

BOT 107: Plants, People and Culture

Semester focus: the food and drinks of Tuscany (3CR)

Instructor: Dr. Tamara Ticktin

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Focus: FGC

I. Course Description

This class explores the relationships between plants, people and cultures through the lens of food and drink. The first part of the course provides a global ethnobotanical overview of food and drink, exploring global patterns of cultural interactions with food plants. The second part of the class centers on the foods and drinks of Tuscany. Through readings, interviews, visits to farmers' markets, discussions and field trips, we will explore the botany, cultural value, biogeography, and phytochemistry of Tuscan edible plants and fungi and reflect on their similarities and differences to Hawai'i and elsewhere. The class explores questions such as: What plant and fungi species are used in the foods and drinks that are consumed today? Where did these species originate and through what processes did they get incorporated into the diet? What cultural traditions are associated with them and what meanings do they hold? What biases or values enhance or constrain the foods we consume? In which ways are diets changing today and what are the cultural, health, and ecological consequences? The class concludes with a discussion on efforts to revitalize traditional foods, and the interlinkages of this movement with cultural identity, food sovereignty and biodiversity conservation.

II. Student Learning Objectives:

Students will be able to:

- 1) Discuss the diversity of cultural interactions with food plants and identify global similarities and differences
- 2) Explain local and global cultural values and biases in food cultures, including your own, and some of the consequences of these
- 3) Understand the diversity of plant and fungal species that characterize the Tuscan diet, and the dynamic biogeographic and cultural histories of key species
- 4) Explain the roles that Tuscan traditional food plants play in health and wellbeing and some of their botanical and cultural basis
- 5) Communicate appropriately and effectively to a diverse audience

III. Course materials

All course materials will be provided on Laulima. The class includes two field trips, which may include a small cost.

IV. Schedule of Topics

A global biocultural overview of food and drink

Week 1 Introduction: Plant foods and biocultural traditions

Week 2 What makes a plant edible?

Week 3 Food as medicine: the ethnopharmacology of food

Week 4 Origin stories: class presentations and discussion

Week 5 Food plant biodiversity: past and present

The foods and drinks of Tuscany

Week 6 The evolving cuisine: A biogeography of traditional and contemporary dishes

Week 7 *Field trip to chestnut festival in Marradi**

Week 8 Exchange, Adoption, Bias: Two-way flow between the Mediterranean and the Americas

Week 9 *Field trip and survey of Florence farmers market*

Week 10 Eating on the wild side: foraging wild mushrooms

Week 11: *Field trip to Truffle festival in San Miniato***

Week 12 Antioxidants and other phytochemicals: flavored wine and chestnut flour

Week 13 Class presentations on edible and medical herbs

Week 14 Recovering traditional varieties & class presentations on markets

Week 15 Biocultural restoration: cultural identity and food sovereignty and sustainability

*1:15 hr by train, 14.80 euros return trip, Sundays in October

**40 mins by train, 12 euros return; last three weekends in November

V. Grading and Assignments

<u>Assignment</u>	<u>Percent of final grade</u>
<i>Quizzes (5)</i>	25%
<i>Origin story presentation</i>	15%
<i>Ethnobotany of a medicinal herb</i>	25%
<i>Market survey of a key plant or fungal species</i>	25%
<i>Participation</i>	10%

Grading scale: A,B,C,D,F

Quizzes (25%)

For the first five weeks (“Global overview” section), students will be given in-class quizzes consisting of short answer questions related to the assigned readings for that week. The answers will be discussed at length right after the quiz and used as starting points for more in-depth discussion on the topic of the week. [Evaluation of SLOs 1 &2]

Origin story presentation and discussion (15%)

Plants that hold high cultural importance often have origin stories that have been passed down over generations. Each student will be responsible presenting the origin story of a plant that is important in the diet of their own culture, of another culture/region. We will have a class sign-up sheet to ensure that we cover a diversity of regions and cultures across the globe, including Tuscany. Each student will present the origin story to the class and discuss what it teaches us about both the plant and the culture in question, including values, ethics, and moral codes. At the end of the student presentations, we will discuss similarities and differences across stories and what we learn from these. Stories should be 3-5 mins. More detailed instructions will be provided on Laulima. [Evaluation of SLOs 1& 5]

