

Plants for Human Wellness

Course Name: Plants for Human Wellness

Course Number: 11:776:120

Credits: 1

Semester: Fall 2025

Sections:

Sec 01: Monday, 12:10 pm – 1:30 pm

Sec 02: Monday, 2:00 pm – 3:20 pm

Location: FG-115 (Floriculture Greenhouse, Rm. 115)

Prerequisites: None

Contact Information:

Instructor: Dr. Harna Patel

Email: harna.patel@rutgers.edu

Office Hours: Virtual, by arrangement via Zoom.

Course Website, Materials and Resources:

- Canvas; For technical assistance with Canvas, please visit: <https://it.rutgers.edu/help-support>.
- All required course materials will be provided by the instructor.

Technology/Technical Requirements:

- A laptop or tablet is required for in-class activities and workshops.

Course Description

Plants have been used as food and medicine for hundreds of years. In this class, students will learn the history and applications of plants in various areas related to human health and wellness such as food, modern & traditional medicine, cosmetics, flavors, fragrances and more. In addition to gaining theoretical knowledge, students will apply the concepts learned, through hands-on activities in class to better understand the role of plants in human wellness. In addition, students will gain valuable technical and transferable skills relevant to the STEM field in the process. Potential careers in each of the areas of inquiry will be explored and by the end of the course, students will learn how to communicate their knowledge and skills in the context of career development, understand the job/internship search process and create a resume to pursue opportunities in their area of interest.

Douglass Bunting Cobb Course Learning Goals:

- a. Cohort building: **Synthesize** strong interpersonal connections by working together to complete assignments and workshop activities in class and gain oral/written communication and interpersonal skills in the process. (Program Learning goal 2,3).
- b. Empowerment: **Demonstrate** critical thinking and problem-solving skills by applying various Plant Science concepts in hands-on workshops to build confidence and gain technical and transferable research skills. (Program Learning goals 1, 3).
- c. Engagement: Students will be engaged in the class through inquiry-based learning process and hands on workshops designed to **apply** the scientific method and communicate their findings effectively through the lens of Plant Science (Program Learning goals 3, 4).

Plant Science Program Learning Goals:

1. Describe basic knowledge about plant structure and function, fundamentals of plant growth and physiology, and principles of horticulture [technical proficiency].
2. Summarize broadly the role of plants in agriculture, society and the environment [context].
3. Communicate, in written and oral forms, plant science knowledge to peers and others in society [communication].
4. Critically formulate hypotheses, interpret data, and apply basic principles and practices of plant science to solve fundamental and practical problems [critical thinking].

Course Schedule*

Date	Content Topic	Inquiry Topic	Assignments & Activities
09/08/25	Syllabus Overview & Floriculture Greenhouse Tour	Plant Diversity and Function	Reflection: Complete the Reflection on Canvas.
09/15/25	Introduction to the Scientific Method + Peer Review 101	The Scientific Method & its applications	<u>In Class Quiz:</u> Understanding the Scientific Method and the Peer Review Process. Learn how to find, identify, read & properly cite peer-reviewed articles.



09/22/25	Ethnobotanical Uses of Plants	How do people from different regions/cultures use their native plants?	<u>In Class Assignment:</u> Literature Review 101 Pick a plant with ethnobotanical uses and complete the worksheet provided.
09/29/25	Trees, Food and Climate Change	What role do trees/plants play in mitigating Climate Change? <i>Guest Speaker Lecture</i>	<u>In Class Activity:</u> Complete the worksheet provided. <u>Reflection:</u> Complete the reflection on Canvas.
10/06/25	Plants as Pharmaceuticals	Role of plants in modern day pharmaceuticals	<u>In Class Quiz:</u> Is it a Prescription Drug or a Pokémon?
10/13/25	Plants in Dietary Supplements	Dietary Supplements: Effective or another marketing gimmick?	<u>In Class Activity: Dilutions 101</u> Learn how to do dilutions, and how to prepare samples for chemical analysis.
10/20/25	Plants in Cosmetics and Personal Care	The use of plants in cosmetics and personal care products.	<u>In Class Quiz:</u> Review the various product labels and identify ingredients derived from plants.
10/27/25	Careers in the Life Sciences Industries	STEM careers in the Life Sciences industry. <i>Industry Guest Speakers</i>	<u>Reflection:</u> Complete the Reflection on Canvas.
11/03/25	Career Development Workshop	Exploring your major and career options: A review of helpful tools and resources at Rutgers.	<u>In Class Assignment:</u> Using the template provided, identify your skills and experiences to help build a resume.

