



**'To Tend and Care for It'**

Then God looked over all that He had made, and it was excellent in every way...The Lord God placed the man in the Garden of Eden as its gardener, to tend and care for it.

(Genesis 1:31; 2:15 TLB)

I brought you into a fertile land to eat its fruit and rich produce. But you came and defiled My land and made My inheritance detestable. (Jeremiah 2:7 NIV)

See, I will create new heavens and a new earth. The former things will not be remembered, nor will they come to mind. (Isaiah 65:17)

**Course Learning Outcomes (CLO's):**

Upon completion of the course, you will be able to:

- Describe the major global environmental challenges and how they affect people.
- Explain options for how we can deal with these global environmental challenges.
- Articulate and defend a position on Biblical environmental stewardship.
- Outline, research, and write an original research paper exploring a case history about an environmental challenge and how it is impacting people in the developing world.
- Understand how consumerism impacts the ecological footprint of our affluent society.

**Foundational Explorations Learning Objectives (FELO's):**

All FE courses are required to assess FELO's as part of institutional assessment. In this course, we will assess FELO 1C: **Information Literacy** and FELO 1D: **Critical Thinking**.

- Information Literacy - Students will be able to access and cite information as well as evaluate the logic, validity, and relevance of information from a variety of sources.
- Critical Thinking - Students will be able to examine, critique and synthesize information in order to arrive at reasoned conclusions.

These FELOs will be needed to successfully complete your term paper assignments, and your mastery of them will be assessed through a few questions on the final exam.

**Course Design:**

The focus of our exploration will be on people interacting with their environment. Our approach will be global, with emphasis on the environmental issues affecting people in the developing (less developed, Third World) nations. We will familiarize ourselves with the fundamentals of stewardship, the concept of sustainable development, and the real life tensions that exist in the developing world between the goals of wise management of natural resources and the objectives of economic development in the urban and rural setting in the poor nations. Importantly, we will consider the Biblical mandate for human beings to be God's representatives on earth and to care for His Creation, both human and non-human.

### **Course Format**

The “lecture” component of the course will be presented during the Tuesday meeting, but it will not be just me talking. I will introduce interactive activities (e.g., iClicker questions, small group discussions) to give you an opportunity to actively explore the topics under consideration. During the Thursday meeting, we will view a film for about the first hour, and then break into discussion teams for 20 min (teams will be formed for the semester). Each team will discuss questions based on the film and will craft a group response. Note that points for team responses will only be awarded to students who were present and participated in the group discussion. Although your group will craft the responses collaboratively, each student will submit the discussion assignment individually on Canvas in your own words. This ensures that all team members are accountable for the assignment.

### **Canvas:**

All class resources are available to you on Canvas. All reading, discussion, and small group assignments will be submitted via Canvas and graded online. The in-classroom assignments will use electronic files and be submitted on Canvas so be sure to BRING YOUR LAPTOP TO CLASS. Note that Canvas does not support ‘PAGES’ – please use Word or PDF instead. Your grader and I will often give you feedback on Canvas, so be sure to set up Canvas to alert you when you get comments.

### **Reading Assignments:**

I have carefully selected a reading for each topic we cover during each weekly module. The readings will be available either in the Cognella reading pack (for copyrighted texts) or on as a link in Canvas. For each reading, a set of questions will be posted in that week’s Canvas module to help you focus on the points I consider most important. Your answers must be submitted on Canvas before the deadline and will be graded online. Note that you will be able to submit assignments after the due date, but they will be marked as late. In this class it is very important to keep up with the reading questions because they are a significant part of the course grade – and once you get behind it is difficult to get caught up.

### **Late Assignments:**

The following penalties will apply for all assignments submitted after the posted deadline:

#### **For Readings (worth 10 pts):**

1-2 days late: -2 points  
 3-4 days late: -4 points  
 5-6 days late: -6 points  
 7 days late: -8 points  
 >7 days late: don't accept

#### **For Discussions (worth 5 pts):**

1-2 days late: -1 points  
 3-4 days late: -2 points  
 5-6 days late: -3 points  
 7 days late: -4 points  
 >7 days late: don't accept

There are many reasons why a late policy is desirable: (1) It sets clear guidelines for students so that you are motivated to submit your assignment on time; (2) it sets clear guidelines for the graders so they know how to handle cases of lateness; and (3) it is fair insofar as students that faithfully submit their assignments on time every week benefit over those who are chronically late. The graders and I recognize that from time to time there will be circumstances beyond your control that will result in a late submission. If this happens, please include a note of explanation in the text box in Canvas.