Herbs as food and medicine: interview with your host family (25%)

Herbs and spices are considered foods, but many of them are also used as medicine. For example, in Hawai'i 'ōlena (turmeric) is both food and medicine; similarly mint or chamomile teas are used as both as foods and medicine in many places. In Tuscany, herbs continue to play an important role in both cuisine and healing traditions. Interview a member of your host family to ask what herbs they grow or buy, and if they use any of these to prevent illness or for healing. If so, chose one of the plants they tell you about, and write an essay (5 pages) on the ethnobotany of that species. If your host families does not want to be interviewed or does not use herbs medicinally, talk to the Instructor to come up with a substitute. The essay should include information on: (1) the Italian, English and scientific names and botanical family, (2) biogeographic origin and status as wild or cultivated or both and if not native, when it was incorporated into diet or pharmacopeia; (3) use and method of preparation as described by the person you interviewed, (4) ethnobotanical uses elsewhere, based on a search of the literature; and (5) information on medicinal efficacy, if any, based on a search of the literature. Discuss how the local use of this species compares to uses elsewhere: what similarities or differences exist, and what cultural, biogeographic, or biochemical reasons may account for these? You will also be asked to bring a sample of the plant to class and give a 3-minute summary of your findings. More detailed instructions will be provided on Laulima. The rubrics at the end of the syllabus are guide to effective writing and oral presentations. [Evaluation of SLOs 1,3& 5]

Farmers markets: agrobiodiversity (25%)

The world has about 50,000 edible plants, but today 90% of the world's energy demands for food are fulfilled by just 15 plant species. Tuscany is reflective of this trend: it is historically known for its culinary biodiversity but many of the region's wild foods are no longer foraged for, and many of its agricultural cultivars are no longer planted. As a class we will visit a farmers' market to survey the locally produced plants and fungi sold. Each student will then be responsible for choosing a key food item typical of the region (e.g. olives, grapes, mushrooms, chestnut, tomatoes, wild herbs) and carry out a survey of other markets to identify the number and diversity of varieties. How many varieties did you find? How many of these are traditional varieties from the region? How does this diversity compare to reports of the past? Are there movements to revitalize these? Prepare a 5 minute oral presentation of your findings. More detailed instructions will be provided on Laulima. The rubric at the end of the syllabus is a guide to effective oral presentations. [Evaluation of SLOs 3,4& 5]

Class participation (10%)

Participation includes attendance, active participation in class discussions of readings and of student presentations and on field trips. To do well, you will need to 1) attend class 2) contribute regularly to the discussions (quality > quantity), 2) demonstrate that you are familiar with the readings and other course materials. The rubric at the end of the syllabus is a guide to effective participation. [Evaluation of SLOs 1,2 &4]

VI. Assigned Readings (provided on Laulima)

I. A global biocultural overview of food and drink

Week 1 Introduction: Plant foods and biocultural traditions

Balick, M.J. and Cox, P.A., 2020. *Plants, people, and culture: the science of ethnobotany*.
Ch1: People and plants, and Ch 4: From Hunting and Gathering to Haute Cuisine

Week 2 What makes a plant edible?

Gibbons, A., 2014. The evolution of diet. *National Geographic*, 226(3), pp.30-61.
Balick & Cox Chapter 3 Plants that harm

Week 3 Food as medicine: the ethnopharmacology of food

Etkin, N.L., 2008. *Edible medicines: an ethnopharmacology of food*. University of Arizona Press. Ch 1.
Nabhan, G. 2004. *Finding a bean for your genes and a buffer against malaria* In, Nabhan, G, Why some like it hot. Island Press, Washington D.C.

Week 4 Origin stories: class presentations and discussion

Week 5 Food plant diversity: past and present:

Heywood, V.H., 2013. Overview of agricultural biodiversity and its contribution to nutrition and health. In *Diversifying food and diets* (pp. 67-99). Routledge.
Gruber, K., 2017. Agrobiodiversity: The living library. *Nature*, 544(7651), pp.S8-S10.

