

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 2020 - 2021
1st YEAR

	SEMESTER 1										SEMESTER 2										
1	Core 1 (choose one from positions 1-3)										Core 3 (choose one from positions 1-4)										
	M001.19.01.*1	7	E	28	0	28	0	0	0	***	119	M001.19.02.*1	7	E	28	0	28	0	0	***	119
2	Core 2 (choose one from positions 1-3)										Core 4 (choose one from positions 1-4)										
	M001.19.01.*2	7	E	28	0	28	0	0	0	***	119	M001.19.02.*2	7	E	28	0	28	0	0	***	119
3	Elective 1 (choose one from Master SE/ IT/ CI/ ML)										Elective 2 (choose one from Master SE/ IT/ CI/ ML)										
	M001.19.01.*3	7	E	28	0	28	0	0	0	***	119	M001.19.02.*3	7	E	28	0	28	0	0	***	119
4	Research Topics in SE										Introduction to Research										
	M001.19.01.V4	9	D	28	0	0	0	0	168	DCAV	29	M001.19.02.V4	7	D	28	0	0	0	140	DCAV	7
5											Academic Ethics and Integrity										
												M001.19.02.S5	2	D	14	7	0	0	0	DS	29
6																					
7																					
total / semester	VAi:	196	VPI:	386	VA (VAi+VAp):	364	VCA (VA+VPI):	750	VA (VAi+VAp):	357	VCA (VA+VPI):	750	credits	30	evaluations:	3E, 1D	credits	30	evaluations:	3E, 2D	
	VAi:	14	VPI:	28	VA (VAi+VAp):	26	VCA (VA+VPI):	54	VA (VAi+VAp):	26	VCA (VA+VPI):	54	VAi:	14	VPI:	28	VA (VAi+VAp):	26	VCA (VA+VPI):	54	
	distribution												distribution								
total / week																					

Academic year 2020 - 2021
2nd YEAR

	SEMESTER 3										SEMESTER 4										
1	Core 5 (choose one from positions 1-3)										Research Activity and Internship										
	M001.19.03.*1	7	E	28	0	28	0	0	0	***	119	M001.19.04.S1	10	C					168	DS	82
2	Core 6 (choose one from positions 1-3)										Master Thesis Development										
	M001.19.03.*2	7	E	28	0	28	0	0	0	***	119	M001.19.04.S2	10	C					196	DS	54
3	Elective 3 (choose one from Master SE/ IT/ CI/ ML)										Master Thesis Defense										
	M001.19.03.*3	7	E	28	0	28	0	0	0	***	119	M001.19.04.S3	10	E						DS	
4	Directed Thesis Research																				
	M001.19.03.S4	9	D	0	0	0	28	168	DS	29											
5																					
6																					
7																					
total / semester	VAi:	196	VPI:	386	VA (VAi+VAp):	364	VCA (VA+VPI):	750	VA (VAi+VAp):	0	VPI:	136	credits	30	evaluations:	3E, 1D	credits	30	evaluations:	1E, 2C	
	VAi:	14	VPI:	28	VA (VAi+VAp):	26	VCA (VA+VPI):	54	VA (VAi+VAp):	0	VPI:	10	VAi:	14	VPI:	28	VA (VAi+VAp):	26	VCA (VA+VPI):	36	
	distribution												distribution								
total / week																					

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;
- Combining knowledge from the area of computer and information technology, with skills to critically analyze and innovate, in order to research, design, optimize, implement and test specific methods and systems;
- Development of techniques, technologies, methods and methodologies specific to computer systems and information technology.

ELECTIVE COURSES
Academic year 2020 - 2021
1st YEAR

	SEMESTER 1										SEMESTER 2									
01	Component Based Software Engineering										Advanced Databases									
	7	E	28	0	28	0	0	0	DA	119	7	E	28	0	28	0	0	0	DA	119
02	Compiler Design										Advanced Distributed Applications									
	7	E	28	0	28	0	0	0	DCAV	119	7	E	28	0	28	0	0	0	DA	119
03	User Interface and User Experience Design										Real Time Systems Design									
	7	E	28	0	28	0	0	0	DCAV	119	7	E	28	0	28	0	0	0	DCAV	119
04											Heuristic Methods									
											7	E	28	0	28	0	0	0	DA	119
05																				
06																				

ELECTIVE COURSES
Academic year 2020 - 2021
2nd YEAR

	SEMESTER 3										SEMESTER 4									
01	Parallel Algorithms																			
	7	E	28	0	28	0	0	0	DA	119										
02	Graphics Processing Systems																			
	7	E	28	0	28	0	0	0	DA	119										
03	FPGA Programming for Software Developers																			
	7	E	28	0	28	0	0	0	DA	119										
04																				
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,
Conf.dr.ing. Florin DRĂGAN

DECAN,
Prof.univ.dr.ing. Marius-George MARCU