APPLIES TO ACADEMIC YEAR 2014/2015

DRE 4012 Asset Pricing Theory

Programme
Finance; Economics

Responsible for the course
Paul Ehling

Department
Department of Financial Economics

Term
According to study plan

ECTS Credits
6

Language of instruction
English

Introduction
This course introduces students to doctoral level development of financial theory. The main purpose is to give rigorous introductions to some of the main analytical issues specific to financial economics. Topics covered include: multi-period consumption and portfolio choice and multi-period equilibrium asset pricing models.

Learning outcome
Learning outcome:
To review Absence of Arbitrage (AoA), Primitive Securities, Contingent Claims, Martingales, Change of Numeraire, Optimal Allocations, Equilibrium, and State Price Deators in a Simple (Normal) One Period Economy

To understand Dynamic Consumption and Portfolio Choices (The Merton Model & Cox-Huang, Karatzas-Lehoczky-Shreve Approach)

To understand The Consumption Based CAPM in Continuous Time (with Habit Formation, Heterogeneous Risk Aversion, Heterogeneous Beliefs)

Prerequisites
Admission to a PhD Programme is a general requirement for participation in PhD courses at BI Norwegian Business School.

External candidates are kindly asked to attach confirmation of admission to a PhD programme when signing up for a course with the doctoral administration. Other candidates may be allowed to sit in on courses by approval of the courseleader. Sitting in on courses does not permit registration for courses, handing in exams or gaining credits for the course. Course certificates or confirmation letters will not be issued for sitting in on courses

Compulsory reading

Collection of articles:
A collection of scientific articles

Other:
During the course there may be hand-outs and other material on additional topics relevant for the course and the examination

Recommended reading

Course outline
1. Review
2. Dynamic Consumption and Portfolio Choices (The Merton Model)
3. Intertemporal CAPM (Merton)
4. The Equivalent Static Portfolio Problem (Cox & Huang; Karatzas & Lehoczky & Shreve)
5. The Consumption Based CAPM in Continuous Time (Breeden, Lucas)
6. The Consumption Based CAPM in Continuous Time with Heterogeneous Risk Aversion (Dumas; Wang)
7. The Consumption Based CAPM in Continuous Time with Heterogeneous Beliefs (Detemple & Murthy)

8. Two Trees (Cochrane & Longstaff & Santa-Clara)
9. Habit Formation I (Detemple & Zapatero)
10. Habit Formation II (Campbell & Cochrane)
11. Habit Formation III (Chan & Kogan)

Computer-based tools

Learning process and workload

Workload (6 ECTS)

Lectures	30 hours
Specified learning activities (including reading)	75 hours
Autonomous student learning (including exam preparation)	75 hours
Total	180 hours

Examination
Your course grade will be based on the following activities and weights:
30 % class work (in the form of a mix of some/ all of the following: hand in of case write-ups, projects, and homeworks; case presentations and class participation; in-class midterm and quizzes).
70% 3 hour written final exam.
Both parts of the evaluation need to be passed in order to get a grade in the course.

The course will be graded on the ECTS scale, A to F

Examination code(s)
DRE 40121 continous assessment accounts for 100% of the grade

Examination support materials
BI-approved exam calculator only

BI-approved exam calculator: TEXAS INSTRUMENTS BA II PlusTM.
Instruction manuals can only be used at examinations where “all exam aids” are allowed. In cases where a BI-approved calculator is allowed, only one – 1- such calculator can be brought to the examination premises. In addition one simple calculator can be brought.

Re-sit examination
Re-takes are only possible at the next time a course will be held. When the course evaluation has a separate exam code for each part of the evaluation it is possible to retake parts of the evaluation. Otherwise, the whole course must be re-evaluated when a student wants to retake an exam.

Additional information
Honour Code
Academic honesty and trust are important to all of us as individuals, and represent values that are encouraged and promoted by the honour code system. This is a most significant university tradition. Students are responsible for familiarizing themselves with the ideals of the honour code system, to which the faculty are also deeply committed.

Any violation of the honour code will be dealt with in accordance with BI’s procedures for cheating. These issues are a serious matter to everyone associated with the programs at BI and are at the heart of the honor code and academic integrity. If you have any questions about your responsibilities under the honour code, please ask.