**iClicker Remotes:**

Class meetings will consist of a combination of lecture and small group activities. To enable participation by everyone in a large class, I require you to have an iClicker2 remote registered in your name that you bring to every class meeting for use with quizzes and other activities. Your iClicker answers will be recorded and points assigned based on class participation (being engaged in class activities) and performance (getting the right answer). Weekly review quizzes will be based on the reading assignments. Your iClicker score at the end of the semester will be adjusted so that you will not be penalized if you forget your clicker a few times. If necessary, I have a few loaner clickers that you can borrow if you ask BEFORE CLASS BEGINS.

**Attendance and Punctuality:**

Regular and punctual attendance is important for optimal achievement, and is a minimal requirement for this course. The attendance sheet will be passed around during each class meeting; it is your responsibility to sign in, using your full signature. You are permitted three (3) absences without penalty. Excessive unexcused absences will result in points deducted from your Attendance Participation grade. Because your signature on the roster serves as evidence of your attendance in class, having someone else sign your name is considered forgery and will result in a substantial penalty.

**Term Paper:**

One of the high points of the course is the opportunity for you to do your own research on a topic of interest to you. The final product will be a 7-page paper based upon your independent research – you may use AI tools ONLY to generate ideas for your topic theme, but YOU must personally generate all the research, writing, and references yourself (because AI makes mistakes). You will be required to choose a tightly focused topic on some aspect of environmental biology *approved by me beforehand*. For this paper, you will need to link the interrelationship between environment and people in the developing world – e.g., how does your topic impact people, and how do people impact their environment? You will illustrate your theme using ‘case histories’, detailed accounts illustrating your topic in a particular community of people. --- Now I realize that many students find writing a term paper a daunting and unpleasant task to be postponed as long as possible. This tends to result in a rushed paper written during the chaotic last week of class with the end product often far below what the student is capable of. To avoid this dilemma, your term paper will be prepared in 7 segments due weekly over a 2-month period. Because each segment is only 1 page long, the resulting final paper should be well written, nicely organized, and a lot more fun to read. Final papers are due Friday Dec 8.

**Academic Honesty:**

You may not be aware that some common student practices are considered plagiarism. Teaming up with other students to write joint answers to assignments that are then turned in as individual assignments is plagiarism. It is plagiarism to copy and paste information from an online resource without citing your source, in essence using someone else’s words as if they were your own. Much of the learning process involves articulating the answer in your own words, and bypassing this step will guarantee an inadequate understanding of the material. Plagiarizing an assignment can result in failure of the course and referral to the Dean. Furthermore, you will probably do poorly on exams if you have not learned on your own.

**Electronic Etiquette:**

Recent studies have indicated that we are currently experiencing an epidemic of ‘digital distraction’ caused by multi-tasking – moving quickly between tasks on electronic devices in which only partial attention is given to each task. In the classroom setting, studies reveal that the use of laptops and other devices for non-course related tasks (checking emails, texting, and social media) distracts attention from learning and results in reduced academic performance and lowered grades. The reality is that you cannot fully learn new information or master new concepts when distracted by multi-tasking. The evidence indicates that even classmates that see your screen are distracted and their performance reduced. To ensure the best learning environment possible, classroom policy is that...

- **During lecture you may use your laptop ONLY for taking notes, nothing else.**
- **All other electronic devices will be powered off and put away during class or lab.**
- **Consider taking notes by hand, as the act of handwriting improves learning.**

Recent research on the effect of multitasking on learning

- [‘You’ll Never Learn!’](#)
- [‘Laptop Multitasking Hinders Classroom Learning for Both Users and Nearby Peers’](#)
- [‘Attention, Students: Put Your Laptops Away’](#)
- [‘The Myth of Multitasking’](#)

**ASSESSMENT AND GRADING**

*Note: exact points are subject to change*

Attendance Participation	45 pts
iClicker Participation/Performance	90 pts
Reading questions (14 @ 10 pts)	140 pts
Group responses (13 @ 5 pts)	65 pts
Classroom team exercises	35 pts
Final exam	80 pts
Term paper sections/peer review	45 pts
Final term paper	<u>100 pts</u>

Letter	Percent	Letter	Percent
A	90	C	70
A-	88	C-	68
B+	86	D+	66
B	80	D	60
B-	78	D-	58
C+	76	F	<58

