William and Mary ECON-463 Entrepreneurial Choice and Industrial Policy

Prof. Shi Qi Class Meets: M W F, 11:00A-11:50A

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M 2:00P-3:00P F 3:00P-4:00P

1 Course Description

Term: Spring 2024

This course is designed to equip you with both theoretical foundations and empirical skills to assess Industrial policies, which play a significant role in influencing entrepreneurial decisions and competition. Specifically, we delve into policies impacting entrepreneurial occupational choices, business formation, pricing strategies, legal structures, advertising, and innovation. Building on Microeconomic theories (e.g., ECON 303) and applying them through econometric methodology (e.g., ECON 308), the course is divided into three parts, each addressing crucial aspects of entrepreneurship.

In the first part, we concentrate on the decision to start a business, covering topics such as occupational choices, small business job creation, entrepreneurial financing, and firm entry and exits in specific industries. The second part explores business strategies, including advertising, innovation, brand proliferation, and product obfuscation. The third part looks into the roles of business regulations and various government policies. Throughout in-class discussions, you will learn how to apply theoretical models to predict the outcomes of industrial policies and assess their economic welfare consequences, emphasizing the use of micro-foundation structural models.

Combining theoretical insights with practical applications, the course also involves analyzing a real-world business survey dataset. This dataset will be used to study new business formation activity, characteristics of business strategies, the nature of business organizational arrangements, and the traits of entrepreneurs. Through this data analysis, you will develop the ability to interpret empirical evidence effectively and use it to formulate policy recommendations. The course also emphasizes honing effective communication skills, including report writing, graph and figure preparation, and presenting analysis results to an audience.

2 Prerequisites

Prerequisites for this course include the successful completion of Econ 303 Intermediate Microeconomic Theory class. Additionally, a fundamental grasp of calculus skills (differentiation, integration, chain rule, quotient rule, etc.) is necessary. To excel in this class, it is essential to comprehend the intuition behind various economic models, involving both algebraic and

graphic analyses. Completion of Econ 308 Econometrics or an equivalent class is also required. You will extensively use statistical software, such as STATA or R, for a group project.

This course is designed for juniors and seniors majoring in Economics and fulfills the COLL 400 requirement.

3 Course Materials

Throughout the course, we will explore and discuss a series of relevant topics. For each topic, I will assign a diverse range of materials for you to read or listen to, including academic papers, news articles, and occasionally, podcasts. These materials, which may involve specific industry practices and policies, will be provided in the form of PDFs or web links on Blackboard at least one week before the class.

When engaging with academic papers, it is not necessary to comprehend all technical details. However, a thorough understanding of the industry/policy backgrounds and essential discussions in the paper is required. Focus on identifying key aspects of the article, such as:

- What question is the author attempting to answer?
- Why is this an important question?
- What does previous research have to say about the question?
- What sort of evidence does the author provide?
- Are there any drawbacks or limitations to this evidence?
- What conclusions does the author reach?
- What are the implications of these conclusions for larger economic questions?

4 Class Format

On some occasions, typically Fridays, I will provide a preview of upcoming topics for the following week. In these sessions, I will discuss relevant models to establish the necessary theoretical backgrounds. While the textbook "Modern Industrial Organization. 4th Edition." by Carlton & Perloff is recommended, it is not required. The focus in these classes is on the implications and intuitions behind the models rather than the technical details. Your understanding should extend to the theoretical assumptions and how altering these assumptions might impact the predictions of the models.

For the remaining classes, we will engage in class discussions. In each discussion, one or two students will be designated in advance to lead the discussion. As a discussion leader, your responsibility is to prepare for the discussion by detailing the backgrounds of the paper, presenting any relevant evidence, and reviewing the main results. You can use summary handouts, PowerPoint slides, or any format you find effective for your presentation. During the class, discussion leaders will also prepare and present discussion questions for the group.

Discussion leaders are evaluated on a 5-point scale, including knowledge of content (2 points), sufficient preparation (slides, handouts, etc. - 2 points), and the quality of discussion questions (1 point).

If you are not leading a discussion, your class participation is **mandatory**. It is crucial to inform me in advance if you will miss a class. Active engagement in class discussions is strongly encouraged, and you are allowed to relate the discussion to outside materials or personal experiences.

Class participation is assessed on a 5-point scale, including class attendance (2 points) and significant engagement in class discussions (3 points). Discussion leaders who make reasonable efforts automatically receive 5 participation points for the session they lead.

5 Weekly Quizzes

A few days prior to each seminar class, I will provide a set of study questions to assist you in navigating the readings for the upcoming paper. Following your review of the papers and attendance in the seminar classes, you will be required to take a quiz on Blackboard related to the covered topics. These quizzes are designed to assess your comprehension of the class materials, incorporating open-ended short-answer questions based on readings and in-class discussions.

The quizzes will be graded on a scale of completion (60%) and your understanding of the required course materials (40%). They are open-booked, allowing you sufficient time for completion. It is important to note that no collaboration, assistance from AI, or any form of cooperation is allowed during the quizzes. Any instances of dishonesty will be subject to disciplinary measures in accordance with the College's regulations.

6 Group Project

This project provides you with an opportunity to apply the theories of this course to actual data. The project, which is worth 50% of your overall class grade, will be completed in *Four stages*.

You will be assigned to a group of 2-4 people. Please let me know of any special needs/concerns regarding group work/meetings.

You must complete all Four parts of the project with your group members.

