Biology for Non-Science Majors II
BIOL 1409-63002
Semester: Spring 2019
January 22nd, 2018 – May 16th, 2019

Lecture and Lab Professor: Neeti Srivastava
Email: nsrcivastava@dccc.edu
Office Phone Number: 972-860-5605
Office Number: H118
Office Hours: Mon/Wed: 7.30 am to 7.55 am and 2.15 pm to 3.30 pm
Meeting Days & Time: Tuesday and Thursday Lecture 8.00am to 9.20 am Lab 9.30 am to 10.50 am
Lecture Room Number: H-30
Lab Room Number H32
Credit Hours: 4 Semester Hours
Division: Science, Technology, Engineering, and Mathematics (STEM)
Division Office Hours: 8:00 a.m. – 5:00 p.m.
Division Office Phone: 214-860-8649, then 214-860-8760
Division Office Number: H129

Mission Statement:
Mountain View College empowers people and transforms communities.

Course Description: Presentation of biological concepts for the non-science major. This course will provide a survey of biological principles with an emphasis on humans, including evolution, ecology, plant and animal diversity, and physiology. Laboratory activities will reinforce these concepts. (3 Lec., 3 Lab.)

Course Pre-requisites: Required: College level ready in Reading and Writing

Course Materials/Supplies Needed
- LAB MANUAL: Print labs from eCampus prior to attending each lab session.
- Nitrile Gloves for working with chemicals (available in the College Bookstore)
- Scantrons: Seven 882E
- 3-Ring Binder with dividers for the labs and lab assignments printed from eCampus (2 inch binder recommended)
- Pocket folder for chapter reviews

Core Objectives
- 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 work effectively with others to support a shared purpose or goal
Lecture Student Learning Outcomes
Upon successful completion of this course, students will:

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 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.

Lab Student Learning Outcomes
Upon successful completion of this course, students will:

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

Course Outline: See attached calendar
Objectives, which are determined by the district curriculum committee, are measurable or observable and will be evaluated. Different modes of instruction will be utilized for presentation and evaluation. Lecture topics will include evolution, protists, plant diversity, fungi, animal diversity, animal systems, animal behavior, ecology, population ecology, and ecosystems. An emphasis will be placed on wellness throughout the semester. The Mountain View College nature trail will be used to reinforce topics taught in the lecture and lab.

Evaluation Procedures:
LECTURE EXAMS: 55% of the total grade
- Lecture exams will be given in the testing center and must be taken by the deadline posted in the course calendar. The final exam will be given in the lecture classroom.
- 4 Lecture exams will include multiple choice and essay questions.
  o Multiple choice questions - Scantron 882E required
  o Essay questions will be written on the answer sheet provided
- 1 Comprehensive Final Exam given in the lecture classroom
  o Students are required to take the final exam. If you do not take the final exam, you will receive a 0.
  o If all lecture exams including the final exam are taken, the lowest test grade for the semester will be dropped.
  o Scantron 882E required
- You will need #2 pencils and a Scantron 882E (available in the bookstore) for each lecture exam and Scantron 882E for the final exam.
- Do Not Mark on the Exam! Ten points WILL be deducted if there are ANY marks on the exam.
- Make-up 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 the absence. Arrangements must be made with the instructor to make-up an exam.
**RESEARCH PAPER:** 10% of the total grade
- Requirements for this project will be announced in class and posted on eCampus.

**LABORATORY PRACTICALS:** 21% of the total grade
- Laboratory Practicals MUST be taken during the scheduled lab exam time (see course calendar). Scantron 882E required.
- There is a time limit of 1 hour - 15 minutes for all lab exams.
- A laboratory practical tests your knowledge of laboratory information, ability to interpret data, and ability to successfully perform laboratory skills.

**LABORATORY NOTEBOOK:** - 9% of total grade
- You must turn in your lab notebook when you take each lab practical. Requirements for the lab notebook will be posted on eCampus. The laboratory professor may collect and grade individual labs before the lab practical in order to provide feedback.
- The lab notebook grade includes the teamwork evaluation from the team and instructor.

**PRESENTATION:** 5% of total grade
- Oral presentation requirements will be posted on eCampus.
- Topics will be assigned by the instructor and posted on eCampus.

