

Graduate Course Syllabus

ECO 540: Game Theory and Industrial Organization

Center: Online

Course Prerequisites

ECO 520

Course Description

This course serves as an exploration of game theory and its applications in economic analysis. Various models of static and dynamic games are explored, along with the applications of game theory in negotiations, voting, conflict resolution, and pricing decisions. The course also reviews industrial organization theory, exploring the interaction between the firm and the market, and the linkage between market structure, firm conduct, and economic performance. The ideas of market power and its regulation through government policy, and the firm's price and non-price strategic behaviors will be discussed.

Course Outcomes

- · Analyze static and dynamic games to determine their likely outcomes in an applied setting
- Identify opportunities for a firm to maximize profit in strategic business situations through the application of game theory concepts
- Evaluate the implications of imperfect information upon economic decisions and behaviors
- Determine applicable factors of market power and structure for their impact on a firm's strategic behaviors in making price and non-price decisions to maximize profit
- Suggest regulatory policy tools for effectively evaluating and addressing market failures related to excessive market power

Required Materials

Using your learning resources is critical to your success in this course. Please purchase directly through the <u>SNHU</u> <u>Online Bookstore</u> rather than any other vendor. Purchasing directly from the bookstore ensures that you will obtain the correct materials and that the IT Service Desk, your advisor, and the instructor can provide you with support if you have problems.

Introduction to Industrial Organization
Luis M. B. Cabral
2nd Edition
2017

MIT Press

ISBN: 978-0-262-03594-1

Industry and Firm Studies
Victor J. Tremblay and Carol Horton Tremblay
M.E. Sharpe, Inc.
Fourth Edition

2007

ISBN: 978-0-7656-1724-8

Diversity, Equity, and Inclusion

As indicated in our core values, SNHU is committed to "embrace diversity where we encourage and respect diverse identities, ideas, and perspectives by honoring difference, amplifying belonging, engaging civilly, and breaking down barriers to bring our mission to life."

This may or will be reflected in SNHU's curriculum as we embrace and practice diversity, equity, and inclusion (DEI) to provide the most transformative experience for our students, faculty, and staff. Because topics pertaining to DEI can be sensitive, please remember that embodying and practicing diversity, equity, and inclusion is one of our core values that you will encounter throughout the academic experience. In higher education, we are expected to think and engage critically. Use a growth mindset to embrace the diverse readings, course assignments, and experiences of your peers and faculty.

For more information about DEI at SNHU, please visit our website at the Office of Diversity and Inclusion.

Instructor Availability and Response Time

Your class interaction with the instructor and your classmates will take place on a regular, ongoing basis. Your instructor will be actively engaged within the course throughout the week. You will normally communicate with your instructor in the weekly discussions or the General Questions discussion topic so that your questions and the instructor's answers benefit the entire class. You should feel free, however, to communicate with your instructor via SNHU email at any time, particularly when you want to discuss something of a personal or sensitive nature. Your instructor will generally provide a response within 24 hours. Instructors will post grades and feedback (as applicable) within seven days of an assignment's due date, or within seven days of a late submission.

Grade Distribution

Assignment Category	Number of Graded Items	Point Value per Item	Total Points
Discussions	8	10	80
Exercises	13	25	325
Quiz	1	20	20
Final Project Part One			
Milestone One	1	25	25
Milestone Two	1	50	50
Milestone Three	1	50	50
Final Submission	1	200	200
Final Project Part Two			
Milestone One	1	50	50
Final Submission	1	200	200
	1	1	Total Course Points: 1,000

This course may also contain practice activities. The purpose of these non-graded activities is to assist you in mastering the learning outcomes in the graded activity items listed above.

University Grading System: Graduate

Grade	Numerical Equivalent	Points
Α	93–100	4.00
Α-	90–92	3.67
B+	87–89	3.33
В	83–86	3.00
B-	80–82	2.67
C+	77–79	2.33
С	73–76	2.00
F	0–72	0.00
I	Incomplete	
IF	Incomplete/Failure *	
W	Withdrawn	

^{*} Please refer to the <u>policy page</u> for information on the incomplete grade process.

Grading Guides

Specific activity directions, grading guides, posting requirements, and additional deadlines can be found in the Assignment Guidelines and Rubrics section of the course.

Weekly Assignment Schedule

All reading and assignment information can be found within each module of the course. Assignments and

discussion posts during the first week of each term are due by 11:59 p.m. Eastern Time. Assignments and discussion posts for the remainder of the term are due by 11:59 p.m. of the student's local time zone.

In addition to the textbook readings that are listed, there may be additional required resources within each module.

