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

Semester and Year: Spring 2019
Meeting Dates: January 22, 2019 – May 16, 2019
Section: 83001
Class time and days: Lecture: Mondays & Wednesdays 8:10 a.m.-9:30 a.m.
Lab: Fridays 8:10 a.m.-11:00 a.m.
Room: Lecture in Yegua 105, Lab in Sabine Hall 129
Instructor: Dr. Stanita Jackson
Contact Info: Email: stanitajackson@dcccd.edu
Phone: 972-284-5582
Office hours: Mon. 9:45 a.m.-10:45 a.m.; Tues. 2:00 p.m.-3:00 p.m.; Wed. 9:45 p.m.-10:45 a.m.; Thurs. 11:00 a.m.-12:00 p.m.; Fri. 2:15 p.m.-3:15 p.m.
Office Location: Wichita Hall 221

Last date to withdraw: Wednesday, April 17, 2019
Final Exam Day and time: Wednesday, May 15, 2019 from 8:00 a.m.-9:50 a.m. in Yegua 105
Bring Scantron and #2 pencil

Evaluation Procedures: Your course grade will be based on 4 lecture exams, a final examination, lecture grades, in-class activities, online homework, and laboratory exercises and quizzes. The lecture exams will be multiple choice, true/false, matching, and short essay questions. The final exam is 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 on the most recently covered material. Exams will be based both on the lecture material and assigned reading. The final exam grade will replace your lowest lecture exam grade, if higher. There are no “borderline” situations regarding the final course grade.

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
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<tbody>
<tr>
<td>4 Lecture Exams @ 100 points each</td>
<td>400 points</td>
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<tr>
<td>Lab Grades (best 11 out of 13 lab quizzes) @ 20 points each</td>
<td>220 points</td>
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<tr>
<td>Lab exercises printed and completed -12 @ 5 points each</td>
<td>60 points</td>
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<tr>
<td>Online HW</td>
<td>120 points</td>
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<td>Active Learning</td>
<td>30 points</td>
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<tr>
<td>Mini Research Papers</td>
<td>30 points</td>
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<tr>
<td>Power Point Assignment</td>
<td>40 points</td>
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<tr>
<td>1 Final exam @ 100 points</td>
<td>100 points</td>
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<tr>
<td><strong>Total Points Earned</strong></td>
<td><strong>1000 points possible</strong></td>
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Revised for Spring 2019
Convert to letter grade:

<table>
<thead>
<tr>
<th>Points Range</th>
<th>Grade</th>
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<tbody>
<tr>
<td>900 or above</td>
<td>A</td>
</tr>
<tr>
<td>800-899</td>
<td>B</td>
</tr>
<tr>
<td>700-799</td>
<td>C</td>
</tr>
<tr>
<td>600-699</td>
<td>D</td>
</tr>
<tr>
<td>Below 600</td>
<td>F</td>
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</table>

For an A you must EARN: 900 points
For a B you must EARN: 800 points
For a C you must EARN: 700 points
For a D you must EARN: 600 points

**Attendance Policy:** To be successful, students must attend and participate in all enrolled courses. Lecture and lab attendance are required and necessary to be successful. If you come to one class but not the other, you will not be successful in this course. Changes in the lecture or lab schedule or the assignment of extra credit opportunities (if applicable) may be announced during lecture. Handouts and homework may be distributed during lecture. It is the student’s responsibility to obtain all such information in the case of absence from lecture.

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. 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. The lab quizzes will be given within the first 15-20 minutes of lab class with no make-ups. If you miss the first week of lab you will not be able to attend future labs until that lab is completed and a grade will not be given for the lab quiz. **ABSOLUTELY NO MAKE-UPS FOR LAB QUIZZES.** **TWO** lab quizzes will be dropped for extenuating circumstances like tardiness, absence due to illness, deaths in the family, or because of poor performance. **Your lab manual should be printed out as a “hard copy” for credit and a grade for completion. If you fail to print out the lab and complete lab exercises, you will receive a zero “0” for that lab exercise. Partial credit may be granted if you handwrite the lab but is solely up to the professor’s discretion. No exceptions.**

**Required Materials:**

- **BIOLOGY 2e, by OpenStax** (FREE!)
  [https://openstax.org/details/books/biology-2e](https://openstax.org/details/books/biology-2e)
  - Print: Optional
  - Digital:

- Sapling Learning (Online Homework System) (FREE!)
You are responsible for purchasing the access code for approximately $40.00 from the Richland bookstore or online. If you took BIOL-1406 last semester you may still have access to the online homework.

