

Course Title: *Global Food Systems and Policy*

Course Number: *UGPH 0630*

Course Pre- and Co-requisite(s): *None*

Course Location: *Room 1A/B, School of Public Health, Piscataway*

Course Date & Time: *Mondays, 3-5pm*

Course Instructor: *Shauna Downs, PhD, MS*
Assistant Professor, Department of Urban-Global Public Health
One Riverfront Plaza, Newark NJ 07102
Email: sd1081@sph.rutgers.edu

Office Hours: *By appointment only*

Course Website: canvas.rutgers.edu

Required Course Text: *None*

Additional/Supplemental Readings/Resources: The class readings consist of articles and book chapters. Readings will be posted on the Canvas system for the course. If this is not possible, some readings will be distributed in class, via e-mail, or through links to electronic journals or other web sites.

Course Description: Although high rates of undernutrition continue to persist in many parts of the world, the burden of overweight, obesity and diet-related non-communicable diseases are increasing rapidly. Many countries are now tackling multiple burdens of malnutrition. At the same time, the way food is produced, and moves from farm-to-fork, has led to high greenhouse gas emissions, depletion of water sources and biodiversity losses. The global food production and distribution systems face challenges in delivering benefits that contribute to the health of populations or to the planet. This course will provide an overview of food system drivers, elements and activities, and their key players. Students will learn about the challenges faced by food systems locally and globally, and critically analyze the design, evaluation, and impact of programs, policies and interventions aimed at addressing those challenges. They will also learn about the different methodological approaches that can be used to assess food system activities and outcomes as well as how they can be applied to different country contexts. The course will be divided into three modules: 1) setting the global nutrition scene; 2) intervening in the food system; and 3) social, environmental and ethical food system considerations. A combination of lectures (in-class and online), discussions, online quizzes, in-class group work and assignments will be used to meet the course objectives.

Selected Concentration Competencies Addressed: Each concentration identifies competencies for each degree offered. The competencies addressed in this course for the MPH in Public Health Nutrition include:

- Analyze local and global food systems.
- Design an evaluation framework for a population-based nutrition intervention or program.

- Apply research methodology, interpretation of research literature, and integration of research principles into evidence-based public health nutrition practice.

Please visit the Concentration webpages on the School of Public Health's website at sph.rutgers.edu/ for additional competencies addressed by this course for other degrees and concentrations.

Course Objectives: By the completion of this course, students will be able to:

- Describe the main global nutritional problems and critically analyze their food system drivers
- Employ systems-level thinking to analyze the elements, activities, and key players in local and global food systems
- Critically evaluate nutrition and food system programs, policies, and interventions
- Design a program, policy or intervention aimed at addressing a food system challenge
- Design an evaluation framework to measure the impacts of a food system policy or intervention
- Develop advocacy tools to communicate food system challenges to diverse audiences

Course Requirements and Grading: Over the course of the semester, students will have the opportunity to earn 100 points. The course grades will be based on online quizzes and homework, assignments and class participation. A detailed description of the assignments and their grading criteria will be posted on Canvas.

1. *Online Quizzes and homework [10 pts.]:* This course will be taught using a combination of in-class lectures and a flipped classroom. The flipped classroom will require students to watch videos and complete online quizzes or homework prior to class. Online videos and their associated quizzes or homework will be posted on Canvas a week in advance of the respective class.
2. *Infographic Assignment [25 pts.]:* Students will create an infographic that is designed to inform diverse audiences about a specific food system problem. The food system problem that the student selects will be used as the basis for the two paper assignments (described below). The infographic will be created using power point, the web-based infographic application called piktochart or other software. Students will be required to use reputable sources (e.g., peer-reviewed journals) as the basis for the information included in their infographic. In addition to the infographic itself, students will provide a one sentence title that summarizes the infographic, prepare an annotated bibliography for the references used (at least 5 reputable sources must be used) and write a paragraph summarizing the food system problem depicted in the infographic. Citing existing infographics will not be permitted. By the third week of the semester (September 23rd) students should inform the instructor of their topic selection. [Due October 7]
3. *Paper 1: Program, policy, or intervention design [30 pts.]:* Students will submit a paper that summarizes the different components of a programs, policy (e.g., soda tax), or intervention (e.g., behavior change communication) aimed at addressing the food system problem they described in their infographic. Students can build on existing programs/policies/interventions but they need to tailor it to a specific context and population. Students will be required to: 1) design the different components of the program/policy/intervention; 2) justify why they have designed the in the way that they