**Total 600 pts**

## Environment & People Reading Schedule – FALL 2023

- reading pack
- online resource

<u>WEEK</u>	<u>LECTURE TOPIC</u>	<u>READINGS DUE THE NEXT TUES</u>	<u>PAGES (TOTAL)</u>
Aug 29-31	Ecological collapse	(1) ● What's an education for? ● Collapse ch. 2: Twilight at Easter	5 (46) 41
Sept 5-7	Christian stewardship of the earth	(2) ● Between Heaven & Earth ch. 3	23
Sept 12-14	Sustainable development	(3) ● Ecology of Commerce ch. 2 ● Ecology of Commerce ch. 12	16 (36) 20
Sept 19-21	Population growth	(4) ○ Habitable Planet ch. 5	32
Sept 26-28	Agriculture and food supplies	(5) ● Ecological Conscience: Challenges ○ Habitable Planet ch. 7: Agriculture	16 (43) 27
Oct 3-5	Land degradation	(6) ○ World on the Edge ch. 3, 10	26
Oct 10-12	Water Shortages	(7) ○ Plan B 3.0 ch. 4: Water shortages	18
Oct 17	Poverty and health <b>FALL BREAK</b>	(8) ○ Urban poverty and health	20
Oct 24-26	Biodiversity	(9) ○ Habitable Planet ch. 9	32
Oct 31-Nov 2	Global climate change	(10) ○ Plan B 3.0 ch. 3	20
Nov 7-9	Wildlife versus people	(11) ● People and Wildlife ch. 14, 15, 17	33
Nov 14-16	Sustainable Business 1	(13) ○ Ecotourism in the Savegre Valley	46
Nov 21	Sustainable Business 2 <b>THANKSGIVING BREAK</b>	(12) ● Tending to Eden: Intro, ch. 2, 3	32
Nov 28-30	Pastoralism and hunting	(14) ○ Pastoralism and nature conservation	34
Dec 5-7	How can we save the Creation?	No reading!	
<b>Final Exam</b>		Section 1: Thursday Dec 14: 10:30-1:00 Section 2: Tuesday Dec 12: 1:30-4:00	

## BIO 1002: Environment & People Detailed Lecture Schedule – FALL 2023

<u>DATE</u>	<u>TOPIC</u>	<u>LECTURE OR VIDEO</u>
Tues Aug 29 Thurs Sept 1	Ecological collapse Ecological collapse	Lecture 1
Tues Sept 5 Thurs Sept 7	Christian stewardship Christian stewardship	Lecture 2 When Heaven Meets Earth (52 min)
Tues Sept 12 Thurs Sept 14	Sustainable development Sustainable development	Lecture 3 The Environmental Revolution (55 min)
Tues Sept 19 Thurs Sept 21	Population growth Population growth	Lecture 4 The people paradox (60 min) from World in Balance
Tues Sept 26 Thurs Sept 28	Agriculture & food Agriculture & food	Lecture 5 Land of plenty, land of want (45 min) Transforming Agriculture (16 min)
<b>TERM PAPER TOPIC DUE</b>		
Tues Oct 3 Thurs Oct 5	Land degradation Land degradation	Lecture 6 In the name of progress (57 min)
Tues Oct 10 Thurs Oct 12	Water shortages Water shortages	Lecture 7 Water, Water (55 min)
<b>TERM PAPER #1</b>		
Tues Oct 17 Thurs Oct 19	Poverty & health <b>FALL BREAK</b>	Lecture 8 Hot zones (57 min)
<b>TERM PAPER #2</b>		
Tues Oct 24 Thurs Oct 26	Biodiversity Biodiversity	Lecture 9 Remnants of Eden (60 min)
<b>TERM PAPER #3</b>		
Tues Oct 31 Thurs Nov 2	Global Climate Change Global Climate Change	Lecture 10 Global warming: signs & science (60 min)
<b>TERM PAPER #4</b>		
Tues Nov 7 Thurs Nov 9	Wildlife vs People Wildlife vs People	Lecture 11 Can the elephant be saved? (60 min)
<b>TERM PAPER #5</b>		
Tues Nov 14 Thurs Nov 16	Sustainable Business Plant with Purpose	Lecture 12 Guest Speaker: Scott Sabin
<b>TERM PAPER #6</b>		
Tues Nov 21 Thurs Nov 23	Sustainable Business <b>THANKSGIVING BREAK</b>	The Story of Stuff and other videos
Tues Nov 28 Thurs Nov 30	Pastoralism & hunting Pastoralism & hunting	Lecture 13 A Cashmere Story; A Cashmere Future
<b>TERM PAPER #7</b>		
Tues Dec 5 Thurs Dec 7	Save the Creation Save the Creation	Lecture 14 Affluenza (56 min)
<b>FINAL TERM PAPER DUE</b>		
<b>Final Exam</b>	Section 1: Thursday Dec 14: 10:30-1:00 Section 2: Tuesday Dec 12: 1:30-4:00	

