

Syllabus — Marine Biology and Oceanography
OCB 3043 — Spring 2007

Tuesdays and Thursdays 9:30 – 10:45 in Classroom MS 150

Contact information: Frank J Jochem, AC-1 Room 379; Office hours: Wednesday 10:30 to 12:00 a.m. or by appointment (use preferably e-mail). Office hours are intended solely for discussion of academic issues and will not provide private teaching hours. Phone: (305) 919 5882; e-mail: frank@jochem.net (**must include OCB3043 in subject line**). Keep checking for updates at www.jochemnet.de/fiu/OCB3043.html.

Course schedule and required reading

Date	Subject Material	Reading Assignment
01/09 T	Introduction, basic terms, zonation of the oceans, history	Ch. 1
01/11 R	Physical & chemical properties of seawater, salinity	Ch. 2.3 & LN
01/16 T	Light, temperature, ocean heat budget	Ch. 2.1-2.2 & LN
01/18 R	Physics of waves & currents, major current systems	Ch. 2.6 & LN
01/23 T	Upwelling, water masses, density, pressure	Ch. 2.4-2.6 & LN
01/25 R	Phytoplankton systematics, photosynthesis	Ch. 3.1-3.3
01/30 T	Primary production; <i>Quick Quiz</i>	Ch. 3.5-3.6
02/01 R	Zooplankton systematics	Ch. 4.1-4.3
02/06 T	NO CLASS – Instructor at conference	
02/08 R	Fisheries oceanography	Ch. 6.7-6.8 & LN
02/13 T	Marine mammal ecology	Ch. 6.1-6.6 & LN
02/15 R	Ecology of zooplankton	Ch. 4.4-4.8
02/20 T	Food webs and the “microbial loop”	Ch. 5.1-5.2 & LN
02/22 R	MIDTERM EXAMINATION 1	
02/27 T	NO CLASS – Instructor at sea	
03/01 R	NO CLASS – Instructor at sea	
03/06 T	Secondary production and zooplankton activity	Ch. 5.3-5.4
03/08 R	Nitrogen, phosphorus, silicate biogeochemical cycles	Ch. 5.5 & LN
03/13 T	Carbon cycle and the marine carbonate system	Ch. 5.5 & LN
03/15 R	Nutrient uptake and competition	Ch. 3.4
03/20 T	SPRING BREAK	
03/22 R	SPRING BREAK	
03/27 T	Zonation of the benthos, seafloor, plate tectonics	Ch. 7.0 & LN
03/29 R	Macroalgae, seagrass, benthic animals	Ch. 7
04/03 T	Ecology of benthic communities and mangroves	Ch. 8. .1-8.5, 8.7
04/05 R	MIDTERM EXAMINATION 2	
04/10 T	Coral reefs	Ch. 8.6
04/12 R	Deep-sea ecology and hydrothermal vents	Ch. 8.8-8.9
04/17 T	Human impacts on the oceans	Ch. 9.0-9.2, 9.4
04/19 R	Alien species and harmful algal blooms	Ch. 9.3 & LN
04/24 T	FINAL EXAMINATION	Whole textbook & LN

Reading assignment: chapters refer to Lalli & Parsons textbook; LN = lecture notes during class.

Course description and learning outcome: This course is designed as an introduction to marine biology and biological oceanography for majors in Biology and Marine Biology. It will also introduce the basics of physical and regional oceanography and marine chemistry (nutrient chemistry and carbonate system). Since this is an upper division level course, advanced knowledge in natural sciences, particularly chemistry and physics, is expected. **Successful completion of General Biology I and II is a prerequisite.**

Course expectations: Regular class attendance is **mandatory** as is **appearance on time**. No cell phones or beepers are tolerated during class. Students are expected to have finished their reading assignment prior to each class and also are expected to utilize the online learning facilities provided by the instructor. The course will provide two mid-term exams, each counting for 25% towards the final grade, and one final exam counting for 50% towards the final grade. Missed exams will count as zero points. The second mid-term will cover materials discussed after the first mid-term exam. The final exam will be cumulative over the whole course material. **There will be absolutely no make-up exams or any other extra credits! Exams will not be curved.** So don't even think about asking. Grade scale: A: >85%, B: 75-84%, C: 65-74%, D: 55-64%, F: <55%. Last day to drop class with a DR grade is March 12, 2007. Be aware that the new, permanent grade "F-" is implemented since fall 2004.

Required Text: Carol M Lalli & Timothy Parsons // Biological Oceanography: An Introduction, 2nd edition // Butterworth-Heinemann Publishers // © 1997 // ISBN 0750633840. Additional material will be presented during the class that might require taking notes. Most important additional materials will be distributed online.

Instructor Communication: All instructor communication and announcements will be done by email and through the "News" section of the course web site. Only students' FIU email address will be used. If students do not use their FIU email account, use the easy to set up automatic mail forwarding option to the email account you are using regularly. **Students are required to maintain a functional FIU email account and to observe the "News" web page.** Emails that are returned due to "over quota" email accounts will not be re-sent. All email from students must contain "**OCB3043**" in the subject line; student emails without proper subject line and without the student's **name** will **not** be answered!

Sexual harassment policy: FIU is committed to eliminating sexual harassment. In accordance with the FIU Faculty Senate guidelines, this syllabus includes a warning that any misconduct will be reported.

Academic misconduct: FIU is committed to not tolerating any academic misconduct by students. In accordance with the FIU Faculty Senate guidelines, this syllabus includes a warning that any academic misconduct, particularly cheating in exams, will be reported and penalized.

ALWAYS STAY INFORMED !
FOR MORE INFORMATION AND UPDATES CHECK OUT THE COURSE WEB PAGE:
<http://www.jochemnet.de/fiu/OCB3043.html>