

MARS6910-1: CURRENT TOPICS IN MARINE SCIENCE

http://www.pelagicos.net/classes_current_topics_sp18.htm

HAWAII PACIFIC UNIVERSITY
OCEANIC INSTITUTE CAMPUS
SPRING SEMESTER, 2018

TIME: ----- 10:45 – 11:45
DAY: ----- Thursday (R)
ROOM: ----- HLC, AC 210

INSTRUCTOR:

David Hyrenbach, Ph.D.
Phone: 808-236-3563
Email: khyrenbach@hpu.edu
Office: CTSA Building #1, at Oceanic Institute

OFFICE HOURS:

Mon (HLC 2nd floor lanai) 11:00 – 13:00
Weds (HLC 2nd floor lanai) 12:00 – 14:00
Other days and times, by appointment
(www.pelagicos.net/images/office_map.JPG)

SEMINAR TOPIC: Multivariate Statistics in R

TEXT: We will use articles from the scientific literature and book chapters, selected by the students.

CREDITS: 1 (Pass / Fail)

PRE-REQUISITES: Enrollment in the Marine Science Graduate Program or permission of the instructor.

COURSE DESCRIPTION: This is a graduate seminar course for students in the MSMS program. Current topics seminars are designed to expose graduate students to new developments and discoveries in Marine Science by taking advantage of seminars and other educational opportunities inside and outside HPU. While this flexible structure may vary with instructor and topic, most will be structured as seminar courses. Students will be assigned readings in the current literature of the course topic and required to critique the readings and relate the materials to their own research or the instructor's area of expertise.

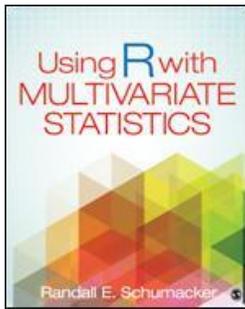
This course focuses on the importance of critically reading, understanding, and discussing the original scientific literature. Furthermore, the students will gain an overview of the history, developments, and future directions of the application of marine spatial planning for conservation and resource management.

Class meetings will be devoted to discussing papers from the original ecological literature (journal articles and book chapters). Students will take turns leading these group discussions and facilitating the critical evaluation of the readings. The number of class presentations and readings will be dictated by the enrollment in the class. Specific readings will be selected together by the students and the instructor.

SEMINAR TOPIC:

This seminar will explore multivariate methods in the R environment by: (i) implementing the specific analyses discussed in the MARS 6300 course using R, and (ii) exploring the various multivariate statistical packages available through R.

TEXT: We will use this textbook as a reference:



Using R With Multivariate Statistics

Randall E. Schumacker - University of Alabama, Tuscaloosa, USA

Augmented with pdfs of scientific articles.

Student Learning Outcomes: By the end of this course students are expected to:

- Read and relate information verbally from papers published in the scientific literature. Students will verbally present assigned papers to the class with following a scientific seminar environment. Presentations will include a synopsis of background materials, statement and explanation of the underlying assumptions, descriptions of methods, explanation and critical analysis of results, and synopsis and critical analysis of conclusions.
- Critically evaluate and discuss assigned papers from the scientific literature. Following seminar presentations of papers, the class will discuss the appropriateness of methods, data analysis, data presentation, and conclusions, and the implications of the research for marine protected area concepts and resource management and conservation in the open ocean.
- Find relevant published information from a variety of printed and electronic sources. Students will augment the readings suggested by the instructor with additional materials of their choosing.

GRADING: This seminar will be graded on a Pass / Fail basis. 80% of points are required to pass (deemed a satisfactory performance level for graduate students).

Grades are based on the following criteria:

Class presentations	30% (2 presentations; up to 15 points each)
Class participation	70% (14 meetings; up to 5 points each)

Participation points will be evaluated on the basis of your effort and commitment to learning. Evidence of this includes promptness and attendance in class, participating in discussions (and showing evidence of having carefully done the assigned readings) and seeking extra help when needed. Students are expected to read any assigned papers and book chapters prior to coming to class. Failure to do so will lead to the loss of your participation points for the class meeting.

Absence due to documented medical emergencies (showing a note from your physician indicating that you are too ill to attend classes) will be partially (no points for participation) excused if you complete a make-up assignment (lead an additional paper discussion). Students with more than four absences, documented or undocumented, will be dropped from the course.

OTHER CLASS AND UNIVERSITY POLICIES:

Late Work: Late work will result in a lowering of grade of 5% per day (or fraction thereof).

