

 <p data-bbox="430 325 950 420"><b>NOVA SOUTHEASTERN UNIVERSITY</b></p> <p data-bbox="219 409 527 451"><b>Oceanographic Center</b></p>	<p data-bbox="1096 199 1323 262"><b>Course Syllabus (Winter II 2016)</b></p>
---	--

**Last Date Revised: 26 September 2015**

**I. COURSE NUMBER AND TITLE: Ecosystems Applications**

Course/section Number(s):  
OCMB-5700

Days: Thursday 6:30-9:30 PM  
Building & Room: Forman 100

**II. INSTRUCTOR:**

Dr. Amy C. Hirons  
Phone: x27972                      Email: hirons@nova.edu  
Office: Parker 389, Forman 114  
Office Hours: By appointment

**III. COURSE DESCRIPTION:**

Ecosystem Applications allows the student to collect field data from several marine ecosystems, create a database using Microsoft Excel and Access, and learn how to organize their data for analysis using the statistical package R. Students will be required to participate in one weekend trip to Pigeon Key, Florida for data collection and one half-day sampling trip aboard a boat. Students will learn how to create a study design, employ it in the field while adjusting to conditions, and prepare their data for analysis. Students will learn how to utilize a variety of instruments to collect data. Students will also visit and learn marine and scientific operations of the R/V *F.G. Walton Smith* while at dock at the University of Miami's Rosenthiel's School of Marine and Atmospheric Sciences. Students will have an understanding of how to design and undertake field collections, organize their data, and begin statistical analyses. Prerequisites: OCOR 5602 Lab fee: \$450 (\$350 PK, \$100 boat)

**IV. COURSE LEARNING OUTCOMES\*:**

At the conclusion of this course the student will be:

- Describe the research questions with testable hypotheses.
- Develop a study design and implement.

- Record and manipulate data in spreadsheets using Microsoft Excel.
- Create a database using Microsoft Access.
- Organize data for statistical analysis with software R
- Produce a presentation of proposed research design, implementation, data organization, and statistical analysis.

\*These are directly related to the Program Learning Outcomes for Marine Biology, Coastal Zone Management and Marine Environmental Science.

## V. REQUIRED TEXTS AND MATERIALS:

All materials will be provided by the instructor. No scientific diving will be required or utilized during this course. All data collection in the field will be done from boat or while snorkeling. Students will be required to have access to Microsoft software and a copy of the statistical program R (free public access).

## VI. COURSE SCHEDULE AND TOPIC OUTLINE:

Class meetings:

Thursday from 6:30 to 9:30 pm.

1-3 April (FR-SU) – Pigeon Key, FL

9 April (SA) (tentative) – Boat sampling, OC boat basin

<b>WEEK OF:</b>	<b>TOPIC</b>
28 MAR	Study design; Instrumentation
04 APR	Data collection; Spreadsheets
11 APR	Database creation; Statistical preparation
18 APR	Research presentation

### Field Trips

One full weekend (3 days, 2 nights) field trip (1-3 April) will be spent on Pigeon Key in the Florida Keys observing and recording biota and abiotic environment. Students will depart on FR afternoon with the professor and LA via University-rented vans or students may drive themselves to Marathon, and everyone will be ferried as one group to Pigeon Key and then return SU afternoon. It is the student's responsibility to arrive on time. Missing the ferry to the island constitutes missing the trip. Snorkeling is involved and gear can be rented. This is a required component of the course; no alternate field assignment can be given.

One Saturday (9 April) (tentative) will be spent collecting data from aboard a vessel. Students will meet at the boat basin. Abiotic and biotic data will be collected and viewed after return to the laboratory.

Note: This is a tentative schedule that may be changed. Students will be provided a minimum one week advance notice of any change when possible.

## VII. GRADING CRITERIA

The final average will be based on class work as follows:

1. Study design assignment	100
2. Field participation	200
3. Database creation	100
4. Research presentation	100
Total Points	500

## DESCRIPTION OF CLASS ASSIGNMENTS

1. **Study design (20% of final grade):** A study design with objectives and testable hypotheses will be written.
2. **Field participation (40% of total grade):** Students will participate in all aspects of field activities and discussion.
3. **Database creation (20% of final grade):** Each student will create a database of collected data using Access.
4. **Research presentation (20% of final grade):** Each student, as Principal Investigator, will present their research from inception through analyses as to funding agency.

Final letter grades will be based on the numerical average rounded to the nearest whole number. The grading scale is the following: >93% = A, 90-92%=A-, 87-89%=B+, 83-86%=B, 80-82%=B-, 77-79%=C+, 73-76%=C, 70-72%=C-, 67-69%=D+, 63-66%=D, 60-62%=D- and <60%=F.

## VII. COURSE REQUIREMENTS AND POLICIES:

### ATTENDANCE

As a requirement for accreditation, regular attendance is necessary. Each professor has the responsibility to enforce class attendance. To fulfill this requirement, students must have logged in, accessed, and/or interacted with the majority of online course requirements (e.g. assignment submissions, asynchronous discussion) by the first week of the session or they may be withdrawn from the course by the instructor through the Program Office. For this reason, if students anticipate or encounter any reason why they may be unable to engage with their online coursework for an extended period during a term, they must communicate this to their instructor and the Program Office as soon as possible. Students do have the option of requesting an Incomplete; if this is granted by their instructor, they then have 3-months from the end of the term date to submit the required course work as decided with the instructor. An incomplete grade agreement form must be completed and filed with the distance education office. An instructor reserves the right to request original written documentation to substantiate any such absences. A falsified excuse is cause for disciplinary action. An Incomplete course graded I must be completed in one semester or the grade is changed to F. All students are referred to the section

3.5.2. of the Oceanographic Center catalog (<http://nova.edu/ocean/forms/nsuoc-2014-2015-catalog.pdf>) for details on course withdrawals and refunds.

## 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.

## 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:** Due to the compressed nature of this course you will be able to obtain a full refund of your tuition up to **Date Changes per TERM**. There will be no refund after that

date. None of the lab fee is refundable; however you will own the airline ticket that was purchased for you. It is your responsibility to formally withdraw by completing the appropriate forms to obtain a 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](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.

#### F. Grading System

The following system is used to grade academic performance:

GRADE	DESCRIPTION
<b>A</b>	Excellent
<b>B</b>	Satisfactory
<b>C</b>	Marginal Pass
<b>D</b>	Poor
<b>F</b>	Failure
<b>W</b>	Withdrawal: Given after the third class week or termination by the instructor for non-completion of the course by the student.
<b>I</b>	Incomplete: Given when most (80 percent), but not all, work has been completed.
<b>Au</b>	Audit
<b>P</b>	Pass

Professors may use + or – in grading. **However, the grading scale ranges from A to D-, no A+ or F+ are awarded.** A grade of incomplete (I) must be requested from the instructor, have the Associate Dean’s approval, and be accompanied by a **completed contract specifying outstanding course requirements and completion dates.** Completion of the course graded incomplete must occur within one semester (or 3 months) of the end of the course and the incomplete be changed to a different grade. If the course is not completed in 3 months, or the student has not withdrawn and received a W, the incomplete will automatically be converted to a grade of F. Under unusual circumstances students may request a time-extension to complete the

course. Such requests must be submitted to, and approved by, the Associate Dean of Academic Programs prior to the end of the 3-month time limit. **There are no exceptions to this rule. Securing the completed and signed incomplete contract forms is the responsibility of the student.**