

Nova Southeastern University  
Oceanographic Center

Course Syllabus (Winter 2016)



Last Date Revised: 9/29/2015

#### I. COURSE NUMBER: OCOR 5602

Marine Ecosystems – 3 hours

CRN 52606

#### II. Instructor

Kenneth Banks, Ph.D., P.E.

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Office Hours: Tuesdays 5:00 – 6:30pm,

#### III. Course Description

This class focuses on marine ecological processes and functions. It presents an overview of the basic concepts of marine ecology along with more detailed elements of the discipline including the diversity of marine ecosystems, trophic relationships, ecological roles, and nutrient cycling and biogeochemistry.

#### IV. Learning Outcomes

1. Review relevant concepts of the physical ocean.
2. Review basic concepts of ecology with an emphasis on those relevant to the marine environment.
3. Understanding of energy flow within a marine ecosystem and relevant processes.
4. Understanding of nutrient cycles in the ocean.
5. Understand the importance of marine microbes and microbial food chains.
6. Apply the above concepts to specific ecosystems.
7. Develop experience reviewing scientific literature and leading discussions of technical topics.

V. REQUIRED TEXT AND MATERIALS

No text is required.

Supporting texts:

Alongi DM, 1998. *Coastal Ecosystem Processes*. CRC Press LLC, 418p

Libes, SM, 2009. *Introduction to Marine Biogeochemistry*, 2nd edition. Academic Press, 909p

VI. COURSE REQUIREMENTS AND POLICIES:

1. Although this course is on-line, exams will be given live on Tuesday night at 6:30 pm. Students not able to attend will have to arrange for an alternative time with a suitable proctor, i.e. faculty or staff member at the Oceanographic Center. Remote students can make other arrangements in coordination with me. There will be no make-up exams unless exceptional conditions occur as defined in the University Student Handbook. In the case of a truly exceptional condition, PRIOR permission from your professor is required.
2. Contact your professor as soon as possible if you have an emergency that is causing you to miss an exam, or you may be unable to make up the missed work. Expect to have to document your emergency. It is University policy.
3. Any impropriety (e.g., cheating, plagiarism) on exams will constitute grounds for failing the course. If you take materials (text or figures from a source, be SURE you cite the source and if it is an exact passage, put the text in quotation marks).

VII. COURSE SCHEDULE AND TOPIC OUTLINE

Date	Lecture Topic	Reading Assignment and Discussion Leaders	Exam
	The Ocean Environment		
	Organismal Aspects Habitat Equivalency Analysis	Altman and Whitlach 2007 ..... Cullen et al. 1991 .....	
	Underlying Ecosystem Theory	Cury et al. .... Capone et al. 2001 ..... Elser et al 2007	
	Marine Ecosystems Pelagic Mesopelagic	Steinberg et al. 2008 ..... Olson 1991. .... Lipschultz et al. 2002	

	Marine Ecosystems Deepsea Sediments Submarine Hydrothermal Vents and Cold Seeps	Middleboe et al 2011..... Somero 1992.....	
		none	Mid-term
	Coastal Ecosystems Beaches and Tidal Flats	Bergamino et al. 2011..... Defeo and McLachlan 2005..... Polis and Hurd 1996	
	Coastal Ecosystems Coral Reefs	Furman and Heck 2008..... Jackson 1997..... Knowlton.....	
	Coastal Ecosystems Estuaries	Eggelston et al. 1998..... Edmiston et al. 2008..... Nixon 1982 .....	
	Coastal Ecosystems Mangroves and Salt Marshes	Kieckbusch et al. 2004 .....	
	Coastal Ecosystems Seaweeds and Seagrasses	Ellison et al. 1999 .....	
		Forqueran et al. 2001 .....	
		Allgeier et al. 2011 .....	
		none	Final

### VIII. GRADING Policy

- |                   |     |
|-------------------|-----|
| 1. Reading review | 20% |
| 2. Homework       | 15% |
| 3. Midterm Exam   | 30% |
| 4. Final Exam     | 35% |

