2nd Cycle Degree in Management, Economics and Finance (Profile: Economics and Finance)

Course Catalogue

Academic year starts the last week of September and ends the first week of June.
1st Semester - *Starting date:* last week of September, *end date*: 3rd wk of December
2nd Semester - *Starting date:* first week of March, *end date:* last week of May
Exams Sessions: I) from 2nd week of January to last week of February, II) from 1st week of June to last week of July, III) from 1st to last week of September

Comprehensive Scheme of the 2nd Cycle Degree (Bachelor) in MANAGEMENT, ECONOMICS AND FINANCE (Profile: Economics and Finance)				
YEAR	**CODE**	**COURSE**	**Credits (ECTS)**	**Semester**
I	SECS – P/08	Management and Governance of International Companies International	9	1
	IUS/05	Adjustement of Financial Markets	9	1
	SECS – P/11	Corporate and Investment Banking	6	2
	L/LIN/12	*English (B2 Level)*	9	2
	SECS – P/06	Industrial Organization	9	2
	SECS – P/02	Monetary Economics	9	1
	SECS – P02	Economics and Policy of European Integration	6	1
		A course chosen from		
	SECS – S/06	-Mathematical methods for economics	6	1
	SECS – S/03	-Mathematical methods for finance and Insurances		1
	SECS – S/01	-Statistics for Business & Economics		2
		-Forecast Models		1
II	SECS – P/01 SECS - P/05	International Trade e Econometrics. *Integrated course composed by the modules*: Economy of International Trade Econometrics	12	
	SECS – P/09	International Corporate Finance	6	
	SECS – P06	Innovation Economics	6	
	SECS – P/01	Regional Economy	6	
		Free choice course (Typ.D)	9	
		Practice	3	
		Final exam Preparation	14	
		Thesis	1	

ECONOMICS AND POLITICY OF EUROPEAN INTEGRATION		
Number of ECTS credits: 6		
Teacher: **Gianni Mastronardi**		
1	**Course objectives and Learning outcomes**	The aim of the course is to provide students the knowledge of the foundamental features in European Economic and Political Integration and ability to identify micro and macroeconomic and socio-political aspects. After having successfully completed the module students should be able to: - analyse the features of the European Integration and policies implemented by the EU and in the EMU; - provide an appropriate economic interpretation; - assess its strengths and weaknesses.
2	**Dublin descriptors**	The course programme is structured in two parts. The first part deals with: - different approaches to theoretical analysis of economic integration processes among countries; - specific issues of the integration process in Europe; - the economic policies of the EU and their evolution. The second part focuses on EMU and its analysis involves: - costs and benefits of the monetary union; - elements of fragility in incomplete monetary unions; - the monetary policy; - the limits of fiscal policies and the coordination of economic policies.
3	**Prerequisites and learning activities**	To understand and apply the main topics of the course, students must have attained the core skills of micro and macro-economics.
4	**Teaching methods and language**	The lecturer will utilize PowerPoint presentations in Class Lessons.
5	**Texts**	Students are obliged to systematically use the two textbooks, following the path provided by the presentations of the lessons, and to consult the additional teaching material published on the E-Learning Portal of the University. **Reference textbook: R. Baldwin and C. Wyplosz, 'L'Economia dell'Unione Europea', Hoepli, 2005.** **Text book for integrations, updates and insights**: **R. Baldwin and C. Wyplosz, 'The Economics of European Integration', Sixth Edition, Mc Graw-Hill Education, 2020.**
6	**Assessment methods**	The exam consists of an oral test to verify the preparation of students on the topics of the programme carried out, with reference to the expected results.

