

RIDER UNIVERSITY GEO-310 Structural Geology Fall semester 2021 Calendar

SEPTEMBER 2021

Sun	Mon	Tue	Wed	Thu	Fri	Sat
29	30	31	1	2	3	4
5	6	7	8	L1 LAB1	10	11
12	13	L2	15	L3 LAB2	17	18
19	20	L4	22	L5 LAB3	24	25
26	27	L6	29	L7 FT1	1	2

OCTOBER 2021

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
26	27	28	29	30	1	2
3	4	5 EXAM 1	6	7 L8 LAB 4	8	9
10	11	12 L9	13	14 FT2	15	16
17	18	19 L10	20	21 L11 LAB 5	22	23
24	25	26 L12	27	28 L13 LAB 6	29	30
31	1	2	3	4	5	6

NOVEMBER 2021

Sun	Mon	Tue	Wed	Thu	Fri	Sat
31	1	2 L14	3	L15 LAB 7	5	6
7	8	9 EXAM 2	10	L16 LAB 8	12	13
14	15	L17	17	FT3	19	20
21	22	L18	24	HD	26	27
28	29	L19	1	2	3	4

DECEMBER 2021

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
28	29	30	1	2 L20 LAB 9	3	4
5	6	7 L21	8	9 L22 LAB 10	10	11
12	13	14	15	16 FINAL EXAM	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	1

All classes are in Science Hall Room 112. Lectures are from 4:30 -6:20 pm, Indoor Labs from 6:30 - 9:00 pm, Field-trip Labs are TBD

Lectures focus on traditional principals of traditional structural geology following the assigned textbook : Earth Structures by Vand Der Pluijm and Marshak, 2nd Edition.

- Introduction to advanced structural concepts that are grounded in material engineering and geophysics.
- Cover local, regional, and planetary processes tied to the development of Earth Structures

Labs focus on methods of:

- a) measuring and recording geological field data,
- b) Processing geoscience data to conduct both spatial and directional statistics.
- c) Visualizing structural relationships between primary and secondary geological structures with 2D maps, 2D profile cross sections, and 3D models using geographic information systems, computer-aided-drafting systems and virtual globes like Google Earth.

Laboratories incorporate structural geology data data from various locations in New Jersey to demonstrate practical applications of structural geology when characterizing fractured-bedrock aquifers deomstrate examples of project work for groundwater supply and pollution studies.

Students will be introduced to QGIS geographic information systems (GIS), MS Powerpoint and SketchUp computer-aided drafting (CAD), and Google Earth (GE) to portray structural geological relationships of outcrop and subsurface (drill and well) data.

- **Lectures attendance is kept.**
22 lectures count for at 1 pt. each for ~10% of your grade.
- **Laboratory attendance is mandatory and there are no makeups.**
If you miss a Lab, it's up to you to gather and cover the material that you missed and submit any assignments.
- *Field labs are not mandatory for student athletes that are in season, but attendance is strongly encouraged.*
- **The final grade for the student is determined using the point system and grading scale listed to the right.**
- *The laboratory and field-trip points are heavily weighted toward the final grade (>1/2 of the class).*
- The exams will include True/False, Multiple Choice, and Problem solving.
- Assignments and tests results will be presented to students the following week after their completion.
- Students will have the opportunity in class to ask questions on individual test questions and concepts.
- Students will have the opportunity at the end of the course to evaluate the instructor and course by college standardized evaluation questionnaires.

Point System	Points
10 Inside Labs (10 pts. each)	100
3 Field-Trip Labs (10 pts each)	30
2 interim exams (25 pts. each)	50
Comprehensive final exam	50
Lecture attendance	22
TOTAL	252

Grading scale (%)

A = 95 - 100	C = 73 - 76
A- = 90 - 94	C- = 70 - 72
B+ = 87 - 89	D+ = 67 - 69
B = 83 - 86	D = 65 - 66
B- = 80 - 82	F = 64 or less
C+ = 77 - 79	