

BOT2800C - Plants in Human Affairs – Spring 2023

Lecture meetings TR Period 10 (5:10 – 6:00PM)

CSE E119

Lab meetings (Rolfs Hall 0114)

Class# 23682 R | Period 7 - 8 (1:55 PM – 3:50 PM)

Class# 11138 F | Period 3 - 4 (9:35 AM - 11:30 AM)

Class# 23670 F | Period 7 - 8 (1:55 PM – 3:50 PM)

Instructors

Lecture:

Dr. Norman Douglas, nadouglas@ufl.edu, 618A Carr Hall

Office hours: Tues 10AM via Zoom: <https://ufl.zoom.us/j/93433687787?pwd=aXU4M3k5YkRHNWkzcTdhLOZIS25QZz09>

Lab instructors:

Lauren Whitehurst, laurenwhitehurst@ufl.edu Dickinson Hall

Yuley Encarnación Piñeyro yuleyencarnacion@ufl.edu 379 Dickinson Hall

Course description

This course is an introduction to the vast array of plants and plant products that shape our lives. We will explore some of the plants that humans use and learn how they influence human culture and have shaped civilization from prehistory to the modern world. To better understand why plants are so crucial to us, we will also learn basic structure and function of plant tissues and metabolites in the body of the living plant and the means by which humans obtain, process, and trade in plant-based products. We hope that you not only come away from this course with a better understanding and appreciation for the importance of plants in our lives, but also have fun in the process. You can expect to learn about basic plant biology, ecology, and evolution, develop and evaluate hypotheses about why plants are used the way they are, and communicate botanical knowledge in an informed manner.

Learning objectives

After completion of this course, students will be able to:

- Draw and describe the basic structure of a plant and the location of major tissues important to humans
- Describe the structure and function of fibers, vascular tissue, and wood and how this relates to human use
- Distinguish between primary and secondary metabolites and the functions of these for both plants and human use
- Discuss the relative definitions of “toxic” and “medicinal” plants
- List the plants that were foundational in the development of human civilization and explain why
- List and discuss several of the world’s most economically important plants
- Discuss the centers of origin for agriculture and human civilization
- Explain how domestication occurs and describe the evolutionary evidence for domestication
- Describe the role of plants during European colonization throughout the world
- Critically evaluate commercially available plant products for their ecological and humanitarian impact
- Discuss scientific, economic, and political issues with genetically modified crop plants
- Make candles, soap, tie-dyed cloth with natural dyes, rope, paper, rubber balls, and more!

Content--Identify, describe, and explain the basic concepts, theories and terminology of natural science and the scientific method; the major scientific discoveries and the impacts on society and the environment; and the relevant processes that govern biological and physical systems.

Critical thinking--Formulate empirically-testable hypotheses derived from the study of physical processes or living things; apply logical reasoning skills effectively through scientific criticism and argument; and apply techniques of discovery and critical thinking effectively to solve scientific problems and to evaluate outcomes.

Communication--Communicate scientific knowledge, thoughts, and reasoning clearly and effectively.

Student learning outcomes will be assessed through graded lecture and laboratory quizzes and exams, participation in class discussions & activities, the completion of a written assignment, and an in-class presentation.

Textbooks

- 1) Lab manual for BOT2800C. (Required) This is available for purchase (~\$15) at Target Copy (on University Drive) in Gainesville.

Grading

Two lecture exams – 100 points each	200
Lab – (Two lab practicals, for a total of 100 pts, pre-labs 50 pts, in-class exercises 50 pts, post-labs 50 pts)	250
Plant expert research – 25/50 pts per part, two parts	75
Plant expert presentations – 50 pts	50
Participation (lecture-related activities, assignments, etc.)	25
Final exam (optional, cumulative) – 100 pts	100
Total	700

• Point Range (%)	• Letter Grade
• ≥ 90.00	• A
• ≥ 86.66	• A–
• ≥ 83.33	• B+
• ≥ 80.00	• B
• ≥ 76.66	• B–
• ≥ 73.33	• C+
• ≥ 70	• C
• ≥ 66.66	• C–
• ≥ 63.33	• D+
• ≥ 60	• D
• ≥ 56.66	• D–
• < 56.66	• E

Information on University of Florida grading policies and the assignment of grade points can be found here:

<https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>. A minimum grade of “C” is required for General Education credit.

Laboratory

Your laboratory grade will be based upon two practical exams, in class exercises, and pre- and post-lab assignments. Please see your lab instructor for policies, expectations and the schedule of assignments.

Attendance and make ups

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found in the online catalog at: <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/#absencestext>

If you are experiencing COVID-19 symptoms (click here for guidance from the CDC on symptoms of coronavirus), please err on the side of caution and do not attend lecture or lab until you are sure you are not contagious. Course materials will be provided to you with a documented absence, and you will be given a reasonable amount of time to make up work. We will work with you to make sure that you are not penalized for being responsible and staying away when you could be contagious.

For situations not related to COVID-19: we understand that absences happen, but if you make this a habit, you will perform poorly in this class. All lab sessions are required. If you know in advance that you are unable to attend your lab section (e.g. conference, religious holiday), please contact your TA promptly in order to facilitate attending one of the other lab sections. Students who arrive late to lab miss important introductory material and directions. If you arrive >10 minutes late, you will be penalized 1 point off your pre-lab; if >30 minutes late, you will only be eligible to receive half credit on your pre-lab. Being on time to lab practicals is a requirement and late arrivals may be denied access at the discretion of the TA.

Make-up lecture quizzes, lab practicals, and online lab assignments will be offered under certain circumstances if a valid and documented excuse is provided through the Dean of Students’ office. Every effort should be made to attend your lab section or to make arrangements to attend another section. As online lab assignments are available for multiple days, you should have plenty of time to complete them.

Grade curves and extra credit

At the instructor’s sole discretion, a curve MAY be applied to grades for exams. There is no curve for assignments, or final course scores. There MAY be opportunities for extra credit – if so, such opportunities will be announced in class and offered to all students equally. DO NOT request special treatment, extra extra credit, grade bumps, etc. at the end of the course. Emails making such requests will be ignored.

Academic Honesty Policy

All students registered at the University of Florida have agreed to comply with the following statement:

“I understand that the University of Florida expects its students to be honest in all their academic work. I agree to adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action up to and including expulsion from the University.”

In addition, on all work submitted for credit the following pledge is either required or implied:

“On my honor I have neither given nor received unauthorized aid in doing this assignment.”

Cases of plagiarism or other academic dishonesty will not be tolerated and may result in grade penalties or other sanctions. At a minimum, each incident of academic dishonesty will result in a zero on the assignment, a course grade penalty of one full letter grade, and a report to the Student Conduct & Conflict Resolution (see <https://sccr.dso.ufl.edu/process/student-honor-code/> for more information about this process).

In this course, academic dishonesty includes (but is not limited to) collaborating with others on course assignments or quizzes without specific authorization, utilizing prohibited materials during quizzes, copying the work of other students in

whole or in part, allowing other students to copy your work or otherwise sharing completed assignments in person or online (during the semester or in the future), discussing or sharing quiz questions or answers with other students, giving other students the password for locked quizzes, and plagiarism, including insufficient paraphrasing.

All materials for this course, including but not limited to lectures, quizzes, and worksheets, are the intellectual property of the professor, TAs, or textbook publisher, and are provided solely for the personal use of the currently enrolled students. These materials may not be distributed to other students or online repositories (e.g. Chegg, CourseHero) without express written permission, even after the conclusion of the course at the end of the semester. Doing so will be considered a violation of the UF Honor Code.

If you have knowledge of any instances of academic dishonesty in this class, please notify the instructor or contact the Student Honor Court (392-1631) or Cheating Hotline (392-6999). For additional information on Academic Honesty, please refer to the University of Florida [Academic Honesty Guidelines](#).

Use of GroupMe, Discord, and similar messaging applications facilitate communication and can be an important part of creating community in a course and can be valuable for studying and group projects. However, such groups typically exclude instructional staff and present great temptation for unauthorized academic dishonesty as described above. In this course, the use of GroupMe, etc. to share answers, screenshots of quizzes, “comparing” work, etc. is not authorized with the exception that the discussion of material related to lecture and lab for the purposes of studying is permitted, because it replaces or enhances classroom discussion that is encouraged among students. Simply posting answers (or asking others to “check” your answers, etc.) violates the intent of any exercise and turns it into a waste of time. ANY discussion of quiz or exam questions or answers is not allowed in any online forum once the first student has begun a quiz (including lab quizzes), including after the exam is concluded. All students participating in such forums will be presumed to have benefitted from material posted to a GroupMe and will be subject to penalties outlined above.

Class recordings

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

Students are encouraged to employ critical thinking and to rely on data and verifiable sources to interrogate all assigned readings and subject matter in this course as a way of determining whether they agree with their classmates and/or their instructor. No lesson is intended to espouse, promote, advance, inculcate, or compel a particular feeling, perception, viewpoint or belief.

