# Economics of Information and Communication (with a Workshop on Economic Applications)

## Prof. Guido Merzoni

***COURSE AIMS AND INTENDED LEARNING OUTCOMES***

The course aims at presenting some distinguishing phenomena of modern economic systems with special reference to distribution of information, its communication and the widespread diffusion of digital goods, while making the students familiar with the relevant tools of investigation.

*Knowledge and understanding*

At the end of the course, students will know basic concepts and tools of economics of information, with particular regard to the consequences in terms of inefficiency of asymmetric information distribution, to the possible remedies and the ways of organizing the market that are typical of main auction mechanisms. They will also know the main phenomena that characterize digital goods markets on the supply side, with particular regard to commercial and advertising strategies, and, on the demand side, with an emphasis on the consequences of the presence of network externalities.

*Ability to apply knowledge and understanding*

At the end of the course, students will be able to:

* discuss the efficiency properties of the perfectly competitive general equilibrium in the graphic representation of the Edgeworth box;
* analytically characterize the balance in simple markets with ex-Ante and ex-Post information asymmetry;
* analytically draft the possible remedies to restore efficiency in these contexts;
* design simple strategies of price discrimination, *bundling* and *versioning*;
* discuss the impact on the social well-being of the main types of advertising with adequate graphic or analytical support;
* graphically characterize the market structures characterized by the presence of network externalities and theoretically discuss the implications of the related phenomena of *lock-in* and superstar effect.

***COURSE CONTENT***

*Introduction:* Global scenarios: economy, politics and society in the epochal change.

– Markets' efficiency: conditions and limits

##### Part one - Asymmetric information

– Adverse selection and signalling.

– Moral hazard and contracts, reputation and trust games.

– Auction mechanisms.

##### Part two - Marketing strategies and market power in the digital economy

– Characteristics of the supply and marketing strategies:

price discrimination, bundling and versioning;

advertising and product differentiation

– Distribution and demand

networks and network externalities

lock-in, switching costs, superstar effect.

***READING LIST***

For students regularly attending lectures:

1. Lecture notes.
2. Background readings:

H. Varian, *Microeconomia*, Cafoscarina, Venezia, 7th Italian edition, 2011 (chapters 17, 24, 25, 28, 31, 35, 36, 37).

M.A. Maggioni-G. Merzoni, *L’economia politica e la nuova economia. Fondamenti analitici e paradigmi interpretativi,* in L. Prosperetti (ed.), *La New Economy aspetti analitici ed implicazioni di policy*, Il Mulino, Bologna, 2002.

G. Merzoni *Nel cambio d’epoca crescono incertezza e diseguaglianze*, *Vita e Pensiero,* 2018-2, pp 33-41, 2018.

Further bibliographical references and more details concerning the ones above may be provided during the lectures and published on Blackboard.

For students who cannot regularly attend lectures:

1. H. Varian, *Microeconomia*, Cafoscarina, Venezia, 7th Italian edition, 2011 (chapters 17, 24, 25, 28, 31, 35, 36, 37).
2. M.A. Maggioni-G. Merzoni, *L’economia politica e la nuova economia. Fondamenti analitici e paradigmi interpretativi,* in L. Prosperetti (ed.), *La New Economy aspetti analitici ed implicazioni di policy*, Il Mulino, Bologna, 2002.
3. G. Merzoni *Nel cambio d’epoca crescono incertezza e diseguaglianze*, *Vita e Pensiero,* 2018-2, pp 33-41, 2018.
4. L. Cabral, “Economia industriale”, Carocci, Roma, 2018 (chapter 14).
5. A. Dixit-V. Norman, “*Advertising and welfare”. Bell Journal of Economics*, 9, 1-17, 1978.
6. C. Shapiro, *“Advertising and welfare: comment”. Bell Journal of Economics*, 11, 749-752, 1980.
7. A. Dixit-V. Norman, *“Advertising and welfare: another reply”. Bell Journal of Economics*, 11, 753-754, 1980.
8. S. Rosen, *“The Economics of Superstar”. American Economic Review*, 71, 845-58, 1981.

Further bibliographical references and more details concerning the ones above may be communicated during lectures and published on Blackboard.

***TEACHING METHOD***

The course is taught through lectures and practical classes in lab and in classroom.

Lectures will present theoretical topics, while practical classes aim to familiarize students with the logic, the graphic representation and the resolution algorithms of the detailed models.

Study material will be published on the Blackboard platform.

***ASSESSMENT METHOD AND CRITERIA***

The examination consists either of two interim written exam essays, one after the end of the first semester and one after the end of the second semester, or as a single final written exam essay followed by an oral. Interim written tests include both questions on theory and on graphic analysis, as well as exercises in the application of analytical method proposed during practical classes. Tests are usually divided into 4 sets of questions, all of equal weight for the overall test evaluation.

The final mark will be the average of the two interim tests, provided that students obtained a passing mark: students can accept the proposed mark or request an oral integration, which in this case will focus on the entire course programme. If students do not obtain a passing mark in at least one of the interim tests, they may be required to take a supplementary oral test. A completely inadequate evaluation in one of the tests results in failing the test and therefore jeopardizes the possibility for studnets to pass the curse hrough interim tests.

The written test on the official exam date includes both questions on theory and graphic analysis and exercises, with prevalence of the latter; the oral exam, reserved for those who have obtained a passing mark in the written test, focuses studnets’ knowledge of theory and on graphic analysis.

In the written interim and final test, the assessment measures students’ theoretical knowledge, graphic analysis and their ability to solve simple analytical exercises. With regard to the latter, calculation errors with correct procedure are penalized with half of a point attributed to the exercise or part of the exercise. Oral tests, which focus on assessing knowledge of notions of theory and on graphic analysis, mainly assess correctness of answers and terminological and logical precision as well as presentation efficacy.

Exams and the assessment process may be subject to changes, with the assessment criteria being substantially the same, based on the rules that will be established by the Competent Authorities as a consequence of the Covid-19 pandemic. Any necessary changes will be communicated at the beginning and during the course.

***NOTES AND PREREQUISITES***

Blackboard platform will be used during the course, so students are advised to have their own access password and check the dedicated page, as well as to verify that the email inserted is correct so as not to miss communication with the lecturer.

In connection with the course a Workshop on economic applications is activated. Attendance of the workshop is particularly useful as preparation for the written exams.

As a requirement to fruitfully attend the course, students should have a basic knowledge of intermediate level Microeconomics and, in particular, of consumer’s theory and markets’ theory (monopoly, perfect competition, oligopoly).

In case the current Covid-19 health emergency does not allow frontal teaching with any limits of attendance due to the capacity of the campus and the classrooms, remote teaching and assessment will be also carried out following procedures that will be promptly notified to students.

Students are welcome to contact Prof. Guido Merzoni at the Dipartimento di Economia Internazionale, delle Istituzioni e dello Sviluppo (Via Necchi, 5, 4th floor) at the times shown on the notice board at the department and on his personal web page.

Office hours may be subject to change, so students should always read notices on the electronic bulletin board of the Lecturer’s Personal Page.

Further information can be found on the lecturer's webpage at http://docenti.unicatt.it/web/searchByName.do?language=ENG, or on the Faculty notice board.