ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

REGOLAMENTO DIDATTICO DEL CORSO

LM-56 ECONOMICS AND ECONOMETRICS

Sede di BOLOGNA

INDICE

ART. 1 REQUISITI PER L’ACCESSO AL CORSO

a. Conoscenze richieste per l’accesso

Per essere ammessi al corso di laurea magistrale in Economics and Econometrics, occorre essere in possesso di una laurea o del diploma universitario di durata triennale, ovvero di altro titolo di studio conseguito all’estero, riconosciuto idoneo.

Occorre, altresì, il possesso dei seguenti requisiti curriculari: avere conseguito la Laurea in una delle seguenti classi:

ex D.M. 270/04:

- L-33 Scienze economiche
- L-18 Scienze dell'economia e della gestione aziendale
- L-36 Scienze politiche e delle relazioni internazionali
- L-41 Statistica
- L-9 Ingegneria industriale
- L-30 Scienze e tecnologia fisiche
- L-31 Scienze e tecnologia informatiche
- L-35 Scienze matematiche

ex. D.M. 509/99

- classe 28 (Scienze economiche)
- classe17 (Scienze dell'economia e della gestione aziendale)
- classe 15 (Scienze politiche e delle relazioni internazionali)
- classe 37 (Scienze statistiche)
- classe 10 (Ingegneria industriale)
- classe 25 (Scienze e tecnologie fisiche)
- classe 26 (Scienze e tecnologie informatiche)
- classe 32 (Scienze matematiche)

Previgente ordinamento quadriennale: Laurea in Economia politica, Economia e commercio, Economia aziendale ed equipollenti.

L’ammissione al corso di laurea magistrale è subordinata, inoltre, al superamento di una verifica dell’adeguatezza della personale preparazione che avverrà secondo le modalità definite nel punto b. Modalità di ammissione.

È richiesta inoltre la conoscenza della lingua inglese di livello **almeno B2** del Quadro comune europeo di riferimento per la conoscenza delle lingue.

b. Modalità di ammissione

L'ammissione al Corso di Laurea Magistrale Economics and Econometrics è subordinata per tutti i candidati, oltre che al possesso dei requisiti curriculari predeterminati, al superamento di una verifica dell'adeguatezza della personale preparazione da parte di una Commissione nominata dal Consiglio di Corso di studi. La verifica dell’adeguatezza della personale preparazione avverrà tramite esame del curriculum per l’accertamento delle conoscenze a livello universitario di teoria economica e analisi quantitativa.

ART. 2 PIANI DI STUDIO INDIVIDUALI

È prevista la possibilità di presentazione di piani di studio individuali con le modalità, i criteri e i termini resi noti tramite il Portale di Ateneo.
I piani di studio individuali, approvati dal Consiglio di corso di studi, non possono comunque prescindere dal rispetto dell'ordinamento e delle linee guida definite dagli Organi competenti.
Qualora il piano di studio preveda la scelta di attività formative attivate presso corsi di studio a numero programmato, l'ammissione alle stesse deve essere previamente approvata anche dal Consiglio di corso di studio a numero programmato sulla base di criteri da questo preventivamente individuati.

ART. 3 MODALITÀ DI SVOLGIMENTO DELLE ATTIVITÀ FORMATIVE E TIPOLOGIA DELLE FORME DIDATTICHE

Il piano didattico allegato indica le modalità di svolgimento delle attività formative e la relativa suddivisione in ore di didattica frontale, di esercitazioni pratiche o di tirocinio, nonché la tipologia delle forme didattiche.

Tutte le attività formative saranno impartite in lingua inglese. Eventuali ulteriori informazioni in merito saranno rese note annualmente sul Portale di Ateneo.

ART. 4 FREQUENZA E PROPEDEUTICITÀ

L'eventuale obbligo di frequenza alle attività didattiche è indicato nel piano didattico allegato, così come le eventuali propedeuticità delle singole attività formative.

Le modalità e la verifica dell'obbligo di frequenza, ove previsto, sono stabilite annualmente dal Corso di Studio in sede di presentazione della programmazione didattica e rese note agli studenti prima dell'inizio delle lezioni tramite il Portale di Ateneo.

ART. 5 PERCORSO FLESSIBILE

Lo studente può optare per il percorso flessibile che consente di completare il corso di studio in un tempo superiore o inferiore alla durata normale secondo le modalità definite nel Regolamento Didattico di Ateneo. Le attività formative previste dal percorso di studio, in caso di necessaria disattivazione, potranno essere sostituite, per garantire la qualità e la sostenibilità dell'offerta didattica.

ART. 6 PROVE DI VERIFICA DELLE ATTIVITÀ FORMATIVE

Il piano didattico allegato prevede i casi in cui le attività formative si concludono con un esame con votazione in trentesimi ovvero con un giudizio di idoneità.
Le modalità di svolgimento delle verifiche sono stabilite annualmente dal Consiglio di corso di studio in sede di presentazione della programmazione didattica e rese note agli studenti prima dell'inizio delle lezioni tramite il Portale di Ateneo.

ART. 7 ATTIVITÀ FORMATIVE A SCELTA DELLO STUDENTE

Il Corso di studio considera coerenti con il progetto formativo le attività formative che il Consiglio di Corso di studio individua annualmente e rende note tramite Portale di Ateneo. Se lo studente sceglie un'attività formativa diversa da quelle considerate coerenti, secondo i suddetti criteri predeterminati, deve fare richiesta al Consiglio di corso di studio nei termini previsti annualmente e resi noti tramite pubblicazione sul Portale di Ateneo.

Il Consiglio valuterà la coerenza della scelta con il percorso formativo dello studente.

ART. 8 CRITERI DI RICONOSCIMENTO DEI CREDITI ACQUISITI IN CORSI DI STUDIO DELLA STESSA CLASSE

I crediti formativi universitari acquisiti sono riconosciuti per non meno della metà e fino a concorrenza dei crediti dello stesso settore scientifico disciplinare previsti dal piano didattico allegato, purché relativi ad insegnamenti impartiti interamente in lingua inglese. Qualora, effettuati i riconoscimenti in base alle norme del presente regolamento, residuino crediti non utilizzati, il Consiglio di corso di studio può riconoscerli valutando il caso concreto sulla base delle affinità didattiche e culturali.

ART. 9 CRITERI DI RICONOSCIMENTO DEI CREDITI ACQUISITI IN CORSI DI STUDIO DI DIVERSA CLASSE, PRESSO UNIVERSITÀ TELEMATICHE E IN UNIVERSITÀ ESTERE

I crediti formativi universitari acquisiti sono riconosciuti dal Consiglio di corso di studio sulla base dei seguenti criteri:

- analisi del programma svolto;
- valutazione della congruità dei settori scientifico disciplinari e dei contenuti delle attività formative in cui lo studente ha maturato i crediti con gli obiettivi formativi specifici del corso di studio e delle singole attività formative da riconoscere, perseguendo comunque la finalità di mobilità degli studenti.

Il riconoscimento è effettuato fino a concorrenza dei crediti formativi universitari previsti dal piano didattico allegato, purché relativi ad insegnamenti impartiti interamente in lingua inglese.

Qualora, effettuati i riconoscimenti in base alle norme del presente regolamento, residuino crediti non utilizzati, il Consiglio di corso di studio può riconoscerli valutando il caso concreto sulla base delle affinità didattiche e culturali.

ART. 10 CRITERI DI RICONOSCIMENTO DELLE CONOSCENZE E ABILITÀ EXTRAUNIVERSITARIE

Possono essere riconosciute competenze acquisite fuori dall’Università nei seguenti casi:

- conoscenze e abilità professionali certificate ai sensi della normativa vigente in materia;
- conoscenze e abilità maturate in attività formative di livello post secondario alla cui realizzazione e progettazione abbia concorso l’Università.

La richiesta di riconoscimento sarà valutata dal Consiglio di corso di studio tenendo conto delle indicazioni date dagli Organi Accademici e del numero massimo di crediti riconoscibili fissato nell’ordinamento didattico del corso di studio.

Il riconoscimento potrà avvenire qualora l’attività sia coerente con gli obiettivi formativi specifici del corso di studio e delle attività formative che si riconoscono, visti anche il contenuto e la durata in ore dell’attività svolta.

ART. 11 TIROCINIO CURRICULARE

Il Corso di studio prevede, a richiesta dello studente, la possibilità di svolgere un tirocinio curriculare secondo le procedure stabilite dal Regolamento generale tirocini di Ateneo e dai programmi internazionali di mobilità. Il tirocinio curriculare è l'esperienza formativa caratterizzata dalla realizzazione di esperienze pratiche e dalla riflessione a esse necessariamente connessa, svolte in strutture esterne all'Ateneo o interne, che permettono l'acquisizione di competenze da parte dello studente coerenti con il percorso di studio seguito.

Il Corso di Studio, a richiesta dello studente, può consentire, con le procedure stabilite dal Regolamento generale di Ateneo per lo svolgimento dei tirocini o dai programmi internazionali di mobilità per tirocinio, e in conformità alle norme dell’Unione Europea, lo svolgimento di un tirocinio finalizzato alla preparazione della tesi di laurea o comunque collegato a un progetto formativo mirato ad affinare il suo processo di apprendimento e formazione.

Tali esperienze formative che non dovranno superare la durata di 6 mesi e dovranno concludersi entro la data del conseguimento del titolo di studio, potranno essere svolte prevedendo l'attribuzione di crediti formativi:

• nell'ambito di quelli attribuiti alla prova finale;
• per attività di tirocinio previsto dal piano didattico;
• per attività a scelta dello studente configurabili anche come tirocinio.

ART. 12 MODALITÀ DI SVOLGIMENTO DELLA PROVA FINALE

a. Caratteristiche della prova finale

La prova finale di laurea per il conseguimento della laurea magistrale consiste nella redazione e nella discussione pubblica in lingua inglese di una tesi scritta ed elaborata in modo originale dallo studente su un argomento coerente con gli obiettivi del corso di studio, sotto la guida di un relatore.

La dissertazione deve dimostrare la padronanza degli argomenti, capacità critica, l'attitudine a operare in modo autonomo e una capacità di comunicazione di buon livello.

b. Modalità di svolgimento della prova finale

Lo studente mediante la redazione dell'elaborato finale e della successiva discussione deve dimostrare di essere in grado di approfondire in autonomia un argomento inerente ai temi trattati nel corso di studio, anche tramite riferimenti interdisciplinari e di essere in grado di esporre, con capacità critica, i risultati conclusivi delle proprie argomentazioni.

Gli studenti possono proporre un argomento di tesi in un insegnamento appartenente a un SSD previsto dal regolamento del corso di studi anche se impartito in altro corso di studi, oppure in un insegnamento appartenente a un SSD non previsto dal regolamento del corso di studi, motivando la propria scelta: il Consiglio di Corso valuterà la coerenza dell'argomento con il progetto formativo.

Il Consiglio di Corso definisce e rende noti tramite il Portale di Ateneo, i criteri per la valutazione della tesi e per l'attribuzione di eventuali punteggi bonus.

Il voto finale è espresso su base 110, la lode può essere assegnata solo a decisione unanime della Commissione di laurea.

Redazione e discussione saranno in lingua inglese.

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La Commissione Paritetica docenti-studenti ha espresso parere favorevole sulla coerenza dei crediti assegnati alle singole attività formative e gli specifici obiettivi formativi programmati, ai sensi dell'articolo 12 comma 3 del DM 270/04.

CONTENTS

ART.1 ADMISSION REQUIREMENTS

a. Knowledge requirements

Admission to the 2nd cycle degree program in Economics and Econometrics is subject to the possession of a university degree or a three-year university diploma or another qualification obtained abroad and recognised as suitable. Admission is also subject to the possession of curricular requirements and to the assessment of personal competencies ad skills.

Curricular requirements: having a degree in one of the following classes

ex Ministerial Decree no. 270/04:

- L-33 Economic sciences
- L-18 8 Economic and Business Management Sciences
- L-36 6 Political Sciences and International Relations
- L-41 Statistics
- L-9 Industrial Engineering
- L-30 Physical Sciences and Technologies
- L-31 Computer Sciences and Technologies
- L-35 Mathematical Sciences

ex. Ministerial Decree no. 509/99

- classe 28 (Economic sciences)
- classe17 (Economic and Business Management Sciences)
- classe 15 (Political Sciences and International Relations)
- classe 37 (Statistics)
- classe 10 (Industrial Engineering)
- classe 25 (Physical Sciences and Technologies)
- classe 26 (Computer Sciences and Technologies)
- classe 32 (Mathematical Sciences)

Previous four-year degree programme system: Degree in Economic Policy, Economics and Trade, Business Economics and equivalent.

Admission to the Second Cycle Degree Programme in Economics and Econometrics is for all candidates subject to the assessment of personal competencies, which will be conducted according to the procedures outlined in the "Admission Procedures" section.

Access to the Second Cycle Degree Programme requires certification of proficiency in the English language at a minimum level of B2 of the Common European Framework of Reference for Languages.

b. Admission procedure

In addition to the curricular requirements indicated above, admission to the second cycle degree Economics and Econometrics is subject to the assessment of the adequate personal preparation. Such assessment will be carried out by an Admission Committee through the analysis of the curriculum and previous career aimed at ascertaining university-level knowledge of economic theory and quantitative analysis.

ART.2 INDIVIDUAL STUDY PLANS

Students can submit individual study plans, according to the procedures, criteria, and deadlines communicated through the University website. Individual study plans, approved by the Degree Program Board, must adhere to the university regulations and guidelines established by the relevant governing bodies.

In case the study plan includes courses from programs with restricted access, admission to these courses must also be approved in advance by the respective Degree Program Board, based on predefined criteria.

ART. 3 IMPLEMENTATION OF LEARNING ACTIVITIES AND TYPES OF TEACHING ACTIVITIES

The enclosed teaching plan indicates the implementation methods of each learning activity and the relative division into hours of lectures, practical exercises or internship, as well as the type of teaching methods.

All learning activities are delivered in the English language. Any further information will be published annually in the University website.

ART. 4 ATTENDANCE AND PREPARATORY ACTIVITIES

Compulsory attendance of the teaching activities is indicated in the enclosed teaching plan, together with any preparatory activities required for individual learning activities.

The provision for compulsory attendance and the means to certify it are laid down yearly by the Degree Programme during the presentation of the teaching plan and are published prior to the start of lectures in the University website.

ART. 5 FLEXIBLE TEACHING PLAN

Students may opt for a flexible teaching plan allowing to reduce or increase the standard duration of the Degree Programme, according to the University Teaching Regulation. The teaching activities included in the study plan, in case of necessary deactivation, may be substituted in order to guarantee the quality and the sustainability of the educational offer.

ART. 6 ASSESSMENT OF LEARNING ACTIVITIES

The enclosed teaching plan indicates all cases in which the learning activities end with an exam, marked with a grade out of 30, or on a pass-fail basis.

The assessment methods (oral, written, practical or a combination thereof; individual or team examinations) are laid down annually by the Degree Programme during the presentation of the teaching plan and are published prior to the start of lectures in the University website.

ART. 7 ELECTIVE LEARNING ACTIVITIES

Students may freely choose one or more course units/learning activities among those listed in the Degree Programme teaching plan, and published in the University website. Students wishing to choose course units/learning activities other than those listed in the teaching plan may apply to the Degree Programme Board within the deadlines yearly published in the University website. The Board will assess the coherence of the choice with the student's study programme.

The Board will assess the consistency of the choice with the student's educational path.

ART. 8 CRITERIA FOR THE RECOGNITION OF CREDITS ACQUIRED IN DEGREE PROGRAMMES IN THE SAME CLASS

The acquired university credits are recognized up to the maximum number of credits indicated for the same subject area as laid down in the attached course structure diagram, provided they refer to course units delivered entirely in the English language.

