

UNIVERSITY OF CALGARY  
DEPARTMENT OF GEOSCIENCE  
**COURSE OUTLINE**

1. Course: GEOPHYSICS 547 – GRAVITY AND MAGNETICS

Lecture Section:        L01                      MWF                      10:00-10:50                      EDC 255                      WINTER 2014

**Instructor(s):**        Dr. R.J. Ferguson                      ES 210                      210-7375                      rjfergus@ucalgary.ca

**GOPH 547 L01 (Winter 2014) - Gravity And Magnetism**

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

2. PREREQUISITE(S): Geophysics 344, 359, Mathematics 331 and Applied Mathematics 415.

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:

Assignments (6)	12%
Laboratory experiments (3)	18%
Midterm test	30% (March 7 2014)
Final Examination	40% (To be scheduled by the Registrar)

Each piece of work (assignment, laboratory report, midterm test or final examination) submitted by the student will be assigned a percentage score. The student’s average 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 NA

**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: **ORIGINAL SIGNED**      Date: **January 08 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 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](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:** 220-3911 **Email:** [suypaca@ucalgary.ca](mailto:suypaca@ucalgary.ca).  
SU Faculty Rep. **Phone:** 220-3913 **Email:** [sciencerep@su.ucalgary.ca](mailto:sciencerep@su.ucalgary.ca) Website <http://www.su.ucalgary.ca/home/contact.html>.  
Student Ombudsman: [www.ucalgary.ca/provost/students/ombuds](http://www.ucalgary.ca/provost/students/ombuds); [ombuds@ucalgary.ca](mailto: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.

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COURSE OUTLINE

GEOPHYSICS 547  
GRAVITY AND MAGNETICS

TERM: Winter 2014

PREREQUISITE(S): Geophysics 344, 359, Mathematics 331 and Applied Mathematics 415.

LECTURER(S): Dr. R.J. Ferguson                      ES 210                      210-7375                      [rjfergus@ucalgary.ca](mailto:rjfergus@ucalgary.ca)

LECTURE : L01                      MWF                      10:00-10:50                      EDC 255

LAB(S): B01/02                      R                      08:00/11:00                      ES 924

TEXT: Applied Geophysics, by Telford, Geldart and Sheriff

RESERVE READING ROOM: N/A

MARK DISTRIBUTION: A. Composition of Final Grade

Lab Assignments and Exam

Assignment 1	2%
Assignment 2	2%
Assignment 3	2%
Assignment 4	2%
Assignment 5	2%
Assignment 6	2%
Lab 1	6%
Lab 2	6%
Lab 3	6%
Midterm Examination	30% (March 7 2014)
Final Examination*	40%

Students who are absent from the midterm exam or final laboratory exam because of illness or other unforeseen circumstances may be granted an excused absence by the Course Coordinator (midterm exam) or Lab Coordinator (final laboratory exam) upon presentation of adequate documentation (a completed Physician/Counsellor Report form <<http://www.ucalgary.ca/registrar/PDFs/physcoun.pdf>> for illness; equivalent documentation for other circumstances). There will be no “make-up” examinations for excused absences. The weight assigned to the midterm examination will be transferred to the final examination.

Similarly, students who are unable to submit laboratory reports or assignments on time because of similar circumstances will be required to submit the same type of documentation to the Lab Coordinator in order to be considered for a time extension.

B. Final Exam

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

C. Components of Course for Which a Passing Grade is Essential

Students must achieve a passing grade (minimum of D) on both the lecture portion of the course (average of the midterm and final exams) and the laboratory portion of the course to qualify for a passing grade overall.

D. Grading Scheme

A+	95 – 100%
A	86 – 94%
A-	80 – 85%
B+	77 – 79%
B	73 – 76%
B-	70 – 72%
C+	67 – 69%
C	63 – 66%
C-	60 – 62%
D+	55 – 59%
D	50 – 54%
F	<50%

Tentative schedule:

Lab 1 the week of Jan 20  
Lab 2 the week of Feb 24  
Lab 3 the week of Mar 17

Assignment 1 Jan 13  
Assignment 2 Jan 27  
Assignment 3 Feb 10  
Assignment 4 Mar 10  
Assignment 5 Mar 24  
Assignment 6 Apr 7

Midterm test Mar 7

Final exam to be scheduled by the registrar