



Endemic Hawaiian Hawk is only found on the Big Island of Hawai'i.
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ENV 201 & 201L: Conservation Biology & Ecology Lecture and Laboratory
Fall 2019
Dr. Gail Grabowsky
Syllabus

The Earth's resources are also being plundered because of short-sighted approaches to the economy, commerce and production. The loss of forests and woodlands entails the loss of species which may constitute extremely important resources in the future, not only for food but also for curing disease and other uses.... It is not enough, however, to think of different species merely as potential "resources" to be exploited, while overlooking the fact that they have value in themselves. Each year sees the disappearance of thousands of plant and animal species which we will never know, which our children will never see, because they have been lost forever.

Pope Francis, *Laudato Si* 2015

A worldview does not dissolve overnight. Rather, like one of Hutton's mountain ranges, it erodes through long centuries.

Lorien Eisley

Few will have the greatness to bend history itself; but each of us can work to change a small portion of events, and in the total of all those acts will be written the history of this generation.

Robert F. Kennedy

A thing is right if it tends to preserve the integrity, stability and beauty of the biotic community. It is wrong if it tends to do otherwise.

Aldo Leopold

Change your thoughts and you change the world.

Norman Vincent Peale

The scientific community is no private club. In principle, and in its best and broadest sense of the words, scientific inquiry can be undertaken by anyone on almost any subject matter.

W. Quine and J. Ullian





Course Introduction

Department Name: Environmental Program

College/School/Division Name: Natural Sciences and Mathematics; Chaminade University of Honolulu

Course Credits: 3/1

Term: Fall 2019

Class Meeting Days: Lecture: MWF **Class Meeting Hours:** 11:30-12:20 **Class Location:** BS102

Class Meeting Days: Lab: Th **Class Meeting Hours:** 10:30-1:50 **Class Location:** HL4

Instructor: Dr. Gail Grabowsky

E-mail address: ggrabows@chaminade.edu

Phone: 735-4834 (ext. 834 if calling from on campus); cell 808-387-9319 (please don't call after 9:00 pm, but you may text anytime!)

Office Location: Wesselkamper Science Center, room 105

Office hours: MF: 2:30-6:00; T 12:30-2:30; Or by appointment

Course Website: <https://drive.google.com/drive/folders/1eo1I6ZUW0hDCQJmtUUu7qHj2RLN5IWP0>

University Course Catalog Descriptions:

ENV 201 Conservation Biology & Ecology

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 and devise sustainable solutions. Major topics include the effects of industrialization, agriculture, pollution, species introduction and human population growth and development on the health and future sustainability of ecosystems and humans alike. Particular emphasis is placed on island ecosystems. Course must be taken concurrently with ENV 201L.

ENV 201L Conservation Biology & Ecology Laboratory

Students perform laboratory and field research techniques used in conducting conservation biology and ecological research and restoration. Analyses are conducted in the laboratory and in the field. Course must be taken concurrently with ENV 201.

Course Overview and Introduction:

Welcome to Conservation Biology & Ecology. I *really* enjoy teaching/facilitating this class because it comes from the heart (and the mind) as I am, like many of you, concerned for the current and future environment. This course mainly focuses on the condition of earth's terrestrial (land) ecosystems: what threatens them and why and how to keep them healthy or return them to a healthier state once they are degraded. I feel this class is not simply a course you take in college, it changes the lives of most who take it, as it introduces you to and helps you understand the causes and consequences of the real-world environmental issues we confront every day (or every time we take a sip of water...). If you are an Environmental Studies or Environmental Science major/minor this is a required course. If you are not one of these majors than this course counts for your General Education Natural Science require. To all of you: WELCOME!

