

Syllabus

1. Program information

1.1. Institution	ACADEMY OF ECONOMIC STUDIES
1.2. Faculty	Economic Cybernetics, Statistics and Informatics
1.3. Departments	(Department) INFORMATICA SI CIBERNETICA ECONOMICA
1.4. Field of study	Economic Informatics
1.5. Cycle studies	Master Studies
1.6. Education type	Full-time
1.7. Study program	IT&C Security
1.8. Language study	
1.9. Academic year	2017-2018

2. Course information

2.1. Name	IT&C Security Systems Design								
2.2. Code	17.0241IF2.1-0004								
2.3. Year of studies	2	2.4. Semester	1	2.5. Assessment type	Exam	2.6. Course type	O	2.7. Number of ECTS	4
2.8. Instructors									

3. Total estimated time

3.1. Number of weeks	14.00		
3.2. Number of hours per week	2.00	of which	
		C(C)	1.00
		S(S)	1.00
3.3. Total hours from curriculum	28.00	of which	
		C(C)	14.00
		S(S)	14.00
3.4. Total hours of study per semester (ECTS*25)	100.00		
3.5. Total hours of individual study	72.00		
<i>Time distribution for individual study</i>			
Study the textbook, course support, bibliography and notes			
Further reading in the library, on the online platforms and field			
Preparing seminars, labs, homework, portfolios and essays			
Tutoring			
Examinations			
Other activities			

4. Prerequisites

4.1. About curriculum	Web Security, Secure Applications Programming
4.2. About skills	Object Oriented Programming

5. Requirements

C(C)	Course lectures take place in rooms with multimedia teaching equipment.
S(S)	Laboratories are held in rooms that have PCs with Internet access. The development environment used is Microsoft Visual Studio 2010 or 2012, Ubuntu within virtual machines with GCC, Java plus necessary tools.

6. Skills covered

	C4	Scientific research and designing of IT security solutions for the entire range and complexity of software architectures
	C6	Updating the scientific research methods and techniques in computer science applied in economy

7. Course objectives

7.1. General objective	Aquiring design concepts of secure IT&C systems. Aquiring knowledge on the analysis and the design of secure informatic systems.
7.2. Specific objectives	Transfer tehnologic pentru: -Rational Unified Process -Unified Modelling Language -Business Process Management / BPEL

8. Course contents

8.1. S(S)		Teaching methods	Advices
1	Informatic security architectures analysis		
2	Informatic systems design concepts - UML		
3	Using UML in defining and designing secure architectures		
4	Practical implementation of designing a secure system		
5	Secure informatic system testing		

Bibliography

- Craig Larman, Applying UML and Patterns, Prentice Hall PTR, 1997
- Bruce Schneier, Applied Cryptography, John Wiley & Sons, 1996
- William Stalling, Cryptography and Network Security, Prentice Hall, 1999

8.2. C(C)		Teaching methods	Advices
1	Informatic security architectures analysis		
2	Informatic systems design concepts - UML		
3	Using UML in defining and designing secure architectures		
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Bibliography

- Craig Larman, Applying UML and Patterns, Prentice Hall PTR, 1997
- Bruce Schneier, Applied Cryptography, John Wiley & Sons, 1996
- William Stalling, Cryptography and Network Security, Prentice Hall, 1999
- Medvinsky, Gennady, Neuman, Clifford , NetCash: A design for practical electronic currency on the Internet , ACM Conference on Computer and Communications Security , 1993

9. Course contents corroboration with the demands of epistemic community representatives, professional associations and representative employers

Taking into account the best practices from IT&C field applied by big companies such as: Intel, Oracle, Microsoft, IBM, HP and professional consortiums such as: Apache, Red Hat, ISO/IEC.

10. Assessment

Activity	Assessment criteria	Assessment methods	Percentage in the final grade
10.1. S(S)		Applied activities, practical or project certificates/laboratory/tests, tests during the module, auditing tests	40.00
10.2. Final assessment		Final examination	60.00
10.3. Grading scale	Whole notes 1-10		
10.4. Minimum performance standard	Knowledge required: conversion from class diagram into source code. The point granted by default is included in the weights assigned to the types of assessments.		

Completion date,

07/10/2016

Instructors,

Approval date of department

Director of department,