

Plants and People

11:776:170 (3 credits)

Fall/Spring/Summer Semester (yearly)

CONTACT INFORMATION

Instructor: Dr. Mark Gregory Robson
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Office Hours: by arrangement

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 put to use. Major agronomic and horticultural crops, such as corn, wheat, rice, coffee, chocolate, fruit, etc. will be covered.

COURSE WEBSITE, RESOURCES AND MATERIALS

- Top Hat response system and textbook for Plants and People
 - Top Hat (www.tophat.com) response system: students will submit answers to questions in class using Apple or Android smartphones and tablets, laptops, or through text messages. This requires registering for a paid subscription; visit <https://success.tophat.com/s/article/Student-Top-Hat-Overview-and-Getting-Started-Guide> for registration and overview.
 - Custom-built interactive textbook: *Plants & People*, by Mark Robson. ISBN:978-1-77330-259-1
- Course website: Canvas
- Supplemental textbooks as a reference (not required):
Plants and People: Origin and Development of Human-Plant Science Relationships, by Christopher Cumo
Plants and People, by James Mauseth

CURRICULUM LEARNING GOALS



This course satisfies SAS Core Curriculum Goals: Natural Sciences (NS), e+f:

- e. Understand and apply basic principles and concepts in the physical or biological sciences
- f. Explain and be able to assess the relationship among assumptions, method, evidence, arguments, and theory in scientific analysis

PREREQUISITES

None

COURSE LEARNING GOALS

(Link to Plant Biology Undergraduate Program Goals: <http://plantbiology.rutgers.edu/undergrad/plantbiology/>)

By the end of this course, the student will be able to (all address program goals 1 and 2):

1. Recognize the contributions that plants and plant products make to human well-being
2. Critically examine the role that plants lay in human well-being from the perspective of basic and applied science, as well as psychological, and ceremonial perspectives
3. Analyze the major world plant production industries and understand the world issues facing modern and not so modern plant agriculture

ASSIGNMENTS/RESPONSIBILITIES AND ASSESSMENT

Grading: Grades will be determined based on five (5) quizzes, attendance, participation, one written assignment (term paper) and one group presentation.

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| • Quizzes (4, 10 points each) | 40 points |
| • Attendance and participation | 20 points |
| • Top Hat assignments | 20 points |
| • Term paper | 20 points |
| • Group project and presentation | 20 points |
| • Total | 100 points |
| • Scale: 92-100 = A; 83-91 = B; 75-82 = C; 70-74 = D | |

Learning goals assessment: Specific questions on quizzes will be used to assess student knowledge of all course learning goals, and in the term paper, students will demonstrate understanding of plant production, plant evolution and contributions to society (course learning goal 2). A group presentation will be used to assess student ability to synthesize information from this class (course learning goals 2 and 3). The percentage score on these assessments will determine the level of mastery: >90% outstanding; 80-89% good; 70-79% satisfactory; <69% unsatisfactory.

PARTICIPATION GRADE AND ABSENCE POLICY

Attendance is mandatory. A sign-in sheet will be provided at the rear of the classroom before and during class. Courtesy demands that students unable to attend may contact the instructor via e-mail prior to the missed class or may use the University absence reporting website (<https://sims.rutgers.edu/ssra/>) to indicate the date and reason for the absence. An e-mail is automatically sent to the instructor.

CLASS WEBSITE

We will have a Sakai site for our class. Lectures, supporting documentation, and assignments will be posted.

LECTURE NOTES

Outlines for lectures will be made available on the Sakai class website prior to lecture. Students are encouraged to bring these lecture notes to class.

GROUP ASSIGNMENT

Groups of six students select a commodity and research its history and origin, conventional and organic cropping, economics and production costs, marketing, transport, sustainability, pests and diseases including pest management, and export. A 15-minute PowerPoint presentation from each group will be used to assess student ability to synthesize information.

COURSE SCHEDULE (Fall sample)

Week	Lecture	Activity
1	Introduction to course	Walking tour of campus
	Global agriculture and world food issues – the Green Revolution	
2	No lecture	Tour of the Rutgers Greenhouse
3	Plant anatomy	Group projects
	What people eat and what people spend	
4	Metabolism, translocation, and nutrition	Beer tasting
	Photosynthesis, and respiration	
	Quiz 1	
5	Distribution of plants	
	Genes, environment, and plant development	
	Sexual and asexual reproduction	
6	Climate change and plants	Wine tasting
	Agriculture and the biosphere	
	Quiz 2	
7	Global agriculture issues	Cranberry juice and cranberry products
	Food plants – part one	
8	Food plants – part two	Chocolate tasting
	Spices and herbs	
9	Quiz 3	Group projects
10	No class	
11	Plants for medicinal purposes	Nut tasting
	Plants for food fiber and chemicals	
12	Thanksgiving recess	
13	Quiz 4	Group presentations
14	No lecture	Group presentations
15	No lecture	Group presentations
		New Jersey wine tasting

FINAL EXAM DATE AND TIME

There is no final exam for this course.

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/>

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 of 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 counseling and referral hotline, providing a comforting and supportive safe space.