

## PLAN DE ÎNVĂȚĂMÂNT

**Programul de studii univ. de master:**

**SOFTWARE ENGINEERING**

**Tipul de masterat:**

**de cercetare**

**Domeniul fundamental (DFI):**

**Engineering Science/ Științe Inginerești**

**Ramura de stiinta (RSI):**

System Engineering, Computer and Information Technology/ Ingineria sistemelor, calculatoare si tehnologia informatiei

**Domeniul de licenta (DL):**

**Computer and Information Technology**

**Durata studiilor / Numărul de credite:**

**2 ani / 120 credite**

**Forma de învățământ:**

**IF - Invatamant cu frecventa**

**Domeniul de studii universitare de master (DSU\_M):**

**Computer and Information Technology**

**RECTOR,**  
Conf.univ.dr.ing. Florin DRĂGAN

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

#### **Misiunea programului de studii:**

To provide students with advanced knowledge in the field of software engineering, familiarize them with the evolution of the current techniques, develop research abilities and prepare them for successful careers as key contributors in information technology development and research projects.

#### **Obiectivele programului de studii:**

The main objective of the Master in Software Engineering (MSE) programme is to produce highly qualified engineers at master level, with research and development abilities, in the field of Software Engineering.

#### **Competențele programului de studii:**

##### **Competențe profesionale:**

- 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.

##### **Competențe transversale:**

- Skills of communication, inter-disciplinary co-operation and team project management

#### **Finalități:**

Absolvenții programului de studii universitare de master vor accesa următoarele ocupații posibile conform Clasificării Ocupațiilor din România ISCO-08:

- 215235 - cercetator in calculatoare
- 214917 - cercetator in informatica
- 251206 - manager proiect informatica

Domeniul de licență:  
Programul de studii univ. de master de cercetare:

Computer and Information Technology  
SOFTWARE ENGINEERING

Forma de învățământ:  
Durata studiilor:

IF - Învățământ cu frecvență  
2 ani

Domeniul fundamental (DFI):  
Ramura de știință (RSI):  
Domeniul de studii universitare de master (DSU\_M):

Engineering Science/ Științe Inginerești  
System Engineering, Computer and Information Technology/ Ingineria sistemelor, calculatoare și tehnologia informației  
Computer and Information Technology

Cod DFI	Cod RSI	Cod DSU_M
20	60	10

ciclul	c1c2c3	a1a2
M	1	22

**PLAN DE ÎNVĂȚĂMÂNT**  
**Pentru seria de studenți 2022-2024**  
**ANUL I (2022-2023)**

	SEMESTRUL 1											SEMESTRUL 2																																
1	Optional Core 1 (choose one from positions 1-3)											Optional Core 3 (choose one from positions 1-4)																																
	M1.22.01.*1-ij	7	E	28	0	28	0	0	0	***	119	M1.22.02.*1-ij	7	E	28	0	28	0	0	0	***	119																						
2	Optional Core 2 (choose one from positions 1-3)											Optional Core 4 (choose one from positions 1-4)																																
	M1.22.01.*2-ij	7	E	28	0	28	0	0	0	***	119	M1.22.02.*2-ij	7	E	28	0	28	0	0	0	***	119																						
3	Elective 1 (choose one from Master SE/ IT/ CI/ ML)											Elective 2 (choose one from Master SE/ IT/ CI/ ML)																																
	M1.22.01.*3	7	E	28	0	28	0	0	0	***	119	M1.22.02.*3	7	E	28	0	28	0	0	0	***	119																						
4	Research Topics in SE											Introduction to Research																																
	M1.22.01.V4	9	D	28	0	0	0	0	168	DCAV	29	M1.22.02.V4	7	D	28	0	0	0	0	140	DCAV	7																						
5												Academic Ethics and Integrity																																
												M1.22.02.C5	2	D	14	7	0	0	0	0	DC	29																						
6																																												
7																																												
8																																												
9																																												
10	disciplina facultativa											disciplina facultativa																																
	M1.22.01.10-ij	2	E									M1.22.02.10-ij																																
total / sem.	VAi:	196										VPI:	386										VAi:	217										VPI:	393									
	VA (VAi+VAp):	364										VCA (VA+VPI):	750										VA (VAi+VAp):	357										VCA (VA+VPI):	750									
	credite:	30										evaluări:	3E,1D,0C										credite:	30										evaluări:	3E,2D,0C									
total / săpt.	VAi:	14.0										VPI:	27.6										VAi:	15.5										VPI:	28.1									
	VA (VAi+VAp):	26.0										VCA (VA+VPI):	53.6										VA (VAi+VAp):	25.5										VCA (VA+VPI):	53.6									
	din care:											8.0	0.0	6.0	0.0	12.0	(c, s, l, p, VAp)	din care:											9.0	0.5	6.0	0.0	10.0	(c, s, l, p, VAp)										

