

PLAN DE ÎNVĂȚĂMÂNT

Programul de studii univ. de master:

CLOUD COMPUTING AND INTERNET OF THINGS/ PROCESARE CLOUD SI INTERNETUL LUCRURILOR

Tipul de masterat:

de cercetare

Domeniul fundamental (DFI):

Engineering Science/ Științe Inginerești

Ramura de știință (RSI):

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

Domeniul de licență (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 cloud computing and internet of things, 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 Cloud Computing and Internet of Things (MCI) programme is to produce highly qualified engineers at master level, with research and development abilities, in the field of Cloud Computing and Internet of Things.

Competențele programului de studii:

Competențe profesionale:

- Advanced knowledge of the main topics and problems in the field of cloud computing and IoT;
- Knowledge of the current technologies and abilities to select and apply them in the development of cloud computing and IoT projects;
- 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:

- 252901 - specialist SIG/ IT
- 215236 - inginer de cercetare in calculatoare
- 215235 - cercetator in calculatoare

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

Computer and Information Technology
CLOUD COMPUTING AND INTERNET OF THINGS/ PROCESARE CLOUD SI INTERNETUL LUCRURILOR

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	4	23

PLAN DE ÎNVĂȚĂMÂNT
Pentru seria de studenți 2023-2025
ANUL I (2023-2024)

	SEMESTRUL 1											SEMESTRUL 2										
1	Optional Core 1 (choose one from positions 1-5)											Optional Core 3 (choose one from positions 1-5)										
	M4.23.01.V1-ij	7	E	28	0	28	0	0	0	DCAV	119	M4.23.02.A1-ij	7	E	28	0	28	0	0	0	DA	119
2	Optional Core 2 (choose one from positions 1-5)											Optional Core 4 (choose one from positions 1-5)										
	M4.23.01.V2-ij	7	E	28	0	28	0	0	0	DCAV	119	M4.23.02.A2-ij	7	E	28	0	28	0	0	0	DA	119
3	Elective 1 (choose one from Master CI/ IT/ ML/ SE)											Elective 2 (choose one from Master CI/ IT/ ML/ SE)										
	M4.23.01.V3	7	E	28	0	28	0	0	0	DCAV	119	M4.23.02.A3	7	E	28	0	28	0	0	0	DA	119
4	Research Topics in CC and IoT											Introduction to Research										
	M4.23.01.V4	9	D	28	0	0	0	0	168	DCAV	29	M4.23.02.V4	7	D	28	0	0	0	0	140	DCAV	7
5												Academic Ethics and Integrity										
												M4.23.02.C5	2	D	14	7	0	0	0	0	DC	29
6																						
7																						
8																						
9																						
10	disciplina facultativa											disciplina facultativa										
	M4.23.01.10-ij	2	E									M4.23.02.10-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)	9,0			0,5	6,0	0,0	10,0	(c, s, l, p, VAp)					

Observatii:

Pentru seria de studenti 2023-2025

ANUL II (2024-2025)

SEMESTRUL 3											SEMESTRUL 4										
1	Optional Core 5 (choose one from positions 1-5)										Research Activity and Internship										
	M4.23.03.V1-ij	7	E	28	0	28	0	0	DCAV	119	M4.23.04.S1	15	C	0	0	0	0	168	DS	207	
2	Optional Core 6 (choose one from positions 1-5)										Master Thesis Development										
	M4.23.03.V2-ij	7	E	28	0	28	0	0	DCAV	119	M4.23.04.S2	15	C	0	0	0	0	196	DS	179	
3	Elective 3 (choose one from Master CI/ IT/ ML/ SE)										Examen de disertație/ Master Thesis Defense										
	M4.23.03.V3	7	E	28	0	28	0	0	DCAV	119	M4.23.04.S3	10	E	0	0	0	0	0	DS		
4	Directed Thesis Research																				
	M4.23.03.S4	9	D	0	0	0	28	168	DS	29											
5																					
6																					
7																					
8																					
9																					
10	disciplina facultativa										disciplina facultativa										
	M4.23.03.10-ij	2	E								M4.23.04.10-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:

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

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

DISCIPLINE OPTIONALE
Pentru seria de studenti 2023-2025

ANUL I (2023-2024)

	SEMESTRUL 1											SEMESTRUL 2										
01	Optional Core 1-2 IoT and Cloud Architectures and Communication Technologies											Optional Core 3-4 Mobile Cloud Computing and Applications										
	M4.23.01.V1-01	7	E	28	0	28	0	0	DCAV	119	M4.23.02.A1-01	7	E	28	0	28	0	0	DA	119		
02	Optional Core 1-2 Communication Technologies in IoT and Cloud											Optional Core 3-4 Advanced Embedded Systems										
	M4.23.01.V1-02	7	E	28	0	28	0	0	DCAV	119	M4.23.02.A1-02	7	E	28	0	28	0	0	DA	119		
03	Optional Core 1-2 Smart Sensors and Sensor Networks											Optional Core 3-4 Big Data in Cloud and IoT										
	M4.23.01.V1-03	7	E	28	0	28	0	0	DCAV	119	M4.23.02.A1-03	7	E	28	0	28	0	0	DA	119		
04	Optional Core 1-2 Hardware Acceleration Techniques for Cloud Computing											Optional Core 3-4 Cloud Based AI Services										
	M4.23.01.V1-04	7	E	28	0	28	0	0	DCAV	119	M4.23.02.A1-04	7	E	28	0	28	0	0	DA	119		
05	Optional Core 1-2 Cyber Physical Systems											Optional Core 3-4 Fault-Tolerance of IoT and Dependable Cloud Computing										
	M4.23.01.V1-05	7	E	28	0	28	0	0	DCAV	119	M4.23.02.A1-05	7	E	28	0	28	0	0	DA	119		
06	Optional Core 1-2 Data Transmission, Coding and Compression											Optional Core 3-4 DevOps										
	M4.23.01.V1-06	7	E	28	0	28	0	0	DCAV	119	M4.23.02.A1-06	7	E	28	0	28	0	0	DA	119		
07	Optional Core 1-2 Cloud Foundations																					
	M4.23.01.V1-07	7	E	28	0	28	0	0	DCAV	119												
08																						
09																						
10																						

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

DISCIPLINE FACULTATIVE
Pentru seria de studenti 2023-2025
ANUL I (2023-2024)

	SEMESTRUL 1	SEMESTRUL 2
01		Volunteering
		M4.23.02.10-01 2 C 28 0 0 0 0 22
02		
03		
04		

Observatii:

DISCIPLINE FACULTATIVE
Pentru seria de studenti 2023-2025
ANUL II (2024-2025)

	SEMESTRUL 3	SEMESTRUL 4
01		Volunteering
		M4.23.04.10-01 2 C 28 0 0 0 0 22
02		
03		
04		

Observatii:

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

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