the course students should know how to access, manipulate, and interpret digital geologic map data in various formats; download, manipulate and interpret satellite and airborne digital elevation datasets; create, manipulate and interpret outcrop photogrammetry models; as well as understand and interpret common geophysical datasets including reflection seismic and well data.

**Attach Syllabus**

[geol340syllabus.pdf](#)

**Additional Attachments**

**Specialized Course Categories:**

**Additional Comments:**

**Reviewer Comments**

Key: 17151