If, having recognized the credits according to the provisions of this regulation, there are unused residual credits, the Degree Programme Board may recognize them by assessing the specific case in coherence with the teaching and cultural affinities.

ART. 9 CRITERIA FOR THE RECOGNITION OF CREDITS ACQUIRED IN DEGREE PROGRAMMES IN DIFFERENT CLASSES, FROM TELEMATIC UNIVERSITIES OR INTERNATIONAL DEGREE PROGRAMMES

The acquired university credits are recognized by the Degree Programme Board according to the following criteria:

- analysis of the course content;
- evaluation of the adequacy of the subject areas and of the learning activities in which the student has acquired university credits with the specific learning outcomes of the Degree Programme and of the individual learning activities to recognize, in any case pursuing the aim of promoting students' mobility.

The credits are recognized up to the maximum number of credits indicated for the same subject area as laid down in the attached teaching plan, provided they refer to course units delivered entirely in the English language.

If having recognized the credits according to the provisions of this regulation, there are unused residual credits, the Degree Programme Board may recognize them by assessing the specific case in coherence with the teaching and cultural affinities.

ART. 10 CRITERIA FOR THE RECOGNITION OF EXTRA-UNIVERSITY COMPETENCIES AND SKILLS

Competencies acquired outside of the university may be recognised in the following cases:

- professional competencies and skills certified under the terms of the applicable laws;
- competencies and skills acquired in post-secondary learning activities run or planned by the university.

The request for recognition shall be assessed by the Degree Programme Board considering the indications of the Academic Bodies and the maximum number of recognizable credits laid down in the Degree Programme Teaching Regulations.

Recognition is possible if the activities are coherent with the specific learning outcomes of the degree programme and the recognised learning activities, also in consideration of the contents and duration in hours of the implemented activity.

ART. 11 CURRICULAR INTERNSHIP

The curricular internship is a training experience characterized by practical/work experiences, and the related increased awareness, carried out in universities offices or in other places, which allow the students to improve skills related to the course of study followed.

Upon request by the student, the Degree Programme may, following the procedures laid down in the University Regulations concerning internships and international mobility programmes, and in compliance with EU laws, authorise an internship for the purposes of preparing the dissertation or in any case linked to a project aiming to develop learning and academic skills.

These learning experiences may not last more than 6 months and must be completed by the deadline for graduation; they may also lead to the award of credits:

- in the area of those attributed to the final dissertation;
- for internship activities contemplated in the study plan;
- for elective activities counting towards the internship.

ART. 12 FINAL EXAMINATION METHODS

- Characteristics of the final examination

The final examination involves the production and discussion in the English language of a written dissertation. The dissertation must be written by the candidate, and will focus on a topic aligned with the objectives of the study program, under the supervision of a professor. The dissertation shall contain original elements and demonstrate the ability for critical analysis.

The Degree Programme Board defines and communicates, through the University website, the criteria for evaluating the dissertation and for awarding any extra points.

- Organization of the final examination

Through the drafting and defense of the second cycle degree dissertation the student must demonstrate the ability to autonomously research a topic related to the themes covered in the program, also through interdisciplinary references, and ability to critically support her/his conclusions.

Students can suggest a dissertation topic in a course belonging to a SSD listed in the program regulations even if taught in another course of study, or in a course belonging to a SSD not listed in the study course regulations, motivating their choice. The Degree Programme Board will evaluate the consistency of the topic with the educational project.

The Degree Programme Board defines and publishes via the University of Bologna portal the criteria for evaluating the thesis and for any bonus scores. The final grade is expressed on the basis of 110. The “laude” can only be assigned upon unanimous decision of the final examination Commission.

The editorial rules for drafting the final dissertation will be published on the website of the course.

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On 25/11/2022, the Joint Teaching Committee expressed its favourable opinion pursuant to Article 12 para. 3 of Ministerial Decree no. 270/04.

Anno Accademico **2024/2025**
Scuola **Economia, Management e Statistica**
Classe **LM-56-SCIENZE DELL'ECONOMIA**
Corso **5977-ECONOMICS AND ECONOMETRICS**

Piano di Studio Ufficiale

Primo Anno di Corso

Gruppo: 1. CORE COURSES

TAF: **Ambito:**

Cfu min: **Cfu max:**
Note:

Attività formativa	TIP	SSD	TAF	CFU	ORE F/E/L/N	FREQ.	VER.
5977 000 000 87458 - 1 - FINANCE (I.C.)				12			Voto
Modulo integrato: 78173 - ASSET PRICING		SECS-P/11		6	30/0/0/0	No	
Ambito: 008 - Aziendale			B				

Obiettivi: The goal of the course is to introduce students to a sound knowledge of asset pricing using dynamic programming techniques. The pricing method is based on the intertemporal approach known as Consumption Capital Asset Pricing Model (Lucas, 1978), which represents a fundamental approach in financial economic theory on asset pricing. By the end of the course the student has acquired:
- a good knowledge of fundamental notions of choice under uncertainty;
- a good knowledge of basic tools for handling intertemporal maximization problems;
- a good knowledge of the pricing technique known as Consumption Capital Asset Pricing Model;
- a good understanding of the economic determinants of price fluctuations on financial markets.

Obiettivi inglese: The goal of the course is to introduce students to a sound knowledge of asset pricing using dynamic programming techniques. The pricing method is based on the intertemporal approach known as Consumption Capital Asset Pricing Model (Lucas, 1978), which represents a fundamental approach in financial economic theory on asset pricing. By the end of the course the student has acquired:
- a good knowledge of fundamental notions of choice under uncertainty;
- a good knowledge of basic tools for handling intertemporal maximization problems;
- a good knowledge of the pricing technique known as Consumption Capital Asset Pricing Model;
- a good understanding of the economic determinants of price fluctuations on financial markets.

Modulo integrato: 78159 - FINANCIAL PRODUCTS AND MARKETS	SECS-P/11	6	30/0/0/0	No	

Ambito: 008 - Aziendale B

Obiettivi: At the end of the course the student has a sound knowledge of the financial products traded in the market, the differences among them, and the reasons why they were introduced in the market. The products range from standard bonds and stocks, to derivatives and structured finance products. The student has knowledge of the main agents trading in the market, as fund raisers or investors, as well as financial intermediaries.

Obiettivi inglese: At the end of the course the student has a sound knowledge of the financial products traded in the market, the differences among them, and the reasons why they were introduced in the market. The products range from standard bonds and stocks, to derivatives and structured finance products. The student has knowledge of the main agents trading in the market, as fund raisers or investors, as well as financial intermediaries.

5977 000 000 90295 - 1 - QUANTITATIVE METHODS FOR ECONOMIC ANALYSIS (I.C.)		12			Voto
Modulo integrato: 28895 - MATHEMATICAL ECONOMICS	SECS-S/06	6	30/0/0/0	No	

Ambito: 260 - Statistico-matematico B

Obiettivi: At the end of the course the student has acquired knowledge and skills essential to the study of dynamic economic systems. In particular, he/she is able to:
-calculate explicitly the solution to systems of linear differential and difference equations;
-study systems of nonlinear differential and difference equations using the phase diagram and through linearization around the steady state;
-solve deterministic dynamic optimization problems in discrete time (dynamic programming) and continuous time (optimal control).

Obiettivi inglese: At the end of the course the student has acquired knowledge and skills essential to the study of dynamic economic systems. In particular, he/she is able to:
-calculate explicitly the solution to systems of linear differential and difference equations;
-study systems of nonlinear differential and difference equations using the phase diagram and through linearization around the steady state;
-solve deterministic dynamic optimization problems in discrete time (dynamic programming) and continuous time (optimal control).

Modulo integrato: 90355 - STATISTICS FOR HIGH DIMENSIONAL DATA	SECS-S/01	6	30/0/0/0	No	

Ambito: 260 - Statistico-matematico B

Obiettivi: At the end of the course the student has acquired knowledge of the multivariate methods for analyzing high dimensional data. In particular, he/she is able:
-to interpret methods of dimension reduction including principal component analysis and factor analysis
-to interpret methods of clustering and discrimination
-to apply the proper multivariate method and perform his/her own analysis of high dimensional datasets using the software R.

