

North Central Michigan College

NCMC MASTER COURSE SYLLABUS

Last Date Revised 12/15/2011

INSTRUCTIONAL AREA: Liberal Arts

DEPARTMENT: Science

ASSOCIATE DEAN: Samantha McLin

ORIGINATOR: Kurt Yuengling

DEAN OF INSTRUCTION: Christine Hammond, Ph.D.

COURSE ALPHA/NUMBER: ESC 122

COURSE TITLE: The Earth Through Time

HOURS OF INSTRUCTION:

Credit hours: 4

Lecture: 3

Lab: 3

Clinical: 0

Variable Hours: 0

Total Hours of Instruction: 6

Total Contact Hours: 105.6 (*Total Contact Hours Formula: (lecture hours + lab hours + clinical hours) x 17.6*)

CATALOG DESCRIPTION: An introduction to Earth history. Students will learn to interpret rock and fossil evidence. Topics include the origin and evolution of life, using fossils to organize the geologic time scale, determining past environments and environmental changes, and methods for determining ages of rocks and timing of geologic events.

PREREQUISITE(S): ESC 101, ESC 110, or ESC 121

COREQUISITE(S):

GENERAL EDUCATION DISTRIBUTION AREA:

Communications, Writing

Natural Science Group A

Communications, Communications

Natural Science Group B

Humanities Group A

Social Science Group A

Humanities Group B

Social Science Group B

Mathematics

Non Applicable

GENERAL EDUCATION OUTCOMES:

Write and Speak Effectively

Think Critically & Analytically

Write & Speak Effectively and Think Critically & Analytically

Non Applicable

COURSE OBJECTIVES AND OUTCOMES:

Upon successfully completing this course, you should be able to: (1) interpret your observations of the world around you in terms of fundamental geologic processes, (2) explain the creation and organization of the geologic time scale, (3) demonstrate understanding of the timing of major geologic events and climate changes throughout Earth's history, and (4) effectively use selected laboratory instruments and techniques to collect, analyze, and interpret geologic data.

METHODS OF INSTRUCTION: Lecture, lab, discussion.

METHODS OF EVALUATION: Lab Reports, Projects, Exams

REQUIRED TEXT AT TIME OF COURSE ADOPTION/REVISION:

TEXTS: **Historical Geology**, 4th ed. Wicander and Monroe, Thompson, Brooks/Cole Publishing.

OPTIONAL SUPPLEMENTARY MATERIALS:

Reasonable accommodations can be provided for students with documented disabilities. Please contact Learning Support Services for assistance: (231)348-6817.

SUGGESTED TIME ALLOWANCE AND SEQUENCE OF INSTRUCTION:

(List general content description of what is being covered each week)

(If you need more than one line for a week, hit enter at the end of row; second line will begin)

WEEK 1	Review Rock and Mineral Identification
WEEK 2	Review Plate Tectonics
WEEK 3	Sedimentary Environments
WEEK 4	Fossil Preservation, Identification, and Classification
WEEK 5	Correlation and Relative Dating Techniques
WEEK 6	Absolute Dating Techniques
WEEK 7	The Geologic Time Scale
WEEK 8	The Theory of Evolution
WEEK 9	The Hadean and Archean Eons
WEEK 10	The Proterozoic Eon
WEEK 11	The Paleozoic Era
WEEK 12	The Paleozoic Era
WEEK 13	The Mesozoic Era

WEEK 14	The Mesozoic Era
WEEK 15	The Cenozoic Era
WEEK 16	The Cenozoic Era

APPROVED FOR ADOPTION/REVISION BY THE CRD/AP COMMITTEE ON 03/07/12