GEOS 1103
Course PHYSICAL GEOLOGY LAB

Professor Dr. W.R. Griffin
Term Long Semester
Meetings SLC 1.206

Professor's Contact Information

Office Phone	972-883-2430
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Office Location	ROC 2.301 A
Email Address	griffin@utdallas.edu
Office Hours	**By appointment via email contact only**
Other Information	Teaching Assistant: TBA

General Course Information

Pre-requisites, Co-requisites, & other restrictions	None
Course Description	In this laboratory course, the student will utilize basic materials and tools of physical geology to identify common rocks and minerals. The student will also draw, analyze and interpret topographic maps and as well as aerial photographs, geologic maps and geological cross sections with a basic understanding of the stratigraphy and its principles.
Learning Outcomes	• Perform simple physical and chemical tests to identify common minerals. • Identify hand samples of igneous rocks by their mineralogy and texture, and relate these rocks to magma composition, cooling rates, and their position on Bowen's Reaction Series. • Identify hand samples of sedimentary rocks by their texture and mineralogy and relate these rocks to their environment of deposition. • Describe the process of metamorphism and identify hand samples of metamorphic rocks by their mineralogy and foliation. • Apply stratigraphic principles to the interpretation of the rock record. • Contour a topographic map and construct a topographic profile. • Measure and relate distances using scales in topographic maps and aerial pictures. • Identify major landform features on topographic maps and aerial photos, and relate them to basic geologic processes of stream, groundwater, glacial, or marine erosion and deposition. • Construct block diagrams and models illustrating the basic types of faults, unconformities, and structural folds. • Interpret geologic maps and geologic cross-sections.
Required Texts & Materials	LAB TEXT: Laboratory Manual for Physical Geology. 13th to 16th Edition by Zumberge, Rutford & Carter. **It is important to bring to map pencils (a few different colors), eraser, ruler, protractor, tracing paper and a calculator to class.**

Assignments & Academic Calendar

WEEK	LAB TOPIC	READING LAB MANUAL
1	Introduction, Syllabus, Supplies, Lab Manual: Minerals Intro	Syllabus
2	Minerals & Igneous Rocks	Ex. 1 & 2
3	Minerals & Igneous Rocks	Ex. 1 & 2
4	**Test 1: Minerals & Igneous Rocks in Class**	Ex. 1 & 2
5	Sedimentary & Metamorphic Rocks	Ex. 3 & 4
6	Sedimentary & Metamorphic Rocks	Ex. 3 & 4
7	**Test 2: Minerals, Igneous, Sedimentary & Metamorphic Rocks in Class**	Ex. 3 & 4
8	Topo Maps-Contours, Scales, Profiles	Ex. 8,9,10
9	Topo Maps: Map Reading, Remote Sensing Imagery	Ex. 11, 12, 13 A-B
10	**Test 3 in Testing Center; Geologic Time in Class**	Ex 5, 6, 7
11	Structural Geology & Geologic Maps	Ex: 21, 22A, 22D
12	Geologic Maps, Faults & Earthquakes, Seismic Waves	23A, 23B, 24A-B, 26
13	**Test 4 in Testing Center; Plate Tectonics in Class**	Ex 27A, 27B
14	Earth's magnetic field, Intraplate Volcanism, Volcanic Landforms	Ex: 28, 29; 30A-B, 20A-B
15	**Test 5 in Class**	

