Course Objectives:

Cognitive:
1. Demonstrate a familiarity with the basic vocabulary of geologic thought and analysis.
2. Apply the basic principles and concepts of physical geology to laboratory and field exercises.
3. Apply the concepts of geological analysis to mineral and rock classification, topographic and geologic map interpretation, and tectonic and oceanographic studies.
4. Analyze and evaluate current events in the context of the geologic factors of a region.
5. Demonstrate an ability to examine geo-scientific information through critical reading and discussion.
6. Employ the scientific method of inquiry to geologic investigations in the laboratory and the field.

Affective:
1. Accept responsibility for pursuing an increased awareness of the physical landscape and its importance to the human habitat.
2. Appreciate the geologic processes and the magnitude of the geologic forces that govern the natural landscape.
3. Relate intelligent management of our natural mineral resources to a knowledge and application of physical geology.
4. Appreciate the interrelationships of world economics and politics to the distribution and use of mineral resources.

Manipulative:
1. Demonstrate skill in field observations, collecting and recording of data, and in mapping techniques.
2. Apply the geological tools of lab and field instruments, maps, graphs, tables, and models to the examination and analysis of earth materials environs.

Course Outline:

I. Geology:
   A. Earth Chemistry
   B. Earth Materials: Minerals and Rocks
   C. Weathering, Soils, and Mass Wasting
   D. Ground and Running Water
      Water as a Resource
   E. Glaciers, Deserts, and Wind
   F. Earthquakes and The Earth’s Interior
   G. Igneous Activity
   H. Plate Tectonics
      I. Diastrophism, Structural Geology, and Mountain Building
   J. Time and Historical Geology

II. Oceanography:
   A. Physics and Chemistry of Sea Water
   B. Topography and Sediments
   C. Tides, Waves, Currents, and Coastlines
      The Future of the Sea

Special Needs Statement:
McHenry County College offers support services for students with special needs. It is the student’s responsibility to meet with the Special Needs Coordinator and provide current documentation regarding his/her disability. Please stop in or call the Special Needs Department, room A-257, 815-455-8676, as soon as possible if you would like more information about the accommodations that are available. In addition, it is important for you to discuss those accommodations with me so you are able to fully participate in this course.

Academic Integrity:
As an educational community, McHenry County College values the pursuit of academic excellence and integrity. In accordance with this philosophy and Chapter 10, Act 5 of the 1994 Illinois Community College Act, academic dishonesty in any form, including cheating, plagiarism, and all other acts of academic theft, is considered intolerable. Appropriate sanctions, up to and including suspension from the college will be imposed by authorized College personnel.

Copyright Policy:
The College will maintain current procedures and guidelines to ensure that all staff and students comply with applicable copyright laws and other intellectual property protection laws. The College will encourage staff and students to engage in the development of intellectual property and facilitate ownership protections with respect to such development of intellectual property.

The College expects that staff and students will act responsibly and ethically in a manner consistent with all copyright laws and College copyright procedures and guidelines. This policy authorizes the College to adopt and maintain such procedures and guidelines necessary to ensure compliance with copyright laws and to facilitate ownership protection with respect to the development of intellectual property.
Consistent with the McHenry County College mission is an expectation that students will govern themselves in terms of appropriate behavior with emphasis on self-respect and respect for others. It is the practice of the College to respect the properly exercised rights of its students. The College recognizes a student’s rights within the institution to freedom of speech, inquiry and assembly; to the peaceful pursuit of education; and to the reasonable use of services and facilities of the College.

The College has adopted a Student Code of Conduct and judicial process in order to maintain a learning environment of respect, civility, safety, and integrity for all members of the College community.

Whenever possible, sanctions for violations of the Student Code of Conduct may be educational in nature. However, violations affecting the health and safety of members of the College community are deemed to be the most serious. Therefore, acts of violence, threats or dangerous behavior are most likely to result in a suspension from the college. Violations of the academic dishonesty policy may also result in suspension or expulsion from the institution and/or reduced or failing grade.

Teaching Schedule:
The scheduling of the activities and teaching strategies on this syllabus, but not the objectives or content, may be altered at any time at the discretion of the instructor.
I. INSTRUCTIONAL MATERIALS:


C) **Audiovisual Materials:** Transparencies, Videos, PowerPoint visuals and CdRoms.

D) **Other Instructional Aids:** Various models, charts, and instruments are used for demonstrations and laboratory exercises.

E) Specific objective sheets are provided for each of the individual units of study.

II. INSTRUCTIONAL METHODOLOGIES: The instructional format for the lecture section of the course will include formal lectures, group discussion, review sessions, cooperative learning groups, and occasional demonstrations. Laboratory sessions are more informal with direct interaction between students and between student and instructor. A semi-discovery approach is used in laboratory assignments.
III. EVALUATION TECHNIQUES:

A) Exams and Tests: Exams, a midterm, and a final comprehensive exam (including a comprehensive department final exam) are given.

B) Laboratory Exercises: Diligent participation as well as content and written summaries are considered in evaluating lab work.

C) Primary Grading Basis:

- *Lab Work  20%
- *Lecture Exams  30%
- *CLGs  10%
- Midterm Exam  20%
- Final Exam  20%

*The instructor will drop the lowest lab, lecture exam, and CLG from the total point accumulation, therefore any lab, lecture exam, or CLG missed due to an absence from the class will be used as your dropped score.

D) Grading Scale: The components of the primary grading basis will be totaled to determine your cumulative. The grade awarded will be determined on the following scale:

- A – 90%
- B – 80%
- C – 70%
- D – 60%
- F – below 60%

IV. ADDITIONAL REQUIREMENTS:

1. Class and laboratory attendance are required. If a student has two unexcused absences from lab, their grade for the entire course will be lowered one full letter grade. You must be on time and in attendance during the entire class to be marked present.

2. Any test, quiz, CLG or laboratory exercises missed due to an unexcused class absence cannot be made up. You may obtain a missed CLG or lab for learning purposes, but the score will not count.

3. Office hours are for those students who attend class. The instructor will not repeat classroom instruction for non-attending students.
Lab Schedule:

Week 1: Introduction to the Physical Properties of Minerals
Week 2: Mineral Identification
Week 3: Igneous Rock Identification and classification
Week 4: Sedimentary and metamorphic Rock Identification and Classification
Week 5: Topographic Maps
Week 6: Elevations and Contours
Week 7: Alpine and Continental Glaciation
Week 8: Earthquakes and Earth's Interior
Week 9: Igneous Formations and Mount St. Helens
Week 10: Introduction to Structural Geology
Week 11: Plate Tectonics and Mountain Belts
Week 12: Salinity and Density of Seawater
Week 13: Waves, Currents and Costal Landforms
Week 14: Waves, Beaches and Coasts
Week 15: Lab wrap-up and review

Teaching strategies and activities, but not content or course objectives, may be altered at any time by any instructor.