Accommodations for students with disabilities

Students who will require a classroom accommodation for a disability must contact the Dean of Students Office of Disability Resources, in Peabody 202 (phone: 352-392-1261). Please see the University of Florida Disability Resources website for more information at: <http://www.dso.ufl.edu/drc/>. Note that the student should provide documentation of a requirement for accommodation by the second week of classes. No accommodations are available to students who lack this documentation. It is the policy of the University of Florida that the student, not the instructor, is responsible for arranging accommodations when needed. Once notification is complete, the Dean of Students Office of Disability Resources will work with the instructor to accommodate the student.

Course Evaluations

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at gatorevals.aa.ufl.edu/public-results/.

Resources Available to Students

College can be a very stressful time in a person's life. Resources are available on campus to help students meet academic goals and solve personal problems, which may interfere with their academic performance. If you find that you are having difficulty emotionally or academically, there is substantial support available. See "A Self Help Guide for Students" or contact one of the following services:

Health and Wellness

-U Matter, We Care: If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit [U Matter, We Care website](#) to refer or report a concern and a team member will reach out to the student in distress.

-Counseling and Wellness Center: Visit the [Counseling and Wellness Center website](#) or call 352-392-1575 for information on crisis services as well as non-crisis services.

-Student Health Care Center: Call 352-392-1161 for 24/7 information to help you find the care you need, or visit the [Student Health Care Center website](#).

-University Police Department: Visit [UF Police Department website](#) or call 352-392-1111 (or 9-1-1 for emergencies).

-UF Health Shands Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; [Visit the UF Health Emergency Room and Trauma Center website](#).

-GatorWell Health Promotion Services: For prevention services focused on optimal wellbeing, including Wellness Coaching for Academic Success, [visit the GatorWell website](#) or call 352-273-4450.

Academic Resources

-E-learning technical support: Contact the [UF Computing Help Desk](#) at 352-392-4357 or via e-mail at helpdesk@ufl.edu.

-[Career Connections Center](#): Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services.

-[Library Support](#): Various ways to receive assistance with respect to using the libraries or finding resources.

-[Teaching Center](#): Broward Hall, 352-392-2010 or to make an appointment 352-392-6420. General study skills and tutoring.

-[Writing Studio](#): 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers.

-Student Complaints On-Campus: [Visit the Student Honor Code and Student Conduct Code webpage for more information](#).

-On-Line Students Complaints: [View the Distance Learning Student Complaint Process](#).

Procedure for Conflict Resolution

Any classroom issues, disagreements or grade disputes should be discussed first between the instructor and the student. If the problem cannot be resolved, please contact the Undergraduate Coordinator or the Department Chair. Be prepared to provide documentation of the problem, as well as all graded materials for the semester. Issues that cannot be resolved departmentally will be referred to the University Ombuds Office (<http://www.ombuds.ufl.edu>; 392-1308) or the Dean of Students Office (<http://www.dso.ufl.edu>; 392-1261). For further information refer to https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf (for residential classes) or <http://www.distance.ufl.edu/student-complaintprocess> (for online classes).

Date	Lecture Topic (subject to change)	Lab (Thu or Fri)
Tue Jan 10	Introduction	
Thu Jan 12	Trees and plant classification	No Lab
Tue Jan 17	Plant structure	
Thu Jan 19	Agriculture & Domestication	1 - Intro to plants
Tue Jan 24	Essential oils	
Thu Jan 26	Spice Trade to Age of Discovery	2 - Essential oils
Tue Jan 31	Pigments and Dyes	
Thu Feb 02	Fiber	3 - Dyes
Tue Feb 07	Raw materials, plantations	
Thu Feb 09	Latex & rubber	4 - Fibers
Tue Feb 14	Gums and Resins	
Thu Feb 16	Photosynthesis, Carbon, and Climate	5 - Exudates
Tue Feb 21	Exam 1 (through Gums & Resins)	
Thu Feb 23	Sugar & Alcohol	Lab Practical 1
Tue Feb 28	Deforestation	
Thu Mar 02	Wood	6 - Wood
Tue Mar 07	Paper	
Thu Mar 09	Medicinal plants	7 - Paper
Tue Mar 14	NO CLASS – SPRING BREAK	
Thu Mar 16	NO CLASS – SPRING BREAK	No Lab
Tue Mar 21	Toxic plants	
Thu Mar 23	Psychoactive plants	8 - Toxic and medicinal plants
Tue Mar 28	Stimulating beverages	
Thu Mar 30	Lipids	9- Fats, Oils, and Waxes
Tue Apr 04	Protein: Beans & Bread	
Thu Apr 06	GMOs	10 - Soap
Tue Apr 11	Plant Biodiversity	
Thu Apr 13	Plant experts symposium Part 1	Lab practical 2
Tue Apr 18	Plant experts symposium Part 2	
Thu Apr 20	Exam 2 (Photosynthesis Onward)	No Lab
Tue Apr 25	No Class	