



# TYLER JUNIOR COLLEGE

## Syllabus

**Course Name:** Biology for Non-Science Majors I  
**Course Prefix and Number:** BIOL 1408  
**Hours:** 3, 3, 4  
**School:** University Studies

**Course Description:** Fundamental principles of living organisms including physical and chemical properties of life, organization, function, evolutionary adaptation, and classification. Concepts of reproduction, genetics, ecology, and the scientific method are included.

**Prerequisite:** None

**Co-Requisite:** Students must register for an on-campus laboratory section

### Textbooks:

- Required: *Inquiry into Life*, 12th Edition, 2008. Author: Sylvia Mader
- Required: *Laboratory Manual for Introductory Biology, Human Biology, and Zoology*, 6th Edition, 2004. Authors: Cates, Mayfield, and Brach
- Optional: *A Guide to Biology Lab*, 3rd Edition. Author: Thomas Rust

The Lecture text should be brought to every on-campus lecture and lab meeting. Students should have a Laboratory Manual by the second lab meeting. The lab manual is a workbook and is used to receive credit for the lab meeting. Photocopy is a copyright violation and is not an acceptable substitute

### Professor Contact Information:

<b>Name</b>	Cathryn P. Cates
<b>Office Number</b>	Online
<b>Telephone Number</b>	Please contact me online.
<b>EMAIL Address</b>	<a href="mailto:ccat@tjc.edu">ccat@tjc.edu</a> ; Please put <b>TJC Biology 1408</b> in subject line
<b>Office Hours</b>	Virtual office hours every day by appointment
<b>Instructor Email Response Policy</b>	Unless out of town on college business, the instructor will try to respond to email within two days between 8 am and 5 pm. No responses will be made on Saturdays, Sundays, or holidays.

### Topical Outline:

- The Study of Life
- The Molecules of Cells

- Cell Structure and Function
- Membrane Structure and Function
- Cell Division
- Metabolism: Energy and Enzymes
- Cellular Respiration
- Evolution and Diversity including a survey of Domains Prokarya, Archaea, and Eukarya
- Behavior and Ecology

### **Learning Outcomes:**

Upon successful completion of this course, the student will be able to demonstrate the following learning outcomes:

- Describe the characteristics of living organisms
- Apply the scientific process to gather information and to arrive at conclusions
- Analyze the chemical nature of life
- State and discuss the Cell Theory
- Compare and contrast prokaryotic and eukaryotic cellular ultrastructure
- Explain and diagram cellular metabolic pathways
- Compare and contrast mitosis and meiosis
- Diagram and solve a variety of genetics problems
- Describe the history of life on earth as revealed by the fossil record
- Compare and contrast various theories on the origin of life
- Describe natural selection as a process that results in adaptation to the environment
- Construct a classification scheme for a living organism and to describe the current classification scheme of living organisms
- Compare and contrast energy flow and chemical flow within an ecosystem
- Analyze the interrelationships of living organisms and their environment
- Demonstrate proper use of laboratory equipment in the laboratory environment which enhances the lecture presentation through the examination of living and preserved organisms, microscope slides, and models
- Analyze current issues such as biotechnology and genetic engineering, habitat destruction and species extinction, and the effects of human development on earth's ecosystems

### **Methods of Instruction:**

In class or online materials; Powerpoint presentations and/or other audiovisual presentations; email; assignments; current issues in relevant publications; on-campus laboratory class each week which includes maintaining a laboratory manual

### **Methods of Evaluation:**

Examinations include recognition and recall as well as analysis and discrimination.

The **lecture grade** is determined by averaging the examinations and any assignments and quizzes given during the semester and may include class participation.

The **laboratory grade** is determined by averaging the weekly work (50%), the midterm practical exam (25%), and the final practical exam (25%).

The **final lecture examination** is a comprehensive examination covering all course material for the semester.

The **semester course grade** is determined by averaging the lecture grade, the laboratory grade, and a comprehensive final examination as follows:

Lecture grade = 50%      Laboratory grade = 25%      Final Exam grade = 25%

A letter grade is based on the following percentages:

**A** = 90-100;    **B** = 80-89;    **C** = 70-79;    **D** = 60-69;    **F** = <60

Students will receive a failing grade (F) if they have not met minimum course requirements for a passing grade and have not withdrawn from the course.