Obiettivi inglese: At the end of the course the student has acquired knowledge of the multivariate methods for analyzing high dimensional data. In particular, he/she is able:
-to interpret methods of dimension reduction including principal component analysis and factor analysis
-to interpret methods of clustering and discrimination
-to apply the proper multivariate method and perform his/her own analysis of high dimensional datasets using the software R.

5977 000 000 32687 - 1 - MICROECONOMICS (I.C.)		12			Voto
Modulo integrato: 37293 - MICROECONOMICS	SECS-P/01	6	30/0/0/0	No	

Ambito: 163 - Economico B

Obiettivi: At the end of the class, the student has a working knowledge of the basic tools and results of the classical microeconomic theory for perfectly competitive environments. In particular, the class focuses on: - Classical consumer theory: utility maximization and expenditure minimization. - Choice under uncertainty and insurance decisions. - Production theory, profit maximization and cost functions. - Welfare analysis of perfectly competitive markets.

Obiettivi inglese: At the end of the class, the student has a working knowledge of the basic tools and results of the classical microeconomic theory for perfectly competitive environments. In particular, the class focuses on: - Classical consumer theory: utility maximization and expenditure minimization. - Choice under uncertainty and insurance decisions. - Production theory, profit maximization and cost functions. - Welfare analysis of perfectly competitive markets.

Modulo integrato: 24960 - GAME THEORY		SECS-P/01		6	30/0/0/0	No	

Ambito: 163 - Economico B

Obiettivi: At the end of the course the student knows how to identify environments with strategic interaction and to use the formal language of game theory. He/she is able to recognize the major strategic ingredients and to predict behavior and outcomes in both real and abstract games. He/she understands the role of information and of dynamics in strategic interaction environments.

Obiettivi inglese: At the end of the course the student knows how to identify environments with strategic interaction and to use the formal language of game theory. He/she is able to recognize the major strategic ingredients and to predict behavior and outcomes in both real and abstract games. He/she understands the role of information and of dynamics in strategic interaction environments.

Gruppo: 2. CHOOSE ONE OF THE FOLLOWING TWO I.C.s IN ECONOMETRICS

TAF: B Ambito: 163 - Economico

Cfu min: 12 Cfu max: 12

Note:

Attività formativa	TIP	SSD	TAF	CFU	ORE F/E/L/N	FREQ.	VER.
5977 000 000 32682 - 1 - ECONOMETRICS A (I.C.)				12			Voto
Modulo integrato: B2153 - ECONOMETRIC METHODS		SECS-P/05		6	30/0/0/0	No	

Ambito: 163 - Economico B

Obiettivi: At the end of the course the student has acquired knowledge of the basic instruments used by economists for their empirical investigations: the linear regression model and the Ordinary Least Squares method. In particular, he/she is able: - to critically understand the applications of this model in the recent empirical economic literature; - to apply the model and perform his/her own analysis of economic datasets using the software STATA.

Obiettivi inglese: At the end of the course the student has acquired knowledge of the basic instruments used by economists for their empirical investigations: the linear regression model and the Ordinary Least Squares method. In particular, he/she is able: - to critically understand the applications of this model in the recent empirical economic literature; - to apply the model and perform his/her own analysis of economic datasets using the software STATA.

Modulo integrato: B2154 - MICROECONOMETRICS		SECS-P/05		6	30/0/0/0	No	

Ambito: 163 - Economico B

Obiettivi: At the end of the course the student has acquired knowledge of the core microeconometric models and methods designed to study the behaviour of economic agents using cross-section and panel data, including static paneld data models, instrumental variable methods, and the most widely used limited dependent variable modes. In particular, he/she is able: - to critically understand the applications of these models in the recent empirical economic literature; - to apply the models and perform his/her own analysis of economic datasets using the software STATA.

Obiettivi inglese: At the end of the course the student has acquired knowledge of the core microeconometric models and methods designed to study the behaviour of economic agents using cross-section and panel data, including static paneld data models, instrumental variable methods, and the most widely used limited dependent variable modes. In particular, he/she is able: - to critically understand the applications of these models in the recent empirical economic literature; - to apply the models and perform his/her own analysis of economic datasets using the software STATA.

5977 000 000 32683 - 1 - ECONOMETRICS B (I.C.)				12			Voto
Modulo integrato: B2153 - ECONOMETRIC METHODS		SECS-P/05		6	30/0/0/0	No	

Ambito: 163 - Economico B

Obiettivi: At the end of the course the student has acquired knowledge of the basic instruments used by economists for their empirical investigations: the linear regression model and the Ordinary Least Squares method. In particular, he/she is able: - to critically understand the applications of this model in the recent empirical economic literature; - to apply the model and perform his/her own analysis of economic datasets using the software STATA.

Obiettivi inglese: At the end of the course the student has acquired knowledge of the basic instruments used by economists for their empirical investigations: the linear regression model and the Ordinary Least Squares method. In particular, he/she is able: - to critically understand the applications of this model in the recent empirical economic literature; - to apply the model and perform his/her own analysis of economic datasets using the software STATA.

Modulo integrato: B2155 - MACROECONOMETRICS		SECS-P/05		6	30/0/0/0	No

Ambito: 163 - Economico B

Obiettivi: At the end of the course the student has acquired knowledge of the core time series econometric methods for the analysis of univariate and multivariate economic models. In particular, he/she is able: - to critically understand the applications of these models in the recent empirical economic literature; - to apply the models and perform his/her own analysis of economic datasets using a suitable econometric software

Obiettivi inglese: At the end of the course the student has acquired knowledge of the core time series econometric methods for the analysis of univariate and multivariate economic models. In particular, he/she is able: - to critically understand the applications of these models in the recent empirical economic literature; - to apply the models and perform his/her own analysis of economic datasets using a suitable econometric software

Gruppo: 3. CHOOSE ONE OF THE FOLLOWING TWO I.C.s IN MACROECONOMICS

TAF: B Ambito: 163 - Economico

Cfu min: 12 Cfu max: 12

Note:

Attività formativa	TIP	SSD	TAF	CFU	ORE F/E/L/N	FREQ.	VER.
5977 000 000 B2156 - 1 - MACROECONOMICS A (I.C.)				12			Voto
Modulo integrato: 59691 - MACROECONOMICS		SECS-P/01		6	30/0/0/0	No	

Ambito: 163 - Economico B

Obiettivi: At the end of the course the student should have acquired a good understanding of macroeconomic models used to study the determinants and evolution of output, unemployment and prices, in the short and medium run, and of issues related to the conduct of monetary and fiscal policy. In particular, he/she knows: - the role played by nominal and real rigidities in the transmission of monetary shocks and the role of rational expectations; - the determinants of unemployment; - the meaning of sustainability and solvency in the public debt dynamics; - models of the political economy of public debt and default.

Obiettivi inglese: At the end of the course the student should have acquired a good understanding of macroeconomic models used to study the determinants and evolution of output, unemployment and prices, in the short and medium run, and of issues related to the conduct of monetary and fiscal policy. In particular, he/she knows: - the role played by nominal and real rigidities in the transmission of monetary shocks and the role of rational expectations; - the determinants of unemployment; - the meaning of sustainability and solvency in the public debt dynamics; - models of the political economy of public debt and default.

Modulo integrato: B2157 - GROWTH THEORY	SECS-P/01	6	30/0/0/0	No	

Ambito: 163 - Economico B

Obiettivi: At the end of the course the student has a good understanding of basic general equilibrium dynamic macroeconomic models, used by economists to analyze several theoretical and policy questions, and of modern growth theory. In particular, he/she: - knows and is able to solve analytically macroeconomic dynamic models (infinite horizons and overlapping generations); - knows the main empirical issues and theoretical models analyzed by modern growth theory; - is able to apply models to investigate comparative dynamics across countries and over time.

