**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:** College level ready in Reading and Writing

**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

**Course Materials/Supplies Needed:**

- Openstax Concepts of Biology, Download Free [https://openstax.org/details/books/concepts-biology](https://openstax.org/details/books/concepts-biology)
- ISBN 978-1-938168-11-6
- LateNite Labs [https://labs.latenitelabs.com](https://labs.latenitelabs.com) BIOL1408-1409; **Section Code: 34303988**
- and the cost is $64.00 if purchased direct
- Need technical help for labs – Call help at Macmillian 800-936-6899
- [bfw.technicalsupport@macmillan.com](mailto:bfw.technicalsupport@macmillan.com)
- For Exams Download and Install Respondus Lockdown Browser from My DCCCD eCampus > Tools

**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 think effectively with others to support a shared purpose or goal

Census Date is May 21, 2019 – you must have completed Introduction Discussion, Orientation Lecture and Quiz, Introduction to Virtual Biology Labs on LateNiteLabs in order to have your attendance confirmed.

Evaluation Procedures: Most are due by 11:00 pm on due date
Lecture Exams – (4) 43% of Final Grade
Lab Reports 46% of Final Grade (complete and thorough notes and portfolio/media)
Lecture Quizzes 8% of Final Grade
Discussion 1 & 2 3% of Final Grade

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

**You must follow the course calendar in order of completion of assignments. Read>Lecture>Lec Quiz>Lab>Lab Report and then Exam if all assignments are completed prior to beginning Exam. Skipping around on assignments is not permitted and may result in a zero for that assignment and assignments you jumped ahead if completed out of order. High Point Penalties will be taken off if late work is accepted. You may work ahead.

Labs – you must write complete notes on all labs. Missing or incomplete notes are -20 points minimum. Missing or incomplete slides/pictures when instructed are -20 points minimum. Take your time on the labs and save your notes and slides.
**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 daily for a 3 week class, at least five times per week for an eight-week class and two to three times a week for sixteen-week class. As a general guideline, you should be actively learning through working with the online LESSON materials for about 5-6 hours per week for 8 weeks (the same as attending class) and 3 hours minimum for 16 week class. The same amount of 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 14 hours a week for a 3 week class, 6 hours per week for 8 weeks and 3 hours per week for 16-week course. 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.

**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. Include section number. 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 30% percent of the points taken off from the score.

**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.

**Withdraw date: May 31, 2019**
- Please speak with the instructor if you are having difficulty in the course.
- Students often drop courses when help is available that would enable them to continue. I hope you will discuss your plans with your instructor if you feel the need to withdraw.

**Academic Dishonesty:** Students caught plagiarizing an assignment will receive a “0” on the test or assignment and will be subject to an “F” in the course and possible expulsion from the college. Students must work on exams alone and all work should be the individual student’s work.

**Institutional Policies:**

**Filing a Student Complaint:**

**Online Tutoring:**
https://www.mountainviewcollege.edu/services/academic-support/tutoring/pages/default.aspx

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