BIOL 1411: General Botany
Instructor Course Information Sheet – Fall 2025

Course Format: *Face-to-face, Levelland Campus*

Instructor Information

- **Instructor:** Mark Lee, M.S.
- **Email:** mlee@southplainscollege.edu
- **Office Hours:**
  - Monday/Wednesday – 1:00 – 4:00 pm
  - Friday: 10:00 am – 12:00 pm
- **Office Location:** Science Room 79

Course Information

Course Description:
This course covers fundamental biological concepts relevant to plant physiology, life cycle, growth and development, structure and function, and cellular and molecular metabolism. The role of plants in the environment, evolution, and phylogeny of major plant groups, algae, and fungi

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Evaluation Criteria

Note: Assignments not submitted by the deadline will receive a zero.

Grading Criteria	Point Value	Total
5 Exams	120	600
9 Quizzes	5	45
5 Assignments	15	75
4 Practicals	70	300
1 Project	75	75
Spotlight	5	5
Total		1100

Exams, Practicals, and Quizzes will all be done in class. Assignments will be done on Blackboard. Instructor reserves the right to change the modality of quizzes and assignments.

Textbooks

- **Recommended (not required):**
  - *Stern's Introductory Plant Biology* (15th edition). ISBN: 9781260488623
- ***All material for this course will be provided in class – the textbook is a valuable study tool but not required.***

Attendance

Students are expected to attend both lectures and labs. Excessive absences (>5) may result in a grade penalty. Students who expect to miss should let their instructor know as soon as possible. The instructor reserves the right to request proof of reasons for absence. Regardless of reason, students are expected to catch up on all the material they miss. Make-up exams and assignments will be offered at the instructor's discretion and are never guaranteed.

Lab Safety

- **Required Attire:** Closed-toe shoes and long pants/dresses. **Failure to adhere to this dress code can result in the student being sent away.**
- **Prohibited Items:** Food, drinks, makeup, and tobacco are not permitted in the lab. Violations will result in the student being sent away and marked absent. Excessive violations may result in a grade penalty.

Instructor Policies

- **Food and Drink:** Permitted in lecture unless abused, in which case the privilege will be revoked. Not permitted in lab.
- **Phones:** Permitted in lecture and lab unless abused, in which case the privilege will be revoked.
- **Exams and Quizzes:** Visibility of electronic devices or notes during exams or quizzes will result in an automatic zero, regardless of use. The instructor reserves the right to collect exams and quizzes at any time if academic dishonesty is suspected.

For Additional Policies and Procedures, refer to the Common Course Syllabus.

The instructor reserves the right to modify the syllabus and policies and notify students of any changes during the semester.

South Plains College

Common Course Syllabus: BIOL 1411

Revised Fall 2025

Department: Biology

Discipline: Botany

Course Number: BIOL 1411

Course Title: General Botany

Available Formats: Conventional, Online

Campuses: Levelland, Online

Course Description:

This course explores fundamental biological concepts relevant to plant physiology, life cycle, growth and development, structure and function, and cellular and molecular metabolism. The role of plants in the environment, evolution, and phylogeny of major plant groups, algae, and fungi. (ACGM 2018)

Prerequisite:

Must be TSI Complete in Reading prior to taking this course.

Credit:

4 credits - Lecture: 3 hours, Lab: 3 hours

Textbook & Supplies:

See the instructor course information sheet.

Course-Specific Instructions:

See the instructor course information sheet.

Core Curriculum Requirement:

This course partially satisfies a Core Curriculum Requirement in the Life and Physical Sciences Foundational Component Area (030).

Core Curriculum Objectives Addressed:

- **Communication Skills**: Effective written, oral, and visual communication.
- **Critical Thinking Skills**: Creative thinking, innovation, inquiry, and analysis, evaluation, and synthesis of information.
- **Empirical and Quantitative Competency**: Ability to manipulate and analyze numerical data or observable facts to make informed conclusions.
- **Teamwork**: Ability to consider different points of view and work effectively with others to support a shared purpose or goal.

Student Learning Outcomes:

Lecture:

1. Compare and contrast the structures, reproduction, and characteristics of plants, algae, and fungi.
2. Describe the characteristics of life and the basic properties of substances needed for life.
3. Identify the principles of inheritance and solve classical genetic problems.
4. Describe phylogenetic relationships and classification schemes.
5. Identify the major phyla of life with an emphasis on plants, including the basis for classification, structural and physiological adaptations, evolutionary history, and ecological significance.
6. Identify the chemical structures, synthesis, and regulation of nucleic acids and proteins.
7. Identify the substrates, products, and important chemical pathways in photosynthesis and respiration.
8. Describe the unity and diversity of plants and the evidence for evolution through natural selection.
9. Compare different sexual and asexual life cycles noting their adaptive advantages.
10. Describe the reasoning processes applied to scientific investigations and thinking.

Lab:

1. Apply scientific reasoning to investigate questions and utilize scientific tools such as microscopes and laboratory equipment to collect and analyze data.
2. Use critical thinking and scientific problem solving to make informed decisions in the laboratory.
3. Communicate effectively the results of scientific investigations.
4. Compare and contrast the structures, reproduction, and characteristics of plants, algae, and fungi.
5. Describe the characteristics of life and the basic properties of substances needed for life.
6. Identify the principles of inheritance and solve classical genetic problems.

7. Describe phylogenetic relationships and classification schemes.
8. Identify the major phyla of life with an emphasis on plants, including the basis for classification, structural and physiological adaptations, evolutionary history, and ecological significance.
9. Identify the chemical structures, synthesis, and regulation of nucleic acids and proteins.
10. Identify the substrates, products, and important chemical pathways in photosynthesis and respiration.
11. Describe the unity and diversity of plants and the evidence for evolution through natural selection.
12. Compare different sexual and asexual life cycles noting their adaptive advantages.
13. Describe the reasoning processes applied to scientific investigations and thinking.

