



UNIVERSITY OF CALGARY

DEPARTMENT OF GEOSCIENCE COURSE OUTLINE

1. **Course:** GLGY 571, Engineering Geology

Lecture Sections:

L01: TuTh, 12:30-13:45, TRB 102

Dr. L. Bentley, Office: ES 262, Ph. 403-220-4512, lbentley@ucalgary.ca

GLGY 571 L01

Desire 2 Learn (D2L) GLGY 571 L01

Geoscience Department ES 118, 403-220-5841, geoscience.ucalgary.ca, geoscience@ucalgary.ca

2. **Prerequisites:** Geology 341 or 343 and Geophysics 351 or 355. See also Geology [Course Descriptions](#) of the University Calendar.

Notes: Completion of Geology 401 is highly recommended prior to taking this course.

3. **Grading:** The University policy on grading and related matters is described sections [F.1](#) and [F.2](#) of the online University Calendar. In determining the overall grade in the course the following weights will be used:

Assignments/Labs	30%
Project	25%
Exam 1	15% (Approx. date 15 Oct., 2013)
Exam 2	15% (Approx. date 05 Nov., 2013)
Exam 3	15% (Approx. date 26 Nov., 2013)
No Final Exam	

Percentage	Grade
92	A+
85	A
82	A-
78	B+
75	B
72	B-
68	C+
65	C
60	C-
55	D+
50	D
<50	F

4. **Missed Components of Term Work:** The regulations of the Faculty of Science pertaining to this matter are found in the Faculty of Science area of the Calendar in [Section 3.6](#). It is the student's responsibility to familiarize himself/herself with these regulations. See also [Section E.6](#) of the University Calendar

5. **Course Materials:** *"Geological Engineering", by de Vallejo and Ferrer, CRC Press.*
A set of printed notes to supplement the textbook is sold in the University Bookstore.

6. **Examination Policy:** Open book, calculators allowed, computers allowed but WiFi must be off. No other electronic devices. Students should also read the Calendar, [Section G](#), on Examinations.

7. **Writing across the curriculum statement:** The quality of the student's writing in homework, lab, reports and projects will be a factor in the evaluation of those reports. See also [Section E.2](#) of the University Calendar.
8. **OTHER IMPORTANT INFORMATION FOR STUDENTS:**
- (a) **Academic Misconduct:** (cheating, plagiarism, or any other form) is a very serious offence that will be dealt with rigorously in all cases. A single offence may lead to disciplinary probation or suspension or expulsion. The Faculty of Science follows a zero tolerance policy regarding dishonesty. Please read the sections of the University Calendar under [Section K](#). Student Misconduct to inform yourself of definitions, processes and penalties
 - (b) **Assembly Points:** In case of emergency during class time, be sure to FAMILIARIZE YOURSELF with the information on [assembly points](#).
 - (c) **Academic Accommodation Policy:** Students with documentable disabilities are referred to the following links: [Calendar entry on students with disabilities](#) and [Student Accessibility Services](#).
 - (d) **Safewalk:** Campus Security will escort individuals day or night (<http://www.ucalgary.ca/security/safewalk/>). Call 220-5333 for assistance. Use any campus phone, emergency phone or the yellow phones located at most parking lot pay booths.
 - (e) **Freedom of Information and Privacy:** This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIPP). As one consequence, students should identify themselves on all written work by placing their name on the front page and their ID number on each subsequent page. For more information see also <http://www.ucalgary.ca/secretariat/privacy>.
 - (f) **Student Union Information:** VP Academic Phone: 220-3911 Email: suvpaca@ucalgary.ca.
SU Faculty Rep. Phone: 220-3913 Email: sciencerep@su.ucalgary.ca; [Student Ombudsman](#)
 - (g) **Internet and Electronic Device Information:** You can assume that in all classes that you attend, your cell phone should be turned off unless instructed otherwise. Also, communication with other individuals, via laptop computers, Blackberries or other devices connectable to the Internet is not allowed in class time unless specifically permitted by the instructor. If you violate this policy you may be asked to leave the classroom. Repeated abuse may result in a charge of misconduct.
 - (h) At the University of Calgary, feedback provided by students through the Universal Student Ratings of Instruction (USRI) survey provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses (www.ucalgary.ca/usri). Your responses make a difference - please participate in USRI Surveys.

Department Approval: ORIGINAL SIGNED

Date: September 5 2014

Associate Dean's Approval for
Alternate final examination arrangements: ORIGINAL SIGNED

Date: September 8 2014

Geology 571 Engineering Geology
Fall, 2014

Lectures Tu, Th 1230-1345, TRB 102
Laboratory FR ES149, 1200-1500

Date	Day	Lecture	Reading	H.W. Assignment	Due Date
09-Sep	Tu	Organization and Introduction			
11-Sep	Th	Chapter 1 Introduction			
12-Sep	Fr	No Lab			
16-Sep	Tu	Soils and Hydraulic Head	Sections 2.1-2.3	HW Ass. 1 Soils	03-Oct
18-Sep	Th	Effective Stress	Section 2.4		
19-Sep	Fr	Soils Lab			
24-Sep	Tu	Consolidation	Section 2.5		
26-Sep	Th	Shear Strength	Section 2.6		
27-Sep	Fr	Soils Lab			
30-Sep	Tu	Case Histories	Sections 2.7-2.9		
02-Oct	Th	Review HW		HW due; Lab Due	
03-Oct	Fr	No Lab	Ch 16		
07-Oct	Tu	Rock Mechanics		Return assignments	
		Physical and Mech. Properties	Sections 3.1-3.2		
09-Oct	Th	Stress and Strains	Section 3.3		
10-Oct	Fr	Soils Exam			
14-Oct	Tu	Strength and Deformability Intact Rock	Section 3.4		
16-Oct	Th	Discontinuities	Section 3.5		
17-Oct	Fr	Rock Mechanics Lab			
21-Oct	Tu	Strength and Deformability Rock Mass	Section 3.6		
23-Oct	Th	In situ stress & Rock mass classification	Sections 3.7-3.8		
24-Oct	Fr	Rock Mechanics Lab			
28-Oct	Tu				
			Rock Mechanics Lab and problems due		

30-Oct	Th	Review rock mechanics problems			Paper topics due	
31-Oct	Fr					
04-Nov	Tu	Rock Mechanics Exam ES147				
06-Nov	Th	Methods and Rock Mass Description		Assign ERT Problem		
07-Nov	Fr	No Lab				
8-11 Nov		Reading days				
11-Nov	Tu	No Class, No Lab				
13-Nov	Th					
14-Nov	Fr					
18-Nov	Tu			Assignments Due		
20-Nov	Th					
21-Nov	Fr					
26-Nov	Tu	Exam				
28-Nov	Th					
29-Nov	Fr					
02-Dec	Tu					
04-Dec	Th	Projects Due				
05-Dec	Fr	No Lab				

No Final Exam