FLORIDA ATLANTIC UNIVERSITY™

Undergraduate Programs—COURSE CHANGE REQUEST[1]

UUPC APPROVAL _____
UFS APPROVAL _____
SCNS SUBMITTAL _____
CONFIRMED _____
BANNER POSTED _____
CATALOG _____

DEPARTMENT: BIOLOGICAL SCIENCE	COLLEGE: COLLEGE OF SCIENCE
COURSE PREFIX AND NUMBER: BOT 4404L	CURRENT COURSE TITLE: MARINE BOTANY LAB
CHANGE(S) ARE TO BE EFFECTIVE (LIST TERM): FALL 2013	____ TERMINATE COURSE (LIST FINAL ACTIVE TERM):

CHANGE TITLE TO:

CHANGE PREFIX FROM: TO:

CHANGE COURSE NO. FROM: TO:

CHANGE CREDITS[2] FROM: TO:

CHANGE GRADING FROM: TO:

CHANGE WAC/GORDON RULE STATUS[3]
ADD*_____ REMOVE _____

CHANGE GENERAL EDUCATION REQUIREMENTS[4]
ADD*_____ REMOVE _____

*WAC and General Education criteria must be clearly indicated in attached syllabus. For WAC Guidelines: www.fau.edu/WAC. Please attach General Education Course Approval Request: www.fau.edu/deanugstudies/GeneralEdCourseApprovalRequests.php

CHANGE DESCRIPTION TO:

CHANGE PREREQUISITES/MINIMUM GRADES TO*:

EXISTING
BSC 1010, BSC 1010L ,BSC 1011,BSC 1011L

NEW PRE/REQ.
BSC 1010,BSC 1010L, BSC 1011, BSC 1011L
CHM 2045,CHM 2045L,CHM 2046,CHM 2046L,PCB 4043

MINIMUM PASSING GRADE C-

CHANGE COREQUISITES TO*:
EXISTING: NONE
NEW: BOT 4404

CHANGE REGISTRATION CONTROLS TO:

*Please list existing and new pre/corequisites, specify AND or OR and

Attach syllabus for ANY changes to current course information.

Should the requested change(s) cause this course to overlap any other FAU courses, please list them here.	Please consult and list departments that might be affected by the change(s) and attach comments.[5]

Faculty contact, email and complete phone number:
David Binninger; binninge@fau.edu; 561.297-3323

Approved by:	*Date:*
Department Chair:	Feb. 27, 2013
College Curriculum Chair:	3/21/13
College Dean:	3/20/13
UUPC Chair:	3/22/13
Undergraduate Studies Dean:	3/27/13
UFS President:	
Provost:	

1. **Syllabus** must be attached; syllabus checklist recommended; see guidelines and checklist: www.fau.edu/academic/registrar/UUPCinfo
2. Review **Provost Memorandum: Definition of a Credit Hour** www.fau.edu/provost/files/Definition_Credit_Hour_Memo_2012.pdf
3. **WAC approval** (attach if necessary)
4. **Gen. Ed. approval** (attach if necessary)
5. **Consent** from affected departments (attach if necessary)

Email this form and syllabus to mjenning@fau.edu **seven business days before** the University Undergraduate Programs Committee meeting so that materials may be viewed on the UUPC website prior to the meeting.

FAUchange—Revised September 2012

Marine Botany Lab (BOT 4404L)
Common for all sections of this lab (CRN#80242-80243)
Fall 2013 Syllabus
2 credit hours

Meeting Dates and Times: Monday and Wednesday 9:00-10:50 in SC Room 115
Lecturer: Dr. Marguerite Koch (mkoch@fau.edu)
TAs: Kate Peach and Theresa Strazisar
TA Office Location and Contact:
Kate Peach SC 250/251 kpeach1@fau.edu, Office hours: TBA
Theresa Strazisar SC 250/251 tstraz@gmail.com, Office hours: TBA

Prerequisites: BSC 1010,BSC 1010L, BSC 1011, BSC 1011L, CHM 2045, CHM 2045L, CHM 2046, CHM2046L,PCB4043, Minimum Grade of C-
Corequistie: BOT 4404

Course Description: A review of laboratory and field techniques for research of the biology and ecology of marine plants, including algal identification and the determination of primary productivity

Objectives: This course will introduce you to quantitative as well as qualitative methodologies used by marine botanists, ecologists, and oceanographers to study marine plants. Physical and chemical aspects of the marine environment are also investigated since they influence the distribution, productivity, and ecology of marine plants. Because all scientists must be able to articulate their results, a strong emphasis is put on the scientific writing of your methods, results, and discussion of the literature. These writing skills will serve you well in the future whether you choose to go on in science or not.

