

Course Syllabus

GEOL 1404
Historical Geology (lecture and lab)
(4006015403)

Course Description: A comprehensive survey of the history of life and major events in the physical development of Earth as interpreted from rocks and fossils. Laboratory activities will introduce methods used by scientists to interpret the history of life and major events in the physical development of Earth from rocks and fossils.

Semester Hours Credit: 4

Lecture/Lab Hours: 3-3

Prerequisite: GEOL 1303 or GEOL 1403

To enroll in any science course, students must demonstrate readiness to perform college level academic coursework in reading and writing according to Coastal Bend College academic skills assessment guidelines. Basic computer skills are also required.

Textbook(s): *The Changing Earth, Exploring Geology and Evolution (7th edition)* ISBN: 9781285733418

Laboratory Book: *Historical Geology Lab Manual (1st edition)* ISBN: 9781118057520

Student Learning Outcomes:

Upon successful completion of this course, students will:

1. Describe how the application of the scientific method has led to our current understanding of Earth's history.
2. Explain the historical development of Geology as a science and how it was influenced by early interpretations of fossils and the theory of evolution.
3. Communicate how principles of relative and numerical age dating have been used to develop the Geologic Time Scale.

4. Describe the processes involved in the formation and differentiation of the Earth and identify major milestones in the evolution of the planet.
5. Identify the major milestones in the evolution of life from its initial inorganic stages, through development of the major animal and plant groups, to mass extinctions.
6. Explain how rocks and fossils are used to interpret ancient environments.
7. Identify the major tectonic events in the geologic evolution of North America.
8. Classify and interpret depositional environments using sedimentary rocks and fossils.
9. Taxonomically classify samples of geologically important fossil groups and use them to interpret the age of rocks on the Geologic Time Scale.
10. Apply relative and numerical age-dating techniques to construct geologic histories including the correlation of stratigraphic sections.
11. Reconstruct past continental configurations.
12. Integrate multiple types of data to interpret Earth history.

Evaluation Methods:

Five (5) major exams will be given in the lecture of this course; of these exams, a student may drop one (1) exam if no other exams are missed. Students may not drop the final exam unless they are exempt from taking it. The final exam will be up to 100% comprehensive, depending on the amount of untested material remaining before the final exam. A small portion of any exam (up to 10%) may be material not specifically covered in lecture but which is well presented in the text and listed in the review sheet.

During the semester, points will be assigned for each exam and assignment. All regular exams will be worth 100 points, with the final at 150 points. Homework, quizzes and other assignments may be given during the semester and will be averaged along with the exam grades to determine the number of “total points”. The final grade will be determined by the number of points a student earns divided by the total number of possible points and multiplied by 100.

Laboratory grades will be exercises of various point values and will be calculated as a percentage of the points that were possible in the same way the lecture grades are calculated. It is important to keep up with lab assignments and

not fall behind. Late labs will only be accepted up to the point that the corrected labs have been returned. Lecture will count as 75% and lab 25% of the student's total grade (Lecture % X 3 + Lab %)/4.

ADA Statement: No qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of the College District, or be subjected to discrimination by the College District. Nor shall the College District exclude or otherwise deny equal services, programs, or activities to an individual because of the known disability of an individual with whom the individual is known to have a relationship or association. 42 U.S.C. 12132; 28 CFR 35.130(g).

See at: [GL \(Legal\)](#)

Special Needs Services: Students with special needs, including physical and learning disabilities, who wish to request accommodations in this course should contact the Student Development Office as soon as possible to make arrangements; this should occur no later than the second week of class or as soon as the student has the documentation on the disability and requested accommodation per a certified medical or psychological professional. In accordance with federal law, a student requesting accommodations must provide documentation of disability to the Student Development Advisor.

For more information, contact: in Alice at sdalice@coastalbend.edu; Beeville at sdbeeville@coastalbend.edu; Kingsville at sdkingsville@coastalbend.edu; and Pleasanton at sdpleasanton@coastalbend.edu.

Academic Dishonesty: Each student is charged with notice and knowledge of the contents and provisions of Coastal Bend College's rules and regulations concerning student conduct. All students shall obey the law, show respect for properly constituted authority, and observe correct standards of conduct. Scholastic dishonesty shall constitute a violation of these rules and regulations and is punishable as prescribed by Coastal Bend College Policies FLB (Local) and FM (Local). Scholastic dishonesty shall include, but not be limited to, cheating on a test, plagiarism, and collusion.

See at: [FLB \(Local\)](#) and [FM \(Local\)](#).

See the [Student Handbook](#) for further explanation of Scholastic Dishonesty.

Copyright Law and Intellectual Property Rights Policy: Copyright is the right of an author, artist, composer or other creator of a work of authorship to control the use of his or her work by others. Protection extends to literary works, musical works, dramatic works, pantomimes and choreographic works, pictorial and graphic works, sculpture, motion pictures and other audiovisual works, sound recordings and architectural works. Generally speaking, a copyrighted work may not be reproduced by others without the copyright owner's permission. The public display or performance



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Coastal Bend College, its faculty, students and employees must comply with Copyright Law. Detailed information on Copyright Law and Intellectual Property Rights is available in Coastal Bend College Policy [CT \(Legal\)](#) and [CT \(Local\)](#).

Questions regarding this information should be directed to the Director of Library Services at: library@coastalbend.edu or the Office of Marketing and Public Relations at: socialmedia@coastalbend.edu.

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NOTE: The College website (www.coastalbend.edu) serves as the main source with the most current version of the Coastal Bend College Board Policies and the Coastal Bend College Catalog.