

Corso di studi: Economics (Laurea magistrale)

Denominazione: Economics

Dipartimento : ECONOMIA E MANAGEMENT

Classe di appartenenza: LM-56 SCIENZE DELL'ECONOMIA

Obiettivi formativi: Il Corso di Laurea Magistrale in Economics intende fornire allo studente un percorso di studio che gli consenta di acquisire:

- un'elevata padronanza delle metodologie e dei contenuti propri della scienza economica al fine di comprendere, interpretare e quantificare il funzionamento dei sistemi economici, sia una prospettiva statica che dinamica; ciò sulla base di una conoscenza analitica ed approfondita dei meccanismi di funzionamento delle unità di cui un moderno sistema economico si compone e delle rispettive interrelazioni;
- una conoscenza approfondita degli strumenti matematico-statistici e delle loro modalità di impiego nell'indagine economica;
- un approfondimento della conoscenza degli strumenti di analisi e politica economico-aziendale, dei principi ed istituti dell'ordinamento giuridico nazionale, comunitario ed internazionale.

I laureati del corso di laurea magistrale in Scienze Economiche potranno esercitare funzioni di elevata responsabilità in settori economici pubblici e privati; in uffici studi presso organismi territoriali, enti di ricerca nazionali ed internazionali, pubbliche amministrazioni, imprese ed organismi sindacali e professionali; come liberi professionisti nell'area economica. Potranno inoltre avviarsi, con una formazione adeguata, all'attività di ricerca accademica (dottorato di ricerca); potranno entrare nel mondo della scuola, sia nella carriera della docenza che in quella della dirigenza; potranno infine intraprendere un'attività di tipo pubblicistico nel settore dell'informazione economica.

Il corso presenta due curriculum, denominati rispettivamente curriculum GE (General Economics) e curriculum OS (Official Statistics).

Il curriculum GE intende fornire una preparazione generalista di economia, permettendo allo studente di selezionare nel secondo anno un ampio ventaglio di esami inerenti il funzionamento delle economie sviluppate ed in via di sviluppo e delle principali istituzioni economiche.

Il curriculum SO intende formare figure che lavorino all'interno di sistemi nazionali di statistica, concentrando la preparazione del secondo anno nell'ambito statistico-economico.

Numero stimato immatricolati: 30

Requisiti di ammissione e modalità di verifica: Per l'accesso al corso di laurea magistrale in Scienze Economiche sono richieste delle conoscenze approfondite in ambito economico e matematico-statistico e delle conoscenze di base in più ampio ambito di discipline aziendali, giuridiche, storiche, delle scienze sociali o matematiche. Dato che i corsi d'insegnamento saranno tenuti interamente in inglese, sarà inoltre necessaria una conoscenza della lingua inglese non inferiore al livello B2.

La verifica dei requisiti curriculari e della preparazione personale degli studenti sarà compiuta da un'apposita commissione di selezione, composta da 6 membri pariteticamente nominati dal Dipartimento di Economia e Management dell'Università di Pisa e dall'Istituto di Economia della Scuola Superiore di Studi Universitari e di Perfezionamento Sant'Anna.

Per quanto riguarda più in particolare i requisiti curriculari, gli studenti del corso di laurea magistrale provenienti da università italiane dovranno avere acquisito nella loro carriera accademica precedente almeno 81 crediti formativi nei seguenti settori scientifico-disciplinari:

- 18 crediti nel settore SECS-P/01 (Economia Politica);
- 9 crediti nel settore SECS-S/01 (Statistica);
- 9 crediti nel settore SECS-S/06 (Metodi Matematici dell'Economia e delle Scienze Attuariali e Finanziarie);
- 45 crediti nei settori: SECS-P/01 (Economia Politica); SECS-P/02 (Politica Economica); SECS-P/03 (Scienza delle Finanze); SECS-P/04 (Storia del Pensiero Economico); SECS-P/05 (Econometria); SECS-P/06 (Economia Applicata); SECS-P/07 (Economia Aziendale); SECS-P/08 (Economia e Gestione delle Imprese); SECS-P/11 (Economia degli Intermediari Finanziari); SECS-P/12 (Storia Economica); JUS/01 (Diritto Privato); JUS/09 (Istituzioni di Diritto Pubblico); SPS/04 (Scienza Politica); M-STO/04 (Storia Contemporanea); MAT/03 (Geometria); MAT/05 (Analisi Matematica); MAT/06 (Probabilità e Statistica Matematica); MAT/09 (Ricerca Operativa); FIS/01 (Fisica Sperimentale); FIS/02 (Fisica Teorica, Modelli e Metodi Matematici).

Per gli studenti provenienti da università non italiane, la sussistenza dei requisiti curriculari sopra indicati verrà valutata con riferimento ai contenuti formativi dei corsi e degli esami sostenuti.

L'accertamento del possesso dei requisiti curriculari ed una primavalutazione della preparazione personale si acquisiranno mediante l'analisi del curriculum studiorum, ove necessario integrato dall'analisi dei risultati conseguiti nella carriera scolastica precedente, che saranno apprezzati in relazione alla distribuzione degli esiti scolastici delle istituzioni formative e/o dei paesi di provenienza. Per la modalità di accertamento della preparazione personale, la Commissione, sulla base degli elementi a sua disposizione, e sulla base dei criteri predefiniti dal Consiglio di corso di laurea, potrà integrare l'analisi dei titoli e del curriculum vitae con ulteriori forme di valutazione. In particolare potrà procedere:

- sulla base di un colloquio incentrato sulle discipline menzionate nei requisiti curriculari, da svolgersi anche in telefono conferenziale prevedendo, ove possibile, un contributo spese per il candidato;
- sulla base degli esiti di appositi test somministrati direttamente;
- sulla base degli esiti del test GRE.

