



#### Aim of the specialization

- The course prepares students to understand the Asset Management Industry. The following topics are developed.
- Investor behaviour is analyzed
- > Portfolio construction techniques are learned.
- Asset Pricing Models are analyzed
- >Active versus Passive Asset Management techniques are developed.
- >Students having followed the course understand the whole portfolio construction approach.



#### **Courses and Contents**

- The courses of the specialization consist of the following 7 courses. The courses are heavily linked to each other and it is strongly advised to take the elective Decision Theory.
- Asset and Fund Management
- Valuation of Financial Products
- International Banking
- Structured Finance and Advanced Valuation topics
- > Financial Risk Management
- Behavioural Finance and the Architecture of Finance
- Market Microstructure
- ➤ Elective: Decision Theory



#### **Asset and Fund Management**

- The course prepares students to understand the Asset Management Industry. The following topics are developed.
- Investor behaviour is analyzed
- Portfolio construction techniques are learned.
- Asset Pricing Models are analyzed
- > Active versus Passive Asset Management techniques are developed.
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## Valuation of Financial Products

- The course prepares the students to standard valuation approaches for standard derivative products. The following topics are developed.
- > Different payoff profiles of derivative products and strategies are analyzed.
- Non-arbitrage pricing approaches and risk neutral valuation approaches are developed.
- The course also provides a first pass on continuous-time models.
- Students having followed the course understand the pricing of standard derivative products (Puts, Calls). The more advanced tiopics are covered in the 3rd year.



### **International Banking**

- The course provides an understanding of Bank Business Models. The following topics are developed.
- > The Economic Analysis of Financial Structures.
- > Banking and the Management of Financial Institutions
- Banking Industry: Structure and Competition
- Economic Analysis of Banking Regulation
- Banking Business Models in Europe and Internationally
- Students having followed the course understand the Banking Lanscape in Europe as well as the different Business Models and Strategies.



# Structured Finance and Advanced Valuation Topics

- The course prepares the students to advanced valuation approaches notably for credit derivatives and structured financial products. The following topics are developed.
- > Different types of credit derivatives used during the subprime crisis are introduced.
- > Different credit risk modelling approaches are discussed.
- >A CDO Pricing modelling and case study is implemented in detail.
- Students having followed the course understand the pricing of advanced credit derivative products (CDS, CDOs).



### Financial Risk Management

- The course prepares the students to different risk management approaches. The following topics are developed.
- Different types of measures of risk are analyzed.
- > Estimation problems with risk measures are discussed.
- Aggregation properties of risk measures and their applications in Asset Management, Banking and Insurance are analyzed.
- Students having followed the course have learned how to set up a consistent risk management process in a financial institution.



## Behavioural Finance and the Architecture of Finance

- The course provides an overview of the behavioural and regulatory aspects of the industrial organization of the finance industry. The following topics are developed.
- > Behavioural Economics at the core of the finance industry.
- > Behavioural aspects and the regulation of the finance industry.
- The role of asymmetry of information in the finance industry.
- Students having followed the course understand the value chain of the finance industry as well as the impact of behavioural and informational fractions.



#### **Market Microstructure**

- The course analyzes the different trading mechanisms on trading platforms. The following topics are developed.
- Different Market Maker Inventory models are analysed
- >Asymmetry of information and the organization of trading platforms is analyzed.
- ➤ Mifid II and the re-organization of trading platforms are analyzed.
- Students having followed the course understand the different market maker pricing models as well as regulatory issues relating to trading platforms.



#### **Elective: Decision Theory**

- The course prepares the students to the modelling of decision makers' behaviour. The course is ionteresting for anybody interested in management topics but more important for Financial Decision Making. The following topics are developed.
- >Analyzing the consistency of standard decisions.
- Modelling of behavioral decision models of individuals.
- Elicitation techniques todetect decision makers' characteristics.
- Students having followed the course understand the different behavioural models and can apply them to practical decision making problems.

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#### Thanks for your attention!

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