

**ÁREAS MARINAS NATURALES PROTEGIDAS CON ENFOQUE GLOBAL  
MARINE RESERVES PCB 4467-C  
ADVANCED MARINE RESERVES PCB 5418-C  
A Global Learning Course- with an international collaboration  
Fall 2018**

**Instructors:**

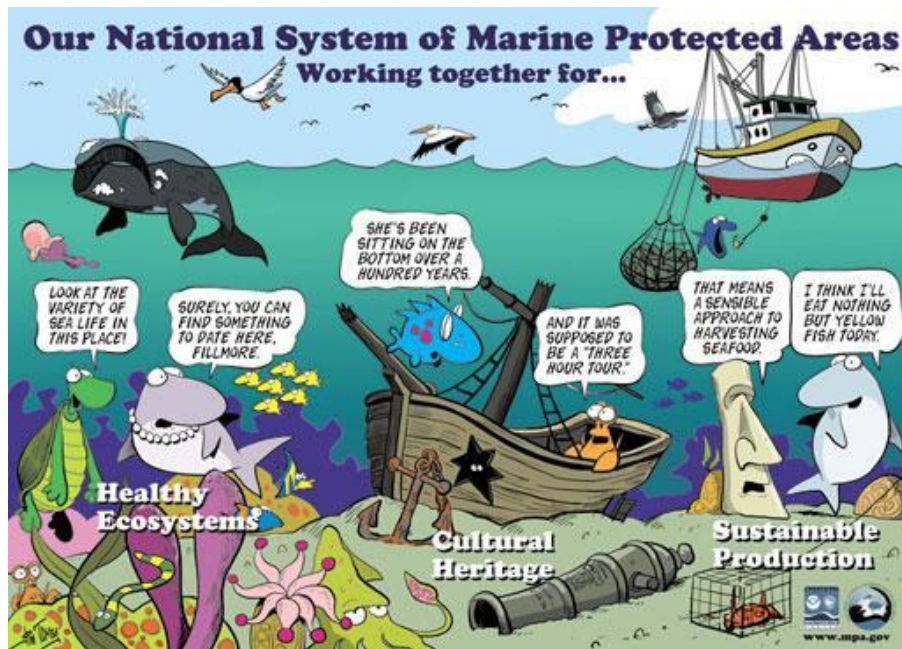
Dr. (Claudia) Ligia Collado-Vides (Florida International University)  
Dr. Ileana Ortegón-Aznar (Universidad Autónoma de Yucatán- México)

Office hours: contact via **email at [colladol@fiu.edu](mailto:colladol@fiu.edu)**

**T.A. Lowell Iporac**  
Email: [Lowell.iporac966@gmail.com](mailto:Lowell.iporac966@gmail.com)  
Office: OE 250

**Schedule**

**Semester:** August 20<sup>st</sup> – December 10<sup>th</sup>, 2018  
**Lecture:** Monday and Wednesday 9:00 to 10:15 AM **PG 5**  
**Lab:**Monday 11:00 to 13:30 **PG 5**



## **Introduction**

Coastal zones and particularly the Caribbean region are well known for their beautiful beaches and complex ecosystems. Extremely rapid tourist development, accompanied by high population growth, has modified the structure of the human and biological communities, causing significant adverse environmental impacts to our marine resources. Coastal problems are also affected by local, regional and global stressors that need to be incorporated in any analysis. Therefore, management of these resources has become a need and a challenge. The goal of establishing Marine Protected Areas (MPA) is to protect the fisheries, ecosystems, and the biodiversity of highly affected or threatened areas or species, as well as to benefit the dependent human communities and their cultural values. Knowledge of social concepts such as co-management, respect of native cultures and property rights; and biological concepts, such as connectivity, food web size and networks, demography of threatened species, and monitoring are essential for the design and management of a successful MPA. These activities are complex, and only well-trained people with global awareness and perspective will be able to handle the different challenges of the design, establishment and management of an MPA.

## **Course description**

The course employs active learning strategies to increase students' global awareness, global perspective, and attitude of global engagement. Global perspectives will be achieved through lectures and different learning strategies that will provide information on biological and sociological concepts as well as methods for the design and management of marine protected areas around the globe. In addition, this course will have an international active component with the participation of Faculty and students from universities from Mexico and Florida simultaneously. Students are expected to interact with students from Mexico and Florida as a real time experience.

## **Objectives**

Provide students with a global knowledge of biological and social methods and problems related with the management of Marine Protected Areas.

Provide students with a global perspective by analyzing multiple marines protected areas around the globe. Special emphasis will be on South Florida and Caribbean within a global context.

