IDS 2935: Valuing Circular Food Economies

Quest 2

Image: Transforming Food and Agriculture to Circular Systems: A Perspective for 2050

"Circular economies keep products and materials in use, regenerate natural resources, drastically reduce waste and pollution, and increase economic value."

Jones, J. et.al. (2021)

I. General Information

Class Meetings

Fall 2024
Section: 22827 – In-person McCarty Hall C (MCCC) 100 Tuesday Periods 8-9 (3:00 pm – 4:55 pm) & Thursday CSE E222 Period 9 (4:05 am – 4:55 pm) with additional online asynchronous and synchronous Zoom Q&A sessions throughout the semester. A UF Campus map is available online for reference.

Instructor

Dr. Jennifer Clark
Email: tspartin@ufl.edu (please include course number in subject line)
Office: 1191 McCarty Hall A (MCCA) and Zoom: https://ufl.zoom.us/j/7910794490
Office Hours Fall 2024: Tuesdays & Thursdays 1:00 pm – 2:00 pm (office & Zoom) or email the instructor for an appointment at an alternative time, including morning/evening
Zoom Link: http://lss.at.ufl.edu

Teaching Assistant

TA office hours and contact information will be Posted in Canvas > Syllabus > TA Contact & Office Hours after drop/add period ends & shared via Announcement.

Course Description

How do we know whether a particular decision is the best one for us (or society) to make? When it comes to decisions about scarce resources, the social science known as agricultural economics provides a foundation for informed policy decisions about natural resources such as water and land use; or decisions regarding produced and manufactured resources such as food and clothing. Agricultural economists use a variety of modeling tools to consider optimal behaviors, including how we can reconsider linear systems of production into circular and regenerative ecosystems, referred to as a circular economy. A Cost-Benefit Analysis (CBA) is one systems-thinking tool we use for evaluating complex projects and simple decisions, to evaluate and model the pros and cons of economic decisions. CBA can be applied across a broad array of disciplines including agronomy, engineering, geography, education, medicine, law, finance, human factors, psychology, and many others. CBA project managers and thinkers in society evaluate expectations about rewards (from a decision or action), and costs (including long-term repercussions), to achieve desired outcomes.

This course addresses the pressing question, "How can we create and sustain circular food system benefits and evaluate intended and unintended impacts to society from our decisions, to optimize use and conservation efficiency of scarce resources?" The CBA modeling technique provides a mechanism used in our quest for developing regenerative food systems that can satisfy a growing global population.

Throughout the course, students are invited to explore diverse perspectives contextualized within a circular food-system decision environment. As an economic policy tool, we collect, analyze, and communicate research results, build consensus among diverse groups (when it is natural for conflicts to arise), and work towards formulating equitable solutions. The goal of this course is to develop a data-driven perspective through selected readings and experiential classroom activities; to think about factors relevant to the quest by reflecting on knowledge gained; to communicate findings through concise, focused, and goal-oriented analytical writing assignments; to engage in classroom and online discussions to share diverse considerations; and to create a final CBA portfolio model that allows each student to *tell a story* of their own policy recommendations to design regenerative, resilient, and sustainable circular-food system elements that create value for current and future generations.

Quest and General Education Credit

- Quest 2
- Social & Behavioral Sciences
- Writing Requirement (WR) 2000 words

This course accomplishes the Quest and General Education objectives of the subject areas listed above. A minimum grade of C is required for Quest and General Education credit. Courses intended to satisfy Quest and General Education requirements cannot be taken S-U.

Required Readings and Works

The textbook we will reference for portions of this course is: Boardman et.al. (2019). Cost-Benefit Analysis, Fifth Edition, Cambridge University Press. You can reference writing style for the course following The Bedford Handbook for Writers (any edition) by Hacker or Hacker & Sommers (copies are available at the UF Library). Agricultural economics uses APA style following Transue, B. (2019). APA Style 7th edition.

