

Biology for Science Majors II

BIOL-1407

Summer II 2021 Section N01 CRN-40727 4 Credits 07/12/2021 to 08/09/2021 Modified 07/19/2021

Meeting Times

Lecture: M-F Online

Lab: M-F Online

Contact Information

Professor: Mark Hutchinson

Email: mark.hutchinson@blinn.edu

Office: Building D; Room 173

Phone: 979-209-8873

**Email is the best way to contact me as I will not physically be in my office to receive phone calls.

If you call my office, you must leave a message which I will receive via email...so you should have just emailed me!**

Office Hours: Tuesday 3-4 PM via Zoom

Thursday 3-4 PM via Zoom

Description

3 lecture hours and 3 lab hours per week; 96 total contact hours. Credit: 4 semester hours.

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. Lab activities reinforce lecture topics.

Requisites

Prerequisite: A student must be college ready in reading according to TSI college-ready standards.

Recommended: Successful completion of MATH 1314 - College Algebra or concurrent enrollment in higher-level mathematics.

★ Core Curriculum Statement

Through the Texas Core Curriculum, students will gain a foundation of knowledge in human cultures and the physical and natural world, develop principles of personal and social responsibility for living in a diverse world, and advance intellectual and practical skills that are essential for all learning. For details relating to this core course, please see:

<http://www.blinn.edu/academics/core-curriculum.html> (<http://www.blinn.edu/academics/core-curriculum.html>)

Outcomes

1. Describe modern evolutionary synthesis, natural selection, population genetics, micro and macroevolution, and speciation.
2. Describe phylogenetic relationships and classification schemes.
3. 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.
4. Describe basic animal physiology and homeostasis as maintained by organ systems.
5. Compare different sexual and asexual life cycles noting their adaptive advantages.
6. Illustrate the relationship between major geologic change, extinctions, and evolutionary trends.
7. Apply scientific reasoning to investigate questions, and utilize scientific tools such as microscopes and laboratory equipment to collect and analyze data.
8. Use critical thinking and scientific problem-solving to make informed decisions in the laboratory.
9. Communicate effectively the results of scientific investigations.

Materials

Textbook: *Life: The Science of Biology*, 12th Edition, 2020. Sadava, Hillis, Heller, and Hacker. Sinauer Associates, Inc.

- I view this text as optional but an excellent resource for supporting your lecture learning process. You may purchase this textbook as a hardcopy from the bookstore or you can gain access to it digitally (this is my recommended option) through your achieve account (mentioned below). Either format is fine.

Lab Manual: *Biology 1407 Biology for Science Majors II Lab Manual – VitalSource E-book, 2nd Edition, 2020. Hutchinson, M. (Ed.), Hayden-McNeil Publishing.* *NOTE: This manual should be available in a digital format for this summer term. If you have an option, PLEASE USE THE DIGITAL VERSION!! While the print copy will work, the digital version is more efficient.

****Access to Achieve**** - This is the online companion site to our textbook and we will be using it for chapter homeworks and bonus quizzes.

- You can gain access to this site in two ways:
 1. By purchasing only the access code when you first log in to Achieve through eCampus. **NOTE:** if you have had access to Achieve at Blinn since last Fall, your access code should still be active and you will not need to purchase anything else.
 2. With an access code that comes with your hardcopy of the textbook bought from the Blinn bookstore

Scanner or Phone for copying images: You will need to either scan or take photos of some of the assignments for the lab and upload them to an eCampus dropbox.

Printer to print lab pages if you get the digital version of the lab manual. This requirement may be unnecessary as some students have used a digital editing software to write, draw, etc. on the digital copies of their lab manual. If you can do this in a NEAT and TIDY, organized fashion, I am fine with that option and the printer is not needed.

Full Computer and Reliable Internet Access: For an online course, you will need a full computer (not a smartphone or a light tablet) and daily internet service that is reliable and reasonably fast. For more on minimum hardware and software, please see: <http://www.blinn.edu/online/technical/ecampus-tech.html>

- For lecture and lab, you will be viewing videos on YuJa.
- For all course materials, you will access them through eCampus.
- Some assignments may require use of MS Word, Powerpoint, or Excel. You may access these using your Buc email account after accessing the download at the following: <http://www.blinn.edu/acadtech/Office365.html>
- All exams will require the of Honorlock online test proctoring software. To use Honorlock, you will need a reliable speedy internet connection, a webcam (internal or external), a windows or Mac operating system, and a government issued photo ID. You will also have to use Chrome and download the Chrome extension downloaded when you take your first exam.

