

# College of William and Mary

## ECO-461 Industrial Organization

**Professor:** Shi Qi

**Office:** Tyler Hall 248

**Email:** sqi01@wm.edu

**Office Hours** T 12:30 p - 1:30 p; W 4:30 p - 5:30 p

**Term:** Spring 2019

**Class Times:** TR 11:00a - 12:20p

**Location:** Tyler 134

## 1 Course Description

This course is an introduction to the economic analysis of industry. It focuses on the decisions and interactions of firms (and to some extent consumers and governments) within narrowly defined markets. We begin with the neoclassical model of perfectly competitive firms that treats firms as “black boxes” of production. From there we move on to more interesting and realistic structures of competition (differentiated product firms, oligopoly, cartel, and monopoly). In addition, we will look into business practices such as price discrimination, vertical integration, auction, and advertising; investigate interesting firm dynamics; and discuss anti-trust polices and industry regulations such as those relating to merger and predatory pricing. Along the way, we will visit many interesting models and equilibrium concepts, such as game theory and Nash Equilibrium.

## 2 Textbooks & Prerequisites

*Modern Industrial Organization. 4th Edition.* by Carlton & Perloff. Owning a text is strongly recommended but not required.

Students should have completed ECO 303 Intermediate Microeconomic Theory, or equivalent class. In addition, basic calculus skills are assumed (differentiation, integration, chain rule, quotient rule, etc.) To succeed in this class, we will solve many economic models, which require advanced algebraic and graphic analyses.

**WARNING:** This class is fast-paced, and many problems and models will require you solve complicated math problems. Students lacking the mathematics skills listed above will likely struggle in class.

## 3 Class Website and E-mail

All assignments, handouts, and additional materials will be posted on the Blackboard. Class notes/slides will be posted **AFTER** the class. They are a good guideline for studying and reviewing for exams. However, you will need to take additional notes in class, because some materials not included on the slides will be covered in class.

E-mails will generally be answered within 48 hours. Emailing me the evening before a homework is due or before an exam is scheduled will not guarantee you a response before the event. When emailing, please use your official WM email, emails from any other accounts will be disregarded! please clearly state your name. E-mails without a name will generally be ignored.

## 4 Assignments

There will be 6 assignments. For all the assignments, words must be typed, graphs and equations must be typed or neatly drawn/written. Messy Homework will NOT be accepted and will be given zero points for that assignment. If you choose to do graphs and equations by hand, they must be inserted properly within the corresponding text of the HW. Graphs and equations on separate pages will NOT be accepted.

You are permitted and even encouraged to work with other students on assignments. However, each student must write up his or her own version of a solution, and everyone who collaborated must be acknowledged at the end of the homework. When you solve a problem jointly, I expect you to then be able to look away from the group notes and reproduce the solution on your own. If not, you have learned nothing from the exercise, and are giving yourself a false sense of security about your understanding of the material. Moreover, **identical assignments will receive a score of zero.**

All the assignments are self-graded. This means you will need to submit each assignment twice on Blackboard. On the first submission, any reasonable effort will be assessed 50% of the total homework grade. No late first submissions will be accepted, and you will receive a zero for that particular homework. After the first submission deadline, an answer sheet for the homework will be posted online, along with grading guidelines for the additional 50%. You must use the grading guideline to grade your own homework. The graded homework will be submitted on a second specified deadline. I will compare the two submissions to make sure they are the same. Then if I agree with your grading, you will be given that grade for the homework; if not, appropriate grade adjustments and additional comments would be given.

For example, Homework 1 is due on Monday, Jan. 28. You can submit your homework on blackboard any time before 11:59 pm on Jan 28. Any homework submitted later than 11:59 pm will be marked as late and given a zero for the assignment. On Jan 29, an answer sheet and grading guideline will be posted. Then you must grade your own Homework 1 and submit the graded homework online a second time on Friday, Feb. 1 (11:59 pm). Please see all the submission deadlines on the course calendar. Allowing self-grading would allow you to learn from the homework a second time, and deepen the understanding.

## 5 Data Tasks

Industrial organization economists deal with industry data quite a lot, so you will be given 2-3 data assignments. They are testing your ability gather and analyze data. I will post data sources and short instructions for those assignments. I will reserve a couple of class periods for you to complete these tasks. These instructions should be very straightforward in helping you access and navigate the necessary on-line data websites, so I will not go over them in class. However, if you still need help with the data, please do not hesitate to contact me. You must complete these tasks individually.

## 6 Exams

There will be two midterms and one comprehensive final exam. The midterms are NOT cumulative, and they will be administered during a regular class period, please see the class calendar for the scheduled dates of the exams. The final is cumulative, and will be administered during the final exam period, and will last for the entire 3 hours.

All exams are closed book and closed notes. Questions will be similar in format to those on homework assignments and practice exams. No cooperation is allowed during the tests, and any attempts of dishonesty will be punished with as much severity as the College permits.

There will be no make-up exams for midterm exams. If you need to miss a midterm exam, you must notify me with a written/email request at least 24 hours before the exam. Any reason for missing the exam is accepted, as long as the request is submitted to me before the deadline. Please note that I do NOT cancel or drop grades after the deadline. In the case of a dropped exam, the points from that exam will then be automatically moved to your final exam, so you don't lose the opportunity to gain those points.

The final exam will be held in the same classroom, on **Tuesday, May 7th, 2:00-5:00 pm**. The only valid reasons for requesting a makeup final exam would be: (1) A documented College sponsored events; (2) A documented medical emergency; (3) Some other documented extraordinary events. If one of these apply to you and you need to reschedule the final exam, you must first submit a request to the office of the Dean of Undergraduate Studies, and then I will need to sign off on your request.

## 7 Grading

Your final class grade is based on your performance in assignments, data tasks and exams. Class attendance and participation are not required, but are strongly recommended. Lectures will cover material that are covered fully in the text book or in the lecture notes.

A total of 100 points are possible for the course. They are distributed as follows: Average score on the 6 homework assignments (each 100 points) - 15%; Average score of the data tasks

- 5%; Midterm 1 - 20%; Midterm 2 - 20%; Final - 40%.

If you disagree with the grading of an exam, you may resubmit it for my review. I will expect you to have a written argument for why you should be awarded more points. Also, please submit these disputes within one week of the exam return date.

**Grading Scale:**

A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
	94.9%	89.9%	86.9%	82.9%	79.9%	76.9%	72.9%	69.9%	66.9%	62.9%	
$\geq$ 95%	to 90%	to 87%	to 83%	to 80%	to 77%	to 73%	to 70%	to 67%	to 63%	to 60%	< 59.9%

Please carefully note two things: (1). The cutoff between A and A- is a little unusual. You need to get above 95% to get an A in this class. (2). I do not curve grades, and 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 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.