



WACO, TEXAS

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**COURSE SYLLABUS**

**AND**

**INSTRUCTOR PLAN**

**BIOLOGY FOR NON-SCIENCE MAJORS II**

**BIOL 1409\_88**

**MARY SIDES**

**NOTE: This is a 16-week course.**

**NOTE: This is a Online course.**

**COVID 19 Notice:**

McLennan Community College is committed to providing you with every resource you need to reach your academic goals including your safety. We will continue to monitor the evolving situation with COVID 19 and adjust our safety guidelines to make sure we offer a safe environment for you and our faculty. Please make sure to consult your faculty and the MCC website at <https://www.mclennan.edu/crisis-management/coronavirus-updates/index.html> on any changes to these guidelines.

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This Instructor Plan is tentative, and changes may be made at the instructor's discretion.

### **Course Description:**

This course will provide and reinforce a survey of biological principles with an emphasis on humans, including evolution, ecology, plant and animal diversity, and physiology. Semester hours 4 (3 lec/3 lab)

### **Prerequisites and/or Corequisites:**

*None.*

### **Course Notes and Instructor Recommendations:**

A few hints for doing well in this class:

1. READ, READ, READ. Since this is an online class, the primary method of conveying information is in a written format. Therefore, reading **all** the course materials and communications is an absolute necessity.
2. Read the textbook and all course materials for content and comprehension and spend some time studying the material every day. Sets of multiple-choice questions based on the material in your textbook will be provided to help you study for multiple choice section your exams. In addition, there are questions at the end of each chapter that will be useful in helping you review and think about the material. You should also make up your own questions based on the information in your course notes. Most of the information in the lecture notes is taken from your textbook; however, I do add information from sources outside the textbook. You will be responsible for learning this material as well as that taken from your book.
3. Review the lecture presentations and complete and submit the associated Brightspace quiz based on the student notes. Most of the short answer questions on the lecture exams are based on the material in lecture presentations.
4. Complete all assignments and submit them on or before their due dates. Waiting until 5:00 p.m. on the day the exercise is due to start working on lab assignments is not generally going to be a strategy for success. If you have questions, there is not enough time for me to get back to you before the assignment is due. I strongly recommend that you start working on the assignments early. If you have questions about the assignment or the material, you have adequate time to ask your questions and I will have adequate time to get back to you with answers.

5. **Ask questions if you have them.** If there is something that is unclear to you, please ask for clarification. I will be happy to provide additional explanation.

6. This is a challenging course due to the large volume of material covered in a relatively short period of time. While you may have studied this material in your high school science courses, we generally go into more detail and the pace of the course is faster. It is **at least twice** as challenging when it is taken online. Online classes require good time management skills, online classes taken in the summer even more so. In a face-to-face class, students spend about six (6) hours per week in class and lab. In order to be successful, they also need to plan on spending *at least* another six to eight hours per week outside of class reading and studying the material. This means a total of 12 to 14 hours per week. To be successful in an online class, students need to budget at least as much time for reading and studying as their counterparts in a face-to-face class (again 12 to 14 hours per week).

7. Remember that college is much, much different than high school. There are no exam re-takes or extensive extra credit, and late submission of multiple assignments at the end of the semester is not allowed. Those of you who have been in college more than one semester already know this fact very well. Southern Methodist University (SMU) has a website that provides a nice summary of the differences between the two educational levels. Here is the web address:

<http://www.smu.edu/Provost/ALEC/NeatStuffforNewStudents/HowIsCollegeDifferentfromHighSchool>

I strongly encourage all of you, especially those of you who are new to college, to look at this website. It will give you an idea of what is expected of you as a college student and will (hopefully) help decrease the culture shock.