**GRADING SCALE:**

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<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>90 - 100</td>
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<tr>
<td>B</td>
<td>80 - 89.9</td>
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<tr>
<td>C</td>
<td>70 - 79.9</td>
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<tr>
<td>D</td>
<td>60 - 69.9</td>
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<tr>
<td>F</td>
<td>0 - 59.9</td>
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You will not receive extra credit/curve if you are late to class, late turning in assignments or missing assignments, do not participate, are tardy more than 2 times or have more than 2 unexcused absences.

**Instructor Attendance Policy:**
- Students are expected to attend all classes. Students have the responsibility to attend class and to consult with the instructor when an absence occurs. If for some reason you must leave class early, you should inform the instructor prior to the start of class of your reason for leaving early. **On-time attendance is vital to your success in this course. Plan to arrive early. On-time attendance is taken at the beginning of class. A deduction may occur for lack of participation for unexcused tardies or absences.**

**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.

**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:** Wednesday, April 17, 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.

**Electronic Devices:** Students are expected to silence all cell phones and other electronic devices during class time and only use them for class purposes. Students may not text or receive texts during lecture or lab class. Student may not use headphones during class.
Academic Dishonesty:
Students caught cheating or plagiarizing an assignment will receive a “0” on the test or assignment and will be subject to an “F” in the course.

LABORATORY EXPECTATIONS:
ATTENDANCE IS MANDATORY and each exercise will require laboratory participation. Attendance will be taken at the beginning of each class period.
- Students are required to print a copy of the lab for each day from eCampus prior to class. The labs are formatted for the Arial font. If you do not have access to a computer and printer, you can print the pages for a small fee in the campus computer labs, W139 (W141 and W142).
- Instructions are given at the beginning of each lab and WILL NOT be repeated. Students who miss instruction will not be allowed to participate in lab.
- Labs for each lab practical must be kept in a lab notebook and brought to each lab session.
- Nitrile Gloves and chemical splash goggles are required when working with chemicals. Purchase them before class! NO GLOVES, NO GOGGLES, NO LAB!
- Hazardous Materials are used in the laboratory areas. Material Safety Data Sheets (MSDS), required by OSHA, are available for all students to observe upon request.
- Cell Phones are not permitted to ring in the lab. No texting in class or lab— please step out into hall
- Students who bring computers to class are not permitted to check email or the Internet for non-class related reasons.
- Eating, Drinking, Gum Chewing, and/or Applying Cosmetic are NOT ALLOWED in the laboratory at any time. Do not bring any beverage containers or water bottles into the lab.

eCampus:
- Students are encouraged to use the resources available on eCampus regularly.
- Go to the website: http://ecampus.dcccd.edu. Your login is an “e” and your seven-digit student identification number (example: e7654321). If you have never used eCampus before, your password is the same as your user name until you change it under personal information.

eConnect: Your final grade will be posted to eConnect and the course will become unavailable.

Disclaimer:
The instructor reserves the right to change course calendar and syllabus if needed. Any changes will be announced in class and posted on eCampus.

Institutional Policies relating to this course can be accessed from the following link
www.mountainviewcollege.edu/syllabipolicies

