Course Meeting Times and Location

Friday 9 am - 12 pm  
Location Tufts Medical Education Building – Room 607  
145 Harrison Avenue – Boston Campus

Course Instructor

Dr. Richard Volpe  
Visiting Professor, Cal Poly San Luis Obispo  
Email: rvolpe@calpoly.edu  
Office hours: TBA

Tufts Graduate Credit

3 Semester Hour Units (SHUs)

Prerequisites

At least one semester of undergraduate or graduate statistics or related, such as quantitative analysis, or by instructor permission. No prior courses or experience in economics is required.

Course Description

This course is intended to provide an overview of the structure of the post-farm food supply chain. This course will promote an understanding of the many factors that influence behavior of food wholesalers and retailers. The course covers the economic and decision-making processes related to the food retail, wholesaling, manufacturing, and logistics industry sectors. The course is intended to promote critical thinking on the economic impacts and policy implications of the food supply chain and the behavior of firms operating within it. Case studies, federal and state datasets, and legislation will be featured to provide real-world examples.

This course will complement other Friedman School course offerings for students interested in food policy, food access, food security, food prices, food choices, food marketing and food labeling. Economic concepts will be introduced throughout the course but prior coursework in economics is not necessary.

Course Goals
Students who participate in this course will be able to:

1. Understand how the structure of the food supply chain has changed through diversification, specialization, and consolidation.

2. Learn about the key economic and strategic decisions that agents in the retailing, wholesaling, and logistics need to make across varying time horizons.

3. Investigate food price formation and food price forecasting.

4. Discuss the economic impacts of the machinations of the downstream food supply chain for consumers, labor markets, agricultural producers, and more.

5. Use state and federal datasets to investigate and quantify economic impacts and decision making processes related to points 1-4.

Course Texts and Materials

All reading will be posted to Canvas as PDFs or links to online sources. No textbook is required for the course.

Academic Conduct

Each student is responsible for upholding the highest standards of academic integrity, as specified in the Friedman School’s Policies and Procedures Handbook and Tufts University policies (https://students.tufts.edu/student-affairs/student-code-conduct/academic-integrity-resources). It is the responsibility of each student to understand and comply with these standards, as violations will be sanctioned by penalties ranging from failure on an assignment and the course to dismissal from the school. Penalties will be determined by the severity of academic misconduct and if prior warnings or offenses exit. All written assignments will be assessed by online plagiarism detection tools.

Assignments and Grading

The passing grade at the Friedman School is a B minus. Course grading will be on the basis of 100 points. The value of each activity is provided in the table below. The relationship between points and letter grades will be determined by the instructor and shared mid-semester with enrolled students.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Contribution to Final Grade (Points)</th>
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<tbody>
<tr>
<td>Homework Assignments (6 total)</td>
<td>30</td>
</tr>
<tr>
<td>Midterm Exam</td>
<td>20</td>
</tr>
<tr>
<td>Final Exam</td>
<td>20</td>
</tr>
<tr>
<td>Supply Chain Group Project</td>
<td>20</td>
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<tr>
<td>Food Policy in Depth</td>
<td>10</td>
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<tr>
<td>Class Preparation and Participation: The course instructor may increase or decrease the final course grade on the basis of obvious preparation for class and participation in course</td>
<td>± 1 Course Grade Level (e.g., A- to A or A to A-)</td>
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</table>
activities. The “average” level of preparation and participation will result in no final course grade adjustment.

Homework: Homework assignments will distill and synthesize material from lectures, course discussions, and reading. Assignments will often involve working with datasets. Students will have 1-2 weeks to complete homework assignments (depending on the assignment). Seven homework assignments will be issued, and students must complete at least six. If seven homework assignments are submitted, the lowest homework grade will be dropped.

Midterm Exam: The midterm exam will be an in-class written exam covering material from the first half of the course. Questions will consist of a mixture of short and longer-answer questions.

Final Exam: The final exam will be an in-class written exam covering material from the second half of the course. Questions will consist of a mixture of short and longer-answer questions.

Supply Chain Group Project: The goal of this project is to design an efficient and profitable food chain. Students will work in small groups, and small groups will interact with each other. Time during class will be provided for interaction among groups. An iterative approach will be adopted, and students will be guided at each stage of the project by instructions, prompts, and instructor feedback. For example, students will be required to forecast consumer demand and place commodity orders in order to be competitive in retail markets while minimizing waste. Students will be provided with instructions for each stage of the project, and students will submit interim progress for feedback from the instructor. The final deliverables for the project include a written document with responses to a series of questions on the project and an Excel file with all calculations of supply chain performance metrics. Project grades will be based on the extent to which teams followed instructions, completed inputs on time, and demonstrably applied the tools learned in lecture and readings to their decisions.

