Quantitative methods and financial mathematics. Homogeneization course

Academic Year: (2021 / 2022) **Review date: 05-07-2021**

Department assigned to the subject:

Coordinating teacher: TOLDRA SIMATS, ANNA

Type: Compulsory ECTS Credits : 2.0

Year : 1 Semester : 1

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

This is an introductory course. As such, there is no prerequisite to take this course.

OBJECTIVES

After this course students should be able to:
Objective 1: Understand the idea of the time value of money.
Objective 2: Learn techniques to discount cash flows.
Objective 3: Develop the knowledge required to use Financial Mathematics for the decision-making process inside the firm.

DESCRIPTION OF CONTENTS: PROGRAMME

1. Present value.
2. Annual equivalent rate.
3. Credit market instruments.
4. Secondary markets and rates of return.
5. Yield to maturity.
6. Loans: French method.
7. Increasing coupons.

LEARNING ACTIVITIES AND METHODOLOGY

LEARNING ACTIVITIES
Theory recitations (12 hours).
Practical classes (8 hours).
Individual work performed by the student (20 hours).

TEACHING METHODOLOGY
-Theory classes.
-Practical classes.
-Homework.

ASSESSMENT SYSTEM

Final Exam: 60%.
Homework: 30%.
Class participation: 10%.

% end-of-term-examination:	60
% of continuous assessment (assigments, laboratory, practicals…):	40

BASIC BIBLIOGRAPHY

- J. Berk and P. DeMarzo Corporate Finance, Pearson, 3rd Ed
- M. Grinblatt and S. Titman Financial Markets and Corporate Strategy, McGraw-Hill, 2nd Ed
- R.A. Brealey , S.C. Myers and F. Allen Principles of Corporate Finance, McGraw-Hill, 11th edition