Obiettivi inglese: At the end of the course the student has a good understanding of basic general equilibrium dynamic macroeconomic models, used by economists to analyze several theoretical and policy questions, and of modern growth theory. In particular, he/she: - knows and is able to solve analytically macroeconomic dynamic models (infinite horizons and overlapping generations); - knows the main empirical issues and theoretical models analyzed by modern growth theory; - is able to apply models to investigate comparative dynamics across countries and over time.

5977 000 000 B2158 - 1 - MACROECONOMICS B (I.C.)		12			Voto
Modulo integrato: 88065 - MACROECONOMICS	SECS-P/01	6	30/0/0/0	No	

Ambito: 163 - Economico B

Obiettivi: At the end of the course the student should have acquired a good understanding of macroeconomic models used to study the determinants and evolution of output, unemployment and prices, in the short and medium run, and of issues related to the conduct of monetary and fiscal policy. In particular, he/she knows: - the role played by nominal and real rigidities in the transmission of monetary shocks and the role of rational expectations; - the determinants of unemployment; - the meaning of sustainability and solvency in the public debt dynamics; - models of the political economy of public debt and default.

Obiettivi inglese: At the end of the course the student should have acquired a good understanding of macroeconomic models used to study the determinants and evolution of output, unemployment and prices, in the short and medium run, and of issues related to the conduct of monetary and fiscal policy. In particular, he/she knows: - the role played by nominal and real rigidities in the transmission of monetary shocks and the role of rational expectations; - the determinants of unemployment; - the meaning of sustainability and solvency in the public debt dynamics; - models of the political economy of public debt and default.

Modulo integrato: B2160 - CONSUMPTION AND INVESTMENT THEORY	SECS-P/01	6	30/0/0/0	No	

Ambito: 163 - Economico B

Obiettivi: This course presents models and techniques used by macroeconomists to study the theory of consumption and investment. At the end of the course, the student: - knows basic techniques in dynamic programming and their applications - critically understands macroeconomic models that study the dynamics of Consumption and Investment.

Obiettivi inglese: This course presents models and techniques used by macroeconomists to study the theory of consumption and investment. At the end of the course, the student: - knows basic techniques in dynamic programming and their applications - critically understands macroeconomic models that study the dynamics of Consumption and Investment.

Secondo Anno di Corso

Gruppo: 1. CORE COURSE

TAF: Ambito:

Cfu min: Cfu max:

Note:

Attività formativa	TIP	SSD	TAF	CFU	ORE F/E/L/N	FREQ.	VER.

5977 000 000 90354 - 2 - LAW, ECONOMICS AND MARKETS	IUS/05		6	30/0/0/0	No	Voto

Ambito: 196 - Giuridico B

Obiettivi: The course offers an introduction to the basic concepts of law and market regulation. It invites students to familiarise with the concepts of property, contract and litigation by emphasising their functions in the market economy. At the end of the course, students should be able to read and understand (basic) legal scholarship and to be aware of the main differences across legal systems.

Obiettivi inglese: The course offers an introduction to the basic concepts of law and market regulation. It invites students to familiarise with the concepts of property, contract and litigation by emphasising their functions in the market economy. At the end of the course, students should be able to read and understand (basic) legal scholarship and to be aware of the main differences across legal systems.

Gruppo: 2. CHOOSE TWO COURSES IN EACH GROUPS:

TAF: C Ambito: 1144 - Attivita' formative affini o integrative

Cfu min: 24 Cfu max: 24

Note:

Attività formativa	TIP	SSD	TAF	CFU	ORE F/E/L/N	FREQ.	VER.
ADVANCED ECONOMETRICS GROUP - 2 courses to be chosen in the following list				12-12			
5977 000 000 B0369 - 2 - BAYESIAN ECONOMETRICS		SECS-P/05		6	30/0/0/0	No	Voto

Ambito: 1144 - Attivita' formative affini o integrative C

Obiettivi: The goal of this course is to introduce students to the basic tools of Bayesian analysis, and to apply them to make inference in the linear regression model. By the end of the course students will: 1) be familiar with the main steps of Bayesian inference; 2) be able to elicit an appropriate prior distribution; 3) be able to build a posterior simulator; 4) be able to estimate classical and general linear regression models using Bayesian techniques.

Obiettivi inglese: The goal of this course is to introduce students to the basic tools of Bayesian analysis, and to apply them to make inference in the linear regression model. By the end of the course students will: 1) be familiar with the main steps of Bayesian inference; 2) be able to elicit an appropriate prior distribution; 3) be able to build a posterior simulator; 4) be able to estimate classical and general linear regression models using Bayesian techniques.

5977 000 000 90350 - 2 - CAUSAL INFERENCE AND PROGRAM EVALUATION		SECS-P/05		6	30/0/0/0	No	Voto

Ambito: 1144 - Attivita' formative affini o integrative C

Obiettivi: The course illustrates the most recent identification strategies for the quantitative assessment of causal effects using observational data by referring to micro-econometric applications. It will cover matching and difference-in-differences strategies, and quasi-experimental approaches to identification.
At the end of the class, student will be able:
-to critically understand the application of these tools in the recent empirical economic literature;
-to apply these approaches to design his/her own program evaluation.

Obiettivi inglese: The course illustrates the most recent identification strategies for the quantitative assessment of causal effects using observational data by referring to micro-econometric applications. It will cover matching and difference-in-differences strategies, and quasi-experimental approaches to identification.
At the end of the class, student will be able:
-to critically understand the application of these tools in the recent empirical economic literature;
-to apply these approaches to design his/her own program evaluation.

5977 000 000 B2163 - 2 - ECONOMETRICS OF PANEL DATA	SECS-P/05	6	30/0/0/0	No	Voto

Ambito: 1144 - Attivita' formative affini o integrative C

Obiettivi: At the end of the course, students know the most appropriate estimating techniques for dynamic panel data models, both microeconomic (large and with more than one cross-sectional dimension) and macroeconomic (over a long time span). Specifically, they can: - critically understand theoretical and applied aspects of the vast literature based on dynamic panel data models; - apply dynamic panel data models techniques to their own analyses by programming specific routines using the STATA software.

Obiettivi inglese: At the end of the course, students know the most appropriate estimating techniques for dynamic panel data models, both microeconomic (large and with more than one cross-sectional dimension) and macroeconomic (over a long time span). Specifically, they can: - critically understand theoretical and applied aspects of the vast literature based on dynamic panel data models; - apply dynamic panel data models techniques to their own analyses by programming specific routines using the STATA software.

5977 000 000 B2164 - 2 - FINANCIAL AND TIME SERIES ECONOMETRICS	SECS-P/05	6	30/0/0/0	No	Voto

Ambito: 1144 - Attivita' formative affini o integrative C

Obiettivi: At the end of the course the student has acquired an advanced and comprehensive knowledge of the main, up-to-date econometric methods for the analysis of economic and financial time series data. In terms of inference techniques, emphasis is given to up-to-date bootstrap methods. In particular, she/he is able: - to analyze critically the application of advanced econometric models to economic time series data; - to implement and make use of proper (asymptotic and bootstrap) inference methods in dynamic environments.

Obiettivi inglese: At the end of the course the student has acquired an advanced and comprehensive knowledge of the main, up-to-date econometric methods for the analysis of economic and financial time series data. In terms of inference techniques, emphasis is given to up-to-date bootstrap methods. In particular, she/he is able: - to analyze critically the application of advanced econometric models to economic time series data; - to implement and make use of proper (asymptotic and bootstrap) inference methods in dynamic environments.

5977 000 000 90352 - 2 - MACHINE LEARNING FOR ECONOMISTS	SECS-P/05	6	30/0/0/0	No	Voto

Ambito: 1144 - Attivita' formative affini o integrative C

Obiettivi: At the end of the course the student will have a good understanding of the main tools used in machine learning. In particular, he/she:
-understands and knows how to apply key aspects of machine and statistical learning, such as out-of-sample cross-validation, regularization and scalability
-is familiar with the concepts of supervised learning, regression and classification
-understands and can apply the main learning tools such as lasso and ridge regression, regression trees, boosting, bagging and random forests, support vector machines and neural nets.
-The course will put special emphasis on empirical applications using the R software.

