



UNIVERSITY OF CALGARY
FACULTY OF SCIENCE
DEPARTMENT OF GEOSCIENCE
COURSE OUTLINE
FALL 2018

1. **Course:** Geology 308, Geology and Human Health

Lecture Sections:

L01: TuTh, 12:30-13:45, ENA 101

Instructor, Dr. J. Cuthbertson, Office ES 520, Tel. No. 403-220-4709, e-mail address, cuthberj@ucalgary.ca,

Office Hours: by appointment

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

2. **Prerequisites:** Geology 201 or 209. See section 3.5.C in the Faculty of Science section of the online Calendar (www.ucalgary.ca/pubs/calendar/current/sc-3-5.html)

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:

One-page Info Sheet	10%
Research Report	15%
Midterm Exam I	25%
Midterm Exam II	25%
Final Exam	25% (To be scheduled by the Registrar)

Letter Grade	Percent
A+	94-100
A	88-94
A-	83-88
B+	78-83
B	73-78
B-	69-73
C+	65-69
C	61-65
C-	56-61
D+	53-56
D	50-53
F	0-50

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:**

Recommended Textbook:

Geology and Health: Closing the Gap. 2003. Edited by H. Catherine W. Skinner and Antony R. Berger. Oxford University Press, 179 pp.

The D2L website will be used throughout the course to make announcements and distribute lecture notes, and other supplementary materials. Please check the course website regularly. Students are strongly encouraged to print the necessary materials and bring them to the lectures. Top Hat will also be used in this course (not for marks).

6. **Examination Policy:** Programmable and non-programmable calculators will be allowed for all exams. Students should also read the Calendar, [Section G](#), on Examinations.

7. **Writing across the curriculum statement:** In this course, the quality of the student's writing in the One-page Info Sheet and the Research Report will be a factor in the evaluation of those assignments.
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) **Student Accommodations:** Students needing an Accommodation because of a Disability or medical condition should contact Student Accessibility Services in accordance with the Procedure for Accommodations for Students with Disabilities available at http://www.ucalgary.ca/policies/files/policies/procedure-for-accommodations-for-students-with-disabilities_0.pdf. Students needing an Accommodation in relation to their coursework or to fulfil requirements for a graduate degree, based on a Protected Ground other than Disability, should communicate this need, preferably in writing, to the Associate Head of Geoscience, Dr. E.S. Krebs by email krebs@ucalgary.ca or phone 403-220-5850.
 - (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.

GLGY 308 Lecture Schedule F2018

Week	Date	Topic	Readings (pg in text)
1	Thursday Sept 6	Introduction and course overview. Review of first year geology. Resources for review.	
2	Tuesday Sept 11	Hazards from natural dust in Asia and U.S.	15-18
	Thursday Sept 13	Volcanic gases in Cameroon and U.S.	
3	Tuesday Sept 18	Volcanic gases from Iceland	19-24
	Thursday Sept 20	Metal production in Jordan	99-104
4	Tuesday Sept 25	Copper production in Ontario	105-112
	Thursday Sept 27	Water hardness and quality	119-124 137
5	Tuesday Oct 2	Lead in drinking water	
	Thursday Oct 4	Arsenic in southeast Asia	37-44
6	Tuesday Oct 9	Midterm I	
	Thursday Oct 11	TCE contamination in Woburn, U.S.	
7	Tuesday Oct 16	Heavy metals in wildlife Cadmium in Alaska, Molybdenum in Sweden	77-78 79-82
	Thursday Oct 18	Iodine Deficiency in Sri Lanka	61-64
8	Tuesday Oct 23	Soil nutrient deficiencies in Africa	151-154
	Thursday Oct 25	1-page info sheet due Cyanide in groundwater Acid mine drainage	
9	Tuesday Oct 30	Impurities in coal combustion	45-50
	Thursday Nov 1	Fluorine in the environment Dental Fluorosis	45-50
10	Tuesday Nov 6	Midterm II	

	Thursday Nov 8	Health effects from oil spills	
11	Tuesday Nov 13	Mid-Term Break	
	Thursday Nov 15	Mid-Term Break	
12	Tuesday Nov 20	Health effects of fibrous minerals	113-118
	Thursday Nov 22	Health effects of radon Other radioactive element hazards	
13	Tuesday Nov 27	Health effects of silicon	
	Thursday Nov 29	Geophagy	
14	Tuesday Dec 4	Minerals in the human body I	
	Thursday Dec 6	Research Report Due Minerals in the human body II	145-150 155-158 65-72