



UNIVERSITY OF CALGARY  
FACULTY OF SCIENCE  
DEPARTMENT OF GEOSCIENCE  
COURSE OUTLINE  
WINTER 2017

1. **Course:** Geology 611, Groundwater Resource Management

Lecture/Lab Sections:

B01: Mo, 16:00-17:50, ES 924

L01: We, 16:00-17:50, SS 115

Instructor, Dr. E. Cey, Office: ES 220, Tel. No.: 403-220-8393, e-mail address: [ecey@ucalgary.ca](mailto:ecey@ucalgary.ca),

Office Hours: By appointment

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

Students should ensure that they are registered for both the lecture (L01) and laboratory (B01) sessions, since both are required components of the course for all students.

2. **Prerequisites:** Mathematics 253 or 267 or 277 or 283 or Applied Mathematics 219 and Geology 401 or Geography 415. 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:

Homework Assignments	20%
Readings and Class Discussions	20%
Project #1 (individual)	10%
Project #2	25%
Final Examination	25% (To be scheduled by the Registrar)

Each component of the course 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 then be used to determine the course letter grade. The conversion between course percentage and letter grade is as follows:

Grading Scale							
A+	95 – 100%	B+	80 – 83%	C+	66 – 69%	D+	54-57%
A	88 – 94%	B	75 – 79%	C	62 – 65%	D	50 – 53%
A-	84 – 87%	B-	70 – 74%	C-	58 – 61%	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:**

The Desire2Learn website (<https://d2l.ucalgary.ca>) will be used throughout the course to make announcements and distribute lecture notes, readings, assignments, and other course materials. Please check the course website regularly.

There is no required textbook for the course. Instead the course will rely on regular readings from published reports and journal articles. Readings will be assigned to both reinforce the lecture material and introduce new topics to the course. All students are expected to have read the assigned material and be prepared to discuss it in class. In addition, one student (selected by the instructor) will be asked to lead the discussion session and provide their own input on the subject. The goal is to get everyone thinking critically, exchanging ideas, and openly debating or deliberating on groundwater resource topics. As such, all students will be asked to lead several class discussions during the term.

6. **Examination Policy:** The final exam will be open book. In addition to writing instruments, rulers, and programmable calculators, students will be permitted to bring written and printed information (e.g., course notes, textbooks, dictionaries, and summary sheets) into the exam. Note that electronic devices other than a calculator, such as

smartphones, tablets and laptop computers, will NOT be permitted into the exam. 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 will be a factor in the evaluation of all written work (projects, assignments, and exams). Students are expected to submit high quality work. In all cases, quality work must be well organized, clearly written and presented, and have all information sources properly noted. Where applicable, questions should be labelled and in order, all tables and diagrams properly labelled, assumptions clearly stated, and final answers clearly indicated (with appropriate units and significant figures). You are expected to **show all your work**, including equations and sample calculations where necessary (especially when relying on spreadsheets or computer programs to generate results). 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) **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> 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: 403 220-3911 Email: [suvpaca@ucalgary.ca](mailto:suvpaca@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.