One thing I want all of us to realize through this course is that science is NOT a "sacred cow." It is a very useful tool, but it is not in itself infallible or the only component of solutions to our environmental and ecological challenges. Both of these points may take some time to understand and are some of the goals of

this course (so don't panic if they don't make sense right now). Even though I am a scientist and thus I obviously very highly value what science can tell us about the world, I, and (most) other scientists, fully realize that science cannot solve problems by itself. We also must consider the people involved, their values and beliefs, their economics, politics, history, needs, desires, etc in order to solve any environmental problem. Also while the science we do helps us gather information about a phenomenon or determine how to behave in order to change a situation, it does not tell us what is better or worse, right or wrong, what we should or should not do nor is it the whole story when it comes to solutions. Because of the complexity of environmental issues and the fact that science is only one of the players involved in learning about and solving environmental issues, we will have to touch on those other factors in this science course.

Environmental Studies Program Learning Outcomes:

Upon completion of the program in Environmental Studies, the Student will have the ability to:

1. Describe major environmental challenges, identify their consequences and propose potential sustainable solutions.
2. Connect environmental concepts to human health and well-being.
3. Apply scientific reasoning and methodology to environmental problems.
4. Participate in interdisciplinary collaboration and problem solving between community, scientists, resource managers, and policy makers centered around environmental issues.
5. Analyze environmental challenges in light of legal, regulatory, economic, ethical, cultural, and political considerations.

Environmental Science Program Learning Outcomes:

Upon completion of the program in Environmental Science, the student will have the ability to:

1. Describe major environmental challenges, identify their consequences and propose potential sustainable solutions.
6. Identify the major physical, chemical and biological components and cycles of earth systems, ecozones and ecosystems.
3. Apply scientific reasoning and methodology to environmental problems.
4. Participate in interdisciplinary collaboration and problem-solving between community, scientists, resource managers and policymakers centered around environmental issues.
7. Demonstrate practical laboratory and field skills, data collection, analysis and interpretation.

Please Note: Program Learning Outcomes (PLO's) 1, 3 and 4 are common to both the Environmental Studies and Environmental Science degrees, while PLO's 2 and 5 are unique to Environmental Studies and PLO's 6 and 7 are unique to Environmental Science.

| Lecture Course Outcomes | PLO 1 | PLO 2 | PLO 3 | PLO 4 | PLO 5 | PLO 6 | PLO 7 |
|---|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Know what science is and how scientific research is conducted and shared with others | | | X | X | | X | X |
| Understand the role of science in enabling us to understand and problem-solve environmental phenomena | | X | X | X | | | |
| Understand the role of ethics in allowing us to define environmental problems and | | X | | X | X | | |
| Be able to describe the major physical causes of habitat/ecosystem degradation and destruction | X | X | X | | | X | X |
| Be able to describe a number of potential solutions for global and Pacific Island habitat/ecosystem degradation and destruction | X | X | X | X | | | X |
| Know the basic structure and types of fresh water and terrestrial ecosystems | | X | X | | | X | |

| | | | | | | | |
|--|-------|-------|-------|-------|-------|-------|-------|
| Understand the generalized sorts of interactions between organisms and their environment | | X | X | X | | X | |
| Understand what a healthy ecosystem is and what sustainability means in general | | X | | | X | X | |
| Understand why human population growth occurred and what its future implications are for ourselves and other species | X | X | X | | | X | |
| Demonstrate an understanding of the connections between academic work and real-life situations | X | X | X | X | X | | |
| Laboratory Course Outcomes | PLO 1 | PLO 2 | PLO 3 | PLO 4 | PLO 5 | PLO 6 | PLO 7 |
| Understand the scientific method and how to apply it to real environmental issues | | | X | X | | | X |
| Understand what descriptive science is and how it is important in environmental biology | | | X | | | | |
| Know the basic units used in making scientific measurements | | | X | | | X | X |
| Know and understand the taxonomic hierarchy, systematic biology methodology and the species concept | | | X | | | X | X |
| Know how to determine species abundance and distributions | | | X | | | X | X |
| Know some of the measures used to determine ecological stress | | X | X | | | X | X |
| Know how to interpret and create graphs, tables and maps | | | X | | | X | X |
| Learn the importance of, and how to access and read, the primary scientific literature | | | X | | | | X |
| Know how to design a scientific experiment aimed at supporting or disproving a particular hypothesis | | | X | | | | X |
| Know how to prepare a formal laboratory write-up | | | X | | | | X |

