



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

1. **Course:** Geology 587, Invertebrate Paleobiology

Lecture Sections:

L01: Mo,We,Fr, 14:00 -14:50, SS 117

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

http://geoscience.ucalgary.ca/geoscience_info/courses/w17

B01: Fr, 15:30 – 18:20, ES213

Instructors: Dr. Charles Henderson, ES 274, 403-220-6170, cmhender@ucalgary.ca; Dr. Dan Georgescu, ES 110, 403-210-7848, dgeorge@ucalgary.ca,

Office Hours: By appointment.

Geoscience Department ES 118, 403-220-5841, geoscience@ucalgary.ca

2. **Prerequisites:** Geology 493; or Geology 202 or 203 and Zoology 375. 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).

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 exam	25%
Lab assignment/instruction	10%
Lab presentation	15%
Quizzes	15%
Peer Review	10%
Term Paper	25% (To be scheduled in the first lecture)

Each piece of work (assignment, laboratory report, midterm test or term paper) 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	Letter Grade	Percent
A+	95-100	C+	65-69.99
A	90-94.99	C	60-64.99
A-	85-89.99	C-	56-59.99
B+	80-84.99	D+	53-55.99
B	75-79.99	D	50-52.99
B-	70-74.99	F	0-49.99

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:**
Recommended: Benton, M.J., Harper, A.D.T., 2009. Introduction to Paleobiology and the Fossil record; 1st edition. Wiley-Blackwell, 592 p.
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:** In this course, the quality of the student's writing in laboratory reports and term paper 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. 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 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
SU Faculty Rep. Phone: 403 220-3913 Email: science1@su.ucalgary.ca, science2@su.ucalgary.ca and science3@su.ucalgary.ca;
Student Ombuds Office: 403-220-6420 Email: 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). Your responses make a difference – please participate in USRI Surveys.

Department Approval: ORIGINAL SIGNED

Date: January 6, 2017

Assistant Dean's Approval for
Alternate final examination arrangements: ORIGINAL SIGNED

Date: January 6, 2017

Date	Lecture Topic	Labs/Exams
January 9-13	1. Intro .5, Biostratigraphy (species, biozones, and quantitative, time) 2.5 (CH)	-not scheduled
January 16-20	2. Foraminifers 2 (DG), Conodonts 1 (CH)	Biostratigraphy lab (IZ & UA) (CH+AG)
January 23-27	3. Conodonts .5 (CH), Radiolaria .5 (CH), Algae 1 (DG), Porifera 1 (CH)	Conodonts, Foraminifers, and others (DG+CH)
Jan. 30 - Feb. 3	4. Cnidarians 2 (DG), Brachiopods 1 (DG)	Poriferans and Cnidarians (Gr1)
February 6-10	5. Brachiopods 1 (DG), Bryozoans 1 (CH), Molluscs 1 (CH)	Lophophorates (Gr2)
February 13-17	6. Bivalves 1 (CH), Cephalopods 2 (DG)	Mollusca (Gr3)
February 20-24	READING WEEK – NO CLASSES	No lab
Feb. 27 - Mar. 3	7. Arthropods, ostracodes 1.5 (DG) + trilobites 1.5 (CH)	Arthropods (Gr4)
March 6-10	8. Primitive Echinoderms 1 (DG), others 2 (CH)	Echinoderms (Gr5 or AG)
March 13-17	9. Paleocology, extinction/recovery/refugia = 3 (AG)	Paleocology (AG)
March 20-24	10. Taphonomy (CH), Ichnology (CH), Geochemistry of fossils (CH)	Practical paleontology (CH + AG)
March 27-31	11. Paleobiogeography 1(CH), The Big 5 extinctions 1 (CH), Microevolution 1 (DG)	Paleocology presentations + review (AG)
April 3-7	12. Macroevolution = 2 (DG), Paleontology as a Science 1 (DG)	Lab exam
April 10-12	13. The Value of Paleontology in Society (DG, CH)	Good Friday