HISTORICAL GEOLOGY AND LAB--GEO 104
Doane College-Grand Island
COURSE OUTLINE AND SYLLABUS

Instructor: Charles Carpenter, BS, MS  Credit Hours: 4
E-mail: chuck.carpenter@doane.edu or cecarpenter@charter.net
Phone: 308-379-9237 (cell)  308-381-6591 (home)

FOUNDATIONAL AREA OF KNOWLEDGE: GEO 104 Historical Geology fulfills the requirement for a Foundational Area of Knowledge in Scientific Perspectives. Any course that fulfills that requirement will assure that students gain a greater understanding of scientific thinking and applications using core ideas in courses that include laboratory or field experience. Students will consider the complexities of scientific methodologies in one or more disciplines of the natural sciences, the scientific context of issues they will confront as informed citizens, and the scientific impact on the global community. Students will work to:

1. Employ methods of science for inquiry in a scientific discipline.
2. Develop their scientific literacy, and the ability to critically evaluate scientific information.
3. Consider the ethical and social implications of scientific study, and use of scientific findings.

GEO 104 will seek to accomplish all of these outcomes, with the greatest emphasis on Learning Outcome #2.

REQUIRED TEXT:
Historical Geology: Evolution of Earth and Life Through Time (8th Ed.) 2012
By Wicander, Reed & Monroe, James S.
Publisher: Brooks Cole
ISBN: 9781305119567
Other supplemental materials will be supplied by the instructor as required.

COURSE DESCRIPTION:
An introduction to paleontology and the geological development of North America. Topics addressed include stratigraphy, vertebrate and invertebrate paleontology, paleobotany, structural geology, plate tectonics, and some theoretical aspects of biological evolution as supported by fossils. Lecture and laboratory.

LEARNING OUTCOMES: In addition to FAK learning outcomes, learning outcomes specific to this course are that the students will:
1. Develop an understanding and appreciation of the Earth’s history.
2. State the age of the Earth and discuss how this age is determined.
3. Explore the differences between relative and radiometric dating.
4. Describe and identify basic fossil types.
5. Outline some of the major geologic events that have occurred in North America and Nebraska.
**LEARNING STRATEGIES:** This course will use lecture, video, discussion, activities and lab exercises. The class will also take a field trip to Ashfall Fossil Beds. Attending classes is imperative, as the activities and lab exercises will be intertwined with discussion and work from the book. Because of the blend of material, missing class will put you at a disadvantage. Being able to work with your partner(s) is a must.

**ASSESSMENT OF STUDENT PERFORMANCE AND COURSE REQUIREMENTS:**

1. **Class Participation/Attendance (each night of class = 100 pts.).** Your grade for this component is determined by the number of times that you are present in class and your contributions during class work and discussion. If emergencies arise, and you contact the instructor PRIOR to class, that will be factored in to the total points. No notification will result in a loss of 100 points for that night. Late notification will result in a deduction of 25 points for that evening. The only exception would be an extreme medical emergency.

2. **Project/Paper (worth 100 points).** This work will be divided into two projects. One project will be with a partner; it involves the geologic eras. Another project will involve the historical geology of Nebraska; you will do this project individually. Some daily work may be involved.

3. **Team Tests (worth 100 points each).** You will work on these tests with a partner or partner(s) to answer essay questions based on some type of exercise, activity, environmental problem, or content presented in the chapters.

4. **Individual Tests (worth 100 points each).** These tests will be completed individually and will be objective in nature.

**COURSE POLICIES:**

1. **Grading Policies--**The following grading scale will be used:

   90-100 = A  
   80-89 = B  
   70-79 = C  
   60-69 = D  
   BELOW 60 = F

2. **Late papers/assignments--**all assignments are due at the time the instructor has scheduled. All work needs to be done by the end of the class eight week session unless other arrangements are made.

3. **Attendance--**A portion of your grade will be based on attendance. If you must miss a class, as a matter of courtesy, let the instructor know. See above for further information. You will be expected to complete all work, gather notes, and complete all course work.

4. **Academic Integrity Policy--**

   The Doane College Academic Integrity Policy will be adhered to in this class. All projects and tests will represent your own work or the work of the group. Any use of others’ ideas and words without proper citation of sources is plagiarism and will result in penalties to be determined by the instructor and/or the dean of undergraduate studies.