TEXAS A&M UNIVERSITY – CORPUS CHRISTI
COLLEGE OF SCIENCE AND TECHNOLOGY

GEOL-3414_001 – IGNEOUS AND METAMORPHIC PETROLOGY
SPRING SEMESTER 2012
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Text: Igneous and Metamorphic Petrology by Myron G. Best, 2nd ed.
Class Schedule: Lecture: Tues. and Thur. 9:30-10:45 am
Lab: Tues. 12:00-2:00 pm (3414_002), Thur. 2:00-4:00pm (3414_003)
Office Hours: CS-226 by appointment (temp.)

Course Description
This is an upper division college-level course in Igneous and Metamorphic Petrology for students majoring in Geology or Environmental Science. Prerequisites for the class include Physical Geology and Mineralogy (Geo. 3411). The course will cover magmatic theory, thermodynamics, chemistry and character of magma systems, composition and classification of magmatic rocks and magmatic petro-TECTONIC associations. The latter third of the course will cover metamorphic petrography, including metamorphic reactions, equilibria and processes, metamorphic fabric, composition and metamorphic environments. Laboratory studies will include igneous and metamorphic rock and mineral identification and associations - in hand specimens and thin sections. Proficiency with the polarizing-petrographic microscope is required. Each student will complete a self-directed study of a field specimen collected from the Llano Uplift of Central Texas.

Student Learning Outcomes
After successfully completing this course, you will have obtained a good understanding of:
- The character and habit of magmas, magmatic rocks and their identification.
- Identification and association of igneous rock-forming minerals.
- The nature and environment of metamorphic processes.
- Identification and association of metamorphic textures, compositions and chemistry.
- Igneous and metamorphic petro-tectonic associations.

Evaluation and Grade Assignment
Your course grade will be based on the following point distribution:
Lecture: 250 points. Lab: 250 points.

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<th>Assignment</th>
<th>Points</th>
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<tr>
<td>Midterm Exam</td>
<td>3/08/12</td>
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<td>Final Exam</td>
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<td>Class Project (written)</td>
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<tr>
<td>Lecture Quizzes</td>
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<tr>
<td>Lab Midterm Exam</td>
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<td>Student thin Section Project</td>
<td>5/08/12</td>
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<tr>
<td>Lab exercise and Quizzes</td>
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<td><strong>Total</strong></td>
<td><strong>500 points</strong></td>
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Final grading will be:
A = 450-500 points, B = 400-449 points, C = 350-399 points, D = 300-349 points, F = <=299
Tests and exercises are subject to curves.

Exams, Quizzes and Class Projects
Assume responsibility for your grade.
Exams/assignments can only be taken during the scheduled time, except in cases of personal or family emergencies. Documented proof is required of such emergencies. There will be no make up exams or quizzes for unscheduled or unexcused absences – it’s not fair for you, me or your fellow students. If you know ahead of time that you’re going to miss an exam or a class and have a valid excuse, let me know before the fact, not after. Urgency to experience Spring Break is not a valid excuse for missing an assignment or test, any more than anxiousness to get on with your summer. Once an exam is returned to the class, no make ups will be given.
Chapter quizzes will be given at the whim and will of the instructor. The odds of a quiz occurring on any given day are inversely proportional to the number of students present in class that day. Quizzes may be given in lecture or lab.

Class and Lab Policies
You’re in college now. No one is going to make you come to class. But you can pretty well be assured that your success in this class will be a function of your time and effort made, both in and out of the classroom. Lab instruction, in particular, can not and will not be repeated outside of the scheduled laboratory time. You can not pass the course without completing the lab.
Tuesday lab will be held from 12:00 – 1:50 pm. (Thursdays lab is from 2:00 – 3:50 pm. As printed) The 12:30 time listed for Tuesday was a printing error in the schedule. If you have a lab schedule conflict, you’ll need to reschedule. See me if there’s a problem.

Treat your co-students (and instructor) with respect. The college catalog contains the university statement on academic integrity. Cheating and plagiarism will not be tolerated and will result in a failing grade for the course and possible disciplinary action by the university. The use of cell phones, pagers, MP3 players, headphones and similar electronic devices is not allowed in class. If your cell phone goes off during lecture, I will assume it is an emergency and that you will be leaving class to take care of same. Also, in CS226, by safety regulations, no food (or drink) and no chewing tobacco will be permitted, especially during lab.

Notice to Students with Disabilities
Texas A&M University – Corpus Christi complies with the Americans with Disabilities Act in making reasonable accommodations for qualified students with disabilities. If you suspect that you may have a disability to be considered (physical impairment, learning disability, psychiatric disability, etc.) please contact the Services for Students with Disabilities Office, located in CCH-116, at 825-5816. If you need disability accommodations in this class, please see me as soon as possible, so accommodations may be arranged.

Academic Advising
The College of Science and Technology requires that students meet with an academic adviser to declare a major and set up a degree plan. The college’s Academic Advising Center is located in CI-350, and can be reached at 825-6094.
Grade Appeal Process
As stated in University Rule 13.02.99.C2 – Student Grade Appeals, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of both parties involved in the process and the number of days allowed for completing the process, see University Rule 13.02.99.C2, Student Grade Appeals, and University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules Web site at http://www.tamu.edu/provost/university_rules/index.html. For assistance and/or guidance in the grade appeal process, students may contact the office of Student Affairs.

Important Dates


3/06    Midterm Lab Exam

3/01    Samples for Thin Section Study to be sent for preparation
3/08    Midterm – Lecture Exam

3/12-16 Spring Break

4/26,28 Student presentations – Thin Sections/Petrography
5/01    Lab Final
5/08    Student Thin Section/Report Due
5/08    Lecture Final - Comprehensive