

LIVRET DE FORMATION

L3 International Economics & Management

FI	FA	FC	Formation anglophone
X			X



2025 - 2026



Faculté de sciences économiques et de gestion
Campus Mail des Mèches – Place de la porte des Champs 94000 Créteil
<https://fseg.u-pec.fr>

CONTACTS

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I. General overview of the training program

Objectives

This bachelor's degree program provides students with a strong foundation in economics and management.

This selective program prepares students to apply to most master's programs in economics and management.

Depending on the master's program they wish to pursue, UPEC students have the opportunity to enrich their studies by completing the second semester at a partner university in Europe or worldwide. Lectures will be taught in English.

Prerequisites and requirements:

This selective program is designed for good students who have completed two years of economics studies, can attend lectures in English, and are open to international exchanges.

These students will participate in small, specialized classes. The classes will consist of a mix of French and international students from our partner universities and other institutions. Lectures will be taught

II. Calendar

- Lectures begin September, 15th until the end of March
- Internship: from Mar, 30th
- Defense: from May, 18th
- Breaks:
 - From Oct, 27th until Nov, 2nd (included)
 - From Dec, 22nd until Jan, 4th (included)
 - From Feb, 23th until Mar, 1st (included)

III. Teaching organisation

FIRST SEMESTER (fall semester)

ETCS	Lectures	Hours	Teachers
	U.E.1. Economics		
4	ECUE 1: Microeconomics III - public economics	24	M-E. Sanin
4	ECUE 2: Game Theory	24	E. Duguet
	U.E.2. Management		
2	ECUE 1: Corporate finance	15	A. Rochdi
2	ECUE 2: Organisation theory	15	E. Hertzler
	U.E.3. Analytical skills		
5	ECUE 1: Econometrics	24+12	S. Chareyron
3	ECUE 2: Introduction to econometrics software	20	T. Brodaty
3	ECUE 3: Mathematical skills	20	A. Le Ny
	U.E.4. International issues		
2	ECUE 1: History of globalisation	15	A. Guillin
2	ECUE 2: Development economics	15	B. Najman
	U.E.5. Language		
3	ECUE 1: Elective course	20	K. Labidi
	<ul style="list-style-type: none"> English Skills (TOEIC) French class (only for non-French speakers) 	20	I. Rambli

First semester: 30 ECTS

SECOND SEMESTER (spring semester)

ETCS	Lectures	Hours	Teachers
	U.E.1. Economics		
4	ECUE 1: Macroeconomics III - theories of economic growth	24	F.Mihoubi
5	ECUE 2: International trade & FDI	24+12	A. Guillin
2	ECUE 3: International monetary problems	24	J. Rey
	U.E.2. Management		
2	ECUE 1: Negotiation analysis	15	O. Ferrier
2	ECUE 2: Corporate strategy	15	E. Hertzler
2	ECUE 3: Intercultural management		K. Labidi
	U.E.3. Analytical skills		
2	ECUE 1: Business statistics	24+12	T. Brodaty
4	ECUE 2: Introduction to Python	24	Z. Abidi
4	ECUE 3: Stochastic process in finance	20	A. Le Ny
	U.E.4. Projects and professional skills		
3	ECUE 1 : International Project and Student engagement/Internship/Visiting professor	20	A. Guillin

Second semester: 30 ECTS

IV. Evaluation and compensation scheme

Students must attend all lectures.

More than two absences from one lecture will result in a mark of 0/20 for the corresponding mid-term and final exams.

Failure to attend the final exam will invalidate the corresponding course block and semester.

Students must achieve an average mark of at least 10/20 to pass the year.

All lectures within a given course block (UE) are mutually compensatory, as are all course blocks within a semester.

The two semesters compensate each other before the retake session in June.

