# Sul Ross State University
# Microbiology 2421
# Spring 2016

**Instructor:** Julia Green
Office: Microbiology Lab WSB 203
Email: jgre9203@sulross.edu

**Office Hours:** Tuesday 8:00 - 12:00
Thursday 8:00 - 12:00, and by appointment

**Lecture:** TR 12:30 - 1:45, WSB 201

**Recommended Text:** Biology of Microorganisms by Brock, 13th edition or later
by Michael Madigan, John Martinko, David Stahl, David Clark
13th ed. ISBN = 9780321735515

**Schedule:**

| Date | Topic | Chapter |
|---|---|---|
| Jan 19 | Introduction: Microorganisms and Microbiology | 1 |
| Jan 21 | Brief Journey to the Microbial World | 2 |
| Jan 26 | Cell Structure and Function in *Bacteria* and *Archaea* | 3 |
| Jan 28 | Cell Structure and Function con't | 3 |
| Feb 2 | Nutrition, Culture and Metabolism of Microorganisms | 4 |
| Feb 4 | Nutrition, Culture con't | 4 |
| Feb 9 | **EXAM 1** | |
| Feb 11 | Microbial Growth | 5 |
| Feb 16 | Molecular Biology of *Bacteria* | 6 |
| Feb 18 | Molecular Biology con't | 6 |
| Feb 23 | Archaeal and Eukaryotic Molecular Biology | 7 |
| Feb 25 | Regulation of Gene Expression | 8 |
| Mar 1 | Regulation of Gene Expression con't | 8 |
| Mar 3 | **EXAM 2** | |
| Mar 8 | Viruses and Virology | 9 |
| Mar 10 | Genetics of *Bacteria* and *Archaea* | 10 |
| **Mar 14-18** | **SPRING BREAK** | |

| | | |
|---|---|---|
| Mar 22 | Genetics of *Bacteria* and *Archaea* con't | 10 |
| Mar 24 | Genetic Engineering | 11 |
| Mar 29 | Microbial Genomics | 12 |
| Mar 31 | **EXAM 3** | |
| April 5 | Phototrophy, Chemolithotrophy and Major Biosyntheses | 13 |
| April 7 | Phototrophy con't | 13 |
| April 12 | Catabolism of Organic Compounds | 14 |
| April 14 | Catabolism con't | 14 |
| April 19 | Commercial Products and Biotechnology | 15 |
| April 21 | Microbial Evolution and Systematics | 16 |
| April 26 | Microbial Evolution con't | 16 |
| April 28 | Bacteria: The *Proteobacteria* | 17 |
| May 3 | Other *Bacteria* | 18 |

**Final Exam: Tuesday, May 10**

**Points Distribution:**

| | |
|---|---|
| Exam 1 | 100 |
| Exam 2 | 100 |
| Exam 3 | 100 |
| Final Exam | 200 |
| Lab Grade | 165 |
| | |
| **Total Points** | 665 |

**Grading Scale (percentage of Total Points)**

A = >90;  B = 80-89;  C = 70-79;  D = 60-69;  F = 59 or lower

**Classroom Etiquette:  CELL PHONES** should be silent and not used during class. Texting is forbidden. Please do not make unnecessary noise when the instructor is speaking. **CELL PHONE** usage, texting or talking during class time can result in a loss of points at the instructor's discretion. The use of any electronic devices during an exam will result in a grade of zero for the exam.

Please be **ON TIME**. If you are not present when attendance is taken, you will be counted as absent.

**Attendance:** Students with more than 6 unexcused absences from lectures will potentially be dropped from the class as per university policy and receive an F in the course. Arrangements for excused absences must be made beforehand. The instructor will take attendance at random times during class periods.

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

**Student Learning Objectives:** To gain an in-depth understanding of microbiology.

*Sul Ross State University is committed to equal access in compliance with the Americans with Disabilities Act of 1973. It is the student's responsibility to initiate a request of accessibility services. Students seeking accessibility services must contact Mary Schwartze in Counseling and Accessibility Services, Ferguson Hall, Room 112. The mailing address is P.O. Box C-122, Sul Ross State University, Alpine, Texas 79832. Telephone: 432-837-8203.*

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 SRSU email, which requires secure login information to verify students' identities and to protect students' information. Proctored exams will be given at the usual time and venue for the class, unless other arrangements are announced in advance. 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.