

General Information:

Module number:	
Title (dt.):	Financial Engineering und Structured Finance (FIM)
Title (en.):	Financial Engineering und Structured Finance (FIM)
Module level:	MSc
Abbreviation:	FEST
Subtitle:	
Duration:	One semester
Occurrence - summer/winter:	Winter
Occurrence - regular/irregular:	Regular
Language:	German
Credits:	4
Specialization:	
Date:	
Location:	Augsburg (University)
FIM-exclusivity:	Yes

Workload:

Contact hours:	45
Self-study hours:	75
Total hours:	120

Achievment and assessment methods:

Description of achievment and assessment methods:	The module examination is based on a written exam. By answering questions in text form, students have to show their understanding of the concepts of the duplication of derivative securities and structured products. Moreover, knowledge about using these products for hedging or speculative purposes is required. By doing calculations, students have to demonstrate their ability to practically work with the mathematical methods presented in the course and apply these methods to solve financial problems like pricing of derivative securities and structured solutions. Students also have to develop and replicate innovative and new financial solutions. Students are allowed to use a non-programmable calculator.
Type of assessment:	Written
Duration of assessment (min):	90 min
Assessment retake:	End of semester

Description:

(Recommended) prerequisites	Precourse "Invesment and Finance" MA9972 - Discrete Time Finance MA4405 - Stochastic Analysis/Quantitative Methods in Finance (recommended)
Content:	Advanced valuation of fixed income products, spot market products, symmetrical derivatives, valuation of equity and interest options, valuation models for corporate bonds, credit derivatives, structured products, asset backed securities

Intended learning outcomes:	After successful completion of the module, students are able to apply duplication and pricing methods to evaluate structured financial solutions, such as certificates and structured bonds. Moreover, students are able to price spot market products and symmetrical derivatives (interest rate forwards and swaps). They are able to understand different hedging and speculation techniques that are essential on capital markets. Furthermore, students understand the properties of credit derivatives and asset backed securities and can analyse the functionality of credit risk transfers.
Teaching and learning methods:	Lectures with projector presentation and calculations on the tablet pc, excel-sheet with implemented excercises and examples to better understand calculations and functionalities of structured products and derivative securities. Excercises are held during the lecture time. Problems and excercises are solved interactively together with the lecturer.
Media:	Course reserve collection, presentation slides, Excel-Sheets with programmed excercises and examples
Reading list:	<p>J.C. Hull: Options, Futures, and Other Derivatives, Prentice-Hall, 2006.</p> <p>Alexander, Carol (2008): Market Risk Analysis: Pricing, Hedging and Trading Financial Instruments, Volume III. Wiley.</p> <p>Baule, Rainer; Entrop, Oliver; Wilkens, Marco (2008): Credit Risk and Bank Margins in Structured Financial Products: Evidence from the German Secondary Market for Discount Certificates. Journal of Futures Markets, 28(4), 376-397.</p> <p>Wilkens, Marco; Baule, Rainer; Entrop, Oliver (2004): Bundesschatzbriefe - Bewertung und empirische Analyse der Attraktivität für Anleger und Bund. Zeitschrift für Betriebswirtschaft, 74(9), 905-931.</p> <p>Wilkens, Marco; Entrop, Oliver; Scholz, Hendrik (2001): Outperformance Zertifikate auf Aktienindizes in Fremdwährungsräumen. Kredit und Kapital, 4/2001, 473-504.</p> <p>Wilkens, Marco; Scholz, Hendrik (2000): Reverse Convertibles und Discount-Zertifikate - Bewertung, Pricingrisiko und implizite Volatilität. Finanz Betrieb, 2, 171-179.</p> <p>Wilkens, Marco; Scholz, Hendrik; Völker, Jörg (1999b): Analyse und Bewertung von Aktienanleihen und Diskontzertifikaten. Die Bank, 5/1999, 322-327.</p> <p>Wilkens, Marco; Scholz, Hendrik; Völker, Jörg (1999b): Duplikation und Bewertung Strukturierter Finanzprodukte - Callable Step-Up Bonds. Die Bank, 4/1999, 262-268.</p>

Responsible for module:

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Lecturer:

1. Lecturer:

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Lecturer:

2. Lecturer:

First name:

René

Name:

Weh

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Courses:

1. Course:

Type:

Lecture

Name:

Financial Engineering and Structured Finance

Weekly hours per semester:

3

2. Course:

Type:

Excercise

Name:

Financial Engineering and Structured Finance

Weekly hours per semester:

Excercises are integrated into the lecture

(Recommended) audience:

1. Program:

Name:

MSc Finance & Information Management (FIM)

2. Program:

Name:

3. Program:

Name:

4. Program:

Name:

5. Program:

Name: