

Office of Academic Affairs
Tarleton State University
January 2004

Master Course Syllabus

Department: Chemistry and Geoscience **Course Prefix/Number:** GEOL 4113

Official Course Title: Economic Geology

Master Syllabus Approved by Department on: ____/____/____
Month Day Year

I. Catalog Description

An introduction to the origin, classification, uses, and economics of metallic and non mineral deposits. Lab will introduce reflected light microscopy, alteration petrology, and simulate a complete mineral deposit exploration program.

II. Prerequisites

GEOL 2063 or concurrent enrollment

III. Expanded Course Description

This course introduces students to the science of economically useful geological deposits. The course is focused on the formation and evolution of ore deposits. Additional topics in the course include uses of geological materials, the classification of ore deposits, and the relationship of ore deposits to plate tectonics. The economics and environmental impact of mining are covered in the course.

IV. Intended Student Learning Outcomes

Knowledge outcomes

Upon completion of this course students will:

- * understand how economic deposits are formed
- * understand the geographic distribution of ore deposits
- * understand the economics of ore deposits

Skill outcomes

Upon completion of this course students will:

- * achieve competency in ore identification

Value outcomes

Upon completion of this course students will:

- * understand the effect of mining on the environment
- * understand the critical importance of ores to society

V. Unless otherwise stipulated in this master syllabus by the department, the following items are subject to faculty discretion as described in each faculty member's individual course outline/syllabus.

Course Requirements (grading/evaluation procedures; class attendance policy; term papers; projects; field assignments; examinations; class participation; etc)

The grading is based upon lecture exams (2-4), quizzes, problems, and laboratory exercises. The final exam is cumulative

Required Text Economic Geology text

Department Head Signature/Date

Signature

____/____/____