

**GEOLOGY 270j - CARBONATE SYSTEMS AND CORAL REEFS OF THE BAHAMAS
JANUARY 12-23, 2012**

**Course Director and Instructor: Bosiljka Glumac
Course Instructors and Project Advisors:
Al Curran, Sara Pruss, Paulette Peckol, David Smith**

COURSE OUTLINE & SCHEDULE

Thursday, Jan. 12

Early rise Courtesy van transport from Red Roof Inn to Miami International Airport
8:10 a.m. Depart on Bahamas Air flight to Nassau, Bahamas
9:05 a.m. Arrive Nassau, clear Bahamas immigration, collect bags and complete customs
 inspection, then walk to Bahamas Air domestic flights terminal
11:00 a.m. Depart on Bahamas Air flight to San Salvador
12:00 p.m. Arrive San Salvador, collect bags, then travel by truck to the Gerace Research Centre
 (GRC). Check in to rooms, lunch at the GRC cafeteria
Afternoon Settle in, set up laboratory, **free time**, GRC orientation
5:30 p.m. Dinner
7:00 p.m. Lab orientation, preview of next day's activities
 Class time: "Geology of the Bahamas" – Al Curran

Friday, Jan. 13

High tide: 10:14 AM

Low tide: 4:28 PM

7:30 a.m. Breakfast
9:00 a.m. Depart for Coast Guard Beach - modern beach sediments, beachrock
 North Point – eolianites, sedimentary structures, and trace fossils
noon Lunch at GRC
1:00 p.m. Depart for North Point
 Snorkel dive near Cut Cay - substrates and associated biota
 Collecting: calcareous green algae, sediments, and marine grasses
5:30 p.m. Dinner
7:00 p.m. Preview of next day's activities
 Class time: "Star gazing tutorial" – Tony Caldanaro,
 "Carbonate Minerals, Grains, and Rocks" – Bosiljka Glumac
 Begin calcareous algae and sand sample processing and identifications

Saturday, Jan. 14

High tide: 11:03 AM

Low tide: 5:15 PM

7:30 a.m. Breakfast
9:00 a.m. Depart for East Beach – brief recon
 Storr's Lake – 'primordial ooze'; stromatolites
 Upper reaches of Pigeon Creek - biogenic structures, mangroves
 Archaeological site investigation – Farquharson Plantation
noon Lunch in the field
1:00 p.m. Snorkel dive: Pigeon Creek tidal channel and delta; collect more sand samples
 The Gulf - Pleistocene eolianites and paleosols
 Short "tourist stop" in Cockburn Town, if time permits
5:30 p.m. Dinner

7:00 p.m. Recap and discussion
Preview of next day's activities
Class time: "Depositional Environments, Sedimentary Structures, and Trace Fossils in Bahamian Carbonates" – Al Curran
Sand sample identifications - continuing

Sunday, Jan. 15 Low tide: 5:52 AM High tide: 11:58 AM Low tide: 6:07 PM

7:30 a.m. Breakfast
9:00 a.m. Depart for hike to lighthouse - island overview
San Sal landfill – brief tour
Grotto Beach – Pleistocene stratigraphic section, measuring graphic logs, examination of modern beach sediments
noon Lunch in field
1:00 p.m. Snorkel dive: Lindsey's Reef – begin coral ids
Bonefish Bay – modern algal reefs
5:30 p.m. Dinner
7:00 p.m. Recap and discussion
Preview of next day's activities
Class time: "Corals and Coral Reefs" - Al Curran
Calcareous algae identifications - **due**
Begin drawing up graphic logs; sand sample identifications - continuing

Monday, Jan. 16 Low tide: 6:58 AM High tide: 12:59 PM Low tide: 7:05 PM

7:30 a.m. Breakfast
9:00 a.m. Singer Bar Point – examine Pleistocene/Holocene contact
Snorkel dive: Fernandez Bay coral reefs - continue coral ids
noon Lunch in field
1:00 p.m. Snorkel dive: French Bay coral reefs - continue coral ids
Beachrock and tidal pools at French Bay
5:30 p.m. Dinner
7:00 p.m. Recap and discussion
Preview of next day's activities
Class time: "Carbonates and Reefs Through Time" – Bosiljka Glumac
Sand sample identifications - **due**
Work on graphic logs, coral identifications - continuing

