

PLANTS AND PEOPLE

11:776:170:01 (3 credits)

11:776:170:02 (3 credits)

FALL 2020

Asynchronous Instruction with Common Office Hours Plus Individual Hours as Needed

CONTACT INFORMATION

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Office Hours: See the syllabus and by arrangement. Please email or text to set up a time to meet.
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COURSE UNDER COVID AND ONLINE

Thank you for signing up for this class. I have elected to do this as an asynchronous class, that way you can work at your own pace and cover the material that is in the PowerPoint presentation and in the TopHat electronic textbook. The class is divided up into 15 sessions to represent the 15 weeks of the semester. There will be five short one-page assessments that will be an important part of your grade. There will be a short paper with a presentation required as a final project, 10-page paper with references and a short (5 or 6 slides) a few PowerPoint slides to describe your paper. There will be a few short assignments that are one page, e.g. keeping a food diary for two days and a shopping exercise. There is a TopHat electronic textbook. There are virtual office hours every other week (and by appointment if needed). **You are required to attend two of the office hours.** So, based on what would have been our class time, I will have an open Zoom invitation what you can log on and we will meet briefly, the open times will be for two hours every other week. You need to log in, make sure we know you are there, and engage in some of the discussion, give an update on how you are doing with the PowerPoints, etc.

COURSE DESCRIPTION

This is a survey course that introduces the student to the central dependency of all animals including man upon plants. Students will learn and understand the role of plants in contributing to all aspects of human existence and well-being. Students will learn how plants provide; the air we breathe, food, shelter, medicines, clothing, fuel, and countless other necessities for mankind's survival. This course is appropriate for students who are curious about the biology, food production and role of plants in relation to human history and culture. Students will learn which plants are produced and how they are used. Major agronomic and horticultural crops, such as corn, wheat, rice, coffee, chocolate, etc. will be covered.

CLASS WEBSITE

We will have a CANVAS SITE for our class. Lectures, supporting documentation, and assignments will be posted
SECTION 01 <https://rutgers.instructure.com/courses/71243>
SECTION 02 <https://rutgers.instructure.com/courses/71244>

RESOURCES AND MATERIALS

Top Hat Textbook. We will be using the Top Hat www.tophat.com we will be using the custom-built interactive textbook Plants and People within Top Hat for this class. You can visit the Top Hat Overview (<https://success.tophat.com/s/article/Student-Top-Hat-Overview-and-Getting-Started-Guide>) within the Top Hat Success Center which outlines how you will register for a Top Hat account, as well as providing a brief overview to get you up and running on the system. An email invitation will be sent to you by email to your official Rutgers email. The book is listed as: **Plants & People (Mark Robson) ISBN: 978-1-77330-259-1**

Top Hat will require a paid subscription, and a full breakdown of all subscription options available can be found here: www.tophat.com/pricing. After you pick your subscription, your textbook will be applied at checkout.

Should you require assistance with Top Hat at any time, due to the fact that they require specific user information to troubleshoot these issues, please contact their Support Team directly by way of email (support@tophat.com), the in app support button, or by calling 1-888-663-5491.

If you find a broken link or a mistake or something needs a correction in TopHat please reach out to Sarina Langer who serving as our TopHat editor and helping me with the e-textbook sbl89@rutgers.edu

PREREQUISITES

None

LEARNING GOALS

By the end of this course, the student will be able to:

1. Students will learn the contributions that plants and plant products make to human well-being
2. Students will be able to critically examine the role that plants play in human well-being from the perspective of basic and applied science, as well as psychological, and ceremonial perspectives.
3. Students will have analyzed the major world plant production industries and understand the world issues facing modern and not so modern plant agriculture.