The labs are divided into two major sections and follow the lecture topics:

Part one: We will study the easily overlooked but ecologically important microalgae, including phytoplankton, which are primarily suspended in the pelagic (open ocean) environment. Students will learn how to quantify chemical and physical parameters that influence phytoplankton, and which phytoplankton can also modify, e.g. dissolved gasses such as O_2. We will then look at common representatives of phytoplankton, in which students will learn some basic ways to culture algae, and investigate how nutrient limitation and grazing affects the growth of algae. We will also learn techniques to quantify phytoplankton productivity in the field, an important aspect of biological oceanography and ecosystem analysis.

Part two: We will focus on benthic macroalgae (seaweeds) and marine vascular plants (seagrass). A major component of this part is the identification of macroalgae collected during a field trip to the Florida Keys. Students will learn to make a botanical key and create an individual algal collection. We will learn field techniques for quantifying seaweed distribution and abundance. You will also learn how algae respond to consequences of climate change including ocean acidification and thermal stress.

Honor Code: Students agree to adhere to the honor code, the text of which is at(http://www.fau.edu/ctl/4.001_Code_of_Academic_Integrity.pdf

I) Microalgal Ecology/Systematics

August 20	**No Lab**
August 22	Introduce lab and Fill out all waivers
August 27	"Check Out" Snorkel Trip to Deerfield Beach
August 29	Discussion: Writing lab reports and Water Chemistry sampling Techniques for Field Trip
September 5	**Local Field Trip; Sampling and Water Chemistry**
September 10	Seawater Chemical Analyses in lab
September 12	Microalgal Group Identification Molecular & Microscopy Techniques Microalgae Worksheet
September 17	Discussion: Phytoplankton Culture Techniques Start Culture/Nutrient Experiment **(WATER CHEMISTRY LAB DUE)**
September 19	Discussion: Productivity Techniques Measure Cultures
September 24	**Local Field Trip; Phytoplankton Measuring Productivity** Measure Cultures
September 26	Productivity Calculations and Grazing Experiment Measure Cultures
October 1	Last Phytoplankton Culture Experiment Measurement and Calculations
October 3	Clean up Lab/Discussion: Herbarium/ Algal Collection Techniques/ Systematic Terminology for Field Trip **(PHYTOPLANKTON PRODUCTIVITY & GRAZING LAB DUE)**

II) Macroalgal (Seaweed) & Marine Vascular Plant Ecology/Systematics

October 6	****Saturday Field Trip to Florida Keys-Algal Collection Trip**
October 8	Using Macroalgal Keys - Identifying macroalgae & seagrass **(PHYTOPLANKTON CULTURE LAB DUE)**
October 10	Macroalgal/Seagrass Species Identification & 25 spp. Key development
October 15	Macroalgal/Seagrass Species Identification & 25 spp. Key development
October 17	Macroalgal/Seagrass Species Identification & 25 spp. Key development
October 22	Macroalgal/Seagrass Species Identification & 25 spp. Key development
October 24	Macroalgal/Seagrass Species Identification & 25 spp. Key development
October 29	Macroalgal/Seagrass Species Identification & 25 spp. Key development
October 31	Macroalgal/Seagrass Species Identification & 25 spp. Key development
November 5	Macroalgal Species Identification & 25 spp. Key development
November 7	Ocean Acidification Experiment

