

# HUN 4936: Seeds4Life: Introduction to Food Systems

## I. General Information

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### Class Meetings

- Semester: Fall 2024
- Time: Tuesday 11:45-12:35 / Thursday 11:45 – 1:40pm
- Location: Tuesday CSE A101  
Thursday TUR 2303

### Instructors

- Lead Instructor: Jeanette Andrade, Assistant Professor (Food Science and Human Nutrition)
- Office: Food Science and Human Nutrition Building, Room 467B
- Office Hours: Monday and Wednesday, 12:00-1:00pm, or by appointment
- Contact: [jandrade1@ufl.edu](mailto:jandrade1@ufl.edu) 352-294-3975

### Course Description

This course explores barriers and facilitators of maintaining health through a food systems lens. Relying on the disciplines of animal sciences, food science, and human nutrition, the course investigates and reflects on the issues of global food and nutrition from economic, food science, nutrition and animal science perspectives. Major themes include the global food supply from the lens of economics and human behavior, global food and nutrition security, animal and plant production and consumption, nutrition and diseases, educating stakeholders, sustainability with growing/raising foods and biotechnology and packaging. These themes are represented on an international level, with local and regional examples presented for classroom discussions and activities. Through field trips to local facilities (farms – animals and aquatic, gardens, and pilot plants), classroom discussions, reflections, and assignments students will grapple with the essential question of the feasibility to improve global health through food systems. The course will culminate with a presentation in which students synthesize the insights from this course and how they will implement it within their future career. 3 credits.

### Required Readings and Works

There is no textbook for this course, but various articles, videos, etc. (listed below in the Course Schedule) will be made available through the class Canvas page.

Materials and Supplies Fees: n/a

## II. Graded Work

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### Description of Graded Work

<i>Graded Activity</i>	<i>Points</i>	<i>Percentage of Grade</i>
Simulations (3)	25 points each (75 points total)	25%
Reflections (5)	5 points each (25 points total)	8.3%
Presentation/paper	50 points	16.7%

Class Assignments (3)	50 points each (150 points total)	50%
<b>Total</b>	<b>300 points</b>	<b>100%</b>

Simulations: 75 total points – 3 simulations (25 points each)

- In certain weeks of the course, you will be presented with scenarios. You will respond to those questions accordingly.

Reflection: 15 total points – 5 reflections (5 points each)

- In certain weeks of the course, you will reflect upon aspects of the discussions to discuss the current and future impact it will have on one’s health and potential solutions for people to eat more/eat less, etc.

Presentation: 50 points

- In lieu of the final, you will present information about the research. Focusing on your findings and potential solutions and what cultural differences there are regarding the types of food vendors, food, knowledge, etc.
  - Grading:
    - Paper: 30 points
    - Presentation Materials (PowerPoint or other visuals): 10 points
    - Presentation: 10 points

Class Assignments: 150 total points

- Food system visualization: 50 total points
  - In week 1 and week 15, you will create your concept of the food system in a visual format and how it impacts your future career or current career projection.
  - In a ½ page single-spaced, you will discuss your food system concept.
- Eating well on \$4 per day: 50 points
  - Participate in the SNAP Hunger Challenge (visit <https://moveforhunger.org/snap-challenge> for more information on the Challenge) for 3 days. The SNAP Hunger Challenge challenges you to eat at the SNAP level of \$4.25/day. During these days, you will indicate what you ate and the total cost for the day. As part of this simulation, provide no more than 1-page single-spaced reflection on your thoughts/feelings about the challenge and how this may help you with communicating or aiding individuals who participate in SNAP.
  - Developing resource for stakeholder: 50 points
    - Working in pairs, you will identify a group (e.g. kids, farmers, etc) and create a resource that stakeholders will use based on a topic of choice that is culturally appropriate with graphics and text. For example, how to water your garden with minimal resources.