Programme of "Industrial Organization"		
Number of ECTS credits: 9 (workload is 225 hours; 1 credit = 25 hours)		
Compulsory **2nd Cycle in Economics, 1st year , 2nd semester** Teacher: **Marco Valente**		
1	**Course objectives and Learning outcomes**	Provide students with a thorough knowledge of industrial dynamics by means of several case studies and extended discussion on the relevant literature..
2	**Contents**	The course discusses advanced literature on market demand and supply with specific emphasis on market dynamics and the role of innovation.
3	**Prerequisites and learning activities**	Introductory economicsudent are expected to have passed the exams of at least micro and macro economics. Economic history, Economics of Innovation and Economic Policy provide an advantage, though they are not necessary prerequisites
4	**Teaching methods and language**	Lessons and case studies.
5	**Texts**	Teaching materiale made available to students during the lectures and to registered students.
6	**Assessment methods**	No intermediate test before final exam

MANAGEMENT AND GOVERNANCE OF INTERNATIONAL COMPANIES		
Number of ECTS credits: 9		
Paola Olimpia Achard		
1	**Course objectives and Learning outcomes**	The aim of the course is the analysis of the foreign expansion process and of the actors that influence the possible trajectories with a focus on the management of company functions in an international perspective.
2	**Contents**	The course aims at providing useful tools for analyzing international management phenomena. scenarios and trends in the internationalization of companies; internal and external push factors; strategies for entering foreign markets; the specificities and critical nodes of global companies. Furthermore, the strategic management of growth strategies will be examined in depth, in terms of investment choices and financial analysis.
3	**Prerequisites and learning activities**	Knowledge of basic business management tools.
4	**Teaching methods and language**	The lessons are designed to illustrate the fundamental contents of the program topics and the related treatment in the proposed texts and to provide complementary indications and examples. The presentation and the discussion of case studies, respond to the objectives of deepening the analysis of the topics discussed and reflecting on the theoretical contents in a simulated operating context. The realization of group works on company cases assigned by the teacher, in order to concretely use the tools and models studied.
5	**Texts**	1) CAROLI M. (2016), GESTIONE DELLE IMPRESE INTERNAZIONALI, ED. MCGRAW-HILL COMPANIES, III° EDIZIONE;

		2) BOCCARDELLI P., FONTANA F. (2015), CORPORATE STRATEGY. UNA PROSPETTIVA ORGANIZZATIVA E FINANZIARIA PER LA CRESCITA, ED. HOEPLI;
6	**Assessment methods**	Intermediate class assignments will allow the student to evaluate his own preparation. These tasks are not exemptions. The exam will be conducted in oral form after a written test aimed at ascertaining the knowledge of the basic topics, without which it is not possible to pass the exam with profit. After the written exam, it will be possible to access the oral exam.

ADJUSTEMENT OF FINANCIAL MARKETS		
Number of ECTS credits: 9		
WALTER GIULIETTI		
1	**Course objectives and Learning outcomes**	Knowledge, with regard to the public sector as a whole, of the most important instruments for the planning of financial activity, as well as of budget management procedures. On the successful completion of this module, the student should: - have deep knowledge of capital markets and of banking activities; - to be able to search for process and analyse information from a variety of sources - have capacity to learn and stay up-to-date with learning - to be able to work autonomously, to identify, pose and resolve problems be able to apply the acquired knowledge - to practical cases as occurring in the professional life
2	**Contents**	Topics of module FINANCIAL MARKET REGULATION include: a) The evolution of the legislation and the T.U.F. The capital markets: securities, banking and insurance. The authorities to control and supervision. Regulation of brokers. Pension funds. Companies operating in the financial sector. Securitization companies. Regulation of Capital market. Regulated markets. The corporate information. Insider trading and market abuses. The Financial Crimes. b) The governance of the banking sector in the EU.The legal basis of the Banking Union. European Banking Union and market discipline. Single Supervisory Mechanism. Single Resolution Mechanism
3	**Prerequisites and learning activities**	The student must have the basic notions of administrative law and commercial law.
4	**Teaching methods and language**	The lessons are designed to illustrate the fundamental contents of the program topics and the related treatment in the proposed texts and to provide complementary indications and examples. The presentation and the discussion of case studies, respond to the objectives of deepening the analysis of the topics discussed and reflecting on the theoretical contents in a simulated operating context. The realization of group works on company cases assigned by the teacher, in order to concretely use the tools and models studied.
5	**Texts**	C. BRESCIA MORRA, IL DIRITTO DELLE BANCHE, IL MULINO, LATEST EDITION. R. COSTI, IL MERCATO MOBILIARE, GIAPPICHELLI, 2018 EXCLUDING CHAPTERS N. 6 - DA §6 A §10 -

