



UNIVERSITY OF CALGARY  
FACULTY OF SCIENCE  
DEPARTMENT OF GEOSCIENCE  
COURSE OUTLINE (January 05, 2016 version)  
WINTER 2016

1. **Course:** Geology 579, Basin Analysis

Lecture Sections:

L01: MoWeFr, 09:00-9:50, SB 146

For a listing of all lab sections corresponding with this course, please see the following link:

[http://geoscience.ucalgary.ca/geoscience\\_info/courses/w16](http://geoscience.ucalgary.ca/geoscience_info/courses/w16)

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Office Hours: By appointment only

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2. **Prerequisites:** Geology 445, or 341; 463 or 461; 493 or 491; 577; Geophysics 351 or 355. 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))

**Antirequisites:** Credit for both Geology 579 and 595.05 will not be allowed.

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:

In-class quiz	50 %
Quiz 1 (10%)	
Quiz 2 (10%)	
Quiz 3 (10%)	
Quiz 4 (10%)	
Quiz 5 (10%)	
Summaries of articles to read (5 @ 3%)	15 %
Research paper	30 %
Oral presentation of research paper	5 %

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. The conversion between course percentage and letter grade is given below.

Letter Grade	Percent
A+	>92
A	86-92
A-	82-85
B+	77-81
B	74-76
B-	71-73
C+	67-70
C	62-66
C-	58-61
D+	54-57
D	50-53
F	<50

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:**  
**Textbook** (mandatory): **Basin Analysis** (Third Edition, 2013), by Phillip A. Allen and John R. Allen, Wiley-Blackwell.
6. **Examination Policy** No electronic or written aids (e.g. 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:** 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) **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) **Student Accommodations:** 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 [http://www.ucalgary.ca/policies/files/policies/procedure-for-accommodations-for-students-with-disabilities\\_0.pdf](http://www.ucalgary.ca/policies/files/policies/procedure-for-accommodations-for-students-with-disabilities_0.pdf). Students needing an Accommodation in relation to their coursework or to fulfil requirements for a graduate degree, based on a Protected Ground other than Disability, should communicate this need, preferably in writing, to the Associate Head of Geoscience, Dr. E.S. Krebs by email [krebs@ucalgary.ca](mailto:krebs@ucalgary.ca) or phone 403-220-5850.
  - (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: 403 220-3911 Email: [suypaca@ucalgary.ca](mailto:suypaca@ucalgary.ca)  
SU Faculty Rep. Phone: 403 220-3913 Email: [science1@su.ucalgary.ca](mailto:science1@su.ucalgary.ca), [science2@su.ucalgary.ca](mailto:science2@su.ucalgary.ca) and [science3@su.ucalgary.ca](mailto:science3@su.ucalgary.ca);  
Student Ombuds Office: 403-220-6420 Email: [ombuds@ucalgary.ca](mailto:ombuds@ucalgary.ca); <http://ucalgary.ca/provost/students/ombuds>
  - (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, 2016

Associate Dean's Approval for Alternate  
Final examination arrangements: ORIGINAL SIGNED

Date: January 7, 2016

## Tentative Course and Lab schedule GLGY 579 (W2016)

W	Monday (lecture) 9:00-9:50 SB146	Mon-Wed (Lab) M 2:00-4:50 PM ES 213 M 5:00-7:50 PM ES 213 W 2:00-4:50 PM ES 213	Wednesday (lecture) 9:00-9:50 SB146	Friday (lecture) 9:00-9:50 SB146
1	1A Jan 11 2016 <b>Course Introduction</b>	<b>No Lab</b>	1B Jan 13 2016 <b>Basins in their geodynamic environment I</b>	1C Jan 15 2016 <b>Basins in their geodynamic environment II</b>
2	2A Jan 18 2016 <b>Physical state of the lithosphere I</b>	<b>No Lab</b>	2B Jan 20 2016 <b>Physical state of the lithosphere II</b>	2C Jan 22 2016 <b>Physical state of the lithosphere III</b>
3	3A Jan 25 2016 <b>Physical state of the lithosphere IV</b>	<b>No Lab</b>	3B Jan 27 2016 <b>Quiz 1</b> <b>Basins due to lithospheric stretching I</b>	3C Jan 29 2016 <b>Paper 01 Summary is due today</b> <b>Basins due to lithospheric stretching II</b>
4	4A Feb 01 2016 <b>Basins due to lithospheric stretching III</b>	<b>No Lab</b>	4B Feb 03 2016 <b>Basins due to lithospheric stretching IV</b>	4C Feb 05 2016 <b>Basins due to flexure I</b>
5	5A Feb 08 2016 <b>Basins due to flexure II</b>	<b>No Lab</b>	5B Feb 10 2016 <b>Basins due to flexure III</b>	5C Feb 12 2016 <b>Paper 02 Summary is due today</b> <b>Basins due to flexure IV</b>
6	6A Feb 15 2016 <b>No class</b>	<b>No Lab</b>	6B Feb 17 2016 <b>No class</b>	6C Feb 19 2016 <b>No class</b>
7	7A Feb 22 2016 <b>Quiz 2</b> <b>Basins associated with strike-slip deformation I</b>	<b>No Lab</b>	7B Feb 24 2016 <b>Basins associated with strike-slip deformation II</b>	7C Feb 26 2016 <b>Basins associated with strike-slip deformation III</b>
8	8A Feb 29 2016 <b>Effects of mantle dynamics I</b>	<b>No Lab</b>	8B Mar 02 2016 <b>Effects of mantle dynamics II</b>	8C Mar 04 2016 <b>Paper 03 Summary is due today</b> <b>Effects of mantle dynamics III</b>
9	9A Mar 07 2016 <b>Quiz 3</b> <b>Sediment provenance and routing system I</b>	<b>No Lab</b>	9B Mar 09 2016 <b>Sediment provenance and routing system II</b>	9C Mar 11 2016 <b>Sediment provenance and routing system III</b>
10	10A Mar 14 2016 <b>Basin stratigraphy I</b>	<b>No Lab</b>	10B Mar 16 2016 <b>Basin stratigraphy II</b>	10C Mar 18 2016 <b>Paper 04 Summary is due today</b> <b>Basin stratigraphy III</b>
11	11A Mar 21 2016 <b>Subsidence history I</b>	<b>No Lab</b>	11B Mar 23 2016 <b>Subsidence history II</b>	11C Mar 25 2016 <b>No Class – Good Friday</b>
12	12A Mar 28 2016 <b>Quiz 4</b> <b>Research Papers are due today</b> <b>Thermal history I</b>	<b>Students' Presentations</b>	12B Mar 30 2016 <b>Thermal history II</b>	12C Apr 01 2016 <b>Thermal history III</b>
13	13A Apr 04 2016 <b>Petroleum System I</b>	<b>Students' Presentations</b>	13B Apr 06 2016 <b>Petroleum System II</b>	13C Apr 08 2016 <b>Paper 05 Summary is due today</b> <b>Basin Analysis: Wrap Up</b>
14	14A Apr 11 2016 <b>Quiz 5</b> <b>USRI surveys</b>	<b>No Lab</b>	14B Apr 13 2016 <b>BSD – No class</b>	14C Apr 15 2016 <b>No class</b>