ENV 201 - Conservation Biology and Ecology

Summer 2017

Instructor:	Mindy McDermott, PhD
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Office Hours:	By appointment or via email
Course Location:	Henry Hall, Lab 4, Chaminade University
Course Meeting Times:	MW: 2:00-5:10PM

Required textbook: Withgott, J. and Brennan, S. 2011Environment: The Science behind the Stories, 5th edition. Pearson Benjamin Cummings.

ENV 201: An introduction to conservation biology issues and goals and the principles of ecology. The course includes consideration of the impacts of human activity on ecosystems and our efforts to ameliorate destructive impacts. Major topics include the effects of industrialization, agriculture, pollution, species introduction, and human population growth on the health and future sustainability of ecosystems and humans alike. Particular emphasis is placed on island ecosystems.

Welcome. This course is an introduction to Environmental Science and the study of our relationship to the natural environment. We will study environmental issues related to conservation and ecology. We will also study different resource management strategies that will include information from both the natural sciences (i.e. biology, physics, chemistry, etc.) and the social sciences (i.e. economics, politics, ethics, etc.). An aim of this course is to gain an understanding of human impact on the environment and how it has changed as civilization has evolved. In this course we will define practical applications in preserving biodiversity, protecting landscapes, sustainable resources, and the actions that must be taken to ensure our environment can continue to support us. We will also explore the impact of cultural beliefs and ethics behind decisions related to policy making and a sustainable future.

Learning Outcomes. On completion of this course, students will be able to:

- 1. Apply the scientific method to design/conduct experiments and to understand how it is used to gain knowledge.
- 2. Understand the complex relationships between all living things and their non-living environment.
- 3. Examine the past and present human relationship with the environment and the possible impact of these relationships in our future.
- 4. Identify the environmental issues facing us today and present some solutions to these problems.
- 5. Utilize enhanced knowledge and awareness of environmental problems to enable more informed political and economic decisions.
- 6. Communicate knowledge, both orally and in writing, of environmental concerns, impact upon society, and possible solutions.

Course Website.

Chaminade University uses the on-line Canvas platform. The Canvas link can be found on the Chaminade University homepage: www.chaminade.edu. There you will find media including copies of any lecture slides used in the course, links to readings and other materials, and additional information to support the learning process.

Lectures.

- 1. Lecture topics and text assignments are listed in the course outline.
- 2. Examination dates are also listed in the course outline.
- 3. The instructor reserves the right to add, omit, or change the materials as needed.

Course Assessment.

- 1. <u>Quizzes:</u> The quizzes will be given every week, unless an exam is scheduled, and cover lecture material.
- 2. <u>Exams</u>: Exams will cover lecture material and consist of a combination of true/false, multiple choice, matching, draw and label, short answer, and essay. Exams cover material from your readings, from any media presented, and from our lectures and discussions.
- 3. <u>Attendance:</u> Attendance is expected and essential for successful completion of the course. Assignments, quizzes, and tests cannot be made up without a valid excuse. Arrangements should be made <u>before</u> your absence. If you are absent, it is your responsibility to inform the instructor and to inquire about missed assignments, quizzes, and tests.
- 4. <u>Grading Procedure:</u> Grades will reflect an overall understanding of topics covered in lecture. Attendance, completion of assigned readings, and attentiveness in lecture will ensure satisfactory performance in the class. Demonstrating a thorough understanding of course material and meaningful participation in class discussions constitutes high achievement in the course. We will have in-class work to facilitate class discussion, which may include Internet searches, reviews of video, and group activities. Group activities may consist of brief oral reports or short written reports. For written coursework, you will be graded on your ability not only to answer the question but also in how effectively you can defend your answer/position using your knowledge of the subject & applying what you learned through the use of relevant facts and examples.

Grades will be based on the following system & scale:

Grade Scale:	Grading System:	
90% & above = A	Quizzes/Assignments	25%
80 - 89% = B	Exam 1	25%
70 - 79% = C	Exam 2	25%
60 - 69% = D	Exam 3	25%
59% & below = F		

Policy Reminders and Notices.