Additional Readings/Works are linked in Canvas > Module pages:

1. Jones, J., Verma, B., Basso, B., Mohtar, R., & Matlock, M. (2021). Transforming food and agriculture to circular systems: a perspective for 2050. *Resource Magazine*, *28*(2), 7-9. Accessed via: https://elibrary.asabe.org/abstract.asp?aid=52130 (2 pages).
2. Jaing, W. & Marggraf, R. (2021). The origin of cost-benefit analysis: a comparative view of France and the United States. Cost Eff Resour Alloc 19, 74. DOI: https://doi.org/10.1186/s12962-021-00330-3 (10 pages).
3. do Canto, N. R., Grunert, K. G., & De Barcellos, M. D. (2021). Circular food behaviors: a literature review. *Sustainability*, *13*(4), 1872. DOI: https://doi.org/10.3390/su13041872 (23 pages).
4. Arrow, K., M. et al. Cropper, C. Gollier, B. Groom, G. Heal, R. Newell, W. Nordhaus, R. Pindyck, W. Pizer, P. Portnoy, T. Sterner, R.S.J. Tol, and M. Weitzman; "Determining Benefits and Costs for Future Generations," Science 26 July 2013; Vol. 34: 349-350. DOI: https://doi.org/10.1126/science.1235665 (2 pages).
5. Ellen MacArthur Foundation (2017). The Circular Economy. (2,000 words). Accessed via: https://archive.ellenmacarthurfoundation.org/explore/food-cities-the-circular-economy
6. Schwartz, B. (2014, Feb 12) *Beware of economics: The perils of cost-benefit analysis*. PBS News Hour, NewsHour Productions LLC. (webpage 1,600 words). Accessed via: https://www.pbs.org/newshour/nation/beware-economics-perils-cost-benefit-analysis
7. Plakias, Z. (2021). Cost-benefit analysis as a tool for measuring economic impacts of local food systems: Case study of an institutional sourcing change. *Journal of Agriculture, Food Systems, and Community Development*, 10(3), 161-185. DOI: https://doi.org/10.5304/jafscd.2021.103.011 (25 pages).
8. Salvador, R. (2021). Accelerating transformation towards a sustainable and circular food system. 2021 Applied Agricultural Economics Association (AAEA) annual meeting, Gordon Rausser Keynote Address, Austin, TX July 15, 2021. Accessed via: https://www.aaea.org/meetings/2021-aaea-annual-meeting/events/plenary-sessions/gordon-rausser-keynote-address [Video: 63m].

Please reach out to the instructor for additional support if you have any questions, foresee any difficulty, or would like to discuss specific concerns.

Materials and Supplies Fees: n/a

II. Graded Work

Description of Graded Work

The table below provides descriptions of all major assignments.

	Description	Points
Discussion [D] & Discussion Response [DR] (6)	Bi-weekly research reflections applying understanding of CBA concepts and critical thinking to a food-related topic of personal interest; includes a prompted response to two student	300

	peers (6 x 50 points each). Due in Canvas by 11:59 pm on the due date.	
Think Pieces [TP] – Experiential Learning (18)	Weekly in-class participative experiential activity demonstrating classroom engagement with readings and media, including evidence of annotated reading notes, active discourse, and submission of self-reflection 3-minute papers responding to activity prompts. (15 x 10 points each - three unexcused absences permitted). Several "fieldtrip" experiences are planned throughout the semester that are optional for students to engage in out of class activities with the instructor and other students. Options may include trips to UF's Energy Park, UF's Field to Fork gardens and UF's Student Compost Cooperative; other local area experiences and guest speakers will be announced. These opportunities are designed to be enjoyable experiences of networking to increase knowledge of work on campus and other efforts supporting a circular food economy.	150
Writing Activity [WRA] (6)	Bi-weekly concise written communication focused on responding to writing prompts to demonstrate understanding of concepts underlying the development of a CBA project developed over the course of the semester (6 X 125 points each). **(400+ words each count towards [WR] for semester total 2,000 words)** Due in Canvas by 11:59 pm on the due date. *Writing feedback provided before the end of finals week.*	750
Quiz [Q] (6)	Bi-weekly, 50-minute multiple choice and short-answer open-book/open-notes quizzes reflecting content covered in class lectures, activities, and readings to demonstrate quantitative and qualitative CBA applications that intersect learning objectives associated with other course assignments (6 X 100 points). Due in class on the due date. Make up quizzes will be scheduled for the end of the semester.	600
Final CBA Portfolio (1)	End of semester portfolio synthesizing elements of graded works submitted during the semester demonstrating capacity to manage a CBA project topic through 1) integration of concepts and applications discovered through discussions, discussion responses, think pieces, writing activities, and quizzes to 2) tell a visually appealing and descriptive "story" to a diverse audience seeking to understand food-related scarce resource cost and benefit allocations important to society. A design template is provided for this activity for students to expand on and personalize their portfolio story into a professional presentation archived digitally in Canvas. Due in Canvas by 11:59 pm on the due date at the end of the semester.	200
Total Points		**2000**

Grading Scale

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

A	94 – 100%		C	74 – 76%
A-	90 – 93%		C-	70 – 73%
B+	87 – 89%		D+	67 – 69%
B	84 – 86%		D	64 – 66%
B-	80 – 83%		D-	60 – 63%
C+	77 – 79%		E	<60