Course Prerequisites: None

Required Texts: *An Introduction to Conservation Biology*. 2016. R.B. Primack & A.A. Sherr. (Second Edition) [ISBN: 9781605354736]

Supplemental Texts: Many other articles, reports and exercises will come from other sources. All of them will be provided to you in Google Drive in the course folder.

Course Website: https://drive.google.com/drive/folders/1C9-1Jlw1KeB49fQ2-i_BgTn_xlyR4dEL

Grading & Assessment:

Lecture grading will be quantified as follows:

| | | |
|--|-------------|-----------------|
| Exam I | 20% | 200 pts |
| Exam II | 20% | 200 pts |
| Final Exam | 20% | 200 pts |
| Habitat Type Project & miscellaneous assignments | 20% | 200 pts |
| Pop Quizzes on readings | <u>20%</u> | 200 pts |
| | 100% | 1000 pts |

Lab grading will be quantified as follows:

| | | |
|--|-------------|-----------------|
| Lab assignments, worksheets, info shares | 40% | 400 pts |
| Formal Lab Write-Up | 20% | 200 pts |
| Hypothetical Experiment Write-Up | 20% | 200 pts |
| Attendance | <u>20%</u> | 200 pts |
| | 100% | 1000 pts |

Letter grades are interpreted as follows:

- A = Outstanding scholarship and an unusual degree of intellectual initiative
- B = Superior work done in a consistent and intellectual manner
- C = Average grade indicating a competent grasp of subject matter
- D = Inferior work of the lowest passing grade, not satisfactory for fulfillment of prerequisite course work
- F = Failed to grasp the minimum subject matter; no credit given

Grading Procedures:

Grades will be assigned to written exams using a curve with the mean score for the class being a B- and the score immediately below the mean being a C+. This will be explained in detail in class. The first two lecture exams will cover the material from the start of class up until the first exam and the material after the first exam up until the second exam, respectively. These exams will have a variety of types of questions on them. The final exam is cumulative, multiple choice and covers the lecture material for the entire semester. A review sheet will be handed out before every exam.

Oral and written lab assignments and worksheets will be graded based on your *effort, correctness* (when there is a correct response etc.) and your *thoughtfulness*. Effort in general manifests itself as neatness, completeness, thoroughness, calories expended per unit time(!), timeliness, correct spelling, any extra creative things you do above-and-beyond what is expected, etc. Correctness means do your statements jive with corresponding scientific knowledge, do your conclusions follow from the evidence before you, did you calculate an equation correctly, interpret a graph accurately, make a table that illustrates your data properly, etc. Thoughtfulness can show up in many ways, perhaps you really think things through, trying to consider all the variables or you worked hard to tie pieces of evidence together, maybe you consider something that may be important that everyone else ignores. By being “thoughtful” I don’t mean that you look out for other people (i.e. are kind) I mean that you have done some thinking, really reflected upon a topic, have given it some time, have analyzed it, etc. thoroughly.

Attendance and you grade:

While I dearly hope that you can make every class..., since you are adults now, you are free to miss any *lecture* class you choose... but **KNOW** that there may be some consequences should you choose to exercise this option: your grade could (and most likely **WILL**) suffer. I believe that students who have missed a lot of classes **ALWAYS** would have done better if they had not missed classes. There simply is no substitute for being in class when it comes to understanding the material. I can give you a fishing pole, but I cannot make you fish.

