



General Course Information

Agricultural & Applied Economics (AAE 422) Fall 2022 **Food Systems and Supply Chains**

Credits

3.0 credits

Course Description

Examination of the structure of supply chains for food and agriculture and key business decisions in the the broader context of food systems.

Course Designations and Attributes

Social Science; LAS Intermediate level

Requisites

AAE 215, ECON 101 or 111

Meeting Time and Location

Tuesday and Thursday, 9:30-10:45am, 119 Babcock Hall

Instructional Modality

In-person instruction (subject to change in accordance with University policy)

Specify How Credit Hours are Met by the Course

This class meets for two 75-minute class periods each week over the Fall semester and carries the expectation that students will work on course learning activities (reading, writing, problem sets, studying, etc.) for about 3 hours out of the classroom for every class period. This syllabus provides additional information about meeting times and expectations for student work.

Regular and Substantive Student-Instructor Interaction

This course provies regular and substantive Student-Instructor Interaction through the following:

- Participation in regularly scheduled learning sessions (where there is an opportunity for direct interaction between the student and the qualified instructor).
- Personalized comments (in any medium) for an individual student's assignment or exam.
- Posted announcements, emails, and check-ins about academic aspects of the class

Other Course Information

Instructor:

Dr. Charles (Chuck) Nicholson

Instructor Availability

Office hours Tuesday 11:30-12:30pm or by appointment in advance. (Both in-person and virtual formats may be arranged depending on campus Covid-19 policies.)

Instructor Email:

cfnicholson@wisc.edu

Course Learning Outcomes

This course will draw upon concepts from economics, business and systems modeling to accomplish its objectives. Activities in this course will focus on the use of these concepts to support quantitative assessment (that is, based on data) to inform decision making for individual businesses, supply chain partners, government policy makers, or society more generally. Successful completion of this course means that you will be able to:

- Describe food supply chain (network) components, processes, objectives, drivers and performance metrics, and the main differences in characteristics and management practices for food and agricultural supply chains compared to supply chains for non-food manufactured products;
- Analyze sourcing and purchasing decisions for raw materials or finished goods, use business process analyses food supply chain improvement and determine appropriate production or service capacity strategic decisions for food supply chains;
- Apply basic inventory management decision methods, such as the Economic Order Quantity (EOQ) and Re-Order Point (ROP), decision models for logistics including transportation modes and distribution network configurations, and Sales & Operations Plans (Aggregate Plans) for a food manufacturer;
- Describe the metrics and processes that food businesses use to monitor and improve sustainability, in the context of Corporate Social Responsibility;
- Define the basic characteristics of a food system and its linkages to food and agricultural supply chains, and use basic systems modeling concepts for the development of qualitative assessment of food systems and understand their use in quantitative models of food systems;
- Use systems modeling approaches to assess key food supply chain and food system issues such as the impacts of food supply chains on human nutrition, programs for farmers, agriculture research and development and localization of food systems;
- For graduate student credit: Undertake a review of a subset of relevant literature on a topic or issue related to food supply chains or food systems (with pre-approval of the instructor), and relate the content of that review to the concepts covered in this course.

General Skill-Building Objectives:

This course is also designed to build skills that complement your knowledge of concepts specific to food supply chains and systems that are more broadly applicable in agribusiness (and really, in most other professions too). Successful completion of this course implies that you will have improved your ability to:

- Apply key quantitative and qualitative tools and concepts to support decision-making;
- Work in (interdisciplinary) teams to analyze business situations and recommend decisions;
- Communicate effectively present verbally and in writing recommended decisions based on the use of tools and quantitative analysis;

Note the emphasis in the above on the use of concepts and information to support decision making, which is an over-arching theme of this course.

Course Activities and Grading

Course Activities: The activities designed to achieve the learning objectives for this course include pre-class reading and assignments, class presentations, in-class exercises or group discussions, readings (from other analysts and current (news) sources), homework assignments, quizzes, a midterm exam, a final exam and a case study competition. A detailed course schedule is provided below.