		E N. 7.
6	**Assessment methods**	Formative Assessment: the students are invited to make some home work and to participate to discussions on concrete examples. The active participation is supported and stimulated also by short Q&A sessions. Summative Assessment: Oral Examination The student must provide evidence of the acquired knowledge by answering 3 questions concerning the parts of the course. The students will be assessed on their demonstrated ability to discuss the main course contents. The evaluation criteria with which the verification of the acquired knowledge and skills will be carried out are: 1. Completeness of the acquired knowledge. 2. Properties of the technical terminology used. 3. Ability to resolve issues. 4. Ability to autonomous and critical processing.

CORPORATE AND INVESTMENT BANKING		
Number of ECTS credits: 9		
MORI MARGHERITA		
1	**Course objectives and Learning outcomes**	The aim of this course is to provide the student with knowledge of the fundamental notions in managing banks. Attention is focused on Italy's financial framework but the global financial crisis is also analyzed. On successful completion of this course, the student should be able to analyze and assess the main features of the products and services supplied by these institutions.
2	**Contents**	Topics include: 1) a detailed analysis of the products and services provided by banks and of the key features of their managerial implications 2) a discussion of the impact of the global financial crisis on the banking industry.
3	**Prerequisites and learning activities**	Topics include: 1) a detailed analysis of the products and services provided by banks and of the key features of their managerial implications 2) a discussion of the impact of the global financial crisis on the banking industry.
4	**Teaching methods and language**	Lectures with demonstrations.
5	**Texts**	AAVV (GAI L. EDITOR), LA BANCA - PROFILI ISTITUZIONALI, OPERATIVI E GESTIONALI, ANGELI, MILANO, 2018 ONADO M., ALLA RICERCA DELLA BANCA PERDUTA, MULINO, BOLOGNA, 2017.

6	**Assessment methods**	Written exam consisting of: 1) 11 multiple choice questions (2/30 points each) 2) 2 essay-type questions (4/30 points each). Time allowed: 30 minutes. Students are requested to bring a calculator that performs basic functions.

Forecasting Models		
Number of ECTS credits: 6		
Coccia Mimi		
1	**Course objectives and Learning outcomes**	The Course target is to be able to choose the best approch to explain and solve an interpretation and/or forecasting problem. Indeed there are many mathematical models for forecasting and choosing an appropriate model for a particular forecasting application depends on the "data". Modelling methods evolution: interpretative and forecast models, indicators of model and forecasting goodness.
2	**Contents**	The Utilizzo del software http://www.r-project.org. Simple and multiple regression, specification model, parameter estimation, adjustment indexes, multicollinearity problems. Stochastic processes, the autocovariance and autocorrelation functions, the partial autocorreletion functions, white noise processes, stationary time series models (ARMA: autoregressive and mooving average), non stationary time series models (ARIMA: autoregressive integrated mooving average models), seasonal time series models, forecasting, model identification, parameter estimation, diagnostic, checking and model selection,.ex-post analysis, transfer function model.
3	**Prerequisites and learning activities**	The requirements are to get through a mathematical and statistics base course.
4	**Teaching methods and language**	Lectures and many exercises..
5	**Texts**	L- HTTP://WWW.R-PROJECT.ORG TEXTS RECOMMENDED FOR THE REGRESSION: - VITO RICCI (2006), PRINCIPALI TECNICHE DI REGRESSIONE CON R. - CRIVELLARI, F.,(2006) ANALISI STATISTICA DEI DATI CON R – APOGEO. - IACUS S. M., MASAROTTO, G. (2007) STATISTICA CON R - II -MCGRAW-HILL. TEXTS ADVISED FOR THE TIME SERIES: - T. DI FONZO E F. LISI (2005), SERIE STORICHE ECONOMICHE..,CAROCCI - VITO RICCI (2004), ANALISI DELLE SERIE STORICHE CON R - BROCKWELL P.J. AND DAVIS R.D. (2002), INTRODUCTION TO TIME SERIES AND FORECASTING – II EDITION-SPRINGER. - NEWBOLD P., CARLSON W.L., THORNE B., STATISTICS FOR BUSINESS AND ECONOMICS, PEARSON/PRENTICE HALL, 2007, 6TH ED. - W. WEY (1990), TIME SERIES ANALYSIS: UNIVARIATE AND MULTIVARIATE METHOD, II EDITION, WEY - WWW.R-PROJECT.ORG URL FOR SOFTWARE R AND DOCUMENTATION.
6	**Assessment methods**	Exercises designed to deal with complex problems.