If you miss a lecture exam or lab your absence must be excused if it is not to formally effect your grade. Excused absences occur when you bring in a doctor’s note, a funeral announcement for a family member, notice of participation in athletic events, etc. Unexcused absences occur when you were working, surfing, sleeping, cramming for an exam in another class, etc. I am a scientist; I require hard evidence if an absence is to be excused. If your car breaks down on the way to an exam or lab take a picture and make SURE I can verify the date and time of the breakdown and it will be an excused absence, ☺, however, no evidence; no excused absence.

Extra Credit Options:

Throughout the course Dr. Gail will be making numerous environmental service-learning outings available to you. You may also find environmental service opportunities on your own. For every service-learning activity that you participate in, that entails 4-5 hours of work, will receive +5 extra credit points. Also, periodically throughout the course there will be talks and presentations you may attend that pertain to the course material. You can earn +2 extra credit points towards a lecture exam for each talk you attend with content related to the course content. In order for all talks and service activities to count for extra credit you MUST have them

approved by Dr. Gail PRIOR TO the event and you MUST document your presence (if Dr. Gail is not also in attendance) with a photograph of yourself participating or some other kind of evidence. You may earn up to 30 extra credit points from service activities and 10 from attending talks/presentations.



**Class Schedule:
Fall 2019
Part I**

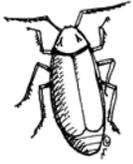
Knowledge, Ethics & the Environment

| <u>DATE</u> | <u>TOPIC</u> | <u>ACTIVITIES</u> |
|-------------|--|--|
| 8/26/19 | Course introduction & outline; Survey who we are; Where we're from | Review course syllabi; questionnaire Read: "Human Domination..." paper |
| 8/28 | Course path; Important terms & concepts | |
| 8/29 | Lab: Overview of enviro issues | "Endangered Planet" DVD |
| 8/30 | NO 11:30 CLASSES: Spiritual Convocation | |
| <hr/> | | |
| 9/2 | NO CLASS: Labor Day! | |
| 9/4 | General human effect on the environment | QUIZ on "Human Domination" paper! |
| 9/5 | Lab: Survey of issues that concern us | Share a terrestrial environmental issue |
| 9/6 | General human effect on the environment | Read: Textbook specific chapter TBA! |
| <hr/> | | |
| 9/9 | General human effect on the environment (cont'd) | Read: "Living Planet Report" e-paper |
| 9/11 | General human effect on the environment (cont'd) | QUIZ on "Living Planet Report" paper! |
| 9/12 | Lab: Intro to Biodiversity & Plant Photo Mapping! | Fieldtrip to Zoo: Worksheet & photos |
| 9/13 | Boundaries we may have overstepped already... | Read: Textbook specific chapter TBA! |
| <hr/> | | |
| 9/16 | What is science? Why do it? | Read: "The Philosophy of Science" e-paper |
| 9/18 | Science: Underlying philosophy & methods | QUIZ on "The Philosophy of Science" paper! |
| 9/19 | Lab: Scientific Systems of Measure | Take-home Worksheet |
| 9/20 | Science, traditional knowledge and ecological ethics | Read: Textbook specific chapter TBA! |

Part II

Pristine Nature: Biodiversity and Ecology

| <u>DATE</u> | <u>TOPIC</u> | <u>ACTIVITIES</u> |
|-------------|---|--|
| 9/23 | The history of life on earth | Read: Textbook specific chapter TBA! |
| 9/25 | The characteristics and requirements of life | History of Life Power Point by Dr. Gail |
| 9/26 | Lab: Value lab | Bring in something to assign "value" to |
| 9/27 | Life: Unity and diversity and their implications... | Read: Textbook specific chapter TBA! |
| <hr/> | | |
| 9/30 | Biodiversity in space and time | Hypothetical Experiment Hypothesis explained! |
| 10/2 | Evolution: Evidence | Evidence of Evolution Power Point by Dr. G. |
| 10/3 | Lab: Endangered species profiles & solutions | Endangered species case-studies |
| 10/4 | Evolution: Patterns | |



