

GEOL 100 - PHYSICAL GEOLOGY (Purely Online/Asynchronous - Canvas) – CRN: [60423](#)

3 Lecture Hours: 3 Units; Letter Grade; Student may petition for Credit/No Credit (FT).

CREDIT TRANSFERABILITY: Credit - Degree Applicable; Transfer Credit: UC, CSU; CSU GE: B1. Physical Science; DIST GE: B2. Physical Sciences; IGETC: 5A. Physical Science

Online Course Duration: June 17, 2024 through July 27, 2024 - Purely Online and Asynchronous

Course Canvas URL: <https://sdccd.instructure.com/login/canvas>

Instructor: R. Ray Rector **Instructor Contact:** e-mail: geoprof@geoscirocks.com

Office Hour: By appointment only **Instructor's Web site:** www.geoscirocks.com/

Required, No-Cost Course Textbook: [An Introduction to Geology](#) Authors: Chris Johnson, Matthew D. Affolter, Paul Inkenbrandt, Cam Mosher Publisher: SLCC Text URL: <https://opengeology.org/textbook/>

PREREQUISITES ADVISORY FOR ONLINE COURSE: This being an online course, it is advisable that you are computer literate, with a good working knowledge of the World Wide Web, e-mail, and word-processing. A high-speed Internet connection is most advantageous.

COURSE DESCRIPTION: This course is an introduction to the science of the earth, the materials of which it is composed, and the processes that are acting upon it. Topics include plate tectonics and Earth's internal structure; the formation and classification of minerals and rocks; geologic structures; and geologic processes of the earth's surface and subsurface. This course is intended for students with a general interest in the geological sciences as well as those majoring in geology, earth science, or geological engineering.

STUDENT LEARNING OUTCOMES: Upon completion of this course:

- 1) Students will display the ability to use proportional reasoning and graphical analysis to establish and analyze relationships between measured quantities. (Critical Thinking)
- 2) Students will display the ability to clearly communicate scientific principles, experimental results, and their implications. (Communication)
- 3) Students will display the ability to apply conceptual and mathematical tools to correctly predict the future state of physical systems. (Problem Solving)

ACCOMMODATION OF DISABILITY: A student with a verified disability may be entitled to appropriate academic accommodations, including the assistance of a note-taker in the classroom, and/or extended time for taking exams. Students with disabilities who may need academic accommodations should notify their professor immediately. For further information, contact the Disabled Students Program and Services (DSPS) Office.

CLASS ATTENDANCE, AND ENROLLMENT NOTES, AND DEADLINES: ALL STUDENTS registered in this course prior to the start date MUST sign-in into the official Canvas course page sometime on or before the end of the 3rd DAY of classes on the first week of the semester – **Wednesday, June 19, 2024** - to stay registered in the course. If you do not log by the above date, then I will drop you and give your seat to a waitlisted student. The last day to withdraw with a refund and with no grade (no "W" placed on permanent record.) is **Friday, June 21, 2024**. The very last day to drop a class with a "W" is **Friday, July 11, 2024**, (the official withdrawal deadline). If you fail to withdraw by **7/11/24** and/or stop participating in class, then a final grade must be assigned to you. It is the student's responsibility to add, drop, or withdraw from classes before the deadlines stated in the class schedule.

Petitions to add, drop, or withdraw after the deadline will not be approved without written proof of circumstances beyond the student's control, which made her/him unable to meet the deadline. Lack of money to pay fees is not considered an extenuating circumstance. Students anticipating difficulty in paying fees before the deadline should check with the Financial Aid Office about sources of funds or other alternatives for which they may be eligible. It is the student's responsibility to drop all classes in which he/she is no longer attending (for on campus classes). Registered students who do not login onto this Canvas course and participate in our virtual classroom over a period of 12 consecutive days will be dropped from this course for

lack of participation. Students, who remain enrolled in a class beyond the published withdrawal deadline, as stated above (as listed in the official class schedule) will receive an evaluative letter grade in this class.

STATEMENT OF RETENTION: Students, please discuss your plans to withdraw from class with your instructor. You might have options that may allow you to continue in class.

