

UNIVERSITY OF FLORIDA
Horticultural Sciences Department
VEC 2100 Fall 2018
World Herbs and Vegetables

Section 21097 (100% Online)

Section 21098 (Face-to-Face)

Tue 9th period (4:05 PM – 4:55 PM);

Thu 8th and 9th period (3:00 PM – 4:55 PM)

Course Locations

MCCD Room G001 <https://campusmap.ufl.edu/#/index>

Login to UF E-learning: <https://elearning.ufl.edu/>

Instructor: Bala Rathinasabapathi, Ph.D.

e-mail brath@ufl.edu

Office hours: By Appointment in person or by phone;

Fifield Hall Room 2247

Phone 352-273-4847

Course Materials:

Required notes & additional reading will be distributed via UF E-learning.

Optional Textbooks:

- Vegetable Crops by DeCoteau DR, Prentice Hall, 2000. \$ 66.67, ISBN 10:0139569960.
- Vegetable Gardening in Florida, By J.M. Stephens, Univ Press of Florida, ISBN 0813016746.
- World Vegetables: Principles, production and nutritive values. By Vincent E. Rubatzky and Mas Yamaguchi, Chapman & Hall, ISBN 0-412-11221-3, pp.843 Second Ed., 1997.

Other References:

- Vegetables from Amaranth to Zucchini. By Elizabeth Schneider, William Morrow, ISBN 0-688-15260-0, \$65, pp. 775, 2001. (Reference book of recipes and photographs).
- Perennial Vegetables by Eric Toensmeier, Chelsea Green Publishing, Vermont, ISBN 978-1-931498-40-1, 2007.
- Encyclopedia of herbs and their uses. By D. Bown, Dorling Kindersley, ISBN 0-7894-0184-3, \$39.95, pp.424, First ed., 1995.
- Manual of Minor Vegetables, By J.M. Stephens, Florida Cooperative Extension Service, IFAS, University of Florida, Gainesville, 1988.
- Articles from Florida Cooperative Extension Service and technical journals (Journal of the American Society of Horticultural Science, Economic Botany, Phytochemistry, Hortscience, and American Vegetable Grower.

Course Goal:

Students will learn about the history, botanic properties, genetics, use and cultivation for a variety of culinary herbs and vegetables from around the world.

Learning Outcomes:

By the end of the semester, the conscientious student should be able to

- Explain various classifications of vegetables and plants, parts of edible plants, origin and family characteristics for major vegetables
- Identify common and uncommon vegetables, herbs and spices
- Find information on the uses, nutritional and other dietary value of vegetables and herbs
- Explain biological principles behind genetic improvement of crops
- Discuss current problems in the cultivation and use of vegetables and herbs
- Propagate and cultivate a vegetable garden
- Know how to critically analyze research on vegetables and herbs

Format:

3-credit course for majors and non-majors.

The lectures and demonstrations will be recorded but the recorded files will be available to students for review only prior to the tests.

Lab activities include: Hands on, and Take-home Projects, Writing, and Presentation

Assignments:

(a) Students will be assigned several activity-oriented mini-projects. The students need to turn in an activity report on each of them. (b) There will be one group project assignment and one class presentation assignment. The activities are designed to encourage critical thinking and communication skills and expose the students to current topics in this area.

Evaluation:

Students will be evaluated based on the following:

Class participation	200 points (20 %)
Group project (1 total)	200 points (20 %)
Activity reports (6 total)	200 points (20 %)
Class presentation (1 total)	200 points (20 %)
Exams* (2 total)	200 points (20 %)
TOTAL	1000 points

* Letter grades for the course will be assigned according to the chart below:
90-100 = A; 87-89 = A-; 84-86 = B+; 80-83 = B; 77-79 = B-; 74-76 = C+;
70-73 = C; 67-69 = C-; 64-66 = D+; 60-63 = D; 57-59 = D-; 56-below = E.

* There is no final exam in this course.

IMPORTANT PRINT THESE TWO PAGES FOR REFERENCE

Schedule Fall 2018 :

There are 30 class meetings for the whole semester. Topics and activity schedules may be altered if needed. For activities for online students, we will ship kits and instructions so that they can complete them independently.

Aug 23, Thu

Introduction. What is Horticulture? Syllabus and Activity Reports.

Aug 28, Tue

Role of vegetables, fruits, herbs and spices in human nutrition and dietary quality. USDA Nutrients database.

Aug 30, Thu

Your food - The big picture: the global supply, fresh, frozen and dried food, organic vs conventional, the divide between the rich and the poor, sustainability and the local food movement.

Activity 1: Informational resources on food and agriculture.

Sep 4, Tue

Eating right and more: What do we learn from World's longest living people?

Sep 6, Thu

Health promotion from plant foods. Contemporary ideas about reactive oxygen production and antioxidants

Activity 2: Growing Sprouts and Microgreens

Sep 11, Tue

Salad Greens: Lettuce, Endive and Artichoke

Sep 13, Thu

Culinary Herbs: Lamiaceae – glandular hairs and flavor

Activity 3: Rooting of cuttings of herb plants

Sep 18, Tue

How do we breed new varieties? Peppers: “Building Better Peppers Project”

Sep 20, Thu

Activity 4: Setting up the Container Gardens.

Sep 25, Tue

Cool season Vegetables: Cauliflower, Cabbage, Collard – Flower development.

