

COURSE

Academic Year: **2013/2014**

Trimester | Semester: 2nd semester

Instructor(s): João Confraria, Hélder Vasconcelos, Fátima Barros

Course Description: The course provides an analytical framework of analysis of telecommunications markets, the EU regulatory framework and strategies of telecommunications companies. Changes in telecommunications businesses, competition, universal service, price regulation, structural separation, NGN networks, cybersecurity and spectrum allocation are the main topics discussed.

Course Content:

1. Liberalization and competition in telecommunications markets.
 2. Drivers of changes in telecommunications.
 3. The European Union regulatory framework. Current challenges and future developments.
 4. Market structure and pricing. Price regulation of retail and wholesale services.
 5. Universal service and the digital divide.
 6. Next generation networks: investment under uncertainty and the investment theory of real options.
 7. Vertical integration and structural separation.
 8. Management and allocation of radio electrical spectrum. 3rd and 4th generation mobile networks.
 9. Cybersecurity.
 10. The Internet and network economics.
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Course Objectives:

Following this course, students should be able to develop the following capabilities:

1. Economic analysis of the origins and consequences of EU telecommunications regulation and EU competition law applied to telecommunications, including access and interconnection and universal service. Students should develop the capabilities to analyse problems from the point of view of incumbents, entrants and regulators.
 2. Economic analysis of spectrum allocation.
 3. Economic analysis of cybersecurity.
 4. Develop the capability to work with pricing models of telecommunications services and to develop views of business models in the changing telecommunications business.
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Grading: The final grade will be a weighted average of homework and class participation (25%) a mid term (30%) and an exam (45%). Students with an average of 8/20 and 9/20 will have to submit to a final exam.

Bibliography:

- Alleman, J., Noam, E., 1999, *The New Investment Theory of Real Options and Its Implications for Telecommunications Economics*, Boston, Kluwer
 - Cave, M., Majumdar, S., Vogelsang, I., (ed.) 2002, *Handbook of Telecommunications Economics* vol. I, Amsterdam, Elsevier.
 - Cave, M., Majumdar, S., Vogelsang, I., (ed.) 2005, *Handbook of Telecommunications Economics* vol. II, Amsterdam, Elsevier.
 - Grady, M., Parisi, F., 2006, *The Law and Economics of Cybersecurity*. Cambridge, Cambridge University Press.
 - Kelly, Rossoto, C., 2012, *The Broadband Strategy Handbook*, Washington, World Bank
 - Laffont, J.-J., Tirole, J., 2000, *Competition in Telecommunications*, Cambridge Mass., The MIT Press
 - Nihoul, P., Rodford, P., 2010, *EU Electronic Communications Law*, Oxford, Oxford University Press.
 - Spulber, D., Yoo, C., 2009, *Networks in Telecommunications. Economics and Law*, Cambridge, Cambridge University Press (S&Y)
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Office hours:

To be agreed with students