INSTRUCTOR'S ONLINE COURSE POLICIES:

A. Student Workload Obligations: Independent direction, discipline and motivation of the student are critical to both learning course content and academic success in this online course. It will be up to you, the student, for staying up with homework assignments, quizzes, and exams. Make sure and consult the instructor and/or fellow classmates about anything in this course that you find difficult and/or confusing. There are no make-up exams or accepted late work, unless the student provides proof of some compelling reason for the make-up. It is the student's responsibility to contact me personally to forewarn me of any problem in completing the regular-scheduled exams or other coursework by their due dates. Business, pleasure, or being generally ill, is not a compelling reason. Being deadly sick or having a death in the family is good reason.

B. Instructor-Student Communication This course is taught as a completely on-line course and asynchronous. That is, the communication between the instructor and the students, as well as among students, takes place via electronic means on the Internet. Communication will occur via email, discussion board and Zoom. The instructor will be initiating contact with students on a nearly daily basis, via announcements, discussion board posts, email, recorded Zoom, and by phone. Students are expected to log into the Canvas course page regularly (several time per week) to update communication with instructor and fellow students. Note that there is no mandatory classroom Zoom meetings scheduled for this class. However, non-mandatory, synchronous, and recorded Zoom meetings may occur during the course.

C. Course Assignments and Testing: Assignments, either for discussion on the bulletin board, or for completion and return to the instructor, will be posted on the Canvas course site. Student contributions will be evaluated on both the quality (intelligent use of scientific terminology learned from using the textbook and other sources) and quantity (frequency and length) of comments. Reports from students, which are submitted directly to the instructor, will be evaluated based on quality (use of appropriate scientific vocabulary, for instance) and on rigor of the analysis. Testing will occur via the Internet, and tests will use a variety of formats (true-false, multiple-choice, matching, short answer, and essay).

D. Deadlines, Computer/Internet Mishaps, and Backing up: Timelines, Deadlines, etc.: Quizzes will be available each week and will appear with a due date. Availability for quizzes and exams prior to the finishing deadline is roughly three to four days. The research writing assignment will not be accepted or submitted following the due date. Note that because it sometimes happens that computer networks (including your own computer) are down or unavailable, it is preferable to get assignments done a day or two earlier, so as to avoid trying to post an assignment on the very last minute of the due date, only to find that one's Internet Service Provider is down, for example. ALSO, as with any writing endeavor on a computer, YOU MUST ALWAYS BACK-UP ALL YOUR WORK on an external memory device, in timely increments. The excuse that you permanently lost your entire writing assignment file during a computer crash or Internet disruption is not acceptable, because those sorts of mishaps are totally avoidable by doing regular backup. Additionally, you need to make sure to ALWAYS HAVE A BACK-UP COMPUTER at your disposal: family members, friends, or library, school, or even your own secondary computer/smart phone. Finally, you must have a reasonably high speed, solidly consistent, trustworthy Internet connection, especially for test taking, viewing streaming videos, and assignment submission.

E. Online Netiquette and Student Code of Conduct: This class will be conducted in accordance with the college code of student conduct and basic standards of academic honesty. Students are expected to respect and obey standards of student conduct while interacting online in this course. As your instructor, I have the following expectations of your academic behavior while online: Promote a positive learning environment by exhibiting mutual respect and consideration of the feelings, ideas, and contributions of others, as reflected in your written dialog. Demonstrate a genuine desire to learn, interact, and improve. Cheating, plagiarism, or other forms of academic dishonesty are totally unacceptable and will not be tolerated in this class. Violations of standards of academic honesty will be reported to the school dean for appropriate action. A detailed explanation of academic integrity of students is found below:

The academic integrity of the students in this course and Policy 3100, the San Diego Community College District Student Code of Conduct, require that all student work including, but not limited to, discussion postings, assignments, essays, papers, and exams be free of plagiarism. Students must fully cite any text, graphics, or others' ideas they include in that work. For additional details, please review [AP 3100.3—Honest Academic Conduct](#). As part of my commitment to academic integrity, student work in this course may be submitted to an online plagiarism checking service.

Any student caught cheating or plagiarizing will be subject to the disciplinary procedures given in District Policy 3100, which may include receiving a failing grade for the assignment. Any cheating or plagiarism will be reported to the Dean of Student Affairs. Specifically, the following behaviors are examples of cheating/plagiarism (this list is not exhaustive).

