

Windward Community College
Special Topic Course Proposal

Special Topic Courses are applicable for timely issues or unique subject matter that may not be appropriate for inclusion in the course catalog, such courses will be offered only one time or infrequently.

This Course is Proposed for:

Semester and Year:

Fall **Due by January 1**
Spring **Due by August 1**
Summer **Due by December 1**

Course Information:

Alpha Number Credits

Title

Has the special topic course been offered previously (This information is necessary to determine repeat/grades/credits.)?

Yes: No:

Previous course number and term:

Justification for this course to be designated as a special topics course.

OCN 196 is an experiential marine science research course. It is most appropriate as a special topics course as it is focused on active, place-based learning and novel team research. Each year, the course content modifies based on new curricula developed in collaboration with HIMB research.

Attach a course syllabus. Syllabus requirements and template are found at https://windward.hawaii.edu/Academic_Affairs/Syllabi/ and pre-requisite formatting is found at <http://bit.ly/prereqformatguide>.

Requested by:	Malia Rivera 	05/31/18
	Instructor (Print name and sign)	Date
Approved by:		05/31/18
	Department Chair (Print name and sign)	Date
		6/1/18
	Dean	Date
		6/1/18
	Vice Chancellor	Date

Digitally signed by David A. Krupp
DN: cn=David A. Krupp, o=Windward Community College,
ou=Natural Sciences, email=krupp@hawaii.edu, c=US
Date: 2018.05.31 13:51:25 -10'00'



UNIVERSITY of HAWAII
WINDWARD
 COMMUNITY COLLEGE

M-F (9-1145am)

OCN 196, Research Experiences in Marine Science
 3 credits (CRN XXXXXX)

~~M-F: 8:30 AM - 2:30 PM, June 15 - July 20, 2018~~

~~M-F 9-12~~

July 2 - July 29, 2018

INSTRUCTORS: Malia Rivera and Mackenzie Manning

OFFICE:

OFFICE HOURS (times students may drop in for help):

TELEPHONE: (808) 235-9301; 754-7920

Instructor of Record

EMAIL: maliar@hawaii.edu;
mmanning@hawaii.edu

EFFECTIVE DATE: Summer 2018

WINDWARD COMMUNITY COLLEGE MISSION STATEMENT

Windward Community College offers innovative programs in the arts and sciences and opportunities to gain knowledge and understanding of Hawai'i and its unique heritage. With a special commitment to support the access and educational needs of Native Hawaiians, we provide the Ko'olau region of O'ahu and beyond with liberal arts, career and lifelong learning in a supportive and challenging environment — inspiring students to excellence.

CATALOG DESCRIPTION

This course will investigate how human impacts and global change affect coral reef ecosystems. Course content broadly includes topics in coral ecology, biodiversity, ocean chemistry, invertebrate fertilization and development, animal behavior, bioacoustics, and microbiology. Emphasis is placed on marine conservation, stewardship, and sustainability. Scientific content is taught within the Hawaiian cultural framework as it relates to Kāne'ōhe Bay's ecosystems.

STUDENT LEARNING OUTCOMES

As a result of taking this course, students can expect to attain the following outcomes:

1. Describe the major elements of a typical Hawai'i shallow water coral reef ecosystem.
2. Analyze different environmental challenges to Hawai'i's coastal habitats and some of the current research that seeks to address these issues.
3. Describe basic techniques currently used in (marine) science investigations.
4. Investigate a research question, propose a hypothesis, design an experiment, collect data, and analyze and interpret results using the scientific method
5. Communicate scientific research in both written and oral formats appropriate in professional settings.

COURSE CONTENT

Concepts or Topics

- Coral ecology
- Biodiversity
- Ocean chemistry
- Invertebrate fertilizaion and development
- Animal behavior
- Bioacoustics
- Microbiology

COURSE TASKS

Over the first two weeks of the course, class time will be split between short lectures, researcher guest lectures, quizzes, fieldtrips, and numerous investigative sessions both in the field and in the lab. It is vital that students regularly attend class and do the reading assignments before coming to class. The remaining three weeks of the program will be devoted to students developing novel team research questions related to the marine science topics covered during the first two weeks, followed by design, execution, analysis, reporting and oral presentation of results at an organized course 'symposium'.