have; and 3) describe the pathways by which it will address the food system problem identified. Students should include multiple citations from reputable sources to support their program/policy/intervention design. In addition to the written description, students will design a program impact pathway (i.e., logic model) that will depict the way in which the program/policy/intervention could impact the outcomes of interest. Papers should not exceed 2,500 words (excluding references). [Due November 11]

4. *Paper 2: Program, policy, or intervention evaluation framework [30 pts.]*: Building on their previous work, students will submit a paper that outlines an evaluation framework for examining the impact of the program/policy/intervention that they designed as part of Paper 1. In this paper, students will describe the study design as well as the methods, indicators, data sources, etc. they would use to assess the impact of the policy/intervention. Students will need to provide a justification for the different components of their evaluation framework, including any perceived limitations, and use reputable sources to support their argument. Papers should not exceed 2,500 words (excluding references). [Due December 16]
5. *Class participation [5 pts.]*: This course is designed to be highly interactive. Class participation is expected from everyone during in-class group work, activities and discussions. Regular class participation and attendance are required and will be assessed throughout the semester. Please notify the instructor if you expect to be absent.

Summary of Grading:

1. <i>Online Quizzes and Homework</i>	10 pts.
2. <i>Infographic Assignment</i>	25 pts.
3. <i>Paper 1: Policy/intervention Design</i>	30 pts.
4. <i>Paper 2: Policy/intervention Evaluation Framework</i>	30 pts.
5. <i>Class Participation</i>	5 pts.
<i>Total:</i>	100 pts.

<i>Grading Scale:</i>	94 – 100	A
	90 – <94	A-
	87 – <90	B+
	84 – <87	B
	80 – <84	B-
	77 – <80	C+
	70 – <77	C
	<70	F

**Grades will NOT be rounded.*

Late Assignments: Students will lose a full letter grade for each 24 hours after the due date for the assignment has passed. All homework assignments need to be either emailed to the instructor prior to class or handed in during class. Homework received after class will receive lose 0.5 points per day. All written work must be completed to receive a passing grade in this class. Please let the instructor know as early as possible if you have any concerns about meeting assignment deadlines.

Course Schedule: (Subject to change)

MODULE 1. SETTING THE GLOBAL NUTRITION SCENE

Date: Week 1

Overview of the food system

- **Class Overview:**
 - Provide an overview of the food system including the elements and activities that influence the production, processing, distribution, preparation and consumption of food.
 - Describe different food system typologies.
 - Review the course syllabus, structure, and assignments.
- **Assigned Readings Due:**
 - Chapter 1. HLPE. 2017. Nutrition and food systems. A report by the High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security, Rome.

Date: Week 2

The multiple burdens of malnutrition

- **Class Overview:**
 - Describe the global burdens of malnutrition and diet-related non-communicable diseases across the lifespan.
 - Review global nutrition targets and goals.
 - Analyze the links between food systems and burdens of malnutrition.
 - Discuss the prioritization of nutrition problems.
- **Assigned Readings Due:**
 - Black RE, Victora CG, Walker SP, et al. (2013) Maternal and child undernutrition and overweight in low-income and middle-income countries. *Lancet* 382: 427-451.
 - Chapter 1&2 (pgs. 16-39). Development Initiatives, 2017. *Global Nutrition Report 2017: Nourishing the SDGs*. Bristol, UK: Development Initiatives.
 - WCRF. Ambitious, SMART commitments to address NCDs, overweight & obesity: Make the UN Decade of Action on Nutrition count for all form of malnutrition.
- **Online 30:**
 - Students should read the article below and be prepared to discuss the prioritization of nutrition interventions in class
 - Baltussen, R. and Niessen, L., 2006. Priority setting of health interventions: the need for multi-criteria decision analysis. *Cost effectiveness and resource allocation*, 4(1), p.14.

Date: Week 3

Food-based dietary guidelines

- Class Overview:
 - Describe the components of a healthy diet
 - Provide an overview of how dietary guidelines are developed and their influence on diets and nutrition.
 - Analyze similarities and differences in food based dietary guidelines globally.
 - Discuss the role of sustainability in dietary guidelines.
- *Assigned Readings Due:*
 - Fischer, C. G., & Garnett, T. (2016). *Plates, Pyramids, and Planets: Developments in National Healthy and Sustainable Dietary Guidelines: a State of Play Assessment*. Food and Agriculture Organization of the United Nations.
 - Monteiro CA, et al. (2015). Dietary guidelines to nourish humanity and the planet in the twenty-first century. A blueprint from Brazil. *Public health nutrition*, 18(13), 2311-2322.
 - Mozaffarian, D. (2016). Dietary and policy priorities for cardiovascular disease, diabetes, and obesity: a comprehensive review. *Circulation*, 133(2), 187-225.
- *Assignments Due:*
 - Students are required to inform the instructor of their food system topic selection by the end of this week of class.
- *Online 30:*
 - Food based dietary guidelines homework

Date: Week 4

Globalization, trade and the nutrition transition

- Class Overview:
 - Provide an overview of the nutrition transition
 - Examine the economic drivers of the nutrition transition
 - Examine the role of agriculture as a critical component of individual livelihoods as well as country level economies
 - Examine the relationship between the food system and food prices
 - Examine the relationship between trade and diets
 - Discuss the role of trade policy to improve diets
- *Assigned Readings Due:*
 - Popkin B. (2006) Global Nutrition Dynamics: the world is shifting rapidly toward a diet linked with noncommunicable diseases. *American Journal of Clinical Nutrition* 84: 289-98.
 - Chapter 3 (pgs. 43-57). Global Panel on Agriculture and Food Systems for Nutrition. 2016. Food systems and diets: Facing the challenges of the 21st century. London, UK.
- *Online 30:*
 - Students should read the following paper and be prepared to discuss the pathways by which globalization can affect nutrition
 - Thow, A.M., 2009. Trade liberalisation and the nutrition transition: mapping the pathways for public health nutritionists. *Public health nutrition*, 12(11), pp.2150-2158.

Date: Week 5

Climate change, diets and sustainability

- Class Overview:
 - Describe what is meant by climate
 - Overview of the changes in our food supply as they relate to sustainability
 - Examine the impact of global diets on environmental outcomes (and vice versa)
 - Identify metrics that can be used to assess sustainability within the food system
- *Assigned Readings Due:*
 - Willett, W., Rockström, J., Loken, B., Springmann, M., Lang, T., Vermeulen, S., Garnett, T., Tilman, D., DeClerck, F., Wood, A. and Jonell, M., 2019. Food in the Anthropocene: the EAT–Lancet Commission on healthy diets from sustainable food systems. *The Lancet*, 393(10170), pp.447-492.
 - Note: Only need to read the executive summary
 - Fanzo J, et al. (2017). Climate Change and Variability: What are the Risks for Nutrition, Diets, and Food Systems? IFPRI Discussion Paper 1645. (Chapter 5).
 - Johnston JL et al. (2014). Understanding Sustainable Diets: A Descriptive Analysis of the Determinants and Processes That Influence Diets and Their Impact on Health, Food Security, and Environmental Sustainability. *Advances in nutrition*, 5(4), 418-429.
- *Assignments Due:*
 - Infographic assignment is due.
- *Online 30:*
 - Students are required to watch the video below and be prepared to discuss in class
 - https://www.youtube.com/watch?time_continue=90&v=akVONkSdBCQ

MODULE 3. INTERVENING IN THE FOOD SYSTEM

Date: Week 6

Value chains for nutrition

- Class Overview:
 - Analyze the actors and processes that take food from farm-to-fork.
 - Identify leverage points in the value chain for improving the nutritional quality of food.
 - Identify indicators for evaluating value chains for nutrition interventions.
- *Assigned Readings Due:*
 - Downs S & Fanzo J. (2016). Managing Value Chains for Improved Nutrition. *Good Nutrition: Perspectives for the 21st Century*.
 - Gelli A, et al. (2015). Value chains and nutrition: a framework to support the identification, design, and evaluation of interventions. (pgs. 9-27)
- *Online 30:*
 - Listen to lecture recording in advance of class

Date: Week 7

Food environments

- Class Overview:
 - Describe the different components of the food environment.
 - Examine ways to assess food environments in different country contexts.
 - Identify leverage points in the food environment for improving the nutritional quality of food consumed.

- *Assigned Readings Due:*
 - Herforth, A., & Ahmed, S. (2015). The food environment, its effects on dietary consumption, and potential for measurement within agriculture-nutrition interventions. *Food Security*, 7(3), 505-520.
 - HLPE. 2017. Nutrition and food systems. A report by the High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security, Rome. (pgs. 94-109)
- *Online 30:*
 - Students are required to read three articles from the Planet Fat Series and be prepared to discuss in class
 - NYTimes Planet Fat Series: <https://www.nytimes.com/series/obesity-epidemic>

Date: Week 8

Nutrition assessments and designing evaluations

- *Class Overview:*
 - Describe how to conduct a nutrition situation analysis.
 - Understand how nutrition assessments can be used to evaluate programs/interventions.
 - Examine different evaluation designs to assess the impact of nutrition interventions/programs.
 - Design program/intervention impact pathways.
- *Assigned Readings Due:*
 - Menon P, Rawat R and Ruel M (2013) Bringing rigor to evaluations of large-scale programs to improve infant and young child feeding and nutrition: evaluation designs. *FNB* 34: S195-211.
 - Lovegrove et al. (2015). Study design: population-based studies & Study design: Intervention studies (Chapters 2 & 3; pgs. 13-47) in *Nutrition Research Methodologies*.
 - USAID and Core (2010) Nutrition Program Design Assistant: A tool for program planners. CORE Group, Nutrition Working Group. Washington DC. (pgs. 14-63).

Date: Week 9

Nutrition specific and nutrition-sensitive interventions

- *Class Overview:*
 - Describe nutrition specific and sensitive interventions and summarize the evidence of their impact on nutrition outcomes.
 - Discuss implementation and evaluation challenges of these interventions in different country contexts and how they might be overcome.
 - Construct program impact pathways of nutrition specific and sensitive interventions.
- *Assigned Readings Due:*
 - Bhutta et al (2013) Evidence-based interventions for improvement of maternal and child nutrition: what can be done and at what cost? *Lancet* 382: 452-477.
 - Ruel et al (2013) Nutrition sensitive interventions and programmes: how can they help accelerate progress in improving maternal and child nutrition? *Lancet* 382: 536-551.

- Olney, D. K., Leroy, J. L., & Ruel, M. T. (2017). Evaluation of Nutrition-sensitive Programs. In *Nutrition and Health in a Developing World* (pp. 603-624). Humana Press, Cham.
- **Online 30:**
 - Students are required to watch all three videos (Mexico, Indonesia and Tanzania) related to food systems for children and adolescents
 - <https://www.gainhealth.org/knowledge-centre/food-systems-children-adolescents/>

Date: Week 10

Obesity and diet-related non-communicable disease policies

- **Class Overview:**
 - Describe obesity and diet-related NCD policies and interventions and summarize the evidence of their impact.
 - Discuss implementation and evaluation challenges of these interventions in different country contexts and how they might be overcome.
 - Construct program impact pathways of obesity interventions.
- **Assigned Readings Due:**
 - Hyseni L, et al. (2017). The effects of policy actions to improve population dietary patterns and prevent diet-related non-communicable diseases: scoping review. *European journal of clinical nutrition*, 71(6), 694.
 - Hawkes C, et al. (2015). Smart food policies for obesity prevention. *The Lancet*, 385(9985), 2410-2421.
 - Adams J, et al. (2016). Why are some population interventions for diet and obesity more equitable and effective than others? The role of individual agency. *PLoS medicine*, 13(4), e1001990.
- **Assignments Due:**
 - Paper 1 (Policy/intervention Design) is due.

