

**Tufts University, Friedman School of Nutrition Science and Policy**

**NUTR 203 – Fundamentals of Nutrition Policy and Programming: How Science and Policy Interact**

Fall 2021

**Instructors:**

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Office Hours: TBD

**Time/Location:** Synchronous learning sessions: Thursdays, 1:30 to 4:30 pm.

**Exceptions:** **The Nov 9<sup>th</sup> lecture will be held on a Tuesday.**

**Graduate Credits:** 3 Credits

**Prerequisites:** Graduate Standing

**Course Description:**

Nutrition 203 is an introductory policy course that will allow students to become familiar with policy processes (domestic and international), typologies of policy initiatives (laws, global initiatives, interventions, systems, and institutional mandates), and to be able to critically analyze and discuss how policy and science interact with regard to food and nutrition.

**Course Objectives:**

Upon completion of this course, students will have gained an understanding of

- a) The difference between policies and programs
- b) Legislative and policymaking processes and procedures
- c) National and international governance structures and policy initiatives, institutions, and some key organizations involved in nutrition policy and programming
- d) The role of qualitative and quantitative evidence in influencing the policy agenda
- e) How policy debates influence the scientific agenda, and vice versa
- f) A variety of policy-making tools and the situations in which they are most appropriate
- g) Common challenges to policy-making and factors of progressing a policy agenda

- h) Identify specific ways in which policies and programs influence the achievement of the sustainable development goals
- i) Evaluate the effects of gender, inequalities and structural racism on the impact of food and nutrition policies and programs

**Texts or Materials:**

There is no required textbook for this course. Weekly readings will be posted on the class website on Canvas. If you have any problems accessing the class website please inform one of the teaching assistants as soon as possible. Readings are grouped by date, and it is expected that readings will be completed in advance of each class. Not all readings will be discussed in class, rather they will serve as a basis upon which class lectures and discussions will build.

**Academic Conduct:**

Each student is responsible for upholding the highest standards of academic integrity, as specified in the Friedman School’s Policies and Procedures manual (<http://nutrition.tufts.edu/student/documents>) and Tufts University policies (<http://uss.tufts.edu/studentAffairs/documents/TuftsStudentHandbook.pdf>). It is the responsibility of each student to understand and comply with these standards, as violations will be sanctioned by penalties ranging from failure on an assignment and the course to dismissal from the school.

**Diversity Statement**

We believe that the diversity of student experiences and perspectives is essential to the deepening and knowledge in this course. We consider it part of our responsibility as instructors to address the learning needs of all of the students in this course. We will present materials that are respectful of diversity: race, color, ethnicity, gender, age, disability, religious beliefs, political preference, sexual orientation, gender identify, socioeconomic status, citizenship, language or national origin among personal characteristics.

**Assessments and Grading:**

Class assignments and their overall contribution to your grade are as follows:

- a) **Case study analysis: case study** **20%**  
     ( *Written analysis*) *10%*  
     ( *Oral presentation*) *10%*
- b) **Policy Memo** **20%**
- c) **Response to Questions** **20%**
- d) **Final Project** **40%**

**Letter Grades:**

- A+ Greater than 100
- A 96-100
- A- 91-95
- B+ 86-90
- B 81-85
- B- 76-80
- C 75 or less

## Summary description of assignments:

a) **Case Study Analysis:** There will be three case studies, the topic of which is a current issue or debate in domestic or international nutrition programming, policy and/or communications. For each case study, students in the class will be assigned to a group representing a different constituency. Each student will be assigned to participate in one case study. The topic of the three case studies are as follows:

- a) GMOs
- b) Healthy Food Systems
- c) Dietary Guidelines

For each case study, each group will be responsible for preparing a 5-minute oral testimony before class, presenting their testimony on the day of assignment discussion, and submitting a written copy of the oral testimony **by 11:59 pm on Tuesday prior to the oral testimony presentation**. One group member will present the oral testimony. Following the presentation of all groups, the remaining group member(s) who did not present the oral testimony should be prepared to discuss and defend the perspective of the constituent group they represent.

b) **Policy Memo:** The goal of a policy memo is to provide concise background, analysis, and guidance in a specific area of public policy. A well-written policy memo requires efficient use of language to summarize a complicated issue and convince the reader of a particular position. For this assignment, you will choose an *area of policy related to a current area of food and nutrition that you would like to address, and a specific policy-maker to whom you are writing*.

