

Montana State University
AGBE 445 - Agribusiness Management
Spring 2021

Class: MWF 2:10-3pm, Linfield Hall 301

Instructor: Diane Charlton

E-mail: diane.charlton@montana.edu (Please include “AGBE 445” in the subject)

Office: Linfield 309A

Office Hours: W 3:10-5pm and by appointment

Examples of concepts you will learn in this class include

- how upstream and downstream markets relate to one another in an agricultural supply chain,
- how to model production decisions in markets with imperfect competition,
- how to model agricultural production in the presence of risk and uncertainty,
- and how to assess and propose solutions to numerous examples of real-life agribusiness production and marketing problems.

The course will give you the opportunity to apply the skills that you have developed in previous microeconomics and agribusiness courses to case studies. These case studies give you an opportunity to evaluate decisions that actual agricultural firms had to make.

Prerequisites

ECNS 301, STAT 216, and either AGBE 345 or BFIN 352

Textbooks

Most of our readings will be articles that I post to D2L. However, we will study a few chapters of Taylor, J. Edward and Diane Charlton (2018) *The Farm Labor Problem: A Global Perspective*. Elsevier Academic Press: London. You may purchase a copy of the book, or you may borrow an electronic copy from the MSU library. MSU has an ebook on reserve, and multiple users can access the electronic library copy at once. There will also be a hard copy of the book available at the library.

Course Webpage

Desire2Learn: I will use D2L to post readings and homework assignments.

Evaluation and Grading

Grades will be assigned based on class attendance and participation, quizzes, a final project, and a final exam:

I. Attendance and Participation (15%)

- A. I will take attendance by collecting assignments due or work completed in class, almost entirely on Fridays. Although I do not intend to take attendance everyday, you will not likely be able to complete in-class assignments if you do not attend class. If you are unable to attend class you will need to find out if you need to make-up in-class work. I expect students who cannot attend class to submit their assignments prior to class. Exceptions will be evaluated on a case-by-case basis.

- B. Everyone is expected to participate in class discussions. Use of cell phones, facebook, and other social media are not permitted in class. Students who interrupt others or otherwise show lack of respect will receive a lower grade for class participation.

II. Quizzes (15%)

- A. There will be 5 quizzes. The lowest of the 5 quiz grades will be dropped from your final grade. Quizzes are given on Fridays.
- B. I do not generally allow make-up quizzes. If you must miss more than one quiz during the semester, then you should speak to me about the circumstances and we can decide if a make-up quiz is reasonable.

III. Problem Sets/Case Study Assignments (40%)

- A. There will be 9 problem sets/case study assignments. The lowest of the assignment grades will be dropped from your final grade.
- B. All assignments will be collected on a Friday at the start of class. If you are unable to come to class, please be sure to submit the assignment ahead.

IV. Final Project: due April 28 in class (15%)

V. Final Exam: cumulative; April 28 2:10-3pm in class (15%)

Instructor Availability

My office hours are your opportunity to ask questions about the course material and related topics and to receive help solving practice problems from class. I encourage you to come to office hours to discuss any related topics. If you cannot come to my office hours, you may email me and ask to schedule additional office hours (in person or on Webex), but please only use this option if you are unable to come to my scheduled office hours.

I also advise you to discuss course material with your fellow students. You will learn much by working with others and teaching one another. I understand that the current situation with COVID-19 makes group work challenging. Please be sure to maintain the MSU protocols for social distancing when scheduling group work.

I will do my best to reply to emails within 24 hours, but I do not always check my email on the weekends.

Course Schedule (Preliminary and Subject to Change)

Note: There is an assigned reading almost everyday (with some exceptions). I will post discussion questions and instructions for each reading on the Monday prior to discussion. Please do readings before coming to class and come prepared to discuss.

I. Week 1 (January 11-15): Introduction to Critical Reading and Writing

- A. Monday: Introduction to the evolving nature of U.S. agriculture
- B. Wednesday: Critical Reading and Writing
 - i. Readings:
 - a. Deborah Knott. "Critical Reading toward Critical Writing"
 - b. Brock MacDonald. "Research Using the Internet."

