



UNIVERSITY OF CALGARY
FACULTY OF SCIENCE
DEPARTMENT OF GEOSCIENCE
COURSE OUTLINE

1. **Course:** GLGY 343, 3D Geologic Structures and Methods -- Winter 2018

Lecture 01: (MWF, 10:00-10:50 in ES162)

Instructor Name	Email	Phone	Office	Hours
Alex Dutchak	alexander.dutchak@ucalgary.ca	403-210-6117	ES 240	By Appointment

Course Site:

D2L: GLGY 343 L01-(Winter 2018)-3D Geologic Structures and Methods

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

Students must use their U of C account for all course correspondence.

2. **Prerequisites:**

See section [3.5.C](#) in the Faculty of Science section of the online Calendar.

Geology 381.
Credit for Geology 343 and 341 will not be allowed.

3. **Grading:**

The University policy on grading and related matters is described in [F.1](#) and [F.2](#) of the online University Calendar. In determining the overall grade in the course the following weights will be used:

Component(s)	Weighting %
Five (5) quizzes: Fridays (Jan. 26, Feb. 9, Mar. 2, Mar. 16), and Wednesday, Mar. 28	5 x 8% each = 40%
Lecture Final Exam - scheduled by registrar	25%
Lab Final Exam - April 3/5	30%
Participation in Top Hat classroom response exercises	5% [see note below]

Each of the above components will be given a letter grade using the official university grading system. The final grade will be calculated using the grade point equivalents weighted by the percentages given above and then converted to a final letter grade using the official university grade point equivalents.

-The Lecture Final exam is cumulative.

-Lab assignments throughout the semester will be self-assessed by the students using Answer Keys made available at the end of each week.

-Where appropriate, writing and grading thereof will be a factor in the evaluation of student work.

-The Top Hat classroom response grade of 5% is based on participation only. Note that students do not need to be present for every question - a score of about 80% corresponds to a full mark. If you wish to opt-out of the Top Hat grade, the corresponding 5% will be added to the weight of your lecture final exam.

-To opt-out of Top Hat, students must inform the instructor (A. Dutchak) in writing (via email) by Friday, January 19th.

This course is part of a pilot project. It will provide a supplemental examination option for eligible students.

Supplemental examinations provide some students who have earned a D+ or lower overall with an additional opportunity to demonstrate prerequisite competence and earn a 'C-' grade in the course so that it can be used as a prerequisite. Further details on the Faculty of Science regulations and fee for supplemental examinations are found in the Faculty of Science area on the Calendar in section [3.6C](#)

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.3](#) of the University Calendar

5. **Scheduled out-of-class activities:**

There are no out-of-class activities scheduled for this course.

REGULARLY SCHEDULED CLASSES HAVE PRECEDENCE OVER ANY OUT-OF-CLASS-TIME-ACTIVITY. If you have a conflict with the out-of-class-time-activity, please contact your course coordinator/instructor no later than **14 days prior** to the date of the out-of-class activity so that alternative arrangements may be made.

6. **Course Materials:**

Required Textbook(s):

George M Bennison, Paul A. Olver, and Keith A. Moseley, An Introduction to Geological Structures and Maps, 8th Edition (2011), Rutledge

The course D2L site will contain Lab handouts as well as copies of the lectures, and additional useful text and graphic resource materials. However, students are advised that staying current with materials posted on D2L is not a substitute for attendance at lectures and labs and reading the textbook. The former provides an interactive environment that complements and provides tangible context to the subject matter treated in the textbook and in lab exercises.

7. **Examination Policy:**

No network compatible electronic devices or written aids (e.g. cell phones, tablets, computers, notes, textbooks) will be allowed during the writing of any exams or quizzes unless specifically noted otherwise in writing by the instructor. Basic calculators with trig functions are permitted.

Students should also read the Calendar, [Section G](#), on Examinations.

8. **Approved Mandatory and Optional Course Supplemental Fees:**

There are no mandatory or optional course supplemental fees for this course

9. **Writing across the Curriculum Statement:**

For all components of the course, in any written work, the quality of the student's writing (language, spelling, grammar, presentation etc.) can be a factor in the evaluation of those reports. See also Section [E.2](#) of the University Calendar.

10. **Human studies statement:**

Students will not participate as subjects or researchers in human studies.

