

Field of study: Computer and Information Technology/ Calculatoare si tehnologia informatiei
Programme of study: SOFTWARE ENGINEERING/ INGINERIE SOFTWARE

Form of education: with frequency
Length of study: 2 years

Fundamental domain of study (DFI): Engineering Sciences/ Stiinte ingineresti
Branch of science (RSI): System Engineering, Computer and Information Technology/ Ingineria sistemelor, calculatoare si tehnologia informatiei
Domain of study of master (DSU_M): Computer and Information Technology/ Calculatoare si tehnologia informatiei

Cod DFI	Cod RSI	Cod DSU_M	level	c1c2c3	a1a2
20	60	10	M	001	19

CURRICULUM
Academic year 2019 - 2020
1st YEAR

	SEMESTER 1										SEMESTER 2										
1	Core 1 (choose one from positions 1-5)										Core 3 (choose one from positions 1-5)										
	M001.19.01.*1-ij	8	E	28	0	28	0	0	0	***	49	M001.19.02.*1-ij	8	E	28	0	28	0	0	***	49
2	Core 2 (choose one from positions 1-5)										Core 4 (choose one from positions 1-5)										
	M001.19.01.*2-ij	8	E	28	0	28	0	0	0	***	49	M001.19.02.*2-ij	8	E	28	0	28	0	0	***	49
3	Elective 1 (choose one from Master SE/ IT)										Elective 2 (choose one from Master SE/ IT)										
	M001.19.01.*3-ij	8	E	28	0	28	0	0	0	***	49	M001.19.02.*3-ij	8	E	28	0	28	0	0	***	49
4	Research Topics in SE										Introduction to Research										
	M001.19.01.V4	6	D	28	0	0	0	0	168	DCAV	35	M001.19.02.V4	4	D	28	0	0	0	140	DCAV	14
5											Academic Ethics and Integrity										
												M001.19.02.C5	2	D	14	7	0	0	0	DC	21
6																					
7																					
total / semester	VAi:	196				VPI:	182				VAi:	217				VPI:	182				
	VA (VAi+VAp):	364				VCA (VA+VPI):	546				VA (VAi+VAp):	357				VCA (VA+VPI):	539				
	credits	30				evaluations:	3E, 1D				credits	30				evaluations:	3E, 2D				
total / week	VAi:	14				VPI:	13				VAi:	16				VPI:	13				
	VA (VAi+VAp):	26				VCA (VA+VPI):	39				VA (VAi+VAp):	26				VCA (VA+VPI):	39				
	distribution	8 0 6 0 12				(c, s, l, p, VAp)					distribution	9 1 6 0 10				(c, s, l, p, VAp)					

Academic year 2019 - 2020
2nd YEAR

	SEMESTER 3										SEMESTER 4										
1	Elective 3										Research Activity and Internship										
	M001.19.03.*1-ij	9	E	28	0	28	0	0	0	***	49	M001.19.04.S1	10	C					168	DS	84
2	Elective 4										Master Thesis Development										
	M001.19.03.*2-ij	9	E	28	0	28	0	0	0	***	49	M001.19.04.S2	10	C					196	DS	84
3	Elective 5										Master Thesis Defense										
	M001.19.03.*3-ij	9	E	28	0	28	0	0	0	***	49	M001.19.04.S3	10	E						DS	
4	Directed Thesis Research																				
	M001.19.03.S4	3	D	0	0	0	28	168		DS	35										
5																					
6																					
7																					
total / semester	VAi:	196				VPI:	182				VAi:	0				VPI:	168				
	VA (VAi+VAp):	364				VCA (VA+VPI):	546				VA (VAi+VAp):	364				VCA (VA+VPI):	532				
	credits	30				evaluations:	3E, 1D				credits	30				evaluations:	1E, 2C				
total / week	VAi:	14				VPI:	13				VAi:	0				VPI:	12				
	VA (VAi+VAp):	26				VCA (VA+VPI):	39				VA (VAi+VAp):	26				VCA (VA+VPI):	38				
	distribution	6 0 6 2 12				(c, s, l, p, VAp)					distribution	0 0 0 0 26				(c, s, l, p, VAp)					

Competences:

- In depth knowledge of the main issues in the field software engineering;
- Knowledge of current technologies in the field of software engineering and the ability to test, analyze and compare them in project development;
- Skills to critically analyze, innovate and research;
- Advanced abilities of communication, interdisciplinary cooperation and team project management.

