Point Loma Nazarene University
Biology Department

Introduction to Biology (Biology 1003)
Syllabus, Spring 2020
(3 Units)

Whatever you do, work at it with all your heart, as working for the Lord **(Colossians 3:23)**

Test all things; hold fast what is good. **(1 Thessalonians 5:21)**

Professor: **Professor Kerri Sevenbergen, M.S.** (You may also call me **Professor Seven**.)

E-mail address: ksevenbe@pointloma.edu
Web page address: https://canvas.pointloma.edu

Office phone: 619-849-2603
Office location: Rohr Science Office 152 (access through RS 130 or 180)

Office hours: My office hours are **OPEN**, stop by anytime that I am not in Bio 1003 or Bio 1003L lecture or lab! If my door is open, I am either in my office, or will return soon. If I am unable to meet with you when you stop by, or you need to meet at a very specific time, we can schedule an appointment at your convenience. *Please don't hesitate to stop in, call, or email me for questions or set up an appointment.*

Lecture: MWF 12:15 – 1:10 pm **Room:** BAC 103

Laboratory: ***LABS WILL MEET DURING 1st WEEK OF CLASSES!!***

Section 1	W	2:45 – 5:15 PM	**Room**: ST 105
Section 2	F	2:45 – 5:15 PM	**Room:** ST 105

Final Exam: **Friday, May 8th, 2020, 10:30 am – 1:00 pm** (No substitutions!)

PLNU MISSION

To Teach ~ To Shape ~ To Send

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 cultures.

REQUIRED TEXTS AND EQUIPMENT

- **Belk & Borden Maier.** 2019. *Biology: Science for Life with Physiology*. 6th ed. Pearson. (The access code version is optional, but provides wonderful study tools.)
- **Haarsma & Haarsma.** 2011. *Origins: Christian Perspectives on Creation, Evolution, and Intelligent Design*, Faith Alive Christian Resources. 2nd ed. (Make sure to get the **newest** edition. This may be shared between 2 students.)
- **iClicker2 remote** for attendance and participation (bring to **ALL** lectures)
- **PLNU email address** (You are **required to check your PLNU email address at least once DAILY** for class updates. Please do this even if you have other email accounts such as Yahoo.)
- **#2 pencils**, which should be brought to **EVERY** quiz and exam.

COURSE DESCRIPTION

- This course is one of the components of the General Education Program at PLNU, under the category of "Exploring an Interdependent World." By including this course in a common educational experience for undergraduates, the faculty supports an introduction to the natural and social sciences as tools for exploring the world, with emphasis on collecting and interpreting empirical data for both theoretical and practical purposes.
- This course is designed to promote understanding of diverse subject areas in biology, both for the personal growth of each student, and to meet the California Multiple Subject Teaching Credential requirements for teaching K-8 for students who are pursuing a career in education.
- This course explores major themes in these subject areas as they relate to everyday life, ethical concerns, conservation issues, common alternate conceptions, and the convergence of science and faith.
- Course lecture and lab activities are designed to provide multiple opportunities for students to learn and to apply the major unifying ideas and to learn how scientific inquiry operates within the field of biology.
- The Biology 1003L laboratory is a co-requisite for Bio 1003 lecture. Students enrolled in Bio 1003 must be enrolled in Bio 1003L, and vice versa. If Bio 1003 is dropped, Bio 1003L must also be dropped.

COURSE SPIRITUAL OUTCOME

I would like us to work together to create an atmosphere in this class that embodies the verses:

> *You shall love your neighbor as yourself.* (Matthew 22:39)
>
> *The stranger who dwells among you shall be to you as one born among you, and you shall love him as yourself; for you were strangers in the land of Egypt.* (Leviticus 19:34)

To this end, we will be thinking about how we can help each other succeed in this class and beyond, both academically and spiritually, and how we can take responsibility for each other's achievement.

COURSE LEARNING OUTCOMES

By the end of this course, you will be able to

1. demonstrate an understanding of **major unifying ideas in biology** represented by

S	Living systems at all levels are interconnected and interacting.
T	Information is stored, transferred, and expressed at the cell, organ and system level.
E	The diversity of life changes over time (evolved) by processes of the environment acting on variation, and other types of genetic change.
M	Matter and energy are transformed within cells, organisms and ecosystems.
S	Basic units of structure define the function of living organisms and their components at all levels.