Course Requirements

[eCampus Access](#)

Access to the internet is required for full participation in this course. Students may access eCampus (a.k.a. D2L or Desire2Learn) on a home computer (not a smartphone or light tablet).

I will be using eCampus to post course materials and communicate with students. You will also access all online homeworks and online bonus quizzes through the eCampus site. Additionally, you can ask me questions or address concerns via eCampus. You may also contact other students on eCampus to discuss course-related topics.

Lab exercises

During the course of each lab, we will complete quizzes, turn in scans to a dropbox, or complete other assignments corresponding with the lab exercises for the day. You will be completing modules designed to help you work through each lab activity using a combination of videos, instructional text, and examples. This category is worth 10% of your grade (or 100 points total).

Lecture Exams

There will be 4 lecture exams worth 100 points each. Lecture exams will consist of 50 multiple choice questions, All exams must be taken using Honorlock test proctoring software. See "Proctoring Requirements" in the Course Policies section below for all instances where you must use Honorlock.

Make-up exams are only offered to students with an excused absence (according to Blinn Policy).

Lecture Exams will make up 40% of your overall grade.

Lab Exams (Practicals)

There will be 3 Lab Practical exams worth 75 points each. These exams will cover material covered in the lab manual and activities you complete in each lab's online module. Like lecture exams, the lab practicals must be taken using the Honorlock test proctoring software.

Make-up exams are only offered to students with an excused absence (according to Blinn Policy).

Lab Exams will make up 22.5% of your overall grade.

Final Exam

We will have one comprehensive final exam worth 200 points. It will be composed of approximately 100 multiple choice questions. The final exam will cover all material covered by the four previous lecture exams. The final exam must be taken using the Honorlock test proctoring software.

The final exam will make up 20% of your overall grade.

Lecture Homework-Achieve

Upon completion of each chapter in our lecture portion of the class, you will be assigned a homework activity corresponding to that chapter. These assignments will be given through the online course textbook website accessible via your eCampus course homepage. The homeworks over each chapter covered on each lecture exam will be due at **11:59 PM the same night the lecture exams over those chapters is given**. For example, if the exam is to be given on Friday of a given week, your homeworks over those chapters will be due that same Friday one minute before midnight.

Students will have to use the access code provided with their textbook (if new) or purchase an access code through the website. Options for purchasing the access code and the process by which you will access the section for this course will be given in one of the first day's orientation videos.

Achieve Homeworks will make up 7.5% (75 points) of your overall grade and will be an averaged category. You will complete homeworks and earn points for your work. When it comes time for me to enter grades for this category, I will calculate the percentage of points you have earned of the points available. I will then convert this percentage to the number of points that percentage represents out of the 75 points in this category. For example, if you have earned an average of 90% of the points available, I will enter 90% of 75 points (67.5 points) into the homeworks category in the gradebook. I will do this only once at the end of the semester.

Bonus Quizzes - Achieve

Throughout the semester, I will offer optional bonus quizzes through the online companion website for our textbook accessible via our eCampus course homepage. There will be quizzes over each chapter's content and they will be due at the same time the homeworks over each chapter are due. The quizzes will be averaged together and will be worth a total of 10 points at the end of the semester. For example, if your average grade on the quizzes was 75%, at the end of the semester, you will earn 75% of the available 10 points...or 7.5 points.

I will NOT make bonus points available on an individual basis. Any bonus points made available will uniformly be offered to the entire class. DO NOT ask for individual bonus points!

Online Discussion Forums

Participation in discussion forums on lecture topics will be required on a weekly basis. Points for discussion forums will be added into the lab assignments category. Students are expected to conduct themselves in a professional manner when posting to the forums. See Netiquette policy below in the orientation module of our eCampus course for more information.

✓ Evaluation

Point Distribution:

Evaluation Method	Point Total
Lecture Exams (4 exams x 100 points each)	400
Final exam (200 points)	200
Lab Exams (3 exams x 75 points each)	225
Lab Exercises	100
Online Homework (Averaged Category)	75
Total Points	1,000

Final Grade Determination: The following point totals will ensure the letter grade listed. To be sure you earn a particular letter grade, you must earn the points that indicate that letter grade.

- A=900-1,000 (90-100%)
- B=800-899 (80-89.9%)
- C=700-799 (70-79.9%)
- D=600-699 (60-69.9%)
- F=<600 (0-59.9%)

There will be NO CURVES at the end of the semester so your point total will be the only indicator of your final grade. It is your responsibility to keep a running total of the points you have earned in the course throughout the semester.

