

- Faculté des sciences économiques
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Asset pricing (5AF2003)

Filières concernées	Nombre d'heures	Validation	Crédits ECTS
Master en finance	Cours: 4 ph	écrit: 2 h	6
Master en statistique	Cours: 4 ph	écrit: 2 h	6

ph=période hebdomadaire, pg=période globale, j=jour, dj=demi-jour, h=heure, min=minute

Période d'enseignement:

- Semestre Automne

Equipe enseignante:

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Objectifs:

The objective of the course is twofold. First, we examine consumption and saving under certainty. The basic model is extended under uncertainty and generalized to a multi-period framework. Second, we introduce the concept of pricing under the no arbitrage condition in discrete time.

Contenu:

We first discuss the optimal consumption and investment decision in a one period model under uncertainty and risk aversion. This leads us to the construction of a static equilibrium model of financial assets valuation: the Capital Asset Pricing Model (CAPM). We then move on to arbitrage based valuation by introducing the concept of Arrow-Debreu securities and equivalent martingale measures. We derive a general arbitrage based valuation methodology: the Arbitrage Pricing Theory (APT). Finally, we derive a dynamic equilibrium model: the Consumption-Cased Asset Pricing Model (C-CAPM). We emphasize the link between the different approaches and show that there are, in fact, different specifications of the same equation, namely a characterization of the stochastic discount factor.

Forme de l'évaluation:

Mid-term: two-hour written exam (40%)
Final: three-hour written exam (60%) during the last lecture of the semester
Re-take exam: two-hour written exam (100%).

Neither documents nor connected devices are permitted during the exams.
In case of violation of these rules, the students are in situation of fraud. The exam will be deemed as failed.

Documentation:

Danthine J.P. and R. Donaldson, 2005, Intermediate Financial Theory, 2nd edition, Elsevier.
Elton E., M. Gruber, S. Brown and W. Goetzmann, 2003, Modern Portfolio Theory and Investment Analysis, John Wiley & Sons.
CFA textbooks (2016).

Pré-requis:

One course in finance (Bachelor).

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Lectures: four hours per week.