

# Industrial Organization

*ECO-14301: Organización Industrial*

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This course will study how firms compete in imperfectly competitive markets. We will start with a brief review of the basic concepts from consumer and producer theory. The remainder of the course will focus on firms' price and non-price strategies in the case of oligopoly. Examples of the topics covered include price discrimination, product differentiation, collusion, horizontal mergers, entry deterrence, vertical restraints, and network effects.

By the end of this course, you should be able to do the following:

1. understand the standard economic models for the analysis of imperfectly competitive markets;
2. apply these models to explain the real-world behavior of firms in the Mexican economy and elsewhere; and
3. find relevant questions and data for writing an undergraduate thesis or *tesina* in industrial organization.

## **Prerequisites**

I expect you will have taken the standard microeconomics sequence, including consumer theory, producer theory, and game theory. We will revise some of this material in the first weeks of the course.

## Lectures

The lectures will be on Tuesday and Thursday mornings, 10:00 to 11:30 a.m., in PF 103.

Lectures will be held in person. I will post the lecture slides on Canvas before the lecture. If you have to miss a lecture for health or other reasons, you should talk to your classmates to catch up on any material you missed, as not all lecture material will be posted on Canvas. **In particular, there will be regular in-class exercises whose questions and answers will not be posted on Canvas.**

I want to make the lectures as interactive as possible. Therefore, you should treat the lectures as an opportunity for active participation and discussion. Please feel free to stop me and ask questions. I kindly request that you avoid using your phone or laptop for non-course-related activities during the lecture.

I may have to cancel one or two in-person lectures due to academic travel commitments. I plan to make up for any missed lectures with extra practice problems based on past exams, posted video solutions to these problems, and/or supplementary office hours.

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## Textbook

The textbook for the course is Luís Cabral, *Introduction to Industrial Organization*, Second Edition. We will cover much of the material in this textbook during the course. An [electronic version](#) of the text is available to rent. In addition, the ITAM library has two paper versions available for you to use.

Many of the end-of-chapter problems in the textbook will be useful practice for the midterm and final exams.

In addition to the textbook, there will be several academic articles related to the course topics that are also required reading. These articles will be posted on Canvas. You should expect to see questions about these articles on the midterm and final exams.

## Homework Assignments

There will be about 12 weekly homework assignments to help you learn the course material. The midterm and final exams will be similar to the exercises on the homework assignments.

The questions for the homework assignments will be posted on Canvas. You will submit your handwritten answers at the start of the lecture (normally on Thursdays). There will be opportunities to ask questions about the homework assignments in the lectures and during office hours.

I encourage you to work together in small groups to discuss how to solve the homework problems. However, you must write up your own answers. Copying solutions from other students or using materials from past semesters is strictly prohibited. Please be aware that any instance of academic dishonesty will be referred to *Dirección Escolar* and may result in a grade of NA for the entire course.

Scanned, emailed, or late homework assignments will not be accepted. If you have to miss a lecture, you should ask a classmate to submit your homework assignment for you.

I will drop your lowest *two* homework grades when calculating your overall grade. Therefore, you can miss two homework assignments without penalty.

## Examinations

There will be two midterm exams. Midterm Exam 1 will be held on **February 13** and Midterm Exam 2 will be held on **March 20**. The final exam will be given as announced in the official exam schedule. The final exam will be cumulative and based on all material from throughout the course.

I will replace your lowest midterm grade with your final exam grade if this helps to increase your overall grade. Therefore, there will be no makeups available for the midterm exams.

A makeup for the final exam will be allowed only for a documented medical or family emergency. You must submit your documentation to *Dirección Escolar* so that they can provide me with an official excuse letter. I reserve the right to choose how to make

up for a missed final exam. This may include an oral exam and/or using your results from the midterm exams.

## Contact Information

There are two ways to contact me for help with any aspect of the course.

1. I am available for office hours on Tuesdays, 12:00 p.m. to 1:00 p.m., in the economics department in Río Hondo (in the small office in front of the secretary's office). You do not need to make an appointment.
2. Please feel free to email me, either using a Canvas message or directly to: shaun.mcrae@itam.mx.

## Course Grade

The calculation of your overall grade will use the following percentage shares:

Homework assignments	20%
Midterm exams	40%
Final exam	40%

As noted above, I will replace your lowest midterm grade with your final exam grade, if this helps to increase your overall grade. In that case, your final exam would count for 60% of your overall grade.

I will translate your final percentage grade into the official numerical grade based on the following conversion table:

95–100% .....	10
85–94% .....	9
75–84% .....	8
65–74% .....	7
55–64% .....	6
Below 55% .....	NA

If you are close to the cutoff between two grades, I may assign you the higher grade, as long as you have regularly attended and participated in the lectures.

**There will be no tolerance for plagiarism or any other form of cheating. Your homework assignments and exam answers must be your original work, written in your own words, with proper citations to any source material. Failure to do this will result in a grade of NA for the entire course. ITAM policy requires me to report all incidents of plagiarism to Dirección Escolar.**

## Course topics and calendar

I will post the lecture readings and other class information on Canvas.

1. Recap of consumer and producer theory
2. Price discrimination
3. Oligopoly: Bertrand and Cournot models
4. Collusion
5. Horizontal and vertical product differentiation
6. Market structure
7. Horizontal mergers
8. Vertical integration and vertical restraints
9. Entry deterrence
10. Network models