

University "Politehnica" of Timisoara (Universitatea "Politehnica" Timisoara)

Faculty of Automation and Computers (Facultatea de Automatica si Calculatoare)

Domain: Computers and Information Technology (Domeniul: Calculatoare si Tehnologia Informatiei)

Title and Type of Master Programme Studies: Software Engineering, Development of Graduation Studies (Titlul si Tipul de Master: Ingineria Software, Aprofundarea in domeniul Studiilor de licenta)

Type of education: Day training (Forma de invatamant: cu frecventa)

Duration: 2 years (Durata studiilor: 2 ani)

Domeniul fundamental de ierarhizare (DFI): Stiinte ingineresti

Ramura de stiinta (RSI): Ingineria sistemelor, calculatoare si tehnologia informatiei

Domeniul de ierarhizare (DII): Ingineria sistemelor, calculatoare si tehnologia informatiei

Domeniul de studii universitare de masterat (DSU\_M): Calculatoare si tehnologia informatiei

Cod DFI.Cod RSI.Cod DII.Cod DSU\_M  
20.60.10.10

CURRICULA - MASTER SOFTWARE ENGINEERING

Ist YEAR (2011/2012)												IInd YEAR (2011/2012)														
SEMESTER I						SEMESTER II						SEMESTER III						SEMESTER IV								
1.	Optional 1 (choose from 9L2 )						Optional 1 (choose from 10L2)						Optional 1 (choose from 11L2)						Practical research internship							
	E	9	28	0	28	0	70	E	9	28	0	28	0	70	E	9	28	0	28	0	60	0				63
2.	Optional 2 (choose from 9L2 )						Optional 2 (choose from 10L2)						Optional 2 (choose from 11L2)						Master thesis preparation							
	E	9	28	0	28	0	70	E	9	28	0	28	0	60	E	9	28	0	28	0	60	30				63
3.	Optional 3 (choose from 9L2)						Optional 3 (choose from 10L2)						Optional 3 (choose from 11L2)													
	E	9	28	0	28	0	70	E	9	28	0	28	0	70	E	9	28	0	28	0	70					
4.	Research topics in software engineering						Introduction to research						Directed thesis research													
	D	3	28	0	0	0	50	D	3	28	0	0	0	60	D	3	0	28	0	0	70					
5.																										
6.																										
7.																										
8.	9 optional disciplines must be chosen (see the attached document containing optional disciplines):																									
	- at least 3 Breadth Coverage (BC) disciplines; - at least 2 Depth Coverage (DC) disciplines; - least 1 Advanced Electives (AE) discipline																									
total / semester	hours:	196	VPI			260	hours:	196	VPI			260	hours:	196	VPI			260	hours:	126	VPI			280		
	credits:	30	evaluations:3E, 1D			4	credits:	30	evaluations:3E, 1D			4	credits:	30	evaluations:3E, 1D			4	credits:	30	evaluations:3E, 1D			2		
total / week	hours:	14					hours:	14					hours:	14					hours:	9						
	of which	8	0	6	0	(c, s, l, p)	of which	8	0	6	0	(c, s, l, p)	of which	6	2	6	0	(c, s, l, p)	of which	0	0	0	9	(c, s, l, p)		

**CURRICULA - MASTER SOFTWARE ENGINEERING**

	SEMESTER I								SEMESTER II								SEMESTER III								SEMESTER IV							
1.	Optional 9L2 - Advanced algorithms (BC)								Optional 10L2 - Advanced databases(*) (BC)								Optional 11L2 - Advanced software technologies (DC)															
	E	9	28	0	28	0	DS		E	9	28	0	28	0	DS		E	9	28	0	28	0	DA									
2.	Optional 9L2 - Programming language design and analysis(*) (BC)								Optional 10L2 - Development of complex distributed applications (*) (DC)								Optional 11L2 - Advanced web programming (*) (DC)															
	E	9	28	0	28	0	DS		E	9	28	0	28	0	DA		E	9	28	0	28	0	DA									
3.	Optional 9L2 - Distributed systems(*) (BC)								Optional 10L2 - Formal verification and program analysis (DC)								Optional 11L2 - Neural networks(*) (AE)															
	E	9	28	0	28	0	DS		E	9	28	0	28	0	DA		E	9	28	0	28	0	DCA									
4.	Optional 9L2 - Component based software engineering(*) (DC)								Optional 10L2 - Real time system design(*) (DC)								Optional 11L2 - Parallel algorithms(*) (AE)															
	E	9	28	0	28	0	DA		E	9	28	0	28	0	DA		E	9	28	0	28	0	DCA									
5.	Optional 9L2 - Compiler design (*) (DC)								Optional 10L2 - Machine learning and cognitive models (*) (AE)								Optional 11L2 - Graphics processing systems (*) (AE)															
	E	9	28	0	28	0	DA		E	9	28	0	28	0	DCA		E	9	28	0	28	0	DCA									
6.	Optional 9L2 - Pattern recognition (*) (AE)								Optional 10L2 - Heuristic methods (*) (AE)																							
	E	9	28	0	28	0	DCA		E	9	28	0	28	0	DCA																	
7.									Optional 10L2 - Information technology project management (AE)																							
								E	9	28	0	28	0	DCA																		
8.																																

**Legend**

**Table Structure**

Course name							
FE	nc	c	s	l	p	CF	VPI

FE may be: D, E  
c - course  
D - distributed evaluation  
E - exam  
FE - evaluation forms  
CF - formativ category to which the course  
DA - Profund study courses  
DCA - Advanced knowledge courses  
DS - Synthesis courses

**Ex.**

Research topics in software engineering							
D	3	28	0	0	0		50

l - laboratory  
nc - number of credits  
p - projects  
s - seminar  
VPI - number of hours necessary for individual study pentru un semestru de 14 sapt plus 4 sapt de sesiune  
(\*) - discipline optionale activate in anul universitar 2011/2012