A typical day in class might include a short lecture, an in-class exercise and occasionally a quiz. In general, I will begin each class with a request for any questions of clarification from the previous class and often with a brief review of the previous class' material. This will be followed with short presentation, and then I'll ask you to do an individual or group exercise that could take anywhere from 10 to 30 minutes. The purpose of this exercise typically will be to reiterate the concepts just presented and to give you practice applying them. This will then be followed by additional presentation, class discussion or questions.

Class Presentations: All PPTX presentations will be posted after class and will include the answers to exercises undertaken in class. The presentations are often useful to review for homework assignments and the exams.

Assignments: There will be a number of assignments throughout the semester. These assignments are designed to deepen your understanding of a topic discussed in class, extend the concepts to a new issue and sometimes to make you aware of additional resources available electronically to explore an issue. All assignments are due at the time stated on the assignment. I reserve the right to give no or reduced points for any assignment turned in late.

IMPORTANT: You may collaborate with other students on assignments, **but you must submit work written in your own words.** That is, you are not permitted to copy by hand or in electronic form someone else's work, because you won't learn as much that way. I reserve the right to give no or reduced points if your assignment appears "too similar" to someone else's. (See also the Academic Integrity Statement below.)

IMPORTANT: Any assignments emailed separately to Dr. Nicholson (rather than submitted via Canvas or when appropriate as hard copy in class) without prior approval will incur a 15-point "printing fee" (that is, will have 15 points taken off)

Pre-Class Assignments: Many classes will have short pre-class assignments based on the readings for the class. These assignments will be done in Canvas and help to prepare you to participate actively in the class. There may be more than 100 points worth of pre-class assignments, and any you complete correctly above 100 points will be counted as extra credit. No late submissions of pre-class assignments are permitted.

Quizzes: These are designed to give both you and me some quick feedback about your level of understanding of material in the readings and class presentations. These may be individual or group, or may be in-class exercise. I will often announce a quiz the class meeting before it will be given (to give you some time to prepare) but may also occasionally give an unannounced quiz.

Exams: **There will be one in-class midterm exam in this course, currently scheduled for Week 7 in mid-October.** The specific material to be covered on each exam will be clearly indicated in advance of the exam, as will the format of the exam. My view of exams is that they are best used to indicate your ability to apply the concepts from class to new situations, particularly those with a greater degree of interest at the moment. Each midterm exam will be preceded by an evening review session in which you can ask any questions that you wish to help you clarify concepts and prepare. *I do not “curve” exams, although as noted below, I may modify the total points required to get a specific letter grade for the entire course.* There also will be a comprehensive final exam during the regularly scheduled final exam period (worth 25% of the total course grade for undergraduate students—see below).

Case Study Competition (Final Project): During the last week of class you will work in a team to present analysis of a case study that focuses either on food supply chain management decisions or a systems analysis of a particular supply chain. More information will be provided a few weeks before the last week of class.

Extra Credit Activities: I will offer occasional extra credit activities, which will be available to all students. Extra credit activities would add to the total number of points you achieve during the semester, so can improve your grade.

Course Grading: Your grade in this course will be determined **based on the cumulative number of points earned throughout the semester (NOT the percentage of your points out of the total possible).** For undergraduate course participants, evaluation will be based on the following components:

Homework Assignments (6, 25 points each)	150
Pre-class assignments, Quizzes	100
Midterm Exam	150
Case Study Competition	250
Final Exam	250
<u>Class Professionalism</u>	<u>100</u>
Total	1000

For graduate course credit participants, evaluation will be based on the following components, which includes the literature review:

Homework Assignments (6, 25 points each)	150
Pre-class assignments, Quizzes	100
Midterm Exam	100
Case Study Competition	250
Final Exam	150
Review of Relevant Literature	150
<u>Class Professionalism</u>	<u>100</u>
Total	1000

Letter grades will be assigned as follows, although I reserve the right to lower (but not raise) the number of points required to achieve a particular letter grade in this course for ALL students as I think appropriate to reflect achievement of the learning objectives:

Points	Grade
≥ 930	A
870-929	AB
830-869	B
770-829	BC
700-769	C
600-699	D
<600	F

Gray areas, of course, are places to stay away from! *Given that I don't grade on a curve, it should be possible for everyone to do well in this course.* To avoid ending up “gray”, it will help to keep up on course assignments, but also track your performance over time and talk with me if you feel you are not doing as well as you would like. I'll offer suggestions on how to improve.