Grading Rubric(s)

Writing Assessment Rubric and Statements

	SATISFACTORY (Y)	UNSATISFACTORY (N)
CONTENT	Papers exhibit at least some evidence of ideas that respond to the topic with complexity, critically evaluating and synthesizing sources, and provide at least an adequate discussion with basic understanding of sources.	Papers either include a central idea(s) that is unclear or off-topic or provide only minimal or inadequate discussion of ideas. Papers may also lack sufficient or appropriate sources.
ORGANIZATION AND COHERENCE	Documents and paragraphs exhibit at least some identifiable structure for topics, including a clear thesis statement but may require readers to work to follow progression of ideas.	Documents and paragraphs lack clearly identifiable organization, may lack any coherent sense of logic in associating and organizing ideas, and may also lack transitions and coherence to guide the reader.
ARGUMENT AND SUPPORT	Documents use persuasive and confident presentation of ideas, strongly supported with evidence. At the weak end of the Satisfactory range, documents may provide only generalized discussion of ideas or may provide adequate discussion but rely on weak support for arguments.	Documents make only weak generalizations, providing little or no support, as in summaries or narratives that fail to provide critical analysis.
STYLE	Documents use a writing style with word choice appropriate to the context, genre, and discipline. Sentences should display complexity and logical sentence structure. At a minimum, documents will display a less precise use of vocabulary and an uneven use of sentence structure or a writing style that occasionally veers away from word choice or tone appropriate to the context, genre, and discipline.	Documents rely on word usage that is inappropriate for the context, genre, or discipline. Sentences may be overly long or short with awkward construction. Documents may also use words incorrectly.
MECHANICS	Papers will feature correct or error-free presentation of ideas. At the weak end of the Satisfactory range, papers may contain some spelling, punctuation, or grammatical errors that remain unobtrusive so they do not muddy the paper's argument or points.	Papers contain so many mechanical or grammatical errors that they impede the reader's understanding or severely undermine the writer's credibility.

- The Writing Requirement (WR) ensures students both maintain their fluency in writing and use writing as a tool to facilitate learning.
- The instructor will evaluate and provide feedback before the end of the course on all of the student's written assignments with respect to grammar, punctuation, clarity, coherence, and organization.
- WR course grades have two components. To receive writing requirement credit, a student must receive a grade of C or higher and a satisfactory completion of the writing component of the course.

Think Pieces [TP] Experiential Learning Rubric

Experiential Learning is the process of learning through direct experience. In this course, each student will engage in Experiential Learning through Think Pieces (TP), which are detailed in the following section.

Think Pieces create a structured environment for: 1) pre-class preparation, 2) Small Group Active Learning (SMAL), and 3) post-SMAL reflection on the connections between theoretical concepts and their real-world applications. These three components—evidence of preparation, active small-group participation, and a concise 3-minute reflection paper—constitute the Think Pieces (TP) Experiential Learning component of this course, summarized below:

1. **Pre-work Preparation**: This involves taking notes during the weekly readings, which must be completed before class begins. Written (not digital) notes are a crucial part of academic success and will help you:
    - Organize ideas and information.
    - Think critically while reading.
    - Be prepared for class and contribute effectively to small-group discussions.
    - Keep a record of readings for easy reference.
    - Draw conclusions and identify main ideas.
    - Study for quizzes and prepare for the Final CBA Portfolio
2. **Small group active learning (SMAL)** involves participating in instructor-curated activities aimed at developing knowledge, skills, and personal and professional attributes in CBA project management. SMAL fosters a deep learning approach, enabling a meaningful understanding of critical concepts introduced in class and their application to decision-making that impacts society. Conducted in groups, SMAL encourages the sharing of diverse perspectives, particularly in relation to circular food systems. This collaborative learning environment helps peers connect theoretical understanding with the practical application of concepts in real-world situations.
3. **Concise 3-Minute Reflection Paper**: This component allows you to deepen your metacognitive understanding of CBA concepts, identify gaps in your knowledge, and build the confidence to apply CBA principles in both personal and professional contexts.

These [TP] Experiential Learning activities reflect active learning content developed by the instructor, that are based on the weekly readings/media and are designed for introducing class discussion and launching SMAL activities (including opportunities for “field trip” activities) based on weekly concepts. Engagement with the [TP] elements foster deeper learning, social engagement, and individual reflection in preparation for the Final CBA Portfolio capstone project due at the end of the semester.

