



# UNIVERSITY OF CALGARY

## DEPARTMENT OF GEOSCIENCE COURSE OUTLINE

1. **Course:** GOPH 375, Natural Disasters and Critical Earth Phenomena

Lecture Sections:

L01: TuTh, 15:30 – 16:45, ST 148

Dr. A. Hildebrand, Office: ES 760A, Ph. 403-220-2291, [ahildebr@ucalgary.ca](mailto:ahildebr@ucalgary.ca), Office Hours: TuTh, 11:00 - noon

Course will use Desire 2 Learn (D2L)

Geoscience Department ES 118, 403-220-5841, [geoscience.ucalgary.ca](http://geoscience.ucalgary.ca), [geosci@ucalgary.ca](mailto:geosci@ucalgary.ca)

2. **Notes:** A non-major course for students in all faculties. Not available as a course in the Field of Geophysics.

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 test 1    | 30% | (Oct. 7)                           |
| Midterm test 2    | 30% | (Nov. 4)                           |
| Final Examination | 40% | (To be scheduled by the Registrar) |

The midterms and final examination will be multiple choice format.

Grading Scheme (letter and percent): A+ (95-100), A (90-94.99), A- (85-89.99), B+ (80-84.99), B (75-79.99), B- (70-74.99), C+ (66-69.99), C (61-65.99), C- (57-60.99), D+ (53-56.99), D (50-52.99), 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. **Scheduled out-of-class activities:** An optional field trip will be run to the Frank Slide and Bellevue Mine (on weekend of Sept 27-28) if sufficient interest from the class.

**REGULARLY SCHEDULED CLASSES HAVE PRECEDENCE OVER ANY OUT-OF-CLASS-TIME-ACTIVITY.** If you have a clash with this out-of-class-time-activity, please inform your instructor as soon as possible so that alternative arrangements may be made for you.

6. **Course Materials:** *"Natural Disasters", 2<sup>nd</sup> Canadian Edition, by Abbott and Samson, McGraw-Hill Ryerson*

7. **Examination Policy:** Nonprogrammable calculators are allowed during midterms and final examination. Students should also read the Calendar, [Section G](#), on Examinations.

8. **Approved Mandatory and Optional Course Supplemental Fees:** If the optional Frank slide field trip is run, participating students will pay \$20 towards admission fees and transportation costs.

9. **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: <http://www.ucalgary.ca/pubs/calendar/current/b-1.html>

- (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.

| Lecture No. | Approx. Date | Subject Matter                     | Instructor | Related Chapter(s) |
|-------------|--------------|------------------------------------|------------|--------------------|
| 1           | Sep. 9       | Introduction                       | Hildebrand |                    |
| 2           | Sep. 11      | Disasters and Energy               |            | 1,2                |
| 3           | Sep. 16      | Plate Tectonics                    |            | 3                  |
| 4           | Sep. 18      | Earthquakes Geology and Seismology |            | 4                  |
| 5           | Sep. 23      | Catastrophic earthquakes           |            | 5                  |
| 6           | Sep. 25      | Tsunami                            |            | 8                  |
| 7           | Sep. 30      | Volcanic Eruption                  |            | 6                  |
| 8           | Oct. 2       | Volcanic Case Histories            |            | 7                  |
|             | Oct. 7       | <b>MIDTERM EXAM 1</b>              |            |                    |
| 9           | Oct. 9       | Mass Movements                     |            | 13                 |
| 10          | Oct. 14      | Avalanches                         |            | 13                 |
| 11          | Oct. 16      | Weather Systems                    |            | 9                  |
| 12          | Oct. 21      | Climate Change                     |            | 9                  |
| 13          | Oct. 23      | Drought                            |            | 9                  |
| 14          | Oct. 28      | Thunderstorms, Hail, Tornadoes     |            | 9                  |
| 15          | Oct. 30      | Lightning and Heat                 |            | 9                  |
|             | Nov. 4       | <b>MIDTERM EXAM 2</b>              |            |                    |
| 16          | Nov. 6       | Hurricanes                         |            | 10                 |
| 17          | Nov. 13      | Hurricanes                         |            | 10                 |
| 18          | Nov. 18      | Floods                             |            | 11                 |
| 19          | Nov. 20      | Fires                              |            | 12                 |
| 20          | Nov. 25      | Extinctions                        |            | supplement         |
| 21          | Nov. 27      | Hazards from Space                 |            | 14                 |
| 22          | Dec. 2       | Population                         |            | 1                  |
| 23          | Dec. 4       | Review                             |            |                    |