Module: Statistics for Business and Economics	
Lecturer: Professor Mauro Costantini	
1. Course objectives	The course aims to endow students with knowledge of statistical inference, Monte Carlo methods, parametric and non-parametric models, forecasting time series, and Matlab for statistics
2. Course content and Learning outcomes	Statistical Inference: Estimation, and Hypothesis Testing for Single Populations; Monte Carlo method for Statistical inference; Multiple regression and parametric models; Non-parametric statistics and models; Time series forecasting On successful completion of the module, the student should have: - knowledge of linear regression analysis; - knowledge of Statistical inference and Monte Carlo inference; - Parametric and nonparametric models - Forecasting time series
3. Prerequisites and learning activities	The student must know of elements of mathematics and statistics
4. Teaching methods	Weekly Lectures and labs with Matlab. Readings: Computational Statistics Handbook with Matlab, Second Edition, Martinez, W.L. and Martinez, A. L., Chapman & Hall/CRC, 2007. Statistics for Business and Economics, First European Edition, Cortinhas, C. and Black, K., John Wiley & Sons, 2012.
5.Assesment	Written exam and lab design

Mathematical Methods for Business Decisions		
Number of ECTS credits: 6		
Teacher: **Castellani Marco**		
1	**Course objectives and Learning outcomes**	Goal of the course is to provide the mathematical techniques for modeling and solving complex decision making problems. On successful completion of this module, the student should be able to develop optimization linear models for production planning, transportation planning, distribution systems, human resource allocation. Moreover he/she should be able to solve them. By the end of this course students should - be able to build optimization linear models, - have knowledge of the main geometric aspects of linear programming problems, - demonstrate skill in mathematical reasoning and ability to conceive the steps of an algorithm, - solve a linear programming problems by means of the primal/dual simplex algorithm, - understand the branch and bound method for solving integer linear programming - be able to apply the acquired algorithms for solving different minimum-cost flow problems, - demonstrate capacity for reading and understand other texts on related topics.
2	**Contents**	Optimization problems: decision variables, objectives and constraints; modeling techniques and model classification. Geometry of linear programming and the simplex method with Bland's anticycle rule. Duality theory in linear programming, the dual interpretation of the simplex method and the dual simplex method. Integer linear programming. Unimodular and totally unimodular matrices. Branch and bound method. Problems on network and solution methods: the minimum spanning tree problem and the Kruskal's algorithm, the shortest path problem and the Dijkstra's algorithm, the Hitchcock-Koopmans transportation problem and the primal-dual algorithm, the assignment problem and the Hungarian method, the maximum-flow problem and the Edmonds–Karp implementation of the Ford–Fulkerson method.
3	**Prerequisites and learning activities**	Vector space, scalar product, matrix product, inverse matrix, determinant and rank of a matrix, solvability of a linear system, Gauss-Jordan method, Rouché-Capelli Theorem.
4	**Teaching methods and language**	Lectures and problem solving classes.
5	**Texts**	M.L. De Cesare, M.R. Maddalena, Introduzione alla programmazione lineare, Giappichelli, Editore, Torino, 2001 - S. Martello, M.G. Speranza, Ricerca operativa per l'economia e l'impresa, Esculapio, Bologna, 2012 - R.J. Vanderbei, Linear programming: foundations and extensions, Kluwer Academic Publishers, 1998 (English book).
6	**Assessment methods**	The exam is a written test (2 hours) which consists in 8 exercises concerning with: - the primal/dual simplex method (3.5 points) - the geometrical primal simplex method (5.5 points) - the branch and bound method for an integer linear problem (3.5 points) - the Kruskal's algorithm (3.5 points) - the Dijkstra's algorithm (3.5 points) - the primal/dual method for a transportation problem (3.5 points) - the Hungarian method for the assignment problem (3.5 points) - the Ford-Fulkerson method for the maximum flow (3.5 points) The sum of the points of each exercise contributes to the final mark. The oral test is

