

A: Division: INSTRUCTIONAL DATE: 04 Dec 1999

Department: SCIENCE & TECHNOLOGY New Course: A B: Dept

Revision of Course
Information form: _____

DATED: _____

| | | | |
|--------------------|---|-----------------|----------|
| GEOLOGY 320 | D: <u>Paleontology: Life Through Time</u> | E: <u>4</u> | C: _____ |
| Title & Course No. | Descriptive Title | Semester Credit | Subject |

the natural and fossil record. Students will learn how fossils are interpreted. (Enter date & section) This course investigates interpretation of the fossil record.

N. Tavthorne and materials to be submitted to the Assoc. of Geologists
(See Bibliography Page)

Robert I. Carroll (1989) *Biostratigraphy*. 3rd ed. John Wiley

Stearns, Colin W. and Sons, Inc. New York

Complete Form with Entries Under the Following Headings:

G. Course Objectives; R. Course Content; C. Method of Instruction

R. Course Evaluation

O. Course Objectives:

Upon successful completion of this course the student should be able to:

- 1. Use a variety of means to identify and classify a wide variety of fossils.
- 2. Describe the major changes in life through geologic time and the evidence used to support the interpretation of the fossil record.
- 3. Show an understanding of how the principles of biostratigraphy are used to separate and identify environments.
- 4. Show an understanding of the mechanisms of evolution.
- 5. Show an understanding of how fossils can be reconstructed to show a variety of boundaries.
- 6. Describe the uses of trace fossils.

P. Course content:

1. Definina fos

- a. Fossilization types
- b. Taxonomy, classification, and systematics
- c. Taphonomic theory and examples
- d. Individuals and populations

- a. Precambrian organisms
- b. The rise of animals with hard parts
- c. Marine invertebrates of the Paleozoic
- d. Land plants and their origins

Paleozoic vertebrates

Marine Invertebrates of the Mesozoic and Cenozoic

- g. Mesozoic vertebrates
- h. Cenozoic vertebrates
- 3. What we learn from the record
 - a. Biostratigraphy

c. The mechanisms of evolution

d. The record of evolution

Release information construction
f. Paleobiogeography

g. Fossils and sedimentary rocks
h. Trace fossils

Q. Method of instruction:

