INSTRUCTOR’S INFORMATION
(Instructor reserves the right to amend this information as necessary.)

Semester and Year: Spring 2019
Meeting Dates: January 22-May 16, 2019
Section: 83090
Class time and days: Lecture TR 11:00am-12:20pm in WH279;
Lab T 8-10:50am in SH129
Instructor: Jill Buettner
Contact Info: 972-238-6350; jbuettner@dcccd.edu
Last date to withdraw: With a “W”: April 17, 2019
Final Exam Day and time: Tuesday, May 14, 2019, from 11:00am-12:50pm in WH279

Evaluation Procedures: Your course grade will be based on 3 lecture exams, a final examination, lecture grades, and laboratory grades. The lecture exams will be multiple choice, true/false, matching, and short answer/essay. The final exam is partially comprehensive. 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 mainly on the most recently-covered material. Exams will be based on the lecture materials, in-class activities, and assignments outside of class time. The final exam grade will replace your lowest lecture exam grade, if higher. Final course % averages will be rounded to the nearest % point.

3 Lecture Exams @ 150 points each = 450 points
Lab Grades - best 12 out of 13 @ 20 points each = 240 points
Lecture Grades (Homework/Quizzes/In-class activities) = 160 points
1 Final exam @ 150 points = 150 points

Total Points Earned = 1000 points possible

Divide total points possible by 10 to get %, round any fractions to nearest whole number %, and then convert to letter grade:

90% or above = A
80-89% = B
70-79% = C
60-69% = D
Below 60% = F

For an A you must earn: 895 points
For a B you must earn: 795 points
For a C you must earn: 695 points
For a D you must earn: 595 points

Units of Instruction/Class Calendar: see next page
<table>
<thead>
<tr>
<th>WEEK OF:</th>
<th>LECTURE</th>
<th>LAB</th>
<th>LAB TOPIC</th>
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</thead>
<tbody>
<tr>
<td>JAN 22 Tue</td>
<td>Ch. 18 – Evolution and the Origin of Species</td>
<td>Lab Safety/ Course orientation</td>
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<tr>
<td>JAN 28</td>
<td>Ch. 18 – Evolution and the Origin of Species</td>
<td>LAB 1</td>
<td>Population Genetics</td>
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<tr>
<td>FEB 4</td>
<td>Ch. 19 – Evolution of Populations</td>
<td>LAB 2</td>
<td>Evolution</td>
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<tr>
<td>FEB 11</td>
<td>Ch. 20 - Phylogenies and the History of Life</td>
<td>LAB 3</td>
<td>Geologic Timeline and Cladistics</td>
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<td>FEB 18</td>
<td>Feb 19 – Exam 1</td>
<td>LAB 4</td>
<td>Seedless plants</td>
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<td>Feb 21 – Ch. 25 lecture</td>
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<tr>
<td>FEB 25</td>
<td>Feb 26 - Ch. 25 Seedless Plants</td>
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<td>Lecture in the lab room – Ch. 25</td>
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<td></td>
<td>Feb 28 – Ch. 26 Seed Plants</td>
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<td>Seedless Plants</td>
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<tr>
<td>MAR 4</td>
<td>March 5 - Ch. 26 Lecture</td>
<td>LAB 5</td>
<td>Seed Plants</td>
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<td>March 7 – Exam 2</td>
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<td>MAR 11</td>
<td>SPRING BREAK</td>
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<td>MAR 18</td>
<td>Ch. 27 – Introduction to Animal Diversity</td>
<td>LAB 6</td>
<td>Animal Kingdom I</td>
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<td>MAR 25</td>
<td>Ch. 28 - Invertebrates</td>
<td>LAB 7</td>
<td>Animal Kingdom II (Gloves)</td>
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<tr>
<td>APR 1</td>
<td>Ch. 29 - Vertebrates</td>
<td>LAB 8</td>
<td>Animal Kingdom III (Gloves)</td>
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<td>APR 8</td>
<td>April 9 - Exam 3</td>
<td>LAB 9</td>
<td>Diversity and Ecology</td>
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<td>April 11 – Ch. 33 Lecture</td>
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<td>Campus Walk</td>
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<td>APR 15</td>
<td>Ch. 33 – Animal Body: Basic Form and Function</td>
<td>LAB 10</td>
<td>Ecological Footprints</td>
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<tr>
<td>APR 22</td>
<td>Ch. 34 – Animal Nutrition and the Digestive System</td>
<td>Lecture in the lab room</td>
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<tr>
<td>APR 29</td>
<td>Ch. 39 – Respiratory System</td>
<td>LAB 11</td>
<td>Anatomy I: Digestive System (Gloves)</td>
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<tr>
<td>MAY 6</td>
<td>Assigned Readings and Discussions</td>
<td>LAB 12</td>
<td>Anatomy II: Circulatory Systems(Gloves)</td>
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<td></td>
<td></td>
<td>Anatomy III: Urogenital Systems (Gloves)</td>
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<tr>
<td>MAY 13</td>
<td>Final Exams Week</td>
<td>NO LAB</td>
<td>FINAL EXAMS WEEK</td>
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</table>
Co-Curricular Activities - During the latter half of the semester, you’ll be expected to participate in experiential learning - you’ll experience something outside that classroom that ties into what you learned inside the classroom. This semester, I will be arranging for us to hunt for fossils in the Sherman area on a Saturday afternoon and go to the Perot museum on a Friday afternoon. There will be a graded activity associated with the visit(s) that will be completed and turned in. Date is still TBD. If you cannot attend with the class, you will be allowed to do the activity on your own time.