Module	Topics and Assignments
1	Introduction to Industrial Organization and the Firm
	Introduction to Industrial Organization, Chapters 1–3
	Industry and Firm Studies, Chapter 1
	1-1 Discussion: IO in the News
	1-2 Quiz: Microeconomics Skills Assessment
	1-3 Exercise: Chapter 3
	1-4 Final Project: Review
2	Introduction to Game Theory
	Introduction to Industrial Organization, Chapter 7
	2-1 Discussion: When Is It Really That Simple?
	2-2 Exercise: Chapter 7
	2-3 Final Project Part One, Milestone One Submission: Background
3	Monopoly and Perfect Competition
	Introduction to Industrial Organization, Chapters 3 and 4
	Industry and Firm Studies, Chapter 11
	3-1 Discussion: When Does the Government Intervene?
	3-2 Exercise: Chapter 3
	3-3 Exercise: Chapter 4
4	Oligopoly and Collusion
	Introduction to Industrial Organization, Chapters 8 and 9
	4-1 Exercise: Chapter 8
	4-2 Discussion: Can Collusion Be Better Than a Merger?
	4-3 Exercise: Chapter 9
	4-4 Final Project Part One, Milestone Two Submission: Game Theory Analysis and Opportunities
5	Market Structure and Market Power
	Introduction to Industrial Organization, Chapter 10
	Industry and Firm Studies, Chapter 2
	5-1 Exercise: Chapter 10
	5-2 Final Project Part One, Milestone Three Submission: Industry HHI
6	Cigarettes: A Case Study in Market Power
	Industry and Firm Studies, Chapter 4
	6-1 Discussion: Taxes and Market Concentration
	6-2 Final Project Part One Submission: Case Study Briefing

Module	Topics and Assignments
7	Price Discrimination and Vertical Relations
	Introduction to Industrial Organization, Chapters 6 and 13
	7-1 Exercise: Chapter 6
	7-2 Exercise: Chapter 13
	7-3 Discussion: Price Discrimination
8	Product Differentiation and Advertising
	Introduction to Industrial Organization, Chapter 14
	Industry and Firm Studies, Chapter 8
	8-1 Exercise: Chapter 14
	8-2 Exercise: Chapter 14
	8-3 Final Project Part Two, Milestone One: Regulatory Background Issues and Market HHI
9	Entry, Exit, and Strategic Behaviors
	Introduction to Industrial Organization, Chapters 10 and 11
	9-1 Exercise: Chapter 10
	9-2 Exercise: Chapter 11
	9-3 Discussion: Mergers and Acquisitions
10	Research and Development
	Introduction to Industrial Organization, Chapter 15
	10-1 Discussion: Perfect Competition Is Dull
	10-2 Final Project Two Submission: Regulatory Analytical Paper

Course Participation

Course participation is required within the first week of the term for all online courses. *Participation* in this context is defined as completing one graded assignment during the first week of the course. Otherwise, students will be administratively removed for nonparticipation. Students who do not participate during the first week may forfeit their rights to be reinstated into the course. Students who stop attending a course after the first week and who do not officially withdraw will receive a grade calculated based on all submitted and missed graded assignments for the course. Missed assignments will earn a grade of zero. See the <u>course withdrawal policy</u> and the <u>full attendance policy</u> for further information.

Late Assignments

Students who need extra time may submit assignments (excluding discussion board postings) up to one week after the assignment due date. Discussion board submissions will not be accepted for credit after the deadline except in extenuating circumstances.

- A penalty of 10 percent of the total value of the assignment will be applied to the grade achieved on the late assignment regardless of the day of the week on which the work is submitted.
- Students who submit assignments more than one week late will receive a grade of zero on the assignment unless they have made prior arrangements with the instructor.

Students must submit all assignments no later than 11:59 p.m. (in their own time zone) on the last day of the term.

No assignments are accepted after the last day of the term unless an incomplete has been submitted. See the incomplete grades policy.

There may be times an instructor makes an exception to the late assignment policy. Instructors may accept late work, including discussion board posts, with or without prior arrangement.

- Exceptions to the late policy on these grounds are left to the instructor's discretion, including whether the late penalty is applied or waived. Students should not assume that they will be allowed to submit assignments after the due dates.
- If an instructor finds that they are unable to determine whether an exception to the late policy would be appropriate without documentation, the collection and review of student documentation should be handled through the Dispute Resolution team in order to protect the student's privacy. In these cases, students should file a Student Concern Dispute form to have the circumstances reviewed.

If a student is experiencing (or knows they will experience) a circumstance, including pregnancy, that is protected under the Americans with Disabilities Act or Title IX, they are encouraged to contact the Online Accessibility Center (OAC) as soon as possible to explore what academic accommodations might be offered. Instructors must honor all deadlines established through the OAC.

Student Handbook

Review the student handbook.

ADA/504 Compliance Statement

Southern New Hampshire University (SNHU) is dedicated to providing equal access to individuals with disabilities in accordance with Section 504 of the Rehabilitation Act of 1973 and with Title III of the Americans with Disabilities Act (ADA) of 1990, as amended by the Americans with Disabilities Act Amendments Act (ADAAA) of 2008.

SNHU prohibits unlawful discrimination on the basis of disability and takes action to prevent such discrimination by providing reasonable accommodations to eligible individuals with disabilities. The university has adopted the
ADA/504 Grievances Policy">ADA/504 Grievances Policy (version 1.2 effective October 16, 2017), providing for prompt and equitable resolution of complaints regarding any action prohibited by Section 504 or the ADA.

For further information on accessibility support and services, visit the Disability and Accessibility Services webpage.

Academic Integrity Policy

Southern New Hampshire University requires all students to adhere to high standards of integrity in their academic work. Activities such as plagiarism and cheating are not condoned by the university. Review the <u>full academic integrity policy</u>.

Copyright Policy

Southern New Hampshire University abides by the provisions of United States Copyright Act (Title 17 of the United States Code). Any person who infringes the copyright law is liable. Review the <u>full copyright policy</u>.

Withdrawal Policy

Review the <u>full withdrawal policy</u>.

Southern New Hampshire University Policies

More information about SNHU policies can be found on the policy page.