When all is said and done, I **do not GIVE** you a grade for this course, you **EARN** the grade you receive. Earning the grade involves not only working hard and completing assignments by their due dates; it involves understanding and mastering the material. Learning is an ACTIVE process that is more than simple memorization; learning requires gaining an understanding of the information and concepts involved. Learning the material takes more time and effort than just logging into Brightspace and passively looking at the materials you find there. Like most of life's endeavors, you will get out of this class what you put into it. I have provided some strategies to help you learn the material, but if you have questions about other study methods, please do not hesitate to ask.

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### **Instructor Information:**

Instructor Name: Ms. Mary Sides

MCC E-mail: msides@mclennan.edu

Office Phone Number: 254-299-8164

Office Location: Science Building – Room 208A. Room 124 - Highlander Ranch.

Office/Teacher Conference Hours: Zoom videoconference by appointment.

Other Instruction Information: The best way to reach me is through the e-mail address listed above. I may not be able to respond immediately, but I will try to respond within 24 hours.

Please include the following information in your message:

- **Your name and the course name and number in the subject line.** For this class, the course name and number is BIOL 1409\_88.
- **Your purpose for writing.** Please state the purpose of the message in the subject line.
- **Please utilize correct spelling and grammar.** Proper spelling and grammar are vital to clear communication.

**You need to use your MCC e-mail account when contacting me.** Please do not attach files or e-mail assignments without prior authorization. Also, please do not put me on your e-mail lists for inspirational, funny, or chain e-mails. E-mails should be confined to class-related issues.

I only reply to telephone messages when I am on campus. I live over 1.50 hours from campus, and I am only on campus for a few hours on Tuesdays and Thursdays. If you do need to call me, please leave me your e-mail address in addition to your phone number.

### **Required Text & Materials:**

For our textbook for this course, we will be using selections from three open educational resources (OERs). I will be providing the relevant chapters to you through Brightspace.

Therefore, you will not need to purchase a textbook. I am providing the information on the OERs below.

Title: Biology, 2<sup>nd</sup> edition.

Author: Mary Ann Clark, Jung Choi, and Matthew Douglas

Edition: 2nd

Publisher: OpenStax

ISBN: 978-1-947172-52-4

Title: Concepts of Biology

Author: Samantha Fowler, Rebecca Roush, and James Wise

Edition: 1<sup>st</sup>

Publisher: OpenStax

ISBN: 978-1-947172-03-6

Title: Principles of Biology

Editors: Robert Bear, David Rintoul, Bruce Snyder, Martha Smith-Caldas, Christopher Herren, and Eva Horne.

Publisher: OpenStax

Lab manual. None. There will be worksheets in Brightspace you will complete for the lab portion of this course.

Other readings as assigned.

**MCC Bookstore Website:** <http://www.mclennan.edu/bookstore/>

**Methods of Teaching and Learning:**

This section is an online format. Learning will be achieved through the required readings, videos, review of posted lectures, lab exercises, learning journals, an analysis paper and associated group discussion, and lecture exams. Material is presented via Brightspace.

**Course Objectives and/or Competencies:**

Courses in this category focus on describing, explaining, and predicting natural phenomena using the scientific method. Courses involve the understanding of interactions among natural phenomena and the implications of scientific principles on the physical world and on human experiences.

- **Critical Thinking Skills** - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.
  - Assessed through the use of laboratory exercises, case studies, writing assignments, and/or lecture examinations.
- **Communication Skills** - to include effective development, interpretation and expression of ideas through written, oral and visual communication.
  - Assessed through the use of written assignments, laboratory exercises, case studies, class discussions, and/or poster or PowerPoint presentations. Lab results or student projects by individuals or small groups will be presented with oral, written, and visual elements.

- **Empirical and Quantitative Skills** - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.
  - Assessed through the use of lecture examinations, laboratory exercises, and/or case studies.
- **Teamwork** - to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal.
  - Assessed through the use of group laboratory exercises, group assessment of case studies, class discussions, and/or poster or PowerPoint presentations. Small groups of students will work together to complete lab experiments, case study assessments, or group projects and present their results using oral, written, and visual elements.

Upon successful completion of lecture and lab portions 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 investigations.

