



Biology 1002 Environment & People Syllabus Fall 2020

*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)

Catalog Course Description: BIO 1002 - Environment and People (GE) 4 units

A systematic overview of major topics in global ecology as experienced by people in the developing world, both the problems they face and the successful actions of communities to solve those problems. Introduces creation care and sustainable development as key concepts needed to overcome the challenges and build hope for the future. Includes such topics as population growth, food and agriculture, land degradation, urbanization, sanitation, health care, biodiversity, climate change, consumerism, and the implications for wise resource management, green economics, and governmental policy. Course approach emphasizes the process of science, critical thinking, active learning, social relevancy, and building connections between case studies and general concepts. Students engage in weekly readings, film discussions, and a term paper project.

Instructor:	Dr. Mike Mooring Rohr Science Office 128 – E-mail: mmooring@pointloma.edu Zoom Office Hours are listed on Canvas, but always feel free to email me.
TA/Grader:	Ellie Deer, Junior Environmental Science major E-mail: edeer022@pointloma.edu
Lecture:	Tues and Thurs 10:00 – 11:45 AM PT (Pacific Time) Liberty Station 207
Texts:	Reading Pack for BIO 1002, University Readers. Order online at: https://store.cognella.com/19946 Additional readings available on the course Canvas site
Equipment:	iClicker REEF Student Web for class participation via laptop / tablet / phone

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 case studies specific to 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.

Online Format

In the past, I have taught the course with Tuesday as a lecture day (lecture and small group activities) and Thursday as a movie day (watch a film and discuss questions with your small group). To go online, I will do a synchronous lecture (about 45 min) from the classroom at 10:00 AM on both Tues and Thurs. The "lecture" component will not be just me talking, because I will introduce interactive activities (REEF clicker questions, small group discussions) to give you an opportunity to actively explore the topics under consideration. Be sure that you have REEF loaded on your device prior to class so that you can participate in the REEF clicker questions, which will include review questions from the readings. We will also get into small groups using the Zoom 'Breakout' Rooms feature to have discussions. For the non-synchronous part of the course that you do on your own time, you will have a weekly reading and a weekly

Canvas:

All class resources are available to you on Canvas. All reading and discussion assignments will be submitted via Canvas 'Assignments' and graded online. Note that CANVAS DOES NOT SUPPORT 'PAGES'; 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; (3) it is fair insofar as students that faithfully submit their assignments on time every week benefit over those who are chronically late; (4) it enables the graders to be consistent in grading your assignments because they can grade all of them at once; (5) finally, it benefits you by promoting on-time submissions and fast turnaround in grading so that you know where you stand regarding your grade in the class. 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 REEF Student Web:

As mentioned, the synchronous 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 a REEF access loaded on your device (laptop, tablet, or smartphone) for use with quizzes and other activities. Your REEF 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 are based on the reading assignments and will usually be on Tuesdays. Your iClicker REEF score at the end of the semester will be your REEF participation score.

Course Credit Hour Information:

In the interest of providing sufficient time to accomplish the stated Course Learning Outcomes, this class meets the PLNU credit hour policy for a 4-unit class delivered over 15 weeks. It is anticipated that students will spend a minimum of 37.5 participation hours per credit hour on their coursework. For this course, students will spend an estimated 150 total hours meeting the course learning outcomes. The time estimations are provided in the Canvas modules.

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 paper of at least seven (7) typed pages based upon your independent research. You will be required to choose a tightly focused topic on some aspect of environmental biology that has been *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. If this sounds daunting, don’t worry because I will give you a lot of support and guidelines to direct you along the way!

In my experience, many students find writing a term paper a daunting and unpleasant task to be postponed as long as possible. The result tends to be a rushed paper written during the chaotic last week of class when multiple other major assignments are done. The end product is often far below what the student is capable of. To avoid this dilemma, your term paper will be prepared in 7 segments (seven is the Biblical number of completeness) due weekly over a 2-month period. Because each segment is focused and only 1 page long, the resulting final paper should be well written, nicely organized, and a lot more fun for me to read! Details on the 7 assignments and the due dates can be found in the table below. More details on the term paper segment assignments, peer review, information literacy, and critical thinking will be covered in class via lecture and activities. Final papers are due Tuesday Nov. 24th.

