

UNIVERSITY OF CALGARY
DEPARTMENT OF GEOSCIENCE
COURSE OUTLINE

1. Course: GEOLOGY 301 – GEOLOGY OF THE MOUNTAIN REGIONS OF WESTERN CANADA

Lecture Sections: L01 TR 14:00-15:15 SB 103 WINTER 2014

Instructor(s): Dr. J. Cuthbertson ES 520 220-4709 cuthberj@ucalgary.ca

A Course Schedule can be found on the course desire 2 learn website. Lecture notes will also be available on the course website. The lecture schedule and lecture material may change over the course of the term. It is the responsibility of the students to keep themselves updated and aware of any changes.

Geoscience Department ES 118; (403) 220-5841; geoscience.ucalgary.ca

2. PREREQUISITE: Geology 201 or 209

See section 3.5.C in the Faculty of Science section of the online Calendar (<http://www.ucalgary.ca/pubs/calendar/current/sc-3-5.html>)

3. **GRADING:** The University policy on grading and related matters is described in “Academic Regulations, sections F.1 and F.2” of the online University Calendar (<http://www.ucalgary.ca/pubs/calendar/current/f-1.html> and <http://www.ucalgary.ca/pubs/calendar/current/f-2.html>) In determining the overall grade in the course the following weights will be used:

| | | |
|-------------------|-----|------------------------------------|
| Midterm Exam I | 25% | (February 13 2014) |
| Midterm Exam II | 35% | (March 25 2014) |
| Final Examination | 40% | (To be scheduled by the Registrar) |

Each piece of work (midterm test or final examination) submitted by the student will be assigned a percentage score. The student’s percentage score for the various components listed above will be combined with the indicated weights to produce an overall percentage for the course, which will be used to determine the course letter grade.

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: <http://www.ucalgary.ca/pubs/calendar/current/sc-3-6.html>. It is the student's responsibility to familiarize himself/herself with these regulations. See also <http://www.ucalgary.ca/pubs/calendar/current/e-3.html>.

5. Dates and times of class exercises held outside of class hours: none

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.

Department Approval: ORINGAL SIGNED Date: January 03 2014

6. **EXAMINATION POLICY:** No electronic or written aids (eg. cell phones, tablets, computers, PDAs, notes, textbooks) will be allowed during writing of any exams. Non-programmable calculators will be permitted to answer quantitative questions on exams, if applicable, and permission to do this will be clearly indicated on the examination paper.

Students should also read the Calendar, Section G, on Examinations: <http://www.ucalgary.ca/pubs/calendar/current/g.html>.

7. In this course, the quality of the student's writing in laboratory reports will not be a factor in the evaluation of those reports. See also <http://www.ucalgary.ca/pubs/calendar/current/e-2.html>.

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 K. Student Misconduct (<http://www.ucalgary.ca/pubs/calendar/current/k.html>) 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 at <http://www.ucalgary.ca/emergencyplan/assemblypoints>.**
- (c) **ACADEMIC ACCOMMODATION POLICY.** Students with documentable disabilities are referred to the following links:
Calendar entry on students with disabilities: <http://www.ucalgary.ca/pubs/calendar/current/b-1.html>
Student Accessibility Services: 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:** 220-3911 **Email:** suypaca@ucalgary.ca.
SU Faculty Rep. **Phone:** 220-3913 **Email:** sciencerep@su.ucalgary.ca Website <http://www.su.ucalgary.ca/home/contact.html>.
Student Ombudsman: www.ucalgary.ca/provost/students/ombuds; ombuds@ucalgary.ca 220-6420
- (g) **INTERNET and ELECTRONIC COMMUNICATION DEVICE Information.** You can assume that in all classes that you attend, **your cell phone should be turned off.** 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.

UNIVERSITY OF CALGARY
DEPARTMENT OF GEOSCIENCE
COURSE OUTLINE

GEOLOGY 301
GEOLOGY OF THE MOUNTAIN REGIONS OF WESTERN CANADA

TERM: Winter 2014

PREREQUISITE(S): Geology 201 or 209

LECTURER(S): Dr. J. Cuthbertson ES 520 220-4709 cuthberj@ucalgary.ca

LECTURES: L01 TR 14:00-15:15 SB 103

TEXT: Recommended
Handbook of the Canadian Rockies
Gadd, B.
1995
ISBN 0-9692631-1-2
832 ges

A. Absences

Students who are absent from a midterm exam or final exam because of illness or other unforeseen circumstances may be granted an excused absence by the Instructor upon presentation of adequate documentation (a completed Physician/Counsellor Report form <<http://www.ucalgary.ca/registrar/PDFs/phycoun.pdf>> for illness; equivalent documentation for other circumstances).

B. Final Exam

There will be a final examination scheduled by the Registrar's Office.

| 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 | 50-56 |
| F | 0-50 |

CLASSROOM PERFORMANCE SYSTEM: none.

GLGY 301 Geology of the Mountain Regions of Western Canada W2014

| Week | Date | Topic |
|------|-------------------|--------------------------------------------------------------------------------------------------|
| 1 | Tuesday Jan 7 | <i>no class</i> |
| | Thursday Jan 9 | Introduction, course logistics, video |
| 2 | Tuesday Jan 14 | Pre-assessment quiz, geology review, Cordillera overview |
| | Thursday Jan 16 | Cordillera overview continued, belts |
| 3 | Tuesday Jan 21 | Southern Rockies |
| | Thursday Jan 23 | Southern Rockies |
| 4 | Tuesday Jan 28 | Uplift of the Cordillera |
| | Thursday Jan 30 | Vertebrate fossils of the Cordillera |
| 5 | Tuesday Feb 4 | Omineca Belt, Intermontane Belt |
| | Thursday Feb 6 | Coast Belt, Insular Belt |
| 6 | Tuesday Feb 11 | Concept map, video and review |
| | Thursday Feb 13 | Midterm Test #1 |
| 7 | Tuesday Feb 18 | Reading Days – no class |
| | Thursday Feb 20 | Reading Days – no class |
| 8 | Tuesday Feb 25 | Sculpting the Cordillera -glaciations |
| | Thursday Feb 27 | Forming the Rockies – faulting or erosion? |
| 9 | Tuesday March 4 | Mantle beneath the Cordillera |
| | Thursday March 6 | Geologic hazards -landslides |
| 10 | Tuesday March 11 | Geologic hazards -earthquakes |
| | Thursday March 13 | Geologic hazards -volcanoes |
| 11 | Tuesday March 18 | Geologic resources – fossil fuels (coal, natural gas, oil) |
| | Thursday March 20 | Geologic resources – metals and mining, review |
| 12 | Tuesday March 25 | Midterm Test #2 |
| | Thursday March 27 | Geology of the Rocky Mountain parks (Kootenay, Yoho, Jasper, Banff, Lake Louise, Waterton) |
| 13 | Tuesday April 1 | Historic and modern geologic work and mapping of the Cordillera |
| | Thursday April 3 | Hot Springs of the Cordillera |
| 14 | Tuesday April 8 | Current research in the Cordillera (M. Hyashi – hydrogeology; D. Pattison – metamorphic history) |
| | Thursday April 10 | Concept map, video and review |