

## Graduate Courses 2024-2025

### Fall 2024

Course	Course Title	Units	Instructor	Breadth area
GEL 214	Active Tectonics	3	Oskin	1
GEL 290	Seminar	1	TBD	N/A
GEL 294	Structure & Tectonics forum	1	Roeske	N/A
GEL 390	Methods of Teaching Geology	2	Billen	N/A

### Winter 2025

Course	Course Title	Units	Instructor	Breadth area
GEL 2xx	TBD	TBD	Montañez	TBD
GEL 2xx	TBD	TBD	Sumner	TBD
GEL 281	Instrumental Techniques	3	Yin	2
GEL 290	Seminar	1	TBD	N/A
GEL 294	Structure & Tectonics forum	1	Roeske	N/A
GEL 298	TBD <i>CRN: TBD</i>	3	Stewart	3

### Spring 2025

Course	Course Title	Units	Instructor	Breadth area
GEL 232	Oceans & Climate Change	3	Hill	4
GEL 2xx	TBD	TBD	Ratschbacher	TBD
GEL 290	Seminar	1	TBD	N/A

# Course Descriptions

## Fall 2024

### **GEL 214: Active Tectonics (Oskin)**

*Graduate course breadth area: #1*

Active Tectonics is lecture, project, and problem-set based course on tectonic processes taught through the lens of active systems. The course examines the interplay of tectonics and surface processes through observations, quantitative analytical, and numerical modeling techniques. Problem sets emphasize quantitative problem solving in structural geology, tectonics, geomorphology and Quaternary geochronology. We will also work on one or more group projects that vary from year to year, ideally with a fieldwork component.

### **GEL 290: Seminar (TBD)**

*Does not count as a breadth or general course for graduate degree requirements.*

### **GEL 294: Structure & Tectonics forum (Roeske)**

*Does not count as a breadth or general course for graduate degree requirements.*

This on-going discussion group meets once/week to discuss a paper selected by participants in the group. The theme of the articles varies each quarter; the seminar's goal is to emphasize breadth and we read and discuss a range of articles that cover the diverse interests of members of the group. As an example, we have recently read articles on subduction zone processes, ranging from UHP metamorphism and exhumation, to response of the upper plate to degree of coupling in the subduction zone. If schedules allow, we plan a multi-day field trip to examine rocks that may show some of the processes of interest to the group and focus the reading around the field trip.

### **GEL 390: Methods of Teaching Geology (Billen)**

*Does not count as a breadth or general course for graduate degree requirements.*

Description coming soon.

## Winter 2025

### **GEL 281: Instrumental Techniques (Yin)**

*Graduate course breadth area: 2*

Description coming soon.

### **GEL 2xx: TBD (Montañez)**

*CRN: TBD*

*Graduate course breadth area: #TBD*

Description coming soon.

### **GEL 2xx: TBD (Sumner)**

*CRN: TBD*

*Graduate course breadth area: #TBD*

Description coming soon.

**GEL 290: Seminar (TBD)**

*Does not count as a breadth or general course for graduate degree requirements.*

**GEL 294: Structure & Tectonics forum (Roeske)**

*Does not count as a breadth or general course for graduate degree requirements.*

This on-going discussion group meets once/week to discuss a paper selected by participants in the group. The theme of the articles varies each quarter; the seminar's goal is to emphasize breadth and we read and discuss a range of articles that cover the diverse interests of members of the group. As an example, we have recently read articles on subduction zone processes, ranging from UHP metamorphism and exhumation, to response of the upper plate to degree of coupling in the subduction zone. If schedules allow, we plan a multi-day field trip to examine rocks that may show some of the processes of interest to the group and focus the reading around the field trip.

**GEL 298: TBD (Stewart)**

*Graduate course breadth area: #3*

*CRN: TBD*

Description coming soon.

## Spring 2025

**GEL 232: Oceans & Climate Change (Hill)**

*Graduate course breadth area: #4*

Description coming soon.

**GEL 2xx: TBD (Ratschbacher)**

*Graduate course breadth area: #TBD*

*CRN: TBD*

Description coming soon.

**GEL 290: Seminar (TBD)**

*Does not count as a breadth or general course for graduate degree requirements.*