Rubric	Points
Thorough on-point and substantive engagement and reflection response indicative of preparation with course materials (e.g., annotated notes) active small-group participation, and 3-minute written reflection of time spent during the class period.	Full credit (8-10)
Competent and complete but may lack clarity or focus with class preparation (e.g., annotated notes) or participation in small groups; reflection is cursory, lacking specific detail or connection to CBA concepts covered in class.	Partial credit (5-7)
Incomplete, with no evidence of careful consideration, appears rushed and shows little involvement with the materials.	Marginal credit (1-4)
No submission	No credit 0

III. Annotated Weekly Schedule

The schedule is tentative and subject to change. Check Canvas for any updates

Introduction Module – Overview of the course and introduction to the instructor						
Topic: This introductory module offers an overview of the course, introduces the instructor, and sets expectations for navigating the course and engaging with its content. Summary: n this module, students will be introduced to the Quest program and this course, learning to apply a systems-based approach to decision-making under uncertainty and limited resources. The module covers course expectations, graded assignments, and an introduction to the instructor, along with a tour of the course technology, including communication methods, meeting options, and Canvas tools. Students will also explore sustainability in complex food systems and learn to navigate course resources effectively.						
DAY				**THURSDAY**	**FRIDAY**	**SAT/SUN**
DATE				**8/22/24**	**8/23/24**	**8/24-8/25**

WEEK 1		.		Classes Begin! **Reading**: Transforming food and agriculture to circular systems: a perspective for 2050 - Jones, J., et.al. (2 pages). ***Due before next class meeting***.	**Due: Introduction & Syllabus Quiz (available until Monday 8/26/24)**	
Module 1: The Fundamental Theory of Cost-Benefit Analysis (CBA) *This Module's lessons will introduce and apply CBA to the discipline of Engineering.*						
Topic: The basic concepts and types of CBA **Summary:** These lessons introduce CBA by differentiating individual and social costs and benefits. We will discuss the steps of CBA and use in-class activities and readings to highlight the importance of considering diverse perspectives in scarce resource allocation. By applying CBA principles to various decisions, we'll explore case studies from different perspectives.						
DAY	**MONDAY**	**TUESDAY**	**WEDNESDAY**	**THURSDAY**	**FRIDAY**	**SAT/SUN**
DATE	**8/26/24**	**8/27/24**	**8/28/24**	**8/29/24**	**8/30/24**	**8/31-09/01**

WEEK 2		In class **Think Piece #1** experiential activity and discussion *(5 minutes at beginning of class)*		In class **Think Piece #2** experiential activity and discussion *(5 minutes at beginning of class)* **Due: Discussion 1 Post (part a)** *(about 30-45 minutes, depending on if you've posted in Canvas before)* Due 11:59 pm in Canvas.	**Reading**: The origin of cost-benefit analysis: a comparative view of France and the United States – Jaing & Margraf (10 pages) ***Due before next class meeting***.	**Due SUN: Activity 1** *(about 1 hour).* at 11:59 pm in Canvas **Due SUN: Discussion Response 1 (part b)** *(about 15 minutes)* Due 11:59 pm in Canvas.
Topic: Applied CBA fundamentals **Summary:** An exploration of the historical context underlying the development and use of CBA as a tool for decision making and discovery of the fundamentals used in CBA to determine value. Benefits and costs associated with technological innovations discovered through agricultural revolutions and a selection of economic development projects impacting the natural and built environment in the world around us are presented for consideration including case study from different areas and perspectives.						
DAY	**MONDAY**	**TUESDAY**	**WEDNESDAY**	**THURSDAY**	**FRIDAY**	**SAT/SUN**
DATE	**9/02/24**	**9/03/24**	**9/04/24**	**9/05/24**	**9/06/24**	**9/07-09/08**

WEEK 3	**HOLIDAY: Labor Day**	In class **Think Piece #3** experiential activity and discussion *(5 minutes at beginning of class)*		In class **Think Piece #4** experiential activity and discussion *(5 minutes at beginning of class)* In-class Review Module 1		
Module 2: Economic and Valuation Techniques of CBA *This Module's lessons will introduce and apply CBA to the discipline of Medicine.*						
Topic: Conceptual economic foundations and valuation methods of CBA **Summary:** These lessons explore the economic foundations of CBA, emphasizing decision-making alternatives and valuation techniques for assessing efficiency. Key welfare economics concepts, such as willingness to pay (WTP) and opportunity cost, are introduced, along with discussions on the limitations of CBA, including time and monetary constraints. Students will also learn direct and indirect valuation methods, including stated preference and contingent valuation. Through activities and case studies, they will apply these concepts to calculate the value of decisions for projects involving long-term planning.						
DAY	**MONDAY**	**TUESDAY**	**WEDNESDAY**	**THURSDAY**	**FRIDAY**	**SAT/SUN**
DATE	**9/09/24**	**9/10/24**	**9/11/24**	**9/12/24**	**9/13/24**	**9/14-9/15**
WEEK 4		**Due: Quiz 1** In-class		In class **Think Piece #5** experiential activity and discussion *(5 minutes at*	**Reading**: Determining Benefits and Costs for Future Generations – Arrow, et.al. (2 pages)	**Due SUN: Activity 2** *(about 1 hour).* at 11:59 pm in Canvas