How to Succeed in this Course

Science courses may be challenging and difficult. Most successful students spend two to four hours studying per week for each credit hour of the course.

Key Points

- Have access to all the materials and technology required for this course (webcam, microphone, computer, reliable internet, etc).
- Attend all classes. Each lecture builds on the previous lecture. Stay ahead of the material.

- Come to class prepared by reading the textbook and/or lab manual beforehand and taking notes before class to improve success.
- If you have a question during lecture, go ahead and ask it. Chances are that at least three other students have this same question.
- Know your deadlines and course policies by looking at the syllabus, instructor announcements, and eCampus dates, schedules, and news items.
- Work through lots of practice problems in addition to your homework.
- Form study groups with your peers.
- Ask your professors for help, visit office hours, and, if needed, request an appointment to see your instructor one-on-one.

o Be prepared when you visit with your instructor and have questions related to content ready.

- Seek help from Blinn College's tutoring services, if needed.
- Be responsible for your own learning by actively engaging in the course.

Blinn College Policies

All policies, guidelines, and procedures in the [Blinn College Catalog \(http://catalog.blinn.edu/\)](http://catalog.blinn.edu/), [Blinn College Board Policies \(http://pol.tasb.org/Home/Index/1204\)](http://pol.tasb.org/Home/Index/1204), and the [Blinn College Administrative Regulations \(https://www.blinn.edu/administrative-regulations/\)](https://www.blinn.edu/administrative-regulations/) are applicable to this course.

[Specific information on civility, attendance, add/drop, scholastic integrity, students with disabilities, final grade appeal, alternative retailers, campus carry and proctoring arrangements and cost. \(http://www.blinn.edu/syllabus-policies/\)](http://www.blinn.edu/syllabus-policies/)

Notice of any action taken under these protocol and procedures, by Blinn College or its employees, may be delivered by hand, through the U.S. Postal Service, or electronically to the student's Blinn Buc e-mail account. Notice shall be deemed received upon actual receipt, on deposit in the U.S. Mail, or upon entering the information processing system used by Blinn College for Blinn Buc e-mail accounts, whichever first occurs.

Information about the changes Blinn has made to the May Minimester, Summer I, and Summer II semesters: [Back with Blinn \(https://www.blinn.edu/back-with-blinn/index.html\)](https://www.blinn.edu/back-with-blinn/index.html).

* Course Policies

Attendance Policy Reminder:

Class attendance is essential for student success. Although there are no face-to-face meetings required for this course, your attendance will be monitored through your participation in the course site each week.

- o Simply logging into the course website does not constitute attendances. You must complete the assignments within the unit course module by their due date for it to count towards attendance.
 - Zeros on all assignments for 2 course meeting dates= 1 week of unexcused absences
 - Zeros on all assignments for 4 course meeting dates= (does not have to be consecutive) = 2 weeks of unexcused absences
- o Students who accrue one week's worth of absences during the semester will be sent an e-mail through their Buc account requiring them to contact their instructor and immediately schedule a conference to discuss their attendance issues. **Students who accumulate two weeks' worth of unexcused absences may be administratively withdrawn from class.**

Exam Make-Up Policy: Make-up exams are only offered to students with an excused absence. Excused absences include those officially recognized by Blinn College, plus a death in the family, or an illness with a doctor's certification. **To arrange for a make-up exam contact me via email no later than the day after the exam in question.** Failure to contact me in a timely fashion will severely limit my ability to allow you to make up an exam. An unexcused absence from an exam will result in a grade of zero. **NOTE: Technical difficulties will not serve as a valid excuse to make up an online assignment except in rare circumstances.** This is an online course you have registered for. You must have reliable equipment and online access and a backup plan for each need in the course. If your home internet fails, have a backup plan of where you will go to complete an exam on short notice. If your computer crashes, have a plan of how you will gain access to another machine to complete your assignments.

Problem Resolution: If you have a complaint about your class, you should first request a conference with me (your professor) to try and resolve the problems or issues. If the problems or issues cannot be resolved to the instructor level, you should request a conference with the Assistant Dean of Biology, Michelle McGehee, Ph.D, 979-209-7378, michelle.mcgehee@blinn.edu

Mutual Respect: I will give you all the respect you deserve without question. Simultaneously, I expect you to respect me and your classmates. This will mainly come into play during online discussion forums or during remote office hours. You will be required to be polite in spoken or written words toward others and wear clothing that is appropriate for a semiprofessional environment when video is enabled.

Q-Drop Deadline: The last day to withdraw with a "Q" is Friday, July 30th, 2020.

