Theoretical Industrial Organization

2nd module, 2024/25 academic year

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Course information

Course Website: my.nes.ru

Instructor's Office Hours: TBD

Class Time: TBD

Room Number: TBD

TAs: TBD

Course description

Theoretical Industrial Organization course aims at providing theoretical background to study strategic interactions at the rich set of market structures. Firms and their strategies will be in the focus of our attention. Whereas firms are still profit-maximizing, as in the standard Microeconomics models, the set of firms' strategies is now much broader. We will discuss not only price and quantity competition, but also competition using advertising, branding, providing warranties. We will learn how incumbents can affect the market outcome, both in ambivalent and strategic cases. We will find how different are incentives to innovate for various market structures. Finally, we will consider the peculiarities of the network goods.

Course requirements, grading, and attendance policies

Successful completion of Microeconomics sequence and Game Theory is a prerequisite for this course.

Grading policy is as follows.

Final grade = 0,5 Exam + 0,3 Midterm + 0,2 HA

At the A4-format midterm and exam, students will be asked to solve and analyze modifications of the models discussed during regular classes.

There will be 6 written home assignments. HA mark is the average mark for the best 5 of them.

Course contents

Week 1. Market power. Static imperfect competition (price/quantity competition). Dynamic imperfect competition (Stackelberg model; endogenous number of followers. Free entry). Literature: Belleflamme and Peitz, Chapter II.

Week 2. Sources of market power. Product differentiation. Advertising. Consumer inertia. Literature: Belleflamme and Peitz, Chapter III.

Week 3. Pricing strategies. Group pricing. Menu pricing. Bundling. Literature: Belleflamme and Peitz, Chapter IV.

Week 4. Product quality and information. Advertising and price signals. Warranties. Branding. Literature: Belleflamme and Peitz, Chapter V.

Week 5. Competition policy. Cartels and tacit collusion. Horizontal mergers. Strategic incumbents. Vertical mergers. Literature: Belleflamme and Peitz, Chapter VI.

Week 6. R&D and intellectual property. Market structure and incentives to innovate. Protecting innovations. Literature: Belleflamme and Peitz, Chapter VII.

Week 7. Network goods. Network effects. Competition strategies. Literature: Belleflamme and Peitz, Chapter VIII.

Sample tasks for course evaluation

Problem 1. Modern football stadiums have the so-called boxes consisting of several seats. It is possible to buy the tickets for all seats of a box only. The consumer can attend the match with her family or friends. At first glance, one would probably hesitate whether profit-maximizing football clubs should sell whole boxes. Nevertheless, explain why football clubs play this strategy and discuss important limitations.

Problem 2. Consider a learning monopoly in a two-periods setting. Demand in both periods is the same: $Q(p)=1-p$. The marginal cost of production in the first period is $c_1 = c$. In the second period, the marginal cost of production is $c_2 = c - aq_1$, where q_1 is the market consumption in the first period, and $a > 0$ is a constant. Find the optimal strategy of a monopoly. Compare the profit and equilibrium parameters with the case of a constant marginal cost of production.

Course materials

Required textbooks and materials

1. Belleflamme, P., & Peitz, M. (2015). Industrial organization: markets and strategies. Cambridge University Press.

Additional materials

1. Tirole, J. (1995). The theory of industrial organization. MIT press.

Academic integrity policy

Cheating, plagiarism, and any other violations of academic ethics at NES are not tolerated and will be punished. This includes self-plagiarism: students cannot submit projects that are identical to or with minor modifications of those submitted for other courses. Major modifications might be allowed but must receive an explicit approval from the professor before submitting. Failure to declare overlap or submitting projects with high similarities to existing works will result in severe punishment. Students must adhere to these regulations as part of the NES Honor code. Course projects are subject to random plagiarism checks.