				beginning of class) **[WRA 1 Due]** 11:59 pm in Canvas *(about 1 hour).*	***Due before next class meeting***.	
Topic: Applied economic foundations and valuation methods of CBA **Summary:** Agricultural economists make decisions, “at the margin”, but what does that mean? These lessons delve into the practical application of economic principles in CBA, exploring the question "How can the Law of Diminishing Returns be generalized to any economic decision?" Through experiential learning, students will consider how their approaches to valuing decisions may differ and how they apply pros and cons in everyday economic choices. The module also raises questions about what is important for the future of society and how different generations might disagree on valuation methods. In-class activities will explore how changes in input factors impact future outcomes, offering insights into the complexities of CBA.						
DAY	**MONDAY**	**TUESDAY**	**WEDNESDAY**	**THURSDAY**	**FRIDAY**	**SAT/SUN**
DATE	**9/16/24**	**9/17/24**	**9/18/24**	**9/19/24**	**9/20/24**	**9/21-9/22**
WEEK 5		In class **Think Piece #6** experiential activity and discussion *(5 minutes at beginning of class)* In-class Review Module 2		In class **Think Piece #7** experiential activity and discussion *(5 minutes at beginning of class)* **Due: Discussion 2 Post (part a)** *(about 30-45 minutes,*	Reading: Circular food behaviors: a literature review. - do Canto, et.al. (first 10/23 pages) ***Due before next class meeting***.	**Due SUN: Discussion Response 2 (part b)** *(about 15 minutes).* Due 11:59 pm in Canvas.

				depending on if you've posted in Canvas before) Due 11:59 pm in Canvas.		
Module 3: Systems-Thinking for CBA of Sustainable Food Supply Chains *This Module's lessons will introduce and apply CBA to the discipline of Law.*						
Topic: Conceptual and applied systems-thinking methodology for food systems CBA **Summary:** In these lessons, we will examine the various systems involved in developing individual CBA projects focused on food-related scarce resources that are essential to society. Students will collaborate in small groups to develop cost-benefit analyses, exchange feedback with peers, and present their findings to the class. This module offers dedicated time for refining project ideas, receiving peer feedback, and gaining instructor mentorship, all aimed at helping students craft a strong thesis statement.						
DAY	**MONDAY**	**TUESDAY**	**WEDNESDAY**	**THURSDAY**	**FRIDAY**	**SAT/SUN**
DATE	**9/23/24**	**9/24/24**	**9/25/24**	**9/26/24**	**9/27/24**	**9/28-9/29**
WEEK 6		**Due: Quiz 2** In-class		In class **Think Piece #8** experiential activity and discussion *(5 minutes at beginning of class)* **[WRA 2 Due]** 11:59 pm in Canvas *(about 1 hour).*	Reading: Circular food behaviors: a literature review. - do Canto, et.al. (11-23 pages) ***Due before next class meeting***.	**Due SUN: Activity 3** *(about 1 hour).* at 11:59 pm in Canvas

Topic: Conceptual and applied impacts in output, input & secondary market food supply chains that create value **Summary:** Our current economy operates on a linear model of production, use, and disposal of food-related scarce resources. This week, we will explore how to incorporate different perspectives on re-use cycles within output, input, and secondary markets in circular systems. We will discuss the factors to include in our analysis and how to assess value in society across various economic models.						
DAY	**MONDAY**	**TUESDAY**	**WEDNESDAY**	**THURSDAY**	**FRIDAY**	**SAT/SUN**
DATE	**9/30/24**	**10/01/24**	**10/02/24**	**10/03/24**	**10/04/24**	**10/05-10/06**
WEEK 7		In class **Think Piece #9** experiential activity and discussion *(5 minutes at beginning of class)* In-class Review Module 3		In class **Think Piece #10** experiential activity and discussion *(5 minutes at beginning of class)* **Due: Discussion 3 Post (part a)** *(about 30-45 minutes, depending on if you've posted in Canvas before)*	**Reading**: The Circular Economy – Ellen MacArthur Foundation (webpage 2,000 words) ***Due before next class meeting***.	**Due SUN: Discussion Response 3 (part b)** *(about 15 minutes)* Due 11:59 pm in Canvas.

