

Financial engineering (EM375M33B1)

Program	PGE
Course set (UE) / Credits (ECTS) / Track / Specialization	Module :Financial Engineering : 9 ECTS. <ul style="list-style-type: none">Accounting and Auditing
Discipline	Finance
Year	2020
Semester	B
Open for visitors	yes (3 ECTS)
Available spots	45

Coordinator

Joël PETEY

Lecturers

Instructor	Population	Email
Joël PETEY	Population	joel.petey@unistra.fr

Course format

Working language :	English
Volume of contact hours :	20 h
Workload to be expected by the student :	60 h

Course track

Track : Attendance

Attendance track :

Attendance at lectures/tutorials and intermediate/final assessments is mandatory. As in-class work constitutes an essential element of evaluation, any unjustified absence will be penalized (*see Study and Examination Regulations*) and factored into the final grade (*see Assessment*).

Autonomous track :

Attendance at intermediate/final assessments is mandatory, but students have the option of attending lectures/tutorials.

Attendance at lectures/tutorials and intermediate/final assessments is mandatory for all degrees making up the Master's Program and all degrees involving co-op (*apprentissage*). Attendance track must therefore be selected.

Contribution of the course to the educational objectives of the program

How the course contributes to the program :

LEARNING GOAL 1 : Students will master state-of-the-art knowledge and tools in management fields in general, as well as in areas specific to the specialized field of management.

Students will identify a business organization's operational and managerial challenges in a complex and evolving environment.

Students will understand state-of-the-art management concepts and tools and use them appropriately.

Students will implement appropriate methodologies to develop appropriate solutions for business issues.

LEARNING GOAL 2 : Students will develop advanced-level managerial skills.

Students will participate in a decision-making process in a critical way.

LEARNING GOAL 4: Students will study and work effectively in a multicultural and international environment.

Students will demonstrate written and oral competency in two foreign languages.

Description

The lecture presents the most common methods and techniques of financial engineering: corporate valuation, mergers & acquisitions, leveraged buy-outs as well as leasing and securitization. The lecture stresses the interaction between financial techniques and the legal and fiscal environment of firms.

Educational organisation

In class

Lectures

In groups

Exercises

Case studies/texts

Interaction

Discussions / debates

Learning outcomes

Upon completion of this course, students should be able to :

- **Identify** most common financial techniques in valuation
- **Discuss** advantages and drawbacks of common rules and regulations that apply to corporate finance deals
- **Prepare** financial analyses of targets/acquirers
- **Select** adequate methods given context and available information
- **Collect** appropriate information about firms in order to formulate a judgment on ongoing deals
- **Appraise** feasibility, relevance, and impact of financial operations on the financial structure, risk, and return of firms

Outline

Chapter 1 Corporate valuation

- Balance sheet valuation
- P/L statement valuation
- Valuation by comparables
- Discounted Cash-flow valuation

Chapter 2 M&A 1: Takeover of quoted firms

- Mandatory declarations
- Mandatory takeovers
- The course of a takeover
- Cash and Exchange offers: choosing a mean of payment

Chapter 3 M&A 2: Mergers

- Definition of a merger
- Course of a merger
- The valuation of assets and liabilities in a merger

Chapter 4 Leveraged buy-outs

- Structure of a LBO
- Choosing a target
- Funding structure of the LBO
- Taxation
- Financial valuation of a LBO

Chapter 5 Leasing

- Definition of leasing contracts
- Advantages of leasing
- Financial valuation of leasing

Chapter 6 Securitization

- Definition and objectives
- Special Purpose Vehicles
- The balance sheet of a SPV
- Illustrations: RMBS and CDOs

Prerequisites

Key concepts to understand :

Lecture in corporate finance and financial statement analysis

Knowledge of :

Accounting, financial statement analysis, investment decisions

Teaching material

Documents in all formats

- Syllabus
- Worksheets
- Guide
- Newspaper articles
- Manuals
- Case studies

Recommended reading

Major works :

- BREALEY R.A., MYERS C., ALLEN F. - Principes de gestion financière des Entreprises (Pearson)
- CHARREAUX G. - Le gouvernement des entreprises (Economica)
- DELFOSSÉ A. - Holdings et reprise d'entreprises (Ed. d'Organisation)
- FLEURIET M. - OPA en France (Ed. Dalloz)
- RAIMBOURG P., BOIZARD M., Ingénierie financière, fiscale et juridique (Ed. Dalloz)

Further reading :**Research works by EM Strasbourg :**

Assessment

Intermediate evaluation / continuous assessment 1 : session n°6

written (60 min) / individual / English / weighting : 20%

additional information : Une épreuve intermédiaire de contrôle continu et un examen en contrôle terminal. Exercices et questions de cours.

This evaluation serves to measure LO1.1, LO1.2, LO1.3

Final assessment : exam week

written (120 min) / individual / English / weighting : 80%

This evaluation serves to measure LO1.1, LO1.2, LO1.3, LO2.2

Grounds for expulsion from classes

Behaviors such as

arriving late, leaving early, or exiting the classroom at inopportune moments during class

ostentatiously eating or drinking in class

using smartphones or laptops for non-class-related purposes

reading texts unrelated to the course

discussing topics unrelated to the course

disrespecting the lecturer

may lead to expulsion from the class/course.