

## Course Syllabus

Course Title: **Integrated Nutrition, Health, Environment, and Agricultural Systems**  
**11:193:255**

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Catalogue Description: This course examines the role of food, food access, and sustainability in creating food secure communities. Students will explore local food systems, sustainability, and specific food-related topics that impact agriculture, health, health equity, food access, and community. We will examine critical issues, successful programs, and challenges to improving food systems and health equity.

Justification: Throughout the United States, there is increasing concern about where our food comes from, how it is produced, and how its production affects food access, health equity, and our communities. Innovative programs are building stronger connections between people and food at the local levels. The need to understand food systems and their link to the health system has never been greater.

### Course Materials:

Peer-reviewed journal articles and web sites on the following topics:

- Social Determinants of Health
- Food Access/Food Security
- The Farm Bill
- Local Food Systems
- Sustainability

### Learning Objectives:

Students will:

- Understand how food systems reflect our values and contribute to our economy, community, environment, food access, and health equity.
- Identify programs and policies that create access to healthy food and locally grown food.
- Discuss critical issues, successful programs, and challenges to improving food system, food access, and health equity.
- Identify opportunities to link agricultural and health systems.

### Assessment:

Students will be evaluated by demonstrating that they have met course objectives. This will be accomplished with: 1) discussion assignments where students will be able to collaborate with other students to improve understanding and overcome stumbling blocks; 2) written assignments which students will complete independently; and 3) a course summative project, where students will develop and present a project that links the agricultural and health systems as a mechanism to support health equity and agricultural viability/sustainability.

These assignments will entail: 1) narrative responses demonstrating understanding; and 2) interpretative responses demonstrating discerning, pragmatic insights and observations about the agricultural and health systems.

Assignment	Number	Points per	Total Points	Percent
Discussion (Collaborative labs)	3	50	150	15%
Written papers/projects	3	100	300	30%
Written Paper	1	250	250	25%
Final project	1	300	300	30%
<b>Total</b>			1000	100%

Grading:

The following grading schema will be used, unless the instructor feels it necessary to use a modified table.

Grade	Interpretation	Points earned
A	Outstanding	900–1000
B+		850–899
B	Good	800–849
C+		750–799
C	Satisfactory	700–749
D	Poor	600–699
F	Failing	< 600

**WEEKLY OUTLINE**

Week	Topic	Required Reading	Assignment (Note this table provides a brief outline of the course assignments.)
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			<b>Please refer to the weekly lesson introductions and details about each assignment)</b>
1	Using Social Determinants of Health to Understand the Intersection of the Food and Health Systems	<p>Social Determinants of Health:</p> <p><a href="https://health.gov/healthypeople/priority-areas/social-determinants-health">https://health.gov/healthypeople/priority-areas/social-determinants-health</a></p>	<p><b><i>Threaded Discussion #1: Due 11:59 pm (date)</i></b> (worth 50 pts)</p> <p>This is an opportunity to get to know your classmates. In your initial response, please introduce yourself (name, year, school and major) to the class. Tell us about your interest in the food system and this course.</p> <p>This course examines the link between agriculture, food access, and health equity. Consider the role of social determinants of health in promoting health and health equity. Social determinants of health are the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks. A variety of environmental factors contribute to health equity. Among them is access to healthy food.</p> <p>For our first threaded discussion, please review the priorities identified by <i>Healthy People 2030</i>. <i>Healthy People</i> identifies public health priorities to help individuals, organizations, and communities across the United States improve health and well-being. <i>Healthy People 2030</i>, the initiative's fifth iteration, builds on knowledge gained over the first 4 decades.</p> <p>After reviewing <i>Healthy People 2030</i>, share your thoughts about social determinants of health. In your opinion, which determinant (pick one) most significantly impacts food access? Which determinant (pick one) impacts health equity? What surprised you most about social determinants of health and how they might affect a community or a person?</p>
2	Using Social Determinants of Health to Understand the Intersection of the Food and Health Systems	<p>Classmate Posts from Week 1</p> <p>Social Determinants of Health:</p> <p><a href="https://health.gov/healthypeople/priority-areas/social-determinants-health">https://health.gov/healthypeople/priority-areas/social-determinants-health</a></p>	<p><b><i>Threaded Discussion #2 Due 11:59 pm (date)</i></b> (worth 50 points)</p> <p><i>Review your classmates' posts from the prior week's assignment. Comment on the post that immediately preceded your post in the thread. (If you posted first, comment on the last post in the thread.)</i></p> <p>How did your classmate's opinion about the social determinant of health that most impacts food access and health equity differ from yours? Discuss your impressions, observations, and concerns.</p>