Academic Honesty:

The PLNU policy on academic honesty is listed on the institutional policies page. You may not be aware that some common student practices are considered plagiarism. For example, teaming up with other students to write joint answers to assignments that are then turned as individual assignments is plagiarism. Another form of plagiarism would be 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 almost 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 have learned on your own.

What your grade will be based on:

Points are approximate

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

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.

Foundational Explorations Mission: PLNU provides a foundational course of study in the liberal arts informed by the life, death, and resurrection of Jesus Christ. In keeping with the Wesleyan tradition, the curriculum equips students with a broad range of knowledge and skills within and across disciplines to enrich major study, lifelong learning, and vocational service as Christ-like participants in the world's diverse societies and culture.

PLNU Attendance and Participation Policy: Regular and punctual attendance at all synchronous class sessions is considered essential to optimum academic achievement. If the student is absent for more than 10 percent of class sessions (virtual or face-to-face), 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 the appropriate grade for their work and participation. In some courses, a portion of the credit hour content will be delivered asynchronously and attendance will be determined by submitting the assignments by the posted due dates. See [Academic Policies](#) in the Undergraduate Academic Catalog. If absences exceed these limits but are due to university excused health issues, an exception will be granted.

Asynchronous Attendance/Participation Definition - A day of attendance in asynchronous content is determined as contributing a substantive note, assignment, discussion, or submission by the posted due date. Failure to meet these standards will result in an absence for that day. Instructors will decide how many asynchronous attendance days are required each week.

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 further policy information.

PLNU Academic Accommodations Policy: While all students are expected to meet the minimum standards for completion of this course as established by the instructor, students with disabilities may require academic adjustments, modifications or auxiliary aids/services. At Point Loma Nazarene University (PLNU), these students are requested to register with the Disability Resource Center (DRC), located in the Bond Academic Center. (DRC@pointloma.edu or 619-849-2486). The DRC's policies and procedures for assisting such students in the development of an appropriate academic adjustment plan (AP) allows PLNU to comply with Section 504 of the Rehabilitation Act and the Americans with Disabilities Act. Section 504 (a) prohibits discrimination against students with special needs and guarantees all qualified students equal access to and benefits of PLNU programs and activities. After the student files the required documentation, the DRC, in conjunction with the student, will develop an AP to meet that student's specific learning needs. The DRC will thereafter email the student's AP to all faculty who teach courses in which the student is enrolled each semester. The AP must be implemented in all such courses.

If students do not wish to avail themselves of some or all of the elements of their AP in a particular course, it is the responsibility of those students to notify their professor in that course. PLNU highly recommends that DRC students speak with their professors during the first two weeks of each semester about the applicability of their AP in that particular course and/or if they do not desire to take advantage of some or all of the elements of their AP in that course.

Use of Technology: In order to be successful in the online environment, you'll need to meet the minimum technology and system requirements; please refer to the Technology and System Requirements information. Additionally, students are required to have headphone speakers compatible with their computer available to use. If a student is in need of technological resources please contact student-tech-request@pointloma.edu. Problems with technology do not relieve you of the responsibility of participating, turning in your assignments, or completing your class work.

PLNU Copyright Policy: PLNU, 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.

PLNU Final Examination Policy:

Successful completion of this class requires taking the final examination on its scheduled day. The final examination schedule is posted on this syllabus. No requests for early examinations or alternative days will be approved unless you have 3 final exams scheduled on the same day or another compelling reason.