V. Academic staff

Zineb ABIDI - UPEC (Economics)
Thibault BRODATY - UPEC (Economics)
Sylvain CHAREYRON - UPEC (Economics)
Emmanuel DUGUET - UPEC (Economics)
Olivier FERRIER - UPEC (Economics)
Amélie GUILLIN - UPEC (Economics)
Éric HERTZLER - UPEC (Management)
Khaled LABIDI - UPEC (Economics)
Arnaud LE NY - UPEC (Economics)
Ferhat MIHOUBI - UPEC (Economics)
Boris NAJMAN - UPEC (Economics)
Juliette REY - UPEC (Economics)
Abdelfattah ROCHDI - Consultant
Maria-Eugénia SANIN - UPEC (Economics)

VI. Course description

S1.U.E.1: ECUE 1: Microeconomics III - public economics

Teacher: M-E. SANIN

Volume: 24 hours

Credits: 4 ECTS

Assessment scheme: Written mid-Term/ Final exam

Prerequisites: Intermediate microeconomics (consumer theory, producer theory, basic game theory and strategic behavior of firms)

Objectives:

Introduce students to the microeconomic analysis of general equilibrium and of the public sector. This includes explaining the reasons why governments intervene in markets, how public policies affect individual behavior, and how microeconomic tools can be used to assess these interventions.

Course outline:

Part I – Advanced Microeconomics (3 lectures)

1. General equilibrium concepts and pareto optimality in a general equilibrium setting
 - 1.1. Aggregate supply and its behavior
 - 1.2. Aggregate demand and its behavior
 - 1.3. Interdependence across markets and equilibrium
 - 1.4. Public intervention in markets
 - 1.5. General competitive equilibrium
 - 1.6. Global efficiency and pareto optimality

Part II – Introduction to Public Economics (5 lectures)

2. Market failures and the role of regulatory interventions
 - 2.1. Externalities
 - 2.1.1. Type of externalities
 - 2.1.2. Corrective mechanisms of public policy
 - 2.2. Public good provision
 - 2.2.1. Corrective mechanisms
3. Moral hazard
 - 3.1. Resolution of the basic problem
 - 3.2. Mixed incentives
 - 3.3. Extensions and applications
4. Anti-selection
 - 4.1. Resolution of the basic problem
 - 4.2. Available contracts

- 4.3.A continuum of types
- 4.4.Applications and Insurance

- 5. Other applications
 - 5.1.Price discrimination
 - 5.2.Monopoly regulation

Indicative bibliography:

Nicholson & Snyder, Microeconomic Theory: Basic Principles and Extensions
 Gruber, J., Public Finance and Public Policy
 Stiglitz & Rosengard, Economics of the Public Sector
 Hindriks & Myles, Intermediate Public Economics
 A. Auerbach, "The Theory of Excess Burden and Optimal Taxation", in A. Auerbach and M. Feldstein, Handbook of Public Economics, Volume 1, 61-127. Amsterdam: North Holland, 1985.
 L. Kotlikoff and L. Summers. "Tax Incidence," in A. Auerbach and M. Feldstein, Handbook of Public Economics, Volume 2
 R. Chetty and A. Finkelstein, "Social Insurance: Connecting Theory to Data," forthcoming, Handbook of Public Economics, volume 5, 2013.

S1.U.E.1: ECUE 2: Game Theory

Teacher: E.DUGUET
 Volume: 24 hours
 Credits: 4 ECTS
 Assessment scheme: Written mid-Term/ Final exam

Objectives:

This lecture aims at linking the methodology of Game Theory and the main content of Public Economics. The former consists in the analysis of interactions between rational individuals or firms and mainly relies on the different forms of the Nash equilibrium concept (depending on the timing and information structure of a game). The latter mainly includes collective considerations such as defining total surplus or social welfare. We will see that individual preferences and informational imperfections may prevent collective efficiency.

Expected learning outcomes:

At the end of the course, the students should be able to assess the nature of a game and to solve it. The students should also be able to interpret welfare implications of the equilibrium.

Course outline:

- 0. Introduction
 - 0.1. Definitions of a game and the information structure
 - 0.2. Preferences and rationality
 - 0.3. Pareto efficiency and welfare functions
- 1. Static games of perfect and complete information
 - 1.1. Strategic- or Normal-form game and Nash equilibrium
 - 1.2. Prisoners' dilemma and public good provision
 - 1.3 Cournot and Bertrand duopolies with differentiated products
 - 1.4 The problem of the commons
- 2. Dynamic games of perfect and complete information
 - 2.1. Extensive form, backward and subgame-perfect Nash equilibrium
 - 2.2. Stackelberg duopoly and the commitment assumption
 - 2.3. Sequential bargaining