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3 & 4	Field Experience -- Values-Based Supply Chains	<p>Journal Article &amp; Web Site – Local Foods:</p> <p><i>See Article in Course Files:</i> Consumers’ Perceptions and Preferences for Local Food: A Review</p> <p><a href="https://www.usda.gov/media/blog/2010/07/16/what-local-food">https://www.usda.gov/media/blog/2010/07/16/what-local-food</a></p>	<p><b>Written Paper #1: Local Food at the Supermarket</b>  <b>Due 11:59 pm (date)</b>  (worth 100 points)</p> <p>A <b>local food</b> would be a product raised, produced, processed, and stored, then distributed in the region where it is marketed. Nationwide, local foods are typically sold directly to consumers through farmers markets, roadside stands, and community supported agriculture.</p> <p>For this assignment, you will write a paper introducing a manufactured/ processed fruit or vegetable food product manufactured in New Jersey.</p> <p>You will use online research or in-store food labels to find a food product that is manufactured in New Jersey. Then, you will use the internet and personal correspondence (telephone and/or email) to investigate where the manufacturer sources their ingredients. Does the manufacturer use fruits and/or vegetables grown in New Jersey to make their product?</p> <p>Finally, you will write a paper that presents what you learned.</p> <p>Visit a local supermarket (in-person or via a store web site) or perform a web search to find a fruit or vegetable product that is manufactured in New Jersey. This should be a processed food product, not a fresh bagged fruit or vegetable product. For example, the Campbell's Soup Company in Camden, NJ makes vegetable soup and tomato soup. The Don Pepino company in Williamstown, NJ makes pizza sauce.</p> <p>Using the product label, company web site, and the company's customer service/corporate contacts, find out where the manufacturer sources their fruits/vegetables. Where do their fruits and vegetables come from? Does the company manufacture a product in New Jersey using fruits/vegetables from New Jersey or another state/country?</p> <p><b>Write a paper that introduces your product and explains why you selected it. Answer the following:</b></p> <ul style="list-style-type: none"> <li>• Product name and manufacturer</li> <li>• Location (city/town) in New Jersey that the manufacturer is located</li> <li>• Describe the product you selected</li> <li>• Does the manufacturer use fruits/vegetables that are grown in New Jersey? If not, why? If yes, why?</li> <li>• Did the manufacturer at one time use New Jersey produce but now purchases produce from outside of New Jersey? Why/why not?</li> </ul>
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<p><b>3 &amp; 4</b> <b>(Con't.)</b></p>	<p>Field Experience -- Values-Based Supply Chains</p>	<ul style="list-style-type: none"> <li>• Did the manufacturer switch to using New Jersey produce or make a conscious decision to use New Jersey produce? Why?</li> <li>• Does the manufacturer use information about where or how the produce is grown in the product's marketing or advertising materials?</li> <li>• Does the manufacturer support any food security, health, or health equity initiatives/charities as part of their business model or in relation to a specific product line?</li> </ul> <p>Please do not select raw salad blends or similar fresh produce products. We are specifically looking for a manufactured/processed product. Using Campbell's as an example -- soup or dry goods. Don Pepino's makes prepared tomato sauce and pizza sauce. If you are unsure about whether or not the product you select is appropriate, please email us and we can tell you immediately.</p> <p><b>Note:</b> Campbell's and Don Pepino's are listed as examples. You cannot use the examples we provided. Find another product/manufacture for your research and paper.</p> <p><b><i>Submit the assignment here. Length should be 500-750 words. Refer to "Paper Style Guidelines" listed when writing your paper.</i></b></p>
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5 & 6	Food Security & "Health" Security	<p>Journal Articles &amp; Web Site – Healthy Food Access:</p> <p>National Strategy on Hunger, Nutrition, and Health:  <a href="https://www.whitehouse.gov/wp-content/uploads/2022/09/White-House-National-Strategy-on-Hunger-Nutrition-and-Health-FINAL.pdf">https://www.whitehouse.gov/wp-content/uploads/2022/09/White-House-National-Strategy-on-Hunger-Nutrition-and-Health-FINAL.pdf</a></p> <p><b>See Articles in Course Files:</b>            Creating Integrated Strategies for Increasing Access to Healthy Affordable Food in Urban Communities</p> <p>Increasing Access to Healthy Foods through Improving Food Environment</p> <p>A food bank program to help food pantries improve healthy food choices</p> <p>Highlighting Healthy Options in a Food Pantry Setting: A Pilot Study</p>	<p><b>Pantry Assessment Paper #2: Healthy Food Access</b>  <b>Due 11:59 pm (date)</b>  <i>(worth 100 points)</i></p> <p>Accessing healthy foods and understanding how to prepare healthy meals and snacks are important determinants of one’s dietary quality. In this assignment, you will evaluate healthy food access (its availability, cost, and quality) for a low-income neighborhood in a food pantry service area.</p> <p>You will use this assessment in our Week 7 &amp; 8 assignment to compare and contrast your evaluation with current research on improving food access.</p> <p>Please identify and share via Threaded Discussion the name and location of a local food pantry that you will visit to conduct an independent “food security assessment”.</p> <p>Using the food pantry you identified, complete the MyPlate food pantry assessment tool to evaluate the foods offered at a local food pantry. The MyPlate food pantry assessment tool is located in the “Files” section of this course. The assessment will address topics such as:</p> <ul style="list-style-type: none"> <li>• Nutritional content of available foods</li> <li>• Variety of MyPlate food groups offered at the pantry</li> <li>• Availability of fruits, vegetables, and whole grains</li> <li>• Availability of culturally diverse foods</li> <li>• Nutrition education lessons or materials offered at food pantry</li> </ul> <p>Pick two journal articles from the list. Read and be prepared to evaluate how your food pantry assessment supports the findings discussed in the referenced journal articles for our Week 7 &amp; 8 assignment.</p>

