Overview
This course uses food production and consumption as an introduction to many of the elements of environmental science including nutrient cycles, population growth, food webs, water supply and demand, impact of exploitation on natural populations, land transformation, energy consumption and its impact on climate. We will also explore how environmental changes impact individuals and societies in how they produce food. In the 1960s there were apocalyptic claims that the world would run out of food in the 1970s and wars would be fought over food. This did not happen and world food production has increased faster than human populations. However, the methods used to increase yields seem to have reached a plateau, and climate change, water and land shortages all threaten the ability to match food production to human population.

All food production and consumption has environmental costs, but there are large differences in the environmental impact of different foods. Individuals have choices about what they eat, and as a consequence choices about how the affect the environment.

Role of Service-Learning in the Course
A key objective of the course is for students to understand how different kinds of food production and consumption impact the environment both locally and globally. Most Americans are now disconnected from the food system, few know anything about farming, processing or retailing.

My objective for the students participating in service learning is to learn "on the ground" about specific steps in the food production and consumption process. Ideally they will be exposed to a step in the process, and see how different aspects of the environment are impacted by the part of the food production process they are involved in. It would also be desirable if the students could identify alternatives in the process they learn about.

Assignments Related to Service-Learning
Each student participating in service learning will prepare an oral report on how their experience in service learning relates to a specific element in the course curriculum. Students meet weekly in small (<25) discussion groups and these presentations will take place in the last 3 weeks of the quarter in their discussion groups.