- c. Dudenhefer. 2009. “Guide to Writing in Economics”. Please read pages 7-20
- C. Friday: Class activity
 - i. Reading: Lusk, Tonso, and Schulz (2020) “Beef and Pork Marketing Margins and Price Spreads during COVID-19” *Applied Economic Perspectives and Policy*
 - ii. **Student introductions due for class participation**
- II. Week 2 (January 18-22): The Food Supply Chain
 - A. Monday: Holiday, No class
 - B. Wednesday: History of the beef supply chain
 - i. Reading: Christopher Knowlton (2017) “From Stockyard to Steakhouse” (Chapter 7) from *Cattle Kingdom: The Hidden History of the Cowboy West*
 - C. Friday: COVID and the beef supply chain
 - i. Reading: Malone, Schaefer, and Lusk (2020) “Unscrambling COVID-19 Food Supply Chains”
 - ii. **Quiz 1: Food Supply Chains**
- III. Week 3 (January 25-29): Global Supply Chains
 - A. Monday: Supply chain mapping
 - i. Reading: Norwood, F. Bailey and Derrell Peel (2020) “Supply Chain Mapping to Prepare for Future Pandemics” *Applied Economic Perspectives and Policy*
 - B. Wednesday: Examples of supply chain maps
 - i. Reading: Flattener 7: Supply Chaining.” *Ten Forces that Flattened the World*. (pp. 345-351)
 - C. Friday: “Insourcing”
 - i. Reading: Flattener 8: Insourcing.” *Ten Forces that Flattened the World*. (pp. 351-356)
 - ii. **Case Study 1 “Trace the Supply Chain” due**
- IV. Week 4 (February 1-5): Local Food Supply Chains
 - A. Monday: Are local food supply chains more resilient?
 - i. Reading: Thilmany, Dawn, Elizabeth Canales, Sarah A. Low, and Kathryn Boys (2020) “Local Food Supply Chain Dynamics and Resilience during COVID-19” *Applied Economic Perspectives and Policy*
 - B. Wednesday: Discussion: Should we invest in local food supply chains in Montana?
 - i. Reading: TBD
 - C. Friday: Burgerville Board Meeting
 - i. **Case Study 2 “Writing the Burgerville Strategic Plan” due**
 - ii. Reading: Sterns and Harvey (2016) “Burgerville - Fresh out of Local and Sustainable”
- V. Week 5 (February 8-12): Vertical Integration
 - A. Monday: The advantages and disadvantages of vertical integration
 - B. Wednesday: Vertical integration in the malting barley industry
 - i. Reading: Boland and Brester (2006) “Vertical Integration in the Malting Barley Industry: A ‘Silver Bullet’ for Coors?”

- C. Friday: Guest Speaker Dylan Grubb from Ag Depot
 - i. **Case Study 3 “Evaluating Coors’ Strategy” due**

VI. Week 6 (February 15-19): Global Trade

- A. Monday: Holiday, No class
- B. Wednesday: Introduction to economic theory of trade
- C. Friday: Winners and Losers of global trade
 - i. Reading: Banerjee and Duflo “Global Trade” in *Good Economics for Hard Times*
 - ii. **Quiz 2: Economics of Global Trade**

VII. Week 7 (February 22-26): Global Trade and Agriculture

- A. Monday: Multilateral trade agreements
 - i. Readings: TBD
- B. Wednesday: COVID and global trade
 - i. Readings TBD
- C. Friday: Trade Debate
 - i. **Case Study 4 “Lobbying on global trade policies” due**

VIII. Week 8 (March 1-5): Traceability in the food supply chain

- A. Monday: Economic theory of traceability
 - i. Reading: Golan et al. 2004 “Traceability in the U.S. Food Supply: Economic Theory and Industry Studies” ERS Bulletin
- B. Wednesday: Traceability and Global Trade (Do not read the case studies)
 - i. Reading: Lin, Wen, et al (2019) “Blockchain-based Traceability and Demand for U.S. Beef in China” *Applied Economic Perspectives & Policy*
- C. Friday: Guest speaker Dr. Eric Liska (Brucellosis Program Veterinarian for the Montana Department of Livestock Animal Health Bureau)
 - i. Attendance will be taken and participation is expected!