### **College Requirements:**

#### **College Requirements and Information**

- Tyler Junior College does not discriminate on the basis of race, religion, color, national origin, sex, age, or disability with respect to access, employment, programs or services.
- As per Section 504 of the *Federal Rehabilitation Act* of 1973, <http://www.hhs.gov/ocr/504.html>, as amended, and the *Americans with Disabilities Act* of 1990, <http://www.ada.gov>, if accommodations are needed contact the ADA Coordinator located in Support Services at 903-510-2878. Deaf students, please contact the Deaf Student Interpreter Coordinator at 903-510-2394 or TTY 903-510-2841.
- Tyler Junior College complies with the *Family Education Rights and Privacy Act* (FERPA), <http://www.ed.gov/policy/gen/guid/fpco/ferpa/index.html>. The privacy of student records is maintained in accordance with the provisions of this act.

#### **Student Handbook Policies**

Policies that relate to student academic conduct and success are found in the *Student Handbook*, [www2.tjc.edu/studentresources/StudentHandbook.shtml](http://www2.tjc.edu/studentresources/StudentHandbook.shtml). These include, but are not limited to, the following points.

- Acts of academic dishonesty are violations of the *Student Code of Conduct* found in the *Student Handbook* and will be handled academically by the professor and then referred for judicial action. Academic dishonesty includes, but is not limited to: Cheating; Plagiarism; Collusion; Falsifying academic records; Misrepresenting facts to the college or a college official; Any act intended to give unfair academic advantage to the student
- Students at Tyler Junior College assume an obligation to conduct themselves in a manner compatible with the College's function as an educational institution. Classroom Etiquette and the Student Code of Conduct are found in the *Student Handbook*
- Regular attendance at classes is strongly associated with academic success. Students are responsible for regular attendance in credit classes in which they are enrolled. See the *Student Handbook*. The above items can be accessed by doing a key word search of the on-line *Student Handbook*.

#### **Board Policy Manual**

- Tyler Junior College maintains and adheres to policies approved by the Board of Trustees, <http://www.tasb.org/policy/pol/private/212501/>. Relevant sections can be found in ACADEMIC ACHIEVEMENT:GRADING AND CREDIT LDU-04-98 EGA(REGULATION)-X
- Excused Absences: Students who will be absent from class for the observance of a religious holiday are responsible for informing their professors prior to the holiday. (Section 52.911, Texas Education Code)

- Students who will be absent from class due to their participation in a College-sponsored or -approved activity are responsible for informing their professors prior to their absence in the form of a written notification prepared and signed by an instructional dean.
- Students are responsible for arranging to make up any course work missed due to absences for any reason. A student who is absent due to an official religious observance or a College-sponsored or -approved activity, and who has appropriately informed the professor prior to the event, is entitled to make up missed course work. In other cases, the professor will determine whether a student will be allowed to complete makeup work and the time and nature of the makeup work.
- Grading System: Unless students are notified in writing at the first class meeting, all classes shall use the following grading system: 90 - 100 = **A**; 80 - 89 = **B**; 70 - 79 = **C**; 60 - 69 = **D**; 0 - 59 = **F**
- Incomplete policy: The conditional grade of "I" (incomplete) may be given to a student for emergency situations only and requires the approval of the professor, and the appropriate program director. An "I" may be given by using the "Incomplete Request" form.
- It is the responsibility of the student to arrange with the professor for completion of the course when an "I" is given. To remove an "I," the student must complete the work of the course within 30 days after the beginning of the next long semester and receive, without penalty, the earned grade. To convert an "I" a professor shall submit an approved "Change of Grade Request" form to the registrar's office for processing. An "I" that is not removed within 30 days of the next long semester shall be converted to an "F." "
- Withdrawal policy: The student will receive a grade of "W" for a course if a withdrawal form is submitted to the registrar's office by 5:00 p.m. the last day of the 14th week of classes during a 16-week semester, the seventh week of an eight-week session, or the 15th day of any summer session. Students should consult the registrar's office for withdrawal dates during special sessions.
- Students will receive a failing grade (F) if they have not met minimum course requirements for a passing grade and have not submitted a withdrawal form or been withdrawn from a course by the above deadlines.
- A professor seeking to withdraw a student from a course for disciplinary reasons should comply with the Student Discipline Policy FM(REGULATION).
- A student who has been withdrawn from a course may be reinstated only with the approval of the professor. The student must initiate the reinstatement by contacting the professor within two weeks in a 16-week semester, one week in an eight-week session, or the second day of a summer session from the official date of the withdrawal. Students should consult the registrar's office for reinstatement dates during special sessions.

