



UNIVERSITY OF CALGARY
FACULTY OF SCIENCE
DEPARTMENT OF GEOSCIENCE
COURSE OUTLINE

1. **Course:** GLGY 463, Siliciclastic Sedimentology -- Fall 2018

Instructor Name	Email	Phone	Office	Hours
<i>L01:</i> (MWF 15:00 - 15:50 in ES 443)				
Rodolfo Meyer	rmeyer@ucalgary.ca	(403) 210-7848	ES 110	Open-door policy or by appointment via email appointment

Course Site:

D2L: GLGY 463 L01-(Fall 2018)-Siliciclastic Sedimentology

Department of Geoscience:

Office: ES 118

Phone: 403 220-5841

Email: geoscience@ucalgary.ca

Note:

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

2. **Requisites:**

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

Prerequisite(s): Geology 313, 323 and 381 and one of 341 or 343.

Antirequisite(s): Credit for Geology 463 and 461 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 %	Date
Lecture Quizzes:		
Quiz 1	5	Sept 28
Quiz 2	5	Oct 19
Quiz 3	5	Nov 9
Quiz 4	5	Nov 30
Core Description Report	9	Oct 2/4
Field Trip Report	6	Oct 9/11
Thin-section Project Report	15	Dec 7
Lab Exam (focus on Petrology)	25	Nov 20/22
Lecture Final Exam (3 hrs.)	20	TBD
TopHat classroom participation	5	

Each piece of work (reports, assignments, quizzes, midterm exam(s) or final examination) submitted by the student will be assigned a grade. The student's grade for each component 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.

The conversion between a percentage grade and letter grade is as follows.

	A+	A	A-	B+	B	B-	C+	C	C-	D+	D
Minimum % Required	95 %	90 %	85 %	80%	75%	70 %	65 %	60%	56%	53 %	50 %

This course has a registrar scheduled final exam.

The Top Hat® classroom response mark of 5% is based on participation only. Note that students don't have to be present for every question -a score of about 85% might correspond to a full mark. If you wish to opt-out of this mark the corresponding 5% will be added to the weight of the Final Exam.

► **To opt-out of TopHat marks students must inform the instructor via email by Friday November 30.**

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/themself with these regulations. See also [Section E.3](#) of the University Calendar.

5. Scheduled out-of-class activities:

The following out of class activities are scheduled for this course.

Activity	Location	Date and Time	Duration
Field Trip to sandstone outcrops	NE Calgary	Tuesday, September 25, 2018 at 11:00 am	3 Hours

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.

During Lab periods of Sept 25 and Sept 27 Field Trips will be carried-out to nearby sandstone outcrops within NE Calgary. The Department of Geoscience will provide transportation to- and from the field site within each of the 3-hour time frames of the different Lab Sections.

6. Course Materials:

Required Textbook(s):

James, N.P. and Dalrymple, R.W. (2010), *Facies Models 4*: Geological Association of Canada .
Boggs Jr., Sam, *Petrology of Sedimentary Rocks -AVAILABLE AS ebook*: Cambridge University Press .

A list of reference textbooks covering topics in sedimentary petrology are placed 'On Reserve' in the Gallagher Library.

The course D2L site will contain Lab handouts, Lab Quizzes w/answer key as well as copies of selected lecture slides. Additional useful text and graphic resource materials are also posted including links to appropriate ebooks. However, students are advised that staying current with materials posted on D2L is not a substitute for attendance at lectures 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 aids are allowed on tests or examinations.

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

8. Approved Mandatory and Optional Course Supplemental Fees:

A supplementary fee is assessed to cover additional costs associated with the field trip in 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 the work. See also [Section E.2](#) of the University Calendar.

10. Human studies statement:

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

See also [Section E.5](#) of the University Calendar.

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. **Mental Health** The University of Calgary recognizes the pivotal role that student mental health plays in physical health, social connectedness and academic success, and aspires to create a caring and supportive campus community where individuals can freely talk about mental health and receive supports when needed. We encourage you to explore the mental health resources available throughout the university community, such as counselling, self-help resources, peer support or skills-building available through the SU Wellness Centre (Room 370, MacEwan Student Centre, [Mental Health Services Website](#)) and the Campus Mental Health Strategy website ([Mental Health](#)).
- b. **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).
- c. **Sexual Violence:** The University of Calgary is committed to fostering a safe, productive learning environment. The Sexual Violence Policy (<https://www.ucalgary.ca/policies/files/policies/sexual-violence-policy.pdf>) is a fundamental element in creating and sustaining a safer campus environment for all community members. We understand that sexual violence can undermine students' academic success and we encourage students who have experienced some form of sexual misconduct to talk to someone about their experience, so they can get the support they need. The Sexual Violence Support Advocate, Carla Bertsch, can provide confidential support and information regarding sexual violence to all members of the university community. Carla can be reached by email (svsa@ucalgary.ca) or phone at [403-220-2208](tel:403-220-2208).
- d. **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.**
- e. **Assembly Points:** In case of emergency during class time, be sure to FAMILIARIZE YOURSELF with the information on [assembly points](#).

- f. **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-accommodations-for-students-with-disabilities.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](tel: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. See [Section E.4](#) of the University Calendar.

- g. **Safewalk:** Campus Security will escort individuals day or night (See the [Campus Safewalk](#) website). 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.
- h. **Freedom of Information and Privacy:** This course is conducted in accordance with the Freedom of

Information and Protection of Privacy Act (FOIPP). 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 [Legal Services](#) website.

- i. **Student Union Information:** [VP Academic](#), Phone: [403-220-3911](#) Email: suvpaca@ucalgary.ca. SU Faculty Rep., Phone: [403-220-3913](#) Email: sciencerep@su.ucalgary.ca. Student Ombudsman, Email: suvpaca@ucalgary.ca.
- j. **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.
- k. **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.

Department Approval: Electronically Approved **Date:** 2018-08-09 19:44

Associate Dean's Approval for out of regular class-time activity: Electronically Approved **Date:** 2018-08-10 14:47

Course Outcomes

- Recognize and describe physical and biogenic sedimentary structures in handsamples and in the field, using appropriate terminology, and interpret these structures in terms of depositional conditions and sedimentary processes.
- Apply the concepts of facies and facies successions/associations to infer common depositional settings
- Distinguish, identify and describe minerals typical of siliciclastic rocks in handsamples and thin-sections, and depict in scaled, schematic drawings the key textural relationships among the components of the rocks (framework grains, matrix, authigenic minerals, pore space)
- Derive the provenance of grains/sediments by integrating observations of grain mineralogies and textures with fundamental concepts on the origin and stability of sedimentary minerals/rocks during weathering and erosion, transport, and deposition
- Recognize the effects of diagenesis on minerals and sediments/rocks and propose a diagenetic history by reconciling sample observations with fundamental concepts on the origin and stability of sedimentary minerals/rocks during burial \pm uplift and exposure.
- Qualitatively link the development of porosity and permeability in subsurface fluid reservoirs to key characteristics of siliciclastic provenance and paragenesis.
- Read scientific/technical literature in the field of siliciclastic sedimentology, be able to synthesize and summarize the content, and develop their own opinion regarding quality and relevance of results.