- 2.4. Repeated games: the case of collusion
- 3. Elements on games of imperfect and incomplete information
 - 3.1. Dynamic games of complete but imperfect information
 - 3.1.1. Revisiting static games of complete information
 - 3.1.2. Efficiency wage and moral hazard (agency theory, part 1)
 - 3.2. Static games of incomplete information
 - 3.2.1. Bayesian games and Bayesian Nash equilibrium
 - 3.2.2. Cournot Competition under asymmetric information
 - 3.3. Dynamic games and Perfect Bayesian equilibrium
 - 3.3.1 Screening in ultimatum games of incomplete information
 - 3.3.2 Signaling in ultimatum games of incomplete information

Indicative bibliography:

Gibbons (1992), "Game Theory for Applied Economists", Princeton University Press.

Rasmusen (2006), "Games and Information: An Introduction to Game Theory", Wiley-Blackwell
(available at: www.rasmusen.org/GI).

Fudenberg and Tirole (1991), "Game Theory", MIT Press.

S1.U.E.2: ECUE 1: Corporate finance

Teacher: A. ROCHDI
Volume: 15 hours
Credits: 2 ECTS

Objectives: To be completed.

Course outline: To be completed.

Indicative bibliography: To be completed.

S1.U.E.2: ECUE 2: Organisation theory

Teacher: E. HERTZLER
Volume: 15 hours
Credits: 2 ECTS
Assessment scheme: Case studies/ Final Exam

Objectives:

The purpose of the course is to introduce the major organization theories to the students and to increase their effectiveness and skill in observing, understanding and managing behavior in organizations. The objectives of the course are to:

- Introduce ideas useful in the analysis of organizational processes and change
- Encourage critical thought about organizations and the events that occur within them

- Develop an appreciation of how theories can be translated into practical applications
- Stimulate critical consideration of organizations as social and political communities
- Students will better understand issues faced by Organizations (Goals, Tasks, coordination/implementation, input, output participants, environment fit)

The course is taught through a teaching method that mixes lecture sessions, group written case report, readings and group case presentations, and case discussions. A thorough preparation of the course material and an active participation in the class discussions are essential.

Course outline:

1. Analytic Features of Organizations
2. OT: Early Thinkers
3. OT: Classical Approach
4. OT: Structures
5. Organization and Environment: Contingency theory
6. Costs, outcomes and risks: Organizational Economics
7. Organizations as Open Systems: Evolutionary Theories
8. Organization Sociology
9. Decision-making Theories
10. Leadership and Authority

Indicative bibliography:

Alchian, A. A. and Demsetz, H. (1972) Production, Information Costs, and Economic Organisation. *The American Economic Review*, Dec., 62, 5, 777-795

Chandler, A. D. Jr. (1977) *The visible hand: The managerial revolution in American business*. Cambridge, MA: Belknap Press

Coase, R. H. (1937) The Nature of the Firm. *Economica*, New Series, Nov., 4, 16, 386-405: Blackwell

Drucker P. F. (1973) What can we learn from Japanese Management?, *Harvard Business Review*

Morel, C. (2001), "Absurd Decisions", Minutes of the Conference of the 'Association des Amis de l'Ecole de Paris du Management, December 7th, 2001, Paris

Mc Kinsey (2019), "The journey to an agile organization", Report

Campbell, A., Whitehead, J., Finkelstein, S. (2009), "Why Good Leaders Make Bad Decisions", *Harvard Business Review*, p. 60-66

Eisenhardt, K., Kahwaji, J.-L, Bourgeois L.J. (1997), How Can Management Teams Can Have a Good Fight, *Harvard Business Review*, July, p. 77-85

Courpasson, D. (2000), Managerial Strategies of Domination. Power in Soft Bureaucracies, *Organization Studies*, 21/1, p. 141-146

Weick, K. (1993). "The collapse of sensemaking in organizations: the Mann Gulch disaster." *Administrative Science Quarterly*, 38(4): pp.628-652

S1.U.E.3: ECUE 1: Econometrics

Teacher: S. CHAREYRON

Volume: 36 hours

Credits: 5 ECTS

Assessment scheme: Mid-Term/ Exam

Objectives:

This course is an introduction to econometric methods. Econometrics is a set of methods used to estimate and test economic models. Econometrics is also useful in a large number of other fields such as finance, marketing, political science and many other social sciences.