IX. Week 9 (March 8-12): Farm-Level Production Decisions

- A. Monday: Farm labor demand
 - i. Reading: Taylor and Charlton (2018). “Chapter 2: Agricultural Labor Demand.” in *The Farm Labor Problem: A Global Perspective*
- B. Wednesday: Production functions and farm inputs
- C. Friday: Farm labor and COVID-19
 - i. **Problem Set 1 “Parameterize the Production Function” Due**
 - ii. **Quiz 3: Production Functions**

X. Week 10 (March 15-19): Equilibrium in the Input Market

- A. Monday: Equilibrium and Immigration
 - i. Reading: Taylor and Charlton (2018). “Chapter 4. Equilibrium and Immigration in the Farm Labor Market.” in *The Farm Labor Problem: A Global Perspective*

- B. Wednesday: Equilibrium & Immigration discussion continued
- C. Friday: Equilibrium in pollinator markets
 - i. **Problem Set 2 “Equilibrium in the Pollinator Market” due**
 - ii. **Quiz 4: Equilibrium in Markets Connected through Labor Migration**

XI. Week 11 (March 22-26): Input Scarcity and Technology Adoption

- A. Monday: Immigration and farm labor
- B. Wednesday: The End of Farm Labor Abundance
 - i. Reading: Taylor and Charlton (2018). “Chapter 8. The End of Farm Labor Abundance.” in *The Farm Labor Problem: A Global Perspective*
- C. Friday: Technology Adoption
 - i. Reading: Taylor and Charlton (2018). “Chapter 9. Robots in the Fields” in *The Farm Labor Problem: A Global Perspective*

XII. Week 12 (March 29-April 2): Technology Adoption and Marketing

- A. Monday: Agricultural Technologies on the Edge
 - i. Reading: *The Economist*. “Technology Quarterly: The Future of Agriculture” June 9, 2016. (Only read your assigned portion of article)
- B. Wednesday: Marketing Orders
 - i. Reading: TBD
 - ii. **Problem Set 3 due: Technology Adoption**
- C. Friday: No class

XIII. Week 13 (April 5-9): Monopolistic Competition

- A. Monday: Competition and Market Power
 - i. Reading: Charlton. “Competition and Market Power” Handout
- B. Wednesday: Imperfect Competition and Product Differentiation
 - i. Reading: Charlton. “Imperfect Competition and Product Differentiation” Handout
- C. Friday: Discuss product differentiation in the crop input industry
 - i. Reading Mark Krause. 2011. “Impacts of Product Differentiation on the Crop Input Supply Industry.” *Choices*. 26(1).
 - ii. **Quiz 5: Imperfect Competition**

XIV. Week 14 (April 12-16): Asymmetric Information

- A. Monday: Lemons
 - i. Reading: “Information Asymmetry: Secrets and Agents.” *The Economist*. July 23, 2016.
- B. Wednesday: Correcting Asymmetric Information
 - i. Optional Reading: Gola, Kuchler, and Mitchell (2000) “Economics of Food Labeling”
- C. Friday: Labels
 - i. Reading Bowman et al. (2016) “Raised without Antibiotics: Lessons from Voluntary Labeling of Antibiotic Use Practices in the Broiler Industry”

ii. **Case Study 5 “The Chicken Case” due**

XV. Week 15 (April 19-23): Food Labeling

A. Monday: Bioengineered food disclosure standard

- i. Reading: Mcfadden and Lusk (2017) “Effects of the National Bioengineered Food Disclosure Standard: Willingness to Pay for Labels that Communicate the Presence or Absence of Genetic Modification” *Applied Economics Perspectives & Policy*

B. Wednesday: TBD

C. Friday: Guest Speakers Dr. Kate Fuller and Dr. Nina Zidak

- i. Reading: “Genetic Engineering and Disease Risk in Varietal Selection: A Case Study of the Seed Potato Industry.”

ii. **Case Study 6 “The Seed Potato Decision”**

XVI. Finals Week (April 26-30)

A. Monday: Optional Review (**Please bring questions to class**)

B. Wednesday: (**Final Exam, in class**)

- i. (**Final Project Due**)

C. Friday: No class. Please feel free to stop by my office if you would like to talk about the semester, potential research opportunities, or further studies in Economics.