

GEOLOGY 335 (Geology and Mineral Resources of Texas) -- Fall, 2010

COURSE FORMAT: 3 lecture hours per week (9:30-11:00 TT; JGB3.120); **AND**

2 lab/discussion hours per week (JGB3.204) (11-1 T) (Unique #26855), **OR** (2-4 Th) (Unique #26860)

Instructor: Dr. Richard Kyle (JGB3.316D; phone 471-4351; rkyle@mail.utexas.edu);

TA: Gareth Cross; gecross@mail.utexas.edu

OFFICE HOURS: **Kyle** M 10–11:30, W 2–3:30 (other times by appointment or when door is open)

TA JGB 3.204, M 10-11, another hour TBA (other times by appointment)

Grading: (1) 2 Intrasemester Exams (**10/5, 11/11**) 40 %
(2) Unscheduled Lecture Quizzes 5 %
(3) Lab Exercises and Quizzes 25 %
(4) Final Exam (**12/13, 2:00-5:00 p.m.**) 30 %

***Missed quizzes cannot be made up.**

****There are no plans for make-ups of exams; Lab attendance is mandatory**

***** Final grades will involve the plus/minus system**

COURSE DESCRIPTION: Geology 335 is a survey course that focuses on the diverse aspects of the geology and mineral resources of Texas. The surface and subsurface geology and mineral resources of selected regions of the state will be reviewed, as well as the relation of resources to society and the importance of mineral resources to the state and local economies. The geologic nature and origin of energy resources and selected industrial minerals will be discussed. Lab sessions provide additional time for discussion and illustration of topics, as well as providing "hands-on" experience with selected maps and samples. Topics covered in lab may be included on intrasemester and final exams.

TEXTBOOK: Spearing, D., 1991, Roadside Geology of Texas: Mountain Press, 416 p. (optional)

SCHEDULE:

<u>Week</u>	<u>Lecture Topic</u>	<u>Lab Topic</u>
8/26	Introduction	No Lab
8/31-9/2	General Geology Review/Texas Geography	Mineralogy Review
9/7-9/9	General Texas Geology/Central Texas Geology	Magmatic & Meta Processes
9/14-9/16	West Texas Geology/Marathon Region	Sedimentary Processes
9/21-9/23	Permian Basin	Fossils / Geologic Time
9/28-9/30	East Texas Basin/Salt Domes	Mineral & Rock Quiz
10/5-10/7	First Exam /Central Gulf Coast Geology	Topographic & Geol Maps
10/12-10/14	Trans-Pecos Texas; Cenozoic Geology	T-P TX Tertiary Igneous Geol
10/19-10/21	Earth Resources Review/Resources and Society	Mineral Resource Valuation
10/26-10/28	Overview of Texas Mineral Resources	Subsurface Geology
11/2-11/4	Principles of Petroleum Geology	Texas Petroleum Geology
11/9-11/11	Second Exam /Petroleum Geology of Texas	Fluids in the Subsurface
11/16-11/18	Other Energy Resources	Industrial Minerals/Review
11/23-11/25	Water Resources/ THANKSGIVING	No Lab
11/30-12/2	Industrial Mineral Resources/Review	Final lab Quiz

Lecture Protocol: The use of laptops is allowed only to take notes (requires approval of instructor).

University Honor Code: "The core values of The University of Texas at Austin are learning, discovery, freedom, leadership, individual opportunity, and responsibility. Each member of the university is expected to uphold these values through integrity, honesty, trust, fairness, and respect toward peers and community."

Special Needs: The University of Texas at Austin provides upon request appropriate academic accommodations for qualified students with disabilities. To determine if you qualify, please contact the Division of Diversity and Community Engagement, Services for Students with Disabilities, 471-6259 (link above). After your needs are certified, the instructors will work with you to make appropriate arrangements. Special needs requests must be submitted in writing at least a week prior to the affected event, e.g. a test or assignment.