**Biol 2361-001 Plant Form & Function (‘Botany’) Lecture:** Spring 2024 Course Schedule.

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T-Th 9:30-10:20am (Miller sci. Rm 137)

<table>
<thead>
<tr>
<th>Week (M)</th>
<th>Lecture Topic &amp; Text Reading:</th>
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<tr>
<td>Jan 15</td>
<td>Course Introduction</td>
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| Jan 22   | Plants & autotrophs - a phylogenetic context
                Overview of the plant cell (Ch. 2, 3 & 4) |
| Jan 29   | Overview of the plant cell (continued)
                Meristems & plant growth & development (Ch 22)
                Ground, vascular & dermal tissues (Ch 22, Ch. 23) |
| Feb 05   | Primary root & stem anatomy morphology, & function (Ch. 24, 25)
                Secondary (woody) growth in roots & stems; characteristics of wood. (Ch. 26)
                leaf morphology & anatomy (Ch. 25) |
| Feb 12   | Flower morphology (Ch. 25 p. 604-607; Ch. 19 p. 461-465;
                Ch 20 p. 492-497)
                Test 1 |
| Feb 19   | Inflorescences & fruit morphology (Ch. 25 p. 604-607; Ch. 19 p. 461-465;
                Water and solute transport (Ch. 30) |
| Feb 26   | Plant nutrition and soils (Ch. 29)
                Plant hormones (Ch. 27); External factors & plant growth (Ch. 28) |
| Mar 04   | Plant Diseases & Plant Defense, Part 1 (P. 274 in part; other non-text sources)
                Test 2 |
| Mar 11   | Spring Break                  |
| Mar 18   | Plant Diseases & Plant Defense, Part 2
                Photosynthesis (Ch. 7) |
| Mar 25   | Photosynthesis (continued); begin Plant Reproduction
| Apr 01   | Plant reproduction: Meiosis and the alternation of generations life cycle
                (Ch 3 in part, Ch 8 in part)
                Test 3: |
| Apr 08   | Pollination and seed dispersal; Coevolution & symbiosis
                Video on Pollination Biology: ‘Sexual Encounters of the Floral Kind’ (link and quiz in D2L)
                The plant community & studying the plant community. |
| Apr 22   | Temporal change: disturbance, succession & ecosystem development.
                Interactions between plants, other organisms, & their environment
                Video (link and quiz in D2L) “What Plants are Talking About” |
| Apr 29   | Mapping & classifying vegetation & the vegetation zones of Texas; |
| May 06   | Final Examination: Thursday, May 9, 8:00am (Final = Test 4 + cumulative exam) |

Week-begin dates shown above are Mondays. Our first class (T) is held a day later.
Instructor: Dr. James Van Kley

Office Hours: T 12:30-4:00 pm, Th 12:30-2:00 Room 115 Miller Sci. or Biology Greenhouse
Phone: (936) 468-2068; email: jvankley@sfasu.edu or the D2L BrightSpace email for our course

Course Description: We humans, as living organisms, depend on the plant world to provide us with food, energy, wood, fiber and to sustain the rich web of life on our earth. Today, with increasing human pressure on earth's ecosystems, the ecological future of the earth may depend on decisions made by humans from our generation. For these reasons, a basic knowledge of life-processes and an awareness of the plant world is a vital part of education regardless of what profession one is preparing for. This course introduces you to Botany or Plant Science and will expose you to several of its sub-disciplines including the plant cell, and the morphology, anatomy, physiology & function, reproduction, and ecology of plants.

This Lecture section is the 2 hour portion of a 3 semester-hour course (Biol 2361 supplemented with its co-requisite, Biol 2061 Lab). It meets for 2 hours a week and students should also plan on spending at least 6 additional hours a week on the course.

Email: jvankley@sfasu.edu (permanent) AND the D2L Brightspace email for this course. I will monitor both emails. While I may monitor and answer emails during weekends and holidays, I will do so less diligently than on workdays and will not always answer as promptly.

Textbook: Raven Evert & Eichhorn, 2013. The Biology of Plants, 8th edition. See the course schedule in this syllabus for the required reading assignments.

