



Last Date Revised: 17 Feb 2015

I. COURSE NUMBER AND TITLE:

TAXONOMY OF TROPICAL MARINE INVERTEBRATES

Course Number: OCMB 6085 OD1

CRN: 52155

Days: Thursday evenings, 6:30 - 9:30 pm.

Building & Room: Forman Bldg. rm. 120, and Modular Wet Laboratory.

II. INSTRUCTOR:

Prof. Charles G. Messing

Phone: 954-262-3658

Email: messingc@nova.edu

Office: COE-CRES rm. 218

Office Hours: 10:00am – 5:00 pm M-F.

III. COURSE DESCRIPTION:

Taxonomy and ecology of marine invertebrates with an emphasis on shallow-water species of the tropical Western Atlantic, and Florida in particular. Field work and a self-paced laboratory are integral to the course.

IV. LEARNING OUTCOMES:

At the conclusion of this course the student will be able to:

Upon completion of the course, students will have a clear understanding of:

- how to identify a wide diversity of local marine invertebrates belonging to several major phyla including Porifera, Cnidaria, Annelida, Mollusca, Arthropoda, Echinodermata and Tunicata
- the natural history, ecology and basic patterns of development of common local marine invertebrates
- collection, preparation and curation techniques for these organisms
- terminology associated with the taxonomy and classification of each group

The course will contribute to the following Marine Biology program learning outcomes: Students successfully completing this course will acquire and demonstrate

- effective communication skills;
- understanding of the scientific method;
- an understanding of the taxonomy, natural history, and ecology of marine organisms;
- in-depth knowledge of a specific aspect of marine biology.

V. REQUIRED TEXTS AND MATERIALS:

(all should be available at www.amazon.com, or similar websites)

Abbott RT. 1968. Seashells of North America. Golden Press, NY.

Humann P, Deloach N, Wilk L. 2013. Reef Creature Identification: Florida, Caribbean, Bahamas. 3rd ed. New World Publ., Jacksonville, FL.

Humann P, Deloach N. 2002. Reef Coral Identification: Florida, Caribbean, Bahamas. 2nd ed. New World Publ., Jacksonville, FL.

Ruppert EE, Fox RS. 1988. Seashore Animals of the Southeast. University of South Carolina Press. Columbia, SC.

VI. COURSE SCHEDULE AND TOPIC OUTLINE:

14 May	Introduction, Sponges
21 May	Cnidaria
29 May	NO CLASS (Conference travel)
04 June	Annelida
11 June	Exam 1 (Final selection of written assignments)
18 June	Mollusks
25 June	Crustaceans
02 July	Echinoderms, Tunicates, etc.
09 July	Exam 2 (Final written assignments due)
16 July	NO CLASS (At sea)
23 July	NO CLASS (At sea)

Field trips:

FLORIDA KEYS – 26 June, Friday AM arrive Keys Marine Lab; 29 June, Monday AM depart. Turnpike south to its end; continue south on US 1; lab is on right at mile marker 68.5.

MARCO ISLAND – TBA (one Saturday or Sunday, depending upon tides)

BRING: Towels, personal care items, bathing suit, snorkel gear, dive gloves, insect repellent, sun screen, hats, long sleeves, wading shoes (for Marco I.), notebook, pens, pencils, skin suit or wet suit (as you prefer) to reduce scratches and stings. For the Keys field trip, you will have to bring money for the purchase of food for the duration of our stay. Marathon, FL, is about 15 miles south on US1 and has supermarkets and other stores. The lab dorm has a kitchen with cooking equipment.

Written Assignments:

You will write treatments of several local species of shallow marine invertebrates. No good detailed guide exists to the local fauna in general except basically for the texts we are using together with some more specialized literature to which you will be introduced. One of the

problems with the current general guides is that they do not include what can be important taxonomic details, e.g., crustacean mouthpart details.

Because different levels of information are available about different organisms, you have two alternatives: a shorter, more general text (6 per person), or a more detailed version (3 longer ones for the same amount of points). Or you can mix them up (e.g., 2 shorts and 2 longs; 4 shorts and 1 long), for the same point total. Most importantly, the long version is more detailed and includes references to the primary literature. I would prefer that you write long versions as they will be more useful to readers.

Before you get started, a few caveats.

- Do not use any species already treated in Ruppert & Fox unless you rewrite one of their short treatments as a long treatment with up-to-date references to the primary literature.
- The same thing goes for any other published treatment in any other field guide (such as Sea Stars, Sea Urchins and Allies). This has to be your own writing.
- You can use species from Humann, but your text has to be considerably expanded and not just lifted from his book.
- Long versions must include the most up-to-date references from the primary literature, not just other field guides or web sites.
- Discuss with me which species you want to write about before you do. I may have some modifications.
- A few species have such an extensive primary literature that we can discuss the possibility of writing one or two longer versions instead of three, depending on the species.
- Finally, the primary literature citations should focus on ecology and life histories rather than, say, "a peculiar new mucopolysaccharide from the intestine of *Turbo castanea*" unless it has some interesting applications.