1. Through the study of Marine Protected Areas, students will be able to demonstrate knowledge of the interrelatedness of social concepts such as co-management, respect of native cultures and property rights; and biological concepts, such as diversity, fisheries, connectivity, food webs and coral reef networks at local, and global scales.
2. Students will be able to develop a deep analysis of a Marine Protected Area. Each study will provide a description of their MPA, and an evaluation of the

status of the selected MPA, students will analyze how active the management of the selected MPA is; they will detect gaps and strengths of that their particular Marine Protected Area and if it worth the label of an MPA.

3. Students will be able to participate in a town hall meeting to solve real problems faced by Marine reserves. Students will be able to demonstrate their willingness to engage in local problem solving and interact with different cultural sectors.

### **COIL Unit Student Learning Objectives**

After having taken part in this COIL course, you will be able to describe how local problems share common features (environmental, social, cultural...) with other places around the world -- especially among countries in the Great Caribbean where you can find many local and regional similarities from a nature perspective and many dissimilarities from a human perspective.

You will achieve the above learning overarching goal by integrating the below particular learning objectives into your experience in this course.

#### Learning Objectives

a- You will be able to analyze how humans and nature are interconnected, including how the health of nature and the health of humans are interconnected and codependent.

Students will learn these concepts through Lectures- (Introductory lectures where we address the very reason of marine protected areas). They will be evaluated with exam questions in midterm 1 and final exam. Specific questions will be developed to evaluate their understanding of this concept.

b- You will be able to explain the interconnectedness of natural processes at local and global scales (i.e. what happens at your local scale affects the global scale and *vice-versa*):

Students will learn this concept with the analysis of connectivity, dispersal and MPA networks in lectures and a reading with its corresponding week essay. Students will be evaluated with specific questions in the midterm exam 1, and with the evaluation of the essay-prep-assignment corresponding to that class.

c- You will be able to collaborate successfully with people from different parts of the world (based on culture, religion etc...) who may address problems differently and arrive at solutions in similar or different ways.

Students will participate in a Townhall meeting where they will have to come to a common solution to an international problem with regional and local consequences. Students will be evaluated based on their preparedness to conduct their role, and by their participation following a designed rubric (do they had good

hard data, did they participate, did they come with creative alternatives, were they open to compromise). In addition, students will be invited to reflect about this exercise asking the following questions:

- a. How participating in this exercise changed your perception towards the value of diversity of backgrounds in the finding of solutions to different problems?
- b. Do you think that working alone would allow you to come with a better solution?
- c. How participating in this exercise brought a self-awareness about how you approach problems?

Why do students in Miami and Merida should care about how MPA are run in each counterpart.

**This course has a lecture and laboratory sections which are very close related. The laboratory is mandatory in this class.**

**Lecture section will count for 40% of your grade, the laboratory section will count for 60% of your grade.**

### **Lecture section**

Through lectures, guest speakers, readings and discussions in class students will get acquainted with MPAs' from different countries and cultures. Through the analysis of particular cases students will learn about the importance of stakeholders' perspectives about marine resources and the consequences on management strategies set in different MPAs'.

#### **Logistics: PLEASE READ THIS IS VERY IMPORTANT**

**Class dynamics:** Preparatory assignments, lectures, and exams will be the activities that will characterize this class. All of them will have a value in your final grade.

Detailed description of each activity:

#### **Preparatory assignment: 10% of your final grade**

Each class you will be assigned a preparatory assignment to be returned via Turnitin on Mondays before the class starts. You will have to write a short essay responding specific questions that will guide you to the topic that will be addressed that week. Your assignment will have a 1 or 0 values depending if you follow the instruction and do not copy paste materials. If your plagiarism level is above 15 % you will get a 0. Remember this is a learning activity that will increase your performance in class and exams.

To avoid excessive matching please do not quote sources – generate and demonstrate your understanding by explaining in your own words – and do not paste the original questions from the assignment into the document you submit. If pasting in the original questions helps you to organize your work, that is fine, but be sure to delete them before you turn it in. All Turnitin assignments will be set up

to allow you to check your own originality report, so please do this before the assignment is due to make sure that no inadvertent plagiarism has slipped into your work. If you are using software designed to overcome Turnitin's ability to detect plagiarism, and our internal system detects it, you will be directed to the University authorities for cheating. PLEASE use this opportunity for learning. It is your time, your career, your future.

**Instructions for your preparatory assignment essay:** *(Read carefully, following instructions properly will result in a 1, as long as you have a good content. But if you have a good content but NOT FOLLOWING directions properly, you will get a 0).*

Your essay MUST be one full page with normal margins (1x1x1x1)

1) No name, no title

2 Single space

3) Font type Arial 12

4) One single return between questions. No more than that. Each question should be addressed without spaces.

Questions will be provided by instructor one week ahead of the class. Can be based on a paper you will have to read, or a video, or just a series of questions that you will need to find information to answer them.

Exams: **30% of your final grade** (Two mid-term exams 7.5% each, Final Exam 15%). Exams will be a mix of multiple choice, true and false, and short answers.