	Discussion: Flora and Fauna Comparison between the Marine Habitats for Field Trip
November 10	****Saturday Field Trip to the Florida Keys- Comparison of Flora and Fauna in Seagrass, Mangrove, and Reef Communities**
November 12	**NO CLASS Veterans Day**
November 14	Thermal Bleaching Experiment **(HERBARIUM PROJECT DUE)**
November 19	Acidification and Thermal Bleaching Experiment Calculations
November 21	Discussion: Quadrat/Transect Techniques, % Cover, Intertidal Zonation and Organisms ID for Field Trip
November 26	**Local Field Trip; Identify Intertidal Zonation Patterns** **(OCEAN ACIDIFICATION AND BLEACHING LAB DUE)**
November 28	Intertidal Zonation Patterns Calculations and Analyses Clean up lab **(ZONATION LAB DUE)**

Due Date for Microalgal Ecology/Systematics Labs Due by 9:00 am (no exceptions):
September 17 - Water Chemistry Lab
October 3 - Phytoplankton Productivity and Grazing Lab
October 8 - Phytoplankton Culture Experiment Lab

Due Dates for Macroalgal (Seaweed) & Marine Vascular Plant Ecology/Systematics Due by 9:00 (no exceptions):
November 14 - Macroalgae/Seagrass Herbarium and Key Project
November 26 - Ocean Acidification and Thermal Bleaching Experiment Lab
November 28 - Intertidal Zonation Patterns Lab

Grading:
Attendance & Participation (Including Fieldtrips) 10%
Worksheet/Lab Reports 60%
Macroalgae/Seagrass Herbarium Project 30%
****** Note that all field trip dates are tentative and subject to change due to unforeseen circumstances. Students will be notified in advance of changes made to the schedule so that they may make the appropriate arrangements to participate in the field trips.

Makeup Policy – All assignments (lab reports, worksheets, and herbarium project) are to be completed on time. No late submissions will be accepted. Special circumstances should be discussed with the TAs directly and accommodations will be provided according to University policy.
You are expected to be available for all the scheduled field trips. Please note that these include **two weekend field trips**. Please make arrangements ahead of time to accommodate for field trips. In the event that any field trip is cancelled, every attempt will be made to re-schedule. Do not assume that a field trip will be cancelled because rainy weather is in the forecast. You are required to participate in any re-scheduled trip as well. Please wear the proper attire to the field trips. Some field trips will require swimming, and you should be able to swim and feel comfortable snorkeling; however, special situations can be accommodated.

Marine Botany Lab (BOT 4404L) FAU Code of Academic Integrity
Florida Atlantic University
Regulation 4.001 Code of Academic Integrity
(http://www.fau.edu/ctl/4.001_Code_of_Academic_Integrity.pdf

(1) Purpose. Students at Florida Atlantic University are expected to maintain the highest ethical standards. Dishonesty is considered a serious breach of these ethical standards, because it interferes with the University mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Dishonesty is also destructive of the University community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility.

(2) Definitions. The FAU Code of Academic Integrity prohibits dishonesty and requires a faculty member, student, or staff member to notify an instructor when there is reason to believe dishonesty has occurred in a course/program requirement. The instructor must pursue any reasonable allegation, taking action where appropriate. Examples of academic dishonesty include, but are not limited to, the following:

(A) Cheating
1. The unauthorized use of notes, books, electronic devices, or other study aids while taking an examination or working on an assignment.
2. Providing unauthorized assistance to or receiving assistance from another student during an examination or while working on an assignment.
3. Having someone take an exam or complete an assignment in one's place.
4. Securing an exam, receiving an unauthorized copy of an exam, or sharing a copy of an exam.

(B) Plagiarism
1. The presentation of words from any other source or another person as one's own without proper quotation and citation.
2. Putting someone else's ideas or facts into your own words (paraphrasing) without proper citation.
3. Turning in someone else's work as one's own, including the buying and selling of term papers or assignments.
(C) Other Forms of Dishonesty
1. Falsifying or inventing information, data, or citations.
2. Failing to comply with examination regulations or failing to obey the instructions of an examination proctor.
3. Submitting the same paper or assignment, or part thereof, in more than one class without the written consent of both instructors.
4. Any other form of academic cheating, plagiarism, or dishonesty.

