

BIOL 3406 – Principles of Ecology

Spring 2023

Instructor: Dr. Dan H. Foley III
Faculty offices 207 – Del Rio
(830) 703-4838
dfoley@sulross.edu
Office hours: Mondays - Thursdays 10:00 am – 12 noon or by appointment

BIO 3406 (Principles of Ecology) requires the purchase of the 3rd party software package SimUText. Please follow the instructions below to subscribe to SimUText for your Principles of Ecology Spring 2023 course at Sul Ross State University.

Website: It is important that you review the information below *before* you subscribe to the SimUText for **Principles of Ecology at Sul Ross State University. To avoid possible problems, do not wait until the last minute.**

1. **CHECK YOUR TECH!**

Visit <https://simutext.zendesk.com/hc/en-us/categories/200170134-Check-Your-Tech-> to confirm that the SimUText application will work on your computer, and/or to explore your options if there is a problem.

2. **Registration Link**

When you are ready to subscribe and download installers, follow this link to initiate the process: <https://www.simutext.com/student/register.html#/key/UVsK-TG2K-E6vk-s3Ru-bAAn>

3. **SimUText Application Installers**

After you have completed the subscription process, if you need to download the SimUText application installers again, you will be able to access them by logging into the [SimUText Student Portal](https://www.simutext.com/student/) (<https://www.simutext.com/student/>).

Should you encounter problems, you may need your course-specific Access Key. It is:
UVsK-TG2K-E6vk-s3Ru-bAAn

Supplementary recommended Text (not required):

Sher, Anna and Manuel C Molles. 2022. Ecology: Concepts and Applications, 9th edition. McGraw-Hill Co. NY, NY. 608pp.

Course Primary Learning Objectives: There are six broad goals for this course:

- Understand the role of evolution on Earth's living systems and the interactions of biotic and abiotic factors in the development of ecological communities.
- Improve scientific literacy by learning how ecologists construct knowledge.
- Write a literature review summarizing and critiquing recent relevant biological literature.
- Improve ecological literacy by learning the basic facts, principles and concepts of the field of ecology.
- Use biological instrumentation to solve biological problems in the laboratory.
- Improve mathematical and writing skills through analysis and interpretation of ecological data.

Tentative Lecture Schedule

(*note*: exact dates are subject to change, be sure to keep abreast of changes).

Date	Topic
Week 1 & 2: Jan. 18 – Jan. 27	Introduction: downloading and installing SimUText Climate Change (Interactive chapter reading) How Disease Spreads (Tutorial lab)
Week 3: Jan. 30 – Feb. 3	Life History (Interactive chapter reading)
Week 4: Feb. 6 – Feb. 10	Population Growth (Interactive chapter reading) Understanding Population Growth Models (Tutorial lab)
Week 5: Feb. 13 – Feb. 17	Ecosystem Ecology (Interactive chapter reading) Understanding Experimental Design (Tutorial lab)
Week 6: Feb. 20 – Feb. 24	Exam 1 (All previously covered materials) Exam will consist of 50-100 multiple choice questions & administered through BlackBoard
Week 7: Feb. 27 – March 3	Community Dynamics (Interactive chapter reading) Isle Royal (Tutorial lab)
Week 8: March 6 – March 10	Predation, Herbivory, and Parasitism (Interactive chapter reading) Keystone Predator (Tutorial lab)
<i>Week 9: March 13 – March 17</i>	<i>Spring Break – No Classes-</i>
Week 10: March 20 – March 24	Biogeography (Interactive chapter reading)
Week 11: March 27 – March 31	Nutrient Cycling (Interactive chapter reading) Leibig's Barrel & Limiting Nutrients (Workbook lab)
Week 12: April 3 – April 7	Exam 2 (All materials after Exam 1) Exam will consist of 50-100 multiple choice questions & administered through BlackBoard
Week 13: April 10 – April 14	Competition (Interactive chapter reading) Niche Wars (Workbook lab)
Week 14: April 17 – April 21	Behavioral Ecology (Interactive chapter reading) Top-Down Control (Workbook lab)
Week 15: April 24 – April 28	Physiological Ecology (Interactive chapter reading) Patchy Prairies (Workbook lab)
Week 16: May 1 – May 5	Decomposition (Interactive chapter reading) Intermediate Disturbance Hypothesis (Workbook lab)
Week 17: May 8 – May 12	Exam 3 (All materials after Exam 2) Exam will consist of 50-100 multiple choice questions & administered through BlackBoard

Grade assessment:

Embedded in each weekly assigned chapter reading are a number of **Feedback** and **Graded** questions. Each chapter's feedback questions will be worth 10 points, however, you **MUST** attempt to answer all the questions. If you do, you will earn 10 point, regardless if you answer the question correctly or not. Feedback questions are all or nothing, if you answer them **ALL** you get 10points, if not you get zero. Additionally, each chapter will have a number of Graded questions. The maximum number of points you can earn is 10 point, depending on if you answer the question correctly or not. Therefore, for the 12 chapters you will read during his course you could earn 120 point from the feedback questions and 120 points form the Graded questions.

