

Econ 308: Managerial Economics/Strategy (Spring 2023)

I. Overview

Instructor

Sarah Sylvester

Email

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Location

GMU Fairfax

Horizon Hall 3014

Meeting

M & W 3:00-4:15 PM

Office Hours (Zoom)

Monday 11:00-12:00AM or by appointment. The link will be provided on blackboard. Email me to arrange a meeting time that suits us both!

Please email me through your Mason email as I will not respond to those sent through a non-Mason address.

Course Description

This course uses economic tools to analyze business situations faced by managers and companies. It covers optimal pricing strategy and incentives, while focusing on applying game theory in various capacities. The course is broken into two parts.

Part One introduces the relevant economic concepts and their applications through a series of short lectures. During class students will participate in short experiments and discuss the results by studying the game theory design and the practical applications.

Part Two has students work together in small groups to complete a team project that utilizes material learned in Part One of the class. For the project, you and your team will fully analyze a business institution and then propose at least one change that would improve economic performance. When you finish this course, you should be able to analyze the incentives produced by different institutional rules in different economic environments, and you should be able to propose changes that will improve overall economic performance.

Prerequisites

Econ 306 (which assumes Econ 103, 104, and Math (calculus)108 or 113). Please email me if there are any issues regarding this.

Helpful Texts

Note: no textbook is required for this class. Any required readings or videos will be posted on Blackboard. The following books may be helpful in deepening your understanding of the material and available to order on Amazon.

- Games, Strategies, and Managers, John McMillan
- Managerial Dilemmas: The Political Economy of Hierarchy, Gary Miller
- Managerial Economics: A Problem Solving Approach, Luke M. Froeb & Brian T. McCann

Important Dates

Item	Date
Classes begin	January 23
Midterm	March 29
Classes conclude	May 3
	Final Team Paper due this day and Final Presentations are this day.

II. Grading

- *15% Homework and short discussions.* There will be brief assignments posted on Blackboard throughout the course, designed for a deeper reflection of the material. Short answer questions require a response of a paragraph and discussion posts require you to post a response as well as a reply to at least one other student.
- *30% Midterm.* This will cover material taught in Part One of the class. No retakes will be allowed.
- *30% Final Team Paper.* As explained in Part Two, this will be a group project economically analyzing a business model and suggesting improvements. At least 2500 words due on the last day of class. Your team must explain the following:
 1. Explain the current company, how it began and how it has changed since its creation.
 2. State the outcomes the current economic institution is trying to achieve.
 3. State how to measure the performance of the current institution.
 4. Using your measure, explain how and why the current institution is underperforming, looking at incentives or agents involved.
 5. Propose a solution that will change the rules of at least one institution so that overall economic performance of the company is improved.
 6. Justify your solution by explaining how it will improve incentives, behavior, and economic performance.
- *15% Final Team Presentation.* Provide a short 15-minute presentation (such as PowerPoint slides) that the team will present covering the important portions of the analysis in the Final Paper. Each team member must participate in the presentation. Due on the last day of class.
- *10% Team Evaluation Grade.* At the end of the project each team member will receive an evaluation sheet for each member of their team, including themselves. They will describe the participation of each member and give them a score for the contribution from 0-10. Their team member's responses will determine their grade for this portion of the project. Not turning in the evaluations will result in a 0 for the team member that did not turn it in.
- Note: late assignments will not be accepted except in extreme cases. Please email me before the due date if you have difficulty with an assignment.

III. Course Policies

Attendance/Class Participation: Attendance is not mandatory but is helpful to have a successful experience in this course.

Viewpoint Diversity: I expect that you treat your fellow classmates with respect, even if you disagree with them. This is an academic setting, so constructive disagreement is expected and encouraged to further our learning. Differing viewpoints can sharpen our thinking and deepen our understanding, but they must be shared respectfully.

Audio Recording and Electronics: For the privacy of all students, recordings of lectures will not be allowed.

Students with Disabilities: If you have a learning or physical difference that may affect your academic work, you must furnish appropriate documentation to the Office of Disability Services. If you qualify for accommodation, the ODS staff will give you a form detailing appropriate accommodations for your instructor. In addition to providing your professors with the appropriate form, please take the initiative to discuss accommodations with them at the beginning of the semester and as needed during the term. Because of the range of learning differences, faculty members need to learn from you the most effective ways to assist you. If you have contacted the Office of Disability Services and are waiting to hear from a counselor, please tell me.

Honor Code: George Mason University is an Honor Code university; please see the Office for Academic Integrity for a complete description of the code and the honor committee process. What does academic integrity mean in this course? Essentially this:

1. When you are responsible for a report, presentation, or paper, you will perform that task to the best of your ability. Midterm papers are to be done entirely independently. Any interaction with others during these times violates the honor code.
2. When you rely on someone else's work in your reports, presentations, or paper, you give full credit in the proper, accepted form.
3. Another aspect of academic integrity is the free play of ideas. Vigorous discussion and debate are encouraged in this course, with the firm expectation that all aspects of the class will be conducted with civility and respect for differing ideas, perspectives, and traditions.

