**2019-2020**

**From Farm to Fork: Why What You Eat Matters**

**COURSE SYLLABUS**

# Course Description

This course connects choices about natural resource use and the impacts of these choices from the local to global levels. Students will examine and apply the physical science of growing, treating and harvesting food and the impact of those processes on human health and the environment. Using an ecosystems approach to food production, students engage in readings, labs, and field studies on topics of food distribution, food chains, links between nutritional needs, and sustainable land use practices. The scientific method will be utilized throughout the course, and much of the lab work will be conducted in the school garden, our classroom, greenhouse and our Slews restoration project. Professionals within the Farm to Fork agriculture and culinary industries will be involved in activities and projects throughout. Upon completion of this course, students will be able to apply environmental science concepts to food production, will develop a personal career plan and statement, and will acquire skill in applying the scientific method and the principles of sustainability to influence the health of their own environment.

**Course Overview and Structure**

The class involves interactive lectures with plenty of room for questions from students participating in classroom, garden and greenhouse activities. The class is divided into three units Food Systems, Farmers, Factories and Food Chains and Consumers and communities. The topics we will cover are listed below:

Food, the Environment and You

Natural Cycles

Soil Science

Germination and Plant Sex

Food Choices and Nutrition

From Local to Global - Sustainable Food Solutions

**Learning Objectives**

At the end of this course, students should be able to:

1. Describe food production from prehistoric hunter/gatherer societies to the modern industrial global food system.
2. Describe the major effects of modern agriculture and food production on the local and global environment, including environmental exposures and climate as well as water quality and scarcity and land use.
3. Discuss the key characteristics of Western diets and identify the most important diet-related health problems and diseases associated with these diets, as well as their causes.
4. Identify the causes and consequences of the major food and nutrition problems in the developing world, including drought, famine, hunger, and malnutrition.
5. Apply analytic thinking to differentiate between science and anti-science and critically evaluate information presented in the media and popular press related to food, nutrition, agriculture, and the environment.
6. Develop a comprehensive framework and tools for analysis of personal dietary choices that considers multiple factors, including nutrition and health, environmental effects, climate change, sustainability, economics, and ethics.
7. Describe the environmental effects of modern agriculture and food production, as well as the feasibility and challenges associated with implementation of these options

# Textbooks

Albie Miles and Martha Brown, Teaching Organic Farming and Gardening, CASFS, 2003

John Jeavons How to Grow More Vegetables Ten Speed Press 2012

**Assignments and Grading**

Assignments for this class include homework assignments, a sustainable garden project, and an in class, closed and open book quizzes and exams, garden and greenhouse work.

Garden/Greenhouse work 30%

Assignments 30%

Quizzes and Tests 10%

FFA participation 10%

Elementary Garden Visits 10%

SLEWS participation 10%

Note: The final exam will be a closed book, closed notes, two hour exam that will take place in class that will have elements of the greenhouse and garden mixed in.