Per la verifica della conoscenza della lingua inglese almeno pari al livello B2 o equivalente si procede sulla base dei risultati dei test internazionalmente riconosciuti o di valutazioni del livello di conoscenza rilasciate da UNIP1 o SSSUP. L'esito del test, di norma, deve essere disponibile entro il termine fissato per la domanda di ammissione. La commissione verificherà tramite un colloquio le conoscenze linguistiche degli studenti privi delle certificazioni sopra indicate.

Specifiche CFU: Per le lezioni, allo studio individuale sono destinati i 18/25 di ciascun CFU; per le esercitazioni, allo studio

individuale sono destinati i 13/25 di ciascun CFU.

Modalità determinazione voto di Laurea: Per la determinazione del voto di laurea si calcola in primo luogo la media curricolare, riferita alle votazioni degli esami sostenuti nel periodo di iscrizione alla laurea magistrale, ponderate per il numero dei crediti corrispondenti.

In sede di esame di laurea, alla media curricolare possono essere aggiunti al massimo 11 punti; per il conseguimento della lode la media curricolare deve essere non inferiore a 101 (tenuto conto anche dell'eventuale arrotondamento).

Per poter assegnare 9, 10 o 11 punti occorre una relazione scritta congiunta del relatore e del correlatore della tesi, nella quale si motiva la richiesta di assegnazione dell'elevato punteggio; tale relazione, unitamente ad una copia della tesi, deve essere messa a disposizione del Corso di laurea magistrale e della Direzione del Dipartimento di Economia e Management. La sola relazione deve essere preventivamente distribuita a tutti i membri della Commissione di laurea.

Attività di ricerca rilevante: I docenti ed i ricercatori di area economica del Corso di laurea magistrale sono impegnati in una grande varietà di temi, sia teorici che applicati. Le aree di ricerca più rilevanti sono:

- in ambito microeconomico, la teoria delle scelte e della domanda, la teoria dei giochi, la teoria dell'equilibrio economico generale, i modelli lineari di produzione, la teoria dell'impresa;
 - in ambito macroeconomico, la teoria della crescita, i fondamenti microeconomici della macroeconomia, le teorie del consumo e dell'investimento, il mercato del lavoro;
 - in ambito econometrico, l'econometria dei mercati finanziari, i modelli agent-based, la microsimulazione dinamica, i modelli econometrici dinamici, la cointegrazione;
 - la finanza pubblica, l'intervento pubblico nell'economia, l'economia dell'innovazione, i modelli economici computazionali.
- ed inoltre la statistica metodologica, sociale e demografica.

I docenti ed i ricercatori di area matematica del Corso di laurea magistrale svolgono la loro attività di ricerca nel campo della programmazione matematica, dei metodi matematici per l'economia, dell'ottimizzazione matematica, sia statica che dinamica, dei metodi computazionali per le scienze economiche.

I docenti ed i ricercatori di area statistica del Corso di laurea magistrale si occupano in particolare delle stime di massima verisimiglianza, dei modelli dinamici della popolazione, delle dinamiche non lineari del mercato del lavoro nella teoria del ciclo economico, dei processi epidemiologici, del campionamento da popolazioni finite, dei modelli statistici per lo studio della non risposta e della stima statistica per piccole aree.

Rapporto con il mondo del lavoro: Nel mese di gennaio 2010 è stata condotta una breve indagine sugli sbocchi occupazionali dei laureati del Corso Specialistico in Economics; il periodo di riferimento va dal luglio 2004 (data in cui i primi laureati hanno conseguito il titolo) alla fine del 2009. Considerato il ridotto numero di laureati nel periodo in esame, pari a 38, è stato possibile raggiungerli personalmente quasi tutti (35, pari al 92.1%). I risultati si possono quindi ritenere significativi.

Tre laureati nelle ultime due sessioni sono ancora in cerca di prima occupazione. Dei rimanenti 32, poco meno della metà (14) stanno frequentando corsi di dottorato di ricerca e di master (5 presso l'Università di Pisa, 3 presso altre università italiane, mentre 6 si trovano presso università straniere). Degli altri 18, 11 hanno trovato un impiego nel settore privato (di cui 4 in società di consulenza aziendale o finanziaria), mentre gli altri 7 hanno trovato un impiego nel settore pubblico (uno di questi è ricercatore universitario presso un'università europea e 3 sono insegnanti presso scuole medie superiori).

La maggior parte dei laureati ha trovato occupazione nel primo anno successivo alla laurea.

Informazioni aggiuntive: Il corso ha un sito web <http://mse.ec.unipi.it/> su cui reperire le informazioni più aggiornate ed altre notizie sul funzionamento del corso.