### **Campus Emergency Response**

- A Crisis Management Team exists for the purpose of responding to emergencies. Emergency procedures will be broadcast by intercom through office phones, on Apache Alert (You can get emergency alerts and other campus information sent as text messages to your cell phone, wireless PDA or pager by signing up through Apache Access), or through [www.tjc.edu/apacheaccess](http://www.tjc.edu/apacheaccess).
- Phone Numbers:
  - TJC Emergency Phone: 903-510-2222
  - TJC General Phone: 903-510-2200
  - TJC Weather Phone: 903-510-3000 (for information on college closure)

### **Departmental Requirements and Policies:**

- All biology courses at Tyler Junior College require lab attendance. If a student misses more than two lab sessions, the student must either withdraw from the course or receive an F. Exceptions can be made on an individual basis in cases of extenuating circumstances, including extended illness, as long as the student is passing the course and has no more than three lab absences. Students must contact both lecture and lab instructors to request an exception. All lab sections will

meet starting the first full week of every semester; exceptions will be posted before the start of a semester.

- All biology courses at Tyler Junior College include either a comprehensive final exam or a capstone experience. All students must take the final exam or complete the capstone experience to earn credit in the course.
- Permission for visitors to any class must be obtained by the instructor from the Dean of University Studies. Be sure to ask well in advance if you wish to have a visitor come to class with you.
- It is the student's responsibility to withdraw from a class for academic or personal reasons. Contact your academic advisor to process a withdrawal, or consult with your instructor for further guidance.

#### **Course Requirements and Policies:**

- No test grades are dropped.
- The weekly laboratory grade will be determined as follows. The total grade for a lab exercise will be 100 points. This grade will be given based on work done in the lab that day. If a daily quiz is given for that period, the grade will be given as lab work = 60 points and quiz = 40 points. A student must be on time to the lab period in order to take the quiz. If you are tardy to lab, you will receive a zero on the quiz for that day. Note: All lab work is to be done in pencil to receive a grade. The student must bring a #2 pencil for lab work.
- The student is expected to read thoroughly all laboratory exercises and any outside reading assignments before coming to class. However, due to the nature of the laboratory exercises, the student must not draw or label diagrams, or do other work to be graded before coming to class. To do so will result in partial loss of credit on that exercise.
- Only two make-up labs per semester will be permitted. The make-up lab must be within the same calendar week as the absence. Extenuating circumstances will be considered on an individual basis.

#### **Professor-specific Requirements and Policies:**

- You must return a signed and dated Confirmation Page that states:  
"I have received a copy of Classroom Etiquette and the Student Code of Conduct as published in the Tyler Junior College *Student Handbook Online*. I understand that I am to abide by all Tyler Junior College policies, rules, and regulations. I have also received a copy of the Course Syllabus for this course. I understand that I must abide by stated course requirements."
- I do not give exams back to students.
- There will be a bonus opportunity on each exam. There will also be an additional community service bonus option offered to the class. I give no other bonus opportunities or projects.
- I do not give retests on exams.
- Make-up exams are given after the official drop date of the semester. A student may only take one makeup exam. It is the student's responsibility to contact me immediately to request the makeup. The time, place, and format of the exam will be determined by the Instructor. Extenuating circumstances causing a student to miss an exam will be handled on an individual basis.

Revised 8/2009