Campus Closure: If a class meeting needs to be changed for any reason, please check blackboard for any updates. All courses that need to be modified will be held virtually, and links to class meetings will be provided to your email and on blackboard.

Name and Pronoun Use: If you wish, please share your name and gender pronouns with me to indicate how best to address you in class and via email.

Technology: The use of laptop computers is allowed in this class but not required. Please be respectful of your peers and do not engage in activities that are unrelated to class.

Notice of mandatory reporting of sexual or interpersonal misconduct: As a faculty member, I am designated as a "Non-Confidential Employee," and must report all disclosures of sexual assault, sexual harassment, interpersonal violence, stalking, sexual exploitation, complicity, and retaliation to Mason's Title IX Coordinator per University Policy 1202. If you wish to speak with someone confidentially, please contact one of Mason's confidential resources, such as Student Support and Advocacy Center (SSAC) at 703-993-3686 or Counseling and Psychological Services (CAPS) at 703-993-2380. You may also seek assistance or support measures from Mason's Title IX Coordinator by calling 703-993-8730 or emailing titleix@gmu.edu.

GMU Covid policy: information can be found on the [Safe Return to Campus Page](#)

IV. Course Schedule

General topics are provided below. Any recommended readings for the week will be posted on Blackboard. This is a loose outline of the course and is subject to change given the interest of the class.

Class Meeting	Subject
Lecture 1: Monday, January 23	<ul style="list-style-type: none"> • Course Overview & Introduction • Neoclassical Theory of the Firm Review
Lecture 2: Wednesday, January 25	<ul style="list-style-type: none"> • Introduction to Game Theory • Limitations of Neoclassical Theory of the Firm
Lecture 3: Monday, January 30	<ul style="list-style-type: none"> • Specialization, Property Rights, and Exchange • The Coase Theorem
Lecture 4: Wednesday, February 1	<ul style="list-style-type: none"> • Microeconomics Systems
Lecture 5: Monday, February 6	<ul style="list-style-type: none"> • Incentive Failures (Lemon Market Example) • Principal-agent
Lecture 6: Wednesday, February 8	<ul style="list-style-type: none"> • Optimal Prices for profit maximization
Lecture 7: Monday, February 13	<ul style="list-style-type: none"> • Game Theory 1 – Dominant Strategies
Lecture 8: Wednesday, February 15	<ul style="list-style-type: none"> • Game Theory 2 – Optimal Search
Lecture 9: Monday, February 20	<ul style="list-style-type: none"> • Game Theory 3 – Sequential Bargaining • Threat Points
Lecture 10: Wednesday, February 22	<ul style="list-style-type: none"> • Repeated Games, revisit prisoner’s dilemma • Credible Commitments
Lecture 11: Monday, February 27	<ul style="list-style-type: none"> • Cooperation and Infinite Games • Brand recognition and reputation effects
Lecture 12: Wednesday, March 1	<ul style="list-style-type: none"> • International Economics
Lecture 13: Monday, March 6	<ul style="list-style-type: none"> • Risk Preferences
Lecture 14: Wednesday, March 8	<ul style="list-style-type: none"> • <i>Application 1: Risk Management</i> • History of Risk Management
Class Work: Monday, March 20	<ul style="list-style-type: none"> • First Team Meeting – finalize teams • Discuss potential topics
Lecture 15: Wednesday, March 22	<ul style="list-style-type: none"> • Contracts • Regulations, price ceilings and floors

Review: Monday, March 27	<ul style="list-style-type: none"> • Review for Midterm
Midterm: Wednesday, March 29	<ul style="list-style-type: none"> • Midterm
Lecture 16: Monday, April 3	<ul style="list-style-type: none"> • Monopolies and competition
Lecture 17: Wednesday, April 5	<ul style="list-style-type: none"> • <i>Application 2: Risk Management</i>
Class Work: Monday, April 10	<ul style="list-style-type: none"> • Team Meeting 2 • Should have a company, topic, and problem identified
Lecture 18: Wednesday, April 12	<ul style="list-style-type: none"> • Wages and Incentives
Lecture 19: Monday, April 17	<ul style="list-style-type: none"> • Auctions
Lecture 20: Wednesday, April 19	<ul style="list-style-type: none"> • <i>Application 3: Cryptocurrencies</i>
Class Work: Monday, April 24	<ul style="list-style-type: none"> • Team Meeting 3 • Should have an institutional rule change solution
Class Work: Wednesday, April 26	<ul style="list-style-type: none"> • Team Meeting 4
Class Work: Monday, May 1	<ul style="list-style-type: none"> • Final Team meeting
Final Team Presentations: Monday, May 3	<ul style="list-style-type: none"> • Final Team papers due • Final Team in-class presentations