BIOL 1407: Biology for Science Majors 2 Syllabus

General Information
College Name: North Lake College
Division: Mathematics and Natural Sciences
Semester/Term & Year: 2019 Summer

Instructor Information
Name: Dr. Matthew Dempsey (Dean of Math and Science)
DCCCD E-mail Address: mdempsey@dcccd.edu (preferred method of communication)
Telephone: 972-273-3500
Office Number: P-330 (By appointment only)
Website(s): eCampus http://ecampus.dcccd.edu and North Lake College http://www.northlakecollege.edu
GroupMe: We will be using the GroupMe App for communications. You're invited to join my group "Summer 1407 INET/Hybrid" on GroupMe https://groupme.com/join_group/50729440/tO0BI3Lx

Course Information
Course Number: BIOL 1407
Section Number: 76426
Credit Hours: 4
Class Meeting Time: This is a fully-online course (w/proctored exams)
Lecture: Online narrated content with collaborate online sessions possible.
Lab: Online narrated content with collaborate online sessions possible.
Course Title: Biology for Science Majors II
Course Description: Course Description: An introductory survey of current biological concepts for students majoring in the sciences. The diversity and classification of life will be studied, including animals, plants, protists, fungi, and prokaryotes. Special emphasis will be given to anatomy, physiology, ecology, and evolution of plants and animals. Laboratory activities will reinforce study of these concepts. (3 Lec. 3 Lab.) Coordinating Board Academic Approval Number 2601015103
Course Prerequisites: BIOL 1406
Program Level Objectives: Biology 1407 develops the following objectives from the Texas Higher Education Coordinating Board: Communications (written and visual), critical thinking, empirical and quantitative skills.
Measurable Student Learning Outcomes:
Lecture Class Learning Outcomes:
The diversity and classification of life will be studied, including animals, plants, protists, fungi, and prokaryotes. Special emphasis will be given to anatomy, physiology, ecology, and evolution of plants and animals.
Upon successful completion of this course, students will:
• Describe modern evolutionary synthesis, natural selection, population genetics, micro and macroevolution, and speciation.
• Describe phylogenetic relationships and classification schemes.
• Identify the major phyla of life with an emphasis on plants and animals, including the basis for classification, structural and physiological adaptations, evolutionary history, and ecological significance.
• Describe basic animal physiology and homeostasis as maintained by organ systems.
• Compare different sexual and asexual life cycles noting their adaptive advantages.
• Illustrate the relationship between major geologic change, extinctions, and evolutionary trends.
Laboratory Class Learning Outcomes:
This laboratory-based course accompanies Biology 1307, Biology for Science Majors II. Laboratory activities will reinforce study of the diversity and classification of life, including animals, plants, protists, fungi, and prokaryotes. Special emphasis will be given to anatomy, physiology, ecology, and evolution of plants and animals.

Upon successful completion of this course, students will:

- Apply scientific reasoning to investigate questions, and utilize scientific tools such as microscopes and laboratory equipment to collect and analyze data.
- Use critical thinking and scientific problem-solving to make informed decisions in the laboratory.
- Communicate effectively the results of scientific investigations.
- Demonstrate knowledge of modern evolutionary synthesis, natural selection, population genetics, micro and macroevolution, and speciation.
- Distinguish between phylogenetic relationships and classification schemes.
- Identify the major phyla of life with an emphasis on plants and animals, including the basis for classification, structural and physiological adaptations, evolutionary history, and ecological significance.
- Describe basic animal physiology and homeostasis as maintained by organ systems.
- Compare different sexual and asexual life cycles noting their adaptive advantages.
- Illustrate the relationship between major geologic change, extinctions, and evolutionary trends.

Course Outline

Exam 1 – Ecology and Ecosystems
Survey of Ecology and Ecosystems.
Focus on biomes, ecosystems, food webs, population ecology and relationships.