II. Ethnobotany of the foods and drinks of Tuscany

Week 6 The evolving cuisine: A biogeography of traditional and contemporary dishes

Flandrin, J.L. & Montanari, M. eds., 1999. *Food: a culinary history*. Columbia University Press. Ch33 The transformation of the European diet; and Ch 34 The invasion of foreign food

Week 7 Field trip to chestnut festival in Marradi*

Week 8 Exchange, Adoption, Bias: Two-way flow between Mediterranean and the Americas

Davidson, A. 1992. *European's wary encounter with tomatoes, potatoes and other new world foods*. In, F. Foster & L. Cordell, Chilies to chocolate: food the Americas gave the world. University of Arizona Press, Tucson.

Nabhan, G. 2004. *The shaping and shipping away of Mediterranean cuisines*. In, Why some like it hot. Island Press, Washington D.C.

Week 9 Field trip and survey of Florence farmers market

Week 10 Eating on the wild side: wild herbs and mushrooms

Sheldrake, M., 2020. *Entangled life: how fungi make our worlds, change our minds & shape our futures*. Random House. Ch4.

Week 11: Field trip to Truffle festival in San Miniato****Week 12 Grape wine and chestnut flour: antioxidants and other phytochemicals**

Piccolo, E.L. et al. 2020. Nutritional and nutraceutical properties of raw and traditionally obtained flour from chestnut fruit grown in Tuscany. *European Food Research and Technology*, 246(9), pp.1867-1876.

Egea, T., et al. 2015. Spirits and liqueurs in European traditional medicine: Their history and ethnobotany in Tuscany and Bologna (Italy). *Journal of ethnopharmacology*, 175, pp.241-255

Week 13 Class presentations on edible and medical herbs**Week 14 Biocultural restoration: cultural identity and food sovereignty and sustainability**

Nabhan, G.P., 2013. *Reconnecting the Health of the People with the Health of the Land. In Food, Genes, and Culture (pp. 186-210)*. Island Press, Washington, DC.

Baldi, A., Bruschi, P., Campeggi, S., Egea, T., Rivera, D., Obón, C. and Lenzi, A., 2022. The renaissance of wild food plants: Insights from Tuscany (Italy). *Foods*, 11(3), p.300.

Week 15 Final class presentations on markets

ORAL COMMUNICATION VALUE RUBRIC AAC&U

Definition

Oral communication is a prepared, purposeful presentation designed to increase knowledge, to foster understanding, or to promote change in the listeners' attitudes, values, beliefs, or behaviors.

	Capstone 4	Milestones		Benchmark 1
		3	2	
Organization	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is clearly and consistently observable and is skillful and makes the content of the presentation cohesive.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is clearly and consistently observable within the presentation.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is intermittently observable within the presentation.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is not observable within the presentation.
Language	Language choices are imaginative, memorable, compelling, and enhance the effectiveness of the presentation. Language in presentation is appropriate to audience.	Language choices are thoughtful and generally support the effectiveness of the presentation. Language in presentation is appropriate to audience.	Language choices are mundane and commonplace and partially support the effectiveness of the presentation. Language in presentation is appropriate to audience.	Language choices are unclear and minimally support the effectiveness of the presentation. Language in presentation is not appropriate to audience.
Delivery	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the presentation compelling, and speaker appears polished and confident.	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the presentation interesting, and speaker appears comfortable.	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the presentation understandable, and speaker appears tentative.	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) detract from the understandability of the presentation, and speaker appears uncomfortable.

Supporting Material	A variety of types of supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis that significantly supports the presentation or establishes the presenter's credibility/authority on the topic.	Supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis that generally supports the presentation or establishes the presenter's credibility/authority on the topic.	Supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis that partially supports the presentation or establishes the presenter's credibility/authority on the topic.	Insufficient supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make reference to information or analysis that minimally supports the presentation or establishes the presenter's credibility/authority on the topic.
Central Message	Central message is compelling (precisely stated, appropriately repeated, memorable, and strongly supported).	Central message is clear and consistent with the supporting material.	Central message is basically understandable but is not often repeated and is not memorable.	Central message can be deduced but is not explicitly stated in the presentation.