**Course Outline or Schedule:**

Week 1 (01/10/2022 – 01/16/2022): Introduction to the course. Introduction to Biology and Procedures of Science.

Week 2 (01/17/2022 – 01/23/2022): Natural Selection and Speciation. Population Genetics.

Week 3 (01/24/2022 – 01/30/2022): Taxonomy and Phylogenetics. Microbial Diversity.

*Monday – Thursday (01/24/2022 – 01/27/2022): Major Exam 1 (Intro to Biology and Procedures of Science, Natural Selection and Speciation, Population Genetics).*

Week 4 (01/31/2022 – 02/06/2022): Introduction to Plant Diversity. Soil and Plant Nutrition.

Week 5 (02/07/2022 – 02/13/2022): Plant Form and Physiology.

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*Monday – Thursday (02/07/2022 – 02/10/2022): Major Exam 2 (Taxonomy and Phylogenetics, Microbial Diversity, Introduction to Plant Diversity).*

Week 6 (02/14/2022 – 02/20/2022): Plant Reproduction. Begin Ecology and the Biosphere.

Week 7 (02/21/2022 – 02/27/2022): Conclude Ecology and the Biosphere. Population Ecology.

*Monday – Thursday (02/21/2022 – 02/24/2022): Major Exam 3 (Soil and Plant Nutrition, Plant Form and Physiology, Plant Reproduction).*

Week 8 (02/28/2022 – 03/06/2022): Community Ecology. Ecosystems.

### **Spring Break! 03/07/2022 – 03/13/2022**

Week 9 (03/14/2022 – 03/20/2022): Animal Diversity. Animal Form and Function.

*Monday – Thursday (03/14/2022 – 03/17/2022): Major Exam 4 (Ecology and the Biosphere, Population Ecology, Community Ecology).*

Week 10 (03/21/2022 – 03/27/2022): Musculoskeletal System. Begin Nervous System.

*Monday – Thursday (03/21/2022 – 03/24/2022): Major Exam 5 (Ecosystems, Animal Diversity, Animal Form and Function). Friday, 03/25/2022. Last day for student-initiated withdrawals with an automatic grade of ‘W.’*

Week 11 (03/28/2022 – 04/03/2022): Conclude Nervous System. Endocrine System.

Week 12 (04/04/2022 – 04/10/2022): Circulatory System. Analysis Paper Prep Quizzes.

*Monday – Thursday (04/04/2022 – 04/07/2022): Major Exam 6 Musculoskeletal System, Nervous System, Endocrine System).*

Week 13 (04/11/2022 – 04/17/2022): Respiratory System. Analysis Paper, Group Discussion Post, Final Analysis Questions.

Week 14 (04/18/2022 – 04/24/2022): Digestive System. Urinary System.

Week 15 (04/25/2022 – 05/01/2022): *Monday – Thursday (04/25/2022 – 04/28/2022): Major Exam 7 (Circulatory System, Respiratory System, Digestive System, Urinary System). Review for Final Exam.*

Week 16 (05/02/2022 – 05/06/2022): *Final Exam Due by 8:00 pm on 05/03/2022 for Spring 2022 graduating students. Final Exam Due by 8:00 pm on 05/05/2022 for all other students.*

This schedule is tentative and may be changed at the instructor’s discretion. You will be notified of any changes by e-mail and notifications in Brightspace.

### **Course Grading Information:**

Major Exam 1	60 points
Major Exam 2	60 points
Major Exam 3	60 points
Major Exam 4	60 points
Major Exam 5	60 points
Major Exam 6	60 points
Major Exam 7	60 points

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Lab Exercises	185 points
Orientation Activities	25 points
Lecture Notes	5 points
Reading Questions	20 points
Learning Journals	120 points
Analysis Paper Project	125 points
Comprehensive Final exam	100 points
Total	1000 points

The points needed for each letter grade are as follows:

90% of 1000 points = 900 to 1000 points =	A
80% of 1000 points = 800 to 899 points =	B
70% of 1000 points = 700 to 799 points =	C
60% of 1000 points = 600 to 699 points =	D
Fewer than 600 points =	F

There will be seven (7) major (lecture) exams worth 60 points each. There will also be a final exam worth 100 points.