**Length:** Your memo should be written for delivery to an influential policy-maker of your choice, and should be **no longer than two pages, single spaced, Arial 12 font with 1" margins**. We highly recommend discussing your topic ideas with the TA a few weeks before the due date.

c) **Response to Questions:** *Each student will be required to answer four questions listed in Appendix One. The response to the questions are listed by week of appropriate lecture and are due the Wednesday prior to the following week's lecture. The response should be one or two pages. Answers longer than two pages will not be graded. References in the 1-2 page response are optional.*

d) **Final Project:** Addressing a Sustainable Goal. There are 17 Sustainable Development Goals (SDGs) which drive the global development agenda. Most countries of the world have endorsed these guidelines. Each student will select a SDG from the following list and develop a plan/strategy to address this SDG within a specific country.

1. Sustainable Development Goal 11: Sustainable Cities and Communities
2. Sustainable Development Goal 14: Life Below Water
3. Sustainable Development Goal 15: Life on Land
4. Sustainable Development Goal 17: Partnerships for Goals

The plan developed must focus on how the specific SDG can be used as a strategy within a particular country for improving food security and nutrition (SDG 2 – Zero Hunger). The student can choose any country for this project (including the USA). The final document must be

submitted on Canvas by 11:59 on the date reserved for the Final Exam (December 16, 2021). Late submissions will not be accepted. In order to prepare for the Final Project, it would be prudent for students to produce and submit an outline for review. (An outline for this project is shown in appendix two). It is also recommended that students book a 15-minute appointment via zoom with a TA to go over this outline or to have any questions answered that they may have.

e) **TurnItIn:** This course will utilize TurnItIn in the Canvas learning management system to help determine the originality of your work. TurnItIn is an automated system which instructors can use to quickly and easily compare each student's assignment with billions of websites, as well as an enormous database of student papers that grows with each submission. When papers are submitted to TurnItIn, the service will retain a copy of the submitted work in the TurnItIn database for the sole purpose of detecting plagiarism in future submitted works. Students retain copyright on their original course work.

For more information, see Turnitin.com or review Tufts' [Academic Integrity](#) policies.

**\*\*\* Note:** Unless otherwise noted, ALL assignments should be uploaded on Canvas as a Microsoft Word document, using the following naming scheme: last name\_assignment name (i.e. Kennedy\_PolicyMemo.doc).

**Accommodation of Disabilities:**

Students with documented disabilities are entitled to academic accommodation appropriate to their needs. If you require accommodations for this course, please contact Dr. Kennedy confidentially prior to the end of the second week of classes.

**Course Schedule:**

Week	Date	Topic	Instructor	Assignment	Activity
1	9/9	Global Food and Nutrition	Kennedy		
2	9/16	Frameworks for Understanding Food and Nutrition Policy	Webb		
3	9/23	How do we measure "nutrition?" including impacts on policy	Webb		
4	9/30	Maternal and Child Nutrition	Kennedy	<b>Bias due 9/27 11:59PM</b>	
5	10/7	Nutrition Sensitive and Nutrition Specific Actions for Food Security and Nutrition	Webb	<b>Case Study 1: GMO Written Testimony due Wednesday- 10/6</b>	
6	10/14	Food Systems Part I	Kennedy	<b>Policy Memo due on canvas: 10/14</b>	

7	10/21	<b>Food Systems Part II</b>	Kennedy	<b>Case Study 2: Healthy Food Systems: Written testimony due on Oct 20</b>	
8	10/28	US and Global Food Policy: Effects on Food Security	Kennedy		
9	11/4	Political Economy: Implications for food and nutrition policy	Kennedy		
10	11/9	Dietary Guidelines: History, Applications, Controversies	Kennedy	<b>Case Study 3: Dietary Guidelines Written testimony due on 11/8 – note class is on Tuesday this week</b>	
11	11/18	Micronutrient Policies and Programs	Webb		
12	12/2	Communications: The good, the bad, the ugly	Squires		
13	12/9	Achieving Food System Transformation – How?	Webb		

**\*\*\*Note:** This schedule is subject to modification at the instructor's discretion.

## Course Topics, Learning Objectives and Assignments:

\*\*\*Note: all required readings for each week will be posted on Canvas\*\*\*

### Week 1 (9/9) Global Food and Nutrition

#### Learning objectives

Students should be able to discuss/critique the following:

- *Understand the international architecture for nutrition and how various stakeholder groups are involved in food and nutrition policy design and implementation*
- *Understand the relationship between the Sustainable Development Goals and Design and Implementation of Policies and Programs*
- *Understand the current global food security and nutrition situation*

#### Required Readings

- Maxwell, S. and R. Slater 2003. Food Policy Old and New. *Development Policy Review* 21 (5-6) 531-553. Also online at <http://www.cbd.int/doc/articles/2003/A-00198.pdf>
- Effective international action against undernutrition: why has it proven so difficult and what can be done to accelerate progress? Morris, Saul S et al. *The Lancet*, Volume 371, Issue 9612, 608 – 621
- Sofi Report 2021 Executive Summary - FAO, IFAD. *The State of Food Security and Nutrition in the World 2021: Transforming food systems for food security, improved nutrition and affordable healthy diets for all*. FAO, IFAD, UNICEF, WFP and WHO, 2021. FAO Publications, <https://doi.org/10.4060/cb4474en>.
- 2020 Global Nutrition Report: Action on equity to end malnutrition. Executive Summary Bristol, UK: Development Initiatives.
- Willett W, Rockström J, Loken B, et al. Food in the Anthropocene: the EAT-Lancet Commission on healthy diets from sustainable food systems [published correction appears in *Lancet*. 2019 Feb 9;393(10171):530] [published correction appears in *Lancet*. 2019 Jun 29;393(10191):2590] [published correction appears in *Lancet*. 2020 Feb 1;395(10221):338]. *Lancet*. 2019;393(10170):447-492. doi:10.1016/S0140-6736(18)31788-4

#### Optional

- *Video Lecture – the Theory and Practice of the Policy Process*

## **Week 2: (9/16) Frameworks for Understanding Food and Nutrition Policy**

### Learning Objectives

Students should be able to discuss/critique the following:

- *The main principles underpinning food policy thinking and action.*
- *Basic framing concepts and paradigms that shape thinking on food and nutrition policy development and implementation.*
- *Examples of 'policy agendas' relating to nutrition beyond national 'public' policy*

### Required Readings

1. Smith et al. 2016. Addressing policy challenges. <https://www.mdpi.com/2071-1050/8/4/299/htm>
2. Rawatt and Morris (2016) Kingdon's "Streams" model. <https://onlinelibrary.wiley.com/doi/epdf/10.1111/polp.12168>
3. WHO. 2021. Public Procurement for a Healthy Diet. <https://www.who.int/publications/i/item/9789240018341> - skim through the chapters.
4. Emergency Nutrition Network. 2021. Wasting Re-set. <https://www.enonline.net/attachments/4065/Wasting-Reset-synthesis-August-2021.pdf>

A useful 'extra' resource to browse through online:

<https://foodpolicyforcanada.info.yorku.ca/frameworks/>. [not required reading].

### **Week 3: (9/23) How Do we Measure “Nutrition?” Including Impacts on Policy**

#### Learning Objectives:

Students should be able to discuss/critique the following:

- *The range of methods and modalities used to ‘measure’ food, nutrition and policy impacts on both.*
- *Approaches to defining what ‘should’ be measured.*
- *Examples of types or categories of indicators widely used in public policy and interventions (as well as implementation science).*

#### Required Readings

1. Kadiyala et al. (2020) Conceptual frameworks linking agriculture and food security (Nature Food). <https://www.nature.com/articles/s43016-020-00142-3>.
2. Luo et al. (2020) Measuring malnutrition in all its forms. Global Food Security. <https://doi.org/10.1016/j.gfs.2020.100453>
3. Lele et al. (2016) Measuring Food and Nutrition Security. [https://sites.tufts.edu/willmasters/files/2016/06/FSIN-TWG\\_UsersGuide\\_12June2016.pdf](https://sites.tufts.edu/willmasters/files/2016/06/FSIN-TWG_UsersGuide_12June2016.pdf) [just browse to get a sense of the scope of indicators used).