## **Laboratory section**

Students are expected to conduct an independent research project of a protected area assigned to your group (see below description of project). Students will practice case study analysis including town-hall simulation meetings; students will participate in field trips to local marine protected areas, and present their project results in lab sessions.

### **Detailed description of the lab projects:**

#### **Marine Protected Area Evaluation and Improvement**

An existing Marine Protected Area will be assigned to your group, you will need to write an essay and create a power-point presentation on the MPA. The objective of the presentation is to introduce the audience to the MPA (already established), to provide us with all the necessary background information (names, location, size, objective of the reserve, legal status, category) and to provide an analysis of the status of the MPA (i.e., is there a management plan in place? Is there a monitoring

program in place? Is there evidence that the MPA is working? What are the main challenges to its management? You will be guided along the semester to build up this project.). **Remember you need to have a global, regional and local perspective.** You will need to analyze what is working and what is not working in your assigned MPA and need to propose strategies that can improve its management. You will return an essay and will prepare a PPT presentation for the class. Depending on which university you are registered, your project has to be submitted following your instructor directions. **Deadline to submit your essay is November 28<sup>th</sup>, 2018 by 5:00 PM.** Be sure to submit it before that time. Avoid problems with the system. **NO EXCUSES WILL BE ACCEPTED.** If you procrastinate and wait until last minute to submit and the system crashes, you will not be able to submit it again.

Please see Laboratory schedule for details and grading of this section

**ALL STUDENTS GRAD AND UNDERGRAD WILL PRESENT THEIR WH PROJECT AS A PPT during lab session.**

### **Lab section Essay (Final semester group research project)**

**Due DATE : November 28<sup>th</sup>, 2018**

Paper Guidelines:

- Minimum **8 pages for undergraduate (Max 10)**, and **15 pages for graduate** of double-spaced text. In addition figures, maps & tables as needed
- Must include a minimum reference list of 10 citations, all 10 must be scientific papers. You may use websites but they do not count for the MINIMUM of 10 peer review papers.
- Please number pages & use 12-point font, Times New Roman
- Your paper must be submitted to turnitin.com for an authenticity check before it will be graded. If any of the paper is **plagiarized**, you will get a 0 for the assignment and you will fail the class. REMEMBER: You must cite and paraphrase all work appropriately, otherwise its plagiarism (= *the wrongful appropriation and publication as one's own, of the ideas or the expression of the ideas of another*).
  - You will submit your paper via Canvas using the Turnitin tool.
  - Your paper must be posted by the due date, **November 28<sup>th</sup> by 5 PM.** Within 30 minutes of submission you will be able to see the same originality report that the instructors will see. You are encouraged to submit your paper early and ensure you are not paraphrasing, use your own ideas. Analyze your essay before you submit your final version. You must ask the instructor to delete earlier versions before you submit your final version. **Use Turnitin as a tool that will help you improve your manuscript.**
- The course will be evaluated based on lecture and lab activities.

- Grade scale: A: 90-100%, B: 80-89%, C: 70-79 D: 60-69%, F:<60%.

**Grading 100 %**

**Lecture (40 %)**

- Preparatory assignment: 10%
- Exams: 30%

**Lab (60 %)**

- Group activities in-class: 25 % (Guided activities addressing biological distribution and trophic interactions of protected species, town hall meetings, monitoring, zonation, legal aspects, of MPA)
- Group activities outside of classroom: 5% (Interview exercise, field trips)
- Group MPA study case presentation and written report: 30%

**Textbook**

**Required textbook:**

Marine Protected Areas: tools for sustaining ocean ecosystems. National Academy Press. Washington D.C. 2001. 272 p. ISBN: 0-309-07286-7. **Provided by instructor you do not need to buy it.**

**Complementary books:**

Salm, R. V., J. R. Clark and E. Siirila. 2000. Marine and coastal protected areas. A guide for planners and managers. Third Edition. IUCN. Washington D.C. xxi: 371 p.

Castro, P. and M. Huber. (7<sup>th</sup>-9<sup>th</sup> editions). Marine Biology. McGraw-Hill Publishing Company. ISBN 978-0073524207.

Speight, M. and P. Henderson. 2010. Marine Ecology. Concepts and applications. Wiley-Blackwell. 276 p. ISBN 978-1-4051-2699-1 (hardcover) or ISBN 978-1-4443-3545-3 (pbk).

**There will be absolutely no make-up exams or any other extra credits! Exams will not be curved.**

**Successful completion of General Biology I and II is a prerequisite.**

**Course expectations:** Regular class attendance is **mandatory** as is **appearance on time.**

**PLEASE BE RESPECTFUL WITH YOURSELF, PROFESSOR AND PEERS**

**Instructors Communication:** All instructor communication and announcements will be done by email and through the blackboard 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 “**PCB 4467C, or PCB 5418C**” or “MPA course”, or “Marine Reserves course” 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  
CANVAS SITE**