

# Plants in Human Affairs - Fall 2020

## BOT2800C (Hybrid modality)

### I. 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. 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. We hope that you not only come away from this course with a better understanding of and appreciation for the importance of plants in our lives, but also have fun in the process.

### II. 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 soap, tie-dyed cloth with natural dyes, rope, paper, rubber balls, and more!

### III. Instructor information

**Lecture (online):** C. Lorena Endara, Ph.D., [clendara@ufl.edu](mailto:clendara@ufl.edu) / [lorenaendara.net](http://lorenaendara.net)  
(Zoom hours T - R 5:10 - 6:00 pm or by appointment)

### Lab meetings (face to face):

| Section (Class) | Day | Time            | Periods | Rolfs Hall Room # | Instructor        | Contact  |
|-----------------|-----|-----------------|---------|-------------------|-------------------|--|
| 021H (11680)    | R   | 9:35 – 11:30 am | 3-4     | 114               | Lauren Whitehurst | <a href="mailto:laurenwhitehurst@ufl.edu">laurenwhitehurst@ufl.edu</a> |
| 022H (28062)    | R   | 9:35 – 11:30 am | 3-4     | 105               | Ashley Hamersma   | <a href="mailto:ahamersma@ufl.edu">ahamersma@ufl.edu</a>               |
| 0615 (11682)    | R   | 12:50 – 2:45 pm | 6-7     | 114               | Lauren Whitehurst | <a href="mailto:laurenwhitehurst@ufl.edu">laurenwhitehurst@ufl.edu</a> |
| 0616 (11683)    | R   | 6:15 – 8:10 pm  | 11-E1   | 114               | Kasey Pham        | <a href="mailto:kasey.pham@ufl.edu">kasey.pham@ufl.edu</a>             |
| 0625 (28070)    | R   | 12:50 – 2:45 pm | 6-7     | 105               | Izu Ezukanma      | <a href="mailto:iezukanma@ufl.edu">iezukanma@ufl.edu</a>               |
| 0626 (28071)    | R   | 6:15 – 8:10 pm  | 11-E1   | 105               | Ashley Hamersma   | <a href="mailto:ahamersma@ufl.edu">ahamersma@ufl.edu</a>               |
| 04GE (11681)    | F   | 12:50 – 2:45 pm | 6-7     | 114               | Kasey Pham        | <a href="mailto:kasey.pham@ufl.edu">kasey.pham@ufl.edu</a>             |
| 04HE (28068)    | F   | 12:50 – 2:45 pm | 6-7     | 105               | Izu Ezukanma      | <a href="mailto:iezukanma@ufl.edu">iezukanma@ufl.edu</a>               |

## IV. Course Outline

| <b>Date</b> | <b>Lecture Topic<br/>(Online- subject to change)</b>              | <b>Lab (face to face)<br/>(subject to change)</b>                   |
|-------------|---|---|
| Tue 1-Sep   | 1. Introduction   |   |
| Thu 3-Sep   | 2. Plant classification and evolutionary trees                    | <b>No lab</b>   |
| Tue 8-Sep   | 3. Plant structure  |   |
| Thu 10-Sep  | 4. Agriculture and domestication                                  | Lab 1. Intro to plants  |
| Tue 15-Sep  | 5. Herbs, spices and perfumes changed civilization                |   |
| Thu 17-Sep  | 6. Essential oils   | Lab 2. Essential oils   |
| Tue 22-Sep  | 7. Pigments and Dyes<br><b>*Quiz 1 (classes 1-6)</b>              |   |
| Thu 24-Sep  | 8. Raw materials and plantations in the 1900's                    | Lab 3. Dyes   |
| Tue 29-Sep  | 9. Biodiversity and deforestation                                 |   |
| Thu 1-Oct   | 10. Lipids I: Fats, oils and waxes                                | Lab 4. Vegetables, fats, oils and waxes                             |
| Tue 6-Oct   | 11. Lipids II: Soap and by products                               |   |
| Thu 8-Oct   | 12. Exudates I: Latex and rubber                                  | Lab 5. Soap making<br><b>*Lab quiz 1 (Labs 1-5)</b>                 |
| Tue 13-Oct  | 13. Exudates II: Gums and resins<br><b>*Quiz 2 (classes 7-12)</b> |   |
| Thu 15-Oct  | 14. Plants, industry and technology I                             | Lab 6. Plant exudates   |
| Tue 20-Oct  | 15. Fibers  |   |
| Thu 22-Oct  | 16. Wood  | Lab 7. Fibers   |
| Tue 27-Oct  | 17. Paper   |   |
| Thu 29-Oct  | 18. Plants, industry and technology II                            | Lab 8. Wood   |
| Tue 3-Nov   | 19. Toxic plants  |   |
| Thu 5-Nov   | 20. Psychoactive plants   | Lab 9. Paper  |
| Tue 10-Nov  | 21. Medicinal plants<br><b>*Quiz 3 (lectures 13-20)</b>           |   |
| Thu 12-Nov  | 22. Stimulating beverages   | Lab 10. Toxic and medicinal plants<br><b>*Lab quiz 2 (Lab 6-10)</b> |
| Tue 17-Nov  | 23. Sugar, fermentation and alcohol                               |   |
| Thu 19-Nov  | 24. Food I  |   |
| Tue 24-Nov  | 25. Food II   |   |
| Thu 26-Nov  | <b>Thanksgiving (Food lab assignment)</b>                         | <b>No lab</b>   |
| Tue 1-Dec   | 26. Online expert symposium                                       |   |
| Thu 3-Dec   | 27. Online expert symposium                                       | Online expert symposium   |
| Tue 8-Dec   | 28. Plants and our future<br><b>*Quiz 4 (lectures 21-28)</b>      |   |
| Thu 10-Dec  | <b>Reading days</b>   |   |

