

Essential minimum information required by STC

South Texas College  
Biology Department  
Section Outline

Biology 1409.V60  
(Non-majors, Online)

General Biology II  
Summer III 2017

***THIS ONLINE CLASS HAS NO CLASSROOM MEETINGS! All assignments, communications and activities are submitted online using Blackboard!***

Name of the Biology Department Chair: Dr. Murad Odeh

## Instructor Information

**1. Dr. Jan A. Nilsson**

2. Office: Room 2.1204 / Building J, Pecan Campus.

3. Office Telephone Number: (956) 872-2334

(Please use Blackboard Help Desk for class questions, and Blackboard e-mail for private questions.)

4. FAX Number: (956) 872-2117

5. E-mail Address: Blackboard e-mail for your class (student e-mail sent to the STC email box [nilsson@souttexascollege.edu](mailto:nilsson@souttexascollege.edu) will not be answered unless it is an emergency)

6. Office Hours and teaching load: For *online classes* in the Class Help Desk in the Blackboard course shell following my evening class, Tuesday and Thursday 10.00 - 11.00 pm. Like most STC instructors this instructor teaches overloads, however, for all practical purposes the instructor will when possible, answer

questions in the **Blackboard Class Help Desk every day** throughout the week (24/7).

Normal response time to student e-mail or help desk post at STC is within 48 hours. The instructor reserves the right to decide if a message needs an immediate reply. However, for all practical purposes the instructor will when possible, answer questions in the Blackboard Class Help Desk every day throughout the week (24/7).

Clarification: In online classes we communicate online, so the office hours for online classes at STC are online. If a meeting in the STC office is necessary an arrangement can be made for student who participate in the class as expected, but not until attempts have been made to solve concerns and problems by communicating online.

**Class Schedule:**

BIOL 2406.V60    Online

BIOL 1409.V60    Online

## STC Biology Program Information

### 1. Biology Program Learning Outcomes

1. The student will be able to apply laboratory techniques and the scientific method to perform experiments, and to collect, summarize and interpret data in the biological disciplines.
2. The student will have a broad knowledge of cells and can explain metabolism including DNA, genetics, and biotechnology.
3. The student can discuss the principles of evolution, how evolution has shaped life on earth and how the theory of evolution impacts the study of biology.
4. The student will differentiate among major classifications of organisms, understand comparative anatomy and physiology, and interpret classification schemes in terms of phylogeny.
5. The student will be able to summarize interactions of organisms with each other and with the environment and the effects of climate change on the biosphere.
6. The student can describe cellular organization in tissues and organs, and extend this knowledge to skeletal, muscle, and nervous organ systems.
7. The student will understand systemic physiology including how organ systems function to regulate homeostasis.

8. The student will differentiate microbial mechanisms of pathogenicity, understand the role of the immune system in protecting against microbes, and evaluate effectiveness of anti-microbial agents.
9. The student will be able to research and analyze the scientific literature and develop informed conclusions.
10. The student can skillfully communicate on critical issues concerned with health of individuals, communities, and ecosystems.

## 2. Core Objectives

- **Critical Thinking Skills (CT):** to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information;
- **Communication Skills (COM):** to include effective development, interpretation and expression of ideas through written, oral and visual communication.
- **Empirical and Quantitative Skills (EQS):** to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions;
- **Teamwork (TW):** to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal;

## Course Information (BIOL 1409)

### 1. Course Name

General Biology II (non-majors) ([Online](#))

### 2. Course Number and Section Number

Biology 1409.V03

### 3. Classroom Location

*Online* in Dr. Nilsson's CyberClassroom.

### 4. Days and Time Class Meets

Online at the students convenience (however, there is a minimum rule of thumb for study time). Attendance and participation policy: Students must submit

assignments *anytime at the student's convenience as long as completed in an orderly and timely manner on or before the due date as listed in the semester calendar.* Many assignments can be submitted over a convenient long period of time -- for some assignment the whole semester. **Students missing critical deadline dates (see Semester Calendar) are not participating as can be expected and may be removed from the class roster following STC policy.** (For more information see, 12. Miscellaneous: Participation Policy.)

## 5. Catalog Course Description

This is a continuation of Biology 1408. It is an overview of the fundamental principles of living organisms including classification and evolution. Topics include biodiversity of viruses, bacteria, archaea, protists, fungi, plants, and animals, comparison of their organization, function and reproduction with humans, and ecology of behavior, populations, communities, and the biosphere, including effects of human activities. *Prerequisites: BIOL 1408 with a grade of "C" or better.* (From South Texas College Course Catalog.)