2. apply the processes and methods of scientific inquiry (both hypothesis testing and discovery science) to address biological problems and to skeptically evaluate scientific information,
3. recognize the societal role and impact of biological research,
4. use basic laboratory equipment including graduated cylinders, microscopes, and scales to test hypotheses,
5. prepare graphs to present data, interpret data, and draw conclusions based on data.

EXAMS AND QUIZZES

Students are expected to take the exams **on the day scheduled** unless they have a valid university-approved excuse cleared by me no later than the Friday preceding the exam. If there is an approved conflict you will be expected to take the exam **prior to** the scheduled time. Makeup exams may not be the same as the original and will generally be more difficult in nature. Unexcused misses will result in a zero grade.

All exams and quizzes are cumulative, and may be multiple choice, short answer/essay, or a combination of those. The dates on which exams and quizzes will be administered are indicated on the lecture/lab schedule. I will supply study guides on Canvas for each exam, which will aid in directing (but should not limit) your study efforts. You will be allowed to drop your lowest quiz score, but all exams count towards the final grade.

FINAL EXAMINATION POLICY - Successful completion of this class requires taking the final examination **on its scheduled day**. The final examination schedule is posted on the Class Schedules site, and is listed on the first page of this syllabus. NO requests for early examinations or alternative days will be approved. Please mark the date of the final exam on your calendar today!

WRITTEN ASSIGNMENTS

Please note that ALL written assignments, such as lab reports and current news assignments, must contain PROPER, FULL sentences, and legibility, proper spelling and grammar are a must. Where possible, assignments should be typed. This is part of functioning as a professional. All assignments are to be submitted/turned in by the beginning of the class session when they are due—including assignments posted in Canvas. Assignments which are turned in late will be graded as follows: 1st week late = 20% reduction, 2nd week late = 50% reduction. No assignments will be accepted after being 2 weeks late.

LABORATORY ASSIGNMENTS

Participation in laboratory experiments is **mandatory, and laboratory partners should each contribute equally to the required work for each lab assignment.** You are expected to stay for the **entire scheduled laboratory period** until dismissed by the instructor. We will often have a closing discussion towards the end of class. If you are late or do not stay for the entire lab period you will NOT get credit for missed portions of the lab reports, lab discussions or lab quizzes (can occur at the beginning, middle, or end of lab). Most often, laboratory reports are finished within the laboratory session and should be turned in at the end of that session, unless you are otherwise instructed by your laboratory professor. On occasion, you may be asked to work on a part of your lab report as homework.

ORIGINS BOOK ASSIGNMENTS

Throughout the semester, you will be assigned chapter readings and homework from the Haarsma & Haarsma book, *Origins: Christian Perspectives on Creation, Evolution, and Intelligent Design*. We will have some class discussions about this book. It is a well-written sensitive book about how science, particularly evolution, and faith can both be blessings to Christians. There will be at least two in-depth quizzes about this reading, during which you can use your homework for reference, and you will be held responsible for the content on exams as well. I greatly encourage you to be faithful in reading this book, which will be a wonderful spiritual compliment to our discussions of scientific theories.

ASSESSMENT & GRADING

This course operates on an objective point system. Each exam and assignment is worth a maximum number of points. Points will be summed within their category and weighted according to the percentages shown in the chart below. The Bio 1003L laboratory is a co-requisite for Bio 1003. Your grade for Bio 1003 and Bio 1003L will be calculated together and the same grade applied to both.

Grade Percentages for Each Assignment Category

Lecture Grade:	Midterm Exams (Cumulative)	30%	**75%**
	Lecture Participation & Assignments (iClicker points, Lecture Activities & Homework, Etc)	10%	
	Lecture Quizzes (Lowest score dropped)	5%	
	Origins book Quizzes & Assignments	10%	
	Final Exam (Cumulative)	20%	
Laboratory Grade:	Laboratory Quizzes, Reports & Participation	25%	**25%**
		Total:	**100%**

Grading scale:

A	93-100%	C+	77-79%	D-	60-62%
A-	90-92%	C	73-76%	F	Below 60%
B+	87-89%	C-	70-72%		
B	83-86%	D+	67-69%		
B-	80-82%	D	63-66%		

Your grade for Bio 1003 and Bio 1003L will be calculated together and the same grade applied to both. **Perfect attendance, punctuality, class participation, and respectful behavior towards fellow students and the instructor** throughout the semester will be looked upon highly and taken into account for borderline grades.