Exam 2 - Evolution
Chapter 22 – Descent with Modification
Chapter 23 – The Evolution of Populations
Chapter 24 – The Origin of Species
Chapter 25 – The History of Life on Earth
Chapter 26 – Phylogeny and the Tree of Life

Exam 3 – Archaea, Bacteria, and Protista
Chapter 27 – Bacteria and Archaea Diversity
Chapter 28 – Protista Diversity

Exam 4 - Plants
An Introduction to Basic Plant Anatomy and Morphology
Chapter 29 Bryophytes and Tracheophytes
Chapter 30 Gymnosperms and Angiosperms

Exam 5 – Fungi and Animalia Introduction
Chapter 31 – Fungi Diversity
Chapter 32 – Animalia Anatomy Introduction

Exam 6 - Animals
Chapter 33 – Basal Animals
Chapter 33 – The Lophotrochozoa
Chapter 33 – The Ecdysozoa
Chapter 34 – The Deuterostomia (and you)

Required or Recommended Materials
Text: Biology (North Lake College Custom Version) or you may purchase the entire book Biology (please see my note on this below).
BIOL 1407: Biology for Science Majors 2 Syllabus

Author: Campbell/Reece

Custom North Lake Only Book ISBN: 9781269967365
Copyright Year: 2011
Publisher: Pearson Learning Solutions

*My personal note. Please consider using the larger edition of the book. It will assist you in future classes (anatomy and physiology, ecology, microbiology, and any upper division zoology or botany class). Campbell’s 11th edition is the latest version. The 9th or 10th would be adequate for your understanding. There will be no required work out of the text book. A copy has been made available to you in the library and the Science Center in P-333.

Computer Requirements: Please have the Microsoft Office Suite. A free copy of Microsoft Office is available to you while you are a DCCCD Student. Please use the following link Click HERE to access that free resource. You should be able to view power point, author documents, hear audio and play MP4 video files. Also you should have a computer that is adequate to run basic blackboard functions. We may have collaborate sessions. While a webcam and mic will enhance your ability to participate, there is a very good chat client that will allow you to participate adequately without those tools.

Pearson Mastering Biology: You do not need the access code! There is a Mastering Course for you to access if you already have a code and wish to use it. The materials on the mastering site will help, and the e-book is pretty handy. However, it is not required.

Recommended supplemental text: (will help with lab and lecture, may not available in bookstore)
Not mandatory!

Text: A Photographic Atlas for the Biology Laboratory
Author: Kent M. Van De Graaff and John Crawley
ISBN: 978-0895828033
Copyright Year: 2009
Publisher: Morton Publishing Company

Laboratory Materials
Text: None – this is an Open Educational Resource Lab (OER) – no text or lab kit is needed to complete this lab.

Materials: You may need some materials to complete your lab. Please see each individual lab to determine what it is you need to complete the learning objectives. Whenever possible we have even offered some inexpensive alternatives and allow for creativity in the set-up.

ISBN for Textbooks

LECTURE: Custom Book: 9781269967365 or Campbell’s 11th: 9780134093413
LABORATORY: Various Supplies (see individual lab exercises).
SUPPLEMENTAL TEXT ISBN: 9780895828033

Evaluation Procedures

Lecture Evaluation (70%): Your lecture is based on a combination of lecture exams, journals, quizzes, surveys etc. – in reality whatever I give you in lecture could be part of your grade configuration. The table below will outline how your grade is calculated. Some important notes:

- Lab is not weighted the same as lecture. This means that you cannot use the MY GRADES section of blackboard to calculate your grade. Do not use MY GRADES section to calculate grades, but it is a good source to see how you did on individual items.
- Pay attention to due dates for quizzes, journals, and all other assignments. When an item expires, it will no longer be available to take.
- Additional graded items may be assigned during the semester, however this is unlikely.
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• Lecture exams will be given in the testing center at North Lake College (north, central, and south campus locations) and must be completed before the deadline expires.
• You may propose an alternate location for testing; however, that must be done with approval and may take up to two weeks to complete. The instructor reserves the right of approval in all non-North Lake testing centers.
• Lecture exams are computer based and you will not need additional testing materials.
• Please see the course calendar for due dates for the exams. There is flexibility built in to the course, but in order to promote the best learning experience, the dates for exams are final and non-negotiable. If you encounter a mitigating circumstance that prohibits you from completing your assignments on time you may appeal. First, you must have extreme circumstances. Secondly it must be extensively documented. Third, if extra time is warranted, the attempt will not be eligible for curve, bonus, or retaking.
• Exams and assignments are to be completed on-time, without exception. Should unusual circumstances arise, regardless of their nature, they must be well documented, subject for interpretation, and extreme.
• Ultimately the successful completion of this course is upon the learner to stay on-task and progress through the course.