**Readings and Discussion** – Readings are assigned most weeks and are due to be completed on the date shown on the class schedule. Students will read all of the papers assigned, even if they aren’t preparing a summary. Each student will prepare a summary of the paper assigned during the term, also shown on class schedule. A guidance document, [scientificarticlereview.original.pdf](#), can be found on Blackboard to aid in reading the paper, as well as preparing the review. Students may switch with other students by making their own arrangements and notifying professor AT LEAST one week ahead. Student summaries will be posted on the course Blackboard page.

**Homework** – Take-home assignments (number to be determined) will be given during the term. These are to be completed by the individual, rather than as a group.

**Lectures** – Lectures are presented in a Powerpoint format with narration included. There may be changes to the ppt (vs the pdf provided) used in class so it is important for the student to attend class. I may also change the ppt before the lecture is given so I advise the student not to print out the pdf too far in advance.

**Midterm and final exams** will cover the first and second halves of the course, respectively, and will include information in the assigned readings. It is important for all students to read all assignments.

Percentage	Final Grade
98-100	A+
91-97	A
90	A-
88-89	B+
81-87	B
80	B-
78-79	C+
71-77	C
70	C-
60-69	D
<60	F

#### Make-up work

1. You may reschedule an exam with a documented excuse; however, there will be no re-taking of exams.

#### IX. COLLEGE-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. For more information regarding academic misconduct policies, see the NSU Undergraduate Student Catalog (<http://undergrad.nova.edu/catalog/html/index.cfm?numContentID=220>).

- B. Writing Across the Curriculum: Each undergraduate course includes written assignments, in the language of instruction, that make up at least 25% of the final course grade. Each course contains at least eight (8) pages (approximately 2000 words or their equivalent) of writing, with faculty providing feedback on these assignments. Written assignments can include (but are not limited to) the following: essays, summaries, memos, lesson plans, journal entries, lab reports, project proposals, progress reports, case studies and project reviews.
- C. ADA Policy: Nova Southeastern University provides accommodations for students with documented disabilities. For more information regarding services and procedures for requesting accommodations visit [www.nova.edu/disabilityservices](http://www.nova.edu/disabilityservices) or call the Office of Student Disability Services at 954-262-7189.
- D. Last Day to Withdraw: In order to withdraw from a course it is not sufficient simply to stop attending class or to inform the instructor of your intention to withdraw. In accordance with college policy, contact your adviser to begin the withdrawal process. The last day for withdrawal from this course is [date]. The college calendar for all critical dates may be viewed at [<http://undergrad.nova.edu/calendars/>]
- E. Email Policy: All email communications between students and faculty must be conducted via NSU email accounts. 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 [www.nova.edu/cwis/oit/stuservices.html](http://www.nova.edu/cwis/oit/stuservices.html). 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 or 1-800-541-6682, ext. HELP (4357).
- F. 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. The university uses electronic evaluations that are completed online. It is important to the faculty and administration that students complete the online evaluation of each course. Students will be notified via NSU email accounts when the evaluation web link is opened (approximately the next-to-last week of the course). At the completion of the term and after instructors submit grades, instructors will receive an anonymous summary of the entire class's evaluation. Student names or ID numbers cannot be identified. The course evaluation website can be found here: <https://www.nova.edu/sbin/evaluations/oce-get-nsuid.cgi>.
- G. Student Responsibility for Course Prerequisites: Students are responsible to have satisfied all published prerequisites for this class. Please review the prerequisites and discuss any questions with your instructor and/or your academic adviser.
- H. Academic Services: Students are encouraged to use *the free tutoring services* offered by the Office of Academic Services (OAS). OAS provides a supportive atmosphere in which tutors and students work collaboratively on improving students' writing, math and/or science skills. For more information, please visit: <http://www.undergrad.nova.edu/AcademicServices>.