

# UNIVERSITÀ DEGLI STUDI DI MILANO-BICOCCA

# **COURSE SYLLABUS**

# **Industrial Economics and Industrial Dynamics M**

2425-2-F8204B037-F8204B039M

## Learning objectives

The module aims at providing theoretical and conceptual tools to the student to understand the complex relationship between firm's behavior and the industrial dynamics. Specifically, during the lectures, the student's attention will focus on the microeconomic analysis of market power and anti-competitive practices, on their strategic and institutional determinants, as well as on their consequences in terms of industrial concentration and social welfare. During the laboratory sessions, students will have the opportunity to deepen their understanding of the theoretical concepts covered in class through the analysis of real-world cases and their application to the industrial context, both nationally and internationally, with extensive use of the R software for data management and analysis.

#### **Contents**

Introduction to industrial organization and industrial dynamics; anti-competitive strategies; contractual relationships among firms; "non price"-based competition.

### **Detailed program**

#### **Topic**

Introduction and fundamental concepts:

Introduction to industrial organization;

Competitive equilibrium, monopolistic equilibrium, and social welfare;

Market structure and market power;

Laboratory: Introduction to R and Data Manipulation Techniques. Practical approach to using the R software,

focusing on fundamental operations for dataset management and manipulation.

Laboratory: case study "Analysis of Concentration Indices in the Italian Manufacturing Sector (2015–2023)." Exploration of industrial concentration indices and their relationship with economic performance through panel data analysis models.

The determinants of market power in monopoly:

"Group pricing" discrimination and two-part tariff;

Variety and product quality in monopoly;

Laboratory: case study "Price Discrimination in the Airline Industry: An Econometric Analysis." Assessment of price discrimination practices in the airline industry, using empirical data and quantitative analysis tools.

Anti-competitive strategies:

Collusion and repeated games;

Collusion: how to identify and contrast collusion;

Contractual relationships among firms:

Mergers and acquisitions;

Vertical restrictions linked to prices;

Laboratory: case study "Mergers and Acquisitions in the European Industrial Sector (2016-2023): Impacts on Corporate Performance in the COVID Era." Study of the impacts of M&A operations on business performance, with particular focus on dynamics influenced by the pandemic.

Non price competition:

Advertisement, market power, and information;

Laboratory: case study "Park Hyatt Maldives";

Research and developments, patents;

Laboratory: case study "Market Structure, Investments, and Technical Efficiency in Mobile Telecommunications." Analysis of the relationship between market structure, investment dynamics, and technical efficiency in the mobile telecommunications sector.

#### **Prerequisites**

The module does not have any specific prerequisite. It is suggested to attend the module after having completed the course "Microeconomia M" and the (first) module "Advanced Microeconomics" of the course "Modelli Economici M".

#### **Teaching methods**

The course includes frontal lessons and laboratory activities:

- 28 hours of frontal lessons;
- 26 hours of frontal and interactive laboratory activities.

Frontal lessons will provide theoretical tools to understand the basis of industrial organization and dynamics. During the laboratory activities, concrete cases concerning the theoretical topics analyzed in class will be discussed. Students will also perform statistical and econometric techniques on datasets concerning industrial organization and dynamics.

#### **Assessment methods**

Written exam and oral presentation. The written exam includes four statements concerning the (theoretical) topics analyzed during the lectures. For each statement, the student must assess whether it is true or false and discuss her/his answer in detail. The evaluation of the laboratory component will be based on the presentation of a group project developed on topics discussed during the laboratory sessions. The final grade is given by the average (with equal weights) of the points obtained in the two parts of the exam. The written exam lasts 60 minutes.

# **Textbooks and Reading Materials**

L. Pepall, D. Richards, G. Norman, G. Calzolari, Organizzazione Industriale, 4/ed, McGraw-Hill, 2023. Further teaching material, including what used during the laboratory activities, will be made available on the virtual space of the course: https://elearning.unimib.it/enrol/index.php?id=51206

#### Semester

Second period of the first semester.

# **Teaching language**

Italian

# **Sustainable Development Goals**

QUALITY EDUCATION | INDUSTRY, INNOVATION AND INFRASTRUCTURE