Attendance Policy: In order to be successful, students must attend and participate in enrolled courses. Lecture and lab attendance is required. Changes in the lecture or lab schedule OR the assignment of homework and activities, including extra credit opportunities (if applicable) may be announced during lecture and/or lab. Handouts may be distributed during lecture and/or lab. It is the student’s responsibility to obtain all such information and materials in the case of absence from lecture or lab. Graded items completed during lecture time cannot be made up because of absence. There are only 2 types of “excused” absences – religious holiday or government service. Be prepared to provide documentation if requested.

Lab attendance is mandatory and will be recorded weekly. Absences will result in a zero on the weekly quiz and will dramatically affect your grade. There are no makeups for missed quizzes. The week following your absence, you will be required to take the current week’s quiz (not the missed quiz). The missed quiz grade will be a zero.

Required Materials:

Textbook: OpenStax Biology 2nd edition; free digital copy is available at openstax.org or a print copy can be purchased. A used copy is fine.

Sapling Online Homework System will be provided free-of-charge. Instructions will be provided by the instructor.

Laboratory Manual is available online on eCampus and should be printed out in its entirety, placed in a binder, and brought to lab each week.

Instructor Policies and Suggestions for Student Success:

- **Science Corner** – Second floor Sabine building. Free tutoring for all science courses. Check posted schedules to find out times for each course.
- **New pay-to-print copier is now in the Science Corner.**
- **Computer Lab** –
  - Richland College Main Computer Lab, Del Rio, Room D257, 972-238-6317
  - Students must provide their own storage devices; printers are available for printing in some labs. Copying of software is not allowed; personally-owned software may not be used; food and drinks are not allowed in labs. Students must adhere to the
DCCCD’s Rules of Responsible Computing. Remember to save often and back-up your work - things happen, computers crash.

- Center for Tutoring and Learning Connections (CTLC) – room M216 – for tutoring in all classes and to make-up science lab safety training - (972)-238-6226
- 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

Late Work, Lab and/or Make-up Exam Policy:

Extra Credit:
Extra credit points may be offered during the semester, at the discretion of the instructor. If these points are earned, they will be added to the total points earned, not the final course grade.

Makeup Exams:
There are no make-ups for lecture exams. If one is missed, the missed score will be replaced by the final exam % score. If two are missed, the second missed score will be a zero, except in extreme extenuating circumstances, and at the discretion of the instructor.

Letters of Recommendation:
I do not write letters of recommendation for every student. I will only write such letters if I believe my letter will help the student in being admitted to the school/program to which he is applying. This decision is made subjectively and depends on the student’s classroom and lab behavior, attitude, motivation, and grades. You must check with me first and make sure I have agreed to write the recommendation before listing my name as a reference or source of a recommendation. Please realize that a mediocre letter of recommendation may hurt your chances of getting admitted to the school/program of your choice.

Transferring Credits:
It is the responsibility of the student to check with the institution to which they intend to transfer credit for this and any other courses. Do not assume that the credits will be transferable without receiving written confirmation from that institution indicating the credits will be accepted in the manner which is intended by the student.

The Richland College Honors Program:

Honors courses incorporate a variety of learning experiences that emphasize critical thinking skills through collaborative learning, development of research skills, growth in personal leadership, and advanced communication skills, both oral and written. Each Honors course is carefully designed to achieve a minimum of two of the six Honors Student Learning Outcomes listed below. Accordingly, this Honors course will incorporate learning activities and assignments designed to achieve the following Honors Student Learning Outcomes.

1. Analyze and synthesize primary research, current events, and new or original works.
2. Develop written communication skills and express ideas in discipline-specific language.
3. Learn collaboratively and develop community.
4. Develop oral communication skills and express independent ideas.
5. Analyze the relationship between classroom concepts and the surrounding community.
6. Improve awareness of the social and ethical responsibilities related to the discipline.
Successful completion of this class will result in Honors designation (#) for this course section on your transcript, as in A#, B#, and so on. For these credit hours to count towards a Richland Honors Certificate or Richland Honors Scholar designation, the transcript must reflect that you earned an A# or B# grade at Richland. For more information about the Richland Honors Certificate or Richland Honors Scholars designations, visit https://www.richlandcollege.edu/cd/instruct-divisions/rlc/mshp/honors-program/pages/honors-certificate.aspx

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

CATALOG COURSE DESCRIPTION
Biology for Science Majors II

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 which include evolution, biological diversity, ecology, and comparative structure and function of organisms. (3 Lec., 3 Lab.)

As students in this Honors section, I expect you to arrive to class having completed all readings and assignments, ready to discuss and learn from me and each other. This Honors class will develop your science writing and critical thinking skills to help prepare you for advanced science classes and your future career in a science or health field. To receive Honors credit, you must earn an A or B as your final course grade.

Coordinating Board Academic Approval Number 2601015103

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 synthesis, natural selection, population genetics, micro and macroevolution, and speciation.

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.

ACADEMIC PROGRESS: Students are encouraged to discuss academic goals and degree completion with their instructors. Specific advising is available throughout the semester.