| | |
|--------------|---|
| 10/7 | Evolution: Mechanisms |
| 10/9 | Evolution: Speciation and Extinction |
| 10/10 | Lab: IDing birdsong in a native Hawaiian forest |
| 10/11 | <u>E X A M I</u> |
| <hr/> | |
| 10/14 | NO CLASS: Discoverer's Day! |
| 10/16 | Human historical place in nature & pop growth |
| 10/17 | Lab: Population and Fertility Rate |
| 10/18 | Ecological principles; causal networks |
| <hr/> | |
| 10/21 | Abiotic ecological interactions |
| 10/23 | Biotic interactions |
| 10/24 | Lab: Island species: Native and invasive species |
| 10/25 | Biotic interactions (cont'd) |
| <hr/> | |
| 10/28 | Ecological productivity; <i>Ecosystems</i> |
| 10/30 | Soil |
| 10/31 | Lab: Habitat types |
| 11/1 | Earth's habitats & systems ecology wrap-up |

Hypotheses Due
 Biodiversity Power Point by Dr. Gail
Bring an internet device to lab! Worksheet
E X A M I

Read: Textbook specific chapter TBA!
Worksheet; Bring in data on your own family
Habitat Type Project Explained

Read: Textbook specific chapter TBA!

St. Louis Hike; Worksheet
Revised Hypoths due!

Read: Textbook specific chapter TBA!

Habitat Type Oral Presentations

Part III Island Populations and Challenges

| <u>DATE</u> | <u>TOPIC</u> | <u>ACTIVITIES</u> |
|--------------------|--|--|
| 11/4 | Pacific peoples and their island homes | |
| 11/6 | Islands: Why each is unique & things they all share... | Read: "Hawaii Interagency Biosecurity Plan" |
| 11/7 | Lab: The impacts of food consumption | Fieldtrip to the supermarket; Worksheet |
| 11/8 | Islands: Types | Island Types Power Point by Dr. Gail |
| <hr/> | | |
| 11/11 | NO CLASS: Veteran's Day (observed) | Stare to study for Exam II! |
| 11/13 | Islands: Geology, climate and dispersal | |
| 11/14 | Lab: Quantifying habitat variation in the field | Fieldtrip to Makapu'u; Graph worksheet |
| 11/15 | Islands: Endemism and adaptive radiations | |
| <hr/> | | |
| 11/18 | Islands: Invasive species & extinctions | Endangered & Invasive Species Power Point |
| 11/20 | Islands: Overall human impacts | Read: Textbook specific chapter TBA! |
| 11/21 | Formal Lab Help Day! (Don't miss it!) | Bring Makapu'u data in Excel table! |
| 11/22 | <u>E X A M I I</u> | <u>E X A M I I</u> |

Part IV Living Sustainably on Island Earth

| <u>DATE</u> | <u>TOPIC</u> | <u>ACTIVITIES</u> |
|--------------------|---|--|
| 11/25 | Island Earth: Island vs global threats | |
| 11/27 | Conservation biology & solutions | Read: Textbook specific chapter TBA! |
| 11/28 | HAPPY THANKSGIVING BREAK! | (Will hand out Impacts of Food Lab Weds!) |
| 11/29 | HAPPY THANKSGIVING BREAK! | |
| <hr/> | | |
| 12/2 | Natural resource management; Sustainability at-large | Read: "Mind in the Biosphere; Mind of the..." |
| | Go to: https://sustainabledevelopment.un.org/topics/sustainabledevelopmentgoals | |
| 12/4 | Sustainability & ecosystems; Is it doable? | QUIZ on "Mind in the Biosphere; Mind of the..." |
| 12/5 | Lab: Calculating your Eco Footprint | Online homework DUE AT START OF LAB! |
| 12/6 | Sustainable answers for Hawaii | Read: Chapter 24 in your textbook |



Important Dates You Should Know:

- Your **formal lab write-up** (if you are in lab) are all due by the day of the Final Exam no later than 11:05 AM. Late papers will not be accepted.
- **Part Two of the Hypothetical Experiment Project: Designing an Experiment DUE AT THE Final Exam OR any time before - ONCE YOUR HYPOTHESIS IS APPROVED!**
- **Final Exam:** Wednesday, December 11th, from 11:00 – 1:00 PM in our regular classroom.