Research: 50 total points

- In groups of 3-4, you will work together to conduct a needs assessment of food vendors around the Gainesville area and compare/contrast the differences.
  - Perceptions of food vendors – 10 points
    - For this assignment, each group will compile their perceptions of food vendors (restaurants/fast food chains/quick sit-down restaurants/street

- vendors). Can portray this assessment in bullet point format or another graphical representation. Also, include an idea of which vendors you would like to target for this research project.
- Questions for the food vendors – 15 points
    - Provide at minimum 10 questions that you would like to obtain from the vendors you will be focusing on for this research.
    - Indicate if the questions will be multiple choice / scale based or open-ended and the reason for this format.
    - Provide the overall research question / purpose statement that you would like to address through this line of questions.
  - Initial report on the research progress – 25 points
    - In at least a 1-page double spaced document, indicate the progress of your research. This may include – how many people who have talked with, who you would like to talk with still, what you are finding out so far and what issues you have discovered.
    - If there are problems or strategies that you have found out through this process, please include.

### Grading Scale

#### Grade conversion

You will receive a letter grade for this course, and pluses (+) and minuses (–) will be part of the grade. There will not be any extra points in this class. If your grade is 89.5 this will be rounded to 90. If it is 89.4, it will be rounded to 89 (No exemptions).

For information on how UF assigns grade points, visit: <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

A	93 – 100%		C	74 – 76.9%
A-	90 – 92.9%		C-	70 – 73.9%
B+	87 – 89.9%		D+	67 – 69.9%
B	84 – 86.9%		D	64 – 66.9%
B-	80 – 83.9%		D-	60 – 63.9%
C+	77 – 79.9%		E	<60%

### III. Annotated Weekly Schedule

Dates	Topic	Lecture	Readings	Assignments	Due Dates
Week 1: 8/22	Food Systems 101	JM Andrade / Research in food systems	Brouwer ID, McDermott J, Ruben R. Food systems everywhere: Improving relevance in practice. <i>Global Food Sec.</i> 2020; 26: 1-10.  Ho MD. A new vision for food. <i>WWF.</i> 2022; 27-43.	What does food systems mean to you? - assignment	8/27
Week 2: 8/27-8/29	Global Food Supply - Education	JM Andrade / What we eat and why	Dundore L. Racial equity tools for food systems planning. University of Wisconsin- Madison. 2017.  Dipayan Sarkar, Jacob Walker-Swaney, Kalidas Shetty, Food Diversity and Indigenous Food Systems to Combat Diet-Linked Chronic Diseases, <i>Current Developments in Nutrition, Volume 4, Issue Supplement_1, January 2020, Pages 3–11, <a href="https://doi.org/10.1093/cdn/nzz099">https://doi.org/10.1093/cdn/nzz099</a></i>	Perceptions of food vendors / who will participate? – research  Human’s influence on the food system - simulation	9/5  8/29
Week 3: 9/3-9/5	Global Food Supply – Human behavior	JM Andrade / K Colverson	Chen PJ, Antonelli M. Conceptual models of food choice: Influential factors related to foods, individual differences and society. <i>Foods.</i> 9(189): 1-21.  Monterrosa EC, Frongillo EA, Drewnoski A, de Pee S, Vandevijvere S. Sociocultural influences on food choices and implications for sustainable healthy diets. <i>Food Nutr Bulletin.</i> 2020. 41(2S): S59-S73.	Gender differences in the food systems - reflection	9/5
Week 4: 9/10-9/12	Global Food Supply – Leadership and Economy	P Lamino / Farnsworth	Fan S. Economics in food systems transformation. <i>Nature.</i> 2021; 2: 218-219.  Fan S, Headey D, Rue C, Thomas T. Food systems for human and planetary health: Economic perspectives and challenges. <i>Ann Rev Resour Econ.</i> 2021; 13:131-136.	What type of leader are you? – reflection	9/12
Week 5: 9/17-9/19	Food security and impact on food systems	Food campus tour / JE Andrade	Rocheffort G, Lapointe A, Mercier A-P, Parent G, Provencher V, Lamarche B. A Rapid Review of Territorialized Food Systems and Their Impacts on Human Health, Food Security, and the	Eating well with \$4/day based on country of choice – assignment	9/26

