BIOL 630 / EVSS 722 - Marine Invertebrate Zoology

Grice Marine Laboratory – College of Charleston
Spring Semester (January 9 – April 23, 2008)

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This graduate-level course will introduce you to the fantastic diversity of invertebrates in the sea. The title of the course is a bit of a misnomer…although we will survey the 33 extant invertebrate phyla in a traditional "zoology" framework, the real focus of the course is on a wide range of current issues within ecology and evolution. Thus, lectures and laboratories will focus on dispersal, life history evolution, recruitment, habitat and mate choice, the conservation of biodiversity, and speciation, among other issues.

I hope that by the end of this course, you will have gained several very practical skills. These include: being able to generate and interpret phylogenies; critically examine and discuss the primary literature in front of your peers; design, implement and report an experimental study; feel comfortable with the taxonomy and distribution of the invertebrate communities of the southeastern US.

You will have a great deal of autonomy in this course, especially in the final 4 weeks in which you will use the time to generate and report on a project of your choosing.

Lecture and Laboratory: All day on Wednesday ! Technically, there are three hours of lecture in the morning (9 am – 12 pm) and three hours of lab in the afternoon (2 pm – 5 pm). However, because much of our lab time will be spent in the field, we may have to alter these times somewhat, or reverse the lecture and lab.

Journal Club Discussion: Every Wednesday, we will use 45-60 minutes to discuss the assigned papers (usually 1-2). **The success of the discussion period depends entirely on our efforts !** My experience is that these are often the most interesting and stimulating part of the class.

Field Trip: We are planning a field trip to the Florida Keys from Thursday, April 4th to Sunday April 7th. We will visit mangrove forests, coral reefs and seagrass beds, as well as fossil coral reefs. There will be opportunities to snorkel and SCUBA (if you are certified).

Textbook:

- Richard Brusca and Gary Brusca *Invertebrates*, 2nd edition. Sinauer Associates. A wonderful reference book. Richard Brusca taught graduate-level Invertebrate Zoology at Grice in the 90's !

Course Requirements (total = 500 pts):

- *Exams (200 pts)*: There will be a midterm (50 pts) and final exam (150 pts)
- *Journal Club (100 pts)*: This includes active and thoughtful participation (~10 pts / week).
- *Final Project (100 pts)*: We have set aside the last four weeks for this project, but you should consult in the 1st few weeks about what kind of project you might pursue. ***Deadline for proposal = February 27***
- *Laboratory (100 pts)*: ~ 10 labs (10 pts / week). Actively participate in laboratories and finish weekly assignments.

Questions/concerns: This course will be challenging, both intellectually and personally…but hopefully it will also be equally rewarding! Please do not hesitate to talk to me with any concerns and to give feedback.