(3) Procedures.
(A) If the instructor determines that there is sufficient evidence to believe that a student engaged in dishonesty, the instructor will meet with the student at the earliest possible opportunity and provide notice to the student of the instructor's perception of the facts, the charges against the

student, and the sanction. The instructor may not remove the student from the course until the appeal process has come to a conclusion.
(B) If, after this meeting, the instructor continues to believe that the student engaged in dishonesty, the instructor will provide the student written notice of the charges and the penalty. A copy of this statement shall be sent to the chair of the department or director of the school/program administering the course.
(C) The student is entitled to an opportunity to be heard at a meeting with the instructor and chair/director to review and discuss the instructor's charges/statement. Such request for a meeting must be made in writing and received by the chair/director within five (5) business days of receipt of the instructor's charges/statement. The purpose of the meeting is to discuss the facts and to advise the student of the appeal process. The chair/director will provide the student, the instructor, and the dean of the college administering the course a summary of both the student's position and the instructor's position.
(D) The student may appeal in writing to the dean of the college administering the course. The dean must receive the appeal within five (5) business days of receipt of the chair/director's summary from the review meeting. The dean will convene a Faculty-Student Council ("Council"), which will be composed of the dean (or designee), two faculty members, and two students. The dean (or designee) will act as chair of the Council, direct the hearing, and maintain the minutes and all records of the appeal hearing, which will not be transcribed or recorded. The hearing is an educational activity subject to student privacy laws/regulations, and the strict rules of evidence do not apply. The student may choose to be accompanied by a single advisor, but only the student may speak on her/his own behalf. The student and instructor may present testimony and documents on his/her behalf. Additional witnesses may be permitted to speak at the dean's (or designee's) discretion and only if relevant and helpful to the Council. The Council will deliberate and make a recommendation to the dean to affirm or void the instructor's findings of academic dishonesty. The dean (or designee) will inform the student and instructor in writing of his/her findings of academic dishonesty after receipt of the Council's recommendation.
(E) The student may request an appeal in writing of the dean's findings of academic dishonesty to the University Provost (or designee) and include relevant documentation in support of such appeal. The University Provost (or designee) will notify the student, dean, and instructor of his/her decision in writing. This decision by the Provost (or designee) constitutes final University action.
(F) If there is a finding that the Code of Academic Integrity has been violated, the chair will notify the University Registrar that the following notation be included on both the student's official transcript and on the student's internal record: "Violation of Code of Academic Integrity, University Regulations 4.001." If such violation is appealed and overturned, the dean or University Provost (or their designees) will notify the University Registrar that such notation should be removed from the student's transcript and internal record.

(4) Penalties.
(A) The instructor will determine the penalty to be administered to the student in the course. Penalty grades cannot be removed by drop, withdrawal, or forgiveness policy. Students should be aware that, in some Colleges/programs, failure in a course or a finding of dishonesty may result in other penalties, including expulsion or suspension from the College/program.

(B) In the case of a first offense, the student may elect to complete a peer counseling program administered by the Division of Student Affairs by the end of the semester following the semester in which the dishonesty occurred. Upon successful completion of this program, the notation regarding violation of the Code of Academic Integrity will be expunged from the student's official transcript. The grade, however, will remain unchanged and cannot be removed by drop or forgiveness policy. Also, the notation will remain in internal University student records.
(C) In the case of a repeat offense, even if the notation of violation of the Code of Academic Integrity from the first offense had been expunged from the official transcript as a result of successful completion of the peer counseling program, the student will be expelled from the University.
Specific Authority: Article IX of the Florida Constitution, 1001.706, 1001.74 F.S., Board of Governors Regulations 1.001, 6.010, and 6.0105. History–New 10-1-75, Amended 12-17-78, 3-28-84, Formerly 6C5-4.01, Amended 11-11-87. Formerly 6C5-4.001. Amended 5-26-10.

Disability policy statement
In compliance with the Americans with Disabilities Act (ADA), students who require special accommodation due to a disability to properly execute course work must register with the Office for Students with Disabilities (OSD) -- in Boca Raton, SU 133 (561-297-3880); in Davie, MOD 1 (954-236-1222); in Jupiter, SR 117 (561-799-8585); or at the Treasure Coast, CO 128 (772-873-3305) – and follow all OSD procedures.

Religious Accommodations: Students who wish to be excused from coursework, class activities or examinations must notify the instructor in advance of their intention to participate in religious observation and request an excused absence.