Environment & People Reading Schedule – FALL 2020

- reading pack
- online resource

<u>WEEK</u>	<u>LECTURE TOPIC</u>	<u>READINGS DUE THE NEXT TUES</u>	<u>PAGES (TOTAL)</u>
Aug 18-20	Ecological collapse	(1) ●What's an education for? ●Collapse ch. 2: Twilight at Easter	5 (46) 41
Aug 25-27	Christian stewardship of the earth	(2) ●Between Heaven & Earth ch. 3	23
Sept 1-3	Sustainable development	(3) ●Ecology of Commerce ch. 2 ●Ecology of Commerce ch. 12	16 (36) 20
Sept 8-10	Population growth	(4) ○Habitable Planet ch. 5	32
Sept 15-17	Agriculture and food supplies	(5) ● Ecological Conscience: Challenges ○Habitable Planet ch. 7: Agriculture	16 (43) 27
Sept 22-24	Land degradation	(6) ○World on the Edge ch. 3, 10	26
Sept 29-Oct 1	Water Shortages	(7) ○Plan B 3.0 ch. 4: Water shortages	18
Oct 6-8	Poverty and health	(8) ○Urban poverty and health	20
Oct 13-15	Biodiversity	(9) ○Habitable Planet ch. 9	32
Oct 20-22	Global climate change	(10) ○Plan B 3.0 ch. 3	20
Oct 27-29	Wildlife versus people	(11) ●People and Wildlife ch. 14, 15, 17	33
Nov 3-5	Plant with Purpose	(12) ●Tending to Eden: Intro, ch. 2, 3	32
Nov 10-12	Sustainable Business	(13) ○Ecotourism in the Savegre Valley	46
Nov 17-19	Pastoralism and hunting	(14) ○Pastoralism and nature conservation	34
Nov 24	How can we save the Creation?	No reading!	

Final Exam (comprehensive)

Thursday Dec 3: 10:30 AM -1:00 PM

- This is the official exam time if we are meeting in person.
- If we are still online, the final exam will be via Honorlock and you will be able to start the exam at any time on this day, but will have 150 min (2.5 h) to complete it.
- Those with academic accommodations may have additional time to complete the exam.

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 Fridays

Canvas	Assignment	Description	Due Date
	Choose topic	Your term paper topic should be chosen and approved.	Sept 18
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 2
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 9
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 16
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)	Oct 23
5	Case history #2	2 nd case history illustrating another aspect of your topic focus.	Oct 30
6	Case history #3	3 rd case history illustrating another aspect of your topic focus.	Nov 6
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)	Nov 13
	Final Paper	Make any revisions to your 7 pieces and assemble them together into your final term paper. (7 pages minimum)	Nov 24

BIO 1002 – ENVIRONMENT & PEOPLE
Fall 2020, Online Class Schedule

* all times are Pacific Time (PT)

SOMEWHAT UNDER CONSTRUCTION!

● reading pack ○ online resource

Date	Class Content	Assignment due the following Tuesday	Min
Module 1: Ecological collapse			
Week 1: Aug. 18-20			
Tues, Aug. 18	Zoom Class: 10:00-11:45 am	●What's an education for? (5 pages) ●Collapse ch. 2: Twilight at Easter (41)	45 138
Wed., Aug. 19		Video 1-Environmental Revolution (55 min)	
Thu., Aug 20	Zoom Class: 10:00-11:45 am		45
Module 2: Christian stewardship of the earth			
Week 2: Aug. 25-27			
Tues., Aug. 25	Zoom Class: 10:00-11:45 am	●Between Heaven & Earth ch. 3 (23)	45 69
Wed., Aug. 26		Video 2-Between heaven and earth (30 min)	
Thu., Aug 27	Zoom Class: 10:00-11:45 am		45
Module 3: Sustainable development			
Week 3: Sept. 1-3			
Tues., Sept. 1	Zoom Class: 10:00-11:45 am	●Ecology of Commerce ch. 2 (16) ●Ecology of Commerce ch. 12 (20)	45 108
Wed., Sept. 2		Video 3- In the name of progress (55 min)	
Thu., Sept. 3	Zoom Class: 10:00-11:45 am		45
Module 4: Population growth			
Week 4: Sept. 8-10			
Tues., Sept. 8	Zoom Class: 10:00-11:45 am	○Habitable Planet ch. 5 (32)	45 96
Wed., Sept. 9		Video 4-The People Paradox (90 min)	
Thu., Sept. 10	Zoom Class: 10:00-11:45 am		45
Module 5: Agriculture and food supplies			
Week 5: Sept. 15-17			
Tues., Sept. 15	Zoom Class: 10:00-11:45 am	● Ecological Conscience: Challenges (16) ○Habitable Planet ch. 7: Agriculture (27)	45 129
Wed., Sept. 16		Video 5-Feed the People (55 min)	
Thu., Sept. 17	Zoom Class: 10:00-11:45 am	Choose Term Paper Topic (3 hrs)	45 180
Module 6: Land degradation			
Week 6: Sept. 22-24			
Tues., Sept. 22	Zoom Class: 10:00-11:45 am	○World on the Edge ch. 3, 10 (26)	45 78
Wed., Sept. 23		Video 6-In the name of progress (55 min)	
Thu., Sept. 24	Zoom Class: 10:00-11:45 am		45
Module 7: Water shortages			

