Syllabus Summer C 2002

Phycology Lab – BOT 4404L – Ref. Nr. 0334 – Section 51

Dr. Frank J. Jochem, Assistant Professor
BBC AC-1 Room 379; Phone (305) 919 5882; e-mail frank@jochem.net

Preparation for the lab class: Full lecture of the lab manual is expected prior to the first lab class. The classes start at 14.00 p.m. in the Marine Biology Teaching Lab, BBC AC-2 lab 305.

Day	Date	Topic
Fri	5/10	*Instructor on research cruise. NO CLASS*
Fri	5/17	Introduction to the microalgae: forms, diversity, and classification (study of live specimens and microscope preparations)
Fri	5/31	Field trip to Biscayne Bay (if weather prohibits field trip, it will be done on June 7) Preservation and storage of samples after the field trip
Fri	6/7	Alternative day for Biscayne Bay field trip – *if performed on 5/31 then no class*
Fri	6/14	Analyses of field samples (chlorophyll, nutrients, algal cell counts) Setup of nutrient limitation experiments (will incubate for a week)
Fri	6/28	Analyses of the nutrient limitation experiments Algae mating experiments
Fri	7/12	Diversity of macroalgae (macroscopic and microscopic studies)
Fri	7/26	Presentation of field study results and discussion Final exam (practical and quiz)

Studies on algal diversity (class 5/17, 7/12) and algae mating experiments (class 6/28) will be performed individually. For the Biscayne Bay field sampling and sample analyses and for the Biscayne Bay nutrient limitation experiment, students will be grouped to small “research teams” of 3 members, which will work on the analyses and interpretation of the data from their field station collaboratively. Each group is expected to present the results of their field station and their nutrient limitation experiment in the last class by a maximum of 15 min talk.

Grading: Final grades for the lab course will be computed by the following performances and achievements: Performance during lab (15%); Quality of data (15%); Oral presentation of group results (25%); Written lab report on field study, lab experiment, and study of provided specimens (25%); Final exam (20%). Whereas lab performance and the final exam are individual tasks, grading for the other achievements are group gradings, i.e. all members of one "research team" will gain the same grade for their group achievements. Since scientific work today is almost always performed in working groups, this lab course shall provide a hands-on experience in this regard. It remains the group's responsibility to organize workload sharing among group members and to keep motivation up in all members. Instructor will intervene limited to severe cases of disproportional contributions among group members only.

Each student has to provide a written lab report. Each student and each group is free to decide whether the lab report on the field study and the nutrient limitation experiment shall be a joint preparation or not. The study of provided specimens (diversity of algae) is an individual task that has to be included in the individual lab report. This part cannot be replaced by group performance.

The final lab exam will comprise multiple-choice and short-answer questions on the practical issues of this course. Therefore, the applied and demonstrated methodology will be the focus of this exam, whereas the theoretical background of phycology will be topic of the final exam of the lecture class. The final exam will be held on the last lab course day. Missing a lab class without severe reason and without the approval of the student's research group or persistent late coming will result in substantial reduction in the "performance during lab work" grading. Remember that there will be only a total of 5 lab classes!

Classes at the beginning and the end of the semester had to be cut because the instructor will be at sea on a research cruise. Classes are double-time periods from 14.00 to 18.30 p.m. Double-time allocation is needed to accommodate the field trip and the workload of the field sample analyses.