

Politehnica University 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
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CURRICULA - MASTER SOFTWARE ENGINEERING

Ist YEAR (2013/2014)												IInd YEAR (2013/2014)																			
SEMESTER I						SEMESTER II						SEMESTER III						SEMESTER IV													
1.	Optional 1 (choose from 9L2 or 11L2)						Optional 1 (choose from 10L2)						Optional 1 (choose from 9L2 or 11L2)						Research activity												
	E	9	28	0	28	0	49	E	9	28	0	28	0	49	E	9	28	0	28	0	49	15						98	70		
2.	Optional 2 (choose from 9L2 or 11L2)						Optional 2 (choose from 10L2)						Optional 2 (choose from 9L2 or 11L2)						Development and of Master Thesis Defense												
	E	9	28	0	28	0	49	E	9	28	0	28	0	49	E	9	28	0	28	0	49	15						98			
3.	Optional 3 (choose from 9L2 or 11L2)						Optional 3 (choose from 10L2)						Optional 3 (choose from 9L2 or 11L2)																		
	E	9	28	0	28	0	49	E	9	28	0	28	0	49	E	9	28	0	28	0	49										
4.	Research topics in software engineering						Introduction to research						Directed thesis research																		
	D	3	28	0	0	0	49	D	3	28	0	0	0	49	D	3	0	28	0	0	49										
5.																															
6.																															
7.																															
8.	9 optional courses must be chosen (see the attached document containing optional courses): - at least 2 Breadth Coverage (BC) courses; - at least 2 Depth Coverage (DC) courses; - at least 1 Advanced Elective (AE). The remainder can be chosen among all courses, including those of other Master's programs in the department																														
total / semester	hours:	196	VPI			196	hours:	196	VPI			196	hours:	196	VPI			196	hours:	196	VPI			70							
	credits:	30	evaluations:3E, 1D			4	credits:	30	evaluations:3E, 1D			4	credits:	30	evaluations:3E, 1D			4	credits:	30	evaluations:1P			1							
total / week	hours:	14						hours:	14						hours:	14						hours:	14								
	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	14	(c, s, l, p)							

CURRICULA - MASTER SOFTWARE ENGINEERING

	SEMESTER I								SEMESTER II								SEMESTER III								SEMESTER IV																
1.	Optional 9L2 - Advanced algorithms								Optional 10L2 - Advanced databases(*)								Optional 11L2 - Advanced software technologies								Research Activity																
	E	9	28	0	28	0	BC		E	9	28	0	28	0	BC		E	9	28	0	28	0	DC										15							98	
2.	Optional 9L2 - Programming language design and analysis(*)								Optional 10L2 - Development of complex distributed applications (*)								Optional 11L2 - Advanced web programming (*)								Development and Defense of Master Thesis																
	E	9	28	0	28	0	BC		E	9	28	0	28	0	DC		E	9	28	0	28	0	DC										15							98	
3.	Optional 9L2 - Distributed systems(*)								Optional 10L2 - Formal verification and program analysis								Optional 11L2 - Neural networks(*)																								
	E	9	28	0	28	0	BC		E	9	28	0	28	0	DC		E	9	28	0	28	0	AE																		
4.	Optional 9L2 - Component based software engineering(*)								Optional 10L2 - Real time system design(*)								Optional 11L2 - Parallel algorithms(*)																								
	E	9	28	0	28	0	DC		E	9	28	0	28	0	DC		E	9	28	0	28	0	AE																		
5.	Optional 9L2 - Compiler design (*)								Optional 10L2 - Machine learning and cognitive models (*)								Optional 11L2 - Graphics processing systems (*)																								
	E	9	28	0	28	0	DC		E	9	28	0	28	0	AE		E	9	28	0	28	0	AE																		
6.	Optional 9L2 - Pattern recognition (*)								Optional 10L2 - Heuristic methods (*)								Directed thesis research																								
	E	9	28	0	28	0	AE		E	9	28	0	28	0	AE																										
7.	Research topics in software systems								Optional 10L2 - Information technology project management																																
	D	3	28	0	0	0			E	9	28	0	28	0	AE																										
8.									Introduction to research																																
									D	3	28	0	0	0																											

Legend

Table Structure

Course name									
FE	nc	c	s	l	p	CF	VPI		

Ex.

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

FE may be: D, E
c - course
D - distributed evaluation
E - exam
FE - evaluation forms
CF - formativ category to which the course belongs
 AE - Advances Elective
 BC - Breadth Coverage
 DC - Depth Coverage

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 2013/2014