



UNIVERSITY OF CALGARY  
FACULTY OF SCIENCE  
DEPARTMENT OF GEOSCIENCE  
COURSE OUTLINE  
WINTER 2016

1. **Course:** Geology 699 – Sequence Stratigraphy

Lecture Section:

L01: Tu Th, 15:30-16:45, ENA 103

Instructor: Dr. Rudi Meyer, Office ES 110, Tel. No. 403-210-7848, e-mail address, [rmeyer@ucalgary.ca](mailto:rmeyer@ucalgary.ca).

Instructor Office Hours: TBA

Teaching Assistants: Dillon Newitt, Emma Percy, Dane Synnott.

d2L Course: GLGY 561 L01 - (Winter 2016) - Sequence Stratigraphy

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

2. **Prerequisites:** Geology 343 or 341; and Geology 381; and completion of at least 78 units (13 full-course equivalents). 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	25%	
Term Paper (30%) and Presentation (10%)	40%	
Final Exam – to be scheduled by Registrar	30%	
Top Hat classroom response system participation	5%	[See Note below]

- The two-hour Lecture Final Exam is cumulative.
- Where appropriate, writing and the grading thereof will be a factor in the evaluation of student work.
- 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% corresponds 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 students must inform the instructor R.Meyer in writing (via email) by Friday April 8.**

Each piece of work (e.g. Labs, Midterms, Final exam, and Top Hat® participation) 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. The conversion between course percentage and letter grade is given below.

Letter grade	%
A+	95-100
A	90-94
A-	85-89
B+	80-84
B	75-79
B-	70-74
C+	65-69
C	60-64
C-	56-59
D+	53-55
D	50-52
F	0-49

*Note that all grades below "B-" are indicative of failure at the graduate level and cannot be counted toward Faculty of Graduate Studies course requirements.*

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:**

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

The course d2L site will contain Lab handouts as well as copies of the lectures, and any additional useful text and graphic resource materials are also posted. 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.

6. **Examination Policy:** No network compatible electronic devices or written aids (e.g. cell phones, tablets, computers, PDAs, notes, textbooks) will be allowed during writing of any exams. Basic calculators with trig functions are permitted.

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

7. **Writing across the curriculum statement:** Writing on exams should be clear and legible. Illegible writing will not be evaluated. See [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 (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: [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.

**With this Outline is a Schedule of Topics (Course Topics Schedule\_GLY 561-GLGY 699 W16.pdf).**

**COURSE TOPICS SCHEDULE \* – GLGY 561 / GLGY 699 Winter 2016**

	<b>WEEK of</b>	<b>LECTURES Tu Th 15:30–14:45 in Room ENA 103</b>	<b>LABS in Room ES 115 or EEEL 133 **</b>
<b>1</b>	Jan 11	Introduction: organization, objectives, expectations. Intro: interpreting the stratigraphic record, role of sea-level, sequence stratigraphy.	<i>NO LABS this week</i>
<b>2</b>	Jan 18	Seismic sequence stratigraphy. Role of accommodation space.	LAB 1: Seismic sequence Exercise #1
<b>3</b>	Jan 25	Stratal architecture and parasequences.	LAB 2: Seismic sequence Exercise #2
<b>4</b>	Feb 1	Application of Wheeler diagrams. Sequence boundaries and system tracts spec. falling-stage and lowstand system tracts.	LAB 3: Sequence model exercise.
<b>5</b>	Feb 8	<i>cont'</i> <b>Thursday February 11 – MIDTERM 1</b>	LAB 4: Sequence model <i>continued</i> – Wheeler diagram.
<b>6</b>	Feb 15	<b>READING WEEK: NO LECTURES</b>	<b>Reading Week: NO LECTURES or LABS</b>
<b>7</b>	Feb 22	Incised valleys.	LAB 5: Viking-Jensen pool exercise.
<b>8</b>	Feb 29	Transgressive and Highstand system tracts.	LAB 6: Cardium exercise.
<b>9</b>	Mar 7	Sedimentary basins and sediment supply.	LAB 7: Doig exercise.
<b>10</b>	Mar 14	Fluvial sequence stratigraphy.	LAB 8: Grand Rapids exercise.
<b>11</b>	Mar 21	<b>Tuesday March 22 – MIDTERM 2</b> Sequence stratigraphy of shelf- and deep-water systems.	LAB 9: Belly River exercise.
<b>12</b>	Mar 28	Sequence stratigraphy of carbonate depositional systems.	LAB 10: Colorado shale exercise.
<b>13</b>	April 4	Seq. Strat. carbonates continued	LAB 11: <i>to be determined</i>
<b>14</b>	April 11	Presentations by students in GLGY 699 <b>Wed April 13 : LAST DAY of CLASSES</b>	

\* Schedule is subject to slight changes.

\*\* Lab Schedule options: Wed 8:00 am, 11:00 am, 2:00 pm, 5:00 pm.