- The Laboratory Manual is available (free) online on your e-campus site. Please download and print in its entirety.

Instructor Policies and Suggestions for Student Success:

- Active Learning- Includes individual pop quizzes and journaling (based on reading assignments) as well group activities during lecture. Students are responsible for reading the chapters for each lecture and focus on specific page numbers assigned by the professor as this is part of your active learning activities.
- These cannot be made up if absent.
- Science Corner – Second floor Sabine building. FREE tutoring for all science courses. Check posted schedules to find out times for each course.
- Online Homework: Sapling Learning Online homework will be posted and accessible via ecampus Blackboard. Your instructor will provide instructions for registering. Online homework assignments will be due each week (specific due dates will accompany the assignments in the CONNECT online system). There are 12 chapters at 10 points each =120 total points to earn. There is no make-up work for online homework. You must adhere to the due dates or you will earn a zero.
- Computer Labs –
  - Richland College Main Computer Lab, Del Rio, Room D257, 972-238-6317
  - Overflow Lab for Main Computer, Wichita Hall, Room WH159
  - 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

GENERAL CLASSROOM/LAB POLICIES:

1. Lecture starts at 8:10 a.m. on Mondays & Wednesdays and Lab starts at 8:10 a.m. on Fridays. Please be punctual.
2. Please turn off and put away your mobile phone/pager/headphones (earbuds)/smart watches while in class (lecture and lab). There should be no cell phone usage in class under any circumstances. If cell phones are out during lecture exams and lab quizzes, you will receive a zero for that exam and/or quiz and may be asked to leave the class for the day. If it is an emergency and you must use your phone, please step outside of the classroom, except during quizzes and exams.
3. Once you pick up your lecture exam and lab quiz you will not be allowed to leave the room for anything until you are finished turn it in for grading. If you need to go to the restroom, please do so before the exam and quiz. **There are no ins and outs allowed during exams and quizzes.**

4. Persistent talking among classmates during lecture and lab will not be tolerated. A student may be asked to leave the classroom at the discretion of the instructor. You will not be able to hear what the instructor is saying if you are talking at the same time. Be respectful.

5. You are expected to take good care of all the equipment/materials provided to you in the lab. It is your responsibility to keep your working area and materials clean.

6. To be successful in this class, **Attendance is Required for both lecture and lab. Consider this class more important than your job. It is not ok to leave lab or lecture early, or miss lab or lecture completely, because of work.** At the end of lecture, be courteous and allow the instructor to finish speaking before standing and leaving the room.

7. **NO WHINING IS ALLOWED about class work!!!** You are an adult, so let’s behave that way.

8. The responsibility of conducting your assignments and receiving your preferable grade(s) lies with you, therefore at the end of the semester, once final grades are posted please do not email the Professor about grade changes due to your own negligence. I will not respond to those emails.

9. **Lab Dress code:** Students are required to wear proper lab clothing including: long-sleeve shirts, knee length shorts (no shorts above the knee) and closed-toe shoes (covering entire feet). If students do not abide by the lab dress code, there will be a one-time warning. If the students still don’t abide by the lab dress code, the student will not be able to return to the lab.

**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. Please don’t keep asking the instructor about extra credit. It will be announced in class if the instructor decides to offer it. Extra credit must be turned in on the due date the instructor announces, if not credit will be not granted. If these points are earned, they will be added to the total points earned, **not the final course grade. Extra credit will not be offered after final grades have been posted for the semester, so please do not ask about extra credit then.**

**Makeup Exams & Lab Quizzes:**
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. There will be a Back on Track session held after the first exam for those that don’t do well.

