

# Minnesota State University Moorhead

## GEOS 416: Paleontology

### A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 3

Lab Hours/Week: 0

OJT Hours/Week: \*.\*

Prerequisites:

GEOS 102 - Geology in the National Parks; OR

GEOS 115 - Physical Geology; OR

GEOS 116 - Historical Geology; OR

BIOL 111 - Cell Biology

Corequisites: None

MnTC Goals: None

An introduction to the history of life on Earth. Lectures focus on concepts in paleontology including origin of life; evolution; ecology; and use of fossils in the solution of geologic problems. Characteristics of common fossils will be the focus of the laboratory. Two lectures and one one-hour lab per week. One field trip is required; up to two optional field trips possible (fee will be required to cover travel cost of trips).

**B. COURSE EFFECTIVE DATES:** 01/02/2002 - Present

### C. OUTLINE OF MAJOR CONTENT AREAS

1. Taphonomy and preservation
2. Invertebrate organization
3. Evolution
4. Extinction
5. Paleoecology
6. Fossil invertebrates
7. Biostratigraphy

### D. LEARNING OUTCOMES (General)

1. Students will gain an appreciation for how paleontology is applied to the major groups of fossil invertebrates.
2. Students will better understand that paleontology is one of the most important tools for discerning temporal and spatial relationships in the rock record, and for interpreting depositional environments.
3. Students will gain hands-on experience of the techniques of paleontology.

### E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

### F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

### G. SPECIAL INFORMATION

None noted