The objective of this course is to provide the essential elements of econometric theory: properties of estimators, ordinary least squares method, simple linear model, multiple linear model... Economic examples are provided and particular emphasis is placed on the economic interpretation of the results obtained. At the end of the class, the student should be able estimate econometric models and to interpret and test these estimates.

Course outline:

Introduction - The econometric approach

Chapter 1 - The Simple Linear Model

Chapter 2 - Confidence interval estimation and hypothesis testing

Chapter 3 - The Multiple Linear Model: Estimation, Properties and Hypothesis Testing

Chapter 4 - Forecasting

Indicative bibliography:

Hill, R. Carter, William E. Griffiths, and G. C. Lim. 2017. *Principles of Econometrics*. Fifth Edition. Hoboken: Wiley.

Wooldridge, Jeffrey M. 2016. *Introductory Econometrics: A Modern Approach*. Sixth edition. Boston, MA: Cengage Learning.

S1.U.E.3: ECUE 2: Introduction to econometrics software

Teacher: T. BRODATY

Volume: 20 hours

Credits: 2 ECTS

Assessment scheme: written tests

Objectives: The main objectives are to provide an overview of some basic and useful econometrics methods as well as some analytical basis.

Expected learning outcomes: At the end of the course, the students should be able to perform basic econometrics regressions. The students will be also able to interpret statistical results.

Course outline:

I. Introduction to SAS

II. Descriptive Statistics

III. Advanced Descriptive Statistics
IV. Regression Models and Post Estimation Tests

Indicative bibliography: Marasinghe, Mervyn G. author.; Kennedy, William J. author.; (2008), "SAS For Data Analysis : Intermediate Statistical Methods" Springer.

S1.U.E.3: ECUE 3: Mathematical skills

Teacher: A. LE NY
Volume: 20 hours
Credits: 2 ECTS
Assessment scheme: written exams

Course outline: During this course, we shall review all the required notions and abilities in mathematics that should be mastered to complete the undergraduate level in Economy, in both analysis and algebra first. Afterwards, we shall focus on Probability and Statistics to carefully prepare the second semester course « *Stochastic Processes in Finance* ».

Indicative bibliography: Any standard text book of undergraduate mathematics, for example « *Introductory Mathematics for Economists* », by K. Holden and A.W. Pearson.

S1.U.E.4: ECUE 1: History of Globalization

Teacher: A.GUILLIN
Volume: 15 hours
Credits: 2 ECTS
Assessment scheme: Presentation/ Exam

Objectives:

This course provides an historical perspective of economic globalization. Each lecture will be focused on a specific topic (not necessarily presented chronologically).

Expected learning outcomes:

At the end of the course, students will be able to understand and analyze articles on global economic history.

Course outline:

- I. The beginning of globalization
- II. Historical specializations
- III. Movements of factors
- IV. Trade and inequalities

Indicative bibliography:

O'Rourke, K. (2009). *Power and Plenty: Trade, War, and the World Economy in the Second Millennium*. Princeton University Press, 2009.
Antunes, C., & Fatah-Black, K. (2016). *Explorations in history and globalization*. Routledge.

S1.U.E.4: ECUE 2: Development economics

Teacher: B. NAJMAN

Volume: 15 hours

Credits: 2 ECTS

Assessment scheme: Written assessment and class participation

Objectives:

This course covers the main problems and challenges associated with economic development, including recent evidence. Both theory and empirical analysis will be reviewed.

Expected learning outcomes:

At the end of the course, the students should be able to understand the various issues related development and development economics.

Course outline:

- Poverty and inequality
- Trade, development and the environment
- Colonial legacy, institutions and governance
- Measuring development and the models to achieve development
- Human capital (education and health)
- Financial development and financial inclusion
- Informal economy and entrepreneurship
- Development aid and its effectiveness

Indicative bibliography:

Todaro, M. and Smith, S. (2012), *Economic Development*, Boston: Addison-Wesley.