Course Policies

Grading (credit) Criteria	There will be 5 sections, each covering various exercises in the lab manual, the grades for each section will count as 20% of your overall grade. There will be no final exam. Grades for each section will assigned based on the test grade for that section. **No make-up tests will be given without a prior excused absence....See Below.** Test materials will be taken both from the manual, handouts, and short introductions. Tests will include diagnosis of rocks and minerals, drawing of maps, calculations and some multiple choice, fill in the blank, T/F, sketch/diagram, or short answer. The final grade is based on the following percentile divisions A+: 97-100; A: 94-96; A-: 90-93; B+: 87-89; B: 84-86; B-: 80-83; C+: 77-79; C: 74-76; C-: 70-73, D+=67-69, D=64-66, D-=60-63, F<60.
Make-up Exams	**Tests will be taken only during the scheduled in-class period, unless the instructors agree to reschedule an individual's test as the result of a prior**

	agreement, or a doctor's excuse certifies the student was too ill to attend class the day of the examination. If you have health problems, or extenuating circumstances, please contact the instructor as soon as possible so arrangements can be made.
Extra Credit	**None**
Late Work	**N/A**
Class Attendance	Students are expected to attend scheduled lab sessions and read the assigned materials in the lab manual prior to the lab sessions. It is very important that you interact with the instructors during this class.
Classroom Citizenship	According with UTD guidelines
Field Trip Policies	No Field trip
Student Conduct and Discipline	The University of Texas System and The University of Texas at Dallas have rules and regulations for the orderly and efficient conduct of their business. It is the responsibility of each student and each student organization to be knowledgeable about the rules and regulations which govern student conduct and activities. General information on student conduct and discipline is contained in the UTD publication, *A to Z Guide*, which is provided to all registered students each academic year. The University of Texas at Dallas administers student discipline within the procedures of recognized and established due process. Procedures are defined and described in the *Rules and Regulations, Board of Regents, The University of Texas System, Part 1, Chapter VI, Section 3*, and in Title V, Rules on Student Services and Activities of the university's *Handbook of Operating Procedures*. Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and regulations (SU 1.602, 972/883-6391). A student at the university neither loses the rights nor escapes the responsibilities of citizenship. He or she is expected to obey federal, state, and local laws as well as the Regents' Rules, university regulations, and administrative rules. Students are subject to discipline for violating the standards of conduct whether such conduct takes place on or off campus, or whether civil or criminal penalties are also imposed for such conduct.
Academic Integrity	The faculty expects from its students a high level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, it is imperative that a student demonstrate a high standard of individual honor in his or her scholastic work. Scholastic dishonesty includes, but is not limited to, statements, acts or omissions related to applications for enrollment or the award of a degree, and/or the submission as one's own work or material that is not one's own. As a general rule, scholastic dishonesty involves one of the following acts: cheating, plagiarism, collusion and/or falsifying academic records. Students suspected of academic dishonesty are subject to disciplinary proceedings. Plagiarism, especially from the web, from portions of papers for other classes, and from any other source is unacceptable and will be dealt with under the university's policy on plagiarism (see general catalog for details). This course will use the resources of turnitin.com, which searches the web for possible plagiarism and is over