Observatii:

Pentru seria de studenti 2022-2024

ANUL II (2023-2024)

SEMESTRUL 3											SEMESTRUL 4										
1	Optional Core 5 (choose one from positions 1-3)										Research Activity and Internship										
	M1.22.03.1-ij	7	E	28	0	28	0	0		119	M1.22.04.S1	15	C					168	DS	207	
2	Optional Core 6 (choose one from positions 1-3)										Master Thesis Development										
	M1.22.03.2-ij	7	E	28	0	28	0	0		119	M1.22.04.S2	15	C					196	DS	179	
3	Elective 3 (choose one from Master SE/ IT/ CI/ ML)										Examen de disertație / Master Thesis Defense										
	M1.22.03.3	7	E	28	0	28	0	0		119	M1.22.04.S3	10	E						DS		
4	Directed Thesis Research																				
	M1.22.03.S4	9	D	0	0	0	28	168	DS	29											
5																					
6																					
7																					
8																					
9																					
10	disciplina facultativa										disciplina facultativa										
	M1.22.03.10-ij	2	E								M1.22.04.10-ij										
total / sem.	VAi:	196			VPI:	386					VAi:	0			VPI:	386					
	VA (VAi+VAp):	364			VCA (VA+VPI):	750					VA (VAi+VAp):	364			VCA (VA+VPI):	750					
	credite:	30			evaluări:	3E,1D,0C					credite:	30+10*			evaluări:	1E,0D,2C					
total / săpt.	VAi:	14.0			VPI:	27.6					VAi:	0.0			VPI:	27.6					
	VA (VAi+VAp):	26.0			VCA (VA+VPI):	53.6					VA (VAi+VAp):	26.0			VCA (VA+VPI):	53.6					
	din care:	6.0	0.0	6.0	2.0	12.0	(c, s, l, p, VAp)				din care:	0.0	0.0	0.0	0.0	26.0	(c, s, l, p, VAp)				

\* Credite suplimentare alocate Examenului de disertație

Observatii:

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**DISCIPLINE OPTIONALE**  
**Pentru seria de studenti 2022-2024**

**ANUL I (2022-2023)**

	SEMESTRUL 1										SEMESTRUL 2									
01	Optional Core 1-2 Component Based Software Engineering										Optional Core 3-4 Advanced Databases									
	M1.22.01.*1-01	7	E	28	0	28	0	0	0	DA	119	M1.22.02.*1-01	7	E	28	0	28	0	0	DA
02	Optional Core 1-2 Compiler Design										Optional Core 3-4 Advanced Distributed Applications									
	M1.22.01.*1-02	7	E	28	0	28	0	0	0	DCAV	119	M1.22.02.*1-02	7	E	28	0	28	0	0	DA
03	Optional Core 1-2 User Interface and User Experience Design										Optional Core 3-4 Real Time Systems Design									
	M1.22.01.*1-03	7	E	28	0	28	0	0	0	DCAV	119	M1.22.02.*1-03	7	E	28	0	28	0	0	DCAV
04											Optional Core 3-4 Heuristic Methods									
												M1.22.02.*1-04	7	E	28	0	28	0	0	DA
05																				
06																				
07																				
08																				
09																				
10																				

Observatii: (\*) - discipline optionale activate in anul univ. 2020-2021



**DISCIPLINE FACULTATIVE**  
**Pentru seria de studenti 2022-2024**  
**ANUL I (2022-2023)**

	SEMESTRUL 1	SEMESTRUL 2
01		
02		
03		
04		

Observatii:

**DISCIPLINE FACULTATIVE**  
**Pentru seria de studenti 2022-2024**  
**ANUL II (2023-2024)**

	SEMESTRUL 3	SEMESTRUL 4
01		
02		
03		
04		

Observatii:

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