ASSIGNMENTS/RESPONSIBILITIES & ASSESSMENT

Grading: Grades will be determined as described below:

Written assessments four assessments 10 points each	40 points
TopHat assignments	25 points
Short assignments	10 points
Paper/Project	25 points
Total	100 points

Grade scale:

92-100	A
83-81	B
75-82	C
70-74	D

Learning goals assessment: Specific questions on five assessments will be used to assess student knowledge of all course learning goals. The paper/project will be the way that students demonstrate their understanding of plant production, plant evolution and contributions to society. The paper and the attached presentation will be used to assess the student's ability to synthesize information from this class.

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LECTURE NOTES

The PowerPoint lectures are on the CANVAS SITE class website for each of the 15 sessions as well as the assignments.

COURSE SCHEDULE

Contained in the syllabus, see later in this document and more information on the CANVAS SITE.

ACCOMODATIONS FOR STUDENTS WITH DISABILITIES

Please follow the procedures outlined at <https://ods.rutgers.edu/students/registration-form>. Full policies and procedures are at <https://ods.rutgers.edu/>

ACADEMIC INTEGRITY

The university's policy on Academic Integrity is available at <http://academicintegrity.rutgers.edu/academic-integrity-policy/>
The principles of academic integrity require that a student:

- Properly acknowledge and cite all use of the ideas, results, or words of others.
- Properly acknowledge all contributors to a given piece of work.
- Make sure that all work submitted as his or her own in a course or other academic activity is produced without the aid of impermissible materials or impermissible collaboration.

- Obtain all data or results by ethical means and report them accurately without suppressing any results inconsistent with his or her interpretation or conclusions.
- Treat all other students in an ethical manner, respecting their integrity and right to pursue their educational goals without interference. This requires that a student neither facilitate academic dishonesty by others nor obstruct their academic progress.
- Uphold the canons of the ethical or professional code of the profession for which he or she is preparing.

Adherence to these principles is necessary in order to ensure that:

- Everyone is given proper credit for his or her ideas, words, results, and other scholarly accomplishments.
- All student work is fairly evaluated, and no student has an inappropriate advantage over others.
- The academic and ethical development of all students is fostered.
- The reputation of the University for integrity in its teaching, research, and scholarship is maintained and enhanced.

Failure to uphold these principles of academic integrity threatens both the reputation of the University and the value of the degrees awarded to its students. Every member of the University community therefore bears a responsibility for ensuring that the highest standards of academic integrity are upheld.

STUDENT WELLNESS SERVICES

Just In Case Web App <http://codu.co/cee05e>

Access helpful mental health information and resources for yourself or a friend in a mental health crisis on your smartphone or tablet and easily contact CAPS or RUPD.

Counseling, ADAP & Psychiatric Services (CAPS)

(848) 932-7884 / 17 Senior Street, New Brunswick, NJ 08901 / www.rhscaps.rutgers.edu/

CAPS is a University mental health support service that includes counseling, alcohol and other drug assistance, and psychiatric services staffed by a team of professional within Rutgers Health services to support students' efforts to succeed at Rutgers University. CAPS offers a variety of services that include: individual therapy, group therapy and workshops, crisis intervention, referral to specialists in the community and consultation and collaboration with campus partners.

Violence Prevention & Victim Assistance (VPVA)

(848) 932-1181 / 3 Bartlett Street, New Brunswick, NJ 08901 / www.vpva.rutgers.edu/

The Office for Violence Prevention and Victim Assistance provides confidential crisis intervention, counseling, and advocacy for victims of sexual and relationship violence and stalking to students, staff, and faculty. To reach staff during office hours when the university is open or to reach an advocate after hours, call 848-932-1181.

Disability Services

(848) 445-6800 / Lucy Stone Hall, Suite A145, Livingston Campus, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854 / <https://ods.rutgers.edu/>

Rutgers University welcomes students with disabilities into all the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation: <https://ods.rutgers.edu/students/documentation-guidelines>. If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form on the ODS web site at: <https://ods.rutgers.edu/students/registration-form>.