## **Week 4: (9/30) Maternal and Child Nutrition**

### Learning objectives

Students should be able to discuss/critique the following:

- *Evaluate the effects of policies and programs aimed at improving maternal and child health*
- *Assess the barriers and facilitators for enhancing the positive effects of maternal and child policies and programs*
- *Analyze potentialities for revamping current maternal and child policies and programs to decrease overweight, obesity, and non communicable diseases*

### Required Readings

- Maternal and child undernutrition and overweight in low-income and middle-income countries. Black, Robert E et al. The Lancet, Volume 382, Issue 9890, 427 – 451
- Evidence-based interventions for improvement of maternal and child nutrition: what can be done and at what cost? Bhutta, Zulfiqar A et al. The Lancet, Volume 382, Issue 9890, 452 – 477
- Rush, David & Alvir, J & Kenny, David & Johnson, S & Horvitz, D. (1988). The National WIC Evaluation: evaluation of the Special Supplemental Food Program for Women, Infants, and Children. III. Historical study of pregnancy outcomes. The American journal of clinical nutrition. 48. 412-28. 10.1093/ajcn/48.2.412.
- Smith, L. and Haddad, L. (2014), Reducing Child Undernutrition: Past Drivers and Priorities for the Post-MDG Era. IDS Working Papers, 2014: 1-47. doi:[10.1111/j.2040-0209.2014.00441.x](https://doi.org/10.1111/j.2040-0209.2014.00441.x)
- [Children's Health Watch Report on Food Security and Systemic Inequality. \(2018\).](#)
- [Food Swamps and Obesity Rate Prediction. \(2017\).](#)

## **Week 5 : (10/7) Nutrition-Sensitive and Nutrition-Specific Actions for Nutrition**

### Learning objectives

Students should be able to discuss/critique the following:

- *Understand the concept of nutrition sensitive development*
- *Analyze the impacts of nutrition sensitive and nutrition specific approaches in improving food security, diet quality, and nutritional status*
- *Identify alternative strategies using nutrition sensitive and nutrition specific focus in improving diet quality and nutrition*

### Required Readings

1. Timmler et al. (2020) Exploring solution spaces for nutrition-sensitive agriculture in Kenya and Vietnam, *Agricultural Systems*.  
<https://www.sciencedirect.com/science/article/pii/S0308521X19306687>
2. Allen and De Brauw (2018) Nutrition sensitive value chains: Theory, progress, and open questions *Global Food Security*,  
[https://www.sciencedirect.com/science/article/pii/S2211912416301171?casa\\_token=HS5SEVuXTxYAAAAA:pmOK9ai1apbsv-xay7-MI1wDmqLdmYrYPIi-1pwzuPvQdRu2ziJbcZ4tN\\_3PeP85Nn2RBbL2qEIL](https://www.sciencedirect.com/science/article/pii/S2211912416301171?casa_token=HS5SEVuXTxYAAAAA:pmOK9ai1apbsv-xay7-MI1wDmqLdmYrYPIi-1pwzuPvQdRu2ziJbcZ4tN_3PeP85Nn2RBbL2qEIL)
3. Moorty et al. (2020) The Impact of Nutrition-Specific and Nutrition-Sensitive Interventions on Hemoglobin Concentrations and Anemia, *Advances in Nutrition*,  
<https://academic.oup.com/advances/article/11/6/1631/5897498?login=true>.

<b>Case Study 1: GMOs</b>
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## **Week 6 (10/14): Food Systems Part I – Impact of Covid-19**

### **Learning objectives Weeks 6 and 7 Combined**

Students should be able to discuss/critique the following:

- *Describe typologies of food systems*
- *Identify leverage points along the food value chain for enhancing food security, diet quality, and nutrition*
- *Evaluate national level policies aimed at enhancing the positive effects of food systems on diet quality and nutrition*
- *Evaluate approaches to sustainable agricultural production within various food systems*
- *Understand leverage points within the agricultural sector for improving diet quality and nutrition*

