

Washtenaw Community College Comprehensive Report

GLG 125 The Earth Through Time Effective Term: Fall 2020

Course Cover

Division: Math, Science and Engineering Tech

Department: Physical Sciences

Discipline: Geology

Course Number: 125

Org Number: 12330

Full Course Title: The Earth Through Time

Transcript Title: The Earth Through Time

Is Consultation with other department(s) required: No

Publish in the Following: College Catalog , Time Schedule , Web Page

Reason for Submission: Reactivation

Change Information:

Consultation with all departments affected by this course is required.

Course title

Course description

Credit hours

Total Contact Hours

Distribution of contact hours

Pre-requisite, co-requisite, or enrollment restrictions

Outcomes/Assessment

Objectives/Evaluation

Rationale: New opportunity to offer this course content. Other changes: Name, to modernize title. Credit hours reduced to three hours (from four hours) -lab component removed. Prerequisite removed to allow access to more students. Outcomes added with assessment plans, and objectives have been revised. New text added. MTA status requested.

Proposed Start Semester: Fall 2020

Course Description: Earth is a dynamic planet and has undergone many changes since its inception, and this will continue well into the future. In this course, students will use geologic principles, such as relative and absolute dating, stratigraphic principles, and plate tectonics to reconstruct and understand the geological history and possible future of Earth and its organisms. The course will include a close look at the geologic time scale and will explore the origins of the Universe, Solar System, as well as Earth's moon, atmosphere, and oceans. This course was previously titled Historical Geology.

Course Credit Hours

Variable hours: No

Credits: 3

Lecture Hours: Instructor: 45 **Student:** 45

Lab: Instructor: 0 **Student:** 0

Clinical: Instructor: 0 **Student:** 0

Total Contact Hours: Instructor: 45 **Student:** 45

Repeatable for Credit: NO

Grading Methods: Letter Grades

Audit

Are lectures, labs, or clinicals offered as separate sections?: NO (same sections)

College-Level Reading and Writing

College-level Reading & Writing

College-Level Math

No Level Required

Requisites

General Education

General Education Area 4 - Natural Science

Assoc in Applied Sci - Area 4

Assoc in Science - Area 4

Assoc in Arts - Area 4

Michigan Transfer Agreement - MTA

MTA Science (no lab)

Request Course Transfer

Proposed For:

Student Learning Outcomes

1. Recognize and identify various geologic principles, events, and time periods associated with understanding Earth's history.

Assessment 1

Assessment Tool: Outcome-related questions on the departmental exams

Assessment Date: Fall 2023

Assessment Cycle: Every Three Years

Course section(s)/other population: All sections

Number students to be assessed: All students

How the assessment will be scored: Answer key.

Standard of success to be used for this assessment: 70% of students will score 72.5% or better on all outcome-related questions on the departmental exams.

Who will score and analyze the data: Geology faculty will analyze the data.

2. Apply appropriate geology principles to interpret data from geologic maps, charts, diagrams, and graphs.

Assessment 1

Assessment Tool: Outcome-related questions on the departmental exams

Assessment Date: Fall 2023

Assessment Cycle: Every Three Years

Course section(s)/other population: All sections

Number students to be assessed: All students

How the assessment will be scored: Answer key.

Standard of success to be used for this assessment: 70% of students will score 72.5% or better on all outcome-related questions on the departmental exams.

Who will score and analyze the data: Geology faculty will analyze the data.

Course Objectives

1. Interpret and apply cross-bedding principles in geologic diagrams.
2. Connect the names of early geologists to their appropriate theories and achievements.
3. Determine the sequence of geological events using the appropriate relative dating principle(s) in given diagrams.
4. Apply radiometric dating principles to determine absolute geologic ages.
5. Define and identify various examples of fossil preservation.

6. Interpret the formation, age, and composition of the Earth at its origin.
7. Reconstruct past environmental conditions using fossil examples.
8. Classify and describe various sedimentary rocks.
9. Correlate Precambrian rocks with their appropriate regions in North America and in Michigan.
10. Identify major events and time periods during the Precambrian.
11. Sequence the evolution of life forms during the Precambrian.
12. Recognize and identify key events in the evolution of the Earth's tectonic plates, seas, and orogenies during the Precambrian.
13. Correlate Paleozoic rocks with their appropriate regions in North America and Michigan.
14. Identify major events and time periods during the Paleozoic.
15. Sequence the evolution of life forms during the Paleozoic.
16. Recognize and identify key events in the evolution of the Earth's tectonic plates, seas, and orogenies during the Paleozoic.
17. Correlate key fossil discoveries and rock formations with the appropriate geological time periods.
18. Identify various fossil photos by name and time period.
19. Correlate Mesozoic rocks with their appropriate regions in North America.
20. Identify major events and time periods of the Mesozoic.
21. Recognize and identify key events in the evolution of the Earth's tectonic plates, seas, and orogenies during the Mesozoic.
22. Sequence the evolution of life forms during the Mesozoic.
23. Correlate Cenozoic rocks with their appropriate regions in North America and Michigan.
24. Identify major events and time periods during the Cenozoic.
25. Identify key events during the Pleistocene Ice Age.
26. Differentiate and describe fundamental changes in the evolution of hominids.
27. Identify key persons and ideas relating to the theory of evolution.
28. Recognize and identify key events in the evolution of the Earth's tectonic plates, seas, and orogenies during the Cenozoic.
29. Sequence the evolution of life forms during the Cenozoic.
30. Apply geologic principles and knowledge of Earth's history to predict a future Earth.

New Resources for Course

Course Textbooks/Resources

Textbooks

Levin, H.L. and King Jr., D.T. . *The Earth Through Time*, 11th ed. E-Book Rental: Wiley, 2016, ISBN: 978-1-119-228.

Manuals

Periodicals

Software

Equipment/Facilities

Level I classroom

Other: DL Course

Reviewer

Action

Date

Faculty Preparer:

Suzanne Albach

Faculty Preparer

Jun 17, 2020

Department Chair/Area Director:

Suzanne Albach

Recommend Approval

Jun 17, 2020

Dean:

Victor Vega

Recommend Approval

Jun 18, 2020

Curriculum Committee Chair:

Lisa Veasey

Recommend Approval

Jul 14, 2020

Assessment Committee Chair:

Shawn Deron

Recommend Approval

Jul 15, 2020

Vice President for Instruction:

Kimberly Hurns

Approve

Jul 16, 2020