Food Policy in Depth: For this assignment, students will prepare an overview, analysis and discussion focused on recent or pending legislation that impacts at least one of the topics listed in the course description above. Students will select the legislation and impact variable(s). Students will submit their work in writing (5 page maximum) and will provide an oral presentation to the class. Detailed instructions for the assignment will be provided in class and on Canvas. Grading for the assignment will be based on the depth of research undertaken and the extent to which the views expressed are supported by data and evidence.

Instructions for Submission of Assignments

- For all assignments, unless specifically stated otherwise, submissions must be single Word document.
- Assignments are submitted via Canvas. The due date is also the cutoff date. No late assignments will be accepted, and a zero grade will be recorded for missing work. If you think you may have difficulty completing an assignment on time, please ask me for an extension as early as possible. No extensions will be granted fewer than 24 hours before an assignment is due other than in an emergency; in case of an emergency, please notify me as soon as possible.
- You are free to work in pairs for each assignment. However, two is the maximum number of people who can submit an assignment jointly. An assignment with more than two names on it will receive a score of zero.
• If you work with a partner, be sure both names are on the assignment.
• If you work with a partner, be sure to check that you received a grade and that it is the same grade as your partner. Any discrepancies in this respect must be brought to the instructor’s attention prior to the final, or they will not be considered.
• Your name can only be on one submitted assignment. If it is on more than one, you will receive a score of zero for that assignment.

**Accommodation of Disabilities**

Tufts University is committed to providing equal access and support to all students through the provision of reasonable accommodations so that each student may access their curricula and achieve their personal and academic potential. If you have a disability that requires reasonable accommodations, please contact the Friedman School Assistant Dean of Student Affairs at (617) 636-6719 to make arrangements for determination of appropriate accommodations. Please be aware that accommodations cannot be enacted retroactively, making timeliness a critical aspect for their provision.

**Tufts Zoom and Tufts WebEx**

Please note the Friedman School’s courses with a classroom component may be offered via Tufts Zoom (https://tufts.zoom.us/) or Tufts WebEx (https://it.tufts.edu/webex) on days when the Boston campus is closed due to weather or a temporary cancellation issue. Be sure to check your course’s Canvas course site (https://canvas.tufts.edu/) for any announcements from your instructor. If an on-campus Examination/Presentation was scheduled on a day when the Boston campus is closed due to weather or a temporary cancellation issue, the exam/presentation will be rescheduled for an alternate on-campus class session date.

**Diversity and Inclusivity**

Students in this class are encouraged to speak up and participate in class and online. Each of us must show respect for each other because our class represents a diversity of beliefs, backgrounds, and experiences. I believe that this is what will enrich all of our experiences together. I recognize that our individual differences can deepen our understanding of one another and the world around us, rather than divide us. In this class, all students are strongly encouraged to share your rich array of perspectives and experiences. Your suggestions on how I can better support your learning or improve the classroom environment are encouraged and appreciated.

**Course Schedule**

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Assignments Due</th>
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<tbody>
<tr>
<td>1</td>
<td>September 10</td>
<td>Food Price Formation in the U.S.</td>
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<tr>
<td>2</td>
<td>September 17</td>
<td>Food Price Formation in the U.S.</td>
<td>Homework 1</td>
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<tr>
<td>3</td>
<td>September 24</td>
<td>Competition, Concentration, and Market Power in the Food Supply Chain</td>
<td>Initial Commodity Selections for Group Project</td>
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<tr>
<td>4</td>
<td>October 1</td>
<td>Transportation in Agribusiness</td>
<td>Homework 2</td>
</tr>
<tr>
<td>5</td>
<td>October 8</td>
<td>Food Retail in the U.S. Today</td>
<td>Homework 3</td>
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<tr>
<td>Date</td>
<td>Event</td>
<td>Notes</td>
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<tr>
<td>October 15</td>
<td>Pricing Strategies, Promotions, and Elasticities</td>
<td>Homework 4 Week 1 Group Project</td>
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<tr>
<td>October 22</td>
<td>Midterm Exam</td>
<td>Midterm Exam</td>
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<tr>
<td>October 29</td>
<td>Private Labels</td>
<td>Homework 5 Week 2 Group Project</td>
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<tr>
<td>November 5</td>
<td>Private Labels</td>
<td>Food Policy Outline Week 3 Group Project</td>
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<td>November 12</td>
<td>Wal-Mart and Food</td>
<td>Homework 6 Week 4 Group Project</td>
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<tr>
<td>November 19</td>
<td>Wal-Mart and Food</td>
<td>Week 5 Group Project</td>
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<tr>
<td>November 26</td>
<td>No Class – Thanksgiving Holiday</td>
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<tr>
<td>December 3</td>
<td>Food Policy in the U.S.</td>
<td>Homework 7 Final Files for Group Project</td>
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<tr>
<td>December 10</td>
<td>Food Policy In-Depth Presentations</td>
<td>Food Policy In-Depth Final Submission</td>
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<tr>
<td>December 17</td>
<td>Final Exam</td>
<td>Final Exam</td>
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**Week by Week Detailed Schedule**

**Weeks 1 and 2: Food Price Formation in the U.S.**

**Description:** A look at the industries that contribute to the food supply chain in the U.S. We also discuss the key decision processes made by supply chain managers.