## V. Course information

The lectures will be conducted online through the course CANVAS website. This are pre-recorded audio-visual videos. You can directly access the Canvas login at <https://elearning.ufl.edu/>. Labs are one time per week snf face to face sessions. Please see the 'Attendance' section for more information.

### Materials

**Required:** Lab manual for BOT2800C This is available for purchase at Target Copy in Gainesville.

### Course communication

**CANVAS:** BOT 2800C will use the Canvas classroom management system to distribute and store the course syllabus along with any syllabus updates, providing access to course materials, administrating quizzes, scheduling Zoom meetings, maintaining student grades, and regular communication with students. These practices will help ensure that all the class participants who may be geographically dispersed and taking courses asynchronously have access to course content. Canvas also will facilitate the process of making up of course work missed because of illness, periods of self-isolation, and other excused absences. Find additional information on using CANVAS (<https://elearning.ufl.edu/>).

All e-mail correspondence to course instructors must originate from your ufl.edu account, have your full name in the body of the e-mail, and contain your course number in the subject line. E-mails not meeting these requirements may not be recognized by our e-mail filters, and thus may not be answered. For the timeliest responses, use the Inbox Tool in Canvas.

**ZOOM:** Zoom is an easy to use video conferencing service available to all UF students, faculty, and staff that allows for meetings of up to 100 participants. You can find resources and help using Zoom at <https://ufl.zoom.us>.

### Course technology requirements

It is the responsibility of the student to maintain a functioning computing system and internet connection that can meet the minimum technical requirements of the course. 10

Computing/internet connectivity issues will NOT be acceptable excuses for missed deadlines unless they are brought to the attention of the instructor at least 48 hours prior to the deadline and accompanied by the ticket number from technical support.

For issues with technical difficulties for Canvas, please contact the UF Help Desk at <http://helpdesk.ufl.edu> or (352) 392-HELP (4357). Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from the Help Desk when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request a make-up.

## VI. Course policies

UF Online students are bound by the same UF policies as on-campus students. Please read through this section in full.

## Behavioral expectations during COVID-19 (Important for your lab sessions)

In response to COVID-19, the following policies and requirements are in place to maintain your learning environment and to enhance the safety of our in-classroom interactions

(<https://ufsa.ufl.edu/expectations/>):

1. Face coverings are to be worn in all classrooms and buildings. You are required to wear approved face coverings (please no bandanas, neck gaiters and masks with valves) at all times during class and within buildings (e.g. bathrooms, hallways, etc.). Face coverings are to be worn in outside areas when physical distancing of 6 feet or more is not feasible. Following and enforcing these policies and requirements are all of our responsibility.
2. Comply immediately with a request from a university official (i.e. instructors and lab managers) addressing health, safety or welfare such as a request to wear a face covering, maintain physical distancing or comply with other applicable law, policy or order while on university property, inside a university facility or attending a university sponsored event.
3. In the lab: This course has been assigned a physical classroom with enough capacity to maintain physical distancing requirements (6 feet between individuals). Please utilize designated seats and maintain appropriate spacing between students. Please do not move desks or stations.
4. Sanitizing supplies are available in the classroom if you wish to wipe down your desks prior to sitting down and at the end of the class.
5. Follow your instructor's guidance on how to enter and exit the classroom, for this reason is very important to arrive on time to class. Practice physical distancing to the extent possible when entering and exiting the classroom.
6. Failure to comply with policy is considered a disruption and threat to public health and will lead to a report to the Office of Student Conduct and Conflict Resolution.

## 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."*

If you witness 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 at: <https://catalog.ufl.edu/ugrad/current/advising/info/student-honor-code.aspx#honesty>.

Remember, plagiarism is also a violation of the Academic Honesty Policy. Please see above for a source on how to avoid plagiarism.

