

# EC5230 – Industrial Organisation

## Lecture 0 – Introduction

Gerhard Riener

# Course Overview

## EC5230 Industrial Organisation

- ▶ **Credits:** 15 (Semester 2, Optional)
- ▶ **Instructor:** Prof Gerhard Riener
- ▶ **Email:** [gr97@st-andrews.ac.uk](mailto:gr97@st-andrews.ac.uk)
- ▶ **Office:** G14 Castlecliffe
- ▶ **Office Hours:** Wednesday 12–1pm, 2–3pm

# What is Industrial Organisation?

Industrial Organisation studies:

- ▶ Structure of firms and markets
- ▶ Strategic interactions between firms
- ▶ Effects of market power on economic outcomes
- ▶ How firms behave in imperfectly competitive markets

# Prerequisites & Expectations

## Prerequisites

- ▶ You should remind yourself of basic algebra, calculus (optimisation).
- ▶ A good understanding of intermediate microeconomics concepts (market structures, competition, welfare analysis, game theory) is essential.
- ▶ Econometric or statistical knowledge is not required.

## Expectations

- ▶ Attend the lectures and tutorials – ask and answer questions.
- ▶ Go through the required readings carefully.
- ▶ Derive (again) the results from lectures, tutorials, readings – and reflect on them.
- ▶ Attempt problem set questions before attending the tutorials.

# Learning Outcomes

By the end of this module, you will be able to:

- ▶ Understand how Industrial Organisation deepens the analysis of firm behaviour in imperfectly competitive markets
- ▶ Select and apply appropriate models to analyse various issues in industrial economics
- ▶ Develop skills in analysing economic behaviour through game theory
- ▶ Identify and critically evaluate relevant research papers and real-world examples

# Course Structure

- ▶ **Lectures:**  $10 \times 2$  hours (Weeks 1–5, 7–9, 11–12; no lecture during Spring Break)
- ▶ **Tutorials:**  $5 \times 1$  hour (Weeks 3, 5, 7, 9, 12)
- ▶ **Independent Learning Week:** Week 10

! Important

**Attendance during tutorials will be taken electronically**

## Assessment and Examination

| Component                    | Weight | When               | Details  |
|------------------------------|--------|--------------------|--|
| <b>Class Test</b>            | 20%    | Week 6             | 50 minutes, in-person. Problem-solving and discussion-based questions on Weeks 1–5 |
| <b>Policy Recommendation</b> | 5%     | 15 Apr 2026, 17:00 | Report (max 1,000 words) on a real-world IO issue. Submit via MMS                  |
| <b>Final Examination</b>     | 75%    | May                | Three hours, in-person. All module content (Weeks 1–5, 7–9, 11–12). Guidelines     |

# Prerequisites

- ▶ Good understanding of intermediate microeconomics
  - ▶ Market structures, competition, welfare analysis
  - ▶ Game theory
- ▶ Basic algebra and calculus (optimisation)
- ▶ **No econometric or statistical knowledge required**



# Textbooks and Readings

No single prescribed textbook. The course draws on:

- ▶ **Belleflamme, P. & Peitz, M. (2015).** *Industrial Organisation: Markets and Strategies* (2nd ed.)
- ▶ **Shy, O. (1996).** *Industrial Organisation: Theory and Applications*
- ▶ **Scotchmer, S. (2004).** *Innovation and Incentives*
- ▶ **Church, J. & Ware, R. (2000).** *Industrial Organization: A Strategic Approach*

Journal articles available through online reading list.

# Course Website

## **All materials available online:**

- ▶ Lecture slides
- ▶ Exercise sets (with/without solutions)
- ▶ Interactive apps for key economic models
- ▶ Reading lists

Use the navigation bar to access different sections.

# Interactive Apps

Explore key economic models through visualisations:

- ▶ Cournot duopoly best responses
- ▶ Monopolist profit maximisation
- ▶ Profit possibility frontiers
- ▶ Salop circular city model

## Administrative Procedures

For the following, we follow **standard Department of Economics / Business School / University of St Andrews procedures**:

- ▶ **Late submission policy** — Policy briefs submitted after the deadline incur penalties per university regulations
- ▶ **Absence & extenuating circumstances** — Contact the School immediately; documented evidence required (illness, personal crisis, etc.)
- ▶ **Feedback on assessment** — Results released within standard university timescales; feedback available during office hours or by email
- ▶ **Communication & support** — Email [gr97@st-andrews.ac.uk](mailto:gr97@st-andrews.ac.uk) for queries; response within 2 working days. Office hours: Wednesday 12–1pm, 2–3pm
- ▶ **Exam accommodation** — Register with Student Services well in advance for access arrangements, extensions, or reasonable adjustments

Full details available on the **Business School and University**

# Weekly Schedule

**Week 1** Competition and oligopoly coordination

**Week 2** Product differentiation

**Week 3** Economics of innovation

**Week 4** Economics of patents and IPRs

**Week 5** Multi-stage games

**Spring Vacation**

**Week 6** CLASS TEST (20% Final Grade)

**Week 7** Cooperative R&D

**Week 8** Bundling

**Week 9** Advertising

**Week 10** Independent Learning Week

**Week 11** Mergers

**Week 12** Sustainable industrialisation