



# UNIVERSITY OF CALGARY

## DEPARTMENT OF GEOSCIENCE COURSE OUTLINE GLGY 599 SPRING 2022

**1. Course: GLGY 599 Bahamas Island: Tropical Life, Coral Reefs, White Sand and Caribbean Rocks.** This field-based course provides a unique opportunity for undergraduate and graduate students to further their knowledge of carbonate sedimentology in visiting a Caribbean island where carbonate sediments, including reefs, currently form and have accumulated in the recent Pleistocene and Holocene past. Students will visit two dozens on land or underwater sites on the Island of San Salvador, in the Bahamas, where they will make observations on a large variety of carbonate environments that include an underground cave system, aeolian sand dunes, paleosols and caliches, an hypersaline lake with living stromatolites, storm deposits, a Pleistocene fossil reef, modern and ancient beach deposits, and a whole variety of underwater shelf, lagoonal, tidal inlet and living reefs environments, the later showing severe signs of stress due to mankind activities. The fascinating history of San Salvador will also be touched upon and renowned sites, such as Christopher Columbus' first landfall site in 1492 as well as an ill-fated cotton plantation with a shameful history of slavery, will be respectfully visited. The course will combine short morning lectures, morning and afternoon on land and/or underwater (snorkeling) activities, and evening laboratory work to further the knowledge acquired during the day. A mapping project will complete the course's curriculum. This course is appropriate for undergraduate and graduate students in the Geoscience, Natural Sciences, Environmental Sciences, Biological Sciences and Geography programs. Students enrolled in a Geoscience Major program will be given priority. Enrollment is capped at 24 students for safety reasons.

### Pre-trip meetings:

Swim Test conducted by UofCalgary Aquatic Centre; one day (TBD) in Fall 2021

Snorkeling/First Aid Initiation conducted by UofCalgary Aquatic Centre; two days (TBD) in Winter 2022

Pre-trip safety and orientation briefing; May 2, 2022; University of Calgary, ES 136, 10:00 AM-12:00 PM

### Lecture Sections:

B01: Travel days: May 3, 2022 Calgary-Toronto-Nassau (Orange Hill Beach Inn)

May 4, 2022 Nassau-San Salvador Island

Field work: May 5-12, 2022; Location: Gerace Research Centre, San Salvador Island, The Bahamas

Travel days: May 13, 2022: San Salvador Island-Nassau (Orange Hill Beach Inn)

May 14, 2022 Nassau-Toronto-Calgary

### Instructors:

Dr. Benoit Beauchamp, ES 146, 403-220-8266, [bbeauch@ucalgary.ca](mailto:bbeauch@ucalgary.ca)

Dr. Jennifer Cuthbertson, ES 520, 403-220-4709 [cuthberj@ucalgary.ca](mailto:cuthberj@ucalgary.ca)

**Teaching Assistant :** Bryana Fraser, ES 107, [bryana.fraser@ucalgary.ca](mailto:bryana.fraser@ucalgary.ca)

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

- 2. Prerequisites:** GLGY 201 Principles of Geoscience (mandatory)  
GLGY 381 Sedimentary Rocks and Processes (desireable)

Students from other universities with equivalent background are welcome to apply

*Physical requirements:* To be reasonably fit  
To be a confident swimmer in open water  
To have passed the swimming test run by UofC's Aquatic Centre  
To have attended the two-day snorkeling initiation/first aid session run by UofC's Aquatic Centre

**Material requirements:** To provide your own snorkeling gear (minimum of mask, snorkel, fins)  
 A snorkeling safety vest for each student will be bought by the Group Study Program via the course fees  
*N.B. Scuba diving equipment is not allowed on this field school*

3. **Grading:** The University policy on grading and related matters is described in 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:

Deliverable(s)	Contribution to final grade (%)
1) Daily assignments (12 @ 4) (individual)	48
2) Mapping Project (group of four students)	25
3) Note-book (individual)	20
4) Participation (individual)	7

Grading components in this course include:

- 1) Two dozens different areas will be visited onland and underwater on San Salvador Island over the first six days of the field school. Students will have to complete a specific assignment twice daily in some of these areas, generally one in the morning and one in the afternoon. Completion of the assignments will be done in the laboratory in the evening. The students will be given an assignment booklet to compile their answers during the pre-departure meeting on May 2, 2022. They must hand their booklet to the instructors on May 12, 2022 prior to returning to Calgary.
- 2) Over the last two days of the field school, students in groups of four will conduct a combined mapping project of a fossil reef onland. The instructors will conduct an interview with each group in the afternoon of May 12, 2022
- 3) The quality and organization of note taking will be assessed through examination of each student's note-book during the course of the field school. Students will show their note-books to the Instructors or the Teaching Assistant while in the field, once after the first in the field, once in the middle of the field school, and then again at the end on May 12, 2022.
- 4) The Instructors and the Teaching Assistant will assess the participation level demonstrated by individual students both in the field during daytime and in the laboratory in the evening. An important component of this assessment is the extent to which individual students sought to understand, through careful accurate observations, the processes operating in each of the visited sites and the sedimentary products thereof. Points will reward positive attitude such as curiosity, questioning, participation in discussions in the field or lab, safety consciousness, good behaviour, etc.

A student must complete all four components to receive a passing grade. The grade weights for the components are indicated above. Completion of all four components of the course is mandatory to obtain a passing grade.

Individual elements of the course (as detailed above) 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 to determine the course letter grade. The conversion between course percentage grade and letter grade is given below.

Letter Grade	Percent
A+	92-100
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

This is a field based course where most of the instruction takes place during field work. Completion of the field work components of the course is mandatory to obtain a passing grade.

5. **Scheduled out-of-class activities:** This is a field based course where most of the instruction takes place off campus.
6. **Course Materials:** There is no recommended textbook for this course. Students will have to follow discussions in the field as access the University of Calgary library, often for independent research. The instructor will provide a list of relevant scientific papers to read prior to going to the field.
7. **Approved Mandatory and Optional Course Supplemental Fees:** As detailed by the Group Studies Program.
8. **Examination Policy:** There are no examinations for this course. Please see Grading (above) for assessment methods. Students should also read the Calendar, [Section G](#), on Examinations.
9. **Writing across the curriculum statement** In this course, the quality of the student's writing, clear presentation of information (i.e. in tables, graphs, and figure), and appropriate scientific writing and presentation aspects will be a factor in the evaluation in all aspects of the course. See [Section E.2](#) of the University Calendar.

#### 10. 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.

Department Approval \_\_\_\_\_ Date \_\_\_\_\_

Associate Dean's Approval for  
Anternate final examination arrangements \_\_\_\_\_ Date \_\_\_\_\_