Tuesday, Jan. 17 Low tide: 8:08 AM High tide: 2:07 PM Low tide: 8:09 PM

7:30 a.m. Breakfast
9:00 a.m. Depart for Cockburn Town fossil coral reef: overview tour; litho- and bio-facies analysis and group mini-projects; quick stop on the way at the Water Station
noon Lunch in the field
1:00 p.m. Snorkel dive: Fernandez Bay coral reefs – modern coral identification quiz
Bamboo Point – Rocky shore biota, sandy substrate structures and biota; swim to 'The Wall' - optional
5:30 p.m. Dinner

7:00 p.m. Recap and discussion
Preview of next day's activities
Class time: "Environmental Issues on San Salvador: Introduction to Aqueous Geochemistry and Water Quality" – Ann Pufall
Grotto Bay graphic logs - **due**
Field projects pre-planning – begin discussions

Wednesday, Jan. 18 Low tide: 9:21 AM High tide: 3:17 PM Low tide: 9:15 PM

7:30 a.m. Breakfast
9:00 a.m. Hike to the interior
noon Lunch at the station
1:00 p.m. Owl's Hole area and Dripping Rock and Altar Caves - modern and ancient karst
Sandy Point - modern beach studies
Watling's Castle – island archeology
5:30 p.m. Dinner
7:00 p.m. Recap and discussion
Preview of next day's activities
Class time: "Biomineralization" – Sara Pruss
More planning for field projects
Pre-exam study

Thursday, Jan. 19 Low tide: 10:29 AM High tide: 4:25 PM

7:30 a.m. Breakfast
9:00 a.m. Boat trip and snorkel dive: Gaulin's Reef (weather permitting), or snorkel
dives: French Bay or elsewhere
noon Lunch at the station or in the field depending on dive site selection
1:00 p.m. Begin field projects
5:30 p.m. Dinner
7:00 p.m. Preview of next day's activities
Laboratory exam

Friday, Jan. 20 High tide: 5:06 AM Low tide: 11:29 PM High tide: 5:26 PM

7:30 a.m. Breakfast
9:00 a.m. Projects - continuing
noon Lunch in the field
1:00 p.m. Projects - continuing
5:30 p.m. Dinner
7:00 p.m. Recap and discussion
Preview of next day's activities
Class time: "Coral Reef Fish" – Paulette Peckol
Work on projects

Saturday, Jan. 21 High tide: 6:02 AM Low tide: 12:23 PM High tide: 6:21 PM

7:30 a.m. Breakfast
9:00 a.m. Projects - continuing
noon Lunch in the field
1:00 p.m. Projects - continuing
5:30 p.m. Dinner
7:00 p.m. Recap and discussion
 Preview of next day's activities
 Continue work on projects

Sunday, Jan. 22 High tide: 6:53 AM Low tide: 1:11 PM Low tide: 7:12 PM

7:30 a.m. Breakfast
9:00 a.m. Projects - wrap-up
noon Lunch at GRC
1:00 p.m. Final projects wrap-up, as needed
 Laboratory clean-up
 Preparation for departure
 Free time
5:30 p.m. Dinner
7:00 p.m. Final recap and discussion
 Review departure plans

Monday, Jan. 23 High tide: 7:40 AM

7:30 a.m. Breakfast
9:00 a.m. Check in pillows; final preparations for departure to Miami
11:20 a.m. Depart on Bahamas Air flight for Nassau; early afternoon layover, then clear U.S.
 immigration and customs in Nassau
3:45 p.m. Depart on Bahamas Air flight to Fort Lauderdale
4:40 p.m. Arrive Fort Lauderdale, collect bags for connecting flights

Note: The course schedule and procedures are subject to change in the case of unexpected circumstances.

**Field-based team project reports due no later than Friday, February 3 by 2 p.m.;
turn in to Bosiljka Glumac, Burton Hall 208.**