				Due 11:59 pm in Canvas.		

Module 4: Quantifying CBA Unknowns

This Module's lessons will introduce and apply CBA to the discipline of Liberal Arts.

Topic: Conceptual topics in differentiating uncertainty and risk

Summary: How are risk and uncertainty different and what differences are there that influence the decision-making steps used to consider systems-level value? The concept of average probabilities, known as expectations, is introduced as information value we can add to our model of CBA potential outcomes. We use expectations to model probability in sensitivity analyses that incorporate forecasting outcomes important to decision making models.

DAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SAT/SUN
DATE	**10/07/24**	**10/08/24**	**10/09/24**	**10/10/24**	**10/11/24**	**10/12-10/13**
WEEK 8		**Due: Quiz 3** In-class		In class **Think Piece #11** experiential activity and discussion *(5 minutes at beginning of class)* **[WRA 3 Due]** 11:59 pm in Canvas *(about 1 hour).*	**Reading**: Beware of economics: The perils of cost-benefit analysis – Schwartz (webpage 1,600 words) ***Due before next class meeting.***	**Due SUN: Activity 4** *(about 1 hour).* at 11:59 pm in Canvas **Extra Credit:** Please complete Mid-Semester Feedback Extra Credit *(5 points)*

Topic: Applications of uncertainty and risk

Summary: Now that we've introduced the risk model as a mathematical representation of a system incorporating probability distributions, in the next two weeks we use relevant historical data and subjective feedback to understand the probability and

severity of a risk event. In this section we discuss different case studies demonstrating how average probabilities (i.e., expected values) are valuable to inform policy decisions and identify sources of changes in sustainability issues affecting circular systems.						
DAY	**MONDAY**	**TUESDAY**	**WEDNESDAY**	**THURSDAY**	**FRIDAY**	**SAT/SUN**
DATE	**10/14/24**	**10/15/24**	**10/16/24**	**10/17/24**	**10/18/24**	**10/19-10/20**
WEEK 9					**HOLIDAY: HOMECOMING**	
DAY	**MONDAY**	**TUESDAY**	**WEDNESDAY**	**THURSDAY**	**FRIDAY**	**SAT/SUN**
DATE	**10/21/24**	**10/22/24**	**10/23/24**	**10/24/24**	**10/25/24**	**10/26-10/27**
WEEK 10		In class **Think Piece #12** experiential activity and discussion *(5 minutes at beginning of class)* In-class Review Module 4		In class **Think Piece #13** experiential activity and discussion *(5 minutes at beginning of class)* **Due: Discussion 4 Post (part a)** *(about 30-45 minutes, depending on if you've posted in Canvas before)*	**Reading**: Cost-benefit analysis as a tool for measuring economic impacts of local food systems: Case study of an institutional sourcing change, - Plakias pp. 161-176 [16 pages] – only read up to Table 1. Known Values for Simulation (from Observed Data) ***Due before next class meeting***.	**Due SUN: Discussion Response 4 (part b)** *(about 15 minutes).* Due 11:59 pm in Canvas.

				Due 11:59 pm in Canvas.		
Module 5: Developing CBA Tools for Analysis *This Module's lessons will introduce and apply CBA to the discipline of Geography.*						
Topic: Conceptual Components of Risk Management Tools **Summary:** Strategic risk-related decisions are enhanced by tools like forecasting, simulation, and signal detection measures that incorporate probabilities. In this section, we analyze these risk management tools through a case study of a local food system, examining both direct and indirect factors to develop informed policy recommendations.						
DAY	**MONDAY**	**TUESDAY**	**WEDNESDAY**	**THURSDAY**	**FRIDAY**	**SAT/SUN**
DATE	**10/28/24**	**10/29/24**	**10/30/24**	**10/31/24**	**11/01/24**	**11/02-11/03**
WEEK 11		**Due: Quiz 4** In-class		In class **Think Piece #14** experiential activity and discussion *(5 minutes at beginning of class)* **[WRA 4 Due]** 11:59 pm in Canvas *(about 1 hour).*	**Reading**: Cost-benefit analysis as a tool for measuring economic impacts of local food systems: Case study of an institutional sourcing change, - Plakias pp. 177-180 [4 pages] – only read up to Policy Implications and Suggestions for Future Research. ***Due before next class meeting.***	**Due SUN: Activity 5** *(about 1 hour).* at 11:59 pm in Canvas
Topic: Applications of Risk Management Tools						

Summary: Building on the fundamentals of circular food systems, CBA evaluation techniques, and the development of risk management tools, this section serves as a foundation for addressing complex issues within circular food systems. Students will create simple decision models, identify key risk-management indicators, and develop and communicate well-considered policy recommendations. This process will help those new to economic decision-making deepen their understanding of CBA, apply concepts to new challenges, and propose innovative policy solutions.

DAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SAT/SUN
DATE	**11/04/24**	**11/05/24**	**11/06/24**	**11/07/24**	**11/08/24**	**11/09-11/10**
WEEK 12		In class **Think Piece #15** experiential activity and discussion *(5 minutes at beginning of class)* In-class Review Module 5 **[WRA 5 Due]** 11:59 pm in Canvas *(about 1 hour).*		In class **Think Piece #16** experiential activity and discussion *(5 minutes at beginning of class)* **Due: Discussion 5 Post (part a)** *(about 30-45 minutes, depending on if you've posted in Canvas before)* Due 11:59 pm in Canvas.	**Reading**: Cost-benefit analysis as a tool for measuring economic impacts of local food systems: Case study of an institutional sourcing change, - Plakias pp. 180-181 [2 pages] – finish the reading. ***Due before next class meeting***.	**Due SUN: Discussion Response 5 (part b)** *(about 15 minutes)* Due 11:59 pm in Canvas.

Module 6: Communicating CBA Results

This Module's lessons will introduce and apply CBA to the discipline of Communication.

Topic: CBA Portfolio Development, Presentation & Peer Feedback **Summary:** In the remaining weeks of the semester, students will focus on developing their final CBA portfolio presentations. These presentations, which will be shared both in class and online, will demonstrate a comprehensive understanding of how to identify direct and indirect benefits and costs when modeling circular and sustainable food systems. The goal is to reflect a wide range of concepts and applications learned throughout the semester, particularly in communicating policies related to innovations in circular food systems.						
DAY	**MONDAY**	**TUESDAY**	**WEDNESDAY**	**THURSDAY**	**FRIDAY**	**SAT/SUN**
DATE	**11/11/24**	**11/12/24**	**11/13/24**	**11/14/24**	**11/15/24**	**11/16-11/17**
WEEK 13	**HOLIDAY: Veteran's Day**	**Watch video** (in-class): Accelerating transformation towards a sustainable and circular food system – Salvador [63 minutes] **Due: Quiz 5** In-class		In class **Think Piece #17** experiential activity and discussion *(5 minutes at beginning of class)*		
DAY	**MONDAY**	**TUESDAY**	**WEDNESDAY**	**THURSDAY**	**FRIDAY**	**SAT/SUN**
DATE	**11/18/24**	**11/19/24**	**11/20/24**	**11/21/24**	**11/22/24**	**11/23-11/24**
WEEK 14		In-class Review Module 6 **[WRA 6 Due]** 11:59 pm in Canvas *(about 1 hour).*		In class **Think Piece #18** experiential activity and discussion *(5 minutes at*		**Due SUN: Discussion Response 6 (part b)** *(about 15 minutes)* Due 11:59 pm in Canvas.

				beginning of class) **Due: Discussion 6 Post (part a)** *(about 30-45 minutes, depending on if you've posted in Canvas before)* Due 11:59 pm in Canvas.		
DAY	**MONDAY**	**TUESDAY**	**WEDNESDAY**	**THURSDAY**	**FRIDAY**	**SAT/SUN**
DATE	**11/25/24**	**11/26/24**	**11/27/24**	**11/28/24**	**11/29/24**	**11/30-12/01**
WEEK 15	**THANKSGIVING HOLIDAY**					
DAY	**MONDAY**	**TUESDAY**	**WEDNESDAY**	**THURSDAY**	**FRIDAY**	**SAT/SUN**
DATE	**12/02/24**	**12/03/24**	**12/04/24**	**12/05/24**	**12/06/24**	**12/07-12/08**
WEEK 16	**Please complete UF Course Evaluation and End-of-**	**Due: Quiz 6** In-class	**Last Day of Classes**	**READING DAYS**		

	Semester Feedback!		**Due: Activity 6** *(about 1 hour).* at 11:59 pm in Canvas			
Conclusion Module – Final Thoughts						
Topic: Reflecting on the broader impact of economics on food-related decisions and its implications for your own choices is key as the semester concludes. Summary: As the semester concludes, take time to reflect on how economics influences food-related decisions at personal, organizational, and global levels, and how these elements interconnect. Consider how these insights impact your communication about food issues. Please complete the course feedback and reach out with any lingering questions or if you'd like to discuss further research opportunities or your professional development.						
DAY	**MONDAY**	**TUESDAY**	**WEDNESDAY**	**THURSDAY**	**FRIDAY**	
DATE	**12/09/24**	**12/10/24**	**12/11/24**	**12/12/24**	**12/13/24**	
WEEK 17	**SCHEDULED MAKE UP ASSIGNMENTS**			Reach out to discuss undergrad research Projects!		

