

## COURSE DESCRIPTION

COURSE NAME		<b>BELIEF LOGICS FOR INFORMATION SECURITY</b>				CODE: MSI2205
STUDY YEAR	MASTER II	SEMESTER	2	COURSE STATUS ( <b>C</b> -compulsory/ <b>OP</b> -optional/ <b>F</b> -facultative)		<b>C</b>
HOURS PER WEEK				TOTAL HOURS PER SEMESTER	TOTAL HOURS INDIVIDUAL ACTIVITY	CREDITS
C	S	L	Pr.	56	184	8
2	-	2	-			
				EVALUATION ( <b>P</b> -during the semester, <b>C</b> -oral examination, <b>E</b> -written examination, <b>M</b> -mixed)		TEACHING LANGUAGE
				<b>M</b>		English
COURSE TEACHER		TEACHING AND SCIENTIFIC DEGREE, FIRST NAME, LAST NAME			DEPARTMENT	
		PROF. DR. CRISTIAN-DUMITRU MASALAGIU			Computer Science	
PREVIOUS COURSES REQUESTED		Logic for Computer Science, Logic Programming (optional)				
OBJECTIVES	1. To gain a clear understanding about the role of Logic in Systems Security					
GENERAL DESCRIPTION	1. Security Systems and Multiagent Systems 2. The BAN Logic 3. The GNY/BGNY Logic 5. The AT Logic 6. The vO Logic 7. The SvO Logic 8. Model Checking in Belief Logics 9. ISABELLE Theorem Prover					
DESCRIPTION OF SEMINARY / LABORATORY WORKS	The main goal of any Seminar/Laboratory is to facilitate a deeper understanding of the content of the previous courses, with the help of more complicated, new and detailed examples. This will be accomplished with the direct participation of the students					
TEACHING METHODS	All the classical didactic methods will be used: systematic exposure of knowledge, conversation, learning „by discovery”, etc. The courses will be taught using a video-projector					
MAIN BIBLIOGRAPHY (SELECTION)	1. Specific INTERNET sites 2. R. Stalnaker – On Logic of Knowledge and Belief, Springer Verlag, 2006 3. P.C. van Oorschot – Handbook of Applied Cryptography, Carleton University, 2002 4. T. Kwon, S. Lim – Automation-Considered Logic of Authentication and Key Distribution, Spinger Verlag, 2003 5. D. Yiqiang – An Improvement of GNY Logic for the Reflection Attacks, Springer Verlag, 1999 6. M. Benerecetti, et al. – A Logic of Belief and a Model Checking Algorithm for Security Protocols, 2000 7. D. Monniaux – Analysis of Cryptographic Protocols Using Logics of Belief: An Overview, J. T. I.T., 2006 8. R. Fagin, et al. – Reasoning about Knowledge, M. I. T. Press, 2003					
EVALUATION	conditions	Every student will be tested during the 14 weeks of seminars/labs (see below), not necessarily immediately to the corresponding course. A bonus may be granted for supplementary (good) answers/work (including research)				
	criteria	The concrete criteria will be established during the first lecture				
	evaluation methods	Additional written test may be given at fixed or unannounced dates				
	final result - formula	The grades will be rounded such as to get a Gauss curve for the given year of study (see the regulations in the web page of the Faculty).				