			<p>Environment. Nutrients. 2021; 13(10):3345. <a href="https://doi.org/10.3390/nu13103345">https://doi.org/10.3390/nu13103345</a>.</p> <p>Mok WK, Tan YX, Chen WN. Technology innovations for food security in Singapore: A case study of future food systems for an increasingly natural resource-scare world. Trends Food Sci Technol. 2020; 102:155-168.</p>		
Week 6: 9/24-9/26	Food security and impact on food systems - diseases	JM Andrade / Ortiz	<p>Branca F et al. Transforming the food system to fight non-communicable diseases. BMJ. 2019. 365(S1).</p> <p>Ringler C et al. Water for food systems and nutrition. IFPRI. 2021. 1-13.</p>	<p>Environmental food scan and reducing/increasing diseases – simulation</p> <p>Designing questions for the food vendors / observations - research</p>	<p>9/26</p> <p>10/3</p>
Week 7: 10/1-10/3	Meat production and consumption	Mattescu / Tour of meat processing center	<p>Fanzo J et al. Sustainable food systems and nutrition in the 21st century: A report from the 22nd annual Harvard Nutrition Obesity symposium. Am J Clin Nutr. 2022. 115: 18- 33.</p> <p>Oosting, S., van der Lee, J., Verdegem, M. et al. Farmed animal production in tropical circular food systems. Food Sec. 14, 273–292 (2022). <a href="https://doi.org/10.1007/s12571-021-01205-4">https://doi.org/10.1007/s12571-021-01205-4</a></p>	Global cost of food – is it fair? – reflection	10/3
Week 8: 10/8 – 10/10	Dairy production and consumption & intro to horticulture	Nelson / Zhao	<p>Capper JL., Cady RA. The effects of improved performance in the US dairy cattle industry on environmental impacts between 2007 and 2017. J Ani Sci. 2020. 1-14.</p> <p>Food Finance Architecture: Financing a Healthy, Equitable, and Sustainable Food System (English). Washington, D.C.: World Bank Group. <a href="http://documents.worldbank.org/curated/en/879401632342154766/Food-Finance-Architecture-Financing-a-Healthy-Equitable-and-Sustainable-Food-System">http://documents.worldbank.org/curated/en/879401632342154766/Food-Finance-Architecture-Financing-a-Healthy-Equitable-and-Sustainable-Food-System</a></p>		
Week 9: 10/15-10/17	Fish / Where we eat	Betiku / Tour of University avenue eateries	Mamun A, Murray FJ, Sprague M, Mcadam BJ, Roos N, De Roos B, Pounds A & Little DC (2021) Export-driven, extensive coastal aquaculture can benefit nutritionally vulnerable people. Frontiers in	Based on the discussion about animal-based proteins, how can we be sustainable? – reflection	10/17

			<p>Sustainable Food Systems, 5, Art. No.: 713140.  <a href="https://doi.org/10.3389/fsufs.2021.713140">https://doi.org/10.3389/fsufs.2021.713140</a></p> <p>Garcia-Gonzalez J, Eakin H. What can be: Stakeholder perspectives for a sustainable food system. <i>J Agri Food Syst Commun Develop.</i> 2019. 8(4): 61-82.</p>	Initial report on the research progress – research	10/24
Week 10: 10/22-10/24	Plant issues / Tour of the gardens	Martins / Tour of Field and Fork Gardens	<p>Marianna S. Wetherill, Kayla Castleberry White, Christine Rivera &amp; Hilary K. Seligman (2019) Challenges and opportunities to increasing fruit and vegetable distribution through the US charitable feeding network: increasing food systems recovery of edible fresh produce to build healthy food access, <i>Journal of Hunger &amp; Environmental Nutrition</i>, 14:5, 593-612, DOI:10.1080/19320248.2018.1484315.</p> <p>Reid J, Simmonds D, Newbold E (2019). Wholesale produce auctions and regional food systems: The case of Seneca produce auction. <i>Renewable Agriculture and Food Systems</i> 34, 259–267.  <a href="https://doi.org/10.1017/S1742170518000133">https://doi.org/10.1017/S1742170518000133</a></p>	What will you do differently with eating, growing, etc? – reflection	10/24
Week 11: 10/29-10/31	Disposing foods & communicating with farmers	A Martins / Campbell	<p>Muth et al. A systems approach to assessing environmental and economic effects of food loss and waste interventions in the United States. <i>Sci Total Environ.</i> 2019; 685:1240-1254.</p> <p>Foden M, Browne AL, Evans DM, Sharp L, Watson M. The water-energy-food nexus at home: New opportunities for policy interventions in household sustainability. <i>Geograph J.</i> 2019;185(4):406-418.</p>	<p>Basics of communicating with stakeholders – simulation</p> <p>Developing resource for stakeholders - assignment</p>	<p>10/31</p> <p>11/7</p>
Week 12: 11/5-11/7	Biotechnology – Sea and Nutrients	Farzad / JE Andrade	<p>Rischer H, Szilvay GR, Oksman-Caldentey KM. Cellular agriculture – industrial biotechnology for food and materials. <i>Curr Opinion Biotech.</i> 2020;61:128-134.</p> <p>Scott NR, Chen H, Cui H. Nanotechnology applications and implications of agrochemicals toward sustainable agriculture and food systems. <i>J Agric Food Chem.</i> 2018;66(26):6451-6456.</p>	How can technology help/harm our food system – reflection in class	11/7