		not compulsory. Anyway, only students who passed the written test are admitted to the oral test. Exempted from the written test are those who have passed the two optional intermediate tests. The former intermediate test consists with the first three, the latter with the other five.

Mathematical Methods for Finance And Insurance		
Number of ECTS credits: 6		
Giuli Massimiliano		
1	**Course objectives and Learning outcomes**	The aim of the course is intended to provide students with an understanding of some mathematical tools and models for derivatives pricing and risk management. On successful completion of this module, the student should have a sound understanding and knowledge of the basic concepts and methods in probability theory and finance, demonstrate to be able to apply them to model financial markets, asset portfolios, derivatives, find their value and hedge the exposure.
2	**Contents**	Topics of the module include: - Introduction to finance, interest rates, short selling, arbitrage, forward and futures contracts, options and their role. - About the cardinality of sets, countable and uncountable sample spaces; - Fundamentals of probability models, probability mass functions, sigma-algebra of sets, probability measures and probability spaces; - Measurable spaces and random variables, probability laws, cumulative distribution functions, density functions; - Conditional probability and independence, Bayes' theorem, independent events, sigma-algebras and random variables; - Expected value, variance, covariance, some moment inequalities and useful probability distributions; - Conditional expectation, filtration, random processes and martingales; - discrete-time financial models, strategies, arbitrage and viable markets, complete markets; - fundamental theorems of asset pricing; - put-call parity, options pricing in complete and incomplete markets, binomial market model.
3	**Prerequisites and learning activities**	This course is designed for students with two years' undergraduate experience who earn credit in mathematics.
4	**Teaching methods and language**	Lectures and worked examples.
5	**Texts**	LECTURE NOTES ARE AVAILABLE ONLINE. RECOMMENDED READINGS INCLUDES: - PASCUCCI, A., RUNGGALDIER, W.J. FINANZA MATEMATICA. TEORIA E PROBLEMI

		PER MODELLI MULTIPERIODALI, SPRINGER 2009.
6	**Assessment methods**	Written examination and facultative oral examination.