MODULE 3. SOCIAL, ENVIRONMENTAL, AND ETHICAL FOOD SYSTEM CONSIDERATIONS

Date: Week 11

Food loss and waste

- **Class Overview:**
 - Describe the food loss and waste problem globally and how it differs based on region.
 - Analyze potential points for intervening to reduce food waste across the food system.
 - Discuss innovative ways to reduce food waste.
- **Assigned Readings Due:**
 - HLPE, 2014. Food losses and waste in the context of sustainable food systems. A report by the High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security, Rome 2014. (pgs. 21-29 & 39-56).
 - NRDC. Food to the Rescue: Bon Appetit's Imperfectly Delicious Produce: <https://www.nrdc.org/resources/bon-appetits-imperfectly-delicious-produce>
 - NPR. French Food Waste Law Changing How Grocery Stores Approach Excess Food: <https://www.npr.org/sections/thesalt/2018/02/24/586579455/french-food-waste-law-changing-how-grocery-stores-approach-excess-food>

- **Online 30:**
 - Students are required to watch the following video
 - Tristram Stuart. The global food waste scandal TED talk:
https://www.ted.com/talks/tristram_stuart_the_global_food_waste_scanda

Date: Week 12

Conflict and nutrition

- **Class Overview:**
 - Review the links between conflict and food security around the world
 - Examine case studies of the impact of conflict on food security and nutrition
 - Discuss the solutions for addressing conflict and food insecurity
- **Assigned Readings Due:**
 - Scientific American. Climate change and Rising Food Prices Heightened Arab Spring: <https://www.scientificamerican.com/article/climate-change-and-rising-food-prices-heightened-arab-spring/>
 - Breisinger, C., Ecker, O., & Trinh Tan, J. F. (2015). Conflict and food insecurity: How do we break the links?. *IFPRI book chapters*, 51-60.
 - Breisinger, C et al.. (2014). Food security policies for building resilience to conflict. *Resilience for food and nutrition security*, 37.
- **Online 30:**
 - Students are required to read the following case study and be prepared to discuss in class.
 - Laket et al. (2015). Nutrition programming in conflict settings: South Sudan case study:
<https://www.wvi.org/sites/default/files/South%20Sudan%20Case%20Study-FINAL%2024Sep.pdf>

Date: Week 13

Food system governance: who are the key players and how do they influence nutrition?

- **Class Overview:**
 - Discuss the key players in the food system and how they influence nutrition.
 - Examine the benefits and challenges of multisectoral approaches to address malnutrition.
 - Describe food sovereignty and its application both locally and globally.
- **Assigned Readings Due:**
 - S Gillespie, L Haddad, V Mannar et al. (2013) The politics of reducing malnutrition: building commitment and accelerating progress. *Lancet*, 382: 552–569.
 - Mason, P., & Lang, T. (2017). Chapter 8. Policy and Governance: will anyone unlock the consumption lock-in? in *Sustainable diets: How ecological nutrition can transform consumption and the food system*. Taylor & Francis.
 - Patel, R. C. (2012). Food sovereignty: power, gender, and the right to food. *PLoS medicine*, 9(6), e1001223.
 - Alkon, A. H., & Mares, T. M. (2012). Food sovereignty in US food movements: radical visions and neoliberal constraints. *Agriculture and Human Values*, 29(3), 347-359.