Scarlet Listeners (732) 247-5555 / <http://www.scarletlisteners.com/> Free and confidential peer

OK, HERE IS THE PLAN!

SESSION ONE - POWERPOINT #1 **Start TopHat: do Chapter 1 and 2**

Introduction, course content, format for the class, your requirements for success. Plants and people and how they fit together. Global agriculture and world food issues – The Green Revolution. The Land Grant System and Agricultural Research.

Intro and Getting to Know You! **Let's look at some plants. Take a tour of some of the gardens that are listed on this link**
<https://www.gardensillustrated.com/gardens/gardens-to-visit/virtual-garden-tours-best/>

SHORT ASSIGNMENT: Write two or three paragraphs about what you saw, take at least three tours, some are simply watching a video, others are slide shows. List the three gardens you “visited” and then compare them. What was interesting about the gardens that you visited?

SESSION TWO - POWERPOINT #2

Plant cells, tissues, and organs.

The anatomy of plants: shoots, roots, and flowers. Discussion on what is an annual and a perennial.

What People Eat and What People Spend

SESSION THREE- POWERPOINT #3 **TopHat: do Chapter 3 and 4**

Metabolism, translocation, and nutrition. Photosynthesis and respiration.

SESSION FOUR- POWERPOINT #4

The distribution of plants.

Genes, environment, and plant development. Sexual and asexual reproduction.

SHORT ASSIGNMENT: What did you eat? Pick two days and write down what you eat, types of food, the amount, and the calories. There is an example under resources on the Sakai site.

ASSESSMENT #1 **The assessment will be on CANVAS, it is open book, you have one week to complete.**
Assigned Sep 23 and Due Sep 30

SESSION FIVE - POWERPOINT #5

Controlled environments for plants.

What goes on in a greenhouse

SHORT ASSIGNMENT: Visit a Greenhouse <https://www.youtube.com/watch?v=SR5cArfDZiE>

Please visit the greenhouse in the video. Interesting this looks very similar to our Rutgers greenhouse on Nichol Avenue that we would be visiting if we were under normal classroom conditions. Write two or three paragraphs about what you saw.

SESSION SIX- POWERPOINT #6 **TopHat: do Chapter 5 and 6**

Climate change and plants. Agriculture and the biosphere.

SESSION SEVEN- POWERPOINT #7

Global Agriculture Issues

Food Plants – Part One

ASSESSMENT #2 **The assessment will be on CANVAS, it is open book, you have one week to complete.**
Assigned Oct 14 and Due Oct 21

SESSION EIGHT- POWERPOINT #8 **TopHat: do Chapter 7 and 8**

Food Plants - Part Two

SHORT ASSIGNMENT: Grocery shopping. Please see the assignment on Shopping in the resources section. Look at the Pollan and Moss video. <https://www.youtube.com/watch?v=ATAZrRfebiw> after you watch that CSPI video on the Anatomy of a supermarket <https://www.youtube.com/watch?v=eR2WhEITk6Q>

SESSION NINE- POWERPOINT #9

Spices and Herbs

SESSION TEN- POWERPOINT #10

Plants for Medicinal Purpose

ASSESSMENT #3 The assessment will be on CANVAS, it is open book, you have one week to complete.
Assigned Nov 4 and Due Nov 11

SESSION ELEVEN - POWERPOINT #11 **TopHat: do Chapter 9 and 10**

Plants for Food Fiber and Chemicals.

SESSION TWELVE - POWERPOINT #12

Ornamental plants, landscape plants and turf

SESSION THIRTEEN- POWERPOINT #13 **TopHat: do Chapter 11 and 12**

Plant Breeding and Improvement

SHORT ASSIGNMENT Please watch <https://www.cropscience.bayer.com/innovations/seeds-traits/plant-breeding>
There is a YouTube introduction and then there are eight short subtopics. Play the video, about 2 minutes and then read the eight short vignettes. Write three or four paragraphs (about one page single sided) on your opinion of GMOs, and do you see them as a problem solver or as creating a new set of problems?