The lab quiz will be administered during the first **15-20 minutes** of the lab period only; if you are late for lab, you will have less time to finish the quiz or may miss the quiz. **No Make-ups for lab quizzes under any conditions.** If you leave the lab after taking the quiz (without completing the lab exercise to the teacher’s satisfaction) your lab quiz for that day will not be graded (will receive a grade of zero). **Lab exercises should be printed and brought to lab each week. I strongly suggest printing the entire lab manual and binding it. The weekly lab assignments must be completed during the lab session and will be essential to your lab grade and comprehension of material to be successful on the lab quizzes.**

**Final Exam:**
The final exam is comprehensive. It consists of 100 multiple choice questions. A Scantron sheet and #2 pencil is required.

**PowerPoint Research Assignment:**
Students will individually choose an animal from the Kingdom Animalia to perform a research project and PowerPoint presentation in class. There will be a PowerPoint presentation rubric that students will have to follow to earn all their points. The PowerPoints will need to be from 5-8 minutes in length and not exceeding 10 minutes. Students will submit an abstract and 3 references along with the power point assignment to the instructor on calendar outlined dates. More information will be given during the semester to students concerning due dates. There will be a **Mandatory library**
session. Your professor will give you more information and post resources on ecampus.

**Mini Research Papers:**
There will be two, 1-2-page assignments (2 per semester, 15 points each) concerning current research in different aspects of modern evolutionary synthesis, population genetics, micro and macroevolution, phylogenetic relationships, and animal physiology in relation to specific human body systems. This exercise is designed to utilize resources from the Richland Library and develop skills to analyze and critique primary research. Topics of mini papers will be assigned at least two weeks before the due date, and your article MUST be approved by the instructor. More information will be given during the semester and the instructor will announce due dates in lecture.

**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 source of a recommendation. If I approved to write your recommendation letter, you must submit to me in writing your request and information that you would like released in this letter. 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.

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

**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.)

**Coordinating Board Academic Approval Number 2601015103**

**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](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 [http://www.rlc.dcccd.edu/advising/](http://www.rlc.dcccd.edu/advising/) for more details. Also, consult the Advising Syllabus [https://alt.richlandcollege.edu/assets/uploads/2015/02/AdvisingSyllabus.pdf](https://alt.richlandcollege.edu/assets/uploads/2015/02/AdvisingSyllabus.pdf) regularly to check if you are on track.

College Policies and Procedures:
Institutional Policies relating to this course can be accessed from the following link: [www.richlandcollege.edu/syllabipolicies](http://www.richlandcollege.edu/syllabipolicies)

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.
### Biology 1407 – Spring 2019

**eLAB MANUAL AVAILABLE ON eCAMPUS**

Labs are held in room SH129

(Instructor reserves the right to amend this information as necessary.)