## Paper Description:

Your term paper is to be focused on an environmental issue in the less developed world, such as Africa, Asia, India, or South America. Most people living in the world today have a Third World lifestyle – our affluent lifestyle is in the minority. DO NOT use the United States or other industrialized nations. Part of the goal of this course is to get you to think about how people in very different physical, social, and economic environments see their world. Try to get into their shoes and see their perspective. What are their lives like? How do they relate to their environment? Be sure that your paper deals with the following three components: (1) people interacting with their (2) environment in the (3) developing world.

## Term Paper Sequence of Assignments due on Fridays

Canvas	Assignment	Description	Due Date
	Choose topic	Propose a potential term paper question with a minimum of 3 appropriate references. At this stage you are permitted to use AI tools to help find an appropriate topic idea, however you must research the topic and locate the references on your own.	Sept 29
1	Global overview	Introduction. What is the global context of this issue? Include what the impact is on the environment, how it affects people, and perhaps ways that people are trying to address the problem. (1 page)	Oct 13
2	Regional overview	What is the specific background to the issue in the part of the world you have chosen to examine? What is unique or different about how the problem is manifested in this area? (1 page)	Oct 20
3	Topic focus	What one or two specific aspects of the issue will you focus on? It is better to give in-depth coverage to one or two aspects than to give a superficial treatment of too many aspects. Give an overview of the significance of the focus area. (1 page)	Oct 27
4	Case history #1	A detailed record of a community that illustrates some aspect of your topic focus. For example, if your topic is water shortages and your focus is the impact of climate change, one case history could be the shrinking of Lake Chad. (about 1 page per case history)	Nov 3
5	Case history #2	2 <sup>nd</sup> case history illustrating another aspect of your topic focus.	Nov 10
6	Case history #3	3 <sup>rd</sup> case history illustrating another aspect of your topic focus.	Nov 17
7	Conclusions and References	What can be concluded from your case studies? What concepts are illustrated and what problems must be overcome? What can give us hope? Also include your list of references in proper format, at least 10. (1 page each)	Dec 1
	Final Paper	Make any revisions to your 7 pieces and assemble them together into your final term paper. (7 pages minimum)	Dec 8



## PLNU INSTITUTIONAL POLICIES

### **PLNU Mission: To Teach ~ To Shape ~ To Send**

Point Loma Nazarene University exists to provide higher education in a vital Christian community where minds are engaged and challenged, character is modeled and formed, and service becomes an expression of faith. Being of Wesleyan heritage, we aspire to be a learning community where grace is foundational, truth is pursued, and holiness is a way of life.

### **ARTIFICIAL INTELLIGENCE (AI) POLICY**

You are **ONLY** allowed to use Artificial Intelligence (AI) tools to generate ideas, but you are **NOT** allowed to use AI tools to generate content that will end up in any work submitted to be graded for this course. AI tools (e.g., ChatGPT, iA Writer, Marmot, Botowski) are based on predictive machine learning and not true ‘intelligence’, thus the information it spits out is often inaccurate. If you have any doubts about using AI, please ask the instructor.

### **PLNU ACADEMIC HONESTY POLICY**

Students should demonstrate academic honesty by doing original work and by giving appropriate credit to the ideas of others. Academic dishonesty is the act of presenting information, ideas, and/or concepts as one’s own when in reality they are the results of another person’s creativity and effort. A faculty member who believes a situation involving academic dishonesty has been detected may assign a failing grade for that assignment or examination, or, depending on the seriousness of the offense, for the course. Faculty should follow and students may appeal using the procedure in the university Catalog. See [Academic Policies](#) for definitions of kinds of academic dishonesty and for further policy information.

### **PLNU ACADEMIC ACCOMMODATIONS POLICY**

PLNU is committed to providing equal opportunity for participation in all its programs, services, and activities. Students with disabilities may request course-related accommodations by contacting the Educational Access Center (EAC), located in the Bond Academic Center ([EAC@pointloma.edu](mailto:EAC@pointloma.edu) or 619-849-2486). Once a student’s eligibility for an accommodation has been determined, the EAC will issue an academic accommodation plan (“AP”) to all faculty who teach courses in which the student is enrolled each semester. PLNU highly recommends that students speak with their professors during the first two weeks of each semester/term about the implementation of their AP in that particular course and/or if they do not wish to utilize some or all of the elements of their AP in that course. Students who need accommodations for a disability should contact the EAC as early as possible (i.e., ideally before the beginning of the semester) to assure appropriate accommodations can be provided. It is the student’s responsibility to make the first contact with the EAC.