- Copying directly from the textbook. Note: you're welcome to summarize the information from when completing homework assignments, but please phrase homework answers in your own words!
- Using unauthorized notes while taking an exam or copying another student's work.
- Sharing exam answers or collaborating with another student during an exam.
- Turning in homework that contains large blocks of text that are identical or nearly identical to another student's (both parties will receive zero score).
- Copying from any source (including the Internet) without citing the source.
- Turning in work completed for another class (unless pre-authorized by the instructor).
- Passing off any work as your own that is not. This includes the use of work completed by other students.

To avoid any possibility of someone else plagiarizing your work, I highly recommend that you not share any content-specific material (such as exam answers, homework, or field trip reports) with any other students. Please note that if I receive any course work from two or more students that is identical or strikingly similar, I reserve the right to assign all such students a score of zero for the assignment in question. Please also note that if I suspect academic dishonesty on an assignment or an exam, I reserve the right to schedule a one-on-one Zoom meeting to give you the opportunity to demonstrate that you understand the answer(s) you supplied. If a student is unable to demonstrate their understanding of an exam/assignment answer, I reserve the right to assign the student a score of zero for that exam/assignment.

If you have any concerns regarding plagiarism or cheating, please contact the instructor.

GRADING/EVALUATION: Grading is based on points earned by completing assignments and tests. Final course grades are based purely on point percentages without any type of weighting. The following is the course grading points breakdown based on the assessment activity:

I. Quizzes (10 @ 30 points each) = 300 points. **Note:** You get three (3) attempts per quiz. Untimed/Open book.

II. Exams (1 final @ 150 points) = 150 points. **Note:** You get two (2) attempts. Timed/Open book

III. Assignments (3 @ 20 + 40 + 40 points) = 100 points; Personal greeting assignment = 20 pts; Volcano Research assignment = 40 pts, and Earthquake Research assignment = 40 pts

V. Late Work Policy: No late work accepted, unless with a verifiable, legitimate excuse.

VI. Extra Credit Policy: Extra credit is available - up to 30 points maximum. Last day to turn in extra credit work is Friday, July 26, 2024 - **Absolutely no EC work accepted after this date.**

VII. Grading Scale: Your final grade is based purely on total percentage out of possible 550 points:

100% – 90% = A

89% -- 80% = B

79% -- 70% = C

69% -- 55% = D

Less than 55% = F

Note: *Minor adjustments to the deadlines and total course grade points may be made by instructor during the semester. If changes are made, the instructor will inform the students in a timely manner.*

Course Test and Assignment Schedule:

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|--------------------------------|-------------------------------------|
| 1) Quiz I: Sunday, June 23 | 8) Quiz VII: Sunday, July 14 |
| 2) Quiz II: Sunday, June 23 | 9) Quiz VIII: Sunday, July 21 |
| 3) Quiz III: Sunday, June 30 | 10) Quiz IX: Sunday, July 21 |
| 4) Quiz IV: Sunday, June 30 | 11) Earthquake Assignment – July 26 |
| 5) Volcano Assignment – July 7 | 12) Quiz X: Sunday, July 26 |
| 6) Quiz V: Sunday, July 7 | 13) Final Exam: Sunday, July 28 |
| 7) Quiz VI: Sunday, July 14 | |

Extra Credit Deadline: *All extra credit must be turned in by **Friday, July 26th** for credit. Late extra credit work will not be accepted - no exceptions – period.*

IMPORTANT COURSE DATES: Assessment of student learning outcomes for this class includes 10 quizzes, 1 final exam, and 3 assignments. Each assessment activity has a specific submittal due date. Make sure to keep a VERY CLOSE track of the class schedule of activities, so that you stay on track with your coursework, and get all your fully completed work turned in on time. I suggest printing out the class schedule and taping it somewhere around your work area that you can view it regularly.

Below are eight important deadline dates for this course, not including quiz dates:

- 1) Quiz and Exam completion dates are all on Sundays (except for quiz #10).
- 2) Class Personal Introduction Discussion Assignment due by Wednesday, June 19, 2024
- 3) Last day to drop without a "W" AND get a refund is Friday, June 21, 2024
- 4) Volcano Research Assignment due Friday, July 7, 2024
- 5) Last day to drop class with a "W" (withdraw) is Friday, July 11, 2024
- 6) Earthquake Research Assignment due Friday, July 26, 2024
- 7) Last day to turn in extra credit is Friday, July 26, 2024 – No late exceptions!
- 8) Final exam completion date is Sunday, July 28, 2024

EXTRA CREDIT: There are several extra credit assignments available: they include virtual fieldtrips, and a couple other research activities. Extra credit assignments are listed in the Extra Credit Folder. Last day to turn in extra credit work is **Friday, July 26, 2024**. Absolutely no EC work accepted after this date. Up to 30 points of extra credit is allowed in this course.

