Biology for Non-Science Majors I
BIOL 1408.62430 and Biol 1408-92430

Semester: Wintermester 2015
December 21, 2015 - January 8, 2016
Online

Lecture Professor: Denise Shipley
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Office Phone Number: 214-860-8795
Office Number: H122
Office Hours: 9:00 am – 10:00 am
Meeting Days & Time: Online – 24 hours
Credit Hours: 4

Division: Science, Arts and Physical Education
Office Hours: 8:00AM – 5:00PM M-F
Office Phone: 214-860-8649
Office Location: E40

Course Description: Presentation of biological concepts for the non-science major. Emphasis will be on scientists and their contributions to the science field, scientific problem solving, unity of life including cells and genetic information, energy pathways important to life, and current issues in biology. (3 Lec, 3 Lab)

Course Pre-requisites: One of the following must be met:
Developmental Reading 0093 AND Developmental Writing 0093;
English as a Second Language (ESOL) 0044 AND 0054; or have met Texas Success Initiative (TSI) Reading and Writing standards AND DCCCD Writing score prerequisite requirement.

Course Materials/Supplies Needed:
- ISBN 978-1-938168-11-6
- LateNite Labs [https://labs.latenitelabs.com](https://labs.latenitelabs.com) BIOL 1408 Wintermester Section Code 22075232

Technical Requirements:
A basic level of technical competence and equipment are necessary for participating in this online class. You should already be able to perform the following tasks:
- Attach document files to e-mail.
- Complete assignments using word processing software.
- Locate, save, and retrieve files on the computer.
- Send/receive email.
- Submit comments to a discussion board.
- Use a web browser and search engines.
- Digital camera or Smart Phone for submitting pictures

You MUST have regular, reliable access to a computer with reliable access to software and Internet resources and memory available (access to only a mobile device is NOT enough to succeed in this class):
**Student Learning Outcomes (Lecture)**

Upon successful completion of this course, students will:

- Distinguish between prokaryotic, eukaryotic, plant and animal cells, and identify major cell structures.
- Identify stages of the cell cycle, mitosis (plant and animal), and meiosis.
- Interpret results from cell physiology experiments involving movement across membranes, enzymes, photosynthesis, and cellular respiration.
- Apply genetic principles to predict the outcome of genetic crosses and statistically analyze results.
- Describe karyotyping, pedigrees, and biotechnology and provide an example of the uses of each.
- Identify parts of a DNA molecule, and describe replication, transcription, and translation.
- Analyze evidence for evolution and natural selection.

**Student Learning Outcomes (Lab)**

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.
- Distinguish between prokaryotic, eukaryotic, plant and animal cells, and identify major cell structures.
- Identify stages of the cell cycle, mitosis (plant and animal), and meiosis.
- Interpret results from cell physiology experiments involving movement across membranes, enzymes, photosynthesis, and cellular respiration.
- Apply genetic principles to predict the outcome of genetic crosses and statistically analyze results.
- Identify the importance of karyotypes, pedigrees, and biotechnology.
- Identify parts of a DNA molecule, and describe replication, transcription, and translation.
- Analyze evidence for evolution and natural selection.

**Texas Core Objectives for Student Learning:**

- Critical Thinking Skills - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
- Communication Skills - to include effective development, interpretation and expression of ideas through written, oral and visual communication
- Empirical and Quantitative Skills - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions
- Teamwork – to include the ability to consider different points of view and to effectively with others to support a shared purpose or goal

**Evaluation Procedures:** Most are due by 11:00 pm on due date

- Lecture Exams – (4) 40% of Final Grade
- Lab Reports 30% of Final Grade
- Lecture Quizzes 25% of Final Grade
- Orientation and Discussion Activities 5% of Final Grade

**Instructor Attendance Policy:** Students are expected to login and utilize the course materials and activities in and on a regular basis. As a minimum expectation, you should login to the course at least four times per week. As a general guideline, you should be actively learning through working with the online LESSON materials for about 3 hours per week or in summer 12 hours per week (the same as attending class) or 18 for Wintermester/Maymester and dedicate at least the same amount of additional time to studying and reviewing the lesson materials either offline or online. You should also be actively working with the online LAB materials and completing experiments about 3-6 hours each week. Students must begin online attendance in all classes of enrollment. No exceptions. Financial Aid will not be granted to students who have been certified as not attending by not logging in and completing work, by the certification date. For this lecture course, your online participation in class, on or before the certification date will allow you to receive credit for FA purposes

**Grading Scale:**

- A = (90% and up)
B = (80% and up)
C = (70% and up)
D = (60% and up)
F ≤ (0-59%)

You will not receive extra credit/curve if you do not log in as required, are late turning in assignments or missing assignments, or do not participate.

