Meenakshi Maitra, Adjunct Faculty of Biology
Rudy Castillo, Adjunct Faculty of Biology

Semester and Year: Spring 2019
Section: 83011
Class time and days: Lecture: WF 12.25 pm – 1.45pm
Lab: Dr. Castillo M 11.15am – 2.05pm

Room: Lecture: WH 123
Lab: SH 129
Instructor: Meenakshi Maitra, PhD
Contact Info: mmaitra@dcccd.edu
Office: Adjunct Faculty Office
Office hours: Last date to withdraw: April 17, 2019
Final Exam Day/time: May 15, 2019, Wednesday, 12.30pm-1.30pm

Evaluation Procedures:
A = 90-100%, B = 80-90%, C = 70-80%, D = 60-70%, less than 60% = F.
This may change at the discretion of the instructor.

Course grade is determined as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
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<tbody>
<tr>
<td>Lecture exams (4 @ 100pts. + 50 cumulative final)</td>
<td>450</td>
</tr>
<tr>
<td>Lecture Online Homework (12@10points each)</td>
<td>120</td>
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<tr>
<td>Lecture Quizzes (5@10points each)</td>
<td>50</td>
</tr>
<tr>
<td>TOTAL</td>
<td>620</td>
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</table>

- The lecture exams will be multiple choice, true/false, or matching. The final exam is cumulative. You will need a green #882 scantron and a #2 pencil for each exam. All exams are comprehensive in the sense that you are expected to have mastered all previous material, although each lecture exam will focus on the most recently covered material. Lecture exams will be 40-65 multiple choice, true/false, or matching questions.

- Attendance Policy: In order to be successful, students must attend and participate in enrolled courses. Attendance is necessary for class participation and course work. There will be no make-up opportunities for missed assignments. Thus, it is strongly recommended that students attend each class. However, there will be no official course grading policy on attendance. If there is a conflict in your schedule, contact me ASAP. If some unforeseen (or foreseen, for that matter) problem keeps you from a class period which has a lecture test scheduled, there will be a make-up at the END of the semester. There are no make-up lab practicals: if you cannot attend your own section’s scheduled lab practical, you will need to attend another lab period during the lab practical time period with proper notification to the instructors concerned.

- You are expected to be in class every period. Missing a 3 hour weekly lab is REALLY going to affect your lab grade, so try to go to another section to make the lab up. However, you need to notify me and introduce yourself to that instructor, and ask them if it is all right to attend their lab.
• If you are unable to complete this course, it is your responsibility to withdraw formally---by April 17, 2019. The withdrawal request must be received in the Registrar’s Office by the drop date. Failure to do so will result in your receiving a performance grade, usually an “F.”

Required Materials:

• BIOLOGY, by OpenStax (FREE!) https://openstaxcollege.org/textbooks/biology
  ISBN- 10: 1-947172-51-4
  Digital
• Sapling Learning (Online Homework System) (FREE!)

Instructor Policies and Suggestions for Student Success:

• Students pursuing careers in the Health Professions can find specific information on occupations, resources, financial aid, and programs at Texas institutions at this RLC Health Professions website: www.rlc.dcccd.edu/medcareers

• This class DEMANDS group interactive skills, both in lab and lecture. Be aware that you will have to COOPERATE with lab partners, in addition to collaborative work groups in the lecture class. Be prepared to be an ACTIVE learner, and to work cooperatively with other students:
  • Assignments are DUE at the beginning of class on the day it is due.
  • Please be considerate enough to turn your cell telephones to vibrate, AND leave the room as quietly as possible to talk (ONLY IF ABSOLUTELY NECESSARY to talk right then and right there!). During an exam or lab practical, all phones will be put away and turned off. No text messaging will be allowed during class time.
  • FOOD AND DRINK IN THE LECTURE CLASS ROOM : You may bring in munchies and drinks in the lecture room if absolutely necessary, but you have to carry the trash from these items OUT! I will remind you about this if I see you leaving trash.

