

BIO1058 Biology, Origins of Life

Course Syllabus

COURSE REQUIREMENTS

Biology, Origins of Life is an introductory course. All students are eligible to enroll in this course.

COURSE DESCRIPTION

BIO1058 Biology, Origins of Life will explore different examples of complex biology within human makeup and the natural world. This course will discuss the fundamentals of biology starting from the most basic building blocks of all living things. In this course, cell structure and its functions will be discussed. Following this, you will study the biological levels of organization in biology. Finally, the difference between animal and plant cells will be discussed. Upon completion of this course, the student will be able to identify and describe the properties of living organisms and understand the significant functions of life.

LEARNING OBJECTIVES

You will manifest understanding of basic cellular format and operation. You will gain an expansive knowledge of basic biology and some genetic awareness. By the end of the course all students should:

- Recognize the various components in a cell
- Secure a knowledge of how cells work
- Reveal how DNA is significant to life
- Amass an elementary grasp of how DNA determines features of a person
- Clarify how DNA that is damaged gets repaired
- Meditate deeply about how awe-inspiring life is and it works so well with other life forms
- Ponder the importance of cells to our lives and how they rebuild themselves

ATTENDANCE

Attendance is mandatory for all students. Excellent attendance is imperative for mastery and application of the information dispensed.

Whether you are sitting at a desk in a classroom or attending via Skype, your attendance is vital to your success. Late arrivals are distracting and disrespectful. Please refrain from being tardy.

Grades will be affected by absences and tardiness. Participation in class is a prerequisite. You learn from lectures, discussions and presentations.

CLASSROOM BEHAVIOR

Students are expected to treat all persons with respect. We should all conduct ourselves in a courteous and responsible manner. Be considerate, you can disagree, don't insult.

Please set all your electronic devices to silent during class so as not to be a disturbance to others in the class.

TUTORIAL ASSISTANCE

We maintain an open-door policy for our students. We are absolutely willing to discuss any matter that may arise during the course. If you have any questions, problems, or need help with the course material, we urge you to reach out as soon as the issue arises. If you want to contest a grade, you must do so within 48 hours and put it in writing. Please ask your student advocate for help. If you do not have a student advocate, send an email to: tutordept@usilacs.org.

NON-DISCRIMINATORY STATEMENT

All students regardless of age, race, gender, religion, physical disability, class, etc., shall have equal opportunity without harassment in this course. Any problems with or questions about harassment can be discussed confidentially via email at: hr@usilacs.org.

DRESS CODE

For students enrolled who are attending in a classroom or via Skype, please be sure you are dressed modestly and respectfully. Please refer to www.merriam-webster.com/dictionary/business%20casual. We want to present ourselves in a dignified manner at all times.

ADA ACCOMMODATIONS

All reasonable accommodations will be provided for students with disabilities. Any student attending USILACS who needs an accommodation due to a chronic challenge (i.e. blindness, deaf or hard of hearing, mobility issues, psychological, or learning disability), register with:

USILACS Registrar's Office
2410 NE 18th Place
Ocala, FL 34470 USA
1-305-330-2202
registrarsoffice@usilacs.org

ACADEMIC DISHONESTY/CHEATING

We encourage collaborating with others, either in person or online, to study and learn. When you complete your assignments or your exams, however, the wording has to be your own.

Plagiarism is the theft of someone else's work and ideas. You are permitted to cite or even quote someone else, however, you must properly cite them. There are two accepted ways of doing this. They are known as Modern Language Association (MLA) or American Psychological Association (APA). You can visit www.citationmachine.net for help in correctly citing information.

As a school that strives to maintain high moral standards, we strongly caution our students to be ethical and honest. Endeavor to be honest in conducting yourself in regard to any coursework you accomplish or exams you may take. Cheating is a dishonest practice.

REFERENCE MATERIALS

- (2016) Introduction to Cells: The Grand Cell Tour by Amoeba sisters
- (2016) Biological Levels in Biology: The World Tour by Amoeba sisters
- (2016) Introduction to Cells: The Grand Cell Tour by Amoeba sisters
- (2016) Biological Levels in Biology: The World Tour by Amoeba sisters
- (2015) Biology: Cell Structure by Nucleus Medical Media
- (2015) Overview of Animal and Plant Cells
- (2015) Extracellular matrix | Structure of a cell | Biology

MINIMUM REQUIRED SUPPLIES

All students will need all of the following:

- Computer with camera, microphone, and speakers.
- Skype installed on the computer with an active Skype account.
- Internet

- Printer
- Notebook paper
- Pens/pencils

If the student does not have a computer or internet, there will be some available for use at the school in the computer lab.

GRADING SYSTEM

There will be three tests throughout the course. Each test will count for 33.3% of the final grade.

Grade	Percentage
A+	100 - 98
A	97 - 95
A-	94 - 90
B+	89 - 86
B	85 - 80
B-	81 - 78
C+	77 - 74
C	73 - 70
C-	69 - 67
D+	66 - 64
D	63 - 60
D-	59 - 56
F	55 >

All students must earn at least a “D-” in order to pass the class.

ASSIGNMENTS

Symbiotic Relationship Essay-

Research a pair of beings or life forms that form a symbiotic relationship. Describe how the relationship benefits each of the parties individually. Relate how it benefits the ecosystem as a whole. Tell what you specifically learned that may have been new or surprising. Did your investigation raise any other questions in your mind? How do you feel about what you learned? This essay should be at least 1,000 words.

Diagram of animal and Plant Cell-

Draw each cell, preferably side by side, for ease of comparison. Highlight the similarities and the differences.

Build a DNA strand-

Use your imagination in coming up with the materials you would like to use to build a DNA strand. After building the strand, label each area.

WEEKLY ASSIGNMENTS

Week 1	Overview of course and coursework The Cellular Foundation of Life
Week 2	Ecology
Week 3	Animal Structure and Function
Week 4	Cell Division and Cell Life <i>Symbiotic Relationship Essay due</i>
Week 5	Video review and Exam
Week 6	Cell Tour, Life's Properties and Evolution, Studying Cells
Week 7	The Cytoskeleton and Cell Motility
Week 8	Cell Division and Genetics <i>Diagram of Animal and Plant Cells due</i>
Week 9	Video review and Exam
Week 10	DNA Structure, Chromosomes, and Chromatin
Week 11	Details of DNA Replication & DNA Repair
Week 12	Transcription and RNA Processing <i>Model of DNA Strand due</i>
Week 13	Video review and Final exam