Three other important notes about grades:

- 1) For homework assignments and exams, you will have the opportunity to request that I review the grading if you believe there has been an error or misinterpretation as a part of the grading. *Any request for a review must be submitted in writing along with the assignment, within one week of the time that the graded assignment is returned to you.* **I will not accept requests for reviews for any assignment later than one week after the graded assignment is returned.**
- 2) At the end of each semester I receive requests from students who are close to the cut-offs in the grade table, above asking if there is a way to receive additional points so that they can receive the next highest grade (either through additional work or just the granting of additional points). Although there will be opportunities for extra credit during the semester, **I will not grant these last-minute requests, so please do not email or call me with that request.** If you are within two points (NOT 2%, 2 actual points out of 1000) of the cut-off point for the next grade, I will review your work to determine if the higher grade is merited. To be considered for the higher grade, you will need to have completed ALL assignments (for example, no missing homework assignments), have shown a high degree of motivation during the semester, and shown continuous improvement in your performance. I reserve the right not to give you the higher grade unless I believe it is fully merited.
- 3) *Cap on Extra Credit Points.* A cap of 40 Extra Credit points earned from all sources (in-class, additional assignments, pre-class assignment points over the 100 that count towards the regular course grade will be applied at the end of the semester. Even if you cannot earn additional extra credit points that directly contribute to your grade once you reach the cap, you should still plan to complete all assignments to ensure that your professionalism grade is as large as it can be. That is, not completing assignments can lower your professionalism grade.

Class Professionalism: Class professionalism assesses whether your actions during the semester are consistent with standards of Excellence, Academic Integrity and Professionalism. Essentially, this evaluation component assesses whether your actions during the semester show professional-level responsibility and a high degree of motivation to make the most of the learning opportunity provided by the course, and demonstrate respect and support the learning of others in the class. **This is much more than simply attending most classes—you must be actively engaged in all dimensions of the course by the criteria provided in the rubric shown after the course schedule.** **Instances of one or more “<80”**

performance criteria for any of the categories mentioned in the rubric below can result in a grade of 80 or below, so you should always strive to achieve high professionalism evaluations.

Another element of class professionalism is “Classroom Civility.” **It is expected that you will be respectful to both the professor and your other classmates in all your activities and communications.** If you choose to be disrespectful in class, you will be asked to leave and your total grade will be affected. Anything that is disruptive to the class is deemed disrespectful, including the following:

- Limited or non-compliance with campus policies related to Covid-19, including inappropriate masking in class
- Use of electronics (other than a calculator)
- Talking to other students during class when that conversation is not related to the course material or in-class assignment
- Packing your bag before class is finished
- Reading materials not related to AAE 422
- Consistently arriving late to class without providing a valid reason in advance
- Verbally attacking another person rather than discussing ideas
- Leaving early without telling the professor beforehand. The only exception to this is if you become ill during class.

If you have any questions about what constitutes appropriate (or inappropriate) behavior, please review the Student Code of Conduct and/or talk with Dr. Nicholson.

Cell Phones: **Cell phones and any other electronics must be turned to silent or vibrate mode during class time (as mine will be) and are not permitted for any use at any time during class.** If you receive a communication that you must absolutely answer, I expect that you will leave the classroom in a minimally-disruptive way. If I hear your cell phone or other device and am able to identify you in class, **I reserve the option of deducting 50 points from your class professionalism grade for each occurrence.** During exams, cell phones or other electronics are strictly prohibited from use for any purpose. If your cell phone rings, beeps, sings, chirps, plays a song, etc. during a midterm exam, you will lose 50 points on that exam.

