



# UNIVERSITY OF CALGARY

## DEPARTMENT OF GEOSCIENCE COURSE OUTLINE

### 1. **Course:** GLGY 471, **Geology, Engineering, and the Environment**

**Lecture section:** L01: MoWeFr, 09:30-10:45, MFH 160.

**Lab sections:** B01: Mo 11 am-1:50 pm (EEEL 119), B02: Mo 11 am-1:50 pm (EEEL 123), B03: Mo 2-4:50 pm (EEEL 119), B04: Mo 2-4:50 pm (EEEL 123), and B05: Mo 5-7:50 pm (EEEL 119).

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### 2. **Notes:** This course is restricted to engineering students.

### 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:

Midterm	25%	(Will be announced in first lecture)
Lab components	35%	(Will be announced in first lecture)
Final Examination	40%	(To be scheduled by the Registrar)

Individual elements of the course (i.e. labs, assignments, exams) will be assigned a percentage score. Final percentage grades for the overall course will be calculated based on the grade weighting scheme indicated above, and will be converted to letter grades as follows:

Letter Grade	Percent	Letter Grade	Percent
A+	95-100	C+	65-69.99
A	90-94.99	C	60-64.99
A-	85-89.99	C-	56-59.99
B+	80-84.99	D+	53-55.99
B	75-79.99	D	50-52.99
B-	70-74.99	F	0-49.99

### 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:** There will be no textbook required in this course.

### 6. **Examination Policy:** *All the deferred exams are written, a combination of long and short answers.* I will provide in class full details about the material to be covered for each examination. Students should also read the Calendar, [Section G](#), on Examinations.

### 7. **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](mailto:suvpaca@ucalgary.ca).  
SU Faculty Rep. Phone: 220-3913 Email: [sciencerep@su.ucalgary.ca](mailto: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](http://www.ucalgary.ca/usri)). Your responses make a difference - please participate in USRI Surveys.

**Major lecture topics.**

1. Plate tectonics.
2. Minerals and rocks. Igneous rocks, sedimentary rocks and metamorphic rocks.
3. Volcanoes.
4. Earthquakes.
5. Rock deformation.
6. Stratigraphy and geological times.
7. Sea-level changes; causes and effects.

**Major lab topics.**

Mapping and structural geology. Structural geology. Ground penetrating radar, earthquakes and seismic waves. Hydrogeology. Rock mechanics.