Alignment of Natural Sciences Courses with Marianist & Hawaiian values of the University:

The Natural Sciences Division provides an *integral, quality education*: sophisticated integrative course content taught by experienced, dedicated, and well-educated instructors.

- We educate in family spirit – every classroom is an *Ohana* and you can expect to be respected yet challenged in an environment that is supportive, inclusively by instructors who take the time to personally get to know and care for you.
- We educate for service, justice and peace, since many of the most pressing global issues (climate change, health inequity, poverty, justice) are those which science and technology investigate, establish ethical parameters for, and offer solutions to.
- We educate for adaptation and change. In science and technology, the only constant is change. Data, techniques, technologies, questions, interpretations and ethical landscapes are constantly evolving, and we teach students to thrive on this dynamic uncertainty.

The study of science and technology can be formative, exploring human creativity and potential in the development of technologies and scientific solutions, the opportunity to engage in the stewardship of the natural world, and the opportunity to promote social justice. We provide opportunities to engage with the problems that face Hawai'i and the Pacific region through the Natural Sciences curriculum, in particular, those centered around severe challenges in health, poverty, environmental resilience, and erosion of traditional culture. The Marianist Educational Values relate to Native Hawaiian ideas of *mana*, *na'auao*, *ohana*, *aloha* and *aina*. We intend for our Natural Sciences programs to be culturally-sustaining, rooted in our Hawaiian place, and centered on core values of *Mai'au*, be neat, prepared, careful in all we do; *Makawalu*, demonstrate foresight and planning; *`Ai*, sustain mind and body; *Pa`a Na`au*, learn deeply.

Grades of "Incomplete":

Students and instructors may negotiate an incomplete grade when there are specific justifying circumstances. When submitting a grade the "I" will be accompanied by the alternative grade that will automatically be assigned after 90 days. These include IB, IC, ID, and IF. If only an "I" is submitted the default grade is F. The completion of the work, evaluation, and reporting of the final grade is due within 90 days after the end of the semester or term. This limit may not be extended.

Instructor and Student Communication:

Questions for this course can be emailed to the instructor at [ggrabows@chaminade.edu]. Online, in-person and phone conferences can be arranged. Dr. Gail will get back to you in person or via email or text ASAP usually within one day. Please if you text Dr. Gail include your name in your text!

Cell phones, tablets, and laptops:

Music Devices and Cellular Phones: Unless specifically permitted by your instructor, use of music devices and cell phones is prohibited during all Natural Science and Mathematics classes, as it is discourteous and may lead to suspicion of academic misconduct. Students unable to comply will be asked to leave class.

Out of consideration for your classmates, please set your cell phone to silent mode during class. Students are encouraged to bring laptops or tablets to class as the instructor will assign online activities and readings that will require the use of a laptop or tablet. Laptops and tablets should not be misused, such as checking distracting websites. Use your best judgment and respect your classmates and instructor.

Disability Access:

If you need individual accommodations to meet course outcomes because of a documented disability, please speak with me to discuss your needs as soon as possible so that we can ensure your full participation in class and fair assessment of your work. Students with special needs who meet criteria for the Americans with Disabilities Act (ADA) provisions must provide written documentation of the need for accommodations from the Counseling Center by the end of week three of the class, in order for instructors to plan accordingly. 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 (counselingcenter@chaminade.edu).