IV. Student Learning Outcomes (SLOs)

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

Content*: Students demonstrate competence in the terminology, concepts, theories and methodologies used within the discipline(s)*.

- Identify, describe, and explain key themes, principles, and terminology of Cost-Benefit Analysis (CBA) including the history, theory, and methodologies used for CBA-based decision making through discussions, think piece reflections, in-class and individual writing activities, and quizzes that culminate in a final CBA portfolio. (S)
- Recognize, synthesize, and explain the theoretical and empirical issues related to the creation of a circular and sustained food system using multi-disciplinary perspectives and scientific data to guide CBA-based scarce resource allocation decisions through discussions, think piece reflections, in-class and individual writing activities, and a final CBA portfolio. (Q2)

Critical Thinking: *Students carefully and logically analyze information from multiple perspectives and develop reasoned solutions to problems within the discipline(s).*

- Apply formal and informal qualitative or quantitative analysis using CBA concepts and methods to examine the models and tools that form the processes by which individuals make personal and group decisions through discussions, think piece reflections, in-class and individual writing activities, and quizzes that culminate in a final CBA portfolio. (S)
- Assess and analyze diverse perspectives in sustainable and circular food systems affected by individual and societal decisions through discussions, think piece reflections, in-class and individual writing activities, and final CBA portfolio. (S)
- Critically analyze and evaluate quantitative data for informing a CBA approach to sustainable and circular food system policy as food-related resources continue evolving to become more resilient and create value for future generations through discussions, think piece reflections, and quizzes. (Q2)

Communication: *Students communicate knowledge, ideas and reasoning clearly and effectively in written and oral forms appropriate to the discipline(s).*

- Develop and present clear and effective oral and written work that demonstrates critical engagement with course texts, videos, and experiential learning activities through discussions, think piece reflections, in-class writing activities, and a final CBA portfolio. (S)
- Analyze and reflect on the ways the student and society have considered value in the cost-benefit policy considerations and implications for scarce resources allocated for creating and maintaining healthy and sustainable food systems for members of society through discussion responses, think piece reflections, in-class and individual writing activities, and final CBA portfolio. (Q2)

Connection: *Students connect course content with meaningful critical reflection on their intellectual, personal, and professional development at UF and beyond.*

- Connect course content with their intellectual, personal, and professional lives at UF and beyond. (Q2)
- Reflect on their own and others' experience in allocation decisions following economic principles of cost benefit analysis to develop a final CBA Portfolio project. (Q2)

V. Quest Learning Experiences

1. Details of Experiential Learning Component

For experiential learning opportunities, students will choose a food-related topic of personal interest to research throughout the semester, culminating in a digitally-archived final CBA project. This topic can be connected to any academic discipline that aligns with the student's interests. Students will participate in a variety of assignments involving research, communication, feedback, and reflection. These assignments are designed to reinforce course concepts and promote a systems-based approach to learning CBA techniques, methods, and models. Feedback shared with peers will provide guided critique through peer review, helping students develop resilience in tackling challenging questions that lack simple answers. This process includes making decisions about the allocation of scarce resources to develop and sustain circular food systems for a growing global population.The final CBA project is intended to showcase students' abilities and professionally communicate what they've learned about CBA applied to circular food systems as evidence of employability skills in agriculture and natural resources as identified by the Association of Public Land-Grant Universities (APLU).

2. Details of Self-Reflection Component

Self-reflection is built into many of the in-class assignments, think pieces, writing assignments, and the final portfolio project.

VI. Required Policies

Attendance Policy

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:
https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Students Requiring Accommodation

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting https://disability.ufl.edu/students/get-started/. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

UF Evaluations Process

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/.

University Honesty Policy

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students 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." The Honor Code (https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Counseling and Wellness Center

Contact information for the Counseling and Wellness Center: http://www.counseling.ufl.edu/ , 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

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 in 2215 Turlington Hall for one-on-one consultations and workshops.

In-Class Recordings

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. 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.