Additionally, most weeks will also have a simulated laboratory to complete. Some of the labs are Tutorial Labs which are completed completely online. Similar to your reading assignments, each of these Tutorial labs will have embedded Feedback and Graded questions. Each worth up to 10 points. Some of the labs will be Workbook labs. Workbook labs are to downloaded, and then completed as you progress through the lab. You can earn up 10 points for the written portions of each Workbook lab and 10 points for the graded questions associated with each Workbook lab.

Finally, there will be 3 examinations. Each exam will consist of a series of multiple-choice questions. Each exam will be worth up to 100 points

Grade assessment Review:

Chapter Readings Questions	Feedback questions	Graded questions
Climate Change	10 points	10 points
Life History	10 points	10 points
Population Growth	10 points	10 points
Ecosystem Ecology	10 points	10 points
Community Dynamics	10 points	10 points
Predators / Herbivory / Parasitism	10 points	10 points
Biogeography	10 points	10 points
Nutrient Cycling	10 points	10 points
Competition	10 points	10 points
Behavioral Ecology	10 points	10 points
Physiological Ecology	10 points	10 points
Decomposition	10 points	10 points
Tutorial Laboratories	Feedback questions	Graded questions
How Diseases Spread	10 points	10 points
Understanding Population Growth	10 points	10 points
Understanding Experimental Design	10 points	10 points
Isle Royal	10 points	10 points
Keystone Predator	10 points	10 points
Workbook Laboratories	Write-up	Graded questions
Liebig's Barrel	10 points	10 points
Niche Wars	10 points	10 points
Top-Down Control	10 points	10 points
Patch Prairies	10 points	10 points
Intermediate Disturbance Hypothesis	10 points	10 points
Exams		
Exam 1	100 points	
Exam 2	100 points	
Exam 3	100 points	

Therefore, the total amount of points you could earn is 740 points. The grade distribution will follow:

740-666 points	A
665-592 points	B
591-518 points	C
517-444 points	D
443-0 points	F

Extra Credit

There will be **NO** opportunities for extra credit, so don't even ask! Complete the work assigned satisfactorily and there will be no need for *extra* work.

Study Tips:

Everyone has their own unique way of learning. How you study rather than how long you study will have a huge impact on your grade in this course. If you use all the resources available to you and take an active role in the learning process you will likely do much better.

Some specific tips are:

- Spend 15 – 20 minutes to skim through each reading assignment before class.
- Review the lecture notes and read the assigned reading
- Do the study questions at the end of each chapter
- Try to draw diagrams from lecture and the book from memory
- Make flash cards or important concepts and terms
- Call up a friend and try to explain what you have learned in class
- **ASK QUESTIONS!** You are not in this class alone, if you don't understand something, more than likely your classmates also don't understand.

Attendance:

This is an upper division college course. You are an adult, and you paid for this course. I will not be taking roll call. However, material for the exams will come largely from my lectures, so it is in your best interest to come and participate in class.

Disabled Students:

Reasonable accommodations will be provided for students with disabilities. Please meet with me the first week of class to discuss any special needs you may need.

Academic Honesty:

Cheating will not be tolerated. The University expects all students to engage in all academic pursuits in a manner that is above reproach and to maintain complete honesty and integrity in the academic experiences both in and out of the classroom. "Cheating" includes, but is not limited to:

- Copying from another student's test paper, a laboratory report, other report, or computer files, data listings, and/or programs.
- Using, during a test, materials not authorized by the person giving the test.
- Collaborating, without authorization, with another person during an examination or in preparing academic work.
- Knowingly, and without authorization, using, buying, selling, stealing, transporting, soliciting, copying, or possessing, in whole or in part, the contents of an unadministered test.
- Substituting for another student; permitting any other person; or otherwise assisting any other person to substitute for oneself or for another student in the taking of an examination or test or the preparation of academic work to be submitted for academic credit.
- Bribing another person to obtain an unadministered test or information about an unadministered test.

- Purchasing, or otherwise acquiring and submitting as one's own work any research paper or other writing assignment prepared by an individual or firm. This section does not apply to the typing of the rough and/or final versions of an assignment by a professional typist.

Plagiarism will not be tolerated. "Plagiarism" means the appropriation and the unacknowledged incorporation of another's work or idea into one's own work offered for credit. This includes verbatim written answers by colleagues with whom you might discuss laboratories exercises. Plagiarism also includes copying information from internet resources. To avoid plagiarism, make sure you always use your own words to construct your written answers.

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, which require secure login information to verify students' identities and to protect students' information.

Go here: <https://simutext.com/register.jsp?accesskey=qv4w-jV4x-5tMM-em5t-cMxx>

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 website.