Midland College
Syllabus
2007-08
GEOL 2409
Mineralogy & Petrology Lab
4 Semester Credit Hours
(3 Lecture/3 Lab)

Course Description: This course will provide an introduction to mineral identification by physical and optical properties, techniques of crystallography, mineral formation and optical mineral analysis.

Text, References, and Supplies: No lab manual is available for this course. Lab materials will be provided as handouts by your instructor.

Suggested: Obtaining a geologic dictionary would be advisable. Also, a good quality hand lens is highly recommended.

Course Goals/Objectives: Mineralogy lab is designed to compliment and expand on concepts introduced in the lecture portion of the course. The goals for the course are:
1. Understand the basic classification of minerals.
2. Identify symmetry components of minerals and classify them according to their crystal groups.
3. Be familiar with some of the simpler optical properties of minerals and be able to identify the most common rock-forming minerals with a petrographic microscope.
4. Understand the basic role of rock-forming minerals in the geologic environment.

Student Contributions, and Class Policies: Students are expected to:
1. Spend at least 1 hour per week for each classroom hour in preparation for class.
2. Make-up work is considered the ultimate responsibility of the student. Attendance is critical in this class and MC policies may be invoked at the discretion of the instructor: that is, three consecutive classroom hours of unexcused absences or a total of six unexcused classroom hours reported to the registrar may result in an automatic grade of “W.”
3. Make-up exams will only be given to those students who have valid excuses and only within one-week’s time of the originally scheduled exam. Make-up exams will be given during the regular class meeting times. Make-up exams if permitted beyond the one-week grace period will loose one letter grade as a late penalty. No grades will be dropped.
4. Midland College does not tolerate scholastic dishonesty or academic misconduct in any form. Please read the MC Student Handbook on this subject.

Evaluation of Students: The course is based on a total of 1000 points. The lab portion of the course is worth 25% or 250 points. This will include two (3) lab practicals, lab exercises along with participation and attendance.

Course Schedule: See Attached Schedule.
### Intellectual Competencies:

1. **Reading** - Understanding the material incorporated in the text used in this course will require the student to analyze and interpret various geological concepts.

2. **Listening** - The primary teaching methods used in this course are discussion and lecture. Understanding the oral presentation of material will require the student to analyze and interpret various geological concepts.

3. **Critical Thinking** - Critical thinking, as exemplified by problem solving, is inherent in the study of any scientific discipline. Geological problems will be considered, discussed, and analyzed in this course.

### ADA Statement:

Any student who, because of a disabling condition, may require some special arrangements in order to meet course requirements should contact the instructor as soon as possible. These conditions may include documented physical or educational disabilities. Please be aware that services or accommodations are not automatic. Each student must request them and secure the proper authorizations.

### Exemplary Objectives for Natural Sciences:

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Competencies:

1. To understand and apply method and appropriate technology to the study of the natural sciences.

2. To recognize scientific and quantitative methods and the differences between these approaches and the other methods of inquiry and to communicate findings, analyses, and interpretation both orally and in writing.

3. To identify and recognize the differences among competing scientific theories.

### Instruction Information:

**Instructor:** Joan loski Gaw
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147 B

Phone: 685-4635

E-mail:

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Office Hours: MW F:
11:00 - 12:00 p.m.
TR: 8:00-9:30 a.m.

Division Dean: Dr. Margaret Wade, 125 SF, 685-4615

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