Curriculum: CURRICULUM GE

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Primo anno (60 CFU)

Insegnamento	CFU
Advanced Microeconomics	12
Advanced Econometrics	9
Advanced Statistics	9
Mathematical Methods for Economics	12
Advanced Macroeconomics	12
Gruppo: GR2-IUS	6

Secondo anno (60 CFU)

Insegnamento	CFU
Final dissertation + Further linguistic competences	15
Student's choice	9
Gruppo: GR3-Electives ECO	24
Gruppo: GR1-MAN	12

Curriculum: CURRICULUM OS

2

Primo anno (60 CFU)

Insegnamento	CFU
Advanced Microeconomics	12
Advanced Econometrics	9
Advanced Statistics	9
Advanced Macroeconomics	12
Gruppo: GR1-MAN	12
Gruppo: GR2-IUS	6

Secondo anno (60 CFU)

Insegnamento	CFU
Final dissertation OS	21
Official Statistics	12
Student's choice	9
Gruppo: GR5-EMOS semi-elective	6
Gruppo: GR4-EMOS module STA	12

Gruppi per attività a scelta nel CDS Economics

Gruppo GR1-MAN (12 CFU)

Descrizione: Attività formative di area aziendale

Attività contenute nel gruppo

Nome	CFU
Business and society	6
Corporate finance	6
Economics and Management of Innovation	6
FINANCIAL ACCOUNTING AND IAS/IFRS	6
Regional development	6

Gruppo GR2-IUS (6 CFU)

Descrizione: Attività formative di area giuridica

Attività contenute nel gruppo

Nome	CFU
European Economic law	6
Industrial and Competition Law	6
International Economic law	6
Labour Law	6

Gruppo GR3-Electives ECO (24 CFU)

Descrizione: Elective exams

Attività contenute nel gruppo

Nome	CFU
Classical and post-keynesian economics	6
CLASSICAL ECONOMICS	3
Computational Economics	6
Development economics	6
Economic Growth in History	9
Economic methodology	6
Economic Policy	6
European Indicators of Poverty and vulnerabilities for sustainable development goal and seminars	9
Financial Economics	9
Globalization and Economic Development	6
History of Economic Thought	6

Industrial Economics	6
International Monetary Economics	6
International political economy	6
Public Economics	9
Small Area Methods for the Analysis of Multidimensional Poverty Data and Seminars	9
Statistical Models for Program Evaluation	6
Survey Methods: Traditional and New Techniques in Official Statistics	6
The Economics of European Union	6
Time Series Econometrics	6
Topics in macroeconometrics	6
Topics in microeconometrics	6

Gruppo GR4-EMOS module STA (12 CFU)

Descrizione: EMOS module

Note: EMOS module

Attività contenute nel gruppo

Nome	CFU
European Statistical System and Data Production Model	6
Survey Methods: Traditional and New Techniques in Official Statistics	6

Gruppo GR5-EMOS semi-elective (6 CFU)

Descrizione: EMOS semi-elective

Note: Lista semi-elective

Attività contenute nel gruppo

Nome	CFU
Analysis of Survey Data and Small Area Estimation	6
Time Series Econometrics	6

Attività formative definite nel CDS Economics

Advanced Econometrics (9 CFU)

Obiettivi formativi: The objective of the course is to provide students with a thorough coverage of the classical econometric theory and with the computational tools to be used in the empirical analyses. The program varies with the students background, but generally includes the following topics: the classical regression model, relaxing the assumptions of the classical model, time series econometrics and simultaneous equation models.

1. Interpolation with Ordinary Least Squares Method (OLS)
2. Simple and K-variables Linear Regression Model Basic assumptions, OLS estimation. Algebraic Properties of the estimates, Statistical Properties of the estimates, the Gauss-Markov theorem, The Coefficient of determination Unbiased estimation of σ^2 . The normality assumption, distributions of quadratic forms.. Independence between quadratic forms, independence between a quadratic form and a linear form., test-t, test-F, alternative forms of the test-F, test of hypothesis (linear restrictions). Regression and forecasting.
3. Further results on the regression model: Restricted Least Squares , structural changes, Dichotomous variables (dummy variables), multicollinearity.
4. Generalized Least Squares (GLS) Non spherical disturbances and OLS estimates , Generalized Least Squares (GLS).. Equivalence between GLS and OLS on transformed variables. Heteroschedasticity. Autocorrelation.
5. Rudiments of asymptotic theory: Convergence in probability and convergence in distribution. OLS estimation of dynamic models: the instrumental variables method (IV). Delta-Method
6. Introduction to linear simultaneous equations models: Structural form and reduced form, simultaneous equations models and inconsistency of OLS estimation. The identification problem. Single equation estimation methods in simultaneous equations models: Indirect Least Squares, Two Stage Least Squares (TSLS), Instrumental Variables.
7. Nonlinear Least Squares, ML estimation in linear and nonlinear models

Reteirabilità: 1

Modalità di verifica finale: Written and/or oral exam

Advanced Macroeconomics (12 CFU)

Obiettivi formativi: This course aims at covering the most important topics in modern macroeconomics. The first half of course presents the theories of consumption, investment and economic growth. The focus will be on the microfoundations of modern research and on the advanced analytical tools needed for carrying out dynamic analysis, both in continuous and discrete time. All theories will be discussed in light of empirical evidence. The second half course is designed to introduce the student to the analysis of economic fluctuations, considering the implications of the different theories on macroeconomic policies. Particular attention is devoted to examine how sluggish adjustment of nominal prices and wages can have real effects in face of anticipated or unanticipated monetary and real changes. The microfoundations of prices and wages nominal rigidity are carefully considered. The macroeconomic role of imperfect competition in determining macroeconomic second best equilibrium is carefully examined.

Course outline: 1. Theories of economic growth 2. Overlapping generation models 3. Models of dynamic consumption and investment 4. Real-business-cycle theory 5. Keynesian theories of fluctuations 6. Labour market models

Reteirabilità: 1

Modalità di verifica finale: Written and/or oral exam

Advanced Microeconomics (12 CFU)

Obiettivi formativi: The course will provide and explain the tools and concepts to understand and represent individual behaviour both as consumption units, investors and firms, in certain, uncertain and strategic environments. - the tools and concepts to understand and represent the working of single markets, in conditions of perfect and imperfect competition and the basic tools for intervention and regulation. - the tools and concepts to understand and interpret the working of the whole economy, its properties and limitations - ability to solve problems concerning individual and market behaviour. - critical and selective capacity to apply the above tools to analyze, interpret and represent real phenomena from the microeconomic point of view. - ability to autonomously read and understand advanced textbooks and academic articles at the frontier of economic literature in the field of microeconomics.