The major exams will be based on material from the textbook readings, the lectures, and any additional assigned readings and videos. All exams will be a mixture of multiple choice and written response questions. Most of the written response questions will require you to exercise your critical thinking skills. The exams in the course will be unproctored, timed, open book exams that you will take online through Brightspace.

Now, before you get too excited about the prospect of open-book exams, there are some conditions that will be in place to maintain academic integrity. The first condition is that these exams will have a very strict time limit. You will not be allowed to enter additional answers once the time limit is reached. So, you will still need to study and prepare for the exams. There will not be enough time for you to look up every single answer on either test, so you will still need to learn the material.

The second condition is that each test will be a random draw of questions. This means is that each student's exam will be slightly different.

The third condition is that you will need to download and use Respondus LockDown Browser. You will be allowed to access online course resources for your exams such as your textbook and lecture documents, but you will not be able access other websites outside the test window. Watch this video to get a basic understanding of LockDown Browser:

<https://www.respondus.com/products/lockdown-browser/student-movie.shtml>



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There will be an analysis paper based on assessment of Internet sources of scientific information. Students will be assigned to teams. Each member of a team will be assigned a different search engine to be used to research the given topic. In addition to each student submitting a paper detailing the results of his or her research, there will also be a team discussion to analyze the reliability of each of the assigned search engines to provide reliable scientific content. The paper and associated assignments will be worth a total of 125 points. The paper itself will be worth 100 points, and students will have the opportunity to earn the remaining 25 points based on their participation in the team discussion and completion of preparatory quizzes and follow-up questions. Additional information regarding this assignment will be provided later in the semester.

There will be reading questions based on the material in the textbook and other assigned readings. There will be a set of questions associated with each lecture. These are designed to help the student prepare for class. Answers to the reading questions will be submitted through a quiz link in Brightspace.

The lectures and student notes for the course have been prepared to help the student understand the material and should be carefully reviewed and the student notes completed. In order to assist with this process, student will submit a copy of the student notes as a Brightspace quiz.

There will be lab assessments designed to help you start interacting with the course materials. These assessments will consist of a combination of multiple choice, matching, ordering, and choose all that apply questions. You will have a pdf copy of the lab assessment to use to you're your answers, and you will then submit your answers using a quiz link in Brightspace.

There will also be a set of learning journal assignments that you will submit as part of your course requirements. They will be submitted using quiz and survey links in Brightspace. For each journal, you will be providing answers to a series of questions related to the information you are learning in that unit. You will be asked to show calculations and/or provide detailed answers to critical thinking/analysis questions from your lab assessments.

Due to the rules of the Family Educational Rights and Privacy Act (FERPA), I cannot discuss your grades with your parents, spouse, children, significant other, employer, family pet, etc. without your written permission. This permission has to be in writing; consent furnished by e-mail is not acceptable. In addition, I cannot discuss your grades with you via e-mail since it is not considered a secure form of communication.

**Late Work, Attendance, and Make Up Work Policies:**

In the case of online and hybrid courses, attendance will be determined in terms of participation as described in the course syllabus.

In my face-to-face classes, students complete lab assignments during each class meeting; completion of these tasks is evidence of their attendance for that day. There is an analogous process for assessing attendance in this online class. Each week, lab assignments are assigned for completion. Failure to complete a lab assignment by the due date will be considered an absence. Lab assignments **MUST** be complete with all questions answered to be considered evidence of attendance. Incomplete lab assignments will not be accepted for attendance purposes.