## 6. Course Learning Outcomes

- **List** steps of the scientific process and utilize laboratory equipment including microscopy to conduct biological experiments.
- **Recall** basic knowledge of natural selection, evolution, ecology, and principles of inheritance, and distinguish between classification schemes and phylogeny.
- **Identify** anatomical, physiological, and adaptive characteristics of the major phyla with an emphasis on plants and animals, including basis of their classification, evolutionary history, asexual and sexual life cycles, and ecology.
- **Describe** basic animal physiology and homeostasis as maintained by organ systems, and know differences in homeostatic maintenance by major phyla.
- **Recognize** the the relationships between geologic and climatic change, extinction, and evolutionary trends.
- **Analyze and evaluate** various observations, facts and other information about a biological phenomenon through creative thinking, innovation and inquiry, and synthesize ideas consistent with the information.
- **Develop**, interpret and express ideas concerning a biological topic or results of laboratory work through written, oral and/or visual communication.
- **Collect**, manipulate and analyze biological data, and employ scientific reasoning, resulting in informed conclusions.
- **Work effectively with others** including ability to lead or participate, to consider different points of view, and to assign or carry out individual tasks, to support a shared purpose or goal in a biological field.

## 7. Departmental Course Requirements, Evaluation Methods, and Grading Criteria

Lecture: 75 percent

Lab: 25 percent

For grading details see the online Grading Criteria and Semester Calendar (navigate to the General Biology Hub and click on the Grading Criteria button or the Semester Calendar button) which both are part of the Syllabus for the class.

## 8. Textbook

2015. Essentials of Biology, ed.4. Mader, S. and Windelspecht, M., ISBN: 978-0-07-352551-8. (Used copies also acceptable, but be prepared for differences and more time searching for content.)

There is no lab manual -- all lab activities are virtual assignments online and outdoor semester projects.

## 9. Each Major Assignment and Examination

**List of assignments:** This information is also available on the Grading Criteria page (navigate to the General Biology Hub and click on the Semester Calendar button). Instead of a few major large and time-consuming exams, this class instead has several smaller and shorter assignments. The shortest quiz only have one question, and will take less than a minute to finish. **Don't worry about the long list** -- it is just a STC standardized requirement for this section outline. MOST of these assignments are very short and fast assignments, but *they must be listed here as an STC requirement.*

Also see the Grade Recorder page for an assignment list that you can print and use to "fill-in grades" as you progress throughout the semester (navigate to the General Biology Hub and click on the Grade Recorder button).

## **I. Syllabus / Class Introduction**

Student Contract Quiz  
Introduction Post  
Start Quiz  
Class Discussion “Key” Quiz

## **II. Reading Quizzes (Assessments)**

*Reading Quiz 01* (Blackboard, open book, 4 hours, unlimited attempts)  
*Reading Quiz 02* (Blackboard, open book, 4 hours, unlimited attempts)  
*Reading Quiz 03* (Blackboard, open book, 4 hours, unlimited attempts)  
*Reading Quiz 04* (Blackboard, open book, 4 hours, unlimited attempts)  
*Reading Quiz 05* (Blackboard, open book, 4 hours, unlimited attempts)  
*Reading Quiz 06* (Blackboard, open book, 4 hours, unlimited attempts)  
*Reading Quiz 07* (Blackboard, open book, 4 hours, unlimited attempts)  
*Reading Quiz 08* (Blackboard, open book, 4 hours, unlimited attempts)  
*Reading Quiz 09* (Blackboard, open book, 4 hours, unlimited attempts)  
*Reading Quiz 10* (Blackboard, open book, 4 hours, unlimited attempts)  
*Reading Quiz 11* (Blackboard, open book, 4 hours, unlimited attempts)  
*Reading Quiz 12* (Blackboard, open book, 4 hours, unlimited attempts)  
*Reading Quiz 13a* (Blackboard, open book, 4 hours, unlimited attempts)  
*Reading Quiz 13b* (Blackboard, open book, 4 hours, unlimited attempts)  
*Reading Quiz 13c* (Blackboard, open book, 4 hours, unlimited attempts)

## **III. Lab**

Lab Reviews (two for Lab practicum 1, three for Lab practicum 2)  
Lab Practicum I (one attempt, timed)  
Lab Practicum II (one attempt, timed)

## **IV. Semester Project**

Project Selection (Topic)  
Project Submission (Final Project)

## **V. Memorization Quizzes**

Memorization 1 (Biological Organization, two quizzes, unlimited attempts)  
Memorization 2 (Animalia, two quizzes, unlimited attempts)