Week 13: 11/12-11/14	How did we come so far?	Panelists / Fish farm	Marshall Q, Fanzo J, Barrett CB, Jones AD, Herforth A, McLaren R. Building a Global Food Systems Typology: A New Tool for Reducing Complexity in Food Systems Analysis. <i>Frontiers in Sustainable Food Systems</i> . 2021 (5).		
Week 14: 11/19-11/21	It's up to you		No readings: presentations	Presentations about research – research & paper	12/16
Week 15: 12/3	It's up to you		No readings: presentations	Presentations about What does the food system mean to you? - assignment	12/3

## VI. Student Learning Outcomes (SLOs)

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At the end of this course, students will be expected to have achieved the learning outcomes as follows:

- **Content:** *Students demonstrate competence in the terminology, concepts, theories and methodologies used within the discipline(s).*
  - Describe the basic principles of food systems, and how they impact production, distribution, and consumption of food around the globe.
- **Critical Thinking:** *Students carefully and logically analyze information from multiple perspectives and develop reasoned solutions to problems within the discipline(s).*
  - Evaluate the interconnectedness of food systems and planetary health, and synthesize the meaning of sustainability in the context of a food system.
- **Communication:** *Students communicate knowledge, ideas and reasoning clearly and effectively in written and oral forms appropriate to the discipline(s).*
  - Propose to the public, clear, and effective responses to proposed approaches, policies, or practices that address issues related to food systems.
- **Connection:** *Students connect course content with meaningful critical reflection on their intellectual, personal, and professional development at UF and beyond.*
  - Compose personal and professional experiences towards the foods systems to enrich critical thinking skills for prospective careers or to pursue graduate degrees.

## V. Required Policies

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### Attendance Policy, and Make-Up Policy

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Per University Policy, attendance is expected at all class sessions. When an absence does occur, the student is responsible for the material covered during the absence. When possible, the student should notify the instructor in advance of an anticipated absence. Dr. Andrade will grant make-up privileges (when possible) to students for properly verified absences due to illness, emergency, or participation in an official University activity. Excused absences must be consistent with university policies in the [Graduate Catalog](#) and require appropriate documentation. Additional information can be found in [Attendance Policies](#).

### Class Expectations

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There is a CANVAS site for our course. All communication with Dr. Andrade will go through Canvas and all class assignments and quizzes will be uploaded through this site.

- Cellular phones should be turned to silent or off when entering the classroom. No texting during class. Students will be asked to leave the classroom, if caught texting.
- Computers are allowed during class for the sole purpose of taking notes. Both noisy typing skills and keyboards are not welcome in class. All other electronic devices should be turned off.
- Please don't check or send e-mail, texts, etc., during class.
- Class sessions begin at the time specified. If you come in late, please take your seat quietly. Most class sessions will run the allocated time. Please, do not disrupt the class by arriving late or leaving early.
- Talking in class is disruptive. Please be respectful of the instructors and your fellow classmates and refrain from side conversations during class.