STUDY MATERIALS FOR THIS COURSE:

This class is a No-Cost class. However, there are several primary, cost-free sources of information that are available for successfully completing this course - they are: 1) Free, open-source website textbook; 2) Earth Revealed Video Lessons available online from the instructor's personal website; 4) the instructor's PowerPoint lecture slides and lecture notes. 3) Geology video slide tutorial lessons. Carefully read and study all assigned textbook reading prior to completing the associated quizzes, exams, and assignments. Note: the SLCCC e-textbook has additional resources and activities to help master the curriculum, which includes summaries and quizzes. Below are details of these learning resources:

1) Cost-free E-Textbooks:

Primary text: "Introduction to Geology" E-Textbook: <https://opengeology.org/textbook/>

Supplementary text: "Physical Geology 101": <http://gotbooks.miracosta.edu/geology/index.html>

This geology course uses a no-cost website-accessed e-textbook titled "A Introduction to Geology". Written by Chris Johnson, Matthew D. Affolter, Paul Inkenbrandt, Cam Mosher and published by Salt Lake Community College, it covers all the course topics, and includes key concepts, practice quizzes and study guides.

2) Earth Revealed Geology Video Series: www.learner.org/resources/series78.html

The Annenberg Media Company has available an excellent geology video instructional series called "Earth Revealed" (a total of twenty-six 30-minute videos). Links to these videos can be accessed from the instructor's personal website. I have listed the Earth Revealed video series number(s) that correspond to the specific topic(s) of study each week within the class schedule next to the textbook chapter reading assignments. Some quiz questions pertain to Earth Revealed content.

3) Instructor's Personal Student Website: www.geoscirocks.com

To compliment the textbook and ER video series learning resources, the professor has a personal educational website for students that include lecture notes and PowerPoint presentations, plus a wealth of additional, useful information. Carefully read and study the lecture notes and view the complimentary PowerPoint presentations prior to completing the associated quizzes, exams, and assignments. The lecture notes and slide presentations can be directly accessed from the instructor's personal website, which includes an even wider variety of other web-based resources that may be of personal interest. Please check out the above URL.

Click on the Mesa Online link to access all information pertaining directly to this course. Browse down the left-hand side menu for pertinent coursework information and resources. Additionally, the site has links to the "Earth Revealed" geology instructional video series – a set of 26 half-hour lessons that requires a high-speed connection to watch. I have listed the "Earth Revealed" video series number(s) that correspond to the specific topic(s) of homework study each week within the class schedule below the textbook chapter reading assignments. Note that information found within the Earth Revealed videos is included in the test questions within the quizzes and exams.

4) Geology Video Tutorials: http://www.geoscirocks.com/intro_to_geology_lectures_slide_videos.htm

Finally, there are a set of geology video slide study tutorials that are designed to help you better learn the course curriculum. These captioned video slide shows were put together by Katryn Wiese, an earth science professor at the City College of San Francisco. These narrated slide shows are very well designed and highly recommended as part of your study plan.

5) Course Study Schedule: http://www.geoscirocks.com/mesa_online_sched.pdf

Below is the course study and test schedule. The course schedule is a very important document that should be checked on daily. The course schedule shows the weekly assigned study materials, tests and assignments due dates, and important course dates/deadlines. The weekly study materials have hyperlinks that will take you directly to the listed study information. The due dates indicate both when the listed course materials need to be studied by, and the last day to take a test or turn in an assignment. Note the listed assigned weekly study materials are the [Introduction to Geology](#) text (**ITG**), the [Earth Revealed Video](#) series (**ERV**), Professor [Ray's PowerPoint lecture slides](#) (**PPP**), and the [Geology Video Tutorials](#) (**GVT**)

The Course Schedule is on the next page.