If a student fails to complete 25 percent of the assignments (7 labs) in a timely manner, it will be taken as evidence that a student does not intend to complete the course. In this case and in accordance with MCC's attendance policy, the student will be withdrawn from the course with a grade of W. The instructor may reinstate the student if satisfied that the student will resume regular attendance and complete the course. If the student's 25 percent absences are reached after the official drop date, the instructor may assign a W, if the student is passing and requests to be withdrawn. However, if a student who is not passing reaches the 25 percent point after the official drop date, the student will receive an F. In extenuating circumstances, the instructor may assign a W to a student who is not passing. Students who reach the 25 percent point after the official drop date will **NOT** be automatically dropped from the course.

Each absence will count toward attendance requirements in each course.

Late work is generally not accepted; however, it will sometimes be accepted in extenuating circumstances. If you are not going to be able to submit an assignment before the due date, please let me know as soon as possible. If an extension is granted, you will need to submit the late work within 24 hours of due date.

As the major exams are online and available for several days, make-up exams will generally not be given. If a student misses one of the regularly scheduled major exams, the grades for the other four major exams will be averaged, and the average will be substituted for the missing grade. The same will apply to missed lab exams.

**Student Behavioral Expectations or Conduct Policy:**

Students are expected to maintain online decorum that includes respect for other students and the instructor, prompt and regular attendance, and an attitude that seeks to take full advantage of the education opportunity.

Professionalism. A casual and friendly atmosphere is encouraged. However, respect and civility is absolutely required in all interactions with your instructor and fellow classmates.

Test Day. All exams will be taken through Brightspace. These will be open book exams with strict time limits.

**Academic Honesty:**

Academic honesty is very important. You should always do your own work. The tests are opportunities to demonstrate how much you have learned. Cheating is dishonest; it is also disrespectful of your classmates, your instructor, and most of all, yourself.

**[Click Here for the MCC Attendance/Absences Policy](https://www.mclennan.edu/highlander-guide/policies.html)**

**(<https://www.mclennan.edu/highlander-guide/policies.html>)**

Click on the link above for the college policies on attendance and absences. Your instructor may have additional guidelines specific to this course.

# McLennan

C O M M U N I T Y

## COLLEGE

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## ACADEMIC RESOURCES/POLICIES

### **Accommodations/ADA Statement:**

Any student who is a qualified individual with a disability may request reasonable accommodations to assist with providing equal access to educational opportunities. Students should contact the Accommodations Coordinator as soon as possible to provide documentation and make necessary arrangements. Once that process is completed, appropriate verification will be provided to the student and instructor. Please note that instructors are not required to provide classroom accommodations to students until appropriate verification has been provided by the Accommodations Coordinator. For additional information, please visit [www.mclennan.edu/disability](http://www.mclennan.edu/disability).

Students with questions or who require assistance with disabilities involving physical, classroom, or testing accommodations should contact:

[disabilities@mclennan.edu](mailto:disabilities@mclennan.edu)

254-299-8122

Room 319, Student Services Center

### **Title IX:**

We care about your safety, and value an environment where students and instructors can successfully teach and learn together. If you or someone you know experiences unwelcomed behavior, we are here to help. Individuals who would like to report an incident of sexual misconduct are encouraged to immediately contact the Title IX Coordinator at [titleix@mclennan.edu](mailto:titleix@mclennan.edu) or by calling Dr. Drew Canham (Chief of Staff for Diversity, Equity & Inclusion/Title IX) at (254) 299-8645. Individuals also may contact the MCC Police Department at 299-8911 or the MCC Student Counseling Center at MCC at (254) 299-8210. The MCC Student Counseling Center is a confidential resource for students. Any student or employee may report sexual harassment anonymously by visiting <http://www.lighthouse-services.com/mclennan/>.

Go to McLennan's Title IX webpage at [www.mclennan.edu/titleix/](http://www.mclennan.edu/titleix/). It contains more information about definitions, reporting, confidentiality, resources, and what to do if you or someone you know is a victim of sexual misconduct, gender-based violence or the crimes of rape, acquaintance rape, sexual assault, sexual harassment, stalking, dating violence, or domestic violence.