Memorization 3 (Primates, two quizzes, unlimited attempts)  
Memorization Quiz Final (one attempt, timed)

#### VI. General Class Discussion

General Class Discussions (4 discussion topics)

#### VII. Endterm (Final) Exam

Endterm “Key” Quiz (4 hours, unlimited attempts)  
Endterm (Final) Exam part 1 (MemQuiz) (one attempt, timed)  
Endterm (Final) Exam part 2 (one attempt, timed)

#### VIII. Learning Self-Assessment

Learning Reflection

## 10. General description of each lecture or discussion (including Reading Quizzes):

***The students work at their own preferred speed at their convenience -- as long as finished by the due dates, before taking the Endterm (Final) Exam and submitting a Learning Self-Assessment. For more details see the online Semester Calendar.***

***Chapters with pertinent topics are listed for three different textbooks (Essentials / Mader is the presently used STC “official” non-majors biology textbook).***

### Unit I: Animal Structure and Function

#### 1. Animal Organization I [Worksheet Exam 1](#) or [Reading Quiz 1, 2](#)

This chapter covers: (i) The body's organization, (ii) Tissues, (iii) Organs and organ systems, (iv) Homeostasis.

Essentials / Mader: Chapter 22; Biology / Mader: Chapter 31; Biology / Raven: Chapter [42](#)

#### 2. Animal Organization II [Worksheet Exam 1](#) or [Reading Quiz 1, 2](#)

This chapter covers: (i) Digestive System, (ii) Nutrition, (iii) The senses, (iv) The human skeleton..

Essentials / Mader: Chapter 24, 25, 28; Biology / Mader: Chapter 34, 39;  
Biology / Raven: Chapter [46](#), [47](#).

## Unit II: Classification

### 3. **Evolution and Systematics** [Worksheet Exam 1](#) or [Reading Quiz 3, 4](#)

This chapter covers: (i) Speciation and macroevolution, (ii) The fossil record, (iii) Systematics.

Essentials / Mader: Chapter 16; Biology / Mader: Chapter 17, 18, 19; Biology / Raven: Chapter ([20](#), [21](#), [22](#)), [23](#), [26](#).

### 4. **Microorganisms** [Worksheet Exam 1](#) or [Reading Quiz 5, 6](#)

This chapter covers: (i) Viruses, (ii) Bacteria and Archaea, (iii) Protista.

Essentials / Mader: Chapter 17; Biology / Mader: Chapter 20, 21; Biology / Raven: Chapter [27](#), [28](#), [29](#).

[Midterm exam](#) (if selecting this exam alternative)

### 5. **Fungi and Plants** [Worksheet Exam 2](#) or [Reading Quiz 7, 8](#)

This chapter covers: (i) Plantae, (ii) Fungi.

Essentials / Mader: Chapter 18; Biology / Mader: Chapter 22, 23; Biology / Raven: Chapter [30](#), [31](#), [32](#).

### 6. **Animals** [Worksheet Exam 2](#) or [Reading Quiz 9, 10, 11](#)

This chapter covers: (i) Animalia, (ii) Sponges and Cnidarians, (iii) Protostomes, (iv) Deuterostomes, (v) Primates and Human evolution.

Essentials / Mader: Chapter 19; Biology / Mader: Chapter 28, 29, 30; Biology / Raven: Chapter [33](#), [34](#), [35](#).

## Unit III: Ecology

### 7. **Ecology** [Worksheet Exam 2](#) or [Reading Quiz 12, 13a - c](#)

This chapter covers: (i) Introduction to Ecology, (ii) Populations, (iii) Communities, (v) Ecosystems, (vi) Biomes, (vii) Human impact on the Biosphere..



Essentials / Mader: Chapter 30, 31, 32; Biology / Mader: Chapter 44, 45, 46;  
Biology / Raven: Chapter [55](#), [56](#), [57](#), [58](#).

## Endterm (Final) Exam

*The online calendar is dynamic and much more detailed (navigate to the General Biology Hub and click on the Semester Calendar button). **Note the clickable links in the above list to pdf pages of each of the first pages in the majors textbook.** (Non-majors not yet uploaded -- but some non-major students have said that they found the majors useful (so they are provided) To avoid having to scroll up and down when you navigate between this page and the pdf page of the chapter page, in some browsers you must "use the "control" button when you click to open the page in a new tab or a new page.)*

## 11. General description of labs

Labs are online. In addition to the listed labs, there is also an outdoor Semester Project. Before you can access lab practicum 1 you must submit the two reviews with 100 (4 hours, unlimited attempts allowed). Before you can access lab practicum 2 you must submit lab practicum 1 (any grade), and the two reviews with 100 (4 hours, unlimited attempts allowed).