Sep 27, Thu

Carotenoid-rich Vegetables: Squash and Pumpkins

Oct 2, Tue **Test 1.**

Oct 4, Thu Spices and Condiments - Carrots and Umbelliferous Herbs

Activity 5: Preparation and use of spice blends.

Oct 9, Tue

Spices and Condiments - Ginger Family (Zingiberaceae) Ginger, Turmeric & Cardomom; Myrtaceae Cloves

and Allspice (Pimento)

Activity 6– Flavors and the use of spices and condiments.

Oct 11, Thu

Cassava: An important source of energy for Africa, but not without problems!

Banana and plantains. How do you get bananas in North America every day of the year?

Oct 16, Tue

Squash and Pumpkins

Important: By this date, all students must have signed up for a group project on the e learning portal.

If not, they will receive 10% negative grade toward their final grade.

Oct 18, Thu

Potato and Eggplant

Oct 23, Tue

Plant Proteins: Vegetable Legumes.

Oct 25, Thu

Plants that changed the World's History

Activity 7: Preparation of various kinds of tea

Oct 30, Tue *Tour of the greenhouse and the vegetable gardens on Hull Road.*

Important: By this date, all students must have submitted a one-page recipe to be included in the class recipe book. If not, they will receive 10% negative grade toward their final grade.

Nov 1, Thu

Review of progress of container gardens. Updates from Building Better Peppers project.

Important: By this date, all students must have submitted a title for their class presentation and chosen a date of Presentation. If not, they will receive 10% negative grade toward their final grade.

Nov 6, Tue

Planning a vegetable garden Design ideas and tips.

Nov 8, Thu **Test 2.**

Nov 13, Tue - Student Presentations (5 presenters)

Nov 15, Thu - Student Presentations (10 presenters)

Nov 20, Tue - Student Presentations (5 presenters)

Nov 22, Thu - Thanksgiving Break - No class

Nov 27, Tue - Student Presentations (5 presenters)

Nov 29, Thu - Student Presentations (10 presenters)

Dec 4, Tue - Student Presentations (5 presenters) Last day of class

Planned Activities. Specific instructions are provided in UF E-learning. Some of the activities will be done in class, and others need to be completed outside the classroom.

Activity 1. Informational resources on food and agriculture.

Activity 2. Growing sprouts and microgreens.

- Activity 3. Rooting of cuttings of herb plants
- Activity 4. Setting up the Container Gardens
- Activity 5. Flavors and the use of Herbs, Spices and Condiments
- Activity 6. Preparation and use of Spice Blends
- Activity 7. Preparation of various kinds of Tea
- Activity 8. Class recipe book. The instructor will share a pdf version of the book via e mail.

Formal report. Use the following format for your formal reports. Include a title for the exercise and your name at the top of the page. Then, state the following in order: Objective(s) of the exercise, Exactly what you did in this activity, What you observed, Concluding ideas, thoughts and inspirations. The due dates for reports will be announced in the instructions for each activity.

Oral presentations. (Nov 13 to Dec 4). You can give a presentation using any format such as show-and-tell, blackboard talk, Power Point, a video you made or clips that you found on-line etc. The key is to have one central point and a story line that makes it compelling to listen to. The topic of your presentation could be anything that relates to plants and their uses. Some examples for presentation topics are listed below but they are not exhaustive. Be creative and choose something that you will enjoy presenting. Sample topics: Unusual herb plants, vegetables or spices, biohistory of a species, trade relating to plants/plant products, new uses for old plants, genetic improvement of crops, cooking and ideas relating to the use of plants, do-it-yourself projects, nutritional value of plants, chemistry of flavors and fragrances, critical analysis of research on vegetables and herbs, prices of vegetable and fruits, availability and marketing, local food movement, sustainable food production, plants in arts, music and popular culture, horticultural industry, writers and thought leaders on food and crop production, special technologies for crop production, post-harvest preservation, packaging of vegetables and fruits, organic food, transgenic crops etc. The presentations will be graded for (a) content, (b) acknowledgement of information sources, if pertinent or originality, (c) clarity of communication including readability of slides and being loud enough to be heard at the last row, (d) good use of visual or audio or other aids and (e) generation of interest or audience-centered presentation.

Course policies and procedures

Grades and Grade Points: For information on current UF policies for assigning grade points, see <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>.

Attendance and Make-Up Work:

Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>. Late homework will be accepted with a 20% penalty for each day after the due date. *If you are having trouble with homework or class, please see me immediately.* Test makeups will be arranged only in the case of documented illness/ emergency.

Safety: Follow all safety regulations in and out of the classroom.

Online Course Evaluation Process: Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. These evaluations are conducted online at <https://evaluations.ufl.edu>. Evaluations are typically open for students to complete during the last two weeks of the semester, students will be notified of the specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results>.

Academic Honesty: As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: “*We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity*”. You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: “*On my honor, I have neither given nor received unauthorized aid in doing this assignment*”.

It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: <http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code>.

Software Use: All faculty, staff and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate.

Services for Students with Disabilities: The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation: 0001 Reid Hall, 352-392-8565, www.dso.ufl.edu/drc/

Campus Helping Resources: Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university’s counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575,
www.counseling.ufl.edu/cwc/

Counseling services, groups and workshops, outreach and consultation, self-help library and wellbeing coaching.

U Matter We Care, www.umatter.ufl.edu/

Career Resource Center, First Floor JWRU, 392-1601, www.crc.ufl.edu/

Student Complaints:

Residential Course: https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf

Online Course: <http://www.distance.ufl.edu/student-complaint-process>