



COURSE OUTLINE

1. **Course:** GLGY 403, Aqueous Geochemistry - Fall 2020

Lecture 01: TR 09:30 - 10:45 - Online

Instructor	Email	Phone	Office	Hours
Dr Benjamin Tutolo	benjamin.tutolo@ucalgary.ca	403 210-7758	ES 550	TBA

In Person Delivery Details:

Mandatory in person labs will occur on September 16, October 21, and November 4th. More information about safety protocols and other relevant info for in-person meetings will be provided to students prior to or during the first week of classes. There will be no opportunity to make up a missed in-person laboratory due to teaching assistant schedules and contracts and the amount of time and effort it takes to set up in-person laboratories. Missing in-person laboratories will significantly impact the experiential learning portion of your learning in this course and result in a grade of 0 on the relevant laboratory assignment.

Online labs will occur synchronously at the regularly scheduled time for the laboratory and will involve remote access to the Geochemist's Workbench software package. Attendance at the scheduled times will be mandatory. Other than during the scheduled laboratory time, teaching assistants will only be able to assist during office hours and must equally divide time amongst all students needing assistance.

Laboratory assignments must be turned into the section TA by 5 PM (Calgary time) on the Friday following the lab.

Online Delivery Details:

This course is being offered online in real-time via scheduled meeting times, you are required to be online at the same time.

Lectures will be given twice weekly via Zoom.

The midterm examination will be administered synchronously during the regularly scheduled class time on 15 October.

The registrar-scheduled final exam will be administered synchronously during the exam period.

The course term paper will be due by 9 AM on the last day of class (9 December 2020).

Course Site:

D2L: GLGY 403 L01-(Fall 2020)-Aqueous Geochemistry

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 323.

Antirequisite(s):

Credit for both Geology 403 and 503 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 %
Midterm Exam	25
Final Exam	25
Term Paper	35
Labs	15

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%	55%	53 %	50 %

This course has a registrar scheduled final exam.

4. Missed Components Of Term Work:

The university has suspended the requirement for students to provide evidence for absences. Please do not attend medical clinics for medical notes or Commissioners for Oaths for statutory declarations.

In the event that a student legitimately fails to submit any online assessment on time (e.g. due to illness etc...), please contact the course coordinator, or the course instructor if this course does not have a coordinator to arrange for a re-adjustment of a submission date. Absences not reported within 48 hours will not be accommodated. If an excused absence is approved, then the percentage weight of the legitimately missed assignment could also be pro-rated among the components of the course.

Missed work or assignments turned in after relevant due dates will result in a grade of 0 on the relevant assignment or exam.

5. Scheduled Out-of-Class Activities:

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

6. Course Materials:

Required Textbook(s):

Brezonik and Arnold, *Water Chemistry: An Introduction to the Chemistry of Natural and Engineered Aquatic Systems*: Oxford University Press.

Bethke, Craig, *Geochemical and biogeochemical reaction modeling*: Cambridge University Press.

Recommended Textbook(s):

Stumm, W., & Morgan, J. J., *Aquatic chemistry: Chemical equilibria and rates in natural waters* John Wiley & Sons.

Appelo and Postma, *Geochemistry, groundwater and pollution*: CRC Press.

Anderson, G.M., *Thermodynamics of natural systems*: Cambridge University Press.

Walther, J., *Essentials of geochemistry*: Jones & Bartlett Learning.

In order to successfully engage in their learning experiences at the University of Calgary, students taking online, remote and blended courses are required to have reliable access to the following technology:

- A computer with a supported operating system, as well as the latest security, and malware updates;
- A current and updated web browser;
- Webcam/Camera (built-in or external);
- Microphone and speaker (built-in or external), or headset with microphone;
- Current antivirus and/or firewall software enabled;
- Stable internet connection.

For more information please refer to the UofC [ELearning](#) online website.

7. Examination Policy:

Examinations will occur synchronously, online. Examinations will have 50% extra time built in for technology issues. Work and answers must be shown for all questions on the examination through clearly visible digital photographs of work pages. Clearly visible photographic answers for each exam question must be turned in at the conclusion of the examination period or no credit will be awarded.

Examinations are closed-book. Reference materials, including those available via the internet, are not permitted and any required data or equations will be explicitly given on examinations. Non-programmable calculators are allowed.

Students must receive a passing grade on all course components (D or above), including both examinations, in order to pass the course overall.

For any synchronous assessment, time will be adjusted for SAS students if needed and accommodations for students will be done on a case-by-case basis.

The midterm examination will occur synchronously online on Thursday October 15th during the regularly scheduled (75 minutes) class time and will be designed to be completed in 50 minutes.

The final examination will occur synchronously online at the registrar-scheduled time. The examination will be designed to be completed in 75 minutes, and 112.5 minutes will be permitted for exam completion.

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

8. Approved Mandatory And Optional Course Supplemental Fees:

This course will not assess additional fees this year due to the cancellation of the field trip.

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.

- a. **Term Work:** The student should present their rationale as effectively and as fully as possible to the Course coordinator/instructor within **ten business 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 submit the Reappraisal of Graded Term work form to the department in which the course is offered within 2 business days of receiving the decision from the instructor. The Department will arrange for a reappraisal of the work within the next ten business days. The reappraisal will only be considered if the student provides a detailed rationale that outlines where and for what reason an error is suspected. See sections [I.1](#) and [I.2](#) of the University Calendar
- b. **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:** For more information, see www.ucalgary.ca/wellnesscentre or call [403-210-9355](tel:403-210-9355).

- c. **Sexual Violence:** 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 (syva@ucalgary.ca) or phone at 403-220-2208. The complete University of Calgary policy on sexual violence can be viewed at (<https://www.ucalgary.ca/policies/files/policies/sexual-violence-policy.pdf>)
- 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. **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 Teaching Professor of the Department of Geoscience, Jennifer Cuthbertson by email cuthberj@ucalgary.ca or phone 403-220-4709. 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.
- f. **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.
- g. **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: ombuds@ucalgary.ca.
- 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. **Copyright of Course Materials:** All course materials (including those posted on the course D2L site, a course website, or used in any teaching activity such as (but not limited to) examinations, quizzes, assignments, laboratory manuals, lecture slides or lecture materials and other course notes) are protected by law. These materials are for the sole use of students registered in this course and must not be redistributed. Sharing these materials with anyone else would be a breach of the terms and conditions governing student access to D2L, as well as a violation of the copyright in these materials, and may be pursued as a case of student academic or [non-academic misconduct](#), in addition to any other remedies available at law.

Dr. Tutolo will respond to email inquiries about the course within 24 hours, except on weekends and holidays.

Teaching Assistants have fixed office hours and will only be expected to respond to questions during these office hours.

Electronically Approved - Aug 24 2020 22:21

Department Approval

Associate Dean's Approval for...

1. In person delivery component(s).