"Academic dishonesty" is understood as any act of deceit bearing on one’s own or another’s academic work, where "academic work" is understood to mean any activity pertaining to the educational mission of the college.

Such acts include, but are not limited to, plagiarism in any form; the use during an exam of information or materials not authorized by the instructor for such use and any other activities which are designed to deceive an instructor in the evaluation of the level of the student’s achievement.

plagiarism = deliberate use of someone else’s language, ideas, or other original (not common-knowledge) material without acknowledging its source. This definition applies to texts published in print or on-line, to manuscripts, and to the work of other student writers. Plagiarism is the taking of someone’s ideas and misrepresenting them as one’s own ideas. Most people know that this obviously includes word-for-word lifting of words, but it also includes lifting ideas (even paraphrasing them in your own words) without giving someone credit for them (either by footnoting, or in the Works Cited at end of the paper). Plagiarism is NOT allowed.

Academic Misconduct Regarding Exams & Lab Practicals:

Cheating on tests and lab practicals include, but is not limited to, the following activities:

• looking onto someone’s answer sheet, even if you do not use their answers,
• knowingly allowing someone to look onto your answer sheet,
● using a cheat sheet, or other unauthorized material
● talking to someone or otherwise exchanging information during an exam,
● asking someone what is on a lab practical or telling someone what is on a lab practical,
● waiting out in the hallway when people have just taken the exam to hear them discuss the lab exam.
● removing from lab any material meant to stay in lab, e.g., models, dissected organs, etc.,
● writing answers on the table
● writing answers on the question card
● going or looking into a lab where the lab practical is set up, and,
● getting the answer key before the test.

**Students should not leave during an exam, quiz, or lab practical to use the bathroom. Go BEFORE the exam.** If you have a health problem which your instructor needs to know about, to enable you to leave class to go to the restroom, please inform him/her at the beginning of the semester.

| Any student violating any rule(s) above will get a ZERO on the lab practical exam. |

**College Policies and Procedures:**
For Institution Policies, please refer to Richland College Institution Policies (http://www.richlandcollege.edu/syllabusinfo/)

**RICHLAND COLLEGE’S QUALITY ENHANCEMENT PLAN ~ LEARNING TO LEARN: DEVELOPING LEARNING POWER:**
Richland College is piloting its Quality Enhancement Plan (QEP) in select classes. The QEP provides techniques, practices, and tools to help students develop the habits, traits or behaviors needed to be effective and successful lifelong learners in college and in life. For more information, please check QEP 2013 (http://www.richlandcollege.edu/qep)

**ACADEMIC PROGRESS:** Students are encouraged to discuss academic goals and degree completion with their instructors. Specific advising is available throughout the semester. Check Richland College Steps to Success (http://www.richlandcollege.edu/admissions/process.php)

**Catalog Course Description**

**Prerequisite:** BIOL 1406. One of the following must be met: (1) DREA 0093 AND DWRI 0093; (2) English as a Second Language (ESOL) 0044 AND 0054; or (3) have met Texas Success Initiative (TSI) Reading AND Writing standards and the college Writing score prerequisite requirement.

Course Description: An introductory survey of current biological concepts for students majoring in the sciences. Emphasis will be placed on topics that include evolution, biological diversity, ecology, and comparative structure and function of organisms. (3 Lec. 3 Lab.)

**Academic Progress:**
Students are encouraged to discuss academic goals and degree completion with their instructors. Specific advising is available throughout the semester. Check http://www.rlc.dcccd.edu/advising/ for more details. Also, consult the Advising Syllabus https://alt.richlandcollege.edu/assets/uploads/2015/02/AdvisingSyllabus.pdf regularly to check if you are on track.

**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 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 investigation
10. Demonstrate knowledge of modern evolutionary

CORE CURRICULUM
Statement of Purpose
Through the Texas Core Curriculum, students gain a foundation of knowledge of 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.