Reteirabilità: 1

Modalità di verifica finale: Oral and/or written exam

Advanced Statistics (9 CFU)

Obiettivi formativi: The course develops the basics of probability distributions theory, their treatment and use as probability models, and an overview of likelihood based inference.

Reteirabilità: 1

Modalità di verifica finale: Oral and/or writtene exam

Analysis of Survey Data and Small Area Estimation (6 CFU)

Obiettivi formativi: The course will be structured in the following parts 1) Analysis of the collected data for estimation and testing for the phenomenon under study; definition of planned and unplanned domains. 2) Direct and indirect estimates for unplanned domains; R codes for the application of the SAE estimators (EURAREA and SAMPLE project libraries) 3) quality issues in SAE and usage of SAE in European Statistical System. At the end of the course student will be able to deal with small area estimation both at the theoretical and empirical level.

Reteirabilità: 1

Modalità di verifica finale: Oral and/or written exam

AUDITING AND MANAGEMENT CONTROL (6 CFU)

Obiettivi formativi: The course is divided in two parts. The first regards the analysis of management auditing principles, tools and techniques. The second involves the analysis of management control systems and of its main tools and processes

Reteirabilità: 1

Modalità di verifica finale: Written examination or Group Assessment

Business and society (6 CFU)

Obiettivi formativi: The course seeks to expand our horizons in thinking about business and society. Global corporations have all introduced codes-of-conducts and ethical guidelines in their strategies and their CEOs make bold statements about the importance of respecting human rights in business, but at the same time we are overwhelmed with news about corporate human right abuses, unethical behavior and misconduct. This course analyzes both theoretically and empirically the factors driving ethical behavior in the business sector and discusses the normative solutions that have so far been implemented to reduce corporate malfeasance.

The course should provide a fuller understanding of the contribution of business to society and should prepare the future manager and the economic analyst for confronting the truly difficult ethical decisions that arise in deploying economic resources, altering the physical environment, and making decisions that affect the lives of investors, employees, and other stakeholders.

Reteirabilità: 1

Modalità di verifica finale: Written e/o oral examination

Classical and post-keynesian economics (6 CFU)

Obiettivi formativi: The course provides the basic elements of Value, Capital and Accumulation within Classical Economics.

Reteirabilità: 1

Modalità di verifica finale: Written and/or oral exam

CLASSICAL ECONOMICS (3 CFU)

Obiettivi formativi: The course provides the basic elements of Value, Capital and Accumulation within Classical Economics.

Reteirabilità: 1

Modalità di verifica finale: oral or written examination

Computational Economics (6 CFU)

Obiettivi formativi: The objective of the course is to introduce students to complexity approaches to economics. Indeed, economies can be considered as complex, evolving systems where heterogeneous agents interact at the micro and meso levels leading to the emergence of macroeconomic phenomena. The course provides an overview of agent-based computational economics and a presentation of several applications in the domain of financial markets, economic growth and business cycles

Propedeuticità: Oral examination or take-home essay

Reteirabilità: 1

Modalità di verifica finale: Prova orale o scritta

Computational Methods for Economics and Finance (6 CFU)

Obiettivi formativi: The course aims to provide the basic knowledge to study and solve economic models using computer.

Reteirabilità: 1

Modalità di verifica finale: Written and/or oral examination

Consumer Culture Theory (6 CFU)

Obiettivi formativi: Most important strategic and operational marketing decisions will be analysed in a cultural perspective: segmentation, positioning, marketing mix. Next, various aspects of consumption culture will be considered. Case studies will be discussed.

Reteirabilità: 1

Modalità di verifica finale: Oral examination

Corporate finance (6 CFU)

Obiettivi formativi: The aim of the course is to examine the major decision-making areas of managerial finance and some selected topics in financial theory.

Starting from capital budgeting decisions, the course covers the main company valuation methodologies and examines the effect of corporate decisions on market value through the event study methodology.

The course reviews the theory and empirical evidence related to Mergers & Acquisitions and concludes examining the IPO decision and the effects of corporate governance characteristics of listed companies.

Propedeuticità: Basics of corporate finance: project valuation, estimation of the cost of capital, financial structure decisions

Reteirabilità: 1

Modalità di verifica finale: Written examination

Development economics (6 CFU)

Obiettivi formativi: At the end of this course, students shall have a proper notion of the key questions asked by scholars interested in poverty today, and (hopefully) they will be able to provide a few answers as well. Both questions and answers are viewed through an economic perspective, but also a few insights from psychology will be discussed. The student who successfully completes the course will be able to evaluate and assess policy interventions aimed at reducing extreme poverty. Moreover, she will understand the difference between correlation and causation and will be able to disentangle descriptive pieces of evidence from causal ones.

Reteirabilità: 1

Modalità di verifica finale: oral and/or written examination plus presentation from students

Economic Analysis (6 CFU)

Obiettivi formativi: The course is meant to expose students to advanced topics in contemporary economic theory; the topics, which may vary from year to year, intend to introduce students to themes debated at the frontier of economic research and can make use advanced and innovative tools for formal and quantitative analysis.