Date: Week 14

Ethical aspects of eating

- Class Overview:
 - Discuss the ethical considerations of the way food is produced, distributed and consumed.
 - Examine the ethical implications of food policies aimed at changing food choices.
- *Assigned Readings Due:*
 - Fanzo, J. (2015). Ethical issues for human nutrition in the context of global food security and sustainable development. *Global Food Security*, 7, 15-23.
 - Barnhill, A., King, K. F., Kass, N., & Faden, R. (2014). The Value of Unhealthy Eating and the Ethics of Healthy Eating Policies. *Kennedy Institute of Ethics Journal*, 24(3), 187-217.
- *Online 30:*
 - Debate homework/preparation

Date: December 16

- *Assignments Due:*
 - Paper 2 (Evaluation framework) is due.

Learning Management System: Canvas will be used extensively throughout the semester for course syllabus, assignments, announcements, communication and/or other course-related activities. It is the student's responsibility to familiarize themselves with Canvas and check it regularly. If you have difficulties accessing Canvas, please inform the instructor and Canvas Support (help@canvas.rutgers.edu). Canvas is accessible at canvas.rutgers.edu.

School of Public Health Honor Code: The School of Public Health Honor Code is found in the School Catalog (sph.rutgers.edu/academics/catalog.html). Each student bears a fundamental responsibility for maintaining academic integrity and intellectual honesty in his or her graduate work. For example, all students are expected to observe the generally accepted principles of scholarly work, to submit their own rather than another's work, to refrain from falsifying data, and to refrain from receiving and/or giving aid on examinations or other assigned work requiring independent effort. In submitting written material, the writer takes full responsibility for the work as a whole and implies that, except as properly noted by use of quotation marks, footnotes, etc., both the ideas and the works used are his or her own. In addition to maintaining personal academic integrity, each student is expected to contribute to the academic integrity of the School community by not facilitating inappropriate use of her/his own work by others and by reporting acts of academic dishonesty by others to an appropriate school authority. It should be clearly understood that plagiarism, cheating, or other forms of academic dishonesty will not be tolerated and can lead to sanctions up to and including separation from the Rutgers School of Public Health.

Students with Disabilities: Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student must apply for Services by first completing a Registration Form with the Rutgers Office of Disability Services (ODS) at ods.rutgers.edu. The student will also be required to participate in an ODS intake interview and provide documentation. If reasonable accommodations are granted, ODS will provide you with a Letter of Accommodations which should be shared with your instructors as early in your courses as possible.

Commitment to Safe Learning Environment: The Rutgers School of Public Health is committed to helping create a safe learning environment for all students and for the School as a whole. Free expression in an academic community is essential to the mission of providing the highest caliber of education possible. The School encourages civil discourse, reasoned thought, sustained discussion, and constructive engagement. Provocative ideas respectfully presented are an expected result. An enlightened academic community, however, connects freedom with responsibility. The School encourages all students to disclose any situations where you may feel unsafe, discriminated against, or

harassed. Harassment or discrimination of any kind will be not tolerated and violations may lead to disciplinary actions.

Reporting Discrimination or Harassment: If you experience any form of gender or sex-based discrimination or harassment, including sexual assault, sexual harassment, relationship violence, or stalking, know that help and support are available. You may report such incidents to the [RBHS Title IX Office](#) or to the School of Public Health's [Office of Student Affairs](#). Rutgers University has staff members trained to support survivors in navigating campus life, accessing health and counseling services, providing academic and housing accommodations, and more. If you experience any other form of discrimination or harassment, including racial, ethnic, religious, political, or academic, please report any such incidents to the School's [Office of Student Affairs](#). The School strongly encourages all students to report any incidents of discrimination or harassment to the School. Please be aware that all Rutgers employees (other than those designated as confidential resources such as advocates, counselors, clergy and healthcare providers as listed in Appendix A to [Policy 10.3.12](#)) are required to report information about such discrimination and harassment to the School and potentially the University. For example, if you tell a faculty or staff member about a situation of sexual harassment or sexual violence, or other related misconduct, the faculty or staff member must share that information with the [RBHS Title IX Coordinator](#). If you wish to speak to a confidential employee who does not have this reporting responsibility, you can find a list of resources in Appendix A to University [Policy 10.3.12](#). For more information about your options at Rutgers, please visit [Rutgers Violence Prevention and Victim Assistance](#).