International Trade		
Number of ECTS credits: 6		
Mastronardi Giovanni		
1	**Course objectives and Learning outcomes**	The THE AIM OF THE COURSE IS TO PROVIDE STUDENTS WITH A GENERAL OVERVIEW OF THE BASIC INTERNATIONAL TRADE AND INTERNATIONAL PRODUCTION THEORIES. THE SECOND PART OF THE COURSE FOCUSES ON TRADE POLICIES AND ON THE GLOBALIZATION DEBATE. MAIN CAPABILITY GAINS WILL BE: - TO ANALYZE THE ROLE OF CROSS-COUNTRY TECHNOLOGICAL DIFFERENTIALS ON INTERNATIONAL TRADE; - TO ANALYZE THE ROLE OF INTERSECTORAL FACTOR MOBILITY ON INTERNATIONAL TRADE AND INCOME DISTRIBUTION; - TO EVALUATE THE ROLE OF FACTOR ENDOWMENT AND FACTOR INTENSITY ON INTERNATIONAL TRADE AND INCOME DISTRIBUTION; - TO EVALUATE THE ROLE OF SCALE ECONOMIES ON INTERNATIONAL TRADE; - TO EVALUATE THE ROLE OF FIRM HETEROGENEITY ON INTERNATIONAL TRADE; - TO EVALUATE THE DETERMINANTS OF INTERNATIONAL MIGRATION; - TO UNDERSTAND THE MAIN DETERMINANTS OF FIRMS' STRATEGIES IN INTERNATIONAL MARKETS; - TO USE SIMPLE PARTIAL AND GENERAL EQUILIBRIUM MODELS; - TO UNDERSTAND THE OBJECTIVES, TOOLS AND EFFECTS OF TRADE POLICIES; - DEMONSTRATE CAPACITY FOR READING AND UNDERSTAND OTHER TEXTS ON RELATED TOPICS Prerequisites
2	**Contents**	A) International trade theories B) International trade policy
3	**Prerequisites and learning activities**	N ORDER TO UNDERSTAND AND TO APPLY THE MAIN TOPICS OF THE COURSE, STUDENTS MUST HAVE ATTENDED THE EXAMS OF MATHEMATICS AND MICROECONOMICS. IN PARTICULAR, SOME TOPICS REQUIRE THE ABILITY TO SOLVE SIMPLE DERIVATIVES, BASIC OPTIMIZATION PROBLEMS AND SIMPLE ALGEBRAIC CALCULUS.
4	**Teaching methods and language**	MIX OF INTERACTIVE AND FRONTAL TEACHING. STUDENTS WILL BE INVITED TO PARTICIPATE TO THE DISCUSSION WITH CRITICAL JUDGEMENT, BY EXPRESSING IDEAS, BY ASKING QUESTIONS, AND BY PRESENTING EXAMPLES. INDIVIDUAL STUDY: STUDENTS WILL BE PROVIDED WITH TEXTBOOKS AND SLIDES.
5	**Texts**	P. KRUGMAN, M. OBSTFELD, M. MELITZ, ECONOMIA INTERNAZIONALE 1 – TEORIA E POLITICA DEL COMMERCIO INTERNAZIONALE, DECIMA EDIZIONE ITALIANA A CURA

		DI RODOLFO HELG, PEARSON, MILANO, 2015.
6	**Assessment methods**	Written exam

Programme of "Economia dell'innovazione - *"Economics of Innovation"* **Number of ECTS credits: 6 (workload is 150 hours; 1 credit = 25 hours)**		
2nd Cycle in Economics, 2nd year , 2nd semester Teacher: **Lucrezia Fanti**		
1	**Course objectives and Learning outcomes**	The goal of the course is to provide students with the capacity of interpreting complex economic phenomena related to innovation dynamics and technical change process at different level of aggregation: i.e. at firm (micro), sectoral (meso), and country (macro) level. The topic will be addressed from different disciplinary perspectives (including microeconomics, industrial dynamics, macroeconomics, economics of growth and distribution, economic history and history of economic thoughts) at both theoretical and empirical levels. The course will enrich the capacity of students to elaborate their own analyses about the complex interplay between innovation, economic performances, labour market dynamics and economic/industrial policies.
2	**Dublin descriptors**	Students are introduced to issues concerning: – Innovation in history of economic thoughts and economic history; – Neoclassical vs Evolutionary approach to innovation; – Different level of aggregation: firms, industries and countries; – Technological paradigms, sectoral patterns, and structural change; – Innovation and labour markets; – Innovation policies and National Innovation Systems After the course, students will be able to discuss and analyze currently relevant issues related to the impact of innovations upon contemporary economic systems and society from a broad perspective. Moreover, they will be able to connect and appreciate specific issues related to different level of analyses involving such phenomena, that is to understand the interplay between firm-level, industrial and macroeconomic dynamics of innovation and its impact on labour, growth and distributional dynamics.
3	**Prerequisites and learning activities**	Student are expected to have basic knowledge in microeconomics, macroeconomics and industrial dynamics. Economic history and history of economic thought are not necessary prerequisites.
4	**Teaching methods and language**	Lectures and seminars. Teaching language: Italian Teaching materials: some chapters from two textbooks (in Italian) Reading list: papers provided in class (in English)
5	**Assessment methods**	Only for attending students: presentation of a short essay (10-15 pages) at the end of the course on a topic of interest among those proposed by the teacher at the beginning of the course (this would represent a 40% of the final mark, the residual 60% relates to the oral exam). Oral exam, Italian or English.