

Advanced Coral Reef Ecology - Course Syllabus

Course Number: MarS 326

Course Title: Advanced Coral Reef Ecology

Academic Semester: Spring

Academic Year: 2015/ 2016

Semester Start Date: Jan, 24, 2016

Semester End Date: May, 19, 2016

Class Schedule: Sunday-Thursday, 8am-5pm

Classroom Number: TBD

Instructor(s) Name(s): Michael Berumen

Email: michael.berumen@kaust.edu.sa

Teaching Assistant name:

Email:

Office Location: Building 2, Office 3221

Office Hours: by appointment

COURSE DESCRIPTION FROM PROGRAM GUIDE

Advanced Coral Reef Ecology: This course will cover coral reef distributions, biogeography, and ecological processes important to reefs. Basic coral anatomy and physiology will be discussed. Reef fishes and their interaction with coral communities will be highlighted, along with coral reef fisheries. Modern threats to coral reefs, including thermal bleaching, ocean acidification, and diseases of corals will be examined with particular emphasis on processes affecting the future status of reef communities. As a PhD level course, assessment of students and participation expectations will be commensurate with the level of student experience.

COMPREHENSIVE COURSE DESCRIPTION

This course will focus on several aspects of the ecology of coral reef ecosystems. This includes coverage of coral reef distributions, biogeography, and ecological processes important to reefs. Basic coral anatomy and physiology will be discussed. Reef fishes and their interaction with coral communities will be highlighted, along with coral reef fisheries. Modern threats to coral reefs, including thermal bleaching, ocean acidification, and diseases of corals will be examined with particular emphasis on processes affecting the future status

of reef communities. As a Ph.D. level course, assessment of students and participation expectations will be commensurate with the level of student experience.

GOALS AND OBJECTIVES

Students should gain a working knowledge of the current state of research in the aforementioned areas. Provided that logistic arrangements can be made, there will be an emphasis placed on developing field skills and sampling methodology. The overall objective is to provide students with some basic literacy in modern coral reef ecology.

REQUIRED KNOWLEDGE

Students from an academic program other than Marine Science must have the instructor's consent to take this course.

REFERENCE TEXTS

The Biology of Coral Reefs (Sheppard, Davy, and Pilling)

Coral Reef Fishes (Sale)

Coral Reef Guide: Red Sea (Lieske and Meyers)

Other texts as assigned by the instructor

METHOD OF EVALUATION

Percentages %	Graded content (Assignments, Oral quizzes, Projects, Midterm exam, Final Exam, Attendance and participation, etc)
30%	Class Participation: This is a graded component of the course, and includes in-class discussions and attendance, contribution of literature for the course, etc.
20%	Assignments: This includes presentations made to the class and reading assignments.

COURSE REQUIREMENTS

Assignments

The course may include assigned reading from textbooks and from primary literature; literature searches on assigned topics; presentations to the class based on readings or other research; and/or a written assignment.

Course Policies

Attendance is mandatory to all lectures. Participation is a significant component of the grade. As a block course, students are expected to be available at any time and on short notice during the block period. Any anticipated absence should be cleared with the instructor by written (email) notification as early as possible. Students with approved absences are responsible for catching up on the materials from their classmates.

Additional Information

It is strongly preferred that communications are via email. For urgent issues, the instructor may be reached by phone (number will be provided to the class).

NOTE

The instructor reserves the right to make changes to this syllabus as necessary.