Your lecture grade (70% of final grade) is calculated as follows.

Exam 1 = 100pts Week 1 (70% of questions lecture based & 30% lab)
Exam 2 = 100pts Week 2 (70% of questions lecture based & 30% lab)
Exam 3 = 100pts Week 3 (70% of questions lecture based & 30% lab)
*The best possible pace in this class is to have 50% of the work done in the first 2.5 weeks.
Exam 4 = 100pts Week 4 (70% of questions lecture based & 30% lab)
Exam 5 = 100pts Week 4 (70% of questions lecture based & 30% lab)
Exam 6 = 100pts Week 5 Thursday @5PM (70% of questions lecture based & 30% lab)
*The final exam date and time are not negotiable.
Quizzes 1-6 & Intro Quiz 10pts each = 70pts (due before taking the corresponding exam)
Lab Units 1-6 120pts (due before taking the corresponding exam)
Lab Safety 10pts (due before starting lab)
Journals 1 = 10pts Journal 2 = 40pts (J.1 due 1st week / J.2 due at 5PM class end)
SLO Quiz 10pts each due Thursday before finals @ 5PM – should be able to complete by wk3.
The Planet Project – 250pts (25% of your grade). Due the Monday of finals week @ noon.
Total Lecture Points = 1,130pts

Exams and assignments are to be completed on-time, without exception. Should unusual circumstances arise, regardless of their nature, they must be well documented, subject for interpretation, and extreme.

SOME ADDITIONAL GRADING NOTES:

• Each exam may be taken twice, with your grade the average of those two attempts. If you score lower on the 2nd attempt, it will lower your grade.
• Each unit quiz has unlimited attempts. Your grade will be the average all attempts.
• Quizzes, journals, etc. are due at the same due date of corresponding exams.
• Journals will be strictly graded according to the rubric provided. Please follow those instructions carefully. Plagiarism will be severely punished.
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- The Planet Project will be explained in class. A rubric will be provided.

**Bonus opportunities may be possible. Check announcements or ask about opportunities.**

**Laboratory Evaluation (30%):** Your lab grade is embedded into the overall function of the lecture material. In BIOL 1407 there is a very strong connection between lab and lecture. Your lab instructor has the right to modify this formula and add additional assignments as she/he sees fit. Please attend lab regularly and communicate with your laboratory instructor to determine your academic performance in that facet of the class.

**YOU MUST COMPLETE THE HAND-IN SECTION OF THE INET LAB ACTIVITIES OR YOUR SCORE FOR THE END OF LAB ASSESSMENT WILL BE ZERO! You do not get graded on the portion you necessarily turn in, it’s a completion score, but if you do not turn it in, or it is inadequate it will zero out your end of lab assessment.**

**Grading Scale**

Lecture 70% + Lab 30% using the following scale.
- 90-100=A
- 80-89=B
- 70-79=C
- 60-69=D
- 59 and below=F

*Rounding to the nearest whole number using 0.5.

**Exams and Assignments**

**Lecture:**
- Exams – as outlined above there are six lecture exams that correspond to chapter content.
- Quizzes – all units will have quizzes that correspond to the exam material. Taking them will help you prepare for the exams.
- Journals – there will be two journals. Please complete journal one on the first day of class and then the final journal toward the end of class. Do not attach a document! Past them directly into the journal. Each journal has a rubric and they will be strictly followed.

**Calendar of Exams and Assignments**
- Week 1 - Diversity of Life and Syllabus + Ecology and Ecosystems (End of Unit)
- Week 2 - Evolution
- Week 3 – Archaea, Bacteria, and Protista
- Week 4 – Plantae
- Week 4 – Fungi and Animal Intro
- Week 5 – Animals - Planet Project Wrap-Up & Final Exam

Note: Please keep up with the work in a timely manner. You may be prompted during the semester if you are not keeping up.

