## **Physical Geology** Geology 104 501-505 (3-1) MWF 8:00 – 8:50, 101 Halbouty

Dr. Andrew Hajash Professor of Geology and Geophysics <u>hajash@tamu.edu</u>, 845-0642 Office: 224 Halbouty **Office hours:** MWF 9 - 11 or by appointment Send me an email telling me days and times you can meet. Office visits are strongly encouraged.

## **COURSE DESCRIPTION**

Earth materials, structures, external and internal characteristics; physical processes at work upon or within the planet; required for students in geology, geophysics and petroleum engineering. A working knowledge of high school chemistry and mathematics is required.

#### **TEXTS** and LINKS

Lecture: *Earth: An Introduction to Physical Geology*, 8<sup>th</sup>, 9<sup>th</sup>, or 10<sup>th</sup> ed., Tarbuck and Lutgens + GEODe:Earth CD Laboratory: *Physical Geology Laboratory Manual*, Custom Edition for Texas A&M

#### **PROCEDURES, EXPECTATIONS, AND METHOD OF EVALUATION**

Your grade will be based on lecture (75%) and lab (25%). Labs begin the first week; attendance is mandatory.

The *lecture portion* of your grade will be base on four exams (100 points each) and a **comprehensive** final exam (100 points). You may drop one exam!<sup>(())</sup> Approximate dates for the exams are given on the syllabus. Exams will be closed book and cover material presented in the lectures (based on text plus other lecture material and assignments). Test format will be primarily multiple-choice. You must bring a blue-gray 8.5"x11" SCANTRON sheet and a #2 pencil for each exam. Exams (except the final) will be curved up to a mean of 75 if necessary. For example, if the mean is 72, 3 points will be added to all scores. If you miss an exam for any reason, contact me within one week of the exam. Unexcused missed exams will be recorded as "zero." Make-up exams may be given for university-excused absences or illness (with proper written documentation), or the grade on the final exam will be used for the missed exam. Exams will not be given early or late unless approval is given by professor prior to scheduled exam.

It pays to attend lecture; when you come to class and pay attention on a regular basis, you will be better prepared for exams, you will not have to study as much.

Your grade will be calculated as follows: Lecture average = (4 exams + final (drop one))/4. Your lecture average will be multiplied by 3 and added to your lab average. That total will be divided by 4 to get your final course average. The grading scale will be as follows (no exceptions, don't even ask):

89.5-100 = A, 79.5-89.4 = B, 69.5-79.4 = C, 59.5-69.4 = D, < 59.5 = F

If you have questions about any class material, please come and talk to me (in person). I am happy to help!

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities in Room 126 of the Koldus Building. The phone number is 845-1637.

## AGGIE HONOR CODE: "An Aggie does not lie, cheat, or steal or tolerate those who do."

For more information, see Honor Council Rules and Procedures. <u>http://www.tamu.edu/aggiehonor</u> Academic integrity is an essential force in the academic life of a university. It enhances the quality of education and celebrates the genuine achievements of others. It is, without reservation, a responsibility of all members of the Texas A&M University Community to actively promote academic integrity. Apathy or acquiescence in the presence of academic dishonesty is not a neutral act -- failure to confront and deter it will reinforce, perpetuate, and enlarge the scope of such misconduct.

**PLAGIARISM:** As commonly defined, plagiarism consists of passing off as one's own the ideas, words, writings, etc., which belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you should have the permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without which research cannot be safely communicated. (Please see <a href="http://library.tamu.edu/aggiehonor">http://library.tamu.edu/aggiehonor</a>.)

# **Tentative Outline and Schedule of Exams\***

| Subjects by week (3 lectures/wk)                                       | Weekly Reading Assignments                           |
|--|--|
| Introduction to course and Geology<br>Origin of solar system and Earth | Ch. 1, Ch. 22 (658-664)                              |
| Introduction to Plate Tectonics  | Ch. 2 (text and GEODe:Earth)<br>"Skim" Ch. 13 and 14 |
| Minerals   | Ch. 3 (text and GEODe:Earth)                         |
| Igneous rocks  | Ch. 4 (text and GEODe:Earth)                         |
| Volcanoes and other igneous activity                                   | Ch. 5 (text and GEODe:Earth)                         |
| Weathering and soil formation  | Ch. 6 (text and GEODe:Earth)                         |
| Sedimentary rocks and processes  | Ch. 7 (text and GEODe:Earth)                         |
| Metamorphism and metamorphic rocks                                     | Ch. 8 (text and GEODe:Earth)                         |
| Geologic Time  | Ch. 9 (text and GEODe:Earth)                         |
| Structural geology and crustal deformation                             | Ch. 10 (text and GEODe:Earth)                        |
| Earthquakes  | Ch. 11 (text and GEODe:Earth)                        |
| Earth's internal structure   | Ch. 12 (text and GEODe:Earth)                        |
| Mass Wasting   | Ch. 15 (text and GEODe:Earth)                        |
| Running Water  | Ch. 16 (text and GEODe:Earth)                        |
| Groundwater  | Ch. 17 (text and GEODe:Earth)                        |

EXAM 1 Friday, September 24 EXAM 2 Wednesday, October 20 EXAM 3 Wednesday, November 10 EXAM 4 Friday, December 3 (last class meeting)

Review for Final Monday, December 6 (optional)

**FINAL EXAM**: ◆ Friday, Dec 10, 10:00 a.m.-12:00 ◆

\* Material will generally be covered in the order listed above; however, there could be some shifting of the schedule. Also, we probably will *not* cover all of the chapters shown.

I am more interested in you understanding the material than in covering the whole book.