NorthWest Arkansas Community College
Division of Science & Mathematics

GEOL 1114 General Geology

Catalog Description: Survey of the geological process and products and their relationship to land forms, natural resources and the environment. Global Positioning System (GPS) field work techniques introduced. Three hours of lecture and 3 hours of laboratory weekly, including field trips.

Prerequisite: none

Credit hours/ Contact hours/ Load hours: 4/6/5

Target Audience/ Transferability: This course is suitable for both science and non science majors. It meets the general education requirements for a physical science (with lab) for many baccalaureate programs. Students should check with their transfer institutions to confirm how this course would be counted as part of their specific degree plan.

Student Learning Outcomes: Students completing this course will:

- Use the scientific method in the study of geology.
- Possess a foundation in geology prerequisite for higher level geology course.
- Relate geological principles to issues of societal relevance.
- Identify geological processes resulting in different types of landforms.
- Identify geological processes resulting in different types of rocks.
- Identify common rocks and minerals.
- Acquire a working knowledge of how to read and interpret topographical maps and aerial and satellite images.
- Demonstrate the ability to utilize Global Positioning Systems.

Required Text(s):

- Plummer & Carlson, Physical Geology, 13th ed. , 2008
- Konig & Zachary, Methods & Practices of Physical Geology , 4th ed. , 1998

Topics:	Chapter
Earth's interior & plate tectonics	1
Chemistry & minerals	2
Intrusive rocks	3
Volcanic rocks	4
Weathering & soils	5
Sedimentary rocks	6
Metamorphic rocks	7
Geologic time	8
Mass wasting	9
Stream processes	10
Ground water	11
Glacial processes	12
Deserts	13

- Coastline processes 14
- Structural Geology 15
- Earthquakes & Seismology 16
- The Sea Floor 18
- Geologic Resources 21

Required Methods of Instruction:
Laboratory will include the following activities:
- Mineral identification
- Igneous, metamorphic and sedimentary rock identification
- Remote sensing
- Topographic mapping and interpretation
- Glacial maps
- Structural geology
- Mapping and GIS database collection using GPS receivers
- Field work on one or more of the above topics

Forms of Assessment:
Lab practical exams should be included as part of grading