ASSESSMENT TASKS AND GRADING

- 25% In-class quizzes
- 25% Participation in lab and field exercises
- 50% Group project, including written report and final presentation

ADDITIONAL INFORMATION

Attendance and Participation Policy

(taken from http://www2.suffolk.edu/files/CTE/sample_attendance_policies.pdf):

“Attendance and punctuality are basic requirements for an effective discussion and team based course. Beyond that, each person's frequency and quality of contribution to the class discussion will be assessed and reflected in the class participation score. If you cannot attend a class it is a courtesy to inform your group or team members and your professor in advance if possible.

Bear in mind you are now in a professional school, and a member of a learning community. Thus you are expected to comport yourself as a professional person. For instance, be on time for class, do not leave the class while it is in progress for other than emergencies, turn off cell phones and personal computers, be respectful of others' viewpoints even if you disagree with them, and dress appropriately for a professional activity.”

Dress code

The nature of scientific work and the university setting at the Hawai'i Institute of Marine Biology requires standards of attire for professionalism and/or safety reasons. HIMB REMS expects students to appear and dress in a professional manner. Shirts and shorts should be suitable and provide adequate coverage of the body, not be overly revealing or tight fitting, and

be free of any potentially offensive or violent language or images. Footwear must be worn at all times, and sunglasses are not permitted to be worn while in the classroom laboratory. In water activities require program issued rash guards to be worn and board shorts for all participants. Wading in the water or intertidal requires tabi or reef walkers, and mask, snorkel and fins should be worn during all in-water activities.

DISABILITIES ACCOMMODATIONS

If you have a physical, sensory, health, cognitive, or mental health disability that could limit your ability to fully participate in this class, you are encouraged to contact the Disability Specialist Counselor to discuss reasonable accommodations that will help you succeed in this class. Ann Lemke can be reached at 235-7448, lemke@hawaii.edu, or you may stop by Hale 'Ākoakoa 213 for more information.

TITLE IX

Title IX prohibits discrimination on the basis of sex in education programs and activities that receive federal financial assistance. Specifically, Title IX prohibits sex discrimination; sexual harassment and gender-based harassment, including harassment based on actual or perceived sex, gender, sexual orientation, gender identity, or gender expression; sexual assault; sexual exploitation; domestic violence; dating violence; and stalking. For more information regarding your rights under Title IX, please visit: https://windward.hawaii.edu/Title_IX/.

Windward Community College is committed to the pursuit of equal education. If you or someone you know has experienced sex discrimination or gender-based violence, Windward CC has resources to support you. To speak with someone confidentially, contact Karla Silva-Park, Mental Health Counselor, at 808-235- 7468 or karlas@hawaii.edu or Kaahu Alo, Designated Confidential Advocate for Students, at 808-235- 7354 or kaahualo@hawaii.edu. To make a formal report, contact the Title IX Coordinator at 808-235-7393 or wccitix@hawaii.edu.

ACADEMIC INTEGRITY

Work submitted by a student must be the student's own work. The work of others should be explicitly marked, such as through use of quotes or summarizing with reference to the original author.

Students can upload papers to <http://www.TurnItIn.com> to have papers checked for authenticity, highlighting where the paper potentially fails to appropriately reference sources.

In this class, students who commit academic dishonesty, cheating or plagiarism will have the following consequence(s):

Students will receive a failing grade for plagiarized assignments.

All cases of academic dishonesty are referred to the Vice Chancellor for Student Affairs.

ALTERNATE CONTACT INFORMATION

If you are unable to contact the instructor, have questions that your instructor cannot answer, or for any other issues, please contact the Academic Affairs Office:

Location: Alakai 121

Phone: 808-235-7422

Email: wccaa@hawaii.edu

Windward Community College is an equal opportunity, affirmative action institution.