### **PLNU ATTENDANCE AND PARTICIPATION POLICY**

Regular and punctual attendance at all class sessions is considered essential to optimum academic achievement. If the student is absent for more than 10 percent of class sessions, the faculty member will issue a written warning of de-enrollment. If the absences exceed 20 percent, the student may be de-enrolled without notice until the university drop date or, after that date, receive an “F” grade.

### **STATE AUTHORIZATION**

State authorization is a formal determination by a state that Point Loma Nazarene University is approved to conduct activities regulated by that state. In certain states outside California, Point Loma Nazarene University is not authorized to enroll online (distance education) students. If a student moves to another state after admission to the program and/or enrollment in an online course, continuation within the program and/or course will depend on whether Point Loma Nazarene University is authorized to offer distance education courses in that state. It is the student’s responsibility to notify the institution of any change in his or her physical location. Refer to the map on [State Authorization](#) to view which states allow online (distance education) outside of California.

### **CONTENT WARNING**

I acknowledge that each of you comes to PLNU with your own unique life experiences which contribute to the way you perceive various types of information. In BIO4010/4010L (Vertebrate Biology) all of the class content, including that which may be intellectually or emotionally challenging, has been intentionally designed to achieve the learning goals for this course. The decision to include such material is not taken lightly. **These topics include evolutionary changes in organisms, global environmental shifts, and lab dissections of representative vertebrates.** If you encounter a topic that is intellectually challenging for you, it can manifest in feelings of discomfort and upset. If this occurs, I encourage you to come talk to me or your friends or family about it. Class topics are addressed for the sole purpose of expanding your intellectual engagement in the area of vertebrate biology and I will support you throughout your learning in this course.

### **TRIGGER WARNING**

In BIO4010/4010L (Vertebrate Biology) we will be exploring the theme of **evolutionary changes in the form and function of vertebrate organisms, as well as global environmental shifts and lab dissections.** It is possible that these topics and activities may be a trigger for you. The experience of being triggered versus intellectually challenged are different. The main difference is that an individual must have experienced trauma to experience being triggered, whereas an intellectual challenge has nothing to do with trauma. If you are a trauma survivor and encounter a topic in this class that is triggering for you, you may feel overwhelmed or panicked and find it difficult to concentrate. In response, I encourage you to take the necessary steps for your emotional safety. This may include leaving class while the topic is discussed or talking to a therapist at the Counseling Center. Should you choose to sit out on discussion of a certain topic, know that you are still responsible for the material; but we can discuss if there are other methods for accessing that material, and for assessing your learning on that material. Class topics are discussed for the sole purpose of expanding your intellectual engagement in the area of vertebrate biology and I will support you throughout your learning in this course.

### **LANGUAGE AND BELONGING**

Point Loma Nazarene University faculty are committed to helping create a safe and hospitable learning environment for all students. As such, it is important that our language be equitable, inclusive, and prejudice free. By working toward precision and clarity of language, we mark ourselves as serious and respectful scholars, and we model the Christ-like quality of hospitality. You may report an incident(s) using the [Bias Incident Reporting Form](#).

### **SEXUAL MISCONDUCT AND DISCRIMINATION**

In support of a safe learning environment, if you (or someone you know) have experienced any form of sexual discrimination or misconduct, including sexual assault, dating or domestic violence, or stalking, know that accommodations and resources are available through the Title IX Office at [pointloma.edu/Title-IX](http://pointloma.edu/Title-IX). Please be aware that under Title IX of the Education Amendments of 1972, faculty and staff are required to disclose information about such misconduct to the Title IX Office. If you wish to speak to a confidential employee who does not have this reporting responsibility, you can contact Counseling Services at [counselingservices@pointloma.edu](mailto:counselingservices@pointloma.edu) or find a list of campus pastors at [pointloma.edu/title-ix](http://pointloma.edu/title-ix).

### **PLNU COPYRIGHT POLICY**

Point Loma Nazarene University, as a non-profit educational institution, is entitled by law to use materials protected by the US Copyright Act for classroom education. Any use of those materials outside the class may violate the law.

### **SPIRITUAL CARE**

Please be aware PLNU strives to be a place where you grow as whole persons. To this end, we provide resources for our students to encounter God and grow in their Christian faith.

If students have questions, a desire to meet with the chaplain or have prayer requests you can contact your professor or the [Office of Spiritual Life and Formation](#).