### **Required Readings: For Weeks 6 and 7**

- 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. Read Executive Summary. Available online: <http://www.fao.org/3/a-i7846e.pdf>
- Scott, P. Global panel on agriculture and food systems for nutrition: food systems and diets: facing the challenges of the 21st century. *Food Sec.* **9**, 653–654 (2017). <https://doi.org/10.1007/s12571-017-0678-y>
- Nugent, R. and Grafton, D. (2016) Investments for Healthy Food Systems: A Framework Analysis and Review of Evidence on Food System Investments for Improving Nutrition: Implementing the Framework for Action of the Second International Conference on Nutrition. Washington D.C. : United Nations System Standing Committee on Nutrition. [https://www.unscn.org/files/ICN2\\_TPM/EN\\_final\\_Investments\\_for\\_Healthy\\_Food\\_Systems\\_UNSCN.pdf](https://www.unscn.org/files/ICN2_TPM/EN_final_Investments_for_Healthy_Food_Systems_UNSCN.pdf)
- Swinnen, Johan, ed.; and McDermott, John, ed. 2020. COVID-19 and global food security. Washington, DC: International Food Policy Research Institute (IFPRI). Read Chapters 1, 2 and 8
- HLPE. 2019. Agroecological and other innovative approaches for sustainable agriculture and food systems that enhance food security and nutrition. A report by the High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security, Rome. Available online: <http://www.fao.org/3/ca5602en/ca5602en.pdf>
- UNESCO June 24 Presentation on Racism and Covid: “Health, Hidden Violence of Hunger.”
- FAO 2019. Impacts of Coronavirus on food security and nutrition in Asia and the Pacific: Building More Resilient Food Systems.
- Global Panel. 2015. Improved metrics and data are needed for effective food system policies in the post-2015 era. Technical Brief. London, UK: Global Panel on Agriculture and Food Systems for Nutrition
- HLPE. 2019. Agroecological and other innovative approaches for sustainable agriculture and food systems that enhance food security and nutrition. A report by the High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security, Rome. Available online: <http://www.fao.org/3/ca5602en/ca5602en.pdf>
- UNESCO Presentation on Racism and Covid: “Health, The Hidden Violence of Hunger.”
- FAO 2019. Impacts of Coronavirus on food security and nutrition in Asia and the Pacific: Building More Resilient Food Systems.
- Global Panel. 2015. Improved metrics and data are needed for effective food system policies in the post-2015 era. Technical Brief. London, UK: Glopan.

## **Week 7: (10/21) Food Systems Part II**

Case Study 2: Healthy Food Systems
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## **Week 8 (10/28): US and Global Food Security**

### Learning objectives

Students should be able to discuss/critique the following:

- *Understand how the history of U.S. and Global Food Security policies and programs has influenced the emerging agenda on worldwide food security*
- *Analyze trends in food security globally*
- *Evaluate barriers and facilitators for improving food security globally*
- *Identify strategies for achieving Sustainable Development Goal 2 – Zero Hunger*

### Required Readings

- Declaration of the World Summit on Food Security. Food and Agriculture Organization of the United Nations, World Summit on Food Security, Rome, 16–18 November 2009. Available online: [http://www.fao.org/fileadmin/templates/wsfs/Summit/Docs/Declaration/WSFS09\\_Draft\\_Declaration.pdf](http://www.fao.org/fileadmin/templates/wsfs/Summit/Docs/Declaration/WSFS09_Draft_Declaration.pdf)
- FAO, IFAD, UNICEF, WFP and WHO. 2020. *The State of Food Security and Nutrition in the World 2020. Transforming food systems for affordable healthy diets*. Rome, FAO. <https://doi.org/10.4060/ca9692en>
- Alliance to End Hunger. Hunger is a Racial Issue Fact Sheet. (2017).
- Berkeley Haas Institute Report on Structural Racialization and Food Security.
- 2020. Lauren Bauer. The COVID-19 crisis has already left too many children hungry in America. Brookings Institution. Available online: <https://www.brookings.edu/blog/up-front/2020/05/06/the-covid-19-crisis-has-already-left-too-many-children-hungry-in-america/>. Accessed 5 Aug. 2020
- 2020. Maya L. Kapoor. The Pandemic Hunger Crisis Is Only Just Getting Started. The Atlantic. Available online: <https://www.theatlantic.com/health/archive/2020/06/pandemic-food-banks-hunger/613036/>. Accessed 5 Aug. 2020

## **Week 9 (11/4): Political Economy: Effects on Policies and Programs**

### Learning objectives

Students should be able to discuss/critique the following:

- *Identify key political economy factors and their effects on policies and programs*
- *Understand strategies for influencing the political economy*
- *Evaluate effective approaches for developing political commitment, leadership and advocacy for advancing achievement of the Strategic Development Goals*

### Required Readings

- FAO. 2017. *Strengthening sector policies for better food security and nutrition results. Political Economy Analysis*. Policy Guidance Note 8. Rome, FAO. Available online: <http://www.fao.org/3/i7212en/I7212EN.pdf>
- Baker P, Hawkes C, Wingrove K, et al. What drives political commitment for nutrition? A review and framework synthesis to inform the United Nations Decade of Action on Nutrition. *BMJ Glob Health*. 2018;3(1):e000485. Published 2018 Feb 10. doi:10.1136/bmjgh-2017-000485
- Kennedy E, Tessema M, Hailu T, et al. Multisector Nutrition Program Governance and Implementation in Ethiopia: Opportunities and Challenges. *Food Nutr Bull*. 2015;36(4):534-548. doi:10.1177/0379572115611768

