Course Description: The course introduces the science and technology of horticulture: Growing plants for foods and beverages, and ornamental, landscape or recreational purposes. The course involves lectures, writing, discussions, labs and field trips. The course is structured to provide you a survey of horticulture. The process will include understanding fundamental concepts integral to all aspects of production and management such as climate, soil, culture, pest management, harvesting, marketing, sales and distribution. Additionally we will strive to identify emerging issues in horticulture and encourage robust discussion.

Lectures will involve with presentation of information, movies, tasting, debating, etc. Labs will be hands-on work sessions as well as field tours of local farms and horticultural facilities. Background readings will be required for each section and purposely used as a source for quiz material. Grading will be based upon short quizzes, writing exercises, and course participation.

Instructors: Frank Rossi with other Horticulture staff contributing in their areas of expertise.
Teaching Assistant: Stephanie Beeks and Semagn Kolech
Learning Outcomes:
1. Explain, evaluate, and effectively interpret factual claims, theories and assumptions in Horticulture.
2. Integrate quantitative and qualitative information to reach defensible conclusions on Horticultural topics
3. Communicate effectively through writing and speech
4. Demonstrate the capability to work both independently and in cooperation with others

Course Objectives and Structure: Our main objective in HORT1101 is to nurture your interest and awareness of important landscape and food plants, and to introduce the underlying sciences and systems involved in horticulture. This will provide a general foundation for further studies and practice in horticulture or other life sciences such as agronomy, ecology, botany, soil science and entomology. You will learn how to find and use relevant information resources in Mann Library, on the internet, and in horticultural publications.

Our lab sessions will be hands-on work in Horticulture from tree and vine pruning to landscape installation and grading potatoes. Please dress appropriately for the weather and location.

Semester grades will be based on Reflective Writing Assignments (35%) semester long writing exercise (40%), Lab Videos (15%), lab participation (5%), and Class discussion (5%).

Reflective Writing Assignments will be assigned with prompts throughout the semester and graded based on a rubric that looks for addressing of prompt, depth of understanding, use of technical
information, language use, and overall synthesis of content. This is a powerful learning tool as it integrates experience with knowledge gathering and seeks to integrate the two to demonstrate higher level learning than what would be assessed in examinations.

Two of these reflections will be based on readings and discussion of our two popular texts this year, Banana by Dan Koeppel available at [http://www.amazon.com/Banana-Fate-Fruit-Changed-World/dp/1594630380](http://www.amazon.com/Banana-Fate-Fruit-Changed-World/dp/1594630380) and Second Nature by Michael Pollen available at [http://tinyurl.com/cj7pbpm](http://tinyurl.com/cj7pbpm).

**Semester Writing Exercise** will require you to select a horticultural crop of your interest by the second week of class. A crop may be of ornamental, medicinal, fiber or nutritional. The paper will be developed over the entire semester in five sections; 1) history of the crop, i.e., climatic, soil and regional origin, role in human culture, etc.; 2) culture and production of the crop; 3) pest management issues that might include potential for organic production; and 4) role of the crop in modern society including a discussion of emerging issues associated with the crop.

You will have about three-four weeks per section. During those weeks you will have some time during class to discuss your paper with the instructors, teaching assistants and will be required to submit a draft for peer review to your fellow students. The draft copies must be submitted with your section at the end of each three-week period. Additionally, you will be permitted to continue enhancing each section throughout the semester, so as to make it a “living” work. Your final grade for the exercise will be based on the depth of your exploration, ability to utilize resources, and articulation and integration of topics in the final submission.

**Lab Videos** will be produced by groups of 4 to 5 students starting in week three of class. Students will be required to produce a video that would instruct any layperson on the goals and objectives of the lab. In addition the video will capture the laboratory experience in pictures and or moving images discussing the goal of the lab, the task performed and things that were learned that either were surprising or unexpected. It is critical that each group members task is obvious and able to be reviewed as a component of the whole project. For example, one or two people may film and help with editing, one person might write a script, one person might take pictures and help narration, another might to some interviews and background reading for content. You will be required to be able to use digital camera/video and some simple movie editing software.

