## Biol 2061-20 Plant Form & Function (Botany) Laboratory

Summer 2021 Course Schedule, 6-Week Section 001  
Dr. J. Van Kley ([jvankley@sfasu.edu](mailto:jvankley@sfasu.edu)); (936) 468-2068

M, T, W, Th: 10:15-12:10 am

<table>
<thead>
<tr>
<th>Week (M)</th>
<th>Laboratory Topic</th>
</tr>
</thead>
</table>
| Jun 28   | Lab Course Introduction (Important Livestream introductory ZOOM meeting 06/28/21 10:15 am; see D2L for Link.  
Lab 1: The Plant Cell  
Lab 2: Cells & Tissues of the Plant Body. |
| Jul 05   | Lab 3: Cell Division & Meristems.  
Lab 4: Root and Stem Form & Function.  
Lab 5: Wood Anatomy. |
| Jul 12   | Lab 6: Leaf Form & Function.  
Lab 7: Flower Form & Function.  
Lab 8: Measuring Photosynthesis |
Lab 10: Ecosystems: Collecting & Analyzing Plant Community Data.  
| Aug 02   | Last week of class; Lecture finals |
Course Description: This course is the laboratory portion of an accelerated 8-week version of Plant Form & function, an introduction to the fundamental principles of plant sciences or Botany. It is the required companion to Biol 2361; worth 0 credit hours on its own, it contributes 1/3 of the grade to Biol 2361. You will receive the same posted grade for both Biol 2061 and Biol 2361. Typically students should expect to spend about 4 hours per Lab (8-12 hours per week) on Botany lab activities. This lab will provide you the opportunity to explore selected topics in plant biology in a more ‘hands on’, experiential, or in-depth way than can be presented in the lectures. During the course we will explore aspects of plant cells, tissues, external form, anatomy, physiology, reproduction, and ecology.

Laboratory Activities: Our Summer 2021 lab will be online in D2L Bright-space and live-stream via ZOOM. All exercises and activities (the lab manual) will be posted on D2L. A Lab module typically includes a Lab Guide or (Manual) with the background information and detailed instructions necessary to complete it and turn in the assignments, a pre-lab quiz, a “virtual Lab” or presentation with the needed imagery, data, links, and other resources for the exercise, and a Worksheet where you will record your answers and submit to a D2L Dropbox. The particular activities for each week are indicated in the course schedule and will also be announced in D2L news items. Teaching Assistants or myself will be available in ZOOM during the first hour of assigned LAB days to answer your questions and guide your exercises. Each student must attend at least one such session each week.

- Bi-weekly Quizzes: You are responsible for reading the Lab Guide (Manual) and understanding each exercise prior to starting and accordingly each lab is accompanied by a short quiz over the background information presented. The quiz will be on D2L and you must take the quiz for each week during a time-window that ends at the beginning of the scheduled lab time for that exercise. Read and understand the lab material before taking the quiz; once started you will have a limited time for the quiz and if you need to look everything up you won’t finish! The quiz will count for 10% of a given week’s lab score.

- Exercises: Once you take the quiz, do the exercise. Detailed instructions for each lab - what to do, what to turn in, and how to turn it in (typically to the D2L Dropbox) are provided with the Lab Guide for each exercise. You may complete your assignment during your scheduled lab time or at another time of your convenience but it must be turned in prior to the stated deadline. Teaching Assistants and/or myself will be standing by via an open ZOOM (link posted in D2L) during the first hour of your scheduled lab time to answer your questions and guide your activities. I am also available during my ordinary office hours (see below). Your completed exercise, will count for 90% of a given week’s lab score.

Grading: Each lab will consist of a 10 point pre-lab quiz taken before starting the lab activity and a 90 point exercise turned in as a result of that activity. There are 12 exercises total; the lowest lab grade will be dropped. Exercises and quizzes not turned in by their ‘due date’ suffer a 10% penalty; those not done by their ‘end date’ can no longer be completed and result in a score of 0. There is a pool of 100 ‘participation points’. These will be lost by missed deadlines, and by missing quizzes, activities, & course engagement-checks, etc. (see attendance below). Students with class-average ‘misses’ will receive a participation score of 85; your score will be calculated relative to this average (maximum 100).

A final lab percentage will be calculated on the basis of the 1300 possible points as follows:

- 12 labs (x 100 pts each) 1200 pts.
- Participation 100 pts.
- Dropped Lowest Lab -100 pts.
- Total 1200 pts.