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7 & 8	Reflection on Food Security / "Health" Security	<p>Journal Articles &amp; Web Site – Healthy Food Access (Same as those listed for Threaded Discussion):</p> <p>National Strategy on Hunger, Nutrition, and Health:</p> <p><a href="https://www.whitehouse.gov/wp-content/uploads/2022/09/White-House-National-Strategy-on-Hunger-Nutrition-and-Health-FINAL.pdf">https://www.whitehouse.gov/wp-content/uploads/2022/09/White-House-National-Strategy-on-Hunger-Nutrition-and-Health-FINAL.pdf</a></p> <p><i>See Articles in Course Files:</i></p> <p>Creating Integrated Strategies for Increasing Access to Healthy Affordable Food in Urban Communities</p> <p>Increasing Access to Healthy Foods through Improving Food Environment</p> <p>A food bank program to help food pantries improve healthy food choices</p> <p>Highlighting Healthy Options in a Food Pantry Setting: A Pilot Study</p>	<p><b>Written Paper #3: Healthy Food Access</b> <b>Due 11:59 pm (date)</b> <i>(worth 100 points)</i></p> <p>The Biden-Harris Administration National Strategy on Hunger, Nutrition, and Health provides a succinct summary of hunger and the nutrition-related health crisis that lack of healthy food access creates. The result of the healthy food access crisis is the rising prevalence of diet-related diseases such as type 2 diabetes, obesity, hypertension, and certain cancers.</p> <p>The National Strategy examines the consequences of food insecurity and diet-related diseases, which it calls significant, far reaching, and disproportionately impacting historically underserved communities. The Strategy calls food insecurity and diet-related diseases “largely preventable, if we prioritize the health of the nation.” How do you feel about this?</p> <p>Complete the reading assignment and evaluate how your food pantry assessment supports or refutes the findings discussed in the referenced journal articles. Looking exclusively at the foods and services available at the pantry you evaluated, tell us if your pantry meets the nutritional needs of the community it serves. What else does the community need to make healthy eating more accessible?</p> <p>Tie topics discussed in the articles to your observations/ insights from your food pantry assessment.</p> <p>Refer to the "paper style guidelines" listed and post. Papers should be 3 pages, double-spaced, 12-point font and use a cover page. References and cover pages do not count toward the 3-page total.</p>