**Learning Objectives:**
- Define food price inflation
- Explain how prices and expenditures are measured
- Provide examples of key decision processes
- Describe how the food supply chain can be viewed holistically

**Required Reading:**

**Assignments Due (Week 2):**
- Homework 1

**Week 3: Competition, Concentration, and Market Power in the Food Supply Chain**

**Description:** The structure of industries can have major impacts on performance, quality, prices, and welfare.

**Learning Objectives:**
- Discuss how markets are defined
- Summarize how market concentration is measured
- Provide examples for how firm behavior differs across the spectrum from perfect
competition to monopoly

Required Reading:


Assignments Due:

- Initial Commodity Selections for Group Project

**Week 4: Transportation in Agribusiness**

**Description:** An overview of the transportation sector’s role in U.S. agribusiness today, including ongoing challenges and developments. Special emphasis is paid to the local food movement.

**Learning Objectives:**

- Explain how intermodal transportation, third-party logistics, and technological advancements shape the food we eat
- Explore how to use federal data on agricultural transportation to estimate the contribution of transportation costs to food prices

**Required Reading:**


**Assignments Due:**

- Homework 2
- Finished Product Selections for Group Project

**Week 5: Food Retail in the U.S. Today**

**Description:** Types of retailers, trends and patterns, geographical landscape.

**Learning Objectives:**

- Define and categorize food retailers in the U.S.
- Discuss the role and impacts of nontraditional store formats
- Identify data sources that measure and describe the retail sector

**Required Reading:**

- Ver Ploeg, M., Mancino, L., Todd, J.E., Clay, D.M. and Scharadin, B., 2015. Where do Americans usually shop for food and how do they travel to get there. *Initial findings from*
the National Household Food Acquisition and Purchase Survey. Washington, DC: US Department of Agriculture.


Assignments Due:
- Homework 3
- Product Assortments and Prices for Group Project

Week 6: Pricing Strategies, Promotions, and Elasticities

Description: How and why retailers set prices and promotions, examined from a number of angles.

Learning Objectives:
- For pricing strategies, pricing promotions, and demand elasticities
  o Define each term
  o Describe how each is measured
  o Propose appropriate methods for analysis of each
- Explain how to access store scanner data and provide examples of how these data can be used

Required Reading:

Assignments Due:
- Homework 4
- Week 1 Group Project

Week 7: In-Class Midterm Exam

Weeks 8 and 9: Private Labels (PLs)

Description: From bottom shelf generics to a powerful force in retailing today, the economics of PLs.

Learning Objectives:
- Define labels and quality tiers in U.S. food retail
- Discuss the strategic aspects of private labels
- Measuring and analyze retail price margins

Required Reading:
Assignments Due:
- Homework 5
- Week 2 Group Project
- Food Policy Outline
- Week 3 Group Project

Weeks 10 and 11: Wal-Mart and Food

Description: Understanding the economics of the firm that has changed food retail in the U.S. more than any other.

Learning Objectives:
- Summarize the economic history of Walmart
- Explain the nature of disruption in industries
- Provide examples of how Walmart practices influenced dietary composition of consumers and regional food prices

Required Reading:

Assignments Due:
- Homework 6
- Week 4 Group Project

Week 12: No Class – Thanksgiving Holiday

Week 13: Food Policy in the U.S.

Description: Policy is a component of nearly every lecture in this class, but we wrap up by discussing some important contemporary food policy issues in the U.S. and the issue of unintended consequences, as it pertains to the topics central to this course.

Learning Objectives:
- Provide and discuss examples of unintended consequences of policies relevant to topics in this course
- Explain the concept of “inferring societal welfare”

Required Reading:
Assignments Due:
- Homework 7
- Final Files for Group Project

Week 14: Food Policy Presentations

Description: Students will provide oral presentations to the class of their Food Policy In-Depth projects.

Assignments Due:
- Written submission of Food Policy in Depth
- Oral presentation the class of Food Policy in Depth

Week 15: In-Class Final Exam