

UNIVERSITY OF FLORIDA
Horticultural Sciences Department
VEC 2100 Fall 2017
World Herbs and Vegetables

Instructor: Bala Rathinasabapathi, Ph.D.
Room 2247 Fifield Hall
Phone 352-273-4847
Section 5368
Lecture:
Tue 10th period (5:10 PM – 6 PM);
Thu 10th and 11th period (5:10 PM – 7:05 PM)
Room 3096, MCCB [<http://campusmap.ufl.edu/>]
Lab: Take-home Projects, Hands on Activities and Writing.
Office hours: By Appointment; e-mail brath@ufl.edu
Course Homepage: <http://www.hos.ufl.edu/sabaweb>

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, \$89, pp.843 Second Ed., 1997

Notes & additional reading will be distributed via electronic list-serve.

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.

Objective:

Students will learn about the history, properties, uses, genetics and cultivation tips 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.

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 writing assignment for each student 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 attendance & participation	100 points (20 %)
Essay (1 total)	100 points (20 %)
Activity reports (6 total)	100 points (20 %)
Class presentation (1 total)	100 points (20 %)
Tests (2 total)	100 points (20 %)
TOTAL	500 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.

* Class attendance will be marked each day either at the beginning or end of the class period.

* There is no final exam in this course.

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>. Reports are due on the dates indicated in the instructions for each activity. 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 an emergency and not for absences for any other reasons.

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>

Schedule 2017: (There are 30 class meetings for the whole semester)

Aug 22, Tue

Introduction, What is Horticulture? Syllabus and Activity Reports.

Aug 24, 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.

Aug 29, Tue

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

Aug 31, Thu

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

Sep 5, Tue

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

Sep 7, Thu

Salad Greens: Lettuce, Endive and Artichoke

Activity: Growing Sprouts and Microgreens

Sep 12, Tue

Culinary Herbs: Lamiaceae – glandular hairs and flavor

Sep 14, Thu

Setting up the Container Gardens. This class meeting will be at the greenhouse on Hull Road. Directions to the greenhouse will be e mailed to you via the list-serve.

Sep 19, Tue

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

Sep 21, Thu

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

Activity: *Rooting of cuttings of Lamiaceae herbs.*

Select/elect volunteers for watering the container gardens and an editor for the class recipe book.

Sep 26, Tue

Carotenoid-rich Vegetables: Squash and Pumpkins Test 1.

Sep 28, Thu

Spices and Condiments - Carrots and Umbelliferous Herbs

Activity: *Identification of spices and condiments.*

Oct 3, Tue

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

Oct 5, Thu

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

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

Oct 10, Tue

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

Oct 12, Thu

Carotenoid-rich Vegetables: Squash and Pumpkins

Activity: *Identification of fruits and vegetables rich in carotenoids - The colorful salad*

Oct 17, Tue

Potato and Eggplant

Oct 19, Thu

Plant Proteins: Vegetable Legumes.

Activity: *Vegetable soups*

Oct 24, Tue

Plants that changed the World's History

Oct 26, Thu *Tour of the greenhouse and the vegetable gardens on Hull Road.*

Oct 31, Tue

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

Nov 2, Thu

Planning a vegetable garden Design ideas and tips.

Activity: *Sowing seeds for transplant production.*

Nov 7, Tue Review for the test.

Nov 9, Thu Test 2.

Nov 14, Tue - Student Presentations (5 presenters)

Nov 16, Thu - Student Presentations (10 presenters)

Nov 21, Tue - Student Presentations (5 presenters)

Nov 24, Thu - Thanksgiving Break - No class

Nov 28, Tue - Student Presentations (5 presenters)

Nov 30, Thu - Student Presentations (10 presenters)

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

Planned Activities. These will be announced in class with specific instructions. Some of the activities will be done in class, and others need to be carried out outside the classroom. Activity 1 has no report and for the other activities (2 to 7), you need to write a formal report. For activity 8, you are expected to contribute 1 page of the book.

- Activity 1. Resources on vegetables, herbs and plants.
- Activity 2. Production of alfalfa, bean and radish sprouts.
- Activity 3. Propagation of herbs by cuttings
- Activity 4. Adding flavors to food: Herbs, Spices and Condiments
- Activity 5. Container gardening
- Activity 6. Production of vegetable transplants.
- Activity 7. Drawing up a Spring vegetable garden for North Central Florida.
- Activity 8. Class recipe book.

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 that order: objective(s) of the exercise, exactly what you did in this activity, what you observed and any concluding ideas, thoughts and inspirations.

The due dates for reports and the test dates will be announced in class.

Oral presentations (Nov 14 to Dec 5). You can give a presentation using any format such as show-and-tell, blackboard talk, Power Point presentation, showing 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 and 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.