Laptop/Tablet/Cell Phone Policy: **Use of laptops, tablets or cell phones in class is not allowed at any time,** based on evidence that for most students it does not facilitate learning for you or students around you, and from my experience that this is a distraction. **If you use or appear to use a laptop, tablet or cell phone for any purpose, I reserve the right to lower your grade for class professionalism by 50 points for each occurrence.**

Make-Up Policy: You may be permitted to take make-up exams under four circumstances: 1) you are ill or injured to the point where you are unable to perform reasonably on the exam, 2) you have a documented professional engagement (such as a job interview) or other university-approved curricular or extra-curricular activities (such as travel with a sports team), 3) there is a serious medical emergency or death in your family and 4) religious holidays. **Appropriate documentation (in advance for university-approved activities is required) may be requested. For health-related excuses, I reserve the right to request your approval to provide documentation to verify that the condition was serious enough to merit a medical appointment.** Family vacations, any other type of vacations, and basic work commitments are not an acceptable reason for requesting a make-up exam. I reserve the right to offer a make-up exam completely different from that offered your classmates.

“Get out of Jail Free” Card: Most students find that at least one time during the semester they forget a homework assignment or need some other special arrangement made about work in the class. Recognizing this, I will use the concept of a “Get Out of Jail Free” Card (like from the *Monopoly* game). You will have one opportunity this semester to use this “card” in the case of a late homework assignment or selected other special situations allowed at my discretion that would otherwise result in your earning fewer points. **This card allows you to hand in one homework assignment the next class period after it is due¹ and still receive full credit for that assignment. The card does not apply to other assignments such as extra credit or in-class group assignments worth points.** If you do not need to use this during the semester, 10 points will be added to your point total as “extra credit” points.

Course Website, Learning Management System & Digital Instructional Tools

Course Website is on Canvas, access at: <https://canvas.wisc.edu/courses/277586>

Required Textbook, Software & Other Course Materials

Readings for this course will be from the following:

Supply Chain Management: Strategy, Planning and Operation (7th edition). Sunil Chopra. Boston: Pearson Education, Inc. 2019.

<https://www.pearson.com/store/p/supply-chain-management-strategy-planning-and-operation/P100000803793/9780137502844>

Introduction to Operations and Supply Chain Management (5th edition). Cecil C. Bozarth and Robert B. Handfield. Pearson Education, Inc., 2019.

<https://www.pearson.com/store/p/introduction-to-operations-and-supply-chain-management/P100002559769/9780137533213?tab=overview>

These two texts are available from Pearson at the websites provided. The most cost effective way to access them is to rent the eText, which is \$9.99/month for each (or about \$100 total for the Fall semester).

The components of other materials referenced below will be posted on Canvas:

Food Supply Chain Management and Logistics: from Farm to Fork. Samir Dani. London: KoghanPage, 2015.

Business Dynamics: Systems Thinking and Modeling for a Complex World. John D. Sterman. Boston: Irwin/McGraw-Hill, 2000.

Additional and supplemental readings and other supporting materials will be posted to the Canvas site for the course on occasion during the semester.

Homework & Other Assignments

Assignments: There will be a number of assignments throughout the semester. These assignments are designed to deepen your understanding of a topic discussed in class, extend the concepts to a new issue and sometimes to make you aware of additional resources available electronically to explore an issue. **All assignments are due at the time stated on the assignment. I reserve the right to give no or reduced points for any assignment turned in late.**

¹ Most assignments will be due on Thursday, so the GOofJF card allows you to hand in the assignment the next Tuesday (but not the next Thursday or at any future time in the semester).

Exams, Quizzes, Papers & Other Major Graded Work

Exams: **There will be one in-class midterm exam in this course, currently scheduled for Week 7 in mid-October.** The specific material to be covered on each exam will be clearly indicated in advance of the exam, as will the format of the exam. My view of exams is that they are best used to indicate your ability to apply the concepts from class to new situations, particularly those with a greater degree of interest at the moment. Each exam will be preceded by an evening review session in which you can ask any questions that you wish to help you clarify concepts and prepare. *I do not “curve” exams, although as noted below, I may modify the total points required to get a specific letter grade for the entire course.* There also will be a comprehensive final exam during the regularly scheduled final exam period (worth 25% of the total course grade for undergraduate students—see above).