Geology 100 Online Schedule – Summer 2024 – San Diego Mesa College

Weekly Study Topic	Assigned Weekly Homework	Tests and Assignments	Due Date
<u>Week 1</u>			
- 6/17 to 6/23 - Introductions to Class	Prof's Welcome Message Prof's Video Welcome Professor's PowerPoints (PPP) 1	Post Personal Introduction on Discussion Board	Wed 6/19
Course Logistics	Course Syllabus and Schedule		
Intro to Geology & Earth Origins	Intro to Geology (ITG) Chap 1 Professor's PowerPoints (PPP) 1 Earth Revealed Video (ERV) 1-2 , Geol Video Tutorials (GVT) 1-5	Quiz #1 – Course Syllabus and Intro to Geologic Science	Sun 6/23
Earth Physiology, Plate Tectonic Theory, and Earth's Crust	Intro to Geology (ITG) Chap 2, 8 Earth Revealed Videos (ERV) 2, 3, 4, 5, 6 Prof's PowerPoints (PPP) 3, 4 5 Geo Vid Tutorials 6 - 17	Quiz #2 – Earth Origin, Physiology, Plate Tectonic Theory, Seafloors, and Continents	Sun 6/23
<u>Week 2</u>			
- 6/24 to 6/30- Minerals and Mineral Resources	ITG Ch 3 ERV - 12 Prof's PowerPoints 6 GVT – 18, 19, 20	Quiz #3 - Minerals and Mineral Resources	Sun 6/30
Igneous Rocks, Magma, and Volcanoes	ITG Ch 4 ERV 13, , 14 PPP 7 GVT – 21, 22, 23, 24	Quiz #4 – Igneous Rocks, Magmas and Volcanoes	Sun 6/30
Volcano Assignment	Volcano Research Assignment – See Assignment Folder for info	Submit Volcano Assignment Information in the Module folder	Sun 7/7
<u>Week 3</u>			
- 7/1 to 7/7 - Sediments and Sedimentary Rocks	ITG Ch 5 ERV 15, 17 PPP 8 GVT – 25,		
Metamorphism & Metamorphic Rocks	ITG Ch 6 ERV 18 PPP 9 GVT –26	Quiz #5 – Sedimentary Rocks & Metamorphic Rocks	Sun 7/7

<u>Week 4</u>			
- 7/8 to 7/14 –	Withdrawal Deadline	Last day to withdraw with a "W"	Fri 7/11
Geologic Time/Dating and Earth History	ITG Ch 7 , 8 ERV – 10 PPP 10 GVT – 27 , 28	Quiz #6 –Geologic Time, Dating Rocks, and Earth History	Sun 7/14
Crustal Deformation and Mountain Building	ITG Ch 2 , 9 ; ERV 3 , 8 , 9 ; PPP 11 GVT – 33 , 34 , 35 , 36	Quiz #7 – Crustal Deformation and Mountain Building	Sun 7/14
<u>Week 5</u>			
- 7/15 to 7/21 –			
Earthquakes And Seismic Hazards	ITG Ch 2 ERV 3 , 7 and 9 PPP 12 GVT – 33 , 32 , 34	Quiz #8 – Earthquakes and Seismic Hazards	Sun 7/21
Earthquake Assignment	EQ Research Assignment – See Assignment Folder for info	Submit Earthquake Assignment Information in the Module folder	Fri 7/26
Rivers, Mass Wasting and Groundwater	ITG Ch 11 , ERV 19 , 20 , 21 PPP 13 , 14 GVT – 37 , 38 , 39 ,	Quiz #9 – Rivers and Groundwater	Sun 7/21
<u>Week 6</u>			
- 7/22 to 7/28 –			
Shorelines	ITG Ch 12 ERV 16 , 23 & 24 PPP 13 , 14 and 15 GVT – 38 , 40 , 41 , 42 , 46		
Glaciers and Climate Change	ITG Ch 14 and 15 ERV 16 , 23 & 24 PPP 13 , 14 and 15 GVT – 38 , 40 , 41 , 42 , 46	Quiz #10 – Shorelines, Glaciation and Climate Change	Fri 7/26
Extra Credit Work	Extra Credit Work – See EC in Assignment folder	Last day to Submit Extra Credit	Fri 7/26
Final Exam – Review and Test	Final Exam Review ITG Ch 1 - 15 ERV 1- 24 PPP 1-15 GVT – 1 - 46	Final Exam - All course material (covered in quizzes 1 through 10). Exam available to take on 7/24	Sun 7/28

Please Note: This schedule is tentative and may be changed or modified by the instructor at anytime during the semester. Students will be notified in a timely basis if changes are made.