Title IX Compliance:

Chaminade University of Honolulu recognizes the inherent dignity of all individuals and promotes respect for all people. Sexual misconduct, physical and/or psychological abuse will NOT be tolerated at CUH. If you have been the victim of sexual misconduct, physical 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, and should I learn of any sexual misconduct, physical and/or psychological abuse, I must report the matter to the Title IX Coordinator. If you or someone you know has been harassed or assaulted, you can find the appropriate resources by visiting Campus Ministry, the Dean of Students Office, the Counseling Center, or the Office for Compliance and Personnel Services.

Attendance Policy:

For the University wide attendance policies please see page 54 of the 2019-2020 Academic Catalog.

Academic Conduct Policy:

From the 2018-2019 Undergraduate Academic Catalog (p. 42): Any community must have a set of rules and standards of conduct by which it operates. At Chaminade, these standards are outlined so as to reflect both the Catholic, Marianist values of the institution and to honor and respect students as responsible adults. All alleged violations of the community standards are handled through an established student conduct process, outlined in the Student Handbook, and operated within the guidelines set to honor both students' rights and campus values. Students should conduct themselves in a manner that reflects the ideals of the University. This includes knowing and respecting the intent of rules, regulations, and/or policies presented in the Student Handbook, and realizing that students are subject to the University's jurisdiction from the time of their admission until their enrollment has been formally terminated. Please refer to the Student Handbook for more details. A copy of the Student Handbook is available on the Chaminade website. For further information, please refer to the Student Handbook: <https://studentaffairs.chaminade.edu/wp-content/uploads/sites/28/2018-19-NEW-STUDENT-HANDBOOK.pdf>

Classroom Atmosphere:

Guys, I value a very open, yet courteous class atmosphere. *Express your thoughts! Ask your questions!* (The only dumb question is the one in which you ask yourself if you should ask your question.) Respect the thoughts and ideas and opinions of others – really think about what others say. Let them express themselves fully, then you do the same. **The thing I value most from my college days are all the wonderful, valuable, diverse ways of looking at and understanding the world that I was exposed to. Be an open vessel – take ideas in! You will learn as much from each other as you do from me.**

This syllabus and course schedule are living documents: they are free to change. I try to adhere as closely as possible to them for your convenience, but there will be times in which we will take longer on a particular topic or add or delete a topic to enhance the course. I like to be able to react to you as the course proceeds and go with the flow a bit in order to make the course experience sort of custom fit to you!

You are responsible for all of the information in this document: losing it or not reading it do not make you exempt from knowing what's in it!

Use this syllabus to keep you organized and aware of important dates and how your grade is determined.

Conservation Biology & Ecology Pre-Course Questionnaire

This is a non-graded questionnaire which I give you so that I may assess where your interests are regarding the environment and your education at Chaminade, what you expect out of this course and a little bit about you and your background.

Name: _____

Where did you grow up? _____

Year at Chaminade: _____

When are you planning on graduating? _____

What is your major(s)? (If you don't have one yet what are you thinking about majoring in?):

Did you know that Chaminade has an **Environmental Studies** major/minor and a NEW **Environmental Science** majors/minors AND **Environmental Pre-Law Certificate**!?? _____

Would you be interested in obtaining material about the Environmental Programs? _____

Are you thinking about majoring/minoring in Environmental Studies/Science if you are undecided at this time?

Why did you take this class?

Are you interested in environmental issues? _____

Why or why not?

On a scale of 1 to 10 (10 being of utmost importance) how important do you think the environmental issues facing us today are? _____

What kinds of things are AS important as environmental issues in your opinion?

What kinds of things are MORE important than environmental problems in your opinion?

Do you have any experience with environmental volunteer work, education, etc.

Are you interested in a career in the environment? _____

If yes what specifically? (If you have an idea.)

What one environmental issue do you feel is the most important one facing the planet?

What science classes have you had in college or high school:

What are you hoping this course will teach you?

What are you hoping we will get to do in this course?

Finish this sentence: Good teachers . . .

Finish this sentence: Poor teachers . . .