Proctoring Requirements: READ THIS INFORMATION CAREFULLY!!!

- All exams in this course must be proctored using Honorlock online proctoring. Honorlock is a live online proctoring service that allows you to take your exam from the comfort of your home.
- In order to use Honorlock, you will need to have a high-speed internet connection, a webcam (internal or external), a windows or apple Operating System, and a government issued photo ID.
- Please make sure that you are using the current version of Chrome. You will also need to download the Honorlock chrome extension (there will be a link for this on the eCampus page). Please feel free to direct any questions to the student support team via the live chat within your account.
- Please see the Proctoring Requirements module in your eCampus course for more information.

Communication Policy: The best way to reach me is via email at mark.hutchinson@blinn.edu (<mailto:mark.hutchinson@blinn.edu>). You can also contact me through eCampus or by telephone but email is the fastest option. On weekdays, I will work to respond within 24 hours. On weekends, I will work to respond within 48 hours. I will also hold virtual office hours each Tuesday and Thursday from 3-4 PM or by appointment at other times.

Schedule

NOTE: We will follow the following schedule throughout this summer term. At my discretion, I may move individual assignment due dates to accommodate logistical constraints (power outages, inclement weather, etc.) for the whole class. I will not move assignment dates for individual students without an excused absence and proper documentation.

Content Details				
Week	Lecture Content	Contact Hours	Laboratory Activities	Contact Hours
Unit 1				
7/12/2021	Ch. 19: Processes of Evolution	12 CH	Lab 1: Scientific Drawing & Lab 2: Microscopy	12 CH
7/13/2021	Ch. 22 Speciation		Lab 3: Obs. of Evolution	
7/14/2021	Ch. 23 History of Life on Earth		Lab 4: Pop. Genetics	
7/15/2021	Ch. 20 Phylogenies		Lab 5: Cladistics	

7/16/2021	Lecture Exam 1: Ch. 19, 22, 23, and 20 Opens @ 12:01 am Closes @ 11:59 pm Achieve Assignments due @ 11:59 pm		Lab 6: Ecological Sampling	
Unit 2				
7/19/2021	Ch. 54 Species Interactions	12 CH	Lab 7: Prokaryotes	12 CH
7/20/2021	Ch. 55: Communities Ch. 56: Ecosystems		Lab Practical 1: Labs 1-7 Opens @ 12:01 am Closes @ 11:59 pm	
7/21/2021	Ch. 24: Archaea and Bacteria		Lab 8: Dichotomous Keys	
7/22/2021	Ch. 25: Origin of Eukaryotes		Lab 9: Protists	
7/23/2021	Lecture Exam 2: Ch. 54, 55, 56, 24, and 25 Opens @ 12:01 am Closes @ 11:59 pm Achieve assignments due @ 11:59 pm		Lab 10: Fungi	
Unit 3				
7/26/2021	Ch. 28: Evolution and Diversity of Fungi	12 CH	Lab 11: Seedless Plants	12 CH
7/27/2021	Ch. 26: Plants without Seeds		Lab 12: Seed Plants	
7/28/2021	Ch. 27: Evolution of Seed Plants		Lab 13: Angiosperm Form & Function	
7/29/2021	Ch. 32: The Plant Body		Lab Practical 2: Labs 8-13 Opens @ 12:01 am Closes @ 11:59 pm	

7/30/2021	Lecture Exam 3: Ch. 28, 26, 27, and 32 Opens @ 12:01am Closes @ 11:59 pm Achieve assignments due @11:59 pm		Lab 14: Animal Diversity 1	
Last Day to Drop with a "Q" Friday, July 30th				
Unit 4				
8/2/2021	Ch. 29 Animal Origins	12 CH	Lab 15: Animal Diversity 2	9 CH
8/3/2021	Ch. 30: Protostomes		Lab 16: Animal Diversity 3	
8/4/2021	Ch. 31 Deuterostomes		Lab 17: Animal Tissues and Pig Dissection	
8/5/2021	Ch 38: Physiology, Homeostasis, and Temp. Regulation		Lab Practical 3: Labs 14-17 and Pig Dissection Opens @ 12:01 am Closes @ 11:59 pm	
8/6/2021	Lecture Exam 4: Ch. 29, 30, 31, and 38 Opens @ 12:01 am Closes @ 11:59 pm Achieve assignments due @11:59 pm			
Final Exam				
8/9/2021	Final Exam Opens @ 12:01 am Closes @ 1:59 pm	3 CH	TOTAL CONTACT HOURS:	96