**Syllabus:** Biology II for Science Majors
**Course Number:** **BIOL 1407 DC**
**Semester & Year:** Spring 2017

**Instructor Information**

 Name: Alisa Morris
 Office: Room 109
 Telephone: 903-796-4411
 E-mail: amorris@atlisd.net

Office Hours: 7:30-8:00, after 3:30 T, W, F

**Textbook Information**

Required: (free download) recommend you download for free not purchase!

* **Biology 1ed. OpenStax** Rice Univ. [Free Download](https://openstaxcollege.org/textbooks/biology)

*Strongly Recommended (Optional) purchase online at Amazon or similar:*

* [*Principles of Life. Hillis, Sadava, Heller and Price 1st ed. Sinauer Assoc Inc and W.H. Freeman and Co.*](http://www.whfreeman.com/hillis1e)**ISBN 978-1-4292-5721-3**

**Course Communication**

 Official communication is through TC student email.

***Remind Text Service*** – Students are required to register for the REMIND text service (Free to use). See handout for instructions on how to sign up.

**Student Learning Outcomes for the Course**

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| *At the conclusion of the* ***lecture portion*** *of this course students should be able to:*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. Demonstrate an understanding of genomic organization and molecular genetics including recombinant DNA biotechnology, differential gene expression and development.
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**Student Requirements for Completion of the Course**

**Lecture Topics/ Exams - Biology 1307 Spring 2017**

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| --- | --- |
| **Principles of Biology** 1 ed (Optional / Recommended Text) | **Biology 1ed.** OpenStax (Required FREE Test)  |
| Chapter 13: Biotechnology  | Chapter 17 Biotechnology and Genomics |
| Chapter 14: Genes Development and Evolution  | Chapter 18 Evolution and the Origin of Species |
| Chapter 15: Mechanisms of Evolution  | Chapter 19 The Evolution of Populations |
| **EXAM I (13, 14, 15)** |  |
| Chapter 17: Speciation | Chapter 19 The Evolution of Populations |
| Chapter 18: The History of Life on Earth  | Chapter 20 Phylogenies and the History of Life |
| Chapter 19: Bacteria, Archaea and Viruses | Chapter 22 Prokaryotes: Bacteria and ArchaeaChapter 21 Viruses  |
| **EXAM II (17, 18 & 19)** |  |
| Chapter 20: The Origin and Diversification of Eukaryotes | Chapter 23 Protists |
| Chapter 21: The Evolution of Plants | Chapter 25 Seedless Plants Chapter 26 Seed Plants |
| **EXAM III (20, 21)** |  |
| Chapter 22: The Evolution and Diversity of Fungi | Chapter 24 Fungi |
| Chapter 23: Animal Origins and Diversity | Chapter 27 Introduction to Animal DiversityChapter 28 InvetebratesChapter 29 Vertebrates |
| **EXAM IV (22, 23)** |  |
| **FINAL EXAM** (Comprehensive) Emphasis on Student Learning Guide Questions (all chapters covered during the course) including all homework quiz questions for all chapters and selected essay questions from Exams I, II, III and IV. |

**Bonus Credits**

During lecture class sessions there will be opportunities to earn **bonus credits** by successfully answering timed questions using your textbook, and notes and the powerpoint lecture so use of tablet/laptop/smart phones in encouraged! You will be working with a partner (small group) as well and must submit a single answer from your group for credit before time expires. These bonus credits are redeemed into bonus points on the major lecture exam that follows later in the course.

**The course grade is available on myTC on the student tab and will be calculated from the following schedule:**

|  |  |
| --- | --- |
| **Lecture Exams (4)** | **50%** |
| **Final Exam**  | **15%** |
| **Class Quizzes** | **5%** |
| **Lab Grade** | **30%** |
| **Total** | **100%** |

**Grading Scale (for College Grade)**

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| --- | --- |
| **Semester Grade**  | **Course Average** |
| **A** | 89.5-100 |
| **B** | 79.5-89.4 |
| **C** | 69.5-79.4 |
| **D** | 59.5-69.4 |
| **F** | 59.4-below |

**Make-up Policy**

**Lecture Exams:**

Any portion (multiple choice or essay part) of the exam **cannot** be made up.

**Written assignments** in lecture are due at the beginning of the class session and will be penalized 10% for being late for the first 24 hours and 20% for the second 24 hours and will not be accepted after 48 hours . Late work can be turned in via e-mail to my e-mail address: *amorris@atlisd.net*

**LABORATORY**

**Textbook Information**

* TC Online (Moodle) LMS download / print lab exercises
* Biology – Openstax Rice University (alternative textbook) <https://openstaxcollege.org/textbooks/biology>
* Protective clothing - Safety glasses will be required for certain lab activities, lab coat or apron (old work shirt) is encouraged.