D2L Brightspace: Access your Brightspace frequently! A valuable resource for our course, D2L will provide you with copies of lecture PowerPoints, links, review materials, study quizzes, course announcements, this syllabus, test/quiz scores, and the course’s email. Pay attention to D2L news items: I will use them for important course announcements!

Major Tests: There will be four non-cumulative major tests, and a cumulative final examination each worth 1/5 of the lecture grade. You will take the fourth test and the cumulative final together as a single two-part exam during Finals Week. It will collectively be worth two test grades. Tests will normally take place in D2L Brightspace and will be open book-open notes. Prior to the first test, locate a quiet space with good internet access -you will not need to come to class on those days.

Study Quizzes: Each lecture will be accompanied by a series of ‘study quizzes in D2L. Since the quizzes are as much for study aids as for evaluation, you will be able to take the quiz multiple (typically up to 10) times and the highest score earned will be the one counted. Each quiz will have a deadline. Quizzes taken after the deadline have a ‘late penalty’ (typically 10% of the points) deducted from them. Second and subsequent attempts for a given quiz may be done after the deadline without penalty as long as the first attempt was on time. Access to the quizzes will ‘end’ the evening before the next test. You will no longer be able to access and get credit for a quiz after the end time. Take the quizzes and deadlines seriously; your quiz scores for a given test-unit contribute 10% of your total test grade!

Final Grades: When calculating your lecture score I will replace your worst test with your preliminary average (but read the ‘fine print’: I offer this benefit only to those who attempt all the tests and the final, not to those who ‘zero’ a test because they failed to take it! Your final score for the course will be calculated as 2/3 your lecture score (Biol 2361 test-quiz-final average) plus 1/3 your lab score (from Biol 2061). After calculating your total percentage (2/3 x percentage of points from lecture + 1/3 x lab percentage), final grades will be determined as follows: Total percentage > 90% = A; 89% - 80% = B; 79% - 70% = C; 69% - 60% = D; <60% = F.

There will be no extra credit assignments in this course. Make-up tests will be allowed only for students with excused absences. Quizzes will “end” the evening before a given test and you will not be able to take them after that. Only students participating in University-sponsored events or those with a serious illness, family emergency, or a serious conflict will be granted an excused absence. You must provide verification from a family member, University official or doctor to be excused. Please inform me beforehand if you know you must miss a test. I am much more flexible when I know of an absence beforehand. Students with unexcused absences will receive a ZERO for any missed tests.

Attendance: Regular attendance and participation is essential to success in this course. I will be monitoring attendance and course engagement and assigning absences for missed lectures for missed classes or activities. I will calculate a ‘participation’ grade based on attendance course engagement. Missed lectures, late study quizzes, and missed quizzes will result in deductions from your participation grade. The median deduction score score for the class will be set at 85%. Those with the fewest deductions will have a score of 100%. All other scores will be calculated relative to the median. Your participation grade will provide the ‘quiz’ (10%) portion of the cumulative part of the Final. Beware: extremely poor participation may result in a negative score and degrade the score of your Final by more than the stated 10%! I will also
consider attendance for students with borderline grades: For example, a student with excellent attendance and a score of 79 may receive a "B" rather than a "C". Additionally, University and Departmental policy states that instructors may fail students who miss more than 3 weeks of class for ANY reason; I therefore reserve the right to fail any student who misses 7 or more lectures.

**Course evaluations:** Student evaluations help us improve courses; participation in the anonymous on-line course evaluation at the end of the term is required. Students who do not participate may receive a 1% deduction from their final score.

**Supplemental Instruction (SI):** SI plans for this course are pending. If it goes forward, bonus points (1% point per test) will be awarded to regular SI attendees.

**Asynchronous minutes**  
In accordance with SFASU policy for 3-semester-hour courses, there are 150 ‘asynchronous minutes’ built into your course time in addition to your classroom attendance where you are responsible for working through course content ‘on your own’. In Plant Form & Function you will use most of this time watching and answering questions for 2 nature videos (linked to D2L). You may also be required to work through a selected portion of the ordinary lecture notes on your own (and still be responsible for them on tests) in the event that we get behind on our lecture schedule.