## **Week 10 (11/9): Dietary Guidelines: History, Applications, Controversies**

### Learning objectives

Students should be able to discuss/critique the following:

- *Analyze US and global food based dietary guidelines and their scientific underpinnings*
- *Assess the impact of food based dietary guidelines in improving diet quality and nutritional status*
- *Identify current controversies surrounding diet guidelines*
- *Understand the role of UN normative agencies – WHO, FAO – in influencing nutrition policy*

### Required Readings

- National Academies of Sciences, Engineering, and Medicine. 2017. *Optimizing the Process for Establishing the Dietary Guidelines for Americans: The Selection Process*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/24637>. Read Executive Summary. Available online: <https://www.nap.edu/read/24637/chapter/2>
- Dietary Guidelines Advisory Committee. 2020. *Executive Summary: Scientific Report of the 2020 Dietary Guidelines Advisory Committee: Advisory Report to the Secretary of Agriculture and the Secretary of Health and Human Services*. U.S. Department of Agriculture, Agricultural Research Service, Washington, DC. Read Executive Summary. Available online: [https://www.dietaryguidelines.gov/sites/default/files/2020-07/PartA\\_ExecSum\\_first-print.pdf](https://www.dietaryguidelines.gov/sites/default/files/2020-07/PartA_ExecSum_first-print.pdf)
- Most Popular Questions. Dietary Guidelines for Americans. Available online: <https://www.dietaryguidelines.gov/most-popular-questions>. Accessed on 5 Aug. 2020
- 2019. Laura Reiley. How the Trump administration limited the scope of the USDA's 2020 dietary guidelines. The Washington Post. Available online: <https://www.washingtonpost.com/business/2019/08/30/how-trump-administration-limited-scope-usdas-dietary-guidelines/>. Accessed on 5 Aug. 2020
- Maillor M, Drewnowski A. (2012). A conflict between nutritionally adequate diets and meeting the 2010 Dietary Guidelines for Sodium. *Am J Prev Med*. 42(2): 174-179.

## **Week 11: (11/18 ): Micronutrient Policies and Programs**

### Learning objectives

Students should be able to discuss/critique the following:

- *Understand the current state and trends of micronutrient deficiencies globally*
- *Describe and critique policies and programs aimed at eliminating hidden hunger*
- *Evaluate the science base related to current controversies in approaches to improving micronutrient status*

### Required Readings

1. Welch (2021) Micronutrient malnutrition across the life course, sarcopenia and frailty. Proc Nutr Soc., <file:///C:/Users/pwebb01/Downloads/micronutrient-malnutrition-across-the-life-course-sarcopenia-and-frailty.pdf>.
2. Fiorella et al. (2021) Contemporary aquaculture: implications for human nutrition, *Curr. Opin.in Biotech.*, [https://www.sciencedirect.com/science/article/pii/S0958166920301816?casa\\_token=TNJYGM-W4AsAAAAA:qc1F1O7uTDUGBaC\\_qMli1OPhN3tauxvBBea8aPq7dqX2tSNdvzk-8C5c3\\_ashd6tIHDhNi0Bte6V](https://www.sciencedirect.com/science/article/pii/S0958166920301816?casa_token=TNJYGM-W4AsAAAAA:qc1F1O7uTDUGBaC_qMli1OPhN3tauxvBBea8aPq7dqX2tSNdvzk-8C5c3_ashd6tIHDhNi0Bte6V)
3. Ohanenye et al. (2021) Food fortification technologies: Influence on iron, zinc and vitamin A bioavailability and potential implications on micronutrient deficiency in sub-Saharan Africa. *Sci Am.* <https://www.sciencedirect.com/science/article/pii/S2468227620304038>
4. United Nations Children’s Fund. (UNICEF). Nutrition, for Every Child: UNICEF Nutrition Strategy 2020–2030. UNICEF, UNICEF, New York <https://www.unicef.org/media/92031/file/UNICEF%20Nutrition%20Strategy%202020-2030.pdf>

**Week 12: (12/2) : Communications: The good, the bad, the ugly**

*Learning objectives*

Students should be able to discuss/critique the following:

- Critique information sources for biases, and inaccuracies.
- Discuss how individual and collective biases influence communication strategies.