- 1. It is the general policy of Chaminade Natural Science & Mathematics Department that personal electronics are not permitted in the classroom, but discretion is permitted to the instructor. As your instructor, I encourage you to bring your laptops, tablets, or smartphones, subject to restrictions imposed by Schofield Barracks policy. The use of electronic devices is to facilitate and enhance your learning about subjects in the class. Other uses of electronic devices are discouraged.
- 2. You are also expected to have read and to abide by the "Student Rules of Conduct" which are available in your copy of Chaminade University's Student Handbook. See also the PACE website for more information.
- 3. You will not be provided access to a computer for this course. You may bring and use your laptops or tablets to lecture for the purpose of taking notes. However, on exam days, you may not use any electronic devices including smartphones, tablets, or laptops.
- 4. You may not record audio, images, or video in the classroom without expressed permission of the instructor.
- 5. The University provides a Chaminade email address for all students. Official Chaminade communications will be sent to the students' Chaminade email address, and instructors will use only this email to communicate with students. It is the responsibility of the student to check their email frequently. Report email-related problems to the Helpdesk at 808-735-4855 or <u>helpdesk@chaminade.edu</u>.
- 6. You are encouraged to work together; however, all graded material must be your own. Cheating in the form of plagiarism (offering of work of another as one's own, SH, p. 33), collusion, and deception will not be tolerated and will negatively affect your grade. The University is an

academic community with high professional standards. Academic dishonesty seriously disrupts and subverts a teaching environment. Academic dishonesty includes, but is not limited to, cheating defined by giving/receiving unauthorized assistance during an examination, obtaining information about an examination before it is given, using inappropriate/prohibited sources of information during an examination, altering answers after an examination has been submitted, and altering the records on any grade. (Refer to the CUH catalog for further information).

- 7. Title IX Declaration: Chaminade University of Honolulu (CUH) recognizes the inherent dignity of all individuals and promotes respect for all people. Sexual misconduct, physical abuse, or psychological abuse will NOT be tolerated at CUH. If you have been the victim of sexual misconduct, physical abuse, and/or psychological abuse, we encourage you to report this matter promptly. As a faculty member, I am interested in promoting a safe and healthy environment. Should I learn of any sexual misconduct, physical abuse, and/or psychological abuse, I must report the matter to the Title IX Coordinator. Should you want to speak to a confidential source, you may contact the following: Chaminade Counseling Center at 808-735-4845, any priest serving as a religious confessor, or any ordained religious leader serving in the sacred confidence role.
- 8. In accordance with several federal and state laws, including the Americans with Disabilities Act (ADA) of 1990, as amended by the ADA Amendments Act of 2008, and Section 504 of the Rehabilitation Act of 1973, all qualified students with disabilities are protected from discrimination on the basis of disability and are eligible for reasonable accommodations or modifications in the academic environment to enable them to enjoy equal access to academic programs, services, or activities. If a student would like to determine if they meet the criteria for accommodations, they should contact the Counseling Center at 808-735-4845 for further information. Students with special needs who meet criteria for the Americans with Disabilities Act provisions must provide written documentation of the need for accommodations from CUH Counseling Center (Dr. June Yasuhara, 808-735-4845) by the end of the third week of classes. Failure to provide written documentation will prevent your instructor from making necessary accommodations.

General Course Schedule (subject to change).

Week		Topics	Readings
1	May 22-26	Course Overview Science and Sustainability: An Introduction to Environmental Science Earth's Physical Systems: Matter, Energy, and Geology Evolution, Biodiversity, and Population Ecology Quiz 1 	Chapter 1-3
2	May 29-June 2	 4. Species Interactions and Community Ecology 5. Environmental Systems and Ecosystem Ecology 6. Ethics, Economics, and Sustainable Development Problems Exam 1 	Chapter 4-6
3	June 5-9	 7. Environmental Policy: Making Decisions and Solving 8. Human Population 9. Soil and Agriculture Quiz 2 	Chapter 7-9
4	June 12-16	 10. Agriculture, Biotechnology, and the Future of Food 11. Biodiversity and Conservation Biology 12. Forests, Forest Management, and Protected Areas 13. The Urban Environment: Creating Sustainable Cities Exam 2 	Chapters 10-13
5	June 19-23	 14. Environmental Health and Toxicology 15. Freshwater Systems and Resources 16. Marine and Coastal Systems and Resources 18. Global Climate Change Quiz 3 	Chapters 14-16, 18
6	June 26-30	 19. Fossil Fuels, Their Impacts, and Energy Conservation 22. Managing Our Waste 24. Sustainable Solutions Exam 3 	Chapters 19, 22, 24