Core Objectives for the Sciences
- 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.
**Biology 1407 - Spring 2019** (Instructor reserves the right to amend this information as necessary)

<table>
<thead>
<tr>
<th>WEEK OF:</th>
<th>Lecture Topics</th>
<th>LAB</th>
<th>TOPIC</th>
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<tbody>
<tr>
<td>JAN 22</td>
<td>Introduction</td>
<td>Lab Safety/ Course orientation Monday labs do not meet-MLK Holiday</td>
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<tr>
<td>JAN 28</td>
<td>Syllabus Ch. 19 Population Genetics (492-494)</td>
<td>LAB 1/Lab Safety and Course Orientation</td>
<td>Population Genetics</td>
</tr>
<tr>
<td>FEB 4</td>
<td>Ch. 19 Population Genetics (495-500) Ch. 18 Origin of Species (469-473)</td>
<td>LAB 2</td>
<td>Evolution</td>
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<td>FEB 11</td>
<td>Ch. 18 Origin of Species (473-476) Ch. 20 Phylogenies and The History of Life (512-516; 517-522)</td>
<td>LAB 3</td>
<td>Geologic Timeline and Cladistics</td>
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<tr>
<td>FEB 18</td>
<td>Exam 1 (2/20/19) on Ch. 19, 18, 20 Ch. 25 Seedless Plants (664-667)</td>
<td>LAB 4</td>
<td>Seedless plants</td>
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<tr>
<td>FEB 25</td>
<td>Ch. 26 Seed Plants (697-701)</td>
<td>M-W classes meet for lecture instructions in the laboratory. <strong>Thursday &amp; Friday classes are off due to Professional Development Days.</strong></td>
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<tr>
<td>MAR 4</td>
<td>Ch. 26 Seed Plants (701-705) Ch. 27 Introduction to Animal Diversity (720-722; 725-730)</td>
<td>LAB 5</td>
<td>Seed Containing plants</td>
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<tr>
<td>MAR 11</td>
<td>NO LAB</td>
<td>SPRING BREAK</td>
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<tr>
<td>MAR 18</td>
<td>Exam 2 (3/20/19) on Ch. 25, 26, 27 Ch. 28 Invertebrates (744-746; 748-750; 766)</td>
<td>LAB 6</td>
<td>Animal Kingdom I</td>
</tr>
<tr>
<td>MAR 25</td>
<td>Ch. 29 Vertebrates (792-793; 795-799)</td>
<td>LAB 7</td>
<td>Animal Kingdom II (Gloves)</td>
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<tr>
<td>APR 1</td>
<td>Ch. 29 Vertebrates (801; 806; 808; 813; 817; 820-821)</td>
<td>LAB 8</td>
<td>Animal Kingdom III (Gloves)</td>
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<tr>
<td>APR 8</td>
<td>Ch.33 The Animal Body Plan (930; 946-947) <strong>Exam 3 (4/12/19) on Ch. 28, 29, 33</strong></td>
<td>LAB 9</td>
<td>Diversity and Ecology Campus Walk</td>
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<tr>
<td>APR 15</td>
<td>Ch. 34 The Digestive System (960-965)</td>
<td>LAB 10</td>
<td>Ecological Footprints</td>
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<tr>
<td>APR 22</td>
<td>Ch. 39 The Respiratory System (1136-1141)</td>
<td>M-R classes meet for lecture instructions in the laboratory. <strong>Friday classes are off due to Holiday.</strong></td>
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<tr>
<td>APR 29</td>
<td>Ch.40 The circulatory System (1167-1171; 1173-1176) Exam 4 (5/3/19) Ch. 34, 39, 40</td>
<td>LAB 11</td>
<td>Anatomy I: Digestive System (Gloves)</td>
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<td>MAY 6</td>
<td>Final Exam Review</td>
<td>LAB 12 and LAB 13</td>
<td>Anatomy II: Circulatory Systems(Gloves) Anatomy III: Urogenital Systems (Gloves)</td>
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<td>MAY 13</td>
<td><strong>Wednesday May 15th @ 12.30pm-1.30pm</strong></td>
<td>NO LAB</td>
<td><strong>FINAL EXAMS WEEK</strong></td>
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