**Student Learning Outcomes for the Course**

*At the conclusion of the* ***laboratory portion*** *of this course students should be able to:*

1. Apply scientific reasoning to investigate questions, and utilize scientific tools such as microscopes and laboratory equipment to collect and analyze data.
2. Use critical thinking and scientific problem-solving to make informed decisions in the laboratory.
3. Communicate effectively the results of investigations.
4. Demonstrate knowledge of modern evolutionary synthesis, natural selection, population genetics, micro and macroevolution, and speciation.
5. Distinguish between phylogenetic relationships and classification schemes.
6. 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.
7. Describe basic animal physiology and homeostasis as maintained by organ systems.
8. Compare different sexual and asexual life cycles noting their adaptive advantages.
9. Illustrate the relationship between major geologic change, extinctions, and evolutionary trends.

**Lab Reports and other written assignments** in lab are due at the beginning of the class session and will be penalized 10% for being late for the first 24 hours and 20% for the second 24 hours and will not be accepted after 48 hours. Late work can be turned in via e-mail to my e-mail address: *amorris@atlisd.net*

**Laboratory Topics/ Exams -**

**Unit I**

Biotechnology Revolution / Ethics

Phage Lambda DNA Gel Electrophoresis

Day Mesozoic Died Activity

Stickleback Evolution Activity

***Lab Exam I***

**Unit II**

Biological Diversity Survey Bacteria and Protista Part I

Protists Part II

Flowering Plants Anatomy

Mosses / Liverworts

Tracheophytes

Gymnosperms

***Lab Exam II***

**Unit III**

Animalia – Intro to Invertebrates

Coelomates

Vertebrates

***Lab Exam III***

**Class Conduct**

 Students are expected to conduct themselves as adults. Any student who acts in such a manner as to disturb the class and interfere with the learning process will be expelled from the course with a grade of "F". **No music players or cellular phones are permitted in my classroom**. **No texting or talking on a phone or messaging device during class...TURN THEM OFF!** (See Absentee Policy above)
If you bring a cell phone (electronic communication device) into my classroom,be sure that it is **turned off and not out on your desk.** If I notice you using your phone during lecture and ask you to turn it off on the first offense the second time **you will be asked to leave and you will be counted absent for that class period.** (You will be free to communicate electronically during breaks during each class session.)

**Any student that has a cell phone or any electronic communications device in their possession during any quiz or examination will receive a zero (0) for the quiz or examination. NO EXEPTIONS! You will also be counted absent for that class session.**

**All electronic devices** (e.g. audio recorders, laptop/tablet computers etc.) brought into class must be cleared by the instructor for use for **each** class session.

**Academic Integrity Statement**

Scholastic dishonesty, involving but not limited to cheating on a test, plagiarism, col­lusion, or falsification of records will make the student liable for disciplinary action after being investigated by the Dean of Students. Proven violations of this nature will result in the student being dropped from the class with an “F”.

This policy applies campus wide, including TC Testing Center, as well as off-campus classroom or lab sites, including dual credit campuses. This information can be found in the Student Handbook.

**Disability Act Statement:**

Texarkana College complies with all provisions of the Americans with Disabilities Act and makes reasonable accommodations upon request. Please contact Larry Andrews at 903.823.3283, or go by the Recruitment, Advisement, and Retention Department located in the Administration building for personal assistance.

If you have an accommodation letter from their office indicating that you have a disability which requires academic accommodations, please present it to me so we can discuss the accommodations that you might need for this class. *It is best to request these changes at the beginning if not before the start of class* so there is ample time to make the accommodations.

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| **Grading Scale**

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| --- | --- |
| **Semester Grade**  | **Course Average** |
| **A** | 89.5-100 |
| **B** | 79.5-89.4 |
| **C** | 69.5-79.4 |
| **D** | 59.5-69.4 |
| **F** | 59.4-below |

**Make-up Policy** **Lab Exams cannot be made up in this course. If you know you are going to miss a lab exam you will need to make arrangements with the instructor to take the exam in advance.****I reserve the right to modify the syllabus at any time during the semester. The online version of this syllabus (*TC Online CMS*) is the official syllabus and supersedes all versions of this document in print.**  |

By signing this statement, I agree that I have read and understand what is expected of me to perform satisfactorily in this course of study.

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Student Name (**PRINT** First & LAST NAME)

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Legal Signature

\_**BIOL 1407/**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
TC Course Number / Section Number

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Date