

**SUL ROSS STATE UNIVERSITY
EVOLUTION - BIOL 4305 - FALL SEMESTER 2019**

PROFESSOR: Jim Zech
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OFFICE HOURS: By appointment or MWF: 9:00 – 11:00 A.M.

TIME AND PLACE: Web Delivered, Your Time and Place!

TEXTS: Evolution, 4th Edition; Douglas J. Futuyma and Mark Kirkpatrick (optional)
The Origin of Species; Charles Darwin (not optional!)
Various Papers! (not optional!)

PARTS:

Introduction
Evolution
Foundations: Definitions and History
Modern Synthesis
Speciation and Macroevolution

ASSIGNMENTS: Each assignment is self-explanatory. While some may vary in the amount of time required, all should be submitted, typed, double spaced, standard font (12), standard margins (1"), paragraphs indented, spell checked, grammar checked, in writing embedded within or as an e-mail attachment to Dr. Zech (jzech@sulross.edu). Each part of this course will be available for a limited amount of time (approximately 3 weeks; see important dates below) and all assignments within a specific part are due within that time period. **NO LATE ASSIGNMENTS WILL BE ACCEPTED.** Each assignment is worth 20 points with a single point lost for each format, grammar, and spelling mistake for maximum of 5 points per assignment. Each assignment should be approximately 1 page. My best advice is don't delay! Read the part as soon as it's available and complete the assignments before each deadline.

BEHIND THE SCENES (BTS): A BTS is a break from the current focus. It will contain additional information that may or may not include assignments.

BOOK REPORT:

The book report is an extended assignment, and therefore has an extended due date. Regardless of when the book report appears, it is due the last day of the semester (see important dates below). Like regular assignments, the book report should be submitted, typed, double spaced, standard font (12), standard margins (1"), paragraphs indented, spell checked, grammar checked, in writing embedded within or as an e-mail attachment to Dr. Zech (jzech@sulross.edu). While the book report will be longer than a single page, there is no specific length required. The important thing will be to include all required aspects and answer all indicated questions.

IMPORTANT DATES:

28 AUG: INTRODUCTION AVAILABLE (MAINTAINED ENTIRE SEMESTER)

FIRST WEEK: PRETEST AVAILABLE

4 SEPT: EVOLUTION AVAILABLE

25 SEPT: EVOLUTION ASSIGNMENTS DUE

25 SEPT: FOUNDATIONS: DEFINITIONS AND HISTORY AVAILABLE

16 OCT: FOUNDATIONS: DEFINITIONS AND HISTORY ASSIGNMENTS DUE

16 OCT: MODERN SYNTHESIS AVAILABLE

6 NOV: MODERN SYNTHESIS ASSIGNMENTS DUE

6 NOV: SPECIATION AND MACROEVOLUTION AVAILABLE

15 NOV: Last day to withdraw from any class with a W

27-29 NOV: THANKSGIVING BREAK

4 DEC: SPECIATION AND MACROEVOLUTION ASSIGNMENTS DUE

4 DEC: Last class day, book report due

9 DEC: Final Exam Available

10 DEC: Final Exam Due

POINT DISTRIBUTION:

Introduction:

- Assignments: 1 @ 20 = 20

Evolution:

- Assignments: 8 @ 20 = 160

Foundations: Definitions and History:

- Assignments: 17 @ 20 = 340
- *Origin of Species* = 100

Modern Synthesis:

- Assignments: 7 @ 20 = 140

Speciation and Macroevolution:

- Assignments: 8 @ 20 = 160

Final Exam = 100

TOTAL POINTS: = 1020

GRADING:

Your final grade in Evolution will be determined by the total points you receive divided by the total points possible and the scale listed below, with no deviation from this scale.

Grading Scale (percent of total points): A: 90-100; B: 80-89; C: 70-79; D: 60-69; and F: 59 and lower

RULES TO LIVE BY:

Don't plagiarize. Your words should be your own.

Don't just cut and paste from the internet.

Use citations for the material that you have used (format is your choice).

No team work, work alone.

Similar to exact assignments will receive zero points for all parties involved.

Watch those deadlines (see dates listed above)!

No late assignments will be accepted.

Anything that isn't clear, contact Dr. Zech (jzech@sulross.edu; 432-837-8114).

Messages will be sent via e-mail and/or posted on blackboard, get in the habit of checking both.

STUDENT LEARNING OUTCOMES:

- SLO1 The student will be able to demonstrate an understanding of basic biological concepts, including but not limited to evolution via natural selection, cell theory, and the role and function of DNA.
- SLO2 The student will be able to demonstrate utilization of various field techniques toward addressing scientific questions in the specific discipline. These field techniques can include, but are not limited to, plant collection and processing, various animal collection techniques, ecological surveying and sampling, and biodiversity indexing.
- SLO3 The student will be able to use biological instrumentation to solve biological problems using standard observational strategies.
- SLO4 The student will develop writing skills by summarizing and critiquing recent relevant biological literature.

OBJECTIVES OF THIS COURSE:

- Address current topics including evolution vs. intelligent design.
 - Understand the role of key figures and events in the history of evolution.
 - Study *Origin of Species* in order to understand its content and impact.
 - Explore natural selection, genetic drift, gene flow, and mutation as mechanisms of evolution.
 - Compare and contrast micro- and macroevolution.
 - Explore the different speciation concepts.
 - Research and present current knowledge surrounding the evolution of a particular topic.
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DISTANCE EDUCATION STATEMENT: Students enrolled in distance education courses have equal access to the university's academic support services, library resources, and instructional technology support. For more information about accessing these resources, visit the SRSU website. Students should submit online assignments through Blackboard or SRSU email (*e-mail for Evolution!*), which require secure login information to verify students' identities and to protect students' information. The procedures for filing a student complaint are included in the student handbook. Students enrolled in distance education courses at Sul Ross are expected to adhere to all policies pertaining to academic honesty and appropriate student conduct, as described in the student handbook. Students in web-based courses must maintain appropriate equipment and software, according to the needs and requirements of the course, as outlined on the SRSU webpage.

DISABILITIES INFORMATION:

Qualified students with disabilities needing academic or other accommodations to ensure full participation in the programs, services and activities at SRSU should contact Counseling and Accessibility Services, 112 Ferguson Hall, Box C-122, 432-837-8203.