

COCONINO COMMUNITY COLLEGE

COURSE OUTLINE

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Status: Permanent

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A. Identification:

1. Subject Area: Geology
2. Course Number: GLG 232
3. Course Title: Geology of the Colorado Plateau
4. Credit Hrs: 4
5. Catalog Description:
Examine and observe the geology and geologic processes of the Colorado Plateau and how it has affected its inhabitants. General Education: Physical and Biological Sciences Three lecture. Three lab.

B. Course Goals:

Provide a greater understanding of how the geologic processes have formed and shaped the Colorado Plateau and how these processes influenced its inhabitants and the economy of the United States.

C. Course Outcomes:

Students will:

1. Describe the processes that formed the geologic platform of the Colorado Plateau
2. Examine and document the evidence of marine transgression/regression and how that has influenced the rock units on the Colorado Plateau
3. Examine and document rock units reflecting a great sandy desert during the Mesozoic
4. Examine and document how tectonic uplift and volcanism have shaped the Colorado Plateau.
5. Examine and document how erosional processes have sculpted the landforms we see today
6. Examine how aboriginal people utilized geologic resources as part of their subsistence and culture
7. Examine how geologic processes have influenced biotic inhabitation through time on the Colorado Plateau
8. Examine how mineral resources and mining have influenced the development of the Colorado Plateau
9. Discuss and describe past, current, and future concerns regarding geological resources.
10. Gain a fundamental understanding of the geologic shaping and sculpting the Colorado Plateau.
11. Use basic and advanced tools for geologic assessment (e.g. Geologic maps, topographic maps, remote sensing applications)
12. Describe the geologic evolution of the Colorado Plateau during the Precambrian Era
13. Describe the geologic evolution of the Colorado Plateau during the Paleozoic Era
14. Describe the geologic evolution of the Colorado Plateau during the Mesozoic Era
15. Describe the geologic evolution of the Colorado Plateau during the Cenozoic Era

D. Course Outcomes Assessment:

Will include:

1. Research paper and/or presentation about geology or geologic resources pertinent to the Colorado Plateau
2. exams pertinent to the basic geologic processes
3. exams pertinent to the geologic development and evolution of the Colorado Plateau

E. Course Content:

Will include:

1. Precambrian: assembling of the Colorado Plateau.
2. Paleozoic: Seas come in and the seas go out.
3. Mesozoic: Floodplains, ergs, and the Mesozoic sea
4. Cenozoic: Uplift, erosion, and volcanism
5. Indigenous people's uses of resources.
6. Settlement period exploration.
7. Geologic resources: mineral, water, and energy.
8. The future of geologic resources within the Colorado Plateau
9. Geologic hazards of the Colorado Plateau
10. Current and past environmental or sustainability issues pertaining to the geologic resources of the Colorado Plateau