

**Industrial and Firm Analysis**  
**Module I: Industrial Organization**  
Cod. 8451  
a.a. 2009-2010

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The course reviews the main topics and models of the modern theory of Industrial Organization, focusing on monopoly and oligopoly markets. Antitrust and regulatory issues are discussed. Part I and Part II are for students attending the course as a 6 credit optional course. Part I, II and III are for EMIT students attending the 8 credit course. A good knowledge of Microeconomics and Game Theory are needed.

**Syllabus**  
**Part I: Monopoly**

**L1 : Tuesday 15.9.2009 – 16.15 Polo**

**Introduction. Monopoly pricing.**

Tirole (1988), Sec. 1.1.1

**L2 : Thursday 17.9.2009 – 16.15 Polo**

**Multiproduct monopoly, durable goods, Coase conjecture.**

Tirole (1988), Sec. 1.1.2, 1.1.3

**L3 : Friday 18.9.2009 – 10.30 Polo**

**Price discrimination.**

Motta (2004) pp. 491-501

**L4: Tuesday 22.9.2009 – 16.15 Polo**

**Vertical relations, Intra-brand competition**

Motta (2004), pp. 302-332

Tirole (1988), Sec. 4.1, 4.2, 4.3

**Part II: Oligopoly**

**L5: Thursday 24.9.2009 – 16.15 Polo**

**Price competition: the Bertrand model**

Tirole (1988), Sec. 5.1, 5.2

Motta (2004), Sec. 8.4.1.1

**L6: Friday 25.9.2009 - 16.15 Fiocco**

**Class 1: Monopoly**

**L7: Tuesday 29.9.2009 – 16.15 Polo**

**Horizontal product differentiation: the Hotelling model**

Tirole (1988), Sec. 7.1

**L8 : Thursday 1.10.2009 – 16.15 Polo**

**Capacity constraints: the Cournot model**

Tirole (1988), Sec. 5.3, 5.4

**L9 : Friday 2.10.2009 – 10.30 Polo**

## **Collusion**

Tirole (1988), Sec. 6.1, 6.3

**L10** : Tuesday 6.10.2009 – 16.15 **Polo**

## **Collusion**

Motta (2004), Sec. 4.2

Pepall, Richards and Norman (2008), Chapter 15

**L11** : Thursday 8.10.2009 – 16.15 **Fumagalli**

## **Horizontal mergers**

Motta (2004), Sec. 5.2, 5.3

Pepall, Richards and Norman (2008), Sec. 16.5

**L12** : Friday 9.10.2009 – 10.30 **Fiocco**

**Class 2: Bertrand, Hotelling, Cournot**

**L13** : Tuesday 13.10.2009 – 16.15 **Fumagalli**

## **Conglomerate mergers**

Motta (2004), Sec. 5.2, 5.3

Pepall, Richards and Norman (2008), Sec. 17.4

**L14** : Thursday 15.10.2009 – 16.15 **Fumagalli**

## **Quality differentiation, cost asymmetries and market leadership**

Tirole (1988), Sec. 7.5.1

Motta (2004), pp. 553-555 and 558-559.

**L15** : Friday 16.10.2009 – 10.30 **Fiocco**

**Class 3: collusion, mergers**

**L16** : Monday, 19.10.2009 – 08.45 **Fiocco**

**Class 4: vertical product differentiation, cost asymmetries**

**L17**: Tuesday 20.10.2009 – 16.15 **Fumagalli**

## **Free entry equilibria: exogenous vs endogenous sunk costs**

J.Sutton (1991), *Sunk costs and market structure*, MIT Press, pp. 27-64

**Interim Test (L1-L15)**: Thursday 29.10.2009 – 10.30

**L18** : Tuesday 3.11.2009 - 16.15 **Fumagalli**

## **Contestable markets**

Tirole (1988), Sec. 8.1.1 and 8.1.2

**L19** : Thursday 5.11.2009 – 16.15 **Fumagalli**

## **Foreclosure: strategic barriers to entry**

Tirole (1988), Sec. 8.2.1

Pepall, Richards and Norman (2008), Sec. 12.4

**L20** : Friday 6.11.2009 – 10.30 **Fumagalli**

## **Foreclosure: Tying and bundling**

Motta (2004), Sec. 7.3.2

Rey Tirole (2007), Sec.3.

Pepall, Richards and Norman (2008), Chapter 13

**L21:** Tuesday 10.11.2009 – 16.15 **Fumagalli**

**Foreclosure: Predatory pricing**

Motta (2004), Sec. 7.2

Pepall, Richards and Norman (2008), Chapter 13

**L22:** Thursday 12.11.2009 - 16.15 **Fumagalli**

**Foreclosure: Exclusive dealing and vertical foreclosure**

Motta (2004), Sec. 6.4.1

Rey Tirole (2007), Sec.4.

Pepall, Richards and Norman (2008), Chapter 13

**L23:** Friday 13.11.2009 – 10.30 **Fiocco**

**Class 5: Free entry equilibria, contestable markets**

**L24:** Monday, 16.11.2009 - 8.45 **Fiocco**

**Class 6: Foreclosure**

### **Part III – Liberalizations (EMIT students only)**

**L25 :** Thursday 19.11.2009 – 16.15 **Polo**

**Vertical foreclosure: essential inputs and competition downstream**

Rey Tirole (2007), Sec. 2

**L26 :** Friday 20.11.2009 – 10.30 **Polo**

**Vertical foreclosure: the problem of commitment and the Coase conjecture revisited**

Rey Tirole (2007), Sec. 2

**L27:** Tuesday 24.11.2009 – 16.15 **Polo**

**Essential facilities doctrine: the antitrust approach to bottlenecks**

Motta (2004), Sec. 2.5.2

**L28:** Thursday 26.11.2009 - 16.15 **Polo**

**Regulation of a monopoly: Ramsey pricing, rate of return and price cap**

Armstrong (2007), Sec. 2.1, 2.2,

Viscusi, Harrington, Vernon (2005), Ch. 11 and 12

**L29:** Friday 27.11.2009 – 10.30 **Polo**

**Regulation of a monopoly: asymmetric information and incentive issues**

Armstrong (2005), Sec. 2.3.1.

**L30:** Tuesday 1.12.2009 – 16.15 **Polo**

**Telecommunications**

**L31:** Thursday 3.12.2009 – 16.15 **Polo**

**Electricity**

**L32:** Friday 4.12.2009 – 10.30 **Fiocco**

**Class 7: general review**

### **References:**

Tirole J. (1988), *The Theory of Industrial Organization*, MIT Press.

Motta M., (2004), *Competition Policy: Theory and Practice*. Cambridge University Press.

Rey P., Tirole J. (2006), *A Primer on Foreclosure*, in Armstrong M. and R.Porter (eds. Handbook of Industrial Organization, vol.3, North Holland, 2007  
Pepall L., D. Richards and G. Norman (2008), *Industrial Organization, Contemporary Theory and Empirical Applications*, Fourth Edition, Blackwell Publishing  
Armstrong M. (2005), *Recent Developments in the Theory of Regulation*, in Armstrong M. and R.Porter (eds.) Handbook of Industrial Organization, vol.3, North Holland, 2007  
Viscusi K., Harrington J. and Vernon J., *Economics of Regulation and Antitrust*, MIT Press 2005

The interim and final written exams are closed book and require to solve exercises.

Milan, 2.9.2009