

**UNIVERSITY OF FLORIDA**  
Horticultural Sciences Department  
**VEC 2100 Fall 2020**  
**World Herbs and Vegetables**

**Section 20837** (Class #); **5368** (section)

**Course Location:** 100% online: Login to UF E-learning (Canvas): <https://elearning.ufl.edu/>

**Instructor:** Bala Rathinasabapathi, Ph.D., / **Teaching Assistant:** Caitlin Clarke

**Course Communication:** Please send email using UF E-learning (Canvas) for course related information

**Office hours:** By appointment in person, by phone, or e learning.  
Fifield Hall Room 2247 or meeting via Zoom  
Phone 352-273-4847  
E mail [brath@ufl.edu](mailto:brath@ufl.edu)

**Course Format:**

- 3-credit General Education Biological Science course for majors and non-majors.
- Recorded presentations and demonstrations available each week.
- Question and Answer Sessions during each module.
- Lab activities composed of hands-on projects using material shipped to the students, Writing, Student Presentation, Discussions, Group Work and Examinations are all used to evaluate student learning.

**Course Materials:**

- Required notes & additional readings and multimedia materials will be distributed via UF E-learning.
- Physical materials for hands-on activities will be shipped directly to addresses provided by students.

**Optional Textbooks:**

- Vegetable Crops. DeCoteau DR. Prentice Hall, 2000. ISBN 10:0139569960.
- Vegetable Gardening in Florida. J.M. Stephens. University Press of Florida, ISBN 0813016746.
- World Vegetables: Principles, production and nutritive values. 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. Elizabeth Schneider, William Morrow. ISBN 0-688-15260-0, pp. 775, 2001.
- Perennial Vegetables. Eric Toensmeier. Chelsea Green Publishing, Vermont, ISBN 978-1-931498-40-1, 2007.
- Encyclopedia of herbs and their uses. D. Bown, Dorling Kindersley, ISBN 0-7894-0184-3, 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, Am. 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:

- Identify common and uncommon vegetables, herbs and spices.
- Describe:
  - Classifications of vegetables and plants,
  - Parts of edible plants,
  - Historical, cultural origin and
  - Family characteristics for major vegetables.
- Explain biological principles behind genetic improvement of crops.
- Propagate and cultivate herb and vegetable plants.
- Find scientifically valid information on the production and dietary value of vegetables and herbs.
- Discuss current issues in the cultivation and use of vegetables and herbs.
- Develop a detailed plan for design and implementation of a commercial vegetable production unit.
- Critically analyze research on vegetables and herbs.

## **Assignments:**

Course assignments are designed to provide students with core knowledge and basic skills. They are intended to encourage critical thinking and communication skills. (Full details are found on page 6.)

- Each hands-on activity requires a lab report in standard format.
- The project includes two individual reports which require group collaboration to complete.
- Two discussions consist of short position papers.
- One class presentation uses multimedia to share online.
- The discussions and presentation include comments and questions made between classmates.
- Each exam is based upon content from instructor presentations, required readings and videos.
- Asynchronous question and answer sessions are conducted in each module.

## **Evaluation:**

Students will be evaluated based on the following:

- |   |                     |
|---|---------------------|
| • Class participation (Q&A session & discussions) | 200 points (20 %)   |
| • Activity reports: 8 total                       | 200 points (20 %)   |
| • Group project                                   | 200 points (20 %)   |
| • Student presentation                            | 175 points (17.5 %) |
| • Exams: 3 total (No final exam)                  | 225 points (22.5 %) |
| <b>TOTAL</b>                                      | <b>1000 points</b>  |

**Evaluation items each have absolute start and due dates (provided on page 5); with one exception. Activity reports can be submitted after the due date with a point reduction of 20% per day.**

**IMPORTANT! PRINT PAGES 3 , 4 and 5 BELOW FOR REFERENCE THROUGHOUT SEMESTER.**

**GETTING STARTED: Week 1** (Aug 31-September 6) - *All must be completed to access course modules\**.

Presentations:

Course Overview – Syllabus; Assignments and Evaluations

Instructor Introduction

What is Horticulture?