<table>
<thead>
<tr>
<th>WEEK OF:</th>
<th>LECTURE/Assigned Readings</th>
<th>LAB</th>
<th>LAB TOPIC</th>
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<tbody>
<tr>
<td>JAN 22</td>
<td>Syllabus; Ch. 19-Population Genetics (pgs.492-494)</td>
<td>Lab Safety/ Course orientation</td>
<td>Monday labs do not meet-MLK Holiday</td>
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<tr>
<td>JAN 28</td>
<td>Ch. 19-Population Genetics (pgs.495-500)</td>
<td>LAB 1</td>
<td>Population Genetics-Quiz 1: Lab Safety (Monday Labs must complete Lab Safety)</td>
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<tr>
<td>FEB 04</td>
<td>Ch. 18- Origin of Species (pgs. 469-473)</td>
<td>LAB 2</td>
<td>Evolution- Quiz 2 Population Genetics</td>
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<tr>
<td>FEB 11</td>
<td>Ch. 18- Origin of Species (pgs. 473-476)</td>
<td>Ch. 20-Phylogenies and The History of Life (pgs.512-516; 517-522)</td>
<td>LAB 3</td>
</tr>
<tr>
<td>FEB 18</td>
<td>Exam 1 Review/ Exam 1 (02/20/19)-Chapters 19, 18, &amp; 20</td>
<td>LAB 4</td>
<td>Seedless plants- Quiz 4-Geo Timeline and Cladistics</td>
</tr>
<tr>
<td>FEB 25</td>
<td>Ch. 25- Seedless Plants (pgs. 664-667)</td>
<td>No Lab- Lecture in Lab</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>
</tr>
<tr>
<td>MAR 04</td>
<td>Ch. 26-Seed Plants (pgs. 697-701; 701-705)</td>
<td>LAB 5</td>
<td>Seed containing plants- Quiz 5- Seedless plants</td>
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<tr>
<td>MAR 11</td>
<td>NO LECTURE</td>
<td>NO LAB</td>
<td>SPRING BREAK</td>
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<tr>
<td>Date</td>
<td>Chapter/Topic</td>
<td>Lab/Assignment</td>
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<td>MAR 18</td>
<td>Ch. 27-Introduction to Animal Diversity (pgs. 720-722; 725-730)</td>
<td>LAB 6 Animal Kingdom I - Quiz 6-Seeded Plants</td>
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<tr>
<td>MAR 25</td>
<td>Ch. 28- Invertebrates (pgs. 744-746; 748-750; 766)</td>
<td>LAB 7 Animal Kingdom II - Quiz 7-Animal Kingdom I</td>
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<td>Exam 2 Review/Exam 2 (03/27/19)-Chapters 25, 26, &amp; 27</td>
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<tr>
<td>APR 01</td>
<td>Ch. 29-Vertebrates (pgs. 792-793; 795-799)</td>
<td>LAB 8 Animal Kingdom II (Gloves)- Quiz 8-Animal Kingdom II</td>
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<tr>
<td>APR 08</td>
<td>Ch. 29-Vertebrates (pgs. 801; 806; 808; 813; 817; 820-821)</td>
<td>LAB 9 Diversity and Ecology Campus Walk- Quiz 9-Animal Kingdom III</td>
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<tr>
<td>APR 15</td>
<td>Ch. 33- The Animal Body Plan (pgs. 930; 946-947)</td>
<td>LAB 10 Ecological Footprints- Quiz 10-Diversity/Campus walk (email Assignment to Dr. Jackson &amp; Substitute Professor)</td>
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<td>Exam 3 Review/Exam 3 (04/17/19)- Chapters 28, 29, &amp; 33</td>
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<tr>
<td>APR 22</td>
<td>Ch. 34- The Digestive System (pgs. 960-965)</td>
<td>Lecture in Lab M-R classes meet for lecture instructions in the laboratory. <strong>Friday classes are off due to Holiday.</strong></td>
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<td><strong>Turn in Lab for Ecological Footprints for quiz grade</strong></td>
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<tr>
<td>APR 29</td>
<td>Ch. 39-The Respiratory System (pgs. 1136-1141) Ch. 40-The Circulatory System (pgs. 1167-1171; 1173-1176) Power Point Research Presentations;</td>
<td>LAB 11 Anatomy I: Digestive System (Gloves)</td>
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<tr>
<td>MAY 06</td>
<td>Power Point Research Presentations; Exam 4 Review/Exam 4 (05/08/19)-Chapters 34, 39 &amp; 40</td>
<td>LAB 12 &amp; LAB 13</td>
<td>Anatomy II: Circulatory Systems (Gloves)- Quiz 11-Digestive System) Anatomy III: Urogenital Systems (Gloves)- Quiz 12-Circulatory System &amp; Quiz 13-Urogenital System combined</td>
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<tr>
<td>MAY 13</td>
<td>Final Exam Wednesday, May 15, 2019 from 8:00 a.m.-9:50 a.m. Yegua 105</td>
<td>NO LAB</td>
<td>FINAL EXAMS WEEK</td>
</tr>
</tbody>
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NOTE: Classes/labs will NOT meet on these days: Thursday February 28 & Friday March 1 (Professional Development Day), March 11-15 (Spring Break), and April 19 (Holiday).