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9 & 10	Farm Bill	<p>Web Sites – The Farm Bill:</p> <p><b>Farm Bill Primer: What is the Farm Bill?</b>  <a href="https://crsreports.congress.gov/product/pdf/IF/IF12047">https://crsreports.congress.gov/product/pdf/IF/IF12047</a></p> <p><b>The Farm Bill:</b>  <a href="https://www.usda.gov/farmbi">https://www.usda.gov/farmbi</a></p>	<p><b>Threaded Discussion #3: Due 11:59 pm (date)</b> (worth 50 points)</p> <p>Read the two documents about the Farm Bill:</p> <ol style="list-style-type: none"> <li>1- The Congressional Research Service’s succinct introduction to the Farm Bill, called <i>Farm Bill Primer: What is the Farm Bill?</i></li> <li>2- The USDA summary of components of the Farm Bill.</li> </ol> <p>An excerpt from the Primer defines the purpose of the Farm Bill:</p> <p>The farm bill is a multiyear law that governs several agricultural and food programs. It provides an opportunity for policymakers to comprehensively and periodically address agricultural and food issues. In addition to developing and enacting farm legislation, Congress is involved in overseeing its implementation. The Farm Bill typically is renewed about every five years. Since the 1930s, Congress has enacted 18 Farm Bills.</p> <p>Review the Farm Bill and consider the broad range of programs and topics it covers. Choose one of the following programs and create a 300-word post about the program.</p> <ul style="list-style-type: none"> <li>• Farmers Market and Local Food Promotion Program (part of the Local Agriculture Market Program).</li> <li>• The Gus Schumacher Nutrition Incentive Program (part of the Supplemental Nutrition Assistance Program, or SNAP)</li> </ul> <p>Discuss how the program promotes food security, supports health equity, and supports local agriculture.</p>
11 & 12	Food Systems	<p>Journal Articles &amp; Web Sites – Food Systems:</p> <p><b>(See Articles in Course Files)</b></p>	<p><b>Food Systems &amp; Health Paper: Due 11:59 pm (date)</b> (worth 250 points)</p> <p>In their editorial, Mousa, Remley &amp; Lane discuss the four pillars of food security, food systems and sustainability. “Achieving the four pillars of food security, namely—availability, access, utilization, and stability, is essential to sustaining human health via a sustainable food system. Food systems are comprised of farms that grow crops and fruit trees; as well as those that raise sheep, cows, chickens, and other animals; processing</p>

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11 & 12 (Con't.)	Food Systems	<p>Journal Articles &amp; Web Sites – Food Systems:</p> <p><i>(See Articles in Course Files)</i></p> <p>Editorial: Food systems, food insecurity, and racial and ethnic health disparities</p> <p>Food security and sustainability: can one exist without the other?</p> <p>The importance of food systems and the environment for nutrition</p> <p>IUNS Task Force on Sustainable Diets - LINKING NUTRITION AND FOOD SYSTEMS</p>	<p>facilities; institutions that prepare and serve food; food distributors and retailers, food banks, charitable organizations, and consumers. Sustainability of these systems is influenced by food prices, food production and transportation, civil unrest and war, and/or agricultural trade.”</p> <p>The authors go on to explain that adoption of sustainable food production solutions is associated with reduced food prices, and that these solutions depend on the development and use of local natural resources.</p> <p>Our food systems play a key role in health equity. Understanding the interrelationship between food security and sustainability as they relate to food availability, accessibility, and use are key to creating food access and a strong, vital food system.</p> <p>Berry, et al explain in their article, <i>Food security and sustainability: can one exist without the other?</i>, “Intergovernmental processes have emphasized the importance of sustainability to preserve the environment, natural resources and agro-ecosystems (and thus the overlying social system), as well as the importance of food security as part of sustainability and vice versa.” They conclude that sustainability should be considered as part of the long-term time dimension in the assessment of food security. In their paper, the authors suggest that without integrating sustainability as an explicit dimension of food security, today’s policies and programs could become the very cause of increased food insecurity in the future.</p> <p>Review the articles in the “Files” section of the course. Do you see a connection between sustainability and food security? Is the availability of nutritious foods impacted by the strength and structure of the food system? How might this impact food security and health? Fanzo, et. al tell us that “Global and local food system transformation is necessary to ensure the delivery of healthy, safe, and nutritious foods in both sustainable and equitable ways.” What steps can we take to achieve this ideal? Read their article in the “Files” section of the course to help answer these questions.</p> <p>Reflection Paper: Read 2 of the articles provided in the “Files” section of the course and think about how the food system’s role affects sustainability, food security, and ultimately health equity and disparities. Do your own research on any aspect that interests you to search for connections.</p> <p>Write a 4-page paper reflecting on critical issues, successful programs, and challenges linking food systems, health disparities and health equity based on the information you read. (Be sure to use citations and quotes from the articles). Refer to the "paper style guidelines" listed and post.</p>