- i. Lab Practicum I Review -- Tissues/Bones i
- ii. Lab Practicum I Review -- Tissues/Bones ii
- iii. Lab Practicum I
- iv. Lab Practicum II Review -- Organism identification i
- v. Lab Practicum II Review -- Organism identification ii
- vi. Lab Practicum II Review -- Organism identification iii
- vii. Lab Practicum II

## 12. Miscellaneous

**MINIMUM TECHNOLOGY STATEMENT:** *Computer.* Students are expected to have daily access to a computer (desktop, laptop, or notebook) and daily Internet connection. Using your a cell phone when on the road might be helpful, but do not expect to pass this course using only a cell phone. If you do not own a computer, there are Internet connected computers accessible in the STC Student Success Centers, but I do not recommend students who do not own a computer to register for online classes.

*Publishers electronic content.* An e-pack or other electronic content from a publisher is NOT used in this class. Thus, students purchasing used books will NOT need to purchase a PIN from the publisher.

*Software and computer platform.* The instructor himself uses Macintosh and Safari, but the platform and software is not important, as long as you pay attention to the STC Blackboard browser guidelines.

**MINIMUM TECHNICAL SKILLS:** The class uses both Blackboard (require a password) and web pages housed outside of Blackboard (do NOT require a password, and referred to as the biology hub). Students are expected to know how to use the computer, how to surf the web to obtain information, how to send e-mail/post in the class help desk, how to send pdf attachments, and how to use Blackboard to submit assignments and participate in class discussions -- or learn at the beginning of the semester. The first period of the semester is set aside for students to familiarize themselves with the class, and can also be used to learn how to use the minimum required technology components.

**PARTICIPATION POLICY:** This class is online, and use Blackboard for class assignment submissions. Students are expected to log in to Blackboard and participate in classes in which they are enrolled -- if needed at least 1 hour per day (or 7 hours per week). (If one hour per day / seven hours per week is not necessary -- in order to complete class assignments in an orderly and timely way -- the more power to that student.)

Do not procrastinate, because emergencies/unexpected things do happen, but to maintain academic quality/integrity and to be fair to students who participate in the class as required, students are expected to submit ALL assignments on time (on or before the deadline). **Please read the “make-up policy” for this class VERY CAREFULLY!**

Student missing critical Blackboard deadlines may be removed from the class roster following STC policy. Reading Quiz 05 is one of the critical deadlines, which must be submitted with the minimum grade required on or before the deadline in order to remain on the class roster. (For details see the Semester Calendar.)

From STC Policy 3335:

“Dropping a course is the responsibility of the student and not taking the appropriate steps may result in an "F" for the course.

In addition to Division based guidelines related to attendance/participation, faculty may drop students, prior to the withdrawal deadline when, in the opinion of the faculty, the student would have difficulty in successfully completing the course.

If you are unable to complete this course, YOU have the responsibility to withdraw from on or before the last day to withdraw (see Semester Calendar) to get a "W" on your grade report. Withdrawal from a course is a formal procedure, which you must initiate. You may do this in the Admissions Office. If you stop participating in class and miss critical deadlines (see the Semester Calendar) and do not withdraw, the instructor may withdraw you, however it is the students responsibility to withdraw. If you are still on the official STC class roster at the end of the semester you will receive a performance grade, usually an “F”. Note: Students often drop courses when help is available that would enable them to continue. **I encourage you to discuss your withdrawal plans with me if you feel the need to withdraw.**

**RETURN OF ASSESSMENTS (TESTS):** Blackboard assessments are graded automatically and available immediately after submission. All grade percentages are listed in the online Grading Criteria. Many grades are posted immediately after submission in My Grades online on Blackboard. Assignments that are not posted are "all-or-nothing" assignments, which means an automatic 100 (A) is earned if submitted as intended on time and following instructions. Final semester grades are received from STC, not posted on Blackboard and not by the instructor. If student wish an early pass or fail grade estimate for graduation purposes from the instructor, a request for such an estimate must be made minimum two weeks before grades are due by STC. If a student has not participated as required and intended during the semester, it may not be possible to do an early pass or fail grade estimate.