Case Study Competition (Final Project): During the last week of class you will present your analysis of a case study that focuses either on food supply chain management decisions or a systems analysis of a particular supply chain. More information will be provided a few weeks before the last week of class.

Literature Review for Graduate Students: Graduate students in AAE 422 will undertake a review of a subset of relevant literature on a topic or issue related to food supply chains or food systems, the focus of which will be determined with and approved by the instructor. This review will consist of at least five studies or articles, summarize and synthesize the main findings and discuss the the content to the extent possible to concepts covered in AAE 422. This review will be worked on throughout the semester and submitted prior to the the final exam.

General Guidelines for Exam Proctoring

Exams will be in-class and proctored by the instructor or as otherwise noted in advance of the exam. Make-up exams will be arranged by mutual agreement and proctored by the instructor. Enrollment in the course implies agreement to abide by proctoring guidelines communicated by the instructor.

Teaching & Learning Data Transparency Statement

The privacy and security of faculty, staff and students’ personal information is a top priority for UW-Madison. The university carefully evaluates and vets all campus-supported digital tools used to support teaching and learning, to help support success through [learning analytics](#), and to enable proctoring capabilities. View the university’s full [teaching and learning data transparency statement](#).

Privacy of Student Records & the Use of Audio Recorded Lectures Statement

Lecture materials and recordings for this course are protected intellectual property at UW-Madison. Students in this course may use the materials and recordings for their personal use related to participation in this class. Students may also take notes solely for their personal use. If a lecture is not already recorded, you are not authorized to record my lectures without my permission unless you are considered by the university to be a qualified student with a disability requiring accommodation. [Regent Policy Document 4-1] Students may not copy or have lecture materials and recordings outside of class, including posting on internet sites or selling to commercial entities. Students are also prohibited from providing or selling their personal notes to anyone else or being paid for taking notes by any person or commercial firm without the instructor’s express written permission. Unauthorized use of these copyrighted lecture materials and recordings constitutes copyright infringement and may be addressed under the university’s policies, UWS Chapters 14 and 17, governing student academic and non-academic misconduct.

View [more information about FERPA](#).

Other Course Policies

It is my responsibility as an instructor to structure a learning process that allows and facilitates that all students in the course achieve the learning objectives. To ensure that this happens, the following additional policies should be noted:

Syllabus Change Policy

I reserve the right to make changes to this syllabus at any time during the course. If a change is made, a revised syllabus will be posted to the Canvas site and this will be announced via Canvas.

How to Succeed in This Course

It will help to keep up on course assignments and to attend pre-exam review sessions, but also track your performance over time and talk with me if you feel you are not doing as well as you would like. I'll offer suggestions on how to improve.

Other resources to other campus services that may be helpful are:

- [University Health Services](#)
- [Undergraduate Academic Advising and Career Services](#)
- [Office of the Registrar](#)
- [Office of Student Financial Aid](#)
- [Dean of Students Office](#)

Course Evaluations

Students will be provided with an opportunity to evaluate this course and your learning experience. Student participation is an integral component of this course, and your confidential feedback is important to me. I strongly encourage you to participate in the course evaluation.

Digital Course Evaluation (AEFIS)

UW-Madison uses a digital course evaluation survey tool called [AEFIS](#). For this course, you will receive an official email two weeks prior to the end of the semester, notifying you that your course evaluation is available. In the email you will receive a link to log into the course evaluation with your NetID. Evaluations are anonymous. Your participation is an integral component of this course, and your feedback is important to me. I strongly encourage you to participate in the course evaluation.

Students' Rules, [Rights & Responsibilities](#)

You can use the link above to provide your students with information about the university's privacy rights (FERPA).

Diversity & Inclusion Statement

[Diversity](#) is a source of strength, creativity, and innovation for UW-Madison. We value the contributions of each person and respect the profound ways their identity, culture, background, experience, status, abilities, and opinion enrich the university community. We commit ourselves to the pursuit of excellence in teaching, research, outreach, and diversity as inextricably linked goals. The University of Wisconsin-Madison fulfills its public mission by creating a welcoming and inclusive community for people from every background – people who as students, faculty, and staff serve Wisconsin and the world.