**Student Learning Outcomes for Biol 2361:**
1. Students will be able to understand the structure and functions plant of tissues, and tissue systems.  
   Links to Core Objective 1.
2. Students will be able to understand the internal anatomy and external features (morphology) and function of plant roots, stems, leaves, flowers & fruits; they will be able to describe & quantify morphological features of images or specimens. Links to Core Objectives 1 and 3.
3. Students will understand the principles of photosynthesis, including a knowledge of energy molecules (ATP and NADPH); the light reactions including its products and byproducts; the Calvin Cycle and its products; the relationship between the light reactions and Calvin Cycle; and C 4 and CAM photosynthesis. Links to Core Objectives 1 and 3.
4. Students will gain an understanding of basic plant reproduction, including the concepts of life cycles, alternation of generations, gametangia, sporangia, and specialized reproductive features. Links to Core Objective 1.
5. To introduce students to the concepts of plant communities, ecosystems, succession, and interactions among plants with each other, other organisms, & their environment. Links to Core Objective 1.

**Program Learning Outcomes:** Each course student learning outcome listed above corresponds to the Biology Department PLO 1- to develop knowledge of biological concepts.

**Texas Core Curriculum Objectives for Biology 2361:** The Texas Higher Education Coordinating Board has identified six core learning objectives: Critical Thinking Skills, Communication Skills, Empirical and Quantitative Skills, Teamwork, Personal Responsibility, and Social Responsibility. SFA is committed to the improvement of its general education core curriculum by regular assessment of student performance on these six objectives.

By enrolling in Biol 2361 you are also enrolling in a Core Curriculum Course that addresses the Texas State Core Curriculum Objectives (COs) below:

**CO1-** Critical Thinking Skills. Includes creative thinking, innovation, inquiry, analysis, evaluation, and synthesis of information.

**CO2-** Communication Skills. Includes effective development, interpretation and expression of ideas through written, oral, and visual communication.

**CO3-** Empirical and Quantitative Skills. Includes analysis of numerical data or observable facts resulting in informed conclusions.

**CO4-** Teamwork. The ability to consider different points of view and to work effectively with others to support a shared purpose or goal.

**Miscellaneous**

*Academic Integrity (See policy 10.4 and The University of Texas System Rules & Board of Regents’ Rule: 50101).*

Any student who commits an act of academic dishonesty in this class is subject to discipline which may include failing the course. Suspected students will be referred to the appropriate administrative authorities. The Dean of Students has primary authority and responsibility for the administration of the University process for students alleged to have engaged in conduct that violates this Policy.
Academic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person without giving sufficient credit, taking an examination for another person, or any act designed to give unfair advantage to a Student or the attempt to commit such acts.

a. **Cheating** is the following or attempt to do the following:
   i. Copying from the test paper (or other assignment) of another Student, engaging in written, oral, or any other means of communication with another Student during a test, or giving aid to or seeking aid from another person during a test or on another assignment where doing so is prohibited by the Faculty member;
   ii. Possession and/or use during a test of materials which are not authorized by the person giving the test, such as class notes, calculators, electronic devices, books, or specifically designed “crib notes”;
   iii. Using, obtaining, or attempting to obtain by any means the whole or any part of a non-administered test, test key, homework solution, or computer program, or using a test that has been administered in prior classes or semesters, but which will be used again either in whole or in part, without permission of the Faculty member; or accessing a test bank without Faculty permission;
   iv. Substituting for another person, or permitting another person to substitute for one’s self, to take a test;
   v. Falsifying research data, laboratory reports, and/or other records or academic work offered for credit;
   vi. Using any sort of unauthorized resources or technology in completion of educational activities.

b. **Plagiarism** is the appropriation of material that is attributable in whole or in part to another source or the use of one’s own previous work in another context without citing that it was used previously, without any indication of the original source, including words, ideas, illustrations, structure, computer code, and other expression or media, and presenting that material as one’s own academic work being offered for credit or in conjunction with a program course or degree requirements.

c. **Collusion** is the unauthorized collaboration with another person in preparing academic assignments offered for credit or collaboration with another person to commit a violation of any provision of the rules on academic dishonesty, including disclosing and/or distributing the contents of an exam.

d. **Misrepresenting facts for academic advantage to the University or an agent of the University.** This includes providing false grades or résumés; providing false or misleading information in an effort to receive a postponement or an extension on a test, quiz, or other assignment for the purpose of obtaining an academic or financial benefit for oneself or another individual; and providing false or misleading information in an effort to injure another Student academically or financially.