Week 7: Sept. 29-Oct. 1			
Tues., Sept. 29	Zoom Class: 10:00-11:45 am	○Plan B 3.0 ch. 4: Water shortages (18)	45 54
Wed., Sept. 30		Video 7- (55 min)	
Thu., Oct. 1	Zoom Class: 10:00-11:45 am	Term Paper 1-Global Overview (3 hrs)	45 180
Module 8: Poverty and health			
Week 8, Oct. 6-8			
Tues., Oct. 6	Zoom Class: 10:00-11:45 am	○Urban poverty and health (20)	45 60
Wed., Oct. 7			
Thu., Oct. 8	Zoom Class: 10:00-11:45 am	Term Paper 2-Regional Overview (3 hrs)	45 180
Module 9: Biodiversity			
Week 9, Oct. 13-15			
Tues., Oct. 13	Zoom Class: 10:00-11:45 am	○Habitable Planet ch. 9 (32)	45 96
Wed., Oct. 14			
Thu., Oct. 15	Zoom Class: 10:00-11:45 am	Term Paper 3-Topic Focus (3 hrs)	45 180
Module 10: Global climate change			
Week 10, Oct. 20-22			
Tues., Oct. 20	Zoom Class: 10:00-11:45 am	○Plan B 3.0 ch. 3 (20)	45 60
Wed., Oct. 21			
Thu., Oct. 22	Zoom Class: 10:00-11:45 am	Term Paper 4-Case History #1 (3 hrs)	45 180
Module 11: Wildlife versus people			
Week 11, Oct. 27-29			
Tues., Oct. 27	Zoom Class: 10:00-11:45 am	●People and Wildlife ch. 14, 15, 17 (33)	45 99
Wed., Oct. 28			
Thu., Oct. 29	Zoom Class: 10:00-11:45 am	Term Paper 4-Case History #2 (3 hrs)	45 180
Module 12: Plant with Purpose			
Week 12, Nov. 3-5			
Tues., Nov. 3	Zoom Class: 10:00-11:45 am	●Tending to Eden: Intro, ch. 2, 3 (32)	45 96
Wed., Nov. 4			
Thu., Nov. 5	Zoom Class: 10:00-11:45 am	Term Paper 5-Case History #3 (3 hrs)	45 180
Module 13: Sustainable business			
Week 13, Nov. 10-12			
Tues., Nov. 10	Zoom Class: 10:00-11:45 am	○Ecotourism in the Savegre Valley (46)	45 138
Wed., Nov. 11			

Thu., Nov. 12	Zoom Class: 10:00-11:45 am	Term Paper 7-Conclusions & Refs (3 hrs)	45 180
Module 14: Pastoralism and hunting			
Week 14, Nov. 17-19			
Tues., Nov. 17	Zoom Class: 10:00-11:45 am	oPastoralism and nature conservation (34)	45 102
Wed., Nov. 18			
Thu., Nov. 19	Zoom Class: 10:00-11:45 am	Final Term Paper (3 hrs)	45 180
Module 15: How can we save the Creation?			
Week 15: Nov. 24			
Tues., Nov. 24	Zoom Class: 10:00-11:45 am	No reading	45
FINALS WEEK			
Week 16: Nov. 30-Dec. 4			
Thu., Dec. 3	Final Exam: 10:30am-1:00 pm	Final Exam (Honorlock)	60