**Laboratory:** Please see your lab instructor for a calendar and complete list of assignments.

**Lecture and Laboratory Attendance:** While lecture is not attended in person, students should login and check e-campus at least once a week. This will be monitored and assessed. Laboratory attendance is required. If attendance in lab or on e-campus is not meeting expectations the instructor may modify the syllabus to include a point value for attendance.
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The last day to drop this class with a “W” is Friday July 30.
North Lake College Institutional Policies

Institutional Policies

Classroom Policies

Please read this section carefully. These policies are important to me!

E-mail Policy:
E-mail will be checked on Monday mornings and you can expect about a 24hr turn around on all
e-mails during the work week. I check my email for the last time Friday at noon, and you can expect
all weekend emails to be answered the following Monday. Knowing that I will not check my email
over the weekend, please consolidate your ideas. I would cringe to see an inbox with multiple
emails from a single user. Hardly something to laugh about, but I once had 30 emails from a single
student over a weekend. Certain e-mail subjects will be ignored. Per FERPA guidelines I cannot
discuss your grades over email. I will also not respond to any emails that ask for an “extra day” or
“extra time.” The district has a very tight SPAM filter, and if you do not feel like your email is being
addressed in a timely manner, call me.

Please keep all communications respectful and classy.

Students will not send unsolicited email espousing a cause, religion, or activity to other class
participants and will not add other class participants to any listserves or other entity which
distributes unwanted email or material.

Office Hours Policy:
My day job, even though it is on-campus, needs to be considered as an unavailable time for me.
Please email me for an appointment. I will be available some nights and online, however, my 8-5 job
needs to be considered off-limits. Please do not drop in to talk to me during the work day, you will
be sent away and asked to make an appointment.

End of Class Procedures:
When this class ends, it ends. When the final exam deadline passes, I will take down the entire
course. I do this so I can configure the grades properly. This means that if you wish to preserve
anything from the course, you should make sure that you have downloaded your gradebook or any
materials before that day.

My Academic Dishonesty Policy:
I will not tolerate cheating. If you are caught plagiarizing your journals, cheating in the testing center,
or other manners or cheating, my penalty is failure in the entire course. Not just an F on the
assignment, you will fail the course.

Quiz Policy:
I get a lot of questions about my quizzes and I would like to address it here. When you take a quiz,
it does not tell you what you got right and what you got wrong. This is intentional. Like a good
science experiment, we run the process and then we get results. Interpreting the results is the
cornerstone of the scientific process. We often don’t know what went right and what went wrong.
The science, is sorting this out. You will get the hang of it. With the quizzes I encourage you to
collaborate with others, talk through the answers, and learn. When you reaffirm you got something
right, you have taken the guesswork out of future responses. When you research something you
thought you got right, but in-fact got wrong, you truly learn. Lastly, when you research a question
you got completely wrong, you are uncovering areas you may need to study further.

Certification of Attendance Policy:
You have four assignments to complete in the first week. You must (1) to post in the discussion
board, (2) complete the first journal, (3) join the GroupMe app and (4) take the intro quiz. The intro
quiz is imperative because this is what I use to certify your attendance. Which means if you skip this
or complete it late, it may impact your financial aid status in the class! If you click on the START HERE
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link in e-campus more information is available. (use the navigation on the left and look for “START HERE”

Computer Glitch Policy:
You may encounter a computer glitch while you are taking a quiz. This happens. I empathize, it happens to me all the time. So here is what you do. Make sure you have documented the glitch. Secondly, save your documentation. Please do not ask for quiz resets as I will not be resetting quizzes over the semester. Usually I can see that the glitch has occurred because it looks like the quiz was abandoned – I will delete two glitch quizzes per student over the semester. If you think somehow quiz glitches have altered your final grade, you may present your documentation for consideration of a grade recalculation. I can tell you that in the history of teaching this class, that has never occurred, but I am willing to accept the discussion. Systemic and habitual computer failure will be considered a student’s responsibility.