Academic Honesty:

Students are expected to comply with HPU's academic honesty policies and are furthermore required to internalize the principles of scientific integrity. In particular, it is academically dishonest to **plagiarize** (i.e., to pass off someone else's intellectual work as your own). Directly quoting others, even with proper attribution of the source, is never done in scientific writing, so **there are no circumstances in which including someone else's writing in your papers will be acceptable in this course.**

All students are expected to comply with HPU's academic honesty policies. Any infringement can result in a grade of "F" for the course. Furthermore, students are required to understand the reasons for this policy and internalize the principles of scientific integrity. All students will follow these guidelines:

- It is academically dishonest to try to pass off someone else's intellectual work as your own, or to help someone else to do so.
- All research results must be documented with laboratory notebooks, computer files of raw data and/or instrumental printouts.
- All work must be original.
- Data analysis and results must be accompanied by clear and accurate descriptions of the methods; the results of others must be clearly identified and the appropriate sources must be cited.
- If you use published materials (for facts, statements, images, data, etc.) in completing an assignment, credit must be given by citing the source – failure to properly cite sources is considered plagiarism.
- Directly quoting others is not acceptable in scientific writing. Thus, there are no circumstances in which including someone else's writing in your papers is permissible.

For more information on what constitutes plagiarism, see the links in Campus Pipeline, under the Libraries folder. Another excellent site describing how to avoid committing plagiarism can be found at Purdue University's Online Writing Lab: http://owl.english.purdue.edu/handouts/research/r_plagiar.html

Hawaii Pacific University provides a learning environment based upon academic excellence and integrity. In this course, it is expected that you will adhere to all Hawaii Pacific University guidelines regarding academic dishonesty. It is Hawaii Pacific University policy that any act of Academic Dishonesty will incur a penalty up to and including expulsion from the University. Any student who cheats on an academic exercise, lends unauthorized assistance to others, or who hands in a completed assignment that is not his or her work will be sanctioned. The term "academic exercise" includes all forms of work submitted for points, grade, or credit. Please see the Student Handbook for the full policy.

If you copy another student's assignment or use their homework or test to guide your work, each will receive a grade of "0" for that assignment and may receive an automatic "F" for the course. Any single occurrence of academic dishonesty in any form whatsoever may result in a grade of "FD" for the course. The grade of "FD" represents an "F" for academic dishonesty and it will remain a permanent part of your academic record, and is not subject to HPU's normal retake policy. Depending on the severity of the case, a single event of academic dishonesty, in any form whatsoever, may result in either a zero on the assignment for everybody involved, an "F" in the course, or expulsion from the University.

If you unclear on what is and what is not plagiarism, please discuss it with me. All major writing assignments will be analyzed at Turnitin.com. For homework problems and any other take-home assignment, students may work with each other but must turn in their own answers to assigned problems. For additional information on plagiarism see the links in Campus Pipeline under the Libraries folder. Another excellent site explaining plagiarism (and how to avoid committing it) can be found at the Council of Writing Program Administrators website: <http://www.wpacouncil.org/node/9>

Special Needs Policy:

Under the Rehabilitation Act of 1973 (Section 504), the Americans with Disabilities Act, Title III (Public Accommodations) and Title V (Employment), and the Hawai'i Fair Employment Practice Law, Hawai'i Pacific University does not discriminate against individuals with disabilities. HPU will make reasonable accommodations in its policies, practices and procedures in order to: 1) allow students with disabilities to benefit from the services and facilities offered by the University and 2) employ otherwise qualified individuals with disabilities who are able to do essential tasks of specific jobs. HPU will accommodate known disabilities, unless to do so would impose an undue hardship. This is interpreted to mean significant difficulty (fundamentally altering the nature of the services and facilities provided by the University) or expense.

Note:

Any student with a documented disability who would like to request accommodations should contact the University Disability Services Office (933-0816 (V), 933-3334 (TTY), Campus Center Room 311) as early in the semester as possible.

Counseling and Behavioral Health Services:

The Counseling and Behavioral Health Services (CBHS) department provides FREE and CONFIDENTIAL counseling services to current registered HPU students including the following counseling services: individual; couples; family; crisis Intervention; consultation services for students, parents, faculty and staff; grief and loss. To schedule an appointment or for more information, please contact the Academic Advising & Behavioral Health office at either of the following: DOWNTOWN (808) 544-1198 or HAWAII LOA (808) 236-3578. The CBHS department can also be reached by email at: counseling@hpu.edu. They are unable to take appointments online or through email. All appointments must be scheduled by calling the numbers listed above. If this is an emergency, please call 911 or go to the nearest emergency room or hospital.