Stage 1: Data replication exercise:

You will be introduced to a business survey dataset, namely the "Survey of Small Business Finance" (SSBF). This publicly available dataset will be explored through a detailed instruction session on accessing and utilizing the data. Your engagement with the data will involve completing a <u>replication exercise</u>, aimed at familiarizing you with navigating the dataset and identifying potentially insightful findings. This exercise serves as a preparatory step for generating your own research topics.

Stage 2: Project proposal:

Sub-stage 2.1: Identify a compelling entrepreneurial decision for your study, and concurrently, pinpoint a potential or real-world policy that could influence this entrepreneurial decision or outcome. It is crucial that this entrepreneurial decision or outcome is identifiable within a dataset of your choosing. Additionally, select a set of independent variables that may be potentially impacted by an industrial policy.

Before proceeding, you must obtain my approval for your choices of the entrepreneurial decision or outcome and the industrial policy. It is essential to note that no two groups can have the same research topic. In exceptional cases where you opt to use a dataset other than the SSBF, prior approval from me is mandatory.

Sub-stage 2.2: Develop and submit a short proposal, which must address the following:

- 1. What is the entrepreneurial decision/outcome you are studying?
- 2. What is a policy issue that can affect this entrepreneurial decision/outcome? How does it work?
- 3. Brief description of your dataset, including a table of summary statistics.
- 4. What are the main variables from the dataset you will use in your research?
- 5. Why are these variables chosen?

I will meet with your group after your submission to discuss your proposal.

Stage 3: In-class presentation:

Sub-stage 3.1: In this stage, your task is to find empirical evidence akin to the work done in prior stages and discern the crucial (economically significant) factors influencing the entrepreneurial decision or outcome you have selected. Following this, you will construct a straightforward model, employing tools and methods covered in class, to elucidate the causal relationship identified through regression analysis. Subsequently, you will utilize this model to make predictions regarding the effects of policy experiments within your framework.

As part of the progress update, I will request a project update from you in the second half of the semester.

Sub-stage 3.2: Your group will present your findings to the class at the end of the semester. The presentation should answer the following questions:

- 1. What are you studying? Why is the topic interesting from an economic perspective?
- 2. What is the empirical evidence? Any summary statistics, regressions, etc.?
- 3. How to interpret this empirical evidence: intuition, model, previous literature?
- 4. Based on your interpretation, what are the predictions, and policy recommendations?

There is no fixed structure or format to the presentation. I will give you some general guidelines later on in the semester, but these should be treated as suggestions rather than rules.

Stage 4: Final report:

Following your group presentation, you will receive feedback from both me and your peers. Subsequently, incorporating this feedback, you are required to prepare a final written report due on the day of the final exam. This report should consist of two integral parts.

The first part is a comprehensive **research paper**, approximately 10 pages in length, encompassing all analyses and technical details. The second part involves crafting a letter to regulators or an **Op-Ed**, spanning 2-3 pages. This section should be presented in accessible language, devoid of mathematical complexities, and focused on conveying intuitions. It is imperative to include both parts in your final report; submitting only one part will result in the final project being ungraded, earning zero points.

6.1 Group Performance Reporting

To provide updates on your group projects and ensure equitable contributions, please send me a group email after your group meeting for each stage of the project (total of 4 stages). This email should include the date and attendance of the meeting, assignment of responsibilities, and scheduled times for completing individual tasks. This serves as a binding group contract.

Optionally, you may choose to send an individual email after the completion of each stage. In this email, assess your own and your partners' performance, considering contribution to ideas, communication, effectiveness, and timeliness. This email is optional and should be utilized if you have concerns about your group's performance that may require my intervention.

7 Grading

A total of 100 points are possible for the course. They are distributed as follows:

- In-class participation 12% (– 0.5% per class)
- Leading class discussion 20% (– 5% per discussion);
- Weekly Quizzes 18% (– 2% per quiz);
- Group Project 50%.
 - Data Replication Exercise 6%;
 - Project Proposal 5%;
 - In-class Presentation 10%;
 - Final Report 25% (Must Contain Two Parts);
 - Emails of responsibilities -4% (-1% per stage).

Grading Scale:

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A	A-	B+	В	B-	C+	С	C-	D+	D	D-	F
	92.9%	89.9%	86.9%	82.9%	79.9%	76.9%	72.9%	69.9%	66.9%	62.9%	
\geq	to	<									
93%	90%	87%	83%	80%	77%	73%	70%	67%	63%	60%	59.9%

Please note that the grade scales above are ABSOLUTELY firm. This means, for example, if you get a class score of 89.99, you will absolutely get a B+, not a A-.

8 Class Communication and Office Hours

E-mails will be the primary way of communicating with me. Emails will generally be answered within 24 hours. However, emailing me the evening before a due date will not guarantee you a response. When emailing, please use your official WM email, emails from any other accounts will be disregarded! Also, please clearly state your name and your class (ECON 463) in the subject line, or your email will generally be ignored.

Office hours are an important way to get help. Please use the weblink on Blackboard to sign up for office hours. Please also be aware that office hours are a shared resource. So every student can meet with me for *at most* 30 minutes per week. That means I won't be able to go over an entire homework or exam with you during office hours. However, you can come as a group for the meeting. In addition, if none of the office hours work for you, please email me to schedule a meeting with me.

9 Academic Honor Policy:

You are expected to follow the William & Mary Honor Code. If I discover any academic misconduct, I will initiate an Honor Council proceeding and recommend failure of the course. If you have any questions about how the Honor Code relates to this course, feel free to talk to me or refer to the Student Handbook and the William & Mary Honor Council's website.