Reteirabilità: 1

Modalità di verifica finale: Oral examination

Economic Growth in History (9 CFU)

Obiettivi formativi: This course examines how the world economy got to be where it is today. In particular the course will focus on the divergence between rich and poor countries, provide an assessment of the factors explaining the success of rich countries and the obstacles hindering growth in poor countries. Special attention will be devoted to quantitative assessments of long term trends in living standards and in economic performance.

Course outline

1. Economic growth and living standards in the very long run (10000 BC - 2011 AD)
2. The foundations of European exceptionalism: institutions, trade and geography
3. The great divergence: when and why the West grow rich
4. The industrial revolution and the transition to "modern economic growth"
5. The productivity race: convergence and divergence in the world economy since the industrial revolution
- 6 The first and second globalization: trade, migrations, capital flows
- 7 Did economic policies matter help or harm economic growth?

Reteirabilità: 1

Modalità di verifica finale: Oral and/or written exam

Economic methodology (6 CFU)

Reteirabilità: 1

Modalità di verifica finale: oral and/or written examination

Economic Policy (6 CFU)

Obiettivi formativi: The objective of the course is to provide students with an overview of the policy implications of economic theories in diverse areas of economics. The program can vary with the students background, but it generally covers the following topics: Monetary and Fiscal policy in action; Fiscal policy and implications of deficit and debt management; Institutions, rules and scope of Monetary policy; Workings and management of capital markets and banking sector; open economy macro and policy; theories of the firm, industrial and competition policies.

Reteirabilità: 1

Modalità di verifica finale: Written and/or oral exam

Economics and Management of Innovation (6 CFU)

Obiettivi formativi: The course introduces the economics of information and the economics of technological innovators, together with their implications in terms of theory of production, theory of the firm and industrial dynamics.

Reteirabilità: 1

Modalità di verifica finale: Oral exam

Economics of Contracts (6 CFU)

Obiettivi formativi: The course studies the economic relationships and the contracts mechanics used in the presence of asymmetric information.

Reteirabilità: 1

Modalità di verifica finale: Oral and written exam

Economics of Saving and Pensions (6 CFU)

Obiettivi formativi: Students are expected to acquire: some knowledge of the main theories on savings, both and micro and macro level; some knowledge on the theories on pension systems; knowledge of the trends of pension funds at the international level; knowledge of the pension system (both public and complementary) of Italy. some knowledge on welfare systems

Reteirabilità: 1

Modalità di verifica finale: Oral and/or written exam

Environmental Economics (6 CFU)

Reteirabilità: 1

Modalità di verifica finale: Voto in trentesimi

European Economic law (6 CFU)

Obiettivi formativi: The course provides a discussion of the main topics in European economic law, among which sources of European law, European corporate law, regulation and legislative competition in Europe, European trademark law, and harmonization among European countries' legislations.

Reteirabilità: 1

Modalità di verifica finale: Oral and/or written exam

European Indicators of Poverty and vulnerabilities for sustainable development goal and seminars (9 CFU)

Obiettivi formativi: The course aims at the definition and measurement of coherent and comparable multidimensional local indicators of poverty and vulnerabilities that can be useful for local stakeholders for monitoring Sustainable Development Goals. The traditional data collections methods used in EU Surveys (e.g EU-Survey Income Living Conditions, Household Budget Surveys, Labour Force Survey) are introduced, focusing on the sampling design, sample weighting and estimation. The course also offers a general introduction to the usage of administrative data and large datasets as sources of statistical data (Big Data), with an emphasis on multi-frame surveys. The data sources from the big data repositories are listed and examined, highlighting their potentialities and limitations in the study of poverty and living conditions. Students will learn both traditional and new survey techniques focusing on the problems that might arise in the definition and measure of local indicators of poverty and living conditions.

At the end of the module, students should be familiar with the theme of local indicators and should be aware of the main problems/challenges regarding the usage of different data sources on poverty.

Reteirabilità: 1

Modalità di verifica finale: Oral presentation and written exam

European Local Data Sources (3 CFU)

Obiettivi formativi: The course will Analyse the collected data for estimation and testing for the phenomenon under study and the definition of planned and unplanned domains.

Reteirabilità: 1

Modalità di verifica finale: written and or oral examination

European Statistical System and Data Production Model (6 CFU)

Obiettivi formativi: At the end of the course the student will have knowledge on

1) the European Statistical System (ESS), the Data Production Model (DPM) and the main economic aggregates to study poverty and on the surveys on households (poverty and living conditions; EUSilc survey, Household Budget Survey, Labour Force Survey).

2) the main survey designs and their estimation strategy for planned domains of study (Regions); R codes for the application of the main direct estimators of the indicators (EURAREA and SAMPLE project libraries).

At the end of the course student will be able to deal with the ESS and to criticize the statistical quality of the published indicators of poverty and living conditions (Laeken Indicators).

Reteirabilità: 1

Modalità di verifica finale: Oral presentation and written exam

Final dissertation + Further linguistic competences (15 CFU)

Obiettivi formativi: The aim is to investigate in details a topic. This investigation should also serve how to develop a research topic. The dissertation should be written in english so that this allow the students to practice with the language.

Reteirabilità: 1

Modalità di verifica finale: Presentation in front of a committee

Final dissertation OS (21 CFU)

Obiettivi formativi: The aim is to investigate in details a topic. This investigation should also serve how to develop a research topic. The dissertation should be written in English and connected to the fields of official statistics. If possible, should be related to previous trainship in this field.