**Office Hours and Teaching Assistant:** Frank Rossi’s office is 47c Plant Science Building, email address fsr3@cornell.edu and mobile phone (useful for texting as well) 607-227-5873. You can make an appointment to meet with Rossi by e-mail. Our graduate teaching assistants in HORT1101 this semester are Stephanie Beeks whose research involves organic vegetable transplant production and Semagn Kolech whose research involves potatoes. We hope to get to know each of you personally during the coming months. As part of this course, we maintain a BlackBoard website with lecture notes, message boards, and other course-related information. Please check the course website regularly for updates and information during the semester.
We’re Here to Help: If you are experiencing undue personal or academic stress at any time during the semester or need to talk with someone about a personal problem or situation, we encourage you to seek support as soon as possible. We are available to talk with you about stresses related to your work in the class. Additionally, we can assist you in reaching out to any one of a wide range of campus resources, including:

- Your college’s Academic Advising or Student Services Office
- Cornell Learning Strategies Center at 255-6310, [http://lsc.sas.cornell.edu](http://lsc.sas.cornell.edu)
- Gannett Health Services at 255-5155, [www.gannett.cornell.edu](http://www.gannett.cornell.edu)
- Let’s Talk Drop-In Consultation and Support [www.gannett.cornell.edu/Let’sTalk](http://www.gannett.cornell.edu/Let’sTalk)
- Peer Support provided by Empathy Assistance and Referral Service at 255-EARS

DISABILITY-RELATED CONCERNS: Students with either an ongoing or short-term disability are encouraged to contact Student Disability Services (SDS) for a confidential discussion of their need for academic accommodations. SDS is located in 420 CCC building; phone number is 254-4545.

References and Suggested Readings: No single textbook adequately covers the essential material for this course. Background readings for lectures and labs will be cited in various sources, which will be handed out in class or available on reserve at Mann Library. Hartmann’s Plant Science 4th ed. is the recommended textbook, and two copies will be on reserve at Mann Library. Another useful text for supplemental reading in this course is "Economic Botany: Plants in our World, 2nd ed." by B.B. Simpson and M. Conner-Ogorzaly (1996). This is a well-written and nicely illustrated book, full of information on the natural history and utilization of plants. There are many other resources and references relevant to this course in Mann Library. These will be useful as background reading, or as starting points for your independent projects. Mann Library has a superb collection of the primary literature in horticulture and life sciences, and we encourage each of you to explore and use that collection as part of your independent projects. The Department of Horticulture also maintains a small library, study and meeting room in Room 22 PS, where group project meetings can take place.
Lecture Topics
I. Natural history of horticulture (Rossi)

II. Climate and plant function (Rossi)

III. Soils and plant nutrition (Rossi)

IV. Specialty Crop Production (Rangarajan)

V. Plant Improvement (Mazourek)

VI. Fruit Production (Merwin)

VII. Urban Horticulture (Bassuk)

VIII. Vegetable Production (Reiners)

IX. Floriculture (Matson)

X. Urban Forestry and Turf Management (Rossi)

XI. Fruit Tree Pruning (Merwin)

XII. Natural Dyes (Eames-Sheavly)
HORT 1101 Lab Schedule

Week 1: Cornell Orchard Work I (Merwin)

Week 2: Cornell Plantations Natural Areas (Boys-Faust)

Week 3: Dilmun Hill (Student Organic Farm)

Week 4: AgroForestry (MacDaniels Nut Grove-Mudge)

Week 5: Crop Paper Meeting

Week 6 Plant Improvement (Mazourek)

Week 7 Viticulture (Merwin)

Week 8 Urban Horticulture Installation (Bassuk)

Week 9 Vegetable Production (Thompson Farm; Reiners)

Week 10 Floriculture Field Work (Matson-Beeks)

Week 11 Urban Forestry (Citizen Pruning)

Week 12 Fruit tree pruning (Merwin)

Week 13 No Lab Sessions

Week 14 Natural Dyes (Eames Sheavly)