INDUSTRIAL ORGANIZATION
(ECON-UA 316)

Instructor:
Dmitry Sorokin
ds4169@nyu.edu
619 at 19 W. 4th St.
Office Hours: TBD

Class Info:
Monday-Thursday
10:45AM-12:20PM
LC11 at 40 W. 4th St
Final Exam: July 3

1. SYLLABUS

Please read the syllabus carefully, as all students are subject to all rules outlined below. Syllabus is subject to change. I reserve the right to strengthen old policies or introduce new policies, but I will refrain from changes to the grading scheme.

2. COURSE DESCRIPTION

The aim of the course is to introduce students to the field of Industrial Organization and shape the way students think about market phenomena. Mathematical models will be used to develop intuition about how firms make decisions, and their predictions will be contrasted with real world examples. Core topics covered in class will be monopoly pricing, models of oligopolistic competition, and antitrust policy. Depending on the progress we make and the interest among students advanced topics could be covered, such as corporate governance, innovation, network effects, price search.

3. CLASS REQUIREMENTS

This is a 300-level class, so I assume understanding of calculus and optimization, working knowledge of probability theory concepts — expected value, distribution, density function — familiarity with concepts from Microeconomics — preferences, demand, consumer surplus, marginal costs and benefits — and at least some previous exposure to game theory. Review will be provided, but all necessary concepts can't be introduced fully given the class scope.

TEXTBOOK: I will be using "*Introduction to Industrial Organization*" (2nd edition) by Luís Cabral as a roadmap for the class. This textbook will be helpful as a source of examples and for the purposes of reviewing the concepts developed in class, but probably not sufficient, nor necessary, for good performance in the class.

READINGS: Extra readings could be provided and assigned at my discretion. Students are responsible for reading all assigned extra material.

NYU CLASSES: Access to NYU classes is mandatory. Most up-to-date versions of the syllabus, problem sets and other materials will be stored there. I will be using NYU Classes to send messages, post grades and perform other relevant tasks.

4. EXAMS AND GRADING

Your grade for the class will solely depend on your performance on the problem sets, midterm exam, and the final exam. No extra assignments will be given.

SMALL PROBLEMS SETS: After every class one practice problem will be assigned to facilitate the digestion of new material. Correct solution with a correct answer will receive a grade of 100, a generally reasonable solution with some flaws will receive a grade of 50, and an unsatisfactory solution will receive a grade of 0. Two lowest grades will be dropped. These problem sets constitute 9% of the final grade.

BIG PROBLEM SETS: Two extended problem sets, with problems that are either more complicated or have more questions, will be assigned. A third problem set would involve application of the material covered in class to a real world problem. These three assignments will together contribute 21% to the final grade.

MIDTERM AND FINAL: The goal of the midterm and the final exams will be to assess students' *understanding* of the course material. Problem sets will be a good practice for the exams, but you should expect the exam problems to be ***completely different*** from the problem set ones. Questions asking to analyze real world problems through the lens of IO theory could be included as well. Midterm and final, respectively, constitute 30% and 40% of the final grade.

EXAM SCALING: Both Midterm and Final exams will most likely have more questions than a human being is able to answer under the imposed time constraint. This is done to ensure that there is enough variety in the problems and that students get an opportunity to display their knowledge. For this reason grades will be scaled proportionally to make them commensurate with the problem set grades.

MAKE-UPS: Won't exist. Should you miss the midterm exam, I will transfer its weight to the final exam, provided that you can document the reason for your absence. In the case of a medical emergency a valid documentation could be a hospitalization note, or a note from a doctor saying that you were advised to not take the exam on the date it was scheduled. If you miss the final exam, you will receive a grade of zero.

5. POLICIES

INCOMPLETES: The economics department does not grant incompletes, except in cases of genuine emergencies, which must be documented and approved by the department's director of undergraduate studies. The appeal and documentation must be approved before the exam.

DEADLINES: Late submissions will receive a grade of *zero*. Small problem sets are due at the beginning (10:45AM) of the next scheduled class. Deadlines for big problem sets will be announced and enforced to the same extent.

ATTENDANCE: Attendance is not mandatory. You don't need to notify me about, nor apologize for missing a class. However, you are responsible for all the material covered in class.

DEVICES IN CLASS: Students who would like to use their laptops or tablets in class for taking notes should be sitting behind all students without laptops/tablets. If you need to check something on your smartphone, it's fine, but I reserve the right to strengthen the device policy further in case smartphones become a problem.

ONLINE SUBMISSIONS: If you can't pass your solution to me, you can submit a PDF file with your solution online (and on time) through NYU classes. I will accept solutions that are either typed in a typesetting system of your choice (MS Word, Latex, etc.), or hand-written on a tablet. ***I will not accept photos or scans of the solution, or non-pdf files***. It's your obligation to keep the solution readable. You must ensure a reasonable display of indexes, superscripts, fractions, etc. You would also have to find ways to include graphs into your solution—a good option is a free software 'GeoGebra'. You can also draw graphs on your tablet and include it in your file.

6. OUTLINE OF THE COURSE

WEEK 1: Demand, Consumer Surplus, Elasticity, Costs

WEEK 2: Perfect competition, Efficiency, Monopoly

WEEK 3: Price Discrimination, Oligopolistic Competition

WEEK 4: Collusion, Mergers, Entry

WEEK 5: Antitrust policy

WEEK 6: Review, Exam