## Important – Plagiarism

Plagiarism is a serious violation of the Student Honor Code. It includes:

- Submitting all or part of someone else's work as if it is your own
- "Borrowing" without crediting the source
- Submitting duplicate assignments
- Collaborating or receiving substantive help in writing your assignment unless I require such collaboration as part of the work

- Failing to cite sources, or citing them improperly
- Consequences of plagiarism in BOT2800C –
- Failing grade on assignment AND
  - Course grade penalty of one letter grade AND
  - Report to the Office of the Dean of Students.

Please review plagiarism and how to avoid it:

<http://web.uflib.ufl.edu/msl/07b/studentplagiarism.html>

## VII. Grading

A total of 600 points can be earned in this class distributed in the following way (Lecture 400 points, Lab 200 points)

| Lecture quizzes and exercises    | Points  | Covers         | % of your grade |
|----------------------------------|---|----------------|-----------------|
| Quiz 1                           | 50 points   | Lectures 1-6   | ~8.33%          |
| Quiz 2                           | 50 points   | Lectures 7-12  | ~8.33%          |
| Quiz 3                           | 50 points   | Lectures 13-20 | ~8.33%          |
| Quiz 4                           | 50 points   | Lectures 21-28 | ~8.33%          |
| Plant expert symposium           | 150 points<br>Topic and brief outline: 20 points<br>Final outline: 20 points<br>Final video: 100 points<br>Turned it on time: 10 points |                | 25%             |
| Thanksgiving food lab assignment | 50 points   |                | ~8.33%          |
| <b>Laboratory</b>                |   |                |                 |
| Lab quiz 1                       | 100 points  | Labs 1-5       | ~16.67          |
| Lab quiz 2                       | 100 points  | Labs 6-10      | ~16.67          |

**Grade curves and extra credit:** There is no curve for assignments, quizzes 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.

### Grading Scale

| 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            |

## Laboratory

Your laboratory grade will be based upon two exams. Please be aware that this lab is designed for you to collect important information in class exercises, and pre- and post-lab assignments. This information will be in your lab quizzes. In addition to your syllabus, please see your lab instructor for policies, expectations and the schedule of assignments.

## Attendance

This is a hybrid class. Lectures will be on-line, and we will have face-to-face lab instructional sessions to accomplish the student learning objectives of this course.

Students are expected to check the Canvas course regularly for announcements, assignment due dates, and other course-related information. Students are to complete all assigned work (quizzes, activities, and discussions) by the due dates.

All lab sessions are required, and attendance is essential for success in this course. 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 three lab sections. Students who arrive late to lab miss important introductory material and directions. Being on time is a requirement and late arrivals may be denied access at the discretion of the TA, this is particularly important due to the circulation in the class during the COVID pandemic.

If you are **experiencing COVID-19 symptoms** ([Click here for guidance from the CDC on symptoms of coronavirus](#)), please use the UF Health screening system and follow the instructions on whether you are able to attend class. [Click here for UF Health guidance](#) on what to do if you have been exposed to or are experiencing COVID-19 symptoms. Course materials will be provided to you with an excused absence, and you will be given a reasonable amount of time to make up work. Find more information in the [university attendance policies](#).

## Make up policy

Make-up lecture quizzes, lab practicals, and online lab assignments will only be offered in extreme 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.

## VIII. UF counseling services

Many resources are available on campus if you need help in different aspects of your health, wellness and career goals:

- U Matter, We Care: If you or someone you know is in distress, please contact <mailto:umatter@ufl.edu> , 352-392-1575, or visit [umatter.ufl.edu](http://umatter.ufl.edu) to refer or report a concern and a team member will reach out to the student in distress.
- Counseling and Wellness Center: Visit [counseling.ufl.edu](http://counseling.ufl.edu) 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 [www.shcc.ufl.edu](http://www.shcc.ufl.edu) .
- University Police Department: Visit [police.ufl.edu](http://police.ufl.edu) or call 352-392-1111 (or 9-1-1 for emergencies).
- UF Health Shands Emergency Room/Trauma Center: For immediate medical care in Gainesville, call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; [www.ufhealth.org/emergency-room-trauma-center](http://www.ufhealth.org/emergency-room-trauma-center) .

- Career Connections Center: 352-392-1601. Career assistance and counseling services [www.career.ufl.edu](http://www.career.ufl.edu) .
- Library Support: Various ways to receive assistance with respect to using the libraries or finding resources: [www.cms.uflib.ufl.edu/ask](http://www.cms.uflib.ufl.edu/ask)
- Teaching Center: 352-392-2010 General study skills and tutoring: [teachingcenter.ufl.edu/](http://teachingcenter.ufl.edu/)
- Writing Studio: 352-846-1138. Help brainstorming, formatting, and writing papers: [www.writing.ufl.edu/writing-studio/](http://www.writing.ufl.edu/writing-studio/)

## IX. 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 **as soon as possible**. 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.