ASSESSMENT #4 The assessment will be on CANVAS, it is open book, you have one week to complete.
Assigned Nov 25 and Due Dec 2

SESSION FOURTEEN - POWERPOINT #14

KING CORN VIDEO - Large scale monoculture – corporate farming

You can use one of these links to see the video or you can view it for free on Amazon Prime if you have access to this service.
https://tubitv.com/movies/405159/king_corn or <https://www.youtube.com/watch?v=TWv29KRsqXU>

SESSION FIFTEEN - POWERPOINT #15

The chemistry of grapes and wine

PAPER AND PRESENTATION ASSIGNMENT See CANVAS SITE due and rubric for grading.

- 1) Select a commodity (crop), these are examples, you can choose others you do not have to pick these.
 - a. Coffee
 - b. Cotton
 - c. Corn
 - d. Chocolate
 - e. Wine grapes
 - f. Wheat
 - g. Soy
 - h. Peanuts
 - i. Potatoes
 - j. Bananas
 - k. Rice
- 2) Then look at the following questions:
 - a. History and origin of this crop?
 - b. Where is it grown?
 - c. Why do we pay as much or as little as we do for this crop?
 - d. Is this a sustainable crop (you need to define sustainable for this purpose)?
 - e. What are the sustainable practices used (is they are used for this crop)?
- 3) What are the pests: insects, weeds, and diseases for this crop?
- 4) What strategies can/do famers take to control pests? GMO, IPM,
- 5) How is this crop marketed and transported?
- 6) Is it refined or mainly used as it comes out of the field?
- 7) Is this a crop that is usually sold as organic, non-organic, both?
- 8) Is this a crop that is a local crop or non-local (exported globally)?
- 9) Go to the store(s) and look at the prices, do the prices reflect the production costs?

WHAT YOU WILL TURN IN:

A paper, 10 pages with references, double spaced, normal font 10 or 12 and normal margins. Additionally, a short PowerPoint of five to six slides describing some of the important features of the crop that you selected for your paper. You do not need to cover all the items in points 2 through 9 above, you may want to pick three or four to how it is grown, or where, how it is marketed or processed.

GRADING AND OFFICE HOURS

Virtual Office Hours: You are required to attend at least two of the Virtual Office hours via ZOOM. You only need to check in and stay for a short time unless you have a specific problem or concern. If these times are not convenient then we can arrange a one on one time via FaceTime or ZOOM. The times for the office hours are in the time slots that we would have had the class if we were having in person classes.

Virtual office hours for Section 01

SEP 3	6.00 PM to 7.30 PM
SEP 17	6.00 PM to 7.30 PM
OCT 1	6.00 PM to 7.30 PM
OCT 15	6.00 PM to 7.30 PM
OCT 29	6.00 PM to 7.30 PM
NOV 12	6.00 PM to 7.30 PM
NOV 26	6.00 PM to 7.30 PM
DEC 10	6.00 PM to 7.30 PM

Virtual office hours for Section 02

SEP 2	6.00 PM to 7.30 PM
SEP 16	6.00 PM to 7.30 PM
SEP 30	6.00 PM to 7.30 PM
OCT 14	6.00 PM to 7.30 PM
OCT 28	6.00 PM to 7.30 PM
NOV 11	6.00 PM to 7.30 PM
NOV 25	6.00 PM to 7.30 PM
DEC 9	6.00 PM to 7.30 PM

ASSESSMENTS

Four Written assessments 10 points each for 40 points

These will be posted on the Canvas site and you will be sent a reminder, but it is your responsibility to do the work on time.

Assessment One	Assigned Sep 23	Due	Sep 30
Assessment Two	Assigned Oct 14	Due	Oct 21
Assessment Three	Assigned Nov 4	Due	Nov 11
Assessment one	Assigned Nov 25	Due	Dec 2