College of William and Mary
ECON-463 Entrepreneurial Choice and Industrial Policy

Professor: Shi Qi   **Term:** Fall 2020
Office: Tyler Hall 248   **Class Times:** MWF 10:00 - 10:50 am
Email: sqi01@wm.edu   **Location:** Remote, Synchronous
Office Hours: By Appointments

1   Course Description

The goal of this course is provide you with the theoretical foundations and practical skills to evaluate Industrial policies that can profoundly affect entrepreneurial choices and competition. In particular, we look into policies that can affect entrepreneurial occupational choice, business formation, pricing strategies, legal forms, advertising, and innovation. This class builds the micro-economic theories you have learned from Econ 303, and apply these concepts using the econometric methodology from Econ 308.

The class will cover both important theoretical topics and discuss important policies issues relating to entrepreneurial choices. The course is roughly divided into three parts, which cover three important aspects of being an entrepreneur. In the first part, we focus on how to start a business, and discuss topics regarding occupational choices, small business job creation, entrepreneurial financing, firm entry and exits in specific industries. In the second part, we deal with business strategies, such as advertising, innovation, brand proliferation, and product obfuscation. In the third part, we discuss the role of business regulation and various government policies. Throughout in-class discussions, you will learn how to apply theoretical models to project the outcomes of industrial policies and evaluate their economic welfare consequences. In particular, you will learn the importance of using micro-foundation structural models in predicting the effect of an industrial policy.

Combining both theoretical understanding and policy applications, we will also look into a real-world business survey data. In particular, we will use the data to study new business formation activity; characteristics of business strategies; the nature of business organizational arrangements; and the characteristics of entrepreneurs. By studying the data, you will learn how to interpret empirical evidence in a meaningful way, and use them to make policy recommendations. You will also be asked to hone your effective communication skills including written reports, preparing graphs and figures, and presenting analysis results to an audience.

2   Prerequisites

Students should have completed Econ 303 Intermediate Microeconomic Theory, or an equivalent class. In addition, you must have basic calculus skills (differentiation, integration, chain rule, quotient rule, etc.) To succeed in this class, we will need to understand the intuition

behind many economic models, which require algebraic and graphic analyses. Students should also have completed Econ 308 Econometrics, or an equivalent class. You will need to use statistical software, such as STATA or R, extensively in completing the group projects.

The course is intended for juniors and seniors in the Economics Major, and satisfies the COLL 400 requirement.

3   Grading

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

- In-class participation - 15%

- Leading class discussion - 15%;

- Essay Exam 1 - 10%;

- Essay Exam 2 - 10%;

- Group Project - 50%.

  - Data Replication Exercise - 5%;
  - Project Proposal - 5%;
  - In-class Presentation - 10%;
  - Final Report - 25% (Must Contain Two Parts);
  - Logs of responsibilities - 5%.

Grading Scale:

A	A-	B+	B	B-	C+	C	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	to	to	to	to	to	to	to	to	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-.

4   In-Class Seminar

We will cover and discuss a series of relevant topics. Most of the topics will take about three to four classes to cover. You are required to read assigned academic papers, news articles, and/or listen to relevant Podcasts before coming to class. Please see the *class calendar* for all the topics covered, and refer to the *course reading list* for the relevant dates of the required materials. I will post the PDFs or web-links on Blackboard at least one week before the class. I will aslo post a list of study questions to guide you through the readings of each paper a few

days before the actual seminar class.

These articles are concerning specific industrial practices and policies, which we will discuss in class. For academic papers, you do *not* need to understand all the technical details of the papers, but are required to understand the backgrounds and important discussions in the paper. In particular, you should focus on are identifying the following aspects of the article. 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 rely on? 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? These will the type of questions we discuss in class, and use in exams.

In addition, I will spend some class time discussing relevant models, which provide the necessary theoretical backgrounds. (The textbook is *Modern Industrial Organization. 4th Edition.* by Carlton & Perloff; but the textbook is not required.) Again, the technical details are not as important as the implications and intuitions behind the models. You will be asked to understand the theoretical assumptions , and how changing the assumptions might affect the predictions of these models.

4.1   Leading Discussions

In each discussion class, one or two students will be designated ahead of time to lead class discussion. When you are assigned to lead class discussion, you are expected to do a thorough reading of the paper. In class, the discussion leaders will detail the backgrounds of the paper, present any potential evidence provided in the papers, and review the main results. You can provide summary handouts (in electronic formats), Powerpoint slides, or any format you think might aid your discussion. During the class, the discussion leaders will prepare and present a few discussion questions for the class. Then, we will go around the room to discuss the topic.

