

## Content

Course Code	Course Name	Semester	Theory	Practice	Lab	Credit	ECTS
ECON407	Economics of information and uncertainty	7	3	0	0	3	6

Prerequisites

Admission Requirements

Language of Instruction French

Course Type Elective

Course Level Bachelor Degree

Objective The objective of this course is to introduce students to the role of information in economics.

Content This course introduces two new aspects of the decision of economic agents following Microeconomics 1 and 2 courses: taking into account of uncertainty and information in decisions and markets. The course provides an introduction to the methods and models of finance, game theory and contracts. We start with an introduction to decision making in uncertainty. We then move on to the principal agent theory. This is a theoretical course with applications in finance and insurance sector.

References Jean-Louis Cayatte, Microéconomie de l'incertitude, De Boeck

Octave Jokung, Microéconomie de l'incertain, Dunod

Banerjee, Samiran. Intermediate Microeconomics: A Tool-Building Approach. 1st ed. Routledge, 2014.

## Theory Topics

Week	Weekly Contents
1	Introduction of uncertainty: different forms of uncertainty, Information matrix, Lotteries
2	Saint Petersburg Paradox, Markowitz's functions
3	Theory of expected utility
4	Risk aversion - Certainty equivalent - Risk premium
5	Comparison of risk aversion levels - Decomposition of risk premium: Pratt approximation
6	Application: financial investments
7	Properties of the usual utility functions
8	Application: insurance demand
9	Midterm
10	Asymmetry of information
11	Mechanism design
12	Moral hazard
13	Self-selection
14	Signaling theory