


Stochastic Financial Markets				 universität <b>bonn</b>	
<b>Module Number</b> 332122010	<b>Workload</b> 225 h	<b>Credits</b> 7,5 CP	<b>Duration</b> 1 Term	<b>Cycle</b> yearly; winter term	
<b>Responsible Faculty Member</b>	Prof. Dr. Klaus Sandmann				
<b>Institute</b>	Department of Economics				
<b>Study Program</b>	<b>Title</b>			<b>Character</b>	<b>Study Term</b>
	Master of Science Economics			Advanced Module	3rd
<b>Learning Outcomes</b>	On the basis of profound knowledge of the main theoretical results the participants should get familiar with recent contributions. The course aims to provide students with an understanding of the arbitrage pricing theory and its application for the risk management of derivative contracts. It enables them to critical review different modelling approaches and to decompose complex financial products into their basic financial structures.				
<b>Key Skills</b>					
<b>Learning Content</b>	The course derives a general continuous time model of a financial market under uncertainty. Starting with different models of the term structure of interest rate the modelling framework will be extended to cover equity as well as exchange rate risks. The application of different pricing measures like the martingale and the forward risk adjusted measure for the pricing of financial derivatives will be discussed. Special emphasis will be given to the pricing and hedging of interest rate and exchange rate depending financial contracts like caps, floors, swaptions, currency options and structured products.				
<b>Prerequisites for attending</b>	Basic Module <i>Finance</i>				
<b>Course Type</b>	<b>Lecture, Seminar, etc.</b>			<b>Contact time</b>	<b>Workload [h]</b>
	lecture and tutorial			4 hrs per week	(c) 60 (s) 165
<b>Examination(s)</b>	<b>Type of Examination</b>			<b>Grades</b>	
	written or oral exam			yes	
<b>Special Course Achievements</b>					
<b>Other</b>					

(c) contact time per term / (s) self study per term

January 2012