As a discussion leader, your performance is evaluated based on a 10-point scale. Knowledge of the content - 4 points; sufficient preparation - 3 points; discussion questions - 3 points.

4.2   Participation

If you are not leading a discussion, your class participation is mandatory. You *must* let me know ahead of time if you are going to miss a class. Engaging in class discussion is very important. Your are allowed and even encouraged to relate the discussion to outside materials or even personal experiences.

You class participation is evaluated based on a 5-point scale. Class attendance - 2 points; engage significantly in class discussion - 3 points. All discussion leaders with reasonable efforts will automatically get the 5 participation points for the session they lead.

4.3   Essay Exams

We will also use two class periods to conduct essay exams. These exams are designed to evaluate your understanding of the class materials. These exams, based on readings and in-class discussions, contain open-ended essay questions regarding the topics covered in class.

All exams are *open booked*, and you may use your notes if you would like. However, you will have *limited time* to complete the exam, so studying on the fly will not be a viable option. These exams will be held online on Blackboard. No cooperation is allowed during the exams, and any attempts of dishonesty will be punished with as much severity as the College permits.

If you need to miss an exam, you must notify me with a written/email request at least 24 hours before the exam. The only valid reasons for requesting a makeup exam would be: (1) A documented College sponsored events; (2) A documented medical emergency; (3) Some other documented extraordinary events. A makeup exam will be scheduled as soon as it can.

4.4   Online Synchronous Meeting and Zoom Recording

All the discussion classes will be held online using the Zoom software. I will send you a link to the meeting and please do NOT share this link with anyone outside the class. In addition, I will ask you for permission to record our Zoom sessions in our first class. These recordings will be posted on Blackboard, and will only be made available to our class.

5   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. In the first class, I will ask for you current time zone, statistical software availability, or any special needs/concerns regarding online remote group works/meetings. The answers to these questions will help me to assign project groups.

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 datasets, the *Survey of Small Business Finance* (SSBF). This dataset is publicly available. I will present to you a detailed instruction on how to access and use the data. You will use the data complete a replication exercise. This is to help you getting used to navigating the dataset and finding potentially interesting insights for coming up with your own research topics.

Stage 2: Project proposal:

Sub-stage 2.1: Find an interesting entrepreneurial decision to study. At the same time, identify a potential/real-world policy that can affect the entrepreneurial decision/outcome of your choice. This entrepreneurial decision/outcome MUST be identifiable in a dataset of your choice. You must also choose a list of independent variables that can potentially be affected by an industrial policy. You must first get my approval on your choices of the entrepreneurial decision/outcome and industrial policy, and no two groups can have the same research topic. In the rare cases, if you choose to use a dataset other than the SSBF, you must also get approval from me first.

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 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: Find empirical evidence similar to what you have done in Phase 1, and identify the important (i.e. economically significant) factors that can affect the entrepreneurial decision/outcome of your choice. Then you will develop a simply model, preferably using the tools and methods we discuss in class. This model must clarify the causal relationship identified from your regression analysis. You will then use this model to make predictions on the effects of policy experiments of your design. I will ask you to give me a project update 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 are the empirical evidence? Any summary statistics, regressions, etc.?

3. How to interpret these empirical evidences: intuition, model, previous literature?

4. Based on your interpretation, what are the predictions, 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:

During and soon after the presentation, your group will get feedbacks from me and your classmates. After getting the feedbacks, you will prepare a final written report to be submitted on the day of the final exam. This report must contain two parts. The first part is a **research paper**, about 10 pages long, containing all the analyses and technical details. The second part is a letter to the regulators or an **Op-Ed**, 2-3 pages long, in accessible language (i.e. no maths, only intuitions), suggesting a policy stance based on your findings. If you only turn in one part, your final report will not be graded, and you will earn zero point for the final project.

5.1 Group Performance Reporting

To update me on the progress of your group projects, please log each individual member's role in and contribution to the project in each stage.

Please send me two emails for each stage of the project (8 in total). The first email is a group email, which is sent after your first group meeting for a particular stage. This email should record the date and attendance of the meeting, assignment of responsibilities, and scheduled times in completing the individual tasks. This serves as a binding group contract.

The second email is an individual email, sent after the completion of every stage. In the email, please assess your own and your partners' performance, in terms contribution to ideas, communication, effectiveness, and timeliness.

6 Class Communication and Office Hours

E-mails will be the primary way of communicating with me. Emails will generally be answered within 24 hours. When emailing, please use your official WM email, emails from any other accounts will be disregarded!

There will not be any traditional face-to-face office hours. However, you and/or your group can email me anytime to setup an Zoom meeting with me. I will make myself as accessible to you and your classmates as possible.

7 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.