GRADUATE – Disciplines Menu
Doctorate and Masters in Economics

DISCIPLINE: Finance ACRONYM:	CODE: MDPFIN037
PROFESSOR: Caio Ibsen Rodrigues de Almeida	WORKLOAD: 20h CREDIT HOUR: 2
MANDATORY: ☐YES ☒ NO	COURSE: ☐M ☐D ☒MD
PREREQUISITES: Basic knowledge of Econometrics and Microeconomics at the graduate program level.	
CONCENTRATION AREA: Finance	

STUDY PLAN

Course in Finance
Programmatic Content

1. Introduction: Basic Equation of Prices and Implications
Cochrane, Chap. 1 (Class 1)

2. Markets with Contingent Assets
Cochrane, Chap. 3 (Class 2)
Huang and Litzenberger, Chap. 5

3. Relation between discount factor and non-arbitration
Cochrane, Chap. 4 (Classes 3, 4)
Duffie, Chap. 1

4. Mean-Variance Frontier and Representations in Terms of Betas
Cochrane Chap. 5 and 6 (Classes 5-7)
Huang and Litzenberger, Chap. 3

5. Conditioning Information and Factor Models

A. Conditioning the Information (Classes 8, 9)

Cochrane, Chap. 8
Hansen, L. and S. Richard (1987), "The Role of Conditioning Information in Deducing Testable Restrictions Implied by Asset Pricing Models," Econometrica 55: 587-613.

B. CAPM (Classes 10, 11)

Cochrane, Chap. 9.1 to 9.3
Huang and Litzenberger, Chap. 4

C. APT (Classes 11, 12)

Cochrane, Chap. 9.4 and 9.5

Huang and Litzenberger, Chap. 4

6. Intertemporal Models in Discrete Time

A. Evaluation by equilibrium (Classes 13, 14)

Huang and Litzenberger, Chap. 7
Lucas, Robert E., "Asset Prices in an Exchange Economy", Econometrica 46:1429-1445, December 1978.

B. Evaluation by Arbitrage (Classes 15, 16)

Huang and Litzenberger, Chap. 8.
Harisson, M. and D. Kreps, "Martingales and Arbitrage in Multiperiod Securities Market," Journal of Economic Theory 20: 381-408

7. Options and Forward Interest Rate Structure

A. Options: The Black and Scholes model (Classes 17, 18)

- Class notes
- Cochrane, chap 17.

B. Forward Structure: Introduction and The Vasicek model (Classes 19, 20)

- Class notes
- Cochrane, chap. 19.

Evaluation

It will be composed of:

i) weekly lists of exercises (20%)
ii) an empirical assignment (20%)
iii) an exam in the middle of the course (30%) and, iv) a final exam (30%).

GOALS

To teach theoretical concepts about stochastic discount factor and their respective applications in various finance topics.

BIBLIOGRAPHY

Reference:

Cochrane, John: Asset Pricing, Princeton Universirty Press, 2005

Additional References:

Duffie, Darrel: Dynamic Asset Pricing Theory, Princeton University Press, 3rd edition, 2002.

Huang, Chi-fu and Robert H. Litzenberger, Foundations for Financial Economics, North-Holland, 1988.

Singleton, Kenneth: Empirical Dynamic Asset Pricing, Princeton University Press, 2006.