



THE UNIVERSITY OF ARIZONA

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College of Public Health

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University of Arizona**

CPH/GHI 432/532 Food in 2050 and Beyond: Climate Change and Global Health

Catalog Description: The grand societal challenges have put pressure on traditional food systems and enabled fascinating technology- and nature-based advances shaping the global food outlook. This course is aimed to envision the future of food in the context of climate change, global health, sustainable cities, food-water-energy nexus, and digitally transformed world. Students explore the vision of the future of food under sustainability, middle-of-the-road, and business-as-usual scenarios considering changes in diet, population, agricultural practices, and climate. This course will showcase novel solutions aimed to design the food system that can protect and improve public health, sustain environment, and be upgraded with equity at its core. As students gain insights into food trends, challenges, and emerging opportunities, they will develop leadership vision how to address health-conscious needs and demands for food self-sufficiency throughout the 21st century. The course readings consider food from multiple perspectives: health, environmental, economic, social, and cultural, providing a holistic view of the modern food systems pathways. (3 units)

Course Topics:

- Climate change
- Food production, distribution and access
- Sustainable healthy diets

Course Objectives: During this course, students will:

- Explore potential directions for the future of food, influenced by factors such as climate change impacts, the rise of new pathogens and unknown viruses, changing dietary preferences, advancements in technology, the utilization of natural resources, and economic disparities across nations.
- Analyze and evaluate the practicality of recent research and innovations related to food production, processing, preparation, and consumption that aim to promote sustainability within our food system by 2050.

Learning Outcomes (Competencies Obtained): Upon completion of this course students will be able to:

1. Identify and summarize the main factors that will shape the global food system from agricultural production to food consumption for the next decades.
2. Identify and re-consider personal and cultural relationships with food.
3. Evaluate scenarios that represent different futures of the food system in 2050 under climate change, which is the single biggest health threat facing humanity, and health professionals worldwide.
4. Identify emerging trends in food and food technologies and their health benefits and risks.
5. Discuss the impact of personal food choices on health and the health of our planet.
6. Analyze complex interactions between environment, food supply chain, and consumer behavior.
7. Examine and evaluate key environmental and health impacts of the agri-food systems.
8. Estimate the feasibility of implementation and the impact of solutions to the world's increasing food needs based on alternative methods, indigenous knowledge, native crops, joined with cutting-edge technologies.
9. Leverage solutions to address societal needs in 2050 for a regenerative and equitable food system producing healthy, safe, and nutritious food for all.