

COCONINO COMMUNITY COLLEGE

COURSE OUTLINE

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General Education Criteria reviewed by: the Curriculum Committee
Fee changed by: Bruce Belman
General Education Outcomes reviewed by: Chris Black
Assessment added:
Status: Permanent

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A. Identification:

1. Subject Area: Geology
2. Course Number: GLG 101
3. Course Title: PHYSICAL GEOLOGY
4. Credit Hrs: 4
5. Catalog Description:

The study of Earth's processes and materials including rocks and minerals, structures, landforms and their origins. General Education: Lab Science. Three lecture; three lab.

B. Course Goals:

To give students a greater understanding of basic geologic concepts such as minerals, rocks, plate tectonics and processes that occur on the earth, and provide an awareness of the geological environment through the identification of rocks and minerals, various processes, and structural concepts.

C. Course Outcomes:

Students will:

1. Identify and classify various rocks and minerals according to physical characteristics
2. Explain igneous, sedimentary and metamorphic processes
3. Solve problems using topographic and geologic maps
4. Define and describe the basic concepts in structural geology and plate tectonics
5. Utilize scientific methods in laboratory investigations and reporting
6. Explain basic processes that operate on Earth's surface and sub-surface

GECC Course
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Student Outcomes list

D. Course Outcomes Assessment:

Will include:

1. Multiple lab reports/practical's - including hands-on classification of rocks and mineral specimens based on diagnostic physical characteristics
2. Term paper - topic agreed upon between instructor and student, must be relevant in some well defined way to a geologic field

E. Course Content:

Will include:

1. Scientific Method
2. Minerals: identification and uses
3. Igneous, sedimentary and metamorphic rocks - identification and rock forming processes
4. Rock cycle
5. Weathering
6. Geologic time
7. Structure and Plate Tectonics
8. Volcanism
9. Seismology and earthquakes
10. Geologic hazards (local emphasis)
11. Surface processes: mass movement, rivers, groundwater, caves, glaciers, deserts, shores

12. Topographic and geological maps