ATTENDANCE AND PARTICIPATION

Regular and punctual attendance at all classes is considered essential to optimum academic achievement. If a student is absent from more than 10 percent of class meetings (~5 classes), the faculty member can file a written report which may result in de-enrollment. **If the absences exceed 20% (~10 classes), a 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.** See Academic Policies in the (undergrad/graduate as appropriate) academic catalog. ***Attendance at all labs and exams is required, unless you have a doctor's note excusing you.***

A **sign-in sheet** will be available prior to the start of each class. In addition, I use iClicker participation to note both attendance and participation. It is your responsibility to either sign in when entering the class and/or participate fully in the class to receive credit for both attendance and participation. **If you forget your clicker or are tardy, then *you must initial your attendance on the sign-in sheet BEFORE you leave class* to avoid being recorded as absent that day.** NOTE: Should the need arise to drop this course, the student has the responsibility to follow through, not the instructor. Simply ceasing to attend this course or failing to follow through to arrange for a change of registration may result in a grade of F on the official transcript.

I lecture in a semi-discussion style manner. Thus, I hope that everyone will be willing to participate in the discussion through asking and answering questions (**raise your hand, please**). I realize that this is a large class, and therefore it is hard to directly participate all the time, particularly if you tend to be shy. Thus, I am requiring iClickers and will have questions throughout the course that you must answer by your iClicker. **Generally I am looking for thought and participation.** You will receive 1 point participation credit each time you answer the iClicker questions, regardless of whether or not you give the correct answer. **However, to encourage thoughtful active learning, both in the classroom and outside the classroom on course assignments, I will give 0.5 extra credit points for correct answers. You should read ahead so that you can participate effectively**, to be able to answer iClicker questions that may be based on the reading, and for your own learning benefit. It has been demonstrated numerous times and in numerous ways, that reading ahead of attending the lecture greatly enhances your understanding of the material, even if you didn't understand everything as you were reading it. Everyone must have their own iClicker2 and it must be registered with your student ID number. iClickers are available in the bookstore or online: http://www.iclicker.com/Products/iclicker2/

You should arrive to class ON TIME!! Tardiness is extremely disruptive and disrespectful to both the instructor and your fellow students. Please be respectful! Full attendance on any day assumes that you are present for the whole class. If you cannot avoid being late due to a university-excused event, please enter the classroom through the back door. **Do NOT get up in the middle of class and leave the room for any non-emergency reason**, or without permission from a university-approved event. Certain absences may be excused but must be discussed with me ahead of time or require a doctor's note. Lab absences cannot be made up unless previously arranged. **Class participation is weighted at 15%, so it benefits your grade to attend all lectures and labs and to be on time!!!**

In order to create the best learning environment possible, the mutual respect and willing participation of every student is essential. All students should work in groups when asked to do so. In lecture, you may be asked to work in groups of your choice, or I may assign groups. In lab, I will assign lab partners and groups. I may shuffle the groups on occasion during the semester. You may be surprised how much you can learn from one another, especially from people who you may not have known previously and have a different background from you.

ACADEMIC HONESTY

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.

The Point Loma Nazarene University community holds the highest standards of honesty and integrity in all aspects of university life. **Any violation of the university's commitment is a serious affront to the very nature of Point Loma's mission and purpose.** Violations of university academic honesty include **cheating, plagiarism, falsification, aiding the academic dishonesty of others, or malicious misuse of university resources.**

NOTE: Violations of academic honesty also include **using notes or any other materials from previous offerings of this course, providing course materials from this semester to future students of this course, copying from or providing to other students any portion of course assignments (sharing files), signing in for class (via a sign-in sheet or iClicker) under a name other than your own, using another student's iClicker for them, or allowing other students to use your iClicker for you.**

We will do a lot of group work in this class, and I encourage you learn from the diversity of each other. However, when you work together, each member of the group should be contributing to the final product, and each person must hand in their own homework. Each assignment must be written in your own words, and no electronic files should be exchanged. Work together, contribute to the final product, and don't copy someone else's work.