TENTATIVE COURSE SCHEDULE: CONTENT SUBJECT TO CHANGE EACH SESSION

WEEK 1				
Date	Day	Activity	Quizzes	Homework
15-June	Fri	Welcome to HIMB: intros, tour, program overview, pre-SALG, completing forms and registration		Pack swim clothes and change of clothes
18-June	Mon	Lecture 1: Reef etiquette and reef organisms ID Field: swim/snorkel assessment; get to know the reef snorkel		Read Marine Microbiology handout; Pack for walking in water and change of clothes/towel
19-June	Tues	Lecture 2: Marine Microbiology Field: Water sample and sponge collection Lab: Marine Microbiology	Pre quiz 1: Marine Microbiology	Read Ocean Acidification handout
20-June	Wed	Lecture 3: Ocean Acidification Lab: Ocean Acidification	Pre quiz 2: Ocean Acidification	Read Sea Urchin Handout
21-June	Thur	Lecture 4: Sea urchin fertilization Lab: Sea urchin fertilization	Pre Quiz 3: Sea urchin fertilization	Read Biodiversity handout; Pack for walking in water and change of clothes/towel
22-June	Fri	Lecture: Biodiversity and ARMS Field: ARMS collection Lab: Biodiversity and ARMS	Pre quiz 4: Biodiversity	Read Reef Ecology Handout
WEEK 2				
Date	Day	Activity	Quizzes	Homework
25-June	Mon	Lecture 5: Coral Reef Ecology Field: Practice transect and photoquadrats Lab: CoralNet	Pre quiz 5: Reef Ecology	Pack swim clothes and change of clothes; Read Abstract and Intro of Crab paper and answer worksheet questions

WEEK 2 (con't)				
Date	Day	Activity	Quizzes	Homework
26-June	Tues	Morning Discussion/Homework check: Crab Paper: Abstract and Intro Field: Coral Reef Transects Lab: CoralNet	Post Quiz 1: Marine Microbiology	Read Marine Bioacoustics Handout; Read Materials and Methods of Crab paper and answer worksheet questions
27-June	Wed	Morning Discussion/Homework check: Crab Paper: Materials and Methods Lecture 6: Marine bioacoustics and behavior Lab: Marine bioacoustics and behavior	Post Quiz 2: Ocean Acidification Pre Quiz 6: Marine Bioacoustics	Read Results and Discussion of Crab Paper and answer worksheet questions
28-June	Thur	Morning Discussion/Homework check: Crab Paper: Results and Discussion Lecture 7: Scientific method Project group assignments and Project brainstorming: Development of question, hypothesis, prediction Begin experimental design for project	Post Quiz 3: Sea urchin fertilization Pre Quiz 7: Scientific Method	
29-June	Fri	Team project execution and field data collection	Post Quiz 4: Biodiversity	
WEEK 3				
Date	Day	Activity	Quizzes	Homework
02-July	Mon	Team project execution and field data collection	Post Quiz 5: Reef Ecology	Pack swim clothes and change of clothes as needed
03-July	Tues			
04-July	Wed	FOURTH OF JULY HOLIDAY		
05-July	Thur	Team project execution and field data collection	Post Quiz 6: Marine Bioacoustics	Pack swim clothes and change of clothes as needed
06-July	Fri		Post Quiz 7: Scientific Method	(Optional) Bring laptop/tablet (career day)

WEEK 4				
Date	Day	Activity	Quizzes	Homework
09- July	Mon	Team Project Data Analysis; Workshop: Career assessment, Scholarships discussion		Kulia Careers and Interests surveys
10- July	Tues	Data analysis		Pack swim clothes and change of clothes as needed
11- July	Wed			pack a copy of your resume
12- July	Thur			
13- July	Fri	Data analysis; Professional Development Workshop		
WEEK 5				
Date	Day	Activity	Quizzes	Homework
16- July	Mon	Guidance regarding preparation of final report and ppt presentation (scientific writing format, literature research, scientific presentation format)		Practice group talk; Revise final paper
17- July	Tues	1st round of practice talks, and revisions		
18- July	Wed	2nd round of practice talks; revisions as needed		
19- July	Thur	3rd round of practice talks; break-out group sessions and symposium dry run, revisions as needed		
20- July	Fri	Final Symposium: Oral Presentations and Final Paper		