Course unit: Finance

Beware! Under construction.

Course metadata

- Title in French: Finance
- Course code: tba
- ECTS credits: 8
- Type: advanced course
- Semester 9 (Fall-Winter)
- Teaching period: Mid-November to Mid-February
- Teaching hours: 100h
- Language of instruction: English
- Coordinator: tba
- Instructor(s): Grégoire Hug (WeeFin), Réda Rahal (BNP Paribas), Julien Belon (Arx Corporate Finance), Vincent Bonnamy (La Banque Postal Asset Management)
- *Last update 04/07/2022 by C. Pouet*

Brief description

This course is taught by highly skilled professionals in finance. Some of them are Centrale Méditerranée alumni.

This course unit is divided into four parts:

- **Portfolio management** (24 hours) taught by Grégoire Hug.
- **Financial risk management** (24 hours) taught by Réda Rahal: this part is dedicated to credit risk and its role in banking regulation.
- **Applied finance** (24 hours) taught by Julien Belon and Vincent Bonnamy: this part is about the theoretical aspects of corporate and market finance applied in real life.
- **Data Project: data sources and preprocessing** (20 hours) taught by tba.

Learning outcomes

- Understand the similarities in the concepts of market and corporate finance
- Understand how finance products can be used to manage risk
- Know how to organize an investment process
- Know how to evaluate and to value a company
- Understand the definition, measurement and pricing of credit risk
- Know how banks are regulated
- Know the various jobs of finance

Course content

Portfolio management

1. Introduction to portfolio management
2. Equity Investing and investment process
3. Fixed Income Investing - basics
4. Fixed Income Investing - advanced
5. Alternative asset classes and Performance Measurement
6. Asset management trends
7. Project: Portfolio construction

Financial risk management

1. Introduction: bonds and OTC transactions
2. Modeling defaults: structural models and ratings
3. Structured financing: plain-vanilla, asset financing, securitization etc.
4. Banking regulation on credit risk

Applied finance

1. Applied corporate finance – From startup to IPO… and LBO
    - Introduction / Presentation
    - Application areas of
    - Accounting Basic Methods
    - Valuation methods
    - We know how to value a company. Now what? Different types of operation
    - Introduction to Fintech and start-up ecosystem
2. Applied market finance – Options: Pricing, Hedging & Risk Management
    - Market finance: players and products
    - Future and forward: pricing & hedging
    - Options: replication and pricing
    - Sensitivity of options: the greeks
    - Volatility and stress tests

Data Project: data sources and preprocessing

Tba

Bibliography

You can check the availability of the books below at Centrale Méditerranée library.

1. Portfolio management
    - Roland Portait, Patrice Poncet (2014). Market Finance.
    - Franck J. Fabozzi (2012). The Handbook of Fixed Income Securities.
2. Financial risk management
    - Gourieroux C. and Tiomo, A. (2007) Risque de crédit : une approche avancée, Economica.

    - Merton R. (1998) Continuous time finance, Blackwell Publishers.
    - Bruyere R., Cont R., Fery L., Jaeck C. and Spitz T. (2005). Credit derivatives, Wiley.
    - Roncalli T. (2016). Risk Management & Financial Regulation (website)
3. Applied finance
    - Vernimmen, P. (2021). Finance d’entreprise. Dalloz.
    - Hull, J. (2018). Options, Futures, and Other Derivatives, 10th Edition. Pearson