Week	Topic	Required Reading	Assignment (Note this table provides a brief outline of the course assignments. Please refer to the weekly lesson introductions and details about each assignment)
13-15	Project on Agritourism & Health Equity	<p>Journal Articles &amp; Web Sites – Agritourism</p> <p>Agritourism: An Overview  <a href="https://nationalaglawcenter.org/overview/agritourism/">https://nationalaglawcenter.org/overview/agritourism/</a></p> <p><i>See Articles in Course Files:</i></p> <p>Between food and spectacle: The complex reconfigurations of rural production in agritourism</p> <p>Feeding island dreams: exploring the relationship between food security and agritourism in the Caribbean</p>	<p><b><i>Agritourism Project: Due 11:59 pm (date)</i></b> (worth 300 points)</p> <p>Create an Agritourism project that links nutrition, food access, and health equity to local farms.</p> <p>The National Agricultural Law Center calls agritourism, “a commercial enterprise that links agricultural production and/or processing with tourism to attract visitors onto a farm, ranch, or other agricultural business for the purposes of entertaining or educating the visitors while generating income.” The Center calls agritourism, “a field that is growing in popularity as producers try to diversify and increase profits. By combining agriculture and tourism, agritourism offers new sources of revenue but also presents potential problems and legal complications.”</p> <p>Many farmers turn to agritourism to increase profits. But there are concerns that turning a farm’s focus to tourism moves away from agriculture and food production. Can agritourism, food production, and food security co-exist? This week’s journal articles and web resources present some interesting views.</p> <p>As your last assignment create a Power Point presentation about an agritourism business that links nutrition/health, food security, and local farms. Identify a type of farm (i.e. vegetable farm, Christmas tree farm, etc.) and create an original agritourism product or program for that farm. Select any type of farm, but the primary focus of the agritourism venture should be nutrition, food access, agriculture education, and wellness. The project should feature original ideas that include:</p> <ul style="list-style-type: none"> <li>▪ Slide 1: Introduction</li> <li>▪ Slides 2 &amp; 3: Organization overview, mission, and target audience(s)</li> <li>▪ Slide 4: Business vision</li> <li>▪ Slide 5: Philanthropic vision</li> <li>▪ Remaining Slides: Develop creative activities, projects, and programs your farm offers for each topic, below: <ul style="list-style-type: none"> <li>○ Nutrition, healthy eating, how to use/prepare farm foods</li> <li>○ How your farm supports food access, in for-profit and poor communities</li> <li>○ Learn about agriculture and how food grows</li> <li>○ How does your farm promote wellness? Do you offer/sponsor programs, screenings, or other activities?</li> </ul> </li> </ul>

			<p>REMEMBER: Your agritourism business must connect what the farm grows/produces, nutrition, food access, and agriculture.</p> <p>Create a Power Point presentation that features 20-25 slides about your farm. It is important to be creative. The Power Point is marketing your agritourism business. Slides should be colorful, attractive, well thought out, and detailed...but not verbose. Slides should blend and coordinate to create a savvy, professional appearance.</p>
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