Graduate Student Computer Policy: Students are required to possess a personal laptop, no older than approximately two years, that must meet minimum requirements which may be found online at: sph.rutgers.edu/student-life/computer-support.html

Policy Concerning Use of Recording Devices and Other Electronic Communications Systems: When personally owned communication/recording devices are used by students to record lectures and/or classroom lessons, such use must be authorized by the faculty member or instructor who must give either oral or written permission prior to the start of the semester and identify restrictions, if any, on the use of mobile communications or recording devices.

Policy Concerning Use of Turnitin: Students agree that by taking this course all required papers may be subject to submission for textual similarity review to Turnitin.com (directly or via learning management system, i.e. Canvas) for the detection of plagiarism. All submitted papers will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers. Use of the Turnitin.com service is subject to the Usage Policy posted on the Turnitin.com site. Students who do not agree should contact the course instructor immediately.

Withdrawal/Refund Schedule: Students who stop attending their course(s) without submitting a completed [Add/Drop Course](#) form will receive a failing grade. Furthermore, students dropping to zero credits for the semester are considered withdrawn and must submit a completed [Leave of Absence](#) form from the School of Public Health's Office of Student Affairs. The School of Public Health refunds tuition only. Administrative and technology fees are non-refundable. You may find the Withdrawal/Refund Schedule on the School of Public Health website at: sph.rutgers.edu/academics/academic-calendar.html

Competencies	Course Topics	Assignments/Assessments
Analyze local and global food systems.	<ul style="list-style-type: none"> • Overview of the food system • Globalization, trade and the nutrition transition • Climate change, diets and sustainability • Food loss and waste • Food system governance: who are the key players and how do they influence nutrition? 	<ul style="list-style-type: none"> • Infographic Assignment • Food environment homework • Climate and sustainability homework
Design an evaluation framework for a population-based nutrition intervention or program.	<ul style="list-style-type: none"> • Nutrition assessments and designing evaluations 	<ul style="list-style-type: none"> • Paper #2
Apply research methodology, interpretation of research literature, and integration of research principles into evidence-based public health nutrition practice.	<ul style="list-style-type: none"> • Value chains for nutrition • Food environments • Nutrition specific and nutrition-sensitive interventions • Obesity and diet-related non-communicable disease policies • Ethical aspects of eating 	<ul style="list-style-type: none"> • Paper #1 • Debate homework/in-class activity
Course objectives	Course Topics	Assignments/Assessments
Describe the main global nutritional problems and critically analyze their food system drivers	<ul style="list-style-type: none"> • The multiple burdens of malnutrition • Globalization, trade and the nutrition transition • Climate change, diets and sustainability 	<ul style="list-style-type: none"> • Debate homework/in-class activity • Food environment homework • Climate and sustainability homework

	<ul style="list-style-type: none"> • Conflict and nutrition • Ethical aspects of eating 	
Employ systems-level thinking to analyze the elements, activities, and key players in local and global food systems	<ul style="list-style-type: none"> • Overview of the food system • Value chains for nutrition • Food environments 	<ul style="list-style-type: none"> • Infographic assignment
Critically evaluate nutrition and food system programs, policies, and interventions	<ul style="list-style-type: none"> • Food-based dietary guidelines • Food loss and waste 	<ul style="list-style-type: none"> • Food waste homework
Design a program, policy or intervention aimed at addressing a food system challenge	<ul style="list-style-type: none"> • Nutrition assessments and designing evaluations • Value chains for nutrition • Food environments • Nutrition specific and nutrition-sensitive interventions • Obesity and diet-related non-communicable disease policies 	<ul style="list-style-type: none"> • Paper #1
Design an evaluation framework to measure the impacts of a food system policy or intervention	<ul style="list-style-type: none"> • Nutrition assessments and designing evaluations 	<ul style="list-style-type: none"> • Paper #2
Develop advocacy tools to communicate food system challenges to diverse audiences		<ul style="list-style-type: none"> • Infographic assignment