Final Lab percentage score = total earned points /13

The final course grade will reflect both lab (Biol 2061) and lecture (Biol 2361) and will be computed as follow: 2/3 final lecture score + 1/3 final lab score = final course score. Posted letter grades will be the same for both Biol 2061 and Biol 2361. The lecture instructor computes final scores and has the ‘final word’ in determining letter grades for the course. There will be no ‘extra credit’ allowed in this lab.

Attendance: Regular participation in the course and engagement with the content is essential to success in this course. I will be monitoring course engagement and assigning ‘virtual absences’ for missed activities. These will include 1) not having entered the course D2L Brightspace at least 3 times in a given week 2) missing the deadline for a lab quiz, 3) missing the deadline for turning in an assignment (incomplete assignments also constitute a ‘miss’ for attendance purposes), and 4) failing to take a quiz or to turn in an assignment at all and missing its ‘end-date’ (thus each quiz and each assignment can potentially trigger 2 absences, one for missing the deadline, one for never doing it).
Missed (past ‘end-date’) quizzes and exercises can only be considered ‘excused absences’ and made up in the case of:

- **Sickness** - If you are sick you must notify me through email and provide a doctor’s note (email) upon return.
- **Family emergency or death** - If there is a family emergency or death in the family you will need to contact the Office of Student Rights and Responsibilities ((room) 315 Rusk Building, (936)-468-2703) and request an absence notification be sent to your instructors.
- **School functions** - If you will be absent due to a school-related function notify me at least 24 hours in advance (or have the organization do so) and provide (email) a note from the relevant facility member, coach, etc.
- **Lab Amnesty** – I may designate a ‘Lab Amnesty” toward the end of the term where students have a limited time to make-up and submit late exercises subject to the standard late penalty.

Unexcused lab absences equivalent to missing 3 weeks of ordinary 16-week semester labs constitute grounds for failure of the course (lab+lecture). A typical week represents about 5 ‘virtual absences: one for not logging in to D2L, two for missing quiz & exercise due dates and two for missing quiz & exercise end dates. A week in a 6-week Summer course represents about 2.5 Labs and 12.5 ‘absences’.

**Office hours:** To be announced. To reduce the spread of COVID 19 my office hours will be virtual: During these times I will be present in an open ZOOM that you may join for 1-on-1 meetings (see our D2L Brightspace for the link). I will also be monitoring email frequently and will be available by phone - (936) 468-2068.

**Textbook:** Raven Evert & Eichhorn, 2013. *The Biology of Plants*, 8th edition: This textbook is required for Biol 2361 and I strongly recommended that you also use it as a companion for Biol 2061 lab. It contains numerous micrographs and other visuals that will be very helpful for many of the labs. Several exercises refer to portions of this book. The lab Guide (Manual) with instructions and exercises, etc. will be provided in installments for each Lab in D2L Brightspace.

**Lab-Based Student Learning Outcomes for Biol 2061:**
SLO 1- Students will be able to gather and analyze data. Links to Core Objective 3.
SLO 2- Students will communicate complex data visually by making graphs or other visual presentations of data. Links to Core Objective 2.
SLO 3- Students will be able use scientific terminology to describe and measure stem, leaf, flower, inflorescence, and fruit features of plant specimens. Links to Core Objectives 1, and 3.
SLO 4- Students will work together as teams to gather data and perform experiments. Links to Core Objective 4.

**Program Learning Outcomes for Bio 2061:**
Each student learning outcome listed above corresponds to the Biology Department PLO 1- to develop knowledge of biological concepts.

**General Education Core Curriculum Objectives:** All 13 exercises in this course (Biol 2061) relate to CO1 & CO3.

**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.

**Withheld Grades: Semester Grades Policy (A-54)**
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 course work 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 for the purpose of computing the grade point average.

**Evaluations:** Students are required to fill out the online end-of-course evaluations; failure to do so results in a 1% penalty.

**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 in a timely manner may delay your accommodations. For additional information, go to [http://www.sfasu.edu/disabilityservices/](http://www.sfasu.edu/disabilityservices/).
Academic Integrity (University Policy A-9.1 Statement): Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification or invention of any information, including citations, on an assigned exercise; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism are (1) submitting an assignment as if it were one's own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been purchased or otherwise obtained from an Internet source or another source; and (3) incorporating the words or ideas of an author into one's paper without giving the author due credit. Read the complete policy at http://www.sfasu.edu/policies/academic_integrity.asp