11/10/25	Plants as Flavors & Fragrances	What are essential oils and how are they used in flavors and fragrances?	<u>In Class Activity:</u> Guess the scent! Match the scent/flavor to its source.
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*Course Schedule is subject to change

Assessments & Grading:

Attendance and Participation	10 %
In-class Assignments	20 %
In-class Activities	30 %
In-class Quizzes	15 %
Reflections	20 %
BCLLC Event Reflections (must attend a minimum of 2 events)	5 %
Total	100 %

Final Grades will be based on: A (90% or higher), B+ (85-89.9%), B (80-84.9%), C+ (75-79.9%), C (70- 74.9%), D (60-69.9%), F (under 60%).

For a list of detailed Assessments and their due dates, see the course Canvas.

Late Penalty: Once the due date has passed, 10 points will be deducted each day the assignment is late. Assignments will not be accepted one week past their due date.

Missed Assessments/Activities: If you miss any in class assessments/activities as a result of your absence, please follow instructions on for that assignment on Canvas to make it up.

Attendance Policy

Students are expected to attend all classes on time and not be late. Students are allowed one unexcused late arrival but will not get credit for attendance to subsequent classes they are late for.

Absence Policy

Students must participate in all activities outlined in the course schedule. Students are expected to attend all classes; if you expect to miss one or two classes, please use the University absence reporting website <https://sims.rutgers.edu/ssra/> to indicate the date and reason for your absence. An email is automatically sent to me.

Final Exam

There is **no** final exam for this course.

AI Policy:

“As noted in [Rutgers Academic Integrity Policy 10.2.13](#), the principles of academic integrity require that students ensure that coursework be “the student’s own and created without the aid of impermissible technologies, materials, or collaborations.”

Academic Integrity

The university's policy on Academic Integrity is available at:

<https://academicintegrity.rutgers.edu/sites/default/files/pdfs/current.pdf>.

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.

SEBS DEI Statement

The course supports an inclusive learning environment where diversity, individual differences, and identities (including race, gender, class, sexuality, religion, ability, etc.) are respected and recognized as a source of strength and enhanced learning. Students are expected to respect differences and contribute to a learning environment that allows for a diversity of thought and worldviews. We will not tolerate disrespectful language or behavior against any individual or group. If you feel as though you have been disrespected or treated unfairly by the instructors or any other individual, please let us know. You may speak with the instructor in person, over email or report anonymously via the Office of Academic Programs. In addition, you may also report bias to the Rutgers Diversity and Inclusion initiative using this link: <http://inclusion.rutgers.edu/report-bias-incident/>.

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://webapps.rutgers.edu/student-ods/forms/registration>.

DoSomething button through Rutgers Dean of Students office: <http://health.rutgers.edu/do-something-to-help>

Wellness Coaching through Rutgers HOPE:
<http://health.rutgers.edu/education/hope/wellness-coaching/>

Self-Help Apps found on the Rutgers Student Health website:
<http://health.rutgers.edu/education/self-help/self-help-apps/>

NJ Hopeline - (1-855-654-6735) | National Suicide Hotline - (1-800-273-8255)

Basic Needs Resources

Any student who has difficulty affording groceries or accessing sufficient food, or who lacks a safe and stable place to live, is urged to contact the Rutgers Student Food Pantry and/or the Dean of Students (details below). Furthermore, please notify the professor if you are comfortable doing so, as they may be able to provide additional support.

Rutgers Student Food Pantry

848-932-5500 / College Ave Student Center, Room 115 (126 College Ave) /
<http://ruoffcampus.rutgers.edu/food/>

Check their website for hours and additional locations. The Rutgers Student Food Pantry is dedicated to helping all Rutgers students in need of food, no questions asked. Students will be provided with groceries that typically last about one week.

Dean of Students Office

848-932-2300 / 88 College Avenue, New Brunswick, NJ 08901 /
<https://deanofstudents.rutgers.edu/> Mon-Fri, 8:30am-5:00pm

The Dean of Students Office at Rutgers University-New Brunswick provides solutions, services, and support to help students navigate Rutgers University. The Office serves as a student support network by providing advocacy, problem resolution, and critical incident intervention for those times when additional assistance is needed. Please call to schedule an appointment to meet with a representative from the Dean's office.