World Bank (2016), *Poverty and Shared prosperity – Taking on Inequality*, Washington, DC: World Bank

Other references will be given during the course

S1.U.E.5: ECUE 1: English skills

Teacher: K.LABIDI

Volume: 20 hours

Credits: 2 ECTS

Assessment scheme: Mini-tests/ Oral Presentations/ Homework/ Mid-Term/ Final Exam

Objectives:

This will be a discussion-intensive course. Languages need theory but they also need to be spoken, a lot. A good discussion is a community effort, each of you helps create an enjoyable class. Most of the time, we will discuss texts from the textbook, which is why it's important that you read them and do your homework. I will grade your participation every single time. We need to make sure we all stand on the same page regarding grammar and vocabulary. We will do listening exercises and will watch videos in class. You are encouraged to stop watching dubbed TV series and movies and to start the awesome experience that is original version (with English subtitles if necessary). The purpose of this presentation is to allow you to speak in English in

front of your peers. I expect all of you to get involved seriously and prepare a great presentation (it's so important that there is a separate document about it).

Expected learning outcomes:

English fluency including specific vocabulary related to economics and management as well as the ability to make a detailed presentation in front of an audience and critical writing.

Indicative bibliography:

You must own a copy of *Business Intelligent Upper Intermediate*. ISBN: 1408256010

S2.U.E.1: ECUE 1: Macroeconomics, intermediate level

Teacher: F. MIHOUBI

Volume: 24 hours

Credits: 4 ECTS

Assessment scheme: Homework/ Slideshow presentation /Mid-Term/ Final Exam

Objectives:

This eight-session intermediate macroeconomics course includes a refresher. It provides tools for analysing the long-run activity (the Solow growth model), as well as the short-run activity in terms of interaction between the market for goods and services and the monetary and financial market (IS-LM model and AS-AD model), with respect to unemployment and inflation issues as well as related economic policies.

Expected learning outcomes:

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

Master the macroeconomic framework according to the IS-LM model and AS-AD model,

Understand the relevance of economic policies that are appropriate to the context of economic activity

Course outline:

I. Macroeconomic Quantities, Time Horizon and the Institutional Framework

II. The labour market

III. The Monetary and Financial Market

IV. The IS-LM model

V. Macroeconomic balance in the medium term and interdependence of markets

VI. The Phillips curve, Okun's law and economic activity

VII. Economic Growth

Indicative bibliography:

Blanchard O. & Johnson D. W. (2013) *Macroeconomics*, 6th ed. Prentice Hall, 624 p. (reference textbook)

The course slideshow is available on the digital platform (EPREL).

S2.U.E.1: ECUE 2: International Trade & FDI

Teacher: A.GUILLIN
Volume: 36 hours
Credits: 5 ECTS
Assessment scheme: Presentations/ Mid-Term/ Final Exam

Objectives:

In this course, we will describe the global, regional and sectoral patterns in trade and foreign direct investment (FDI). This course presents the main theories and policies in International Trade. Determinants of trade and FDI will be examined through theories and empirics from academic papers and reports.

Expected learning outcomes:

At the end of the course, the students should be able to understand the fundamental trade theories and policies.

Course outline:

- I. The traditional theory of international trade
- II. International Trade and Imperfect Competition
- III. Determinants of foreign direct investment
- IV. Trade policies

Indicative bibliography:

Krugman, P., Obstfeld, M. and M. Melitz, *"International Economics: Theory and Policy"*, 10th edition. Ed Pearson (2014).

Markusen, J.R, *"Multinational Firms and the Theory of International Trade"*, 2004. MIT Press.

S2.U.E.1: ECUE 3: International Monetary Problems

Teacher: J.REY
Volume: 18 hours
Credits: 2 ECTS
Assessment scheme: Team Work/ Final Exam

Objectives:

The objective is to introduce the current problems of the international monetary system through an historical approach. Students will be also familiarized with the main models of financial crises.

Expected learning outcomes:

At the end of the course, the students should be able to understand rigorously the contemporary debates on international monetary issues, including European monetary challenges.