11. **Reappraisal of Grades:**

A student wishing a reappraisal, should first attempt to review the graded work with the Course coordinator/instructor or department offering the course. Students with sufficient academic grounds may request a reappraisal. Non-academic grounds are not relevant for grade reappraisals. Students should be aware that the grade being reappraised may be raised, lowered or remain the same. See [Section I.3](#) of the University Calendar.

1. **Term Work:** The student should present their rationale as effectively and as fully as possible to the Course coordinator/instructor within **15 days** of either being notified about the mark, or of the item's return to the class. If the student is not satisfied with the outcome, the student shall immediately submit the Reappraisal of Graded Term work form to the department in which the course is offered. The department will arrange for a re-assessment of the work if, and only if, the student has sufficient academic grounds. See sections [I.1](#) and [I.2](#) of the University Calendar
2. **Final Exam:** The student shall submit the request to Enrolment Services. See [Section I.3](#) of the University Calendar.

12. OTHER IMPORTANT INFORMATION FOR STUDENTS:

- a. **Misconduct:** 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. Examples of academic misconduct may include: submitting or presenting work as if it were the student's own work when it is not; submitting or presenting work in one course which has also been submitted in another course without the instructor's permission; collaborating in whole or in part without prior agreement of the instructor; borrowing experimental values from others without the instructor's approval; falsification/ fabrication of experimental values in a report. **These are only examples.**
- 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 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 [procedure-for-accomodations-for-students-with-disabilities_0.pdf](#).

Students needing an accommodation in relation to their coursework or to fulfill requirements for a graduate degree, based on a protected ground other than disability, should communicate this need, preferably in writing, to the Sr. Instructor of the Department of Geoscience, Dr. Rudi Meyer by email rmeyer@ucalgary.ca or phone 403-210-7848. Religious accommodation requests relating to class, test or exam scheduling or absences must be submitted no later than **14 days** prior to the date in question: <http://www.ucalgary.ca/pubs/calendar/current/e-4.html>

- d. **Safewalk:** Campus Security will escort individuals day or night (www.ucalgary.ca/security/safewalk/). Call [403-220-5333](tel:403-220-5333) 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 (FOIPPA). 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 www.ucalgary.ca/legalservices/foip.
- f. **Student Union Information:** [VP Academic](#), Phone: [403-220-3911](tel:403-220-3911) Email: suvpaca@ucalgary.ca. SU Faculty Rep., Phone: [403-220-3913](tel:403-220-3913) Email: sciencerep@su.ucalgary.ca. Student Ombudsman, Email: suvpaca@ucalgary.ca.
- g. **Internet and Electronic Device Information:** Unless instructed otherwise, cell phones should be turned off during class. All communication with other individuals via laptop, tablet, smart phone or other device is prohibited during class unless specifically permitted by the instructor. Students that violate this policy may be asked to leave the classroom. Repeated violations may result in a charge of misconduct.
- h. **Surveys:** At the University of Calgary, feedback through the Universal Student Ratings of Instruction ([USRI](#)) survey and the Faculty of Science Teaching Feedback form provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses. Your responses make a difference - please participate in these surveys.
- i. **SU Wellness Center:** The Students Union Wellness Centre provides health and wellness support for students including information and counselling on physical health, mental health and nutrition. For more information, see www.ucalgary.ca/wellnesscentre or call [403-210-9355](tel:403-210-9355).

Department Approval:

Electronically Approved

Date: 2017-12-07 18:58

Associate Dean's Approval for out of regular class-time activity:

Electronically Approved

Date: 2017-12-11 08:38

Course Outcomes

1. Use appropriate terminology to define the orientation of lines and surfaces (planar/curved) in order to describe the geometry of simple geological bodies.
2. Construct scaled geological maps based on information of the location and orientation of features of geological interest e.g. unit contacts, unconformities, faults.
3. Construct scaled geological cross-sections from surface and subsurface maps in order to illustrate and expose the true structure of given terrains.
4. Interpret simple geological maps and cross-sections to derive a sequence of geological events based on relative position and cross-cutting relationships between the geological units present.
5. Use stereonet to determine the angular relationships between linear and planar geological features e.g. true vs. apparent dips of cross-bedding, fold limbs and axial planes.
6. Know basic techniques of acquisition of geological data in the field including field notes, compass measurements, and measurement of stratigraphic columns.
7. Visualize the shape and dimensions of common geological structures represented on maps, cross-sections, photos, as well as on digital 3D terrain images