Obiettivi inglese: At the end of the course the student will have a good understanding of the main tools used in machine learning. In particular, he/she:
-understands and knows how to apply key aspects of machine and statistical learning, such as out-of-sample cross-validation, regularization and scalability
-is familiar with the concepts of supervised learning, regression and classification
-understands and can apply the main learning tools such as lasso and ridge regression, regression trees, boosting, bagging and random forests, support vector machines and neural nets.
-The course will put special emphasis on empirical applications using the R software.

5977 000 000 B2155 - 2 - MACROECONOMETRICS	SECS-P/05	6	30/0/0/0	No	Voto

Ambito: 1144 - Attivita' formative affini o integrative C

Obiettivi: At the end of the course the student has acquired knowledge of the core time series econometric methods for the analysis of univariate and multivariate economic models. In particular, he/she is able: - to critically understand the applications of these models in the recent empirical economic literature; - to apply the models and perform his/her own analysis of economic datasets using a suitable econometric software

Obiettivi inglese: At the end of the course the student has acquired knowledge of the core time series econometric methods for the analysis of univariate and multivariate economic models. In particular, he/she is able: - to critically understand the applications of these models in the recent empirical economic literature; - to apply the models and perform his/her own analysis of economic datasets using a suitable econometric software

5977 000 000 B2154 - 2 - MICROECONOMETRICS	SECS-P/05	6	30/0/0/0	No	Voto

Ambito: 1144 - Attivita' formative affini o integrative C

Obiettivi: At the end of the course the student has acquired knowledge of the core microeconometric models and methods designed to study the behaviour of economic agents using cross-section and panel data, including static paneld data models, instrumental variable methods, and the most widely used limited dependent variable modes. In particular, he/she is able: - to critically understand the applications of these models in the recent empirical economic literature; - to apply the models and perform his/her own analysis of economic datasets using the software STATA.

Obiettivi inglese: At the end of the course the student has acquired knowledge of the core microeconometric models and methods designed to study the behaviour of economic agents using cross-section and panel data, including static paneld data models, instrumental variable methods, and the most widely used limited dependent variable modes. In particular, he/she is able: - to critically understand the applications of these models in the recent empirical economic literature; - to apply the models and perform his/her own analysis of economic datasets using the software STATA.

5977 000 000 B2162 - 2 - MICROECONOMETRICS AND SIMULATION METHODS	SECS-P/05	6	30/0/0/0	No	Voto

Ambito: 1144 - Attivita' formative affini o integrative C

Obiettivi: At the end the course the student will have understood the potential of simulation based approaches to solve inference problems arising in various microeconometric models, including models for simultaneous choices (multivariate models) and models for the choice among many alternatives (multinomial models). In particular, she/he will be able: - to critically understand the applications of these models in the recent empirical economic literature; - to implement selected simulation based estimation techniques by way of specific routines, using the STATA software.

Obiettivi inglese: At the end the course the student will have understood the potential of simulation based approaches to solve inference problems arising in various microeconometric models, including models for simultaneous choices (multivariate models) and models for the choice among many alternatives (multinomial models). In particular, she/he will be able: - to critically understand the applications of these models in the recent empirical economic literature; - to implement selected simulation based estimation techniques by way of specific routines, using the STATA software.

5977 000 000 B2165 - 2 - RESEARCH METHODS IN APPLIED ECONOMICS	SECS-P/05	6	30/0/0/0	No	Voto

Ambito: 1144 - Attivita' formative affini o integrative C

Obiettivi: This course will guide students through the process of developing research ideas, gathering, processing, and analyzing the appropriate data, and effectively communicating their results. The course is designed specifically for students interested in doing empirical academic research. At the end of the course, students should be able to prepare a research proposal for a (feasible) empirical study and to deliver a short presentation about the research question, empirical strategy, and planned data work.

Obiettivi inglese: This course will guide students through the process of developing research ideas, gathering, processing, and analyzing the appropriate data, and effectively communicating their results. The course is designed specifically for students interested in doing empirical academic research. At the end of the course, students should be able to prepare a research proposal for a (feasible) empirical study and to deliver a short presentation about the research question, empirical strategy, and planned data work.

5977 000 000 90349 - 2 - STRUCTURAL MACROECONOMETRICS	SECS-P/05	6	30/0/0/0	No	Voto

Ambito: 1144 - Attivita' formative affini o integrative C

Obiettivi: At the end of the course the student has acquired a comprehensive knowledge of the main identification and estimation methods which can be featured by Structural Vector Autoregressions (SVARs) in order to quantify the dynamic causal effects of macroeconomic structural shocks of interest including, among others, the monetary policy shock and uncertainty shocks. In particular, he/she is able to
-analyze critically the implications of macroeconomic theories in terms of estimated impulse response functions, and to make inference on the identified dynamic causal effects;
-apply SVAR analysis to Euro area and/or U.S. monthly/quarterly data by available econometric packages with the idea of replicating existing results or producing new ones.

Obiettivi inglese: At the end of the course the student has acquired a comprehensive knowledge of the main identification and estimation methods which can be featured by Structural Vector Autoregressions (SVARs) in order to quantify the dynamic causal effects of macroeconomic structural shocks of interest including, among others, the monetary policy shock and uncertainty shocks. In particular, he/she is able to
-analyze critically the implications of macroeconomic theories in terms of estimated impulse response functions, and to make inference on the identified dynamic causal effects;
-apply SVAR analysis to Euro area and/or U.S. monthly/quarterly data by available econometric packages with the idea of replicating existing results or producing new ones.

ADVANCED ECONOMICS GROUP - 2 courses to be chosen in the following list		12-12			
5977 000 000 84563 - 2 - BEHAVIORAL ECONOMICS	SECS-P/01	6	30/0/0/0	No	Voto

Ambito: 1144 - Attivita' formative affini o integrative C

Obiettivi: At the end of the class, the student has acquired knowledge of the most active and influential areas of research in behavioral economics. In particular, the student understands the empirical methodologies adopted, the theoretical implications of the findings, and their possible applications in economic environment with and without strategic interaction.

Obiettivi inglese: At the end of the class, the student has acquired knowledge of the most active and influential areas of research in behavioral economics. In particular, the student understands the empirical methodologies adopted, the theoretical implications of the findings, and their possible applications in economic environment with and without strategic interaction.

5977 000 000 84557 - 2 - LABOR ECONOMICS	SECS-P/01	6	30/0/0/0	No	Voto

Ambito: 1144 - Attivita' formative affini o integrative C

Obiettivi: At the end of the course student has knowledge of a detailed analysis of the main areas in labor economics, both from a theoretical and an empirical perspective. Topics include the analysis of labor supply by individual and households, labor demand by firms, equilibrium wage differentials and employment outcomes resulting from the interaction of such supply and demand, education and human capital, life-cycle profiles, job search models, and labor market institutions. At the end of the course student has an understanding of how labor markets work and possess the basic tools to undertake original research in the field.

Obiettivi inglese: At the end of the course student has knowledge of a detailed analysis of the main areas in labor economics, both from a theoretical and an empirical perspective. Topics include the analysis of labor supply by individual and households, labor demand by firms, equilibrium wage differentials and employment outcomes resulting from the interaction of such supply and demand, education and human capital, life-cycle profiles, job search models, and labor market institutions. At the end of the course student has an understanding of how labor markets work and possess the basic tools to undertake original research in the field.

5977 000 000 90299 - 2 - PUBLIC ECONOMICS	SECS-P/03	6	30/0/0/0	No	Voto

Ambito: 1144 - Attivita' formative affini o integrative C

Obiettivi: At the end of the class, student has knowledge of the debate regarding pension’s policy and how it affects individuals, a debate which interests policy and academic audiences. He/she has knowledge of the lifecycle model as a key tool for analysing the issues of interest and for understanding existing analyses. Finally, student knows topical policy questions and the recent contributions to the academic literature about how individuals are affected by, and respond to, public policy.