*Required Readings*



## **Week 13: (12/9) Achieving Food System Transformation – How?**

### Learning Objectives

Students should be able to discuss/critique the following:

- Current thinking on policy and program actions to transform food systems
- The role of political economy and economic tradeoffs in shaping policy solutions
- Shape ideas on the feasibility of transforming food systems by 2030
- Articulate the content of clusters of policy actions aimed at achieving the ambitions set out in the UN Food Systems Summit of Sept 2021.

### Required Reading

1. Webb P, Benton T, Beddington J, Flynn D, Kelly N and Thomas S. 2020. The Urgency of Food System Transformation is now Irrefutable. *Nature Food* 1: 584–585. <https://doi.org/10.1038/s43016-020-00161-0>.
2. Webb P and Sonnino R. 2021. Everyone at the table: Co-creating knowledge for food systems transformation. Report of the High-Level Expert Group of the European Commission. Brussels, Belgium. <https://op.europa.eu/en/publication-detail/-/publication/b3e25405-eb99-11eb-93a8-01aa75ed71a1/language-en>.
3. <https://www.un.org/en/food-systems-summit> - browse.

**Appendix I: Discussion Questions - Answer any four of the following questions during this semester. The 1 to 2 page answer is due prior to the next class e.g week I question due on the Wed before week 2 lecture.**

**Week 1:** One reason given for the rising rates of under nourishment by FAO over the past few years is conflict. What ways might you suggest for mitigating food insecurity in conflict countries or zones?

**Week 4:** Anemia in women of child bearing age has been shown to be an intractable problem. What are solutions at the country level that can deal with this continuing problem?

**Week 6:** What are potential game-changing solutions for food system transformation?

**Week 7:** How can we create a more sustainable urban food system?

**Week 7:** The pre-Summit to the UN Food Systems Summit, held in July 2021, in Rome emphasized an agroecological approach as one useful agricultural strategy for sustainable agriculture. Why has agroecology not been widely used in the USA and what would you suggest to change this trajectory to get broader adoption of agro ecology?

**Week 8:** Households on SNAP, on average, do not purchase a nutritionally adequate diet. What are viable solutions for improving diet quality in SNAP households?

**Week 9 :** What role does the political economy play in influencing the Sustainable Development Goals?

**Week 10:** Explain the pros and cons of including sustainability in the 2025 Dietary Guidelines for Americans.

**Week 11 :** Can universal food fortification be used as a complementary strategy to eliminate micronutrient deficiencies?

**Week 12:** How would you judge the accuracy of food and nutrition information posted on social media?

## **Appendix 2: Framework for Final Project**

The overall objective of this project is to analyze how a specific Sustainable Development Goal (see below) can be used more effectively to improve food security and nutrition (FNS) within a country.

Each student will choose a specific country for this project. This can be a developed or a low-middle income country.

The total project document should be 10-15 pages. Pages beyond 15 **will not** be graded.

### **Suggested Outline:**

General characteristics of the Country (½ to 1 page in length): selected statistics might include GDP, population size, major foreign exchange earner, region of the world, landlocked (yes/no), political situation (stable/not) and other information as relevant.

1. Country-specific goals and targets for the SDG you have chosen. It is important that the country you pick for analysis has this information available. It is important that you ascertain the availability of data prior to the final selection of your country.
2. Current status and trends in food security and nutrition; as information is available, might include immediate causes (in your country – general statements not relevant), underlying causes, basic causes.
3. The current set of policies and programs targeted to food security and nutrition (FNS) – are focused and well-designed to adequately address the determinants of FNS. You can use an appendix to list policies and programs – this **will not** count towards your page limit.
4. Identification of how your specific SDG (see list below) can be used to more effectively address FNS in the country. You can select any one of these four SDGs as the main focal point for this project. This should be the major portion of your paper.
5. Next steps – going forward – for your country.

This project cannot be completed in a few days. Success will depend on researching the data needed for your paper well beyond the due date.

Choose one of the following SDGs as the basis of your analysis in your chosen country:

5. Sustainable Development Goal 11: Sustainable Cities and Communities
6. Sustainable Development Goal 14: Life Below Water
7. Sustainable Development Goal 15: Life on Land
8. Sustainable Development Goal 17: Partnerships for Goals