VII. GRADING CRITERIA:

33.3% – Exam 1

33.3% - Exam 2

33.3% – Written assignments

VII. COURSE REQUIREMENTS AND POLICIES:

Pursuant to Nova Southeastern University policy, I will only respond to email coming from your NSU email account. I cannot respond to email sent from, e.g., hotmail, gmail, yahoo, account.

I encourage questions during lecture, and will stop lecture until you are satisfied that your question has been answered. If a conflict should arise, please come and speak with me as soon as possible. I am willing to negotiate a mutually agreeable resolution to any problems.

After lectures, a portion of class time will be devoted to examining specimens in the Modular Wet Laboratory. These specimens will remain out and available to you throughout the week and until the next examination that will cover their group. As this is largely a practical course in identification, I strongly recommend that you spend a significant amount of time getting to know them and the information provided about them.

ATTENDANCE

Attendance will be taken during every lecture. This is primarily a tool that allows me to learn your names rapidly. However, I will notice those who do not attend regularly. If you miss a lecture YOU are responsible for the material.

ACADEMIC HONESTY

In order to ensure the highest standards of academic honesty and ethical behavior, the NSU policies on cheating and plagiarism will be strictly enforced. See the NSU Student Handbook for more information at <http://www.nova.edu/cwis/studentaffairs/forms/ustudenthandbook.pdf>. I am empowered by the policy to penalize a student suspected of academic dishonesty, plagiarism, or otherwise misrepresenting work and I will do so and report that student to the Dean of the OC. Nova Southeastern University has contracted with **turnitin.com** to provide plagiarism detection services, and I will submit any suspicious documents to this service.

The use of cell phones, or any other electronic devices not specifically allowed by me, during an exam is not permitted. The use of such devices for any reason will be assumed to be for the purposes of cheating and will result in your dismissal from class and administrative action up to permanent expulsion from all NSUOC programs. If you need the phone for emergency notifications, or the like, leave the phone with me or the proctor at the start of class. You will be immediately notified if there is an incoming call.

EXPECTATIONS

You can expect that I will arrive on time for lectures and be well prepared. You can expect that I will be clear about my expectations and the criteria I use in assigning grades and that I will be fair and equitable. I will treat everyone in the class with consideration and respect.

I expect you to come to class, arrive on time, and be prepared for lecture and lab. I expect you to turn off your cell phones, pagers, and hand-held electronic devices as a gesture of reciprocal respect. If you bring a computer to class, I expect you to use it to take notes and record classroom information. I expect you to stay awake, take notes, participate in discussions and ask questions. I expect you to turn in your assignments on time and in good condition.

KEYS TO SUCCESS

In order to maximize your performance in this course, I suggest that you attend every lecture, pay close attention, take good notes, and participate in the discussion. Later, rewrite your class notes in order to ensure that you understand everything. Do not hesitate to come to me with

questions or concerns about past lecture material. For some of you, studying together in groups will be a very productive approach. Talking about the material, quizzing each other about the material, and sharing time exploring the material builds your interest and comprehension, and makes learning fun (or so I am told).

X: UNIVERSITY-WIDE POLICY STATEMENTS

A. Academic Misconduct: Academic misconduct appears in a variety of forms (including plagiarism). It is a violation of NSU academic policy and may be punished in a variety of ways, from failing the assignment and/or the entire course to academic probation, suspension or expulsion. If you have questions about what constitutes academic misconduct before handing in an assignment, see your instructor or the NSU Student Handbook at <http://www.nova.edu/cwis/studentaffairs/forms/ustudenthandbook.pdf>.

B. ADA Policy: Nova Southeastern University provides accommodations for students with documented disabilities. If you have a disability for which you believe you require accommodation, please contact Academic Services (<http://www.nova.edu/disabilityservices/>, 954-262-7189).

C. Last Day to Withdraw: It is your responsibility to formally withdraw from this course by completing the appropriate forms before the fourth week of the quarter in order to receive a partial refund (<http://www.nova.edu/ocean/coursepolicy.html>). A request for tuition refund must be made in writing at the time of withdrawal. Refunds will be made solely at the option of the university and will be based on the legitimacy of the reason for withdrawal. Should you fail to appropriately withdraw from this course, and then earn a grade below your expectations, I will do what I can to see that the grade is reported on your transcript. I will NOT backdate paperwork so that you can avoid earning a grade lower than you like.

D. Email Policy: All email communications between students and faculty must be conducted via NSU email accounts (<http://www.nova.edu/common-lib/policies/emailcomm.policy.html>). This requirement will assist NSU in communicating more effectively and protecting your privacy. Emails sent to faculty from non-NSU accounts will be returned to the sender with instructions to resend the communication from your NSU account. To set up an NSU email account or to get help with an existing account, go to https://www.nova.edu/sbin/account_request. Also, the computer help desk is available to assist you with questions regarding your NSU email account. It can be reached at 954-262-HELP (4357).

E. Student Course Evaluations: Student comment and feedback evaluating each college class is an important tool to evaluate program effectiveness. Participation in this process is a responsibility of each student.