**GENERAL BOTANY – LECTURE**

**BIOL 1311**

**3 Credit Hours**

**Instructor:** Dr. Clifton F. Albrecht

**Office:** WSB 218

**Email:** cfa25gj@sulross.edu

**Office Hours:** By appointment.

**Time:** Monday/Wednesday, 11am – 12:15pm

**Classroom:** WSB 206

**Textbook:** No textbook is required. Required reading will be communicated or distributed via Blackboard.

**Course Description:** A general survey of the plant kingdom which considers the fundamentals of biological facts, laws, and principles as they apply to plants. Structure and functions of the organs of representative plants will be considered.

**Course Structure:** The course is organized into three sections. These three sections cover: **(1)** Plant Form ("breaking down the green wall") (weeks 1 – 5), **(2)** Plant Tissues & Physiology (weeks 6 – 10 [Monday]), and **(3)** Plant Ecology & Conservation (weeks 10 [Wednesday] – 14). Each section will culminate in an exam on only material from that section. An optional final exam, if taken, will replace a student's lowest section exam grade.

**Grading:**

| Assigment Type | Points Per Assignment | Number of Assignments | Total Pts For Assignment Type |
|---|---|---|---|
| Lecture Attendance | 5 | 23 | 115 |
| Notecard | 5 | 21 | 105 |
| Basic Plant Morphology Guide | 15 | 1 | 15 |
| Section Exam | 85 | 3 | 255 |
| 5x Prepared Questions - Exam Review | 10 | 3 | 30 |
| Interspecies Comparison - Field Exercise | 20 | 1 | 20 |
| Office Visit | 10 | 1 | 10 |

**Total Points for Course = 550**

**Attendance:** One unapproved absence will be permitted during the semester. Further absences will be allowed for exceptional need. Any absence should be communicated to me no less than three weekdays in advance, and documentation will be required for approval. After the first absence, further absences which are not communicated to me in advance, or which I do not explicitly approve, will be penalized by a full loss of lecture attendance credit.

**Late Submission:** Late assignment submission will not be accepted unless coinciding with an approved absence. In this case, submission will be required no later than the beginning of the next scheduled lecture period.

**Make-up Exams:** Missed exams cannot be made up unless they coincide with an approved absence. Exams missed during an approved absence must be made up within 7 days.

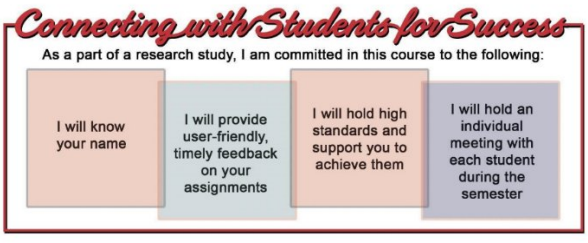
**Final Exam:** The final exam is **not mandatory**. If the final exam is taken, the grade earned will replace the student's lowest previous exam grade. It is recommended that students take the final exam only if they wish to improve their grade. Students will have access to all of their Notecards for the final exam upon request. In the case that the final exam grade is lower than all section exam grades, no replacement of grades will be made (i.e., taking the final exam cannot lower your overall course grade).

**Lecture Schedule**

| WEEK | | TOPIC | DUE BY END OF LECTURE | DUE BY BEGINNING OF NEXT LECTURE |
|---|---|---|---|---|
| *Week 1* | **Aug 25** | Lecture 1: Syllabus + Introduction | | (1) Basic Plant Morphology Guide<br>(2) Notecard (lecture + reading) |
| | **Aug 27** | Lct. 2: Interspecies Comparison (Field) | Completed field exercise handout | |
| *Wk. 2* | **Sep 1** | Lct. 3: Labor Day (No Class) | | |
| | **Sep 3** | Lct. 4: Morphology: Stems & Roots | | Notecard (lecture + reading) |
| *Wk. 3* | **Sep 8** | Lct. 5: Leaves | | Notecard (lecture + reading) |
| | **Sep 10** | Lct. 6: Flower Anatomy + Anatomy | | Notecard (lecture + reading) |
| *Wk. 4* | **Sep 15** | Lct. 7: Fruits | | Notecard (lecture + reading)<br>5x Review Questions |
| | **Sep 17** | Lct. 8: Exam Review Day | Review Notecard | |
| *Wk. 5* | **Sep 22** | Lct. 9: Section Exam 1 | Return all Notecards to instructor | |
| | **Sep 24** | Lct. 10: Plant Cells | | Notecard (lecture + reading) |
| *Wk. 6* | **Sep 29** | Lct. 11: Plant Tissues | | Notecard (lecture + reading) |
| | **Oct 1** | Lct. 12: Photosynthesis | | Notecard (lecture + reading) |
| *Wk. 7* | **Oct 6** | Lct. 13: Transport of Water and Solutes in Plants + Nutritional Requirements of Plants | | Notecard (lecture + reading) |
| | **Oct 8** | Lct. 14: Reproductive Development and Structure | | Notecard (lecture + reading) |