- All correspondence should be via E-mail.
- When you send an email to your instructor, you should start the subject line using HUN 6626 [your subject]. Please be brief and avoid attachments unless you are sure your recipients can open them. Sign your message with your name and return e-mail address. Be sure you REALLY want everyone to receive your response when you click, “Reply All.” Be sure that the message author intended for the information to be passed along before you click the “FORWARD” button.

### Late Policy

Students are expected to submit all assignments on time. Assignments will be collected via Canvas or in class. Assignments not turned on or before the deadline will be subject to a “late” penalty corresponding to a 10% deduction of the maximum number of points of the assignment for every day it is late.

### Academic Integrity

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.” You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment."

It is assumed that you will complete all work independently in each course task unless the instructor provides explicit permission for you to collaborate on course tasks (e.g., assignments, papers, quizzes, exams). The use of artificial intelligence (AI, e.g., ChatGPT) to complete quizzes and reports is not allowed. AI-generated writing will be evaluated using online tools such as (GPTZero, GPT-2 Detector, or AI content detector | GPT-3 | ChatGPT – Writer). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: <http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code>.

### Recording in class

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session. Publication without permission of the instructor is prohibited.

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To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third-party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

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#### Online Course Evaluation Process

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at: <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at: <https://gatorevals.aa.ufl.edu/public-results/>.

#### Software Use

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

#### Services for Students with Disabilities

The [Disability Resource Center](#) coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services, and mediating faculty-student disability-related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation

Contact DRC: 0001 Reid Hall, 352-392-8565

## Student Privacy

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see the [Notification to Students of FERPA Rights](#).

## Campus Helping Resources

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UF is dedicated to supporting students in their academic success and overall well-being. Life can get difficult at times, especially while in college. Many students are faced with stressors and challenges that begin to impact their success as a student. These stressors have many shapes and forms (e.g., financial, family issues, etc.) and arrive at different stages of our lives. [The U Matter, We Care Initiative](#) aims at assisting the community with: i) care-related resources and programs focused on health, safety, and holistic well-being; ii) finding an appropriate network of support education and training; iii) access to tools for helping faculty staff and family members help students; and iv) several pathways to get involved with the initiative. Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize any of the many University's counseling resources.

- **The Writing Studio.** The writing studio is committed to helping University of Florida students meet their academic and professional goals by becoming better writers. Visit the writing studio online at <http://writing.ufl.edu/writing-studio/> or at 2215 Turlington Hall for one-on-one consultations and workshops.
- **Counseling and Wellness Center.** The [Counseling & Wellness Center](#) provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.
- **Career Connection Center.** The [Career Connection Center](#) educates and creates connections for the University of Florida community in order to facilitate the holistic career development of students. First Floor JWRU, 392-1601
- **The Office of Victim Services.** A victim advocate is available 24 hours, 7 days a week through the [University of Florida Police Department's](#) Dispatch Center at 352-392-1111. Victims may also contact an advocate directly during weekdays (Monday-Friday) between 8:00 a.m. and 5:00 p.m. by calling 352-392-5648. You can also write or e-mail the department's advocates at [ovs@mail.ufl.edu](mailto:ovs@mail.ufl.edu). All services are free and confidential.
- **University Police Department.** For emergencies ALWAYS dial 9-1-1. For non-emergencies dial 352-392-1111. For more information, visit: <https://police.ufl.edu/>
- **E-learning technical support** 352-392-4357 (select option 2) or email to [Learning-support@ufl.edu](mailto:Learning-support@ufl.edu). For more information, visit: <https://elearning.ufl.edu/>
- **Library Support:** Ask the librarian for support at <https://cms.uflib.ufl.edu/ask>
- **Student Complaints.** UF believes strongly in the ability of students to express concerns regarding their experiences at the University. The University encourages its students who wish to file a written complaint to submit that complaint directly to the department that manages that policy. A student who is unsure as to the official responsible for handling his or her particular complaint may contact the [Office of the Ombuds](#) or the [Dean of Students Office](#).