*Question & Answer Session – Practice\**

*Student Introductions\**

*Syllabus Quiz\**

**MODULE 1: Weeks 2 and 3** (September 7-20)

Presentations:

- Role of vegetables, fruits, herbs and spices in human nutrition and dietary quality.
- Your food - The big picture
- What do we learn from world's longest living people?
- Health promotion from plant foods

*Question & Answer Session 1*

*Activity 1: Informational resources on food and agriculture.*

*Activity 2: Growing Sprouts and Microgreens*

**MODULE 2: Weeks 4 and 5** (September 21-October 4)

Presentations:

- How did new vegetable crops evolve?
- How do we breed new varieties? “Building Better Peppers Project”
- Plant Biotechnology and genome editing

*Question & Answer Session 2*

*Activity 3: Rooting of cuttings of herb plants*

*Activity 4: Growing a Container Gardens begins*

*Discussion 1: Best Crop Development Methods Part 1*

**Exam 1** (Covering Modules 1 & 2)

**MODULE 3: Weeks 6, 7, and 8** (October 5-25)

Presentations:

- Salad Greens: Lettuce, Endive and Artichoke
- Squash, Pumpkins, Cucumbers and Gourds
- Potato, Eggplant and Tomato
- Planning a Vegetable Garden
- Allium: Onion and Garlic
- Vegetable Legumes: Plant Proteins

*Question & Answer Session 3*

*Activity 5: Class Recipe Book*

*Discussion 1: Best Crop Development Methods Part 2*

Group Project Part 1 – Select Crop for Individual Work

Group Project Part 1 – Submit for review

**Exam 2** (Covering Module 3)

**MODULE 4: Weeks 9 and 10** (October 26-November 8)

Presentations:

- Carrots and Umbelliferous Herbs
- Ginger and Turmeric; Cardamom and Allspice
- Basil, Mint, Oregano, Marjoram and Rosemary
- Vanilla

*Question & Answer Session 4*

*Activity 4: Container Garden is due*

*Activity 6: Preparation and use of Spice Blends*

Group Project Part 2 – Select Specialization

Group Project Part 2 –Submit for review

Student Presentations – Submit topic for review

**MODULE 5: Weeks 11 and 12** (November 9-22)

Presentations:

- Tea
- Cacao
- Banana and Plantains
- Breadfruit and Jackfruit

*Question & Answer Session 5*

*Activity 7: Preparation of Various Kinds of Teas*

Group Project Completed

*Discussion 2: Best Diet for Nutrition and the Environment Part 1*

**Exam 3** (Covering Modules 4 and 5)

**MODULE 6: Weeks 13, 14 and 15** (November 23-December 9 -Last Day of Classes)

*Activity 8: Unique Flavors and Textures of Food*

*Discussion 2: Best Diet for Nutrition and the Environment Part 2*

Student Presentations Completed

Student Presentations Comments and Questions

**Critical Course Dates and Times** (All times are U.S. Eastern Standard)

<b>Getting Started</b>	<b>Open Date @ 10am</b>	<b>Due Date @ 11:59 pm</b>	<b>Points</b>
1. Syllabus Quiz	August 31	September 6	0
2. Introduction Discussion	August 31	September 6	0
3. Question & Answer Practice Session	August 31	September 9	0

<b>Exam</b>	<b>Open Date @10am</b>	<b>Due Date @ 11:59PM</b>	<b>Duration</b>	<b>Points</b>
1	October 4	October 5	33 Questions / 50 Minutes	75
2	October 25	October 26	33 Questions / 50 Minutes	75
3	November 21	November 23	33 Questions / 50 Minutes	75

<b>Activity Number and Topic</b>	<b>Open @10am</b>	<b>Close @ 11:59PM</b>	<b>Points</b>
1 Information Resources: Nutrition & Horticulture	September 7	September 13 = 1 week to complete	20
2 Growing Sprouts and Microgreens	September 14	September 20 = 1 week to complete	20
3 Propagation by Rooting Plant Cuttings	September 21	October 4 = 2 weeks to complete	20
4 Growing a Container Garden	September 28	November 15 = 7 weeks to complete	40
5 Creating Recipes for the Class 'Cook Book'	October 12	October 25 = 2 weeks to complete	40
6 Preparing and Using Spice Blends	October 26	November 1 = 1 week to complete	20
7 Preparing Various Types of Tea	November 9	November 15 = 1 week to complete	20
8 Unique Flavors and Textures of Food	November 9	November 15 = 1 week to complete	20

<b>Question and Answer Sessions</b>	<b>Submitted Until @11:59pm</b>	<b>Instructor's Response on</b>	<b>Points</b>
Session 1	September 15	September 18	10
Session 2	October 6	October 9	10
Session 3	October 20	October 23	10
Session 4	November 3	November 6	10
Session 5	November 17	November 20	10

<b>Discussion Number and Topic</b>	<b>Part 1 Due @11:59pm</b>	<b>Part 2 Due @11:59pm</b>	<b>Points</b>
1. Best Crop Development Methods	Sept. 28 – Oct. 12	Oct. 12 - Oct. 19	75
2. Best Diet for Nutrition & Environment	Nov. 16 – Nov. 30	Nov.30 –Dec. 7	75