**MAKEUP POLICY FOR ALL CLASSES:** Please read this “make-up policy” for this class VERY CAREFULLY! **There are no make-ups.** All assignments must be done in a timely manner, paying attention to posted due dates in the Semester Calendar. **There are no valid excuses if you miss a deadline, because all assignments can be submitted over a convenient long period of time** -- for some assignment the whole semester. **Don't wait to the last minute to submit an assignment in case something goes wrong...!** **When an assignment closes IT WILL REMAIN CLOSED. If an assignment deadline is missed a zero will be recorded.**

**THIS IS A SCIENCE CLASS:** When you answer questions for assessments it is the current scientific understanding that is correct. If a student's opinion does not agree with the current scientific understanding (e.g., about evolution), the student must still answer questions giving the current accepted scientific explanation in order to earn grade points.

**NETIQUETTE:** *Capital Letters.* While sometimes used for emphasis, long statements in capital letters should be avoided. Be aware that typing in all capital letters indicates shouting. *Humor.* Be careful with humor. Satire (humor sometimes used to educate) can be an effective communication tool, but be careful, it may be misunderstood as sarcasm (humor often used to hurt). *Repetition and Redundancy.* Review all discussion postings before posting your own to prevent redundancy and repetition. *Spelling and Grammar.* This is a college class, check your writing for errors by reviewing what you have written before submitting it (Blackboard has a very easy to use spell-checker). *Courtesy and Civility.* Have due regard for all class participants, we are all in this together. Keep in mind that you are taking a college class. Something that would be inappropriate in a traditional class is also inappropriate in an online class.

**STUDENT CODE OF CONDUCT:** Plagiarism, and cheating on tests will result in a grade of F as stated in the STC Student Handbook.

“The penalties for scholastic dishonesty in graded assignments include the possibility of failure in the course. Scholastic dishonesty in examinations will result in a grade of “F” on the examination and an “F” in the course. Students found guilty of scholastic dishonesty are subject to disciplinary action including dismissal from the program and possible dismissal from the College. A student dismissed for dishonesty is not eligible for readmission.” (From the STC Student Handbook)

Developmental Studies Policy Statement: The College's Developmental Education Plan requires students who have not met the college-level placement standard on an approved assessment instrument in reading, writing, and/or mathematics to enroll in Developmental Studies courses including College Success. Failure to attend these required classes may result in the student's withdrawal from ALL college courses.

Equal Education Institution and Equal Employment Opportunity South Texas College is an equal education and equal employment opportunity/affirmative action employer. As an equal education institution and equal opportunity employer, the College does not discriminate on the basis of race, color, national origin, religion, age, sex, sexual orientation, gender, gender identity, disability, genetic information, or veteran status. Discrimination is prohibited and the College will comply with all applicable College policies, and state and federal legislation. This policy extends to individuals seeking employment with and admission to the College.

Title IX Statement: Title IX of the Education Amendments of 1972 protects individuals from discrimination based on sex in any educational program or activity operated by recipients of federal financial assistance. Sexual harassment, which includes acts of sexual violence, is a form of sex discrimination prohibited by Title IX. More information on Title IX policy and procedures can be found at <http://www.southtexascollege.edu/about/notices/title-ix.html>. Questions regarding Title IX or concerns about accommodations, including complaints of sexual harassment, sexual assault, sexual violence, or other sexual misconduct should be directed to our Office of Student Rights and Responsibilities (formerly the Conflict Resolution Center) at 956-872-2180 or [crc@southtexascollege.edu](mailto:crc@southtexascollege.edu)

**Pregnant and Parenting Students:** South Texas College does not discriminate against any student on the basis of pregnancy, parenting or related conditions. Pregnant or parenting students seeking accommodations should contact the Office of Student Rights and Responsibilities (formerly the Conflict Resolution Center) immediately at 956-872-2180 or [crc@southtexascollege.edu](mailto:crc@southtexascollege.edu).

**Alternative Format Statement:** This document is available in an alternative format upon request by contacting the Biology Department secretary, building J, 3rd floor.

**ADA Statement:** Individuals with disabilities requiring assistance or access to receive services should contact disABILITY Support Services at ( 956 ) 872-2173.

**Veterans Statement:** The STC Office of Veterans Affairs provides support services to our military veterans and their dependents, and assists them in applying for and obtaining their educational benefits. Contact the Office of Veterans Affairs (Bldg. K2.602, K2.604) at 956-872-6723 for questions or to set an appointment.

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The syllabus / section outline / course requirements may be changed due to unforeseen circumstances to meet the needs of a particular class. The instructor therefore reserves the right to alter (add, delete, or revise) any items of the above. The student is responsible for taking note of any such changes and acting accordingly.