Course Evaluation:

Embedded exam questions will be assessed from various sections each semester to determine student mastery of material across the course. For more information, see the instructor course information sheet.

Attendance Policy:

Students are expected to attend all classes to succeed in the course. Absences that become excessive and hinder the achievement of minimum course objectives may result in the student being withdrawn from the course. Additional attendance information is provided on the instructor's course information sheet.

Plagiarism and Cheating:

Students must do their work on all projects, quizzes, assignments, examinations, and papers. Violations will result in an "F" for the assignment and may lead to an "F" for the course if warranted.

Plagiarism includes, but is not limited to:

1. Turning in a paper that has been purchased, borrowed, or downloaded.
2. Cutting and pasting together information from various sources without proper documentation.
3. Using direct quotations without citation.
4. Missing in-text citations.

Cheating includes, but is not limited to:

1. Obtaining an examination by stealing or collusion.
2. Discovering the content of an examination before it is given.
3. Using unauthorized sources during an examination, quiz, or homework assignment.
4. Taking an examination for another.
5. Altering grade records.

6. Copying another's work during an examination or on a homework assignment.

Student Code of Conduct:

A successful learning experience requires mutual respect. Disruptive, disrespectful, or threatening conduct will not be tolerated and may result in disciplinary action or removal from class.

Tutoring:

SPC Tutors:

Tutoring is FREE for all currently enrolled students. Make an appointment or drop-in for help at any SPC location or online! Visit the link below to learn more about how to book an appointment, view the tutoring schedule, and view tutoring locations.

http://www.southplainscollege.edu/exploreprograms/artsandsciences/teacheredtutoring.php

Brainfuse

You also have 180 FREE minutes of tutoring with Brainfuse each week, and your hours reset every Monday morning. Log into Blackboard, and click on the tools option from the left-hand menu bar. Click on the Brainfuse link and you will automatically be logged in for free tutoring. You may access Brainfuse tutors during the following times:

Monday – Thursday: 8 pm-8 am

6pm Friday – 8am Monday morning

For questions regarding tutoring, please email tutoring@southplainscollege.edu or call 806-716-2241.

Syllabi Statements:

South Plains College policies concerning Disabilities, Non-discrimination, Title IX Pregnancy and Parenting Accommodations, CARE (Campus Assessment, Response, and Evaluation), Intellectual Exchange, Campus Concealed Carry, COVID-19, and AI (Artificial Intelligence) can be found here: Syllabus Statements.

WEEK	DATE	Lecture 1	Lecture 2	Unit:	Assignments & Quizzes
1	8/25 - 8/29	Introduction	Chemistry I: Atoms & Bonds		
LAB		Science	Root Words		FIRST WEEK
2	9/1 - 9/5	***Labor Day***	Chemistry II Organic Molecules; **Quiz 1**		
LAB			Microscopes		Quiz 1
3	9/8 - 9/12	Cells I: Cell Structure	Cells III: Cell Division & Chromosomes; **Quiz 2**	Unit I - Cell &	
LAB		Cells II: Diffusion & Osmosis	Strawberry DNA Extraction	Molecular Biology	Quiz 2; Assignment 1
4	9/15 - 9/19	**EXAM 1**	Plant Metabolism II: Photosynthesis		
LAB		Plant Metabolism I: Respiration	Photosynthesis Lab		EXAM 1
5	9/22 - 9/26	Plant Tissues	Roots; **Quiz 3**		
LAB		Plant Tissue Lab	Root Lab		Quiz 3
6	9/29 - 10/3	Stems	Leaves; **Quiz 4**	Unit II - Tissues,	
LAB		Stem Lab	Leaf Lab	Roots, & Stems	Quiz 4; Assignment 2
7	10/6 - 10/10	**EXAM 2**	Alternation of Generations		
LAB		*Tissue, Root, Stem, & Leaf Practical*	Secondary Metabolites		EXAM 2; PRACTICAL 1
8	10/13 - 10/17	Flowers	Fruits; **Quiz 5**		
LAB		Flower Lab	Fruit Lab	Unit III - Leaves,	Quiz 5
9	10/20 - 10/24	Seeds; **Quiz 5**	Propagation & Breeding; **Quiz 6**	Reproduction, &	
LAB		Seed Lab	Propagation Lab	Evolution	Quiz 6; Assignment 3
10	10/27 - 10/31	**EXAM 3**	Genetics		
LAB		*Flower, Fruit, & Seed Practical*	*Spooky Science Fest*		EXAM 3; PRACTICAL 2
11	11/3 - 11/7	Evolution	Classification & Phylogeny; **Quiz 7**		
LAB		Evolutionary Mechanisms; Punnett Squares	Classification Exercise; Punnett Squares		Quiz 7
12	11/10 - 11/14	Algae & Other Protists	Fungi; **Quiz 8**	Unit IV - Evolution,	
LAB		Algae Survey	Fungi Survey	Algae, Fungi	Quiz 8; Assignment 4
13	11/17-11/21	**EXAM 4**	Non-vascular Plants		
LAB		*Algae & Fungi Practical*	Non-vascular Plant Survey		EXAM 4; PRACTICAL 3
14	11/24 - 11/28	Seedless Vascular Plants	***Thanksgiving Break***		
LAB		Seedless Vascular Plant Survey			Thanksgiving Break
15	12/1 - 12/5	Gymnosperms; **Quiz 9**	Angiosperms		
LAB		Gymnosperm Survey	Angiosperm Survey		Quiz 9; Assignment 5
16	12/8 - 12/12	**Final Exams**		Unit V - Plants	FINAL EXAM; FINAL PRACTICAL