**Student Support/Resources:**

MCC provides a variety of services to support student success in the classroom and in your academic pursuits to include counseling, tutors, technology help desk, advising, financial aid, etc. A listing of these and the many other services available to our students is available at <http://www.mclennan.edu/campus-resource-guide/>

College personnel recognize that food, housing, and transportation are essential for student success. If you are having trouble securing these resources or want to explore strategies for balancing life and school, we encourage you to contact a Success Coach by calling (254) 299-8226 or emailing [SuccessCoach@mclennan.edu](mailto:SuccessCoach@mclennan.edu). Students may visit the Completion Center Monday-Friday from 8 a.m.-5 p.m. to schedule a meeting with a Success Coach and receive additional resources and support to help reach academic and personal goals. Paulanne's Pantry (MCC's food pantry) provides free food by appointment to students, faculty and staff based on household size. Text (254) 870-7573 to schedule a pantry appointment. The Completion Center and pantry are located on the Second Floor of the Student Services Center (SSC).

**MCC Foundation Emergency Grant Fund:**

Unanticipated expenses, such as car repairs, medical bills, housing, or job loss can affect us all. Should an unexpected expense arise, the MCC Foundation has an emergency grant fund that may be able to assist you. Please go to <https://www.mclennan.edu/foundation/scholarships-and-resources/emergencygrant.html> to find out more about the emergency grant. The application can be found at [https://www.mclennan.edu/foundation/docs/Emergency\\_Grant\\_Application.pdf](https://www.mclennan.edu/foundation/docs/Emergency_Grant_Application.pdf).

**MCC Academic Integrity Statement:**

Go to [www.mclennan.edu/academic-integrity](http://www.mclennan.edu/academic-integrity) for information about academic integrity, dishonesty, and cheating.

**Minimum System Requirements to Utilize MCC's D2L|Brightspace:**

Go to <https://www.mclennan.edu/center-for-teaching-and-learning/Faculty-and-Staff-Commons/requirements.html> for information on the minimum system requirements needed to reliably access your courses in MCC's D2L|Brightspace learning management system.

**Minimum Technical Skills:**

Students should have basic computer skills, knowledge of word processing software, and a basic understanding of how to use search engines and common web browsers.

**Backup Plan for Technology:**

In the event MCC's technology systems are down, you will be notified via your MCC student email address. Please note that all assignments and activities will be due on the date specified in the Instructor Plan, unless otherwise noted by the instructor.

**Email Policy:**

McLennan Community College would like to remind you of the policy (<http://www.mclennan.edu/employees/policy-manual/docs/E-XXXI-B.pdf>) regarding college email. All students, faculty, and staff are encouraged to use their McLennan email addresses when conducting college business.

A student's McLennan email address is the preferred email address that college employees should use for official college information or business. Students are expected to read and, if needed, respond in a timely manner to college emails.

**Instructional Uses of Email:**

Faculty members can determine classroom use of email or electronic communications. Faculty should expect and encourage students to check the college email on a regular basis. Faculty should inform students in the course syllabus if another communication method is to be used and of any special or unusual expectations for electronic communications.

If a faculty member prefers not to communicate by email with their students, it should be reflected in the course syllabus and information should be provided for the preferred form of communication.

**Email on Mobile Devices:**

The College recommends that you set up your mobile device to receive McLennan emails. If you need assistance with set-up, you may email [Helpdesk@mclennan.edu](mailto:Helpdesk@mclennan.edu) for help.

**Forwarding Emails:**

You may forward emails that come to your McLennan address to alternate email addresses; however, the College will not be held responsible for emails forwarded to an alternate address that may be lost or placed in junk or spam filters.

**Disclaimer:**

The resources and policies listed above are merely for informational purposes and are subject to change without notice or obligation. The College reserves the right to change policies and other requirements in compliance with State and Federal laws. The provisions of this document do not constitute a contract.