| WEEK | | TOPIC | DUE BY END OF LECTURE | DUE BY BEGINNING OF NEXT LECTURE |
|---|---|---|---|---|
| *Wk. 8* | **Oct 13** | Lct. 15: Pollination and Fertilization | | Notecard (lecture + reading) |
| | **Oct 15** | Lct. 16: Responses and Hormones | | Notecard (lecture + reading)<br>5x Review Questions |
| *Wk. 9* | **Oct 20** | Lct. 17: Exam Review | Review Notecard | |
| | **Oct 22** | Lct. 18: Section Exam 2 | Return all Notecards to instructor | |
| *Wk. 10* | **Oct 27** | Lct. 19: Plant Ecology | | Notecard (lecture + reading) |
| | **Oct 29** | Lct. 20: Terrestrial Biomes | | Notecard (lecture + reading) |
| *Wk. 11* | **Nov 3** | Lct. 21: Restoring Damaged Ecosystems | | Notecard (lecture + reading) |
| | **Nov 5** | Lct. 22: Texas Ecoregions | | Notecard (lecture + reading) |
| *Wk. 12* | **Nov 10** | Lct. 23: Vegetation Types in Trans-Pecos Texas | | Notecard (lecture + reading) |
| | **Nov 12** | Lct. 24: Careers in Botany | | Notecard (lecture + reading)<br>5x Review Questions |
| *Wk. 13* | **Nov 17** | Lct. 25: Exam Review | Review Notecard | |
| | **Nov 19** | Lct. 26: Section Exam 3 | Return all Notecards to instructor | |
| *Wk. 14* | **Nov 24 -28** | THANKSGIVING NO CLASS | | |
| *Wk. 15* | **Dec 1** | Lct. 27: Final Exam Review (optional) | | |

**Connecting with Students for Success:**



**STUDENT LEARNING OUTCOMES (SLOS):** The biology student graduating with a BS in Biology should be able to:

1) 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.

2) The student will be able to demonstrate the 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.

3) The student will be able to use biological instrumentation to solve biological problems using standard observational strategies.

4) The student will develop writingskills by summarizing and critiquing recent relevant biological literature.

**CORE OBJECTIVES ADDRESSED**:

1) Communication Skills – Students will effectively communicate the results of scientificinvestigations, using oral, written, and visual communication, either in group discussions or on written exams.

2) CriticalThinking Skills – Students will include creative thinking, innovation, inquiry, and analysis required to relate new information with previous information in a way that demonstrates the diversity and similarity due to evolutionary ancestry.

3) Empirical and Quantitative Skills – Students will use basic math skills to solve problems (e.g., related to genetic outcomes, cellular energy production, and probability) resulting in informed conclusions.

4) Teamwork Skills – Students will work effectively with others to support a shared goal during lab sessions on activities, such as dissections, problem-solving, and other experimental procedures.

**MARKETABLE SKILLS:** A student getting a degree in the biological sciences would be expected to acquire the following marketable skills by graduation.

1) Students will be able to organize, analyze, and interpret data.
2) Students will be proficient at using presentation software.
3) Students will acquire experience in managing time and meeting deadlines.
4) Students will gain the ability to speak effectively and write concisely about scientific topics.
5) Students will acquire experience and guidance in the development of professional email correspondence.

**SRSU Attendance Policy.** Roll will be taken during each class meeting. The SRSU catalog states "The instructor may, at their discretion, drop a student from a course when the student has a total of nine absences in lecture and three absences in lab. An absence is defined as non-attendance in fifty minutes of class.

**Academic Integrity**. Students in this class are expected to demonstrate scholarly behavior and academic honesty in the use of intellectual property. A scholar is expected to be punctual, prepared, and focused; meaningful and pertinent participation is appreciated. Examples of academic dishonesty include but are not limited to: Turning in work as original that was used in whole or part for another course and/or professor; turning in another person's work as one's own; copying from professional works or internet sites without citation; collaborating on a course assignment, examination, or quiz when collaboration is forbidden.

**SRSU Disability Services**. SRSU Disability Services. Sul Ross State University (SRSU) is committed to equal access in compliance with Americans with Disabilities Act of 1973. It is SRSU policy to provide reasonable accommodations to students with documented disabilities. It is the student's responsibility to initiate a request each semester for each class. Alpine students seeking accessibility/accommodations services must contact Mary Schwartze Grisham, M.Ed., LPC, SRSU's Accessibility Services Coordinator at 432-837-8203 (please leave a message and we'll get back to you as soon as we can during working hours), or email mschwartze@sulross.edu Our office is located on the first floor of Ferguson Hall (Suite 112), and our mailing address is P.O. Box C-122, SUI Ross State University, Alpine. Texas, 79832.

**Technical Support.** SRSU 24/7 Blackboard Technical Support: Phone: 888.837.6055. Email: blackboardsupport@sulross.edu

**SRSU Library Services.** The Bryan Wildenthal Memorial Library in Alpine offers FREE resources and services to the entire SRSU community. Access and borrow books, articles, and more by visiting the library's website, library.sulross.edu. Off-campus access requires your LoboID and password. Check out materials using your photo ID. Librarians are a tremendous resource for your coursework and can be reached in person, by email (srsulibrary@sulross.edu), or by phone (432-837-8123).