

- 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%)
Re-take exam: two-hour written exam (100%).

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 (2014).

Pré-requis:

One course in finance (Bachelor).

Forme de l'enseignement:

Lectures: four hours per week.