

<b>STRUTTURA</b>	Scuola Politecnica- Dipartimento SEAS
<b>ANNO ACCADEMICO</b>	2014 - 2015
<b>CORSO DI LAUREA (o LAUREA MAGISTRALE)</b>	LM-56 Economic and Financial Analysis
<b>INSEGNAMENTO</b>	Economic Analysis
<b>TIPO DI ATTIVITÀ</b>	Caratterizzante
<b>AMBITO DISCIPLINARE</b>	Economico
<b>CODICE INSEGNAMENTO</b>	15532
<b>ARTICOLAZIONE IN MODULI</b>	NO
<b>SETTORI SCIENTIFICO DISCIPLINARI</b>	SECS-P/01
<b>DOCENTE RESPONSABILE</b>	Luigi Balletta
<b>CFU</b>	8
<b>NUMERO DI ORE RISERVATE ALLO STUDIO PERSONALE</b>	152
<b>NUMERO DI ORE RISERVATE ALLE ATTIVITÀ DIDATTICHE ASSISTITE</b>	48
<b>PROPEDEUTICITÀ</b>	Nessuna
<b>ANNO DI CORSO</b>	Primo
<b>SEDE DI SVOLGIMENTO DELLE LEZIONI</b>	Consultare il sito politecnica.unipa.it
<b>ORGANIZZAZIONE DELLA DIDATTICA</b>	Lezioni frontali
<b>MODALITÀ DI FREQUENZA</b>	Facoltativa
<b>METODI DI VALUTAZIONE</b>	Prova Scritta
<b>TIPO DI VALUTAZIONE</b>	Voto in trentesimi
<b>PERIODO DELLE LEZIONI</b>	Consultare il sito politecnica.unipa.it
<b>CALENDARIO DELLE ATTIVITÀ DIDATTICHE</b>	Consultare il sito politecnica.unipa.it
<b>ORARIO DI RICEVIMENTO DEGLI STUDENTI</b>	Martedì 14.30-16.30 Stanza 5.14, Dipartimento S.E.A.S.

## RISULTATI DI APPRENDIMENTO ATTESI

### Conoscenza e capacità di comprensione

Students are expected to learn the basic models of choice under uncertainty, contract theory with adverse selection or moral hazard, and mechanism design. In particular, topics covered during the course will include:

- Preferences over lotteries. Expected utility theorem. Risk aversion. Stochastic dominance.
- Contract theory: adverse selection. Model with two types. Model with a continuum of types. Participation constraints and incentive constraints.
- Applications: non-linear pricing, regulation, financial contracts, labor contracts, optimal taxation of income.
- Contract theory: moral hazard. Model with two levels of effort and two outcomes. Extensions to N outcomes and a continuum of effort levels.
- Applications: efficiency wages, financial contracts, insurance.
- Brief review of game theory: dominant strategies and Nash equilibrium. Applications to models of price competition.
- Introduction to mechanism design. Vickrey-Clarke-Groves mechanisms. Auctions.

For each of the models presented in class, students are expected to understand the analytical derivation of the results and the underlying economic intuition. Moreover, students are expected to work on exercises on variations of the models presented in class.

### Capacità di applicare conoscenza e comprensione

Theoretical tools such as choice under uncertainty, contract theory, game theory and mechanism design will be applied to many concrete economic problems. Examples include the optimal choice of risky vs safe assets, insurance, the optimal selling policy of a discriminating monopolist, managerial compensation, auctions, provision of a public good.

### Abilità comunicative

The course aims at developing the ability to express an economic argument in a formal and rigorous language and to explain the economic intuition underlying it.

### Capacità d'apprendimento

Students are expected to study and understand material, including exercises, from a textbook at the level advanced undergraduate/first year graduate. Acquiring these abilities is a necessary step to be able to read original research articles in the fields related to the topics of the course.

## **OBIETTIVI FORMATIVI DEL MODULO**

The main objective of the course is to cover the basic models of incentive contracts with asymmetric information. Topics will include:

- models of adverse selection with applications to non-linear pricing, regulation, financial contracts, labor contracts and optimal taxation of income;
- models of moral hazard with applications to efficiency wages, financial contracts, managerial compensation and insurance;
- an introduction to the theory of mechanism design.

The course also covers the basic elements of expected utility theory and the concepts of dominant strategy and Nash equilibrium in game theory. The course is taught in English.

<b>ORE FRONTALI</b>	<b>LEZIONI FRONTALI</b>
6	Choice under uncertainty and expected utility theory.
10	Contract theory with adverse selection: basic model.
6	Contract theory with adverse selection: applications.
10	Contract theory with moral hazard: basic model.
6	Contract theory with moral hazard: applications.
10	Game theory and mechanism design.
<b>TESTI CONSIGLIATI</b>	<p>-Mas Colell, A. Whinston, M., Green, J., Microeconomic Theory, Oxford University Press, 1995. Ch. 6 , 8, 12 (price competition), 23.</p> <p>-Laffont, J-J, Martimort, D. The Theory of Incentives, 2002. Princeton University Press. Ch. 2,3,4,5.</p>