Sul Ross State University
Lab Syllabus for BIOL 2421—Spring 2017
Lab 1: Thursday 2:00-3:50 Lab 2: Thursday 4:00-5:50
WSB 203

Lab TA: Ciara Brodie
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Email: cbro3885@sulross.edu
Office Hours: W 2:00—5:00;
TR 12:00—2:00

Lecture Instructor: Dr. Crystal Kelehear Graham
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Phone: (432) 837—8820

Required Text: Benson's Microbiological Applications: Laboratory Manual in General Microbiology. Fourteenth Edition By; Alfred Brown and Heidi Smith.

Course Description: This course will focus on microorganisms and how they impact our everyday lives. As an introductory course in Microbiology, the focus will be one the ubiquity, diversity and evolution of microorganisms, microbial ecology, and medical microbiology. Genetics, genomics and molecular biology will receive less attention as these topics are covered in other courses.

Student Learning Outcomes (SLOs) for Biology students:
The biology student graduating with a BS in Biology should be able to:

1) Demonstrate an understanding of evolution by natural selection.
2) Demonstrate an integration of environmental awareness into everyday modern life.
3) Demonstrate an understanding of how to incorporate molecular biology into the study of the whole organism.
4) Demonstrate utilization of various field techniques toward addressing scientific questions in the discipline.
5) Conduct basic laboratory experiments utilizing standard observational strategies.

Grading Scale:

Lab Quizzes…….……..10 pts	
Homework……..…….10 pts	
I.D. of an Unknown Report…… ……..…30 pts	
Midterm…….25 pts	
Final Exam……..…25 pts	
Total:	**100 pts**

Grading Policy:
Quizzes will cover the lab exercise(s) of that week. *You must read the lab exercise before coming to lab*.
Homework is due the week after the lab is completed. **No late work will be accepted.**

Details for the Identification of an Unknown Bacterium Project will be announced.

Attendance is mandatory. There will be no make up labs. If you have a university approved excuse to be absent, you must make arrangements with the TA *before* missing lab. More than three (3) missed labs will result in a failing grade and possible withdrawal from the course.

Ethical Conduct: Cheating and/or plagiarism will not be tolerated and will be dealt with according to university policy.

Failure to abide by all safety protocols may result in a failing grade and ejection from the lab.

Tentative Schedule (subject to change)

Date	Lab	Topic
Jan 26	1	Safety and Microscope
Feb 2	6	Microbiology of pond water
Feb 9	7,9	Ubiquity of bacteria, Aseptic technique
Feb 16	10, 11, 12	Pure culture techniques, Smear preparation, simple staining
Feb 23	15, 13, 14	Finish lab 10, gram staining, Negative and Capsular staining
Mar 2		Midterm
Mar 9	16, 17, 18	Spore staining, Acid-fast staining, motility determination
Mar 23	27,37, 38	Finish 18, Effects of Oxygen on Growth, morphological study of unknown bacterium, cultural characteristics
Mar 30	39, 42	Finish 27, 37 & 38, Oxidation and fermentation tests, use of Bergey's Manual
Apr 6	8	The Fungi, Unknown Project
Apr 13		Fungi Cont'd, Unknown Project
Apr 20		Finish Unknown Project — Lab Clean Up
Apr 27		Final Exam

Students with any learning disabilities will be provided with accommodations. If you would like to request such accommodation because of a physical, mental, or learning disability, please contact the ADA coordinator at 837-8203, FH 112.