Title IX - Harassment, Discrimination and Sexual Misconduct

Class Procedures: Successful completion of this course should be accomplished if you:
1) study and read the textbook,
2) complete the chapter reviews,
3) attend each class and turn in all assignments on time,
4) read each lab before lab, attend all labs, and complete lab activities,
5) use the resources available on eCampus and check Weekly Assignments each week,
6) participate in all discussions,
7) spend time studying with tutors in the instructional support area,
8) write your name, course and section, student ID, date, and instructor name on all assignments, and
9) state your name, course, and section on all email communication.
<table>
<thead>
<tr>
<th>Tuesday</th>
<th>Thursday</th>
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<tr>
<td>1/22/19</td>
<td>1/24/19</td>
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| Chapter 11 Evolution and Its Processes  
Lab 1: Orientation       | Chapter 11 Evolution and Its Processes  
Lab 2: Evolution Part 1                                                                                                    |
| 1/29/19                 | 1/31/19                                                                                                                                 |
| ASSIGNED CLASS PRESENTATION TOPICS  
Chapter 12 Diversity of Life  
Lab 3: Evolution Part 2 | Research Paper TOPIC introduction  
Chapter 13.1-13.2 Diversity of Microbes  
Lab 4.1 Microscope Review, Bacteria, Archaea, and Protists                                                                 |
| 2/5/19                  | 2/7/19                                                                                                                                 |
| Chapter 13.3 Diversity of Protists  
Lab 4.2-4.8 Microscope Review, Bacteria, Archaea, and Protists | Test 1 (Ch. 11 to 13) in testing center Due Monday 2/11/2019  
Chapter 13.4 Diversity of Fungi  
Lab 5: Protist  
Research Paper Annotated Bibliography due in class                                                                                |
| 2/12/19                 | 2/14/19                                                                                                                                 |
| Chapter 14 Diversity of Plants  
Lab 6: Fungi and Plant reproduction | Chapter 15 Diversity of Animals  
Lab 7: Plants                                                                                                               |
| 2/19/19                 | 2/21/19                                                                                                                                 |
| Chapter 15 Diversity of Animals  
Lab 8: Animal Diversity Part 1  
Research Paper Outline Due in class | Chapter 15 Diversity of Animals  
Lab 9: Animal Diversity Part 2  
Test 2 (Ch. 14 to 15) in testing center Due Monday 2/25/2019                                                                 |
| 2/26/19                 | 2/28/19                                                                                                                                 |
| Chapter 16.1 Homeostasis and Osmoregulation  
Lab Practical 1 (Labs 1-8) Lab Notebook Due | NO Class Research Paper Rough draft Due Via Safeassign                                                                                                                   |
| 3/5/19                  | 3/7/19                                                                                                                                 |
| Chapter 16.1 Homeostasis and Osmoregulation  
Lab 10: Homeostasis | Chapter 16.2 Digestive System  
LAB Video: Inside the living body                                                                                         |
| 3/12/19                 | 3/14/19                                                                                                                                 |
| Spring Break No class   | Spring Break No class                                                                                                                |
| 3/19/19                 | 3/21/19                                                                                                                                 |
| Chapter 16.2 Digestive System  
Lab 11: Excretory System | Chapter 16.3 Circulatory and Respiratory System  
Lab 12: Digestive System                                                                                                    |
| 3/26/19                 | 3/28/19                                                                                                                                 |
| Chapter 16.3 Circulatory and Respiratory System  
Lab 13: Human Nutrition | Chapter 16.4 Endocrine System  
Lab 14: Circulatory System                                                                                                    |
| 4/2/19                  | 3/28/19                                                                                                                                 |
| Chapter 16.5 Musculoskeletal System  
Lab 15: Heart and respiration  
Research Paper Final Draft Due via Safeassign | Chapter 16.6 Nervous System  
Lab 16: Endocrine System                                                                                                    |
| 4/9/19                  | 4/11/19                                                                                                                                 |
| Chapter 16.6 Nervous System  
Lab Practical 2 (Labs 10 to 16, Lab notebook due) | Chapter 16.6 Nervous System  
Lab 17: Musculoskeletal system                                                                                                    |
| 4/16/19                 | 4/18/19                                                                                                                                 |
| Chapter 17 Immune System and Disease  
Lab 18: Nervous system DROP DATE Wednesday 4/17/19 - LAST DAY TO DROP THE CLASS WITH A “W” | Chapter 17 Immune System and Disease  
Lab 19: Special Senses  
Test 3 (Chapters 16 & 17) Deadline Monday 4/22/19 by 5:00 pm in the testing center                                                                  |
| 4/23/19                 | 4/25/19                                                                                                                                 |
| Chapter 19 Population and Community Ecology  
Lab 20: Virus and Immunity | Chapter 19 Population and Community Ecology  
Lab 21: Population ecology                                                                                                    |
| 4/30/19                 | 5/2/19                                                                                                                                 |
| Chapter 20 Ecosystems and the Biosphere  
Lab 22: Animal Behavior | Chapter 20 Ecosystems and the Biosphere  
Lab 23: Nature walk                                                                                                        |
| 5/7/19                  | 5/9/19                                                                                                                                 |
| Chapter 21 Conservation and Biodiversity  
Lab 24: Ecology and Lab Practical Review | Chapter 21 Conservation and Biodiversity  
Lab Practical 3 (Labs 17-24) Lab Notebooks Due  
Test 4 (Chapters 19-21) Deadline Friday 5/10/19 by 5:00 pm in the testing center                                                                 |
| 5/14/2019               | 5/18/2019                                                                                                                                 |
| **Final Exam in class ALL STUDENTS MUST ATTEND** | **5/18/2019 No Class**                                                                                                           |

Oral presentation scientists, and due dates will be assigned by the lecture class instructor and posted on eCampus.