Reteirabilità: 1

Modalità di verifica finale: Presentation in front of a committee

FINANCIAL ACCOUNTING AND IAS/IFRS (6 CFU)

Obiettivi formativi: The objective of this course is twofold. 1) It is aimed at providing the basic knowledge of the IAS/IFRS financial statements and notes to the accounts; 2) It provides ability to analyze financial statements and evaluate business performance of public and private companies applying IAS/IFRS

Reteirabilità: 1

Modalità di verifica finale: Group work presentation

Financial Economics (9 CFU)

Obiettivi formativi: The aim of the course is to provide an intermediate treatment of the theory of speculative markets. After a review of decision theory under uncertainty, the notion of arbitrage and equilibrium price are introduced and developed for different market settings. The problem of portfolio optimization and meanvariance analysis is discussed in a rather general framework. The course concludes with a short introduction to behavioral and evolutionary finance (depending on the remaining time)..

Reteirabilità: 1

Modalità di verifica finale: Written examination

FIXED INTEREST SECURITIES: THEORY AND APPLICATIONS (3 CFU)

Obiettivi formativi: The course will cover the theory of: 1) market prices of fixed interest securities and the interest rate term structure; 2) immunization portfolios using duration and convexity and 3) swap markets.

Reteirabilità: 1

Modalità di verifica finale: written and/or oral examination

Game theory (6 CFU)

Obiettivi formativi: This course presents the main concepts and some economic applications of game theory. Moreover, and more importantly, it should teach the student the game-theoretic reasoning, endowing him/her with ability to develop game-theoretic models and to analyze them. In addition, it will cover cooperative game theory, mostly in the case where utility is transferable.

Reteirabilità: 1

Modalità di verifica finale: Oral and/or written exam

Globalization and Economic Development (6 CFU)

Obiettivi formativi: The course aims to enable students to understand and critically analyze the essential aspects of the

current phase of globalization both in its real and monetary aspects, that is related to trade and trade policies and to the role of exchange rates and the liberalization of foreign exchange respectively. In this context, the course focuses on the emergence and the role of international institutions in the regulation of economic relationship between countries. The second part of the course analyzes the effects of globalization on economic development, with particular reference to the institutional dynamics and the distributive and environmental conflicts.

Reteirabilità: 1

Modalità di verifica finale: Written and/or oral examination

History of Economic Thought (6 CFU)

Obiettivi formativi: The subject of the course is the theoretical evolution of monetary theories during the XX century, starting from Keynes' contributions, General Theory and his proposals for the reconstruction of international monetary system (bancor) in the Forties. From this premise the monetary upswing led by Milton Friedman will be explained. A special attention will be paid to Minsky's analysis of financial instability and to Mandelbrot's criticism of the mainstream financial theory and its postulates.

Reteirabilità: 1

Modalità di verifica finale: written and/or oral examination

Industrial and Competition Law (6 CFU)

Obiettivi formativi: The course cover legal aspect of antitrust law, of patents law and of unfair competition.

Reteirabilità: 1

Modalità di verifica finale: Oral and/or written exam

Industrial Economics (6 CFU)

Obiettivi formativi: The course introduces to recent developments in theory and empirics of firm dynamics and to its interplay with innovation patterns in shaping aggregate outcomes such as growth, productivity and international trade. The course has a strong applied focus, providing students with solid knowledge of the empirical evidence concerning key firm-level characteristics (size, growth, productivity and innovation) and industry-level dynamics, with the final aim to develop an informed view about the ability of theories to match with stylised facts.

Reteirabilità: 1

Modalità di verifica finale: Written exam and evaluation of group-works

International Economic law (6 CFU)

Obiettivi formativi: The course provide a general framework of international institutions that rule over the commercial, monetary and financial relationships between countries.

Reteirabilità: 1

Modalità di verifica finale: Oral and/or written examination

International Monetary Economics (6 CFU)

Obiettivi formativi: At the end of the course the students will know the main standard concepts of international monetary economics, and will understand both the process that led most European countries to the adoption of the euro and the main issues and problems of the current international monetary system, including the recent European public debt crisis. In doing so it they will learn the main theoretical approaches and models that help understanding the institutions and the facts analyzed and described in the first part of the course.

Reteirabilità: 1

Modalità di verifica finale: Oral and/or written examination

International political economy (6 CFU)

Obiettivi formativi: This course introduces students to the study of International Political Economy (IPE). The course combines a focus on the main theoretical and methodological approaches used in the study of IPE with the analysis of contemporary, substantive issues, ranging from the challenges in global trade cooperation to the management of financial integration and resolution of global financial crises. In doing so, the course will help illuminate the dynamic relationship between economic and political factors – i.e. how economic relations between states influence domestic and international politics and how do political relations between states influence domestic and international economics.

Reteirabilità: 1

Modalità di verifica finale: written exam

Labour Economics (6 CFU)

Obiettivi formativi: The course aims to provide to students a solid background and tools in theoretical and empirical labour economics. Specific topics covered will be wage determination, theory of unemployment, effects of labour policies and institutions.

Reteirabilità: 1

Modalità di verifica finale: Written examination

Labour Economics in an European Perspective (6 CFU)

Obiettivi formativi: The course aims to provide to students a solid background and tools in theoretical and empirical labour economics. These tools will be then applied to understand the working of labour markets and labour institutions across European countries and at the central European level. Some aspects that are particularly relevant for European union will receive great emphasis: active and passive labour policies; workers mobility and migration; productivity, income and social exclusion; industrial relations and their consequences on workers and on the production sector. Finally, an overview of empirical issues related to labour markets will be covered and the most relevant estimation techniques will be presented.

