



UNIVERSITY OF CALGARY  
FACULTY OF SCIENCE  
DEPARTMENT OF GEOSCIENCE  
COURSE OUTLINE  
WINTER 2015

1. **Course:** Geology 699.34, Sequence Stratigraphy

Lecture Sections:

L01: TuTh, 09:30-10:45, ST 128

Instructor, Dr. P. Pedersen, Office ES 264, Tel. No. 403-220-8454, e-mail address, [pkpeders@ucalgary.ca](mailto:pkpeders@ucalgary.ca),

Office Hours: By appointment only

Course website: Desire 2 Learn (D2L)

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

2. **Prerequisites:** Geology 435 or 441, and 461. See section 3.5.C in the Faculty of Science section of the online Calendar ([www.ucalgary.ca/pubs/calendar/current/sc-3-5.html](http://www.ucalgary.ca/pubs/calendar/current/sc-3-5.html))

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:

Lab Exercises	20%
Presentation	20%
Midterm Exam	25% February 24, 2015
Final exam	35% (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.

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.

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. **Course Materials:** "Siliciclastic Sequence Stratigraphy - Concepts and Applications" by H.W. Posamentier and G.P. Allen, 2000; SEPM Concepts in Sedimentology and Paleontology Series 7, Society for Sedimentary Geology, 204 pages. Textbook is available as a CD at the university bookstore.

6. **Examination Policy** No electronic or written aids (eg. cell phones, tablets, computers, PDAs, notes, textbooks) will be allowed during writing of any exams. Students should also read the Calendar, [Section G](#), on Examinations.

7. **Writing across the curriculum statement:** e.g. "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 [Section E.2](#) of the University Calendar.

8. **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.

(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: Students with Disabilities: <http://www.ucalgary.ca/pubs/calendar/current/b-1.html> **B.1** and Student Accessibility Services: <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 (FOIPPA). 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) **U.S.R.I.:** 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.

Department Approval: Original Signed

Date: January 5, 2015

GLGY 561/699.34 Lecture and Lab Schedule			Winter 2015
	Date	Lecture	Lab
Tuesday	13-Jan	1 intro to class	
Thursday	15-Jan	2 Intro to sequence stratigraphy	no lab
Tuesday	20-Jan	3 Seismic sequence stratigraphy	
Thursday	22-Jan	4 Accommodation Space	1 Seismic sequence exercise #1
Tuesday	27-Jan	5 Stratal Architecture	
Thursday	29-Jan	6 Parasequences	2 Seismic sequence exercise #2
Tuesday	3-Feb	7 Wheeler Diagrams & FSST	
Thursday	5-Feb	8 SB and Lowstand Systems Tract	3 Sequence model exercise
Tuesday	10-Feb	9 Incised Valleys 1	
Thursday	12-Feb	10 Incised Valleys 2	4 Sequence model continued - Wheeler diagram exercise
Tuesday	17-Feb	Reading Week	
Thursday	19-Feb	Reading Week	
Tuesday	24-Feb	Midterm exam	
Thursday	26-Feb	11 TST & Transgressive erosion	5 Viking - Jensen Pool exercise
Tuesday	3-Mar	12 Highstand Systems Tracts	
Thursday	5-Mar	13 Sedimentary basins and sediment supply	6 Cardium Exercise
Tuesday	10-Mar	14 Timing of surfaces and controls	
Thursday	12-Mar	15 Comparisons of models	7 Doig Exercise
Tuesday	17-Mar	16 Fluvial Sequence stratigraphy 1	
Thursday	19-Mar	2 presentations	8 Grand Rapids exercise
Tuesday	24-Mar	17 Fluvial Sequence stratigraphy 2	
Thursday	26-Mar	2 presentations	9 Belly River exercise
Tuesday	31-Mar	18 Shale sequence stratigraphy	
Thursday	2-Apr	2 presentations	10 Colorado shale exercise
Tuesday	7-Apr	19 Deep water sandstones	
Thursday	9-Apr	2 presentations	11 review of exercises
	14-Apr	20 Course review - Questions	