<b>Group Project</b>	<b>Open Date</b>	<b>Review Deadline @ 11:59 pm</b>	<b>Due Date @ 11:59 pm</b>	<b>Points</b>
Group Collaboration	Oct. 12	N/A	Dec. 7	50
Select Crop Topic	Oct. 12	N/A	Oct. 19	0
Crop Topic Report	Oct. 12	Oct. 19	Nov. 1 at 11:59 pm	75
Select Specialization	Nov. 2	N/A	Nov. 9	0
Specialization Report	Nov. 2	Nov. 9	Nov. 23	75
Project Manager Final	Nov. 23	Nov. 30	Dec. 7 Group Manager Only	75

<b>Presentations</b>	<b>Open Date</b>	<b>Due date</b>	<b>Approval date</b>	<b>Points</b>
Topic Submission	Nov. 2	Nov. 9	Nov. 16	0
Completed Presentation	Nov. 16	Dec. 6	N/A	125
Comments and Questions by Students	Dec. 6	Dec. 9	N/A	50

**Course Grading Scale:** Letter grades for the course will be assigned according to the chart below:

90-100 = A; 87-89.9 = A-  
 84-86.9 = B+; 80-83.9 = B; 77-79.5 = B-  
 74-76.9 = C+; 70-73.9 = C; 67-69.9 = C-  
 64-66.9 = D+; 60-63.9 = D; 57-59.9 = D-  
 56-below = E

## **Course Evaluation Details**

**Planned Activities.** Students will be asked to follow specific instructions posted in UF E-learning to complete each activity. Material for the activities will be shipped to students at the start of the semester. For this purpose all the students registered in this course must provide the instructor their complete postal address in week 1.

**Activity reports.** Each report will be completed using the following format. 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 date for each activity report is shown in the table above. Only one activity, “Container Gardens,” will have a longer time between the open and close dates to allow time for growing and harvesting plants in the “garden.”

**Class participation.** Student’s participation will be evaluated based on involvement in Question and Answer Sessions, Discussions, and their engagement with the material presented in this course. Every presentation in the course is accompanied by a handout for student note taking. Each presentation segment ends with a request for questions. Students are encouraged to write their questions in the handout while watching each presentation. During each module, student questions will be submitted in UF e-learning and evaluated (5 x 10 points) and then answered by the instructor as a response to the entire class.

Two formal discussions will be conducted during the course (2 x 75 points). Discussions will be evaluated based upon academic research, writing, and documented support in each student’s 3-5 paragraph position paper. Individual responses to the positions of their classmates are also part of the evaluation.

**Group project.** Groups of 5-10 students will work to design a small commercial vegetable production project. Every group member will produce reports that are graded individually. Each student will select a separate crop to grow from the major plant “families” studied during the course presentations (Report 1). The group will then divide responsibilities for primary functions needed to implement the vegetable production project. At this stage students may choose to be a garden manager or specialist (Report 2). All group work will be conducted using tools available in the e-learning portal (Canvas). The project will be graded on individual reports (2 x 75 points) as well as collaboration among group members (50 points). Please see the Group Project document in the e-learning portal (Canvas) for full details.

**Student presentations.** Students will create and deliver an original multimedia presentation / demonstration with PowerPoint and/or video using the Voicethread program in the UF e-learning portal. Voicethread provides an interface for sharing the virtual presentations with every member of the course.

Students must select a topic and have it approved. Presentations will be graded (125 points) for content, originality, selection and acknowledgement of sources, clarity of communication, and audience engagement. Student involvement through comments and questions about presentations will also be graded (50 points).

**Exams.** There are three course exams. Each exam is worth 75 points. All exams are available online for at least 38 hours in the e-learning portal. Each exam will cover all material in the instructor presentations, assigned readings and videos. A study guide will be provided prior to each exam. Dates and times are shown above.

### **Course policy on due dates, late submissions, and missed evaluation items.**

All due dates are provided in the tables above. These dates are absolute. Some items must be completed to begin the course. Others such as submitting your topics for the group project and presentation are critical to continued involvement in that component of the course. Even if they have no points, not meeting these critical dates may preclude further involvement. This is stated with consideration of details found in “Make-Up Work” below. *If you are having trouble with homework or class, please contact your instructor immediately.*

## **University 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>.

### **Make-Up Work:**

Test makeups will be arranged only in the case of documented illness/ emergency. Requirements for 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>.

**Safety:** Follow all safety regulations for all class activities. If you are using a vegetable, spice or herb first time, sample a small amount to test whether you are not allergic to it. If you are using sharp tools to cut plant material, exercise caution in handling the tools.

**Privacy statements regarding online part of the course:** Our class sessions may be audio visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

**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/](http://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/](http://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/](http://www.umatter.ufl.edu/)

Career Resource Center, First Floor JWRU, 392-1601, [www.crc.ufl.edu/](http://www.crc.ufl.edu/)