Obiettivi inglese: At the end of the class, student has knowledge of the debate regarding pension’s policy and how it affects individuals, a debate which interests policy and academic audiences. He/she has knowledge of the lifecycle model as a key tool for analysing the issues of interest and for understanding existing analyses. Finally, student knows topical policy questions and the recent contributions to the academic literature about how individuals are affected by, and respond to, public policy.

5977 000 000 B2160 - 2 - CONSUMPTION AND INVESTMENT THEORY	SECS-P/01	6	30/0/0/0	No	Voto

Ambito: 1144 - Attivita' formative affini o integrative C

Obiettivi: This course presents models and techniques used by macroeconomists to study the theory of consumption and investment. At the end of the course, the student: - knows basic techniques in dynamic programming and their applications - critically understands macroeconomic models that study the dynamics of Consumption and Investment.

Obiettivi inglese: This course presents models and techniques used by macroeconomists to study the theory of consumption and investment. At the end of the course, the student: - knows basic techniques in dynamic programming and their applications - critically understands macroeconomic models that study the dynamics of Consumption and Investment.

5977 000 000 41433 - 2 - DEVELOPMENT ECONOMICS	SECS-P/01	6	30/0/0/0	No	Voto

Ambito: 1144 - Attivita' formative affini o integrative C

Obiettivi: By the end of the module students should have achieved the following outcomes: (a) acquired an enhanced empirical knowledge of economic conditions in low and middle income economies; (b) acquired an understanding of the key structural characteristics of these economies and of their significance for economic development; (c) consolidated their understanding of those elements of basic economic theory which we apply to the problems of development; (d) acquired an understanding of the empirical methods that are used by the profession to study developing countries

Obiettivi inglese: By the end of the module students should have achieved the following outcomes: (a) acquired an enhanced empirical knowledge of economic conditions in low and middle income economies; (b) acquired an understanding of the key structural characteristics of these economies and of their significance for economic development; (c) consolidated their understanding of those elements of basic economic theory which we apply to the problems of development; (d) acquired an understanding of the empirical methods that are used by the profession to study developing countries

5977 000 000 B2157 - 2 - GROWTH THEORY	SECS-P/01	6	30/0/0/0	No	Voto	

Ambito: 1144 - Attivita' formative affini o integrative C

Obiettivi: At the end of the course the student has a good understanding of basic general equilibrium dynamic macroeconomic models, used by economists to analyze several theoretical and policy questions, and of modern growth theory. In particular, he/she: - knows and is able to solve analytically macroeconomic dynamic models (infinite horizons and overlapping generations); - knows the main empirical issues and theoretical models analyzed by modern growth theory; - is able to apply models to investigate comparative dynamics across countries and over time.

Obiettivi inglese: At the end of the course the student has a good understanding of basic general equilibrium dynamic macroeconomic models, used by economists to analyze several theoretical and policy questions, and of modern growth theory. In particular, he/she: - knows and is able to solve analytically macroeconomic dynamic models (infinite horizons and overlapping generations); - knows the main empirical issues and theoretical models analyzed by modern growth theory; - is able to apply models to investigate comparative dynamics across countries and over time.

5977 000 000 81604 - 2 - INDUSTRIAL ORGANIZATION: THEORY AND APPLICATIONS	SECS-P/01	6	30/0/0/0	No	Voto

Ambito: 1144 - Attivita' formative affini o integrative C

Obiettivi: Students attending this course will acquire a thorough knowledge of how firms interact in markets. By the end of the module, students will understand strategic behavior in markets and how firms may gain and exploit a competitive advantage over their rivals. Furthermore, students will gain a thorough understanding of competition policy: in particular, what are its aims, how it works, and how firms must adapt their behavior in order to avoid antitrust sanctions.

Obiettivi inglese: Students attending this course will acquire a thorough knowledge of how firms interact in markets. By the end of the module, students will understand strategic behavior in markets and how firms may gain and exploit a competitive advantage over their rivals. Furthermore, students will gain a thorough understanding of competition policy: in particular, what are its aims, how it works, and how firms must adapt their behavior in order to avoid antitrust sanctions.

5977 000 000 90296 - 2 - INFORMATION ECONOMICS	SECS-P/01	6	30/0/0/0	No	Voto

Ambito: 1144 - Attivita' formative affini o integrative C

Obiettivi: At the end of the class, the student has a working knowledge of the basic tools and results derived in Information Economics. Specifically, the student is able to analyze: - adverse selection in markets and its possible remedies - adverse selection and moral-hazard in the Principal-Agent model

Obiettivi inglese: At the end of the class, the student has a working knowledge of the basic tools and results derived in Information Economics. Specifically, the student is able to analyze: - adverse selection in markets and its possible remedies - adverse selection and moral-hazard in the Principal-Agent model

5977 000 000 B2169 - 2 - LONG-RUN DEVELOPMENT: THEORY AND EMPIRICS	SECS-P/01	6	30/0/0/0	No	Voto

Ambito: 1144 - Attivita' formative affini o integrative C

Obiettivi: This is a graduate-level course in growth economics and long term development. The course presents a detailed analysis of the state of the art research on long run growth in both a time series and a cross-country perspective. Topics include theoretical and empirical analysis of the fundamental determinants of economic growth from a multi-disciplinary perspective. The course focuses attention, in particular, on the role of economic and political institutions, geography and demography. By the end of the course the student will acquire theoretical and empirical tools that allow him/her to get a deep understanding of the recent literature, to build his/her own critical views, and to start undertaking original research in the field.

Obiettivi inglese: This is a graduate-level course in growth economics and long term development. The course presents a detailed analysis of the state of the art research on long run growth in both a time series and a cross-country perspective. Topics include theoretical and empirical analysis of the fundamental determinants of economic growth from a multi-disciplinary perspective. The course focuses attention, in particular, on the role of economic and political institutions, geography and demography. By the end of the course the student will acquire theoretical and empirical tools that allow him/her to get a deep understanding of the recent literature, to build his/her own critical views, and to start undertaking original research in the field.

5977 000 000 74681 - 2 - POLITICAL ECONOMICS	SECS-P/01		6	30/0/0/0	No	Voto

Ambito: 1144 - Attivita' formative affini o integrative C

Obiettivi: At the end of the class student has knowledge on using the concepts and tools of the new political economy to analyze current topics in this field. The focus is on the formation of macroeconomic policies from a positive point of view. Student is able to analyze issues such as: - the interaction between politics and economics in shaping macroeconomic policies in modern democracies; - the role of political institutions in the process of economic growth and development; - the effects of elections and changes of policymakers on macroeconomic policy.

Obiettivi inglese: At the end of the class student has knowledge on using the concepts and tools of the new political economy to analyze current topics in this field. The focus is on the formation of macroeconomic policies from a positive point of view. Student is able to analyze issues such as: - the interaction between politics and economics in shaping macroeconomic policies in modern democracies; - the role of political institutions in the process of economic growth and development; - the effects of elections and changes of policymakers on macroeconomic policy.

5977 000 000 B1016 - 2 - RECURSIVE METHODS IN MACROECONOMICS	SECS-P/01		6	30/0/0/0	No	Voto

Ambito: 1144 - Attivita' formative affini o integrative C

Obiettivi: The course provides students the fundamental training required to pursue independent research in modern macroeconomics.
It covers recursive methods---Markov processes, numerical dynamic programming, and recursive equilibria---and their application to core dynamic stochastic models: the business cycle and heterogeneous agents models.

Obiettivi inglese: The course provides students the fundamental training required to pursue independent research in modern macroeconomics.
It covers recursive methods---Markov processes, numerical dynamic programming, and recursive equilibria---and their application to core dynamic stochastic models: the business cycle and heterogeneous agents models.