**Emails:** The instructor will reply to all emails sent in the proper format within 24 hours on weekdays, so double check your format and re-send your email if you do NOT hear back from the instructor within this time frame. Do NOT assume that an unanswered email was received – ALWAYS RESEND if you do not receive a reply in 24 hours on weekdays.

**Late Work Policy:** Work must be completed on or before due date per course calendar. You must contact Instructor regarding missed work within 24 hours. Late work if accepted may have a 30% percent of the points taken off from the score. Online Late Work – Extending past the timed quizzes or exams if accepted may result in a 20% penalty or forced submission at the time due. You must follow the course calendar in order of completion of assignments. **Skipping around on assignments is not permitted and may result in a zero for that assignment.** You may work ahead.

**Makeup Exam Policy:** In the event of a missed exam, the instructor must be notified within 24 hours of the scheduled exam and documentation will be required for absence.

**Institution Policies:** Please visit [http://www.mountainviewcollege.edu//Academics/Documents/Institutional%20Policies.pdf](http://www.mountainviewcollege.edu//Academics/Documents/Institutional%20Policies.pdf) for a complete list of institutional policies (Stop Before You Drop; Withdrawal Policy; Repeating a Course; Financial Aid; Academic Honesty; Americans with Disabilities Act Statement; Religious Holidays; and Campus Emergency Operation Plan and Contingency Plan.).

Disclaimer Reserving Right to Change Syllabus:
The instructor reserves the right to amend this syllabus as necessary.
Stop Before You Drop

For students who enrolled in college level courses for the first time in the Fall of 2007, Texas Education Code 51.907 limits the number of courses a student may drop. You may drop no more than 6 courses during your entire undergraduate career, unless the drop qualifies as an exception. Your campus counseling/advising center will give you more information on the allowable exceptions. Withdraw date 7/31/15

Remember that once you have accumulated 6 non-exempt drops, you cannot drop any other courses with a “W.” Therefore, please exercise caution when dropping courses in any Texas Public Institution of higher learning, including all seven of the Dallas County Community Colleges. For more information, you may access: https://econnect.dcccd.edu/eConnect/droppingfacts.html

Withdraw Policy

If you are unable to complete this course, it is your responsibility to withdraw formally. The withdrawal request must be received in the Registrar’s Office by the official drop date for this course (see Course Drop Date mentioned earlier in this syllabus). Failure to do so will result in your receiving a performance grade, usually an “F.” If you drop a class or withdraw from the college before the official drop/withdrawal deadline, you will receive a “W” (Withdraw) in each class dropped.

Repeating a Course

Effective for Fall Semester 2005, the Dallas County Community Colleges will charge additional tuition to students registering the third or subsequent time for a course. This class may not be repeated for the third or subsequent time without paying the additional tuition.

Third attempts include courses taken at any of the Dallas County Community Colleges since the Fall 2002 semester. More information is available at: http://www.dcccd.edu/pc/cost/3rdcrseattmpt/Pages/default.aspx

Financial Aid

Financial Aid will not be granted to students who have been certified as not attending by the certification date. In lecture classes, students must attend class prior to the certification date. Online students should follow the certification procedures as noted within the class syllabus. For certification dates, check with the division or FAO for further information. Students, who are not certified as beginning class, are responsible for any payments due as a result of non-certification, to include the dropping of courses. Students who are receiving any form of financial aid should check with the Financial Aid Office prior to withdrawing from classes. Withdrawals may affect your eligibility to receive further aid and could cause you to be in a position of repayment for the current semester. Students who fail to attend or participate after the drop date are also subject to this policy.

If you are receiving financial aid grants or loans, you must begin attendance in all classes. Do not drop or stop attending any class without consulting the Financial Aid Office. Changes in your enrollment level and failing grades may require that you repay financial aid funds.

Academic Dishonesty

https://www1.dcccd.edu/catalog/ss/code.cfm.

ADA Statement

Mountain View College and the Office of Special Services are committed to upholding the laws and the spirit of Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) signed in 1990.

Religious Holidays

Absences for observance of a religious holy day are excused. A student whose absence is excused to observe a religious holy day is allowed to take a make-up examination or complete an assignment within a reasonable time after the absence.

Campus Emergency Operation Plan and Contingency Plan.