ELECTIVE COURSES
Academic year 2019 - 2020
1st YEAR

	SEMESTER 1										SEMESTER 2									
01	Component Based Software Engineering										Advanced Databases									
	8	E	28	0	28	0	0	0	DA	49	8	E	28	0	28	0	0	0	DA	49
02	Compiler Design										Advanced Distributed Applications									
	8	E	28	0	28	0	0	0	DCAV	49	8	E	28	0	28	0	0	0	DA	49
03	User Interface and User Experience Design										Real Time Systems Design									
	8	E	28	0	28	0	0	0	DCAV	49	8	E	28	0	28	0	0	0	DCAV	49
04	High-End Interfaces and Equipments										Heuristic Methods									
	8	E	28	0	28	0	0	0	DA	49	8	E	28	0	28	0	0	0	DA	49
05	Emerging Systems										Reinforcement Learning									
	8	E	28	0	28	0	0	0	DCAV	49	8	E	28	0	28	0	0	0	DCAV	49
06																				

ELECTIVE COURSES
Academic year 2019 - 2020
2nd YEAR

	SEMESTER 3										SEMESTER 4									
01	Advanced Web Programming																			
	9	E	28	0	28	0	0	0	DA	49										
02	Neural Networks																			
	9	E	28	0	28	0	0	0	DCAV	49										
03	Parallel Algorithms																			
	9	E	28	0	28	0	0	0	DCAV	49										
04	Graphics Processing Systems																			
	9	E	28	0	28	0	0	0	DCAV	49										
05																				
06																				

Legenda

Title of discipline										
Code	nc	FE	c	s	l	p	VAp	CF	VPI	

Code = code of discipline
nc = no. of the subject transferable credits
FE = forma de evaluare
FE ∈ {E, D, C}
E=exam
D=distributive assessment
C=colloquy
c=no. of course hours/semester
s=no. of seminar hours
l=no. of laboratory hours
p=no. of project hours
VAp = no. of hours needed for partially assisted activities

Example										
Advanced measuring technologies										
M170.17.01.V1	8	E	28	0	28	0	0	49	DCAV	50

CF=the category the discipline belongs to
CF=(DA, DCAV, DS, DC)
DA - thoroughgoing study discipline
DCAV - advanced knowledge discipline
DS - synthesis discipline
DC - complementary discipline
VPI =no. of unattended hours during a 14 weeks semester plus 4 weeks of examination session
VAi - no. of hours needed for entirely assisted activities=c+s+l+p
VA - no. of hours needed for entirely assisted activities and partially assisted activities=VAi+Vap
VCA - cumulated no. of hours for all activities= VA+VPI

Notes

- The first two independent electives ("Core x") in each semester will be selected from the table "ELECTIVE COURSES", corresponding semester, and can be of the types DCAV, DA, or DS, as specified in the cell marked with ***.
- The third independent elective ("Elective y") in each semester will be selected from the the Master programs in the CTI field (Master SE/ IT/ CI/ ML), corresponding semester, and can be of the types DCAV, DA, or DS, as specified in the cell marked with ***.
- The electives in the table "ELECTIVE COURSES" will be activated based on student options, number of students and financial coverage.

RECTOR,
Prof.univ.dr.ing.Viorel-Aurel ȘERBAN

DECAN,
Prof.univ.dr.ing. Radu-Emil PRECUP