WRITTEN COMMUNICATION VALUE RUBRIC



*For more information, please contact
value@aacu.org*

	Capstone 4	Milestones		Benchmark 1
		3	2	
Context of and Purpose for Writing <i>Includes considerations of audience, purpose, and the circumstances surrounding the writing task(s)</i>	Demonstrates a thorough understanding of context, audience, and purpose that is responsive to the assigned task(s) and focuses all elements of the work.	Demonstrates adequate consideration of context, audience, and purpose and a clear focus on the assigned task(s) (e.g., the task aligns with audience, purpose, and context).	Demonstrates awareness of context, audience, purpose, and to the assigned tasks(s) (e.g., begins to show awareness of audience's perceptions and assumptions).	Demonstrates minimal attention to context, audience, purpose, and to the assigned tasks(s) (e.g., expectation of instructor or self as audience).

Content Development	Uses appropriate, relevant, and compelling content to illustrate mastery of the subject, conveying the writer's understanding, and shaping the whole work.	Uses appropriate, relevant, and compelling content to explore ideas within the context of the discipline and shape the whole work.	Uses appropriate and relevant content to develop and explore ideas through most of the work.	Uses appropriate and relevant content to develop simple ideas in some parts of the work.
Genre and Disciplinary Conventions <i>Formal and informal rules inherent in the expectations for writing in particular forms and/or academic fields (please see glossary)</i>	Demonstrates detailed attention to and successful execution of a wide range of conventions particular to a specific discipline and/or writing task(s) including organization, content, presentation, formatting, and stylistic choices.	Demonstrates consistent use of important conventions particular to a specific discipline and/or writing task(s), including organization, content, presentation, and stylistic choices.	Follows expectations appropriate to a specific discipline and/or writing task(s) for basic organization, content, and presentation.	Attempts to use a consistent system for basic organization and presentation.
Sources and Evidence	Demonstrates skillful use of high-quality, credible, relevant sources to develop ideas that are appropriate for the discipline and genre of the writing.	Demonstrates consistent use of credible, relevant sources to support ideas that are situated within the discipline and genre of the writing.	Demonstrates an attempt to use credible and/or relevant sources to support ideas that are appropriate for the discipline and genre of the writing.	Demonstrates an attempt to use sources to support ideas in the writing.
Control of Syntax and Mechanics	Uses graceful language that skillfully communicates meaning to readers with clarity and fluency and is virtually error-free.	Uses straightforward language that generally conveys meaning to readers. The language in the portfolio has few errors.	Uses language that generally conveys meaning to readers with clarity, although writing may include some errors.	Uses language that sometimes impedes meaning because of errors in usage.

	Exemplary (90%- 100%)	Proficient (80%-90%)	Developing (70%-80%)	Unacceptable (<70%)
Frequency of participation in class	Student initiates contributions more than once in each recitation.	Student initiates contribution once in each recitation.	Student initiates contribution at least in half of the recitations	Student does not initiate contribution & needs instructor to solicit input.
Quality of comments	Comments always insightful & constructive; uses appropriate terminology. Comments balanced between general impressions, opinions & specific, thoughtful criticisms or contributions.	Comments mostly insightful & constructive; mostly uses appropriate terminology. Occasionally comments are too general or not relevant to the discussion.	Comments are sometimes constructive, with occasional signs of insight. Student does not use appropriate terminology; comments not always relevant to the discussion.	Comments are uninformative, lacking in appropriate terminology. Heavy reliance on opinion & personal taste, e.g., "I love it", "I hate it", "It's bad" etc.
Listening Skills	Student listens attentively when others present materials, perspectives, as indicated by comments that build on others' remarks, i.e., student hears what others say & contributes to the dialogue.	Student is mostly attentive when others present ideas, materials, as indicated by comments that reflect & build on others' remarks. Occasionally needs encouragement or reminder from T.A of focus of comment.	Student is often inattentive and needs reminder of focus of class. Occasionally makes disruptive comments while others are speaking.	Does not listen to others; regularly talks while others speak or does not pay attention while others speak; detracts from discussion; sleeps, etc.