**Withheld Grades Semester Grades Policy (5.5)**

Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the coursework because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course to compute the grade point average. For additional information, go to https://www.sfasu.edu/policies/course-grades-5.5.pdf.

**Students with Disabilities**

To obtain disability-related accommodations, alternate formats, and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004(TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services promptly may delay your accommodations. For additional information, go to http://www.sfasu.edu/disabilityservices/.

**Acceptable Student Behavior**

Classroom behavior should not interfere with the instructor’s ability to conduct the class or the ability of other students to learn from the instructional program (see the Student Conduct Code, policy D-34.1). Unacceptable or disruptive behavior will not be tolerated. Students who disrupt the learning environment may be asked to leave class and may be subject to judicial, academic or other penalties. This prohibition applies to all instructional forums, including electronic, classroom, labs, discussion groups, field trips, etc. The instructor shall have full discretion over what behavior is appropriate/inappropriate in the classroom. Students who do not attend class regularly or who perform poorly on class projects/exams may be referred to the Early Alert Program. This program provides students with recommendations for resources or other assistance that is available to help SFA students succeed.

**Student Wellness and Well-Being**

SFA values students’ overall well-being, mental health and the role it plays in academic and overall student success. Students may experience stressors that can impact both their academic experience and their personal well-being. These
may include academic pressure and challenges associated with relationships, emotional well-being, alcohol and other drugs, identities, finances, etc.

If you are experiencing concerns, seeking help, SFA provides a variety of resources to support students’ mental health and wellness. Many of these resources are free, and all of them are confidential.

On-campus Resources:
The Dean of Students Office (Rusk Building, 3rd floor lobby) www.sfasu.edu/deanofstudents 936.468.7249 dos@sfasu.edu

SFA Human Services Counseling Clinic Human Services, Room 202 www.sfasu.edu/humanservices/139.asp 936.468.1041

The Health and Wellness Hub “The Hub” Location: corner of E. College and Raguet St.

To support the health and well-being of every Lumberjack, the Health and Wellness Hub offers comprehensive services that treat the whole person – mind, body and spirit. Services include:

- Health Services
  Updated: February 2023
- Counseling Services
- Student Outreach and Support
- Food Pantry
- Wellness Coaching
- Alcohol and Other Drug Education

www.sfasu.edu/thehub
936.468.4008 thehub@sfasu.edu

Crisis Resources:
- Burke 24-hour crisis line: 1.800.392.8343
- National Suicide Crisis Prevention: 9-8-8
- Suicide Prevention Lifeline: 1.800.273.TALK (8255)
- Crisis Text Line: Text HELLO to 741-741

Educator Certification
This course meets educator preparation standards for one or more certification programs; a complete listing of all the educator preparation standards this course meets can be found at: https://sfasu.edu/docs/jacksteach/jacksteach-standards-alignment-chart.xlsx

Masks & COVID19 Precautions
COVID19 has not disappeared although vaccines and prior infections have resulted in most cases being milder than during the pandemic. Those who are at high risk (unvaccinated, immunocompromised, with underlying health conditions, etc.), or are concerned about getting COVID are strongly urged to wear masks in class or office meetings. If you are not already, get vaccinated and boosted. The vaccines are effective: the current vaccines (with boosters) are highly protective against hospitalization with severe COVID! Don’t be fooled by reports that COVID cases resulting from the current variants are not as serious as those of earlier strains: This is not true; recent cases have been milder only due to vaccination or to previous COVID exposure!