

**MIN 331 (Dis)— Rock Mechanics
Spring 2011 Syllabus**

1. Textbook information

Required text: Course handout (contact Mrs. Shirley Hall /Mrs. Judy Russell for CD)

Other references:

Obert, L. and W. I. Duvall, 1967. *Rock Mechanics and the design of structures in rock*. John Wiley and Sons, Inc., New York.

Goodman, R. F., 1988. *Introduction to rock mechanics*. John Wiley and Sons, Inc., New York.

Brady, B. H. G. and E. T. Brown, 1993. *Rock Mechanics for underground mining*. Kuwer Academic Publishers, Dordrecht, The Netherlands.

Jaeger, J. C. and N. G. W. Cook, 1979. *Fundamentals of rock mechanics*. Chapman and Hall, London.

Peng, S. S., 1986. *Coal mine ground control*. John Wiley and Sons, Inc., New York.

2. Topical outline

1. Review of fundamental mechanics principles
2. In situ stresses
3. Basic rock mechanics instrumentation
4. Rock properties
5. Field instrumentation
6. Pillar design
7. Roof span design
8. Violent failures
9. Rock reinforcement
10. Surface subsidence
11. Slope stability

Examines: mid-term and final

3. Grading --- A:100-90 B:89-80 C:79-60 D:50—59 F:<50

Mid-term exam 30%

Final exam 30%

Homework 40%

4. Ethical homework preparation

All work is done on the honor system. It will be considered unethical (in this course) to confer on answers or look at other people's work. You may discuss the work with others in a general way, but cannot use another person to help you with the problems.

5. Instructor: Maochen Ge gem@mst.edu 324 McNutt Hall 341-6029 (Office)