Mountain View College has developed policies and procedures for dealing with emergencies that may occur on campus. A synopsis of emergency procedures can be found at: http://www.mountainviewcollege.edu/business/police/Pages/emergencyprocedureenglish.aspx.

Contingency Plan: Mountain View College has developed an Instructional Contingency Plan for Temporary College Closing for On-Campus Courses. Please discuss this contingency plan with your instructor. For distance learning courses, your instructor will use email to contact students in the event of extended technology downtime. To assure work in the class continues, it is important for all students to have an accurate email address recorded in both eCampus and eConnect.

Disclaimer Reserving Right to Change Syllabus

The instructor reserves the right to amend a syllabus as necessary.
| Week 1 | Complete all orientation assignments - Discussion Activity 1 Go to Let’s Get Acquainted Online Lecture and Lab Presentation 1 – Orientation Quiz 1 12/18 |
| Week 1 | Read Chapter 1 Introduction to Biology p 1-30 Online Lecture 2 - Lecture Quiz 2 Scientific Method Latenite Lab 1 – Introduction to Virtual Biology Labs – latenitelabs.com Latenite labs Lab 2 – Perform Scientific Method – Multiple Choice Lab Report 12/18 – 12/20 |
| Week 1 | Read Chapter 2 Chemistry p 31- 38 Online Lecture 3 – Lecture Quiz 3 Chemistry- ecampus Read Ch 2 Water p 39-42 Online Lecture 4 – Lecture Quiz 4 Water e-campus 12/20-12/23 |
| Week 1 | Read 2.3 Biological Molecules p44 – 55 Online Lecture 5 – Biological Molecules Discussion Activity 2 : Biomolecules in Food Latenite labs – Lab 3 - Perform Biological Molecules – Multiple Choice Lab Report - eCampus 12/23-12/26 |
| Week 2 | Read Ch 3 Cell Structure and Function p 61 – 75 Online Lecture 6 Lecture Quiz 5 – Plant and animal cell Late nite lab – Lab 4 Cell Structure and Function – Multiple Choice Lab Report - eCampus | Exam 1 – Ch 1 through 3.3 Online 12/26-12/28 |
| Week 2 | Read Ch 3.4 The Cell Membrane p 80-81 Online Lecture 7 – Lecture Quiz 6 – Cell Membrane Read Ch 3.5 Passive and Active Transport p 83 - 89 Online lecture 8 Diffusion and Osmosis Lecture Quiz 7 – Active Transport Latenite lab – Lab 5– Diffusion and Osmosis - Multiple Choice Lab Report eCampus 12/28 – 12/30 |
| Week 2 | Read Ch 4 How Cells Obtain Energy p 97 – 106 Online Lecture 9 – Enzymes Latenite lab 6 – Enzymes – Multiple Choice Lab Report Read Ch 4.2 Cellular Respiration Aerobic and Anaerobic p 108 – 116 Online lecture 10 – Cellular Respiration Latenite lab – Lab 7 Cellular Respiration – Multiple Choice Lab Report 12/30 – 1/1 |
| Week 2 | Read Ch 5 Photosynthesis p 123 – 136 Online Lecture 11 - Photosynthesis Latenite lab 8 – Photosynthesis – Multiple Choice Lab Report Exam 2 – Ch 3.4 through 5 Online Read Ch 6 – Reproduction at the Cellular Level p 141 – 151 Online Lecture 12 Mitosis – Cell Division – Lecture Quiz 8- Mitosis 1/1-1/2 |
| Week 3 | Read Ch 7 Cellular Basis of Inheritance p 159 – 171 Last day to Withdraw with a W 7/31 Online Lecture 13 – Meiosis – Lecture Quiz 9 – Meiosis Late nite lab 9 Mitosis and Meiosis – Multiple Choice Lab Report Read Ch 8 Patterns of Inheritance p 179 – 193 Online Lecture 14 - Genetics Lecture Quiz 10 1/2 – 1/4 |
| Week 3 | Read Ch 9 Molecular Biology p 205 – 212 p 216 – 223 Online Lecture 15 Central Dogma – Lecture Quiz 11 Exam 3 – Ch 6 – 9 Online 1/4 – 1/6 |
| Week 3 | Read Ch 14 Chapter summary p 358- 359 review key terms 357-358 Watch Video plants Latenite lab 10 – Plant Reproduction Read Ch 18 – Human Reproduction p 489-497 Watch Video – Human Reproduction Lecture Quiz 12 1/6-1/7 |
| Week 3 | Exam 4 – Ch 14 and 18 Online You Did it! 1/7 – 1/8 |