

Course: GEOL157 Introduction to Geology

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Office Hours: By appointment

Department Chair: edward.carr@raritanval.edu

Course Description

- This course is a study of the earth's structure, composition and history; processes which shape the earth's surface, such as glaciation, crustal movements and tectonics, erosion, and sedimentation; fossil study; classification and characterization of rocks; applied geology of mineral, energy, water and ocean resources; and of natural hazards. Laboratory activities include rock classification, air photo and topographic map interpretation, practical problems in environmental geology, and one on-campus field trip is required.

COVID-19 Statements

- *Due to the serious nature of COVID-19, the class itinerary and conditions limiting personal contact may change at a moment's notice.* Please check your email frequently throughout the semester to keep current with school- and class-issued advisories and changes in school opening and access.
- *If you are coughing and sneezing, feel ill, or suspect that you've been exposed to a contagion, please avoid coming to class.* Email me to arrange alternative methods of meeting the class objectives or consider withdrawing if symptoms progress.
- *This class has been modified from its original format in order to mitigate the potential spread of this disease. We are scheduled to meet at 50% capacity for the labs to minimize exposure potential, and will be wearing face masks when inside school buildings. Please maintain 6-ft social distances when attending lectures and labs.*
- *When attending labs, hand sanitizer will be used before and after the labs and please try to avoid touching your face.*
- *Wear fresh face masks to each class. Wash them daily if they are cloth.*

On-line, open-source reading material

- An Introduction to Geology; Free Textbook for College-Level Introductory Geology produced by staff from the Salt Lake Community College (<http://opengeology.org/textbook/>).

Required lab manual

- **RVCC GEOL 157 Introduction to Geology Lab Manual** by G.C. Herman provided as a free PDF document for students to access on line, print on their own, or purchase a hardcopy from a custom-printed batch.

Optional Textbook

- **Monroe, Wicander, and Hazlett (2007) Physical Geology; Exploring the Earth**, 6th edition

Course Management Statement

- The class will be managed through the following Internet URL known as the course web site:

<http://www.impacttectonics.org/GEOL157/Index.html>

- Students are expected to read the OER link chapter the week the correlative lecture is given.
- My PDF lecture slides contain all of the exam material, but are abstracted highlights of each topic. If you miss the lectures, you must read the OER material!
- Timed exams will be given through CANVAS and taken outside of the classroom.
- 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 standardized evaluation questionnaires.

Attendance Policy

Attendance at all lecture and labs is required whether it is virtual or face-to-face (F2F). Students are generally expected to attend classes in which they are enrolled. A record of attendance will be kept. Each student is entitled to two excused lecture absences and one LAB for the semester without penalty in order to accommodate personal situations that might prevent one from attending. Absences in excess of this standard are handled individually by each faculty member. A student with absences amounting to one-fifth or more of the term's laboratory classes and field trip may be recommended to withdraw from the course. 2 bonus points is awarded to students having perfect attendance at the semester's end.

Grading System

- Class lecture attendance is not required but advised once a week at the beginning of the semester until further notice.
- Laboratory attendance is kept. Attendance and completion of work for the 6 labs and one field trip weigh heavily toward the final grade (~45% of the class grade).
- In lieu of personal attendance if RVCC announces restricted campus access, Canvas exercises will be made available for a lab that will be require participation and worth the same points as the in-person classes.
- *Exams are administered on Canvas.* Each includes 20 True/False and 30 multiple choice questions;
- The final grade for the student is determined using the point system below and the grading scale to the right:

○ Point Components	Points	A ≥ 90
○ 20 lectures @ 2 pts each	40	B+ = 85 - 89
○ 4 exams (3-25, 1-30 pts.)	105	B = 80 - 84
○ 8 Laboratories (10 pts. each)	80	C+ = 75 - 79
○ 1 Field trip (10 points)	10	C = 70 - 74
○ Term paper	5	D = 60 - 69
○ TOTAL	240	F ≤ 59

Reasonable Accommodation Statement

Students with disabilities who require accommodations (academic adjustments and/or auxiliary aids or services) for this course MUST provide documentation of accommodations from the RVCC office of Disability Services, C143. No accommodations will be made without this documentation.

Student Learning Outcomes

Educational Goals

Students will:

1. Demonstrate an understanding and appreciation of the natural geological environment; its past and present; its importance in human histories and
2. Apply their knowledge in laboratory and field settings, writing essays or reports that reflect and analyze their experiences.

Learning Outcomes

The student will be able to:

1. Identify various minerals and rock types and associate them with geomorphic processes
2. Identify various fossil animal and plant types and associate them with geologic time.
3. Explain crustal movements and plate tectonics, and relate these to particular events of continental drift, mountain building and subsidence.
4. Explain the many variables affecting geologic water resources -- geomorphology, aquifers, topography, and erosion.
5. Apply geologic principles to evaluating land use policies.
6. Describe and explain the varied geologic history of the New Jersey landscape.
7. Identify the geological processes which produced fossil fuel energy resources and those which produce geothermal energy.

Credit Hour Equivalency Statement

- Students should expect to spend a minimum of 6 hours per week studying course concepts and reading outside of class.

Code of Conduct Statement

- The College has a Code of Student Conduct that states: "Faculty members have the authority to take actions which may be necessary to maintain order and proper conduct in the classroom. Students whose behavior disrupts the class will be subject to removal and may be charged with a violation of the Code of Student Conduct. Code of Conduct charges will be investigated by the Dean of Student Services. If the student behavior presents a concern for immediate safety of the student or members of the community, the student may be suspended until a hearing is held. Any student who is removed from a class against his/her will is entitled to a hearing."

Delayed Opening Policy

- If the College announces a delayed opening at any location due to inclement weather or other emergency situation, all offices will be closed and all College classes and/or other activities will be suspended at that location until the delayed opening time.
- Classes scheduled to begin before the delayed opening time that have 60 minutes or more of instruction time remaining at the delayed opening time will begin at the delayed opening time and conclude at the regularly scheduled ending time.
- Classes scheduled to begin at or after the delayed opening time will meet as scheduled

WITHDRAWAL FROM COURSE

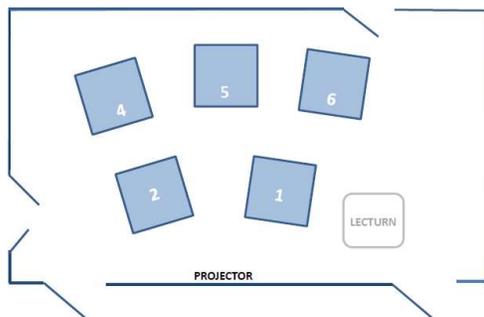
- Students may withdraw from this course following procedures specified by the Office of Enrollment Services and in compliance with published deadlines. Students who cease attending classes and do not request an official withdrawal will receive a failing grade (F) for the course.

LAB DETAILS

COVID-19 restrictions place limitations on physical use of our labs. What ordinarily looks like this:

RVCC GEOL 157 Introduction to Geology Lab Manual GCH 2018-01

- LAB ROOM SC-219 is set up with five (5) student tables with four seat each.
- One Fischer-Scientific stereo microscope will be furnished per table during mineral and rock labs.



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LAB ROOM SC-219 is set up with five tables, four seats per table.



• Laptop PCs are available to students if they do not have one or cannot use their own. Use of one's own lap top is encouraged, as is the use of a optical mouse with a wheel (USB or Bluetooth) for Google Earth labs.

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Now looks like this:



Consequently, each of the six LABS requiring attendance will be conducted in 4 sessions over two-week periods. Please refer to our web page for those sessions that you are assigned to.