Course outline:

Chapter 1: Introduction

- I. Exchange rates and preliminary notions
- II. Exchange rates regimes and international monetary system
- III. Balance of Payments and currencies

Chapter 2: Past international monetary system

- I. The gold standard

- II. The interwar period and the gold exchange standard
- III. Bretton Woods
- Chapter 3: Post Bretton-Woods International monetary system
- I. Attempts to reform the international monetary system
- II. Floating exchange rates

Indicative bibliography:

Ahamed, Liaquat (2009), *Lords of Finance - The Bankers Who Broke the World*, The Penguin Press, New-York.

Eichengreen, Barry (2015), *Hall of Mirrors: The Great Depression, The Great Recession, and the Uses-and Misuses-of History*, Oxford University Press.

Stein, Ben (2014), *The Battle of Bretton Woods*, Princeton University Press.

S2.U.E.2: ECUE 1: Negotiation analysis

Teacher: Olivier Ferrier

Volume: 18 hours

Credits: 2 ECTS

Assessment scheme

Objectives:

The Negotiation course is designed to give students a solid foundation for a strategic thought and practice in the field of Negotiation, useful to their Master and also for their future personal and professional activities. To do so, the course is based both on Game theory and Negotiation theory.

Expected learning outcomes:

At the end of the course, students should be able to understand the very foundations of Negotiation concepts, mechanisms and tools.

Program:

Session 1. Theoretical foundations of Negotiation theory

In the morning:

- Jaipur Gems Negotiation
- Introduction to the course
- Simulation #1 (first mark): let's play

In the afternoon:

- Simulation #1: Theoretical debriefing

Session 2. How to prepare any negotiation

In the morning

- Preparation protocol (BATNA, RV, IV, OV, strategy...)
- Main questions to be addressed during preparation

In the afternoon

- Some game theoretical concepts (game, player, information...) with applications to Negotiation (Prisoner's dilemma, centipede game, pirate game, ultimatum game)
- Dispute resolution

In the morning Strike Game

- Simulation #2 (second mark): let's play
- Simulation #2: theoretical debriefing

In the afternoon

- Strategies, tactics and techniques of Negotiation: the very structure of Negotiation process

Session 3. Coalition games: building alliances strategically in a Multi-Party Negotiation

In the morning

- Pure Coalition Game: Merger on the telephony market
- Simulation #3 (third mark): let's play
- Simulation #3: theoretical debriefing

In the afternoon

- Some pure competitive tools (padding, anchoring...)
- Some pure collaborative tools (starting with a draft document, graft, salami, playing on Time preferences differences...)

Educational approach:

Negotiation is not only a science but also an art which requires being experienced and theoretically well-armed. We start from a simulation conducted with students and then we make the theoretical debriefing. Simulations are noted between 10/20 and 20/20.

Bibliography

- Baker and McKenzie (eds) (2007). The International Negotiations Handbook: Success through Preparation, Strategy, and Planning. PILPG and Baker & McKenzie.
- Curry, J. E. (2009). International Negotiating: Planning and conducting International Commercial Negotiations. 3rd edition. World Trade Press.
- Fisher, R. & Shapiro, D. (2005). Beyond Reason: using Emotions as you Negotiate. Viking.
- Fisher, R. & Ury, W. (1981). Getting to yes: Negotiating Agreement Without Giving In. New York: Penguin. 1st edition.
- Fisher, R., Ury, W. & Patton, B. (1991). Getting to yes: Negotiating an agreement without giving in. (2nd ed.). London: Random House.
- Goodpaster, G. (1997). A Guide to Negotiation and Mediation. Transnational Publishers.
- Lewicki, R. J., Barry, B. & Saunders, D. (2007). Essential of Negotiation. McGraw-Hill International Edition, Fourth edition.
- Raiffa, H. (2002). Negotiation Analysis: the Science and Art of Collaborative Decision Making. Belknap Harvard.
- Rosenthal, R. (1981). "Games of Perfect Information, Predatory Pricing, and the Chain Store", Journal of Economic Theory, 25 (1), pp. 92-100.
- Thompson, L. (2005). The Mind and Heart of the Negotiator. 3rd edition, International Edition, Pearson Prentice Hall.
- Thompson, L. L. (edited by) (2006). Negotiation Theory and Research. Psychology Press.

