APPLIES TO ACADEMIC YEAR 2009/2010

GRA 6539 Fixed Income Securities

Programme
Advanced Specialization Course (MSc), Master of Science in Business and Economics, Master of Science in Business and Economics (Finance), Master of Science in Financial Economics

Responsible for the course

Department

Term
According to study plan

ECTS Credits
6

Language of instruction
English

Introduction
A fixed income security is a security where the potential payments from the security are written down in detail at the issue of the security. The classical example of a fixed income security is a treasury bond, which offers fixed interest payments. Since it has been issued by the treasury, there is no uncertainty about the future cash flows from the bond. The only uncertainty about this bond is the value of the future payments, which mainly depends on future interest rates.
The analysis of fixed income securities is simplified by the fact that there is only one important source of uncertainty, the current and future interest rates, or term structure. However, this is also a challenge for the analysis, because this gives scope for very detailed modeling of the evolution of the term structure, which is then reflected in the prices of fixed income securities and their derivatives.

Learning outcome
The students should achieve an understanding of the workings of fixed income markets and interest rate modeling. Emphasis is on the pricing of fixed income securities, including fixed income derivatives.

Prerequisites
GRA 6543 Introduction to Financial Economics/GRA 6533 Theory of Finance

Compulsory reading
Books:
Tuckman, Bruce. 2002. Fixed income securities : tools for today's market. 2nd ed. Hoboken, N.J. : Wiley

Other:
During the course there may be hand-outs and other material on additional topics relevant for the course and the examination.
A list of compulsory readings will be provided on Blackboard or in class.

Recommended reading
Books:
Benninga, Simon. 2008. Financial modeling. 3rd ed. Cambridge, Mass. : MIT Press
Cusatis, Patrick and Martin Thomas. 2005. Hedging instruments and risk management. New York : McGraw-Hill
Sengupta, Chandan. 2004. Financial modeling : using Excel and VBA. Hoboken, N.J. : Wiley

Course outline
The following gives an overview of the topics to be covered in the course. The textbook is good on institutional detail, but not detailed enough on some more specific topics. It will therefore be supplemented by a number of articles.

The following topics will be covered:
- Institutional about fixed income markets
- Bond pricing

- Bond Duration.
- The term structure of interest rates
- Yield curve calculations with both continous and discrete compounding
- Yield curve estimation
- Term structure theory
- Securityzation
- Portfolios of bonds
- Fixed income derivatives
- Institutional
- Basic derivatives theory.
- Tree based derivatives pricing.
- Credit risk

Computer-based tools
Will be used, Blackboard/homepage

Learning process and workload
36 hours of lectures, including case discussions.

Please note that while attendance is not compulsory in all courses, it is the student's own responsibility to obtain any information provided in class that is not included on the course homepage/Blackboard or text book.

Examination
Your course grade will be based on the following activities and weights: 65% wil be based on a final exam (3 hours) , the remainder (35%) will be based on class work (in the form of a mix of some/all of the following: case write up projects, and homeworks; case presentation and class participation; in class midterm and quizzes).
Both parts of the evaluation need to be passed in order to get a grade in the course.

Specific information regarding student evaluation beyond the information given in the course description will be provided in class. This information may be relevant for requirements for termpapers or other hand-ins, and/or where class participation can be one for several elements of the overall evaluation.

Exam code(s)
GRA 65391class work and exam accounts for 100% of the final grade in the course GRA 6539.

Examination support materials
A bilingual dictionary, interest tables and BI-approved exam calculator. Exam aids at written examinations are explained under exam information in our web-based Student handbook. Please note use of calculator and dictionary. http://www.bi.edu/studenthandbook/examaids

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. Retake examinations entail an extra examination fee

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

Any violation of the honor 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 honor code, please ask.