Gruppo: 3. CHOOSE ONE BETWEEN THE "SEMINARS" ACTIVITY OR A LANGUAGE EXAM B1

TAF: F Ambito: 1147 - Altre conoscenze utili per

Cfu min: 3 Cfu max: 3

Note:

Attività formativa	TIP	SSD	TAF	CFU	ORE F/E/L/N	FREQ.	VER.
CILT 000 000 26356 - 3 - IDONEITA' LINGUA FRANCESE B - 1				3	0/0/0/0	No	Giudizio
Ambito: 1142 - Per la conoscenza di almeno una lingua straniera			E				
CILT 000 000 26350 - 3 - IDONEITA' LINGUA SPAGNOLA B - 1				3	0/0/0/0	No	Giudizio
Ambito: 1142 - Per la conoscenza di almeno una lingua straniera			E				
CILT 000 000 26344 - 3 - IDONEITA' LINGUA TEDESCA B - 1				3	25/0/50/0	No	Giudizio
Ambito:			E				
5977 000 000 24962 - 2 - SEMINARS				3	15/0/0/0	No	Giudizio
Ambito: 1008 - A scelta dello studente			D				

Obiettivi: At the end of the class, students will have a thorough view of the main directions of current research in economics. It will have attained the ability to develop critical and original views on both empirical and theoretical directions of research.

Obiettivi inglese: At the end of the class, students will have a thorough view of the main directions of current research in economics. It will have attained the ability to develop critical and original views on both empirical and theoretical directions of research.

Gruppo: 4. ELECTIVES

TAF: D Ambito: 1008 - A scelta dello studente

Cfu min: 12 Cfu max: 12 Num. Esami: 1 Num. Idoneità: 0
La Scuola garantisce che, ai fini del rispetto del limite massimo di 12 esami/5 idoneità i CFU a scelta saranno acquisibili con 1 esami e 0 idoneità

Note:

Attività formativa	TIP	SSD	TAF	CFU	ORE F/E/L/N	FREQ.	VER.
Qualsiasi attività del CdS 5977 - ECONOMICS AND ECONOMETRICS (5977)							

Ambito:

Gruppo: FINAL EXAMINATION

TAF: E Ambito: 1018 - Per la prova finale

Cfu min: 15 Cfu max: 15
Note:

Attività formativa	TIP	SSD	TAF	CFU	ORE F/E/L/N	FREQ.	VER.
5977 000 000 86228 - 2 - FINAL EXAMINATION				3	0/0/0/0	No	

Ambito: 1018 - Per la prova finale E

Obiettivi: The final dissertation and its defence is the result of the research and the activities carried out by the student. Through the thesis preparation, the student develops an original research and acquires critical skills to present his/her final results.

Obiettivi inglese: The final dissertation and its defence is the result of the research and the activities carried out by the student. Through the thesis preparation, the student develops an original research and acquires critical skills to present his/her final results.

Attività formativa	TIP	SSD	TAF	CFU	ORE F/E/L/N	FREQ.	VER.
5977 000 000 37849 - 2 - FINAL EXAMINATION LM				15	0/0/0/0	No	

Ambito: 1018 - Per la prova finale E

Obiettivi: The final examination consists of a dissertation written by the student under a teachers supervision and its oral defense. The dissertation will have to show critical skills and originality.

Obiettivi inglese: The final examination consists of a dissertation written by the student under a teachers supervision and its oral defense. The dissertation will have to show critical skills and originality.

Attività formativa	TIP	SSD	TAF	CFU	ORE F/E/L/N	FREQ.	VER.
5977 000 000 84551 - 2 - INTERNSHIP ABROAD FOR PREPARATION OF THE FINAL EXAMINATION				12	0/0/0/0	No	Giudizio

Ambito: 1018 - Per la prova finale E

Obiettivi: During the internship for the preparation of the final examination, the student carries out research and/or practical activities in a company/organisation based abroad.
The internship allows the student to acquire knowledge and professional skills useful for the preparation of the final dissertation.
The dissertation is developed on the basis of a project shared with the supervisor and supported by an external tutor within the company/organisation.
Through the internship, the student acquires a direct knowledge of a professional environment related to his/her studies in Economics, such as data analysis, decision processes and operational behaviours which are typical in the hosting organisation.
The student develops a deep understanding of the organisation he/she is working in and is able to adapt to the internal governance rules. He/she is trained to manage relations with management, colleagues, clients and other public stakeholders. He/She enhances abilities to work in teams.

Obiettivi inglese: During the internship for the preparation of the final examination, the student carries out research and/or practical activities in a company/organisation based abroad.
The internship allows the student to acquire knowledge and professional skills useful for the preparation of the final dissertation.

The dissertation is developed on the basis of a project shared with the supervisor and supported by an external tutor within the company/organisation.
Through the internship, the student acquires a direct knowledge of a professional environment related to his/her studies in Economics, such as data analysis, decision processes and operational behaviours which are typical in the hosting organisation.
The student develops a deep understanding of the organisation he/she is working in and is able to adapt to the internal governance rules. He/she is trained to manage relations with management, colleagues, clients and other public stakeholders. He/She enhances abilities to work in teams.

5977 000 000 84549 - 2 - INTERNSHIP FOR PREPARATION FOR THE FINAL EXAMINATION	12	0/0/0/0	No	Giudizio

Ambito: 1018 - Per la prova finale E

Obiettivi: During the internship for the preparation of the final examination, the student carries out research and/or practical activities in a company/organisation based in Italy.
The internship allows the student to acquire knowledge and professional skills useful for the preparation of the final dissertation.
The dissertation is developed on the basis of a project shared with the supervisor and supported by an external tutor within the company/organisation.
Through the internship, the student acquires a direct knowledge of a professional environment related to his/her studies in Economics, such as data analysis, decision processes and operational behaviours which are typical in the hosting organisation.
The student develops a deep understanding of the organisation he/she is working in and is able to adapt to the internal governance rules. He/she is trained to manage relations with management, colleagues, clients and other public stakeholders. He/She enhances abilities to work in teams.

Obiettivi inglese: During the internship for the preparation of the final examination, the student carries out research and/or practical activities in a company/organisation based in Italy.
The internship allows the student to acquire knowledge and professional skills useful for the preparation of the final dissertation.
The dissertation is developed on the basis of a project shared with the supervisor and supported by an external tutor within the company/organisation.
Through the internship, the student acquires a direct knowledge of a professional environment related to his/her studies in Economics, such as data analysis, decision processes and operational behaviours which are typical in the hosting organisation.
The student develops a deep understanding of the organisation he/she is working in and is able to adapt to the internal governance rules. He/she is trained to manage relations with management, colleagues, clients and other public stakeholders. He/She enhances abilities to work in teams.

5977 000 000 84548 - 2 - PREPARATION FOR THE FINAL EXAMINATION ABROAD	12	0/0/0/0	No	Giudizio

Ambito: 1018 - Per la prova finale E

Obiettivi: Through the activity of preparation of the final examination abroad, the student independently carries out data collections, surveys and research activities abroad. The student is supervised by a professor and the activity has to be related to his/her own final dissertation.
At the end of the activity, the student acquires data analysis skills, teamwork abilities and learns how to interact with different people.
This activity allows the registration of credits acquired abroad.

Obiettivi inglese: Through the activity of preparation of the final examination abroad, the student independently carries out data collections, surveys and research activities abroad. The student is supervised by a professor and the activity has to be related to his/her own final dissertation.
At the end of the activity, the student acquires data analysis skills, teamwork abilities and learns how to interact with different people.
This activity allows the registration of credits acquired abroad.

Legenda:

CFU: crediti formativi universitari
TAF: tipologia attività formativa (A-di base; B-caratterizzanti; C-affini o integrative; F-ulteriori attività formative; D-a scelta autonoma dello studente; S- stages e tirocini presso imprese, enti pubblici o privati, ordini professionali; E-per la prova finale)
SSD: settore scientifico disciplinare
F/E/L/N: indica le ore Frontali/Esercitazioni/Laboratori/Ore di esercitazione e/o laboratorio tenute da non docenti
Freq.: segnala l'esistenza di un obbligo di frequenza
Ver.: indica la modalità di verifica del profitto finale
TIP.: indica la tipologia delle forme didattiche. Queste possono essere CON: convenzionali, E-L: in e-learning, MIX: miste, C/E: convenzionali e/o e-learning. Il corso di studio può definire annualmente una delle modalità.