Reteirabilità: 1

Modalità di verifica finale: Written exam

Labour Law (6 CFU)

Obiettivi formativi: The course aims to provide: - an in-depth fundamental legal culture in labour law and industrial relations; - the capability to interpret and develop legislative texts; - the capability to explain, comment and develop contractual texts and collective agreements; - the capability of using information technology tools; - the capability of analysing case studies in the field of the course; - the capability to connect rules to legal facts or legal acts; - the capability to use the tools needed for updating the acquired skills.

Reteirabilità: 1

Modalità di verifica finale: Oral and/or written examination

Mathematical Economics (6 CFU)

Obiettivi formativi: The aim of the course is to apply advanced mathematical tools to the study of some topics in microeconomics. In particular the applications will cover consumer theory, production theory, general equilibrium theory and coalition theory.

Reteirabilità: 1

Modalità di verifica finale: Written and/or oral examination

Mathematical Methods for Economics (12 CFU)

Obiettivi formativi: The course aims to give a solid background in mathematics for economic studies. Particular attention will be given to economic applications.

Special emphasis will be given to dynamic discrete and continuous systems with some extensions to the theory of non-linear systems.

Reteirabilità: 1

Modalità di verifica finale: Oral and/or written exam

Mathematical Methods for Financial Markets (6 CFU)

Obiettivi formativi: The course has the aim of introducing the students to the basic issues of quantitative finance and methodologies for pricing and hedging derivatives are analyzed in some details, both with theoretical and numerical methods.

Reteirabilità: 1

Modalità di verifica finale: Oral exam on the theoretical aspects introduced into the course

Official Statistics (12 CFU)

Obiettivi formativi: The aim is to have an experience within a workplace where to train on the use and on the reasearch related to official statistics.

Reteirabilità: 1

Modalità di verifica finale: A report about the activity supervised by tutors

Poverty and Living Conditions Indicators (3 CFU)

Obiettivi formativi: The course aims to provide definition and measure of local indicators that be coherent and comparable across Europe and be useful and used by local stakeholders. It provides knowledge on the traditional data collections methods used in EU Surveys (e.g EU-Survey Income Living Conditions, Household Budget Surveys, Labour Force Survey) and a general introduction to the usage of administrative data sets and also large datasets as sources of statistical data (Big Data), with a focus on multi-frame surveys. It will tackle the most important topics in big data ranging from data collection, analysis and visualization, as well as applications of statistical models to Big data.

Students will learn traditional and new survey techniques and what might be the problems that arise in the definition and measure of local indicators of poverty and living conditions.

Reteirabilità: 1

Modalità di verifica finale: Oral and/or written exam

Public Economics (9 CFU)

Obiettivi formativi: The objective of this course is to cover the fundamental issues and tools of public economics. These subjects will be applied to the contexts of States unions in general and of European Union in particular on the subsequent modules.

The course also provide advanced topics on Public Economics that are mostly concerned with the European Union

Finally, it analyse in details the institution of Social Insurance and Unemployment insurance both at a theoretical level and in a comparative perspective across EU. The issue of employment protection will also be covered.

Reteirabilità: 1

Modalità di verifica finale: Written exam

Quantitative Economics (6 CFU)

Obiettivi formativi: The course will be developed by first presenting the core statistical theory for some key modern statistical techniques, and then by applying them to some update real world economic applications through R implementation.

Topics covered:

Introduction to the bootstrap (basic ideas about “bootstrap” estimation of accuracy of estimators, estimation of bias, SE, and confidence intervals, parametric vs nonparametric bootstrap, bootstrapping regressions).

Introduction to nonparametric techniques. Basic ideas. Density estimation. The Kernel approach. Nonparametric regression. Applications to macro and survey data.

Introduction to basic ideas of Bayesian statistical inference. The linear econometric model in some Bayesian settings. Applications to macro and survey data.

Estimation of Markov processes and applications to macro and survey data.

Propedeuticità: Advanced Econometrics and Advanced Statistics

Reteirabilità: 1

Modalità di verifica finale: Oral and/or written exam

Quantitative Economics for the evaluation of European economic policy (9 CFU)

Obiettivi formativi: The course aims to introduce students to the study of the evaluation to EU regional policy. In particular the aim of the course is threefold. The first aim is to illustrate the European Union Regional Policy and its evolution, institutions, mechanisms and financing. Special attention is dedicated the role of the European Structural Funds within the support of the regional development and the mechanism of the European Union's support to the different regions. The second aim is to explain the processes of convergence and divergence between European regions, emphasizing the role of regional development policies. The third aim is to present some statistical methods for evaluating regional policies and to provide guidance on what might be the problems that arise in the quantitative evaluation of regional policy.

Reteirabilità: 1

Modalità di verifica finale: Oral and/or written exam

Regional development (6 CFU)

Obiettivi formativi: Regions and cities in the world exhibit major differences in economic performance and face continuous challenges due to increasing economic and social interdependence. Complex and dynamic relationships between people, firms, and institutions bounded in space have both positive implications, such as continuous innovation, increasing creativity, and economic growth, and negative consequences, including social and economic inequalities, tensions between different cultures and values, and threats to the environment and people health.

In this course, we will consider the positive and negative aspects involved in regional economic growth, by focusing on a selection of topics, including: 1) employee mobility and entrepreneurship; 2) innovation, networks and localised knowledge spillovers; 3) migration and innovation; 4) regional industrial diversification, and 5) sustainability challenges and human rights.

