Option Pricing				universitätbonn
Module Number 332124023	**Workload** 225 h	**Credits** 7,5 CP	**Duration** 1 Term	**Cycle** yearly; summer term
Responsible Faculty Member	Prof. Dr. Klaus Sandmann			
Institute	Department of Economics			

Study Program	**Title**	**Character**	**Study Term**
	Master of Science Economics Study Field: Financial Economics	Advanced Module	2nd

Learning Outcomes	The course aims to provide students with an understanding of the Black and Scholes option pricing model. It enables them to recognize the significant role of risk neutral pricing as the basis of modern option pricing theory. Students learn to apply the technique including numerical methods of risk neutral pricing to nonstandard financial products and to review the hedging strategies with respect to the risk management of options.
Key Skills	
Learning Content	The course presents the pricing and hedging of options in the continuous time model by Black and Scholes. The model dependency of the perfect duplication strategy and its applications to risk management will be discussed. This includes a discussion of the differences between dynamic hedging strategies and static or robust hedging. Beside standard options the pricing of more complex financial contracts will be analysed. Numerical approximations like the Monte Carlo method will be applied to these contracts.
Prerequisites for attending	none

Course Type	**Lecture, Seminar, etc.**	**Contact time**	**Workload [h]**
	lecture and tutorial	4 hrs per week	(c) 60 (s) 165

Examination(s)	**Type of Examination**	**Grades**
	written or oral exam	yes

Special Course Achievements	
Other	

(c) contact time per term / (s) self study per term *February 2015*