



UNIVERSITY OF CALGARY

DEPARTMENT OF GEOSCIENCE COURSE OUTLINE FALL 2015

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

Lecture Sections:

L01: TuTh, 12:30-13:45, SA 104

For a listing of all lab sections corresponding with this course, please see the following link:

http://geoscience.ucalgary.ca/geoscience_info/courses/f15

Dr. L. Bentley, Office: ES 262, Ph. 403-220-4512, lbentley@ucalgary.ca, Office Hours: 14:00-15:00 Thursday

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

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

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/	40%
Project	20%
Exam 1	15% (Approx. date, Th. 8 Oct. 15)
Exam 2	15% (Approx. date, Th. 5 Nov. 15)
Exam 3	10% (Approx. date, Tu. 1 Dec. 15)
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: Students with Disabilities: <http://www.ucalgary.ca/pubs/calendar/current/b-1.html> and Student Accessibility Services: <http://www.ucalgary.ca/access/>
- (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: 403 220-3911 Email: suvpaca@ucalgary.ca
SU Faculty Rep. Phone: 403 220-3913 Email: science1@su.ucalgary.ca, science2@su.ucalgary.ca and science3@su.ucalgary.ca;
Student Ombuds Office: 403-220-6420 Email: ombuds@ucalgary.ca; <http://ucalgary.ca/provost/students/ombuds>
- (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) **U.S.R.I.:** 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 August 26, 2015

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

Date: August 30, 2015

Geology 571 Engineering Geology

Fall, 2015

TA: Polina Abdrakhimova; Mason MacKay; Igor Pavolvisiy; Sasha Mozil

Lectures Tu, Th 1230-1345, SA 104

Laboratory W 1400-1650; FR ES149, 0800-1050, 1200-1450

Date	Day	Lecture	Reading	H.W. Assignment	Due Date
08-Sep	Tu	Organization and Introduction			
09-Sep	W	No lab			
10-Sep	Th	Chapter 1 Introduction			
11-Sep	Fr	No Lab			
Soils and Hydraulic Head					
15-Sep	Tu	Soils and Hydraulic Head	Sections 2.1-2.3	HW Ass. 1 Soils	29/09/15
16-Sep	W	Lab		Soils Lab	30/09/15
17-Sep	Th	Effective Stress	Section 2.4		
18-Sep	Fr	Lab		Soils Lab	30/09/15
22-Sep	Tu	Consolidation	Section 2.5		
23-Sep	W	Lab		Soils Lab	30/09/15
24-Sep	Th	Shear Strength	Section 2.6		
25-Sep	Fr	Lab		Soils lab	30/09/15
29-Sep	Tu	Case Histories	Sections 2.7-2.9	HW due	
30-Sep	W	No Lab		Soils Lab Due; Office Hours	
01-Oct	Th	Review HW & 2014 Exam			
02-Oct	Fr	No Lab		Office Hours	
Rock Mechanics					
06-Oct	Tu	Physical and Mech. Properties	Sections 3.1-3.2	Ass. 2 Rock Mechanics Pr. Set	27/10/15
07-Oct	W	No Lab		Office Hours	
08-Oct	Th	Soils Exam			
09-Oct	Fr	No Lab			
13-Oct	Tu	Stress and Strains: Soils Exam Review	Section 3.3		
14-Oct	W	Lab		Rock Mech. Lab	28/10/15
15-Oct	Th	Strength and Deformability; Intact Rock	Section 3.4		
16-Oct	Fr	Lab		Rock Mech. Lab	28/10/15
20-Oct	Tu	Discontinuities	Section 3.5		
21-Oct	w	Lab		Rock Mech. Lab	28/10/15
23-Oct	Th	Strength and Deformability, rock mass	Section 3.6		
24-Oct	Fr	Lab		Rock Mech. Lab	28/10/15

27-Oct	Tu	In situ stress and Rock mass classification	Sections 3.7-3.8	Rock Mech. Pr. Set due	
28-Oct	W	No Lab		Rock Mechanics Lab due; Office Hours	
29-Oct	Th	Review rock mechanics problems and 2014 Exar			
30-Oct	Fr	No Lab		Office Hours	
		Methods and Rock Mass Description			
03-Nov	Tu	Methods and Rock Mass Description	Sec. 5.1-5.3	Ass. 3 Methods Pr. Set	Due 24 Nov.
04-Nov	W	No Lab		Office Hours	
05-Nov	Th	Rock Mechanics Exar.			
06-Nov	Fr	No Lab		Office Hours	
11 - 15 Nov		Reading days			
10-Nov	Tu	Review Exam and Method and Rock Mass Description	Sec. 5.4		
11-Nov	W	No Lab			
12-Nov	Th	No Class			
13-Nov	Fr	No Lab			
17-Nov	Tu	Method and Rock Mass Description	Sec. 5.4		
18-Nov	W	No Lab		Office Hours	
19-Nov	Th	Methods and Rock Mass	Sec. 6.1-6.5		
20-Nov	Fr	No Lab		Office Hours	
24-Nov	Tu	Downie Slide and review		Ass. 3 Due	
25-Nov	W	No Lab		Office Hours	
26-Nov	Th	Review Assignments & 2014 Exam			
27-Nov	Fr	No Lab		Office Hours	
01-Dec	Tu	Methods and Rock Mass Exam			
02-Dec	W	Project presentations			
03-Dec	Th	No Class			
04-Dec	Fr	Project presentations			
08-Dec	Tu	Last day of classes			

No Final Exam