

Systematic Botany
 BIOL 3534
 Spring 2021
 BO 209
 8:00 MW; 1:00 W

Dr. Bill Cook
 BO 218D; 330
william.cook@msutexas.edu

Required Texts: *Plant Systematics: A Phylogenetic Approach* 4th ed., Judd *et al.*; *Illustrated Flora of North Central Texas*, Diggs *et al.*; permanently bound field notebook

<u>Date</u>	<u>Topic – Presented in this order. Timing may differ as needed.</u>	<u>Chapter</u>
Jan 11	Course Introduction; Intro to Systematic Botany	1
Jan 13	Introduction to Systematic Botany	1
Jan 18	<i>Martin Luther King, Jr. Day</i>	
Jan 20	The Evolution of Plant Diversity	5
Jan 25	The Evolution of Plant Diversity	5
Jan 27	Phylogenetic Classification	2
Feb 1	Phylogenetic Classification	2
Feb 3	Phylogenetic Classification	2
Feb 8	Introduction to Classification & Nomenclature	appendix 1
Feb 10	Introduction to Classification & Nomenclature	appendix 1
Feb 15	Introduction to Classification & Nomenclature	appendix 1
Feb 17	Green Plant Phylogeny	6
Feb 22	Green Plant Phylogeny	6
Feb 24	Non-flowering Tracheophytes	7
Mar 1	Non-flowering Tracheophytes	7
Mar 3	Examination #1	
Mar 8	Angiosperm Phylogeny: Overview	8
Mar 10	Angiosperm Phylogeny: Overview	8
Mar 15	Angiosperms	8
Mar 17	ANA Grade	8
Mar 22	Magnoliids	8
Mar 24	Monocots; Basal Eudicots	8
Mar 29	Monocots; Basal Eudicots	8
Mar 31	Core Eudicots	8
Apr 5	Eurosids: Fabids	8
Apr 7	Eurosids: Malvids	8
Apr 12	Asterids; Gentianids	8
Apr 14	Gentianids: Lamiids, Campanulids	8
Apr 19	History of Plant Classification	3
Apr 21	History of Plant Classification	3
Apr 28	Final Examination, Wednesday, 8:00-10:00 A.M.	

Laboratory Schedule – subject to adjustment as needed.

<u>Date</u>	<u>Topic/Activities</u>
Jan 13	Introduction to the Lab; Safety Briefing Activity 1: Recognizing Scientific Names
Jan 20	Vegetative Characters (CH 4) Activity 2: Classification Exercise
Jan 27	Veg./Floral Characters (CH 4) Activity 3: Nomenclature Exercise
Feb 3	Floral Characters (CH 4) Activity 4: Keying Exercise
Feb 10	Activity 5: Plant Descriptions Activity 6: Flowering Plants
Feb 17	Activity 7: Scope Exercise Activity 8: Dichotomous Keys
Feb 24	Sight ID Plants; Keying Practice; Key Quiz
Mar 3	Sight ID Plants; Keying Practice; Key Quiz
Mar 10	Mid-term Exam: Sight ID
Mar 17	Sight ID Plants; Keying Practice; Key Quiz
Mar 24	Sight ID Plants; Keying Practice; Key Quiz
Mar 31	Sight ID Plants; Keying Practice; Key Quiz
Apr 7	Sight ID Plants; Keying Practice; Key Quiz
Apr 14	Final Exam: Sight ID
Apr 21	Completed Plant Collections Due by 5:00 PM

Course Objectives

The successful student will demonstrate operational familiarity with the glossary of systematic botany.
The successful student will effectively use the knowledge and skills needed to *identify* flowering plants.
The successful student will recognize ~100 plants *on sight*.
The successful student will be familiar with ~50 plant families.

Evaluation

	Portion of Final Grade
On-line exercises	1/7
Keying quizzes and laboratory exercises	1/7
Laboratory midterm exam	1/7
Laboratory final exam	1/7
Lecture midterm exam	1/7
Lecture final exam	1/7
Plant collection	1/7
50 properly prepared, correctly identified specimens	
3 specimens prepared for deposit in the M.S.U. herbarium	
properly utilized field notebook	

Grading

A ≥ 90%; B = 80-89.9%; C = 70-79.9%; D = 60-69.9%; F ≤ 59.9%

On-Line Exercises: Each week there will be two different sorts of on-line exercises.

Family of the Week is a “Discussion” to which you will contribute the name and description (or image) of one species belonging to the family of the week. Access each week’s FOTW exercise through the course D2L page.

Weekly Basic Skills Exercises

Technical Terms Definitions exercises provide 25 terms used by in systematic botany. Access instructions through a one-question quiz; download the term list; locate and type botanical definitions of the terms (hint: Google, Yahoo, other popular browsers are not botanically oriented); submit work product to the designated drop box by the deadline of Sunday, midnight.

Working With Units of Measure presents exercises that require manipulation of metric units, conversion between metric and US Standard units, and interpretation of the measures. Download the exercise; complete the exercise on the downloaded form; turn in work product directly to the instructor or to his (physical) mailbox by the beginning of class Monday morning. Copied work will not receive credit and is often recognizable when incorrect answers are copied.

Exploring Botanical Literature prompts you to locate research publications on various subjects related to systematic botany. Access the Discussion to read the week’s instructions; locate the targeted research publication; submit the required information from the research publication as a post on the discussion forum by the deadline of Sunday, midnight. Only original posts will receive credit; duplicates will not be counted.

Examinations: Exam dates are fixed.

Do not make doctor/dentist or any other appointments on exam dates, as they will not constitute excusable absences. In the event of an excusable absence on an exam day, a substitute exam will be administered.

- 1) Cell phones, electronic dictionaries, calculators or other electronic aids may not be used for exams. Personal effects will be placed in the front of the classroom during exams.
- 2) The final exam will be administered on the scheduled day and time, as reported in the Schedule of Classes posted November 2019.

Course Policies

Standards of Conduct

Out of courtesy to classmates and the instructor, please observe the following guidelines:

Don’t walk through the front of classroom after class has begun or before class has ended.

Don’t talk during lectures, videos, examinations or other official class activities.

Electronic Devices

At the beginning of each class period, turn off cell phones, pagers and other electronic devices that may make noise, disrupt or distract.

University Policies

Disability Accommodations

Students with disabilities must register with Disability Support Services before classroom accommodations can be provided. See me if this affects you.

Student Conduct

Please refer to the MSU Student Handbook for university policies related to student responsibilities, rights and activities ([2020-2021 Student Handbook](#)). For example, see page 61 for a statement on the university's policy on class attendance (attend all meetings of all classes), page 73 for valid grounds for an instructor drop (excessive absence, indifferent attitude, disruptive conduct, failure to meet class assignments), page 76-77 for a statement of student responsibility for email communications, and page 55 for definitions of academic dishonesty that may be subject to disciplinary action (cheating, plagiarism, and collusion).