	90% effective.
Email Use	The University of Texas at Dallas recognizes the value and efficiency of communication between faculty/staff and students through electronic mail. At the same time, email raises some issues concerning security and the identity of each individual in an email exchange. The university encourages all official student email correspondence be sent only to a student's U.T. Dallas email address and that faculty and staff consider email from students official only if it originates from a UTD student account. This allows the university to maintain a high degree of confidence in the identity of all individual corresponding and the security of the transmitted information. UTD furnishes each student with a free email account that is to be used in all communication with university personnel. The Department of Information Resources at U.T. Dallas provides a method for students to have their U.T. Dallas mail forwarded to other accounts.
Withdrawal from Class	The administration of this institution has set deadlines for withdrawal of any college-level courses. These dates and times are published in that semester's course catalog. Administration procedures must be followed. It is the student's responsibility to handle withdrawal requirements from any class. In other words, I cannot drop or withdraw any student. You must do the proper paperwork to ensure that you will not receive a final grade of "F" in a course if you choose not to attend the class once you are enrolled.
Student Grievance Procedures	Procedures for student grievances are found in Title V, Rules on Student Services and Activities, of the university's *Handbook of Operating Procedures*. In attempting to resolve any student grievance regarding grades, evaluations, or other fulfillments of academic responsibility, it is the obligation of the student first to make a serious effort to resolve the matter with the instructor, supervisor, administrator, or committee with whom the grievance originates (hereafter called "the respondent"). Individual faculty members retain primary responsibility for assigning grades and evaluations. If the matter cannot be resolved at that level, the grievance must be submitted in writing to the respondent with a copy of the respondent's School Dean. If the matter is not resolved by the written response provided by the respondent, the student may submit a written appeal to the School Dean. If the grievance is not resolved by the School Dean's decision, the student may make a written appeal to the Dean of Graduate or Undergraduate Education, and the deal will appoint and convene an Academic Appeals Panel. The decision of the Academic Appeals Panel is final. The results of the academic appeals process will be distributed to all involved parties. Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and regulations.
Incomplete Grades	As per university policy, incomplete grades will be granted only for work unavoidably missed at the semester's end and only if 70% of the course work has been completed. An incomplete grade must be resolved within eight (8) weeks from the first day of the subsequent long semester. If the required work to complete the course and to remove the incomplete grade is not submitted by the specified deadline, the incomplete grade is changed automatically to a grade of **F**.
Disability Services	The goal of Disability Services is to provide students with disabilities educational opportunities equal to those of their non-disabled peers. Disability Services is located in room 1.610 in the Student Union. Office hours are Monday and Thursday, 8:30 a.m. to 6:30 p.m.; Tuesday and Wednesday, 8:30 a.m. to 7:30 p.m.; and Friday, 8:30 a.m. to 5:30 p.m. The contact information for the Office of Disability Services is: The University of Texas at Dallas, SU 22 PO Box 830688 Richardson, Texas 75083-0688

	(972) 883-2098 (voice or TTY) Essentially, the law requires that colleges and universities make those reasonable adjustments necessary to eliminate discrimination on the basis of disability. For example, it may be necessary to remove classroom prohibitions against tape recorders or animals (in the case of dog guides) for students who are blind. Occasionally an assignment requirement may be substituted (for example, a research paper versus an oral presentation for a student who is hearing impaired). Classes enrolled students with mobility impairments may have to be rescheduled in accessible facilities. The college or university may need to provide special services such as registration, note-taking, or mobility assistance. It is the student's responsibility to notify his or her professors of the need for such an accommodation. Disability Services provides students with letters to present to faculty members to verify that the student has a disability and needs accommodations. Individuals requiring special accommodation should contact the professor after class or during office hours.
Religious Holy Days	The University of Texas at Dallas will excuse a student from class or other required activities for the travel to and observance of a religious holy day for a religion whose places of worship are exempt from property tax under Section 11.20, Tax Code, Texas Code Annotated. The student is encouraged to notify the instructor or activity sponsor as soon as possible regarding the absence, preferably in advance of the assignment. The student, so excused, will be allowed to take the exam or complete the assignment within a reasonable time after the absence: a period equal to the length of the absence, up to a maximum of one week. A student who notifies the instructor and completes any missed exam or assignment may not be penalized for the absence. A student who fails to complete the exam or assignment within the prescribed period may receive a failing grade for that exam or assignment. If a student or an instructor disagrees about the nature of the absence [i.e., for the purpose of observing a religious holy day] or if there is similar disagreement about whether the student has been given a reasonable time to complete any missed assignments or examinations, either the student or the instructor may request a ruling from the chief executive officer of the institution, or his or her designee. The chief executive officer or designee must take into account the legislative intent of TEC 51.911(b), and the student and instructor will abide by the decision of the chief executive officer or designee.
Off-Campus Instruction and Course Activities	Off-campus, out-of-state, and foreign instruction and activities are subject to state law and University policies and procedures regarding travel and risk-related activities. Information regarding these rules and regulations may be found at http://www.utdallas.edu/BusinessAffairs/Travel_Risk_Activities.htm. Additional information is available from the office of the school dean.

These descriptions and timelines are subject to change at the discretion of the Professor.