S2.U.E.2: ECUE 2: Corporate Strategy

Teacher: E.HERTZLER

Volume: 18 hours

Credits: 2 ECTS

Assessment scheme: Teamwork/ Oral Presentations/ Mid-Term/ Final Exam

Objectives:

Give students a global vision of corporate strategy, through the introduction of key concepts and of the main international trends. These themes are applied to business case studies to foster the analytic skills of students.

Expected learning outcomes:

Students should be able to understand the main issues and trends in corporate strategy in a global environment. Student will be asked to demonstrate the above outcome through class assignments in English and a final presentation of a Corporate Strategy Case Study.

Course outline:

- I. Analysis of the Environment, Analysis of Markets, Competitors and Customers, Analysis of Resources.
- II. Development of Strategic Options, Strategy Evaluation.
- III. Knowledge, Technology and Innovation, Organization Structure and Strategy.
- IV. International Expansion and Globalization Strategies.
- V. Change Management.

Indicative bibliography:

De Wit, B. and Meyer, R. *Strategy Synthesis*, Cengage, 2010
 Coulter, Robbins, *Management*, Pearson, 2016
 Johnson G., Scholes K. and Whittington, R. *Exploring Corporate Strategy*, Prentice Hall, 2008
 Mintzberg H. *Crafting Strategy*, Harvard Business Review, July 1987
 Porter M. E. *Competitive Advantage*, Free Press, 1985
 Rugman A. M., Verbeke A., *Global Corporate Strategy and Trade Policy*, Routledge, 2009

S2.U.E.3: ECUE 1: Business Statistics

Teacher: T. BRODATY

Volume: 18 hours

Credits: 2 ECTS

Assessment scheme: Oral presentations/ Case Studies / Final Exam

Objectives:

This course is a course in business statistics. The goal is to learn how to use data in order to take better management decisions.

Expected learning outcomes:

The students will learn how to describe the data, how to identify performance drivers and how to simulate and forecast the effects of different scenarios. We will follow a user oriented approach and will apply the techniques with Excel, with real management data.

Course outline:

Session 1-2: Univariate descriptive statistics, Tests and confidence intervals, simulation.

Session 3: The simple linear regression: the basics

Session 4: The simple linear regression: the naïve forecasting

Session 5: Association between categorical variables

Session 6: Building multiple regression models

Bibliography:

Business statistics for comparative advantage with Excel 2013, Cynthia Fraser, Springer.

S2.U.E.3: ECUE 2: Introduction to Python

Teacher: Z. ABIDI

Volume: 24 hours

Credits: 2 ECTS

Assessment scheme: Homework/ Mid-Term/ Exam

Objectives:

Python is an easy-to-use programming language that is suitable for students who are new to programming. It is also generalist, complete and powerful language. It is now considered ~~as~~ one of the most widely used languages in diverse disciplines, including finance, medicine and data science.

The main goal of this course is to introduce students to the Python programming language basics.

Expected learning outcomes:

The learning objectives of this course are:

- Acquiring the basics of Python programming language.
- Hands-on experience using various Python data structures and reading and writing files in Python.

Course outline:

- Introduction
- Getting started with Python Language
- Variables and Operators
- Functions
- Data Types in Python
- Making an Interactive Program
- Data Manipulation with Pandas

Indicative bibliography and websites:

- *Introducing Python - Modern Computing in Simple Packages*, B. Lubanovic, 2014
- *Headfirst Python*, A brain-friendly guide, P. Barry, 2nd edition, 2017
- *Python Pocket Reference - Python in Your Pocket*, M.Lutz, 5th edition, 2014
- *Python Data Science Handbook: Essential Tools for Working with Data*, J. VanderPlas, 2017
- <https://docs.python.org/3/>
- <http://docs.python-requests.org>
- <https://www.kaggle.com/learn/python>

S2.U.E.3: ECUE 3: Stochastic process in finance

Teacher: A. LE NY

Volume: 24 hours

Credits: 4 ECTS

Assessment scheme: written exams

Course outline: During this course, we shall introduce the main processes involved in Mathematical Finance, starting from General Point Processes and review the important notions of Martingales and Markov Chains in economical discrete settings. If time allows, we shall also investigate more elaborate stochastic processes and Market models based on Brownian motions considerations.

Indicative bibliography: « *Stochastic Finance : an Introduction in Discrete Time* », by H. Föllmer (de Gruyter textbook)