Academic Integrity Statement

By virtue of enrollment, each student agrees to uphold the high academic standards of the University of Wisconsin-Madison; academic misconduct is behavior that negatively impacts the integrity of the institution. Cheating, fabrication, plagiarism, unauthorized collaboration, and helping others commit these previously listed acts are examples of misconduct which may result in disciplinary action. Examples of disciplinary action include, but is not limited to, failure on the assignment/course, written reprimand, disciplinary probation, suspension, or expulsion.

Accommodations for Students with Disabilities Statement

The University of Wisconsin-Madison supports the right of all enrolled students to a full and equal educational opportunity. The Americans with Disabilities Act (ADA), Wisconsin State Statute (36.12), and UW-Madison policy (Faculty Document 1071) require that students with disabilities be reasonably accommodated in instruction and campus life. Reasonable accommodations for students with disabilities is a shared faculty and student responsibility. Students are expected to inform faculty [me] of their need for instructional accommodations by the end of the third week of the semester, or as soon as possible after a disability has been incurred or recognized. Faculty [I], will work either directly with the student [you] or in coordination with the McBurney Center to identify and provide reasonable instructional accommodations. Disability information, including instructional accommodations as part of a student's educational record, is confidential and protected under FERPA. (See: [McBurney Disability Resource Center](#))

Academic Calendar & Religious Observances

The link above provides information about current and future academic calendars, along with the university's religious observance policy

AAE 422 Food Systems and Supply Chains Tentative Course Schedule Fall 2022

Week	Date	Topic	Reading Prior to Class
1	8-Sep-22	Introduction (What is a supply chain?) Course overview and procedures	NONE
2	13-Sep-22	Components of a supply chain, supply chain decisions and performance metrics (Asynchronous online; Dr. Nicholson in workshop)	Chopra, Chapter 1, pp. 1-12 (skim 13-18), Chapter 2 (pp. 19-31) and Chapter 3 , pp. 40-49
	15-Sep-22	What is different about food and agriculture supply chains?	Dani Chapter 1, pp. 1-16 (Canvas Readings folder)
3	20-Sep-22	FSCM Source I (Spend Analysis and Total Cost Analysis)	Bozarth and Handfield, Chapter 7, pp. 189-207
		Assignment 1	
	22-Sep-22	FSCM Source II (Supplier Selection and Sourcing Trends)	Bozarth and Handfield, Chapter 7, pp. 208-215
4	27-Sep-22	FSCM Make I (Business Processes) (with Nicole Menage World Food Programme Emergency Preparedness and Response)	Bozarth and Handfield, Chapter 4, pp. 74-91 (92-101 are optional if you are interested)
		Assignment 2	
	29-Sep-22	FSCM Make II (Capacity)	Bozarth and Handfield, Chapter 6, pp. 142-156 (157-166 are optional if you are interested)
5	4-Oct-22	FSCM Deliver I (Economic Order Quantity)	Bozarth and Handfield, Chapter 11, pp. 331-338 and 340-342, 346-348
		Assignment 3	
	6-Oct-22	FSCM Deliver II (Stochastic Inventory Management)	Bozarth and Handfield, Chapter 11, pp. 338-340 and 343-346
6	11-Oct-22	FSCM Plan (Sales & Operations Planning)	Bozarth and Handfield, Chapter 10, pp. 299-323
		Assignment 4	
	13-Oct-22	Guest Speakers Dean Sommer and Dennis Kosuboski Center for Dairy Research (FSCM Make, Plan)	Bozarth and Handfield, Chapter 12, pp. 365-368 (MS, MSR) and 373-374 (MRP)
7	18-Oct-22	FSCM Deliver III (Distribution Network Design and Transportation)	Chopra, Chapter 5, pp. 103-121, Chapter 14, pp. 395-402 and 407-410
		Pre-exam review, TBD	
	20-Oct-22	Exam 1 (in-class)	NONE

