

Syllabus – Fall 2005

Course Title: Systematics of Marine Invertebrates (CMOB 8676, 4 credits)

Professor: Dr. Nikolaos V. Schizas

E-mail: n_schizas@cima.uprm.edu

Tel: 1-787-899-2048 ext 242

Office Hours:

Monday 1:45-3:45 PM

Wednesday 2:50-5:00PM

Meeting Place: **Lecture** (Magueyes Conference Rm 12:55-1:45 PM, Monday
12:55-2:50 PM, Wednesday
Lab 8:30AM-12:00 PM, Friday)

Grades will be a composite of three exams (total of 70%), project¹ (pre-proposal 5%, final report, 15%; presentation, 5%), and a laboratory evaluation (5%). The laboratory evaluation includes good laboratory and field techniques, professional behavior, attendance in labs, lectures and all research seminars during the semester.

Note: Everything is subject to change

Schedule

Week 1

Introduction	Lecture
Principles of Systematics	Lecture
Field check-up	Lab ²

Week 2

Porifera	Lecture
Porifera	Lecture
Porifera	Lab

Week 3

Phylogenetic Inference	Lecture
Cnidaria	Lecture
Cnidaria	Lab

Week 4

Labor Day	Feriado
Cnidaria/Ctenophores	Lecture
Cnidaria	Lab

Week 5

Cnidaria	Lecture
Caribbean corals	Guest Lecturer Dr. Weil
Microscopy	Lab

Note: Pre-proposals due September 16

Week 6

Platyhelminthes	Lecture
Platyh. Phylogeny	Lecture
Platyhelminthes	Lab

Week 7

Gnathostomulida	Lecture
Nemert, Rotifers Acanthoc	Lecture
Molecular Techniques	Lab

Week 8

Exam 1	Lecture
Annelida	Lecture
Annelida Phylogeny	Lab/Lecture

Week 9

Columbus Day	Feriado
Annelida	
Rocky Shore	Lab

Week 10

Mollusca	Lecture
Mollusca	Lecture
Mollusca	Lab

Week 11

Mollusca Phylogeny	Lecture
Arthropoda	Lecture
(Cruise-Zooplankton)	Lab

Week 12

Exam 2	Lecture
Arthropoda	Lecture
Arthropoda	Lab

Week 13

Onychophora/Priapulida/Tardigrada	Lecture
Arthropoda Phylogeny	Lecture
Molecular Techniques	Lab

Week 14

Nematodes, Nematomoprpha	Lab/Lecture
Lophophorates	Lecture
Descubr. de Puerto Rico	Feriado

Week 15

Echinodermata	Lecture
Echinodermata	Lab/Lecture
Day after Thanksgiving	Feriado

Week 16

Echinodermata-Phylogeny	Lecture
Chaetognatha, Hemichordata	Lab/Lecture
Chordata	
Projects Presentations	

Note: Proposals due November 30**Week 17****Exam 3****Required materials:**

- Mask, snorkel, fins
- Dissecting kit
- Underwater slate and pencil

Strongly recommended:

- P. Humann, N. Deloach, 2002. Reef creature identification, 2nd Ed. \$27.97
P. Humann, N. Deloach, 2001. Reef coral identification, 2nd Ed. \$24.47

Lecture Material will be extracted from:

- Brusca, R.C. & Brusca, G.J. 2002. Invertebrates, Sinauer Associates, Sunderland. \$109.95
Ruppert, Fox, Barnes. 2004. Invertebrate Zoology, 7th Ed. Brooks/Cole, Thomson Learning, Inc., Belmont, CA
Primary literature, work in progress and Internet

Primary literature will be available for download at my Web site:

http://cima.uprm.edu/~n_schizas/CMOB_8676/ or they will be e-mailed to you well before class.

¹The pre-proposal should be a 2-page document stating the main idea, relevant background, the significance of your research question to the general field, and research plan. The project should be an 8-page document (excluding literature) in a journal format. We are going to follow the format of the journal *Marine Biology*. The 10 minutes presentations should be in Powerpoint, or in pdf format. Presentations will in the language of your choice.

²One of the labs will be dedicated to SEM and confocal microscopy and one to modern techniques applied to Systematics of Marine Invertebrates.