Reteirabilità: 1

Modalità di verifica finale: Oral and/or written exam

Small Area Methods for the Analysis of Multidimensional Poverty Data and Seminars (9 CFU)

Obiettivi formativi: The course offers a review of the main Small Area Estimation Methods and teach how to apply them to European survey data to have a local monitoring of the Sustainable Development Goals and to estimate deprivation and inequality indicators, focusing also in aggregating Multidimensional Indicators and on conceptualizing, defining and measuring poverty under the capability approach. The course will be structured in the following parts 1) Analysis of the collected data for estimation and testing for the phenomenon under study; definition of planned and unplanned domains. 2) Direct and indirect estimates for unplanned domains; R codes for the application of the SAE estimators (EURAREA and SAMPLE project libraries) 3) quality issues in SAE and usage of SAE in European Statistical System. At the end of the module student will be able to deal with small area estimation both at the theoretical and empirical level and to apply aggregation methods to indicators from the European survey data. Students will learn the fundamental small area methods and what might be the problems that arise in the application of them and in the definition of their statistical quality.

Propedeuticità:

Reteirabilità: 1

Modalità di verifica finale: Oral and/or written exam

Static and Dynamic Optimization (6 CFU)

Obiettivi formativi: The aim of the course is to provide optimization techniques commonly used in Economic Literature. Key topics will be static optimization and discrete and dynamic optimization.

Reteirabilità: 1

Modalità di verifica finale: Oral and/or writtene exam

Statistical Models for Program Evaluation (6 CFU)

Obiettivi formativi: This course is an introduction to the inferential statistical methods for program evaluation. The statistical concepts are illustrated using data and real examples, focusing on the methods used for causal inference in public policy contexts.
Main topics: Randomized Trials. Matching. Regression. Instrumental Variables. Regression Discontinuity Designs, Differences-in-Differences

Reteirabilità: 1

Modalità di verifica finale: written examination

Strategic Management Accounting (6 CFU)

Obiettivi formativi: Aims of the course is to give foundations and techniques to provide economic information to support strategic decision making and their applications.
Key topics covered will be: Cost analysis along the Value Chain (Strategic Cost Management) – Strategic Management Accounting techniques – Strategic Performance Management – Interorganizational Cost Management – Strategic Pricing.

Reteirabilità: 1

Modalità di verifica finale: written and/or oral examination

Student's choice (9 CFU)

Obiettivi formativi: Students can freely choice the courses as long as they are coherent within the rest of the current study plan

Reteirabilità: 1

Modalità di verifica finale: Final exam depends on the chosen courses.

Survey Methods: Traditional and New Techniques in Official Statistics (6 CFU)

Obiettivi formativi: The course is structured into two part. The first part is on traditional data collection methods: 1) Sampling theory: topics include the main sampling designs, as random sampling with clustering and stratification. 2) Estimation: major issues in weighting and use of auxiliary variables in the estimation: ratio and regression estimators) and Survey error profile (coverage, nonresponse and measurement error). The students who successfully complete the first module will be aware of the basic terms and concepts of the field of survey sampling, will be able to estimate target parameters under the basic sampling designs; they will be able to distinguish the sampling and non sampling components of the error profile. The second part aims to provide a general introduction to the usage of administrative data sets and also large datasets as sources of statistical data (Big Data), with a focus on multiframe surveys. It will tackle the most important topics in big data ranging from data collection, analysis and visualization, as well as applications of statistical models to Big data.

Reteirabilità: 1

Modalità di verifica finale: Oral and/or written exam

The Economics of European Regions: Theory, Empirics, and Policy (9 CFU)

Obiettivi formativi: The course introduces to some of the most current key issues of European Union (EU) both from a theoretical and applied perspective. In particular, it will analyse the growth and convergence/divergence among European regional economies, the design and the effectiveness of European Regional Policy, the coordination, and competition of fiscal policies, and finally, the effect of internal and external migration.

Reteirabilità: 1

Modalità di verifica finale: oral and/or written examination

The Economics of European Union (6 CFU)

Obiettivi formativi: The course will deliver a short history of the process of European integration and some basic elements on the institutions of the European Union. Students will learn the theoretical justifications for free trade in Europe. In particular,

they will learn about theories and current issues in Economic and Monetary Union, the European labour market and the European industrial policies.

Reteirabilità: 1

Modalità di verifica finale: Written exam

Time Series Econometrics (6 CFU)

Obiettivi formativi: This course introduces to the time series methods and practices which are most relevant to the analysis of economic and financial time series. We will cover univariate and multivariate models of stationary and non-stationary time series in the time domain. The goals of the course are twofold: first to develop a comprehensive set of tools and techniques for analysing various forms of univariate and multivariate time series, and second to acquire knowledge of recent changes in the methodology of econometric analysis of time series.

Propedeuticità: Advanced econometrics

Reteirabilità: 1

Modalità di verifica finale: Written exam

Topics in macroeconometrics (6 CFU)

Obiettivi formativi: This course introduces to the methods and practices which are most relevant to the analysis of economic and financial data. We will cover univariate and multivariate models of stationary and non-stationary time series in the time domain. The goals of the course are twofold: first to develop a comprehensive set of tools and techniques for analysing various forms of univariate and multivariate time series, and second to acquire knowledge of recent changes in the methodology of econometric analysis of time series.

Propedeuticità: Advanced econometrics

Reteirabilità: 1

Modalità di verifica finale: oral and/or written examination

Topics in microeconometrics (6 CFU)

Obiettivi formativi: The course will provide a detailed description of the main estimation methods used to analyse microeconomic economic relationships. Particular emphasis will be given to the program evaluation methods

Propedeuticità: Advanced econometrics

Reteirabilità: 1

Modalità di verifica finale: oral or written examination