Week	Date	Topic	Reading Prior to Class
8	25-Oct-22	Exam Review	NONE
	27-Oct-22	FSCM Sustainability, Kelsey Kruse, McKinsey & Company	Dani, Chapter 13, pp. 206-221 (Canvas Readings folder)
9	1-Nov-22	What is a food system (and food system analysis)?	C. Peters and D. Thilmany. 2022. "Using Models to Study Food Systems", in C. Peters and D. Thilmany (eds.), <i>Food Systems Modeling: Tools for Assessing Sustainability in Food and Agriculture</i> . Elsevier / Academic Press. IOM (Institute of Medicine) and NRC (National Research Council). 2015. <i>A framework for assessing effects of the food system</i> . Washington, DC: The National Academies Press. Summary, pp. 1-17 (look through other elements of this long report if interested)
	3-Nov-22	Supply Chain Coordination—The Beer Game, Ted Jacoby, T. C. Jacoby	Chopra, Chapter 10, pp. 244-252
10	8-Nov-22	Systems modeling concepts I (feedback processes)	Sterman, Chapter 5, pp. 137-157 (Canvas Readings folder; rest of the chapter is optional)
	10-Nov-22	Systems modeling concepts II (stocks and flows)	Sterman, Chapter 6, pp. 191-211 (Canvas Readings folder; rest of the chapter is optional)
11	15-Nov-22	Supply chain analysis with systems models: Increasing vegetable consumption in Kenya (with Dr. Eva Monterrosa, Global Alliance for Improved Nutrition)	Nicholson, C. F., and E. Monterrosa. 2021. Assessing the Impacts of Three Potential Interventions on Fruit and Vegetable Consumption in Urban Kenya Using Participatory Systems Modeling. <i>Proceedings of the 2021 International System Dynamics Conference</i> , Chicago, IL, 26-30 July. (Canvas Readings folder)
		Assignment 5	
	17-Nov-22	Introduction to final project	Final project description document
12	22-Nov-22	Analysis of controlled environment agriculture supply chains (Asynchronous online due to Thanksgiving holiday)	Nicholson, C. F., K. Harbick, N. M. Mattson and M. I. Gómez. 2020. "An Economic and Environmental Comparison of Conventional and Controlled Environment Agriculture (CEA) Supply Chains for Leaf Lettuce to US Cities", in E. Aktas and Michael. Bourlakis (eds.) <i>Food Supply Chains in Cities: Modern Tools for Circularity and Sustainability</i> . Palgrave. (Canvas Readings folder)

Week	Date	Topic	Reading Prior to Class
	24-Nov-22	Thanksgiving holiday, No Class	None
13	29-Nov-22	Supply chain analysis with systems models: Identify-preserved supply chains for soybeans (with Dr. Keenan McRoberts, Vice President, United Soybean Board)	Nicholson, C. F., K. C. McRoberts. B. Suleyman and B. Kopainsky. 2021. A Dynamic Systems Analysis of Factors Affecting Success of Identify-Preserved Products: the Case of High-Oleic Soybeans. submitted to <i>International Food and Agribusiness Management Review</i> , October 2021. (Canvas Readings folder)
		Assignment 6 (Related to final project)	
	1-Dec-22	Nutrition sensitive value chains in low- and middle-income countries (with Dr. James Garrett, Alliance CIAT-Bioversity, Rome)	Nicholson, C. F., E. Monterrosa, and J. L. Garrett. 2021. Food value chain interventions and nutritional outcomes: A review of evidence and recommendations for future assessments. Current Opinion in Biotechnology, 2021, 70:61–67, https://doi.org/10.1016/j.copbio.2020.11.015 (Canvas Readings folder)
14	6-Dec-22	Analysis of food systems localization (with Dr. Miguel Gómez, Food Industry Management Program, Cornell University)	Nicholson, C. F., X. He, M. I. Gómez, H. O. Gao and E. Hill. 2015. Environmental and Economic Analysis of Regionalizing Fluid Milk Supply Chains in the Northeastern U.S. <i>Environmental Science and Technology</i> , 49:12005–12014. DOI: 10.1021/acs.est.5b02892. (Canvas Readings folder)
	8-Dec-22	Case Competition; Final project presentations	None
15	13-Dec-22	Case review, awards and course closure	None
	17-Dec-22	Final Exam, 5:05pm	

* Note that the course schedule may be modified as needed during the semester.

