FBM A270: SUSTAINABLE FOOD SYSTEMS

Item	Value
Curriculum Committee Approval Date	10/19/2022
Top Code	130700 - Hospitality
Units	3 Total Units
Hours	108 Total Hours (Lecture Hours 36; Lab Hours 72)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	Yes
Basic Skills	Not Basic Skills (N)
Repeatable	No
Open Entry/Open Exit	No
Grading Policy	Standard Letter (S)

Course Description

This course explores the economic and environmental impacts of our local and global food systems with an emphasis on the movement towards a sustainable food system. This course also examines issues on justice, sovereignty, equity, access, and inclusion within the food systems. Students will learn how to grow food sustainably, utilize the entire product with minimal waste and compost the remaining food waste safely. Formerly FSM A170. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Students will be able to analyze food sustainability models using the principles of “triple bottom line” (people, planet, profit) as a primary framework through which sustainable food solutions occur through the supply chain and explore the policies, economic systems, business models, and personal value systems that give rise to both “conventional” and “alternative/local” food systems.

Course Objectives

- 1. Define Sustainability.
- 2. Recognize the impact sustainability has on the environment and economy.
- 3. Relate the principles of sustainability to today?s food systems.
- 4. Examine the current food distribution model and the impacts associated with it.
- 5. Summarize how sustainable farming practices and methods improve food quality and increase food safety.
- 6. Explain sustainable food waste management.
- 7. Critically analyze data related to food waste and recovery.
- 8. Predict upcoming trends in sustainable food management.
- 9. Learn basic gardening skills for growing food
- 10. Learn how to utilize the entire edible portion of a fruit or a vegetable.
- 11. Learn composting practices.

Lecture Content

Food systems Farms Food Distributors Consumers Sustainability Food Waste Food Loss Food Insecurity Environmental ramifications Economic ramifications Food waste Landfills Greenhouse gas emissions Global Warming Food recovery Food recovery organization Pantries Ugly produce companies Food Recovery Kitchens Growing Edible Food Raised Gardens Plots of Land Harvesting Composting/Anaerobic Digester How to maintain/proper procedures How to collect/utilize Composting at OCC

Lab Content

Basics of Gardening Soil preparation Tools/equipment Proper planting procedures Monitoring Day to Day Care Watering/sun exposure Maintenance of garden boxes/tool shed Harvesting Produce Identifying peak harvest times How to safely harvest without killing plant Proper storage of harvested foods What to do with harvested foods Collecting Compost Organize groups for collection Go over procedures/how to Set schedule/rotation for groups to collect Instruct in what to do with collections

Method(s) of Instruction

- Lecture (02)
- Lab (04)

Instructional Techniques

Lecture to discuss sustainability and its impacts. Laboratory to demonstrate food growth and waste processes.

Reading Assignments

Students will spend a minimum of one hour per week reading assigned text and materials.

Writing Assignments

Written food waste recovery standards, laboratory/garden evaluation reports, written semester project/presentation

Out-of-class Assignments

A minimum of one hour per week will be spent on assigned take-home project and lab reports.

Methods of Student Evaluation

- Midterm Exam
- Final Exam
- Short Quizzes
- Written Assignments
- Essay Examinations
- Report
- Projects (Individual/Group)
- Problem Solving Exercises
- Oral Presentations
- Skills Demonstration

Demonstration of Critical Thinking

Student evaluation is based on quizzes, exams (midterm and final), completion of supporting materials, lab reports, lab performance, group project and group presentation.

Required Writing, Problem Solving, Skills Demonstration

Written production standards, laboratory evaluation reports, written semester project

Eligible Disciplines

Agricultural business and related services (inspection, pest control, food ...: Any bachelor's degree and two years of professional experience, or any associate degree and six years of professional experience. Culinary arts/food technology (food service, meat cutting, baking, waiter/w...: Any bachelor's degree and two years of professional experience, or any associate degree and six years of professional experience. Nutritional science/dietetics: Master's degree in nutrition, dietetics, or dietetics and food administration OR bachelor's degree in any of the above AND master's degree in chemistry, public health, or family and consumer studies/home economics OR the equivalent. (Note: A bachelor's degree in nutrition, dietetics, or dietetics and food administration, and certification as a registered dietician, is an alternative qualification for this discipline.) Master's degree required. Title 5, section 53410.1 Restaurant management: Any bachelor's degree and two years of professional experience, or any associate degree and six years of professional experience.

Textbooks Resources

1. Required Galanakis, Charis . Sustainable Food Systems from Agriculture to Industry: Improving Production and Processing, 3 ed. Academic Press, 2018