Although this is a Christian institution and one would hope that there are no instances of academic dishonesty, this class has a **zero tolerance policy for academic dishonesty**. Cheating or plagiarizing will result in an automatic failure of the assignment and referral to the Dean of Academic Affairs. In addition, if you use someone else's ideas, you will not get the benefit of figuring the assignment out on your own, which will greatly decrease your chance of success on the exams. Talking with a neighbor or using a cell phone during an exam or quiz is not allowed and may result in a zero grade for that assignment.

USE OF TECHNOLOGY

Use of laptops, varieties of ipad, cell phones or any other electronic communication devices during class is strictly prohibited. I require your full attention and participation in the course. **All electronic devices (except for your iClicker2 remote), especially cell phones, should be off/muted and PUT AWAY in your bag.** Unauthorized use of a cell phones or any other electronic device during class on any assignment, and especially on quizzes or exams, is grounds for failure of that assignment. **Please, NO texting** during class or lab, as it distracts both you and people around you. Only in cases of emergency should you leave class to take a phone call, unless the lab is on a break. I reserve the right to dismiss students from class for cell phone use. On the contrary, **I will ask you to bring your lap top to some labs, generally one per student pair, so that you can work on lab reports, etc.**

ACADEMIC ACCOMMODATIONS

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. For more details, see the PLNU catalog Accommodations.

STUDY HINTS

1. Starting from the Bio 1003 course schedule, find the textbook reading. Sometimes this is a whole chapter or a combination of pieces from one or more. Note that I cannot and do not intend to reproduce all of the assigned textbook material in lecture; **nevertheless it is your responsibility to study it.** In addition, identify where we have covered added material in class. (I will archive lecture slides on Canvas). You need to know and understand both textbook and lecture material.

2. Make sure that you understand the meaning and application of all the terms shown in bold within the textbook reading and any extra terms or definitions I've introduced in lecture.

3. Check that you understand what is being shown in the diagrams that we discuss. **Without looking at your lecture notes, try to explain what is happening in a particular diagram to a friend or tutor.**

4. Good review tools are the chapter summaries and applicable questions in learning the basics and analyzing and applying the basics at the end of the chapters. These are the kinds of questions that will be in the exams.

5. There is no fault in seeking study help. **Dedicated students take advantage of all avenues of learning**. There are many places to gain assistance or study skills: your peers, me, tutors at the University Tutorial Center, or sites like http://www.pointloma.edu/Tutorial_Services.htm.

A FEW POINTERS

Make sure that you do not merely memorize information, but that you **understand the underlying concepts and how they connect with other topics we have covered**. You are encouraged to take advantage of the small group tutoring sessions offered free through the Academic Support Center, in which students can meet with a tutor on a weekly basis. Students who take advantage of the tutors will be given extra consideration in the case of borderline grades.

Write the due dates of all quizzes, exams, and assignments on your calendar, and check it frequently! Don't wait until the last minute to study. Study your notes and read your text and other materials frequently, not just before exams. Make a commitment to spend **at least 60 minutes studying each day**, and the exams will be easier.

Show up on time to lecture/lab and take good notes. Come prepared to class (e.g., homework ready, assigned reading done, wearing appropriate outdoor clothing for field trips, etc.), especially to lab sessions. Remember to bring any required materials or handouts with you to class.

My expectation is that, on whatever you are asked to do in this class, you will do your very best. **Your positive attitude and respect for everyone else in the classroom are very important!** ***If you take seriously these expectations and give it your best shot, you're going to have a great time in this course, and you will contribute to a positive experience for other students as well.***

Ask questions, email, visit me in my office, call me!! I am here to help—remember that! I do not say this lightly. I love helping students understand biology, which is a passion of mine.

God bless and enjoy biology!
Prof. Seven

FERPA POLICY

In compliance with federal law, neither PLNU student ID nor social security number should be used in publicly posted grades or returned sets of assignments without student written permission. This class will meet the federal requirements by (Note: each faculty member should choose one strategy to use: distributing all grades and papers individually; requesting and filing written student permission; or assigning each student a unique class ID number not identifiable on the alphabetic roster.). Also in compliance with FERPA, you will be the only person given information about your progress in this class unless you have designated others to receive it in the "Information Release" section of the student portal. See Policy Statements in the (undergrad/ graduate as appropriate) academic catalog.

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.