Class Professionalism Grading Rubric, AAE 422, Fall 2022

Professionalism Component	100	90	80	<80
Present in Class?	ALWAYS, unless for university-approved absence	Attend nearly all classes, unless for university-approved absence	NEARLY ALWAYS	Noticeably frequent absences without university excuse
Prepared by reading text, completing pre-class assignments?	ALWAYS prepared and demonstrate this in obvious ways, completed ALL pre-class assignments	ALMOST ALWAYS prepared and demonstrate this in obvious ways; completed NEARLY ALL pre-class assignments	SOMETIMES prepared and demonstrate this, in obvious ways; completed MOST pre-class assignments	No clear evidence of having reviewed material prior to class; did not complete more than 4 pre-class assignments
Willing and able to answer questions raised in class?	ALWAYS, and volunteer to EVERY time	FREQUENTLY, and volunteer to frequently	OCCASIONALLY volunteer, but usually if asked	Rarely ask or answer questions in class, or have to ask me to repeat a question due to inattention
Actively engaged and paying attention?	ALWAYS clearly focused on class activities	ALWAYS clearly focused on class activities	NEARLY ALWAYS clearly focused on class activities	Unclear or less than nearly always focused on class activities
Contribution to in-class and group exercises?	ALWAYS actively engaged, providing leadership to partner or group, using all time to complete best work or go beyond basic assignment	ALMOST ALWAYS actively engaged, providing leadership to partner or group, using all time to complete best work or go beyond basic assignment	USUALLY actively engaged if not providing leadership to partner or group, usually focused on task the entire time	Not fully actively engaged in task (discussing other topics), doing the minimum required when there is additional time

Professionalism Component	100	90	80	<80
Respectful of others' learning?	ALWAYS follow classroom civility, work collaboratively with others, share information, actively explain your work or ideas in small group settings	ALWAYS follow classroom civility, work collaboratively with others, share information, actively explain your work or ideas in small group settings	USUALLY follow classroom civility, work collaboratively with others, share information, actively explain your work or ideas in small group settings	Do not obviously work collaboratively with others or share information; arrive to class late or begin to pack up early; talk during class about non-class topics
Respectful in communication with others?	ALWAYS use communication appropriate for business settings when interacting with professor or other students	ALWAYS use communication appropriate for business settings when interacting with professor or other students	ALWAYS use communication appropriate for business settings when interacting with professor or other students	One or more instances of inappropriate (unprofessional) communication inappropriate when interacting with professor or other students
Appropriate use of electronics?	NEVER use a cell phone or laptop for a non-class purpose	NEVER use a cell phone or laptop for a non-class purpose	NEVER use a cell phone or laptop for a non-class purpose	Use <i>or appear to use</i> a cell phone or laptop for a non-class purpose at any time, even after you have completed a task and are waiting

Professionalism Component	100	90	80	<80
Take responsibility for your own learning process?	<p>ALWAYS ask for clarification of a concept or task if it is not clear to you; complete all parts of all assignments on time; Complete all EC assignments; Visit every office hour section or make appointment; show progress in understanding throughout the semester</p>	<p>OFTEN ask for clarification of a concept or task if it is not clear to you; complete all parts of all assignments on time; Complete all EC assignments; Visit office hours frequently or make an appointment; show progress in understanding throughout the semester</p>	<p>SOMETIMES ask for clarification of a concept or task if it is not clear to you; complete all parts of all assignments on time; Complete most EC assignments; Occasionally visit office hours or make appointment; show progress in understanding throughout the semester</p>	<p>Do not ask for clarification of concepts or tasks when appropriate, do not complete all parts of all assignments, do not take advantage of EC assignments when offered; rarely or never visit office hours or make appointment to discuss any clarifications, uneven progress during the semester</p>