

CODUL SI DENUMIREA DISCIPLINEI	Anul : IV										Forma de verificare			Nr.ore/disciplina				Credite/sem		Disciplina	
	SEM 1 14 sapt					SEM 2 14 sapt															
	C	S	L	P	PR	C	S	L	P	PR	E	C	V	Total	C	Api	St. ind	1	2	cat	tip
55.00 Productia digitala	2	0	2	0	0						Nota			100	28	28	44	4.0		DS	DI
56.00 Constructia mecanica a robotilor industriali II	2	0	0	1	0						Nota			100	28	14	58	4.0		DS	DI
57.00 Comanda si programarea masinilor unelte cu comanda numerica	2	0	1	0	0						Nota			100	28	14	58	4.0		DS	DI
58.00 Conceptia si exploatarea sistemelor de productie robotizate	2	0	0	0	0						Nota			50	28	0	22	2.0		DS	DI
59.00 Conceptia si exploatarea sistemelor de productie robotizate (proiect)	0	0	0	2	0						Nota			50	0	28	22	2.0		DS	DI
60.00 Roboti pentru servicii I	1	0	1	0	0						Nota			50	14	14	22	2.0		DS	DI
61.00 Sisteme flexibile de fabricatie II	2	0	2	0	0						Nota			100	28	28	44	4.0		DS	DI
62.10 Interfete pentru interactiunea om-robot	2	0	2	0	0						Nota			100	28	28	44	4.0		DS	DO
62.20 Dezvoltarea sistemelor robotice industriale inteligente	2	0	2	0	0						Nota			100	28	28	44	4.0		DS	DO
63.10 Aplicatii cu microcontrolere in robotica industrială	1	0	2	0	0						Nota			100	14	28	58	4.0		DS	DO
63.20 Controlere logic programabile si automatizarea fabricatiei	1	0	2	0	0						Nota			100	14	28	58	4.0		DS	DO
64.00 Ingineria si managementul calitatii						2	0	2	0	0	Nota			125	28	28	69	5.0		DS	DI
65.00 Sisteme mecatronice						2	0	2	0	0	Nota			125	28	28	69	5.0		DD	DI
66.00 Roboti pentru servicii II						2	0	0	1	0	Nota			50	28	14	8	2.0		DS	DI
67.00 Roboti cu structuri paralele si aplicatii						2	0	1	0	0	Nota			125	28	14	83	5.0		DS	DI
68.10 Realitate virtuala						2	0	1	0	0	Nota			125	28	14	83	5.0		DS	DO
68.20 Actionarea pneumatica si comanda manipuloarelor						2	0	1	0	0	Nota			125	28	14	83	5.0		DS	DO
69.00 Elaborarea proiectului de diploma						0	0	0	0	4	0	Nota		100	0	56	44	4.0		DS	DI
70.00 Practica pentru proiectul de diploma						0	0	0	0	5	0	Nota		100	0	70	30	4.0		DS	DI
71.00 Sustinerea proiectului de diploma						0	0	0	0	0	0	Nota		0	0	0	0	10.0		DS	DI
TOTAL AN	14	0	10	3	0	10	0	6	5	5	sem1	5	3	1500	336	406	758	30.0	30.0		
				27.00					26.00	5	sem2	3	2								

EXEMPLAR UNIC

Originalul se află la PROCTORATUL DIOAC

Data: 16.05.2022

Semnatura: [Signature]

Rector,
Prof.Dr.Ing.Vasile TomaDecan
Prof.dr. ing. Corina Julieta BirleanuDirector departament,
Prof. dr. ing. Calin Ghe. Dan NeamtuResponsabil specializare program studii,
Prof.dr.ing. Stelian Brad

107.00 Tehnici de prototipare rapida	1	0	2	0	0			Nota	50	14	28	8	2.0	DC	DFac					
108.00 Robotica medicala	1	0	2	0	0			Nota	50	14	28	8	2.0	DC	DFac					
307.00 Voluntariat 7	0	1	0	0	0			A/R	50	0	14	36	2.0	DC	DFac					
308.00 Voluntariat 8						0	1	0	0	0			A/R	50	0	14	36	2.0	DC	DFac
TOTAL AN	2	1	4	0	0	0	1	0	0	0	sem1	0	2	1	200	28	84	88	6.0	2.0
				7.00				1.00			sem2	0	0	1						

EXEMPLAR UNIC

Originalul se află la PROCTORATUL DIDACT

Data: 20.05.2022 - V.A.R.

Semnătură

Rector,
Prof.Dr.Ing.Vasile TopaDecan,
Prof.dr. ing. Corina Juljeta BirleanuDirector departament,
Prof. dr. ing. Calin Ghe. Dag NeamtuResponsabil specializare/program studii,
Prof.dr.ing. Stelian

TECHNICAL UNIVERSITY of CLUJ-NAPOCA
FACULTY OF INDUSTRIAL ENGINEERING, ROBOTICS AND PRODUCTION MANAGEMENT

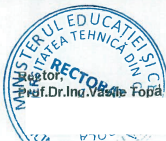
Domain MECHATRONICS AND ROBOTICS
Program Name ROBOTICS (IN ENGLISH LANGUAGE)
Study Level BACHELOR

Listat la: 25/02/2025

Anexa nr. 122
din 29.01.2024
Sedinta nr. 29.01.2024

CURRICULA Valid for the Academic Year 2025-2026

COURSE CODE AND TITLE	Year I										Methods of Assessment			Total of Hours/Discipline				ECTS/Sem		Discipline	
	SEM 1 14 weeks					SEM 2 14 weeks					E	C	V	Total	C	Apl	Indiv. St.	1	2	cat	type
	C	S	L	P	PR	C	S	L	P	PR											
1.00 Mathematical Analysis	2	2	0	0	0						Gr			100	28	28	44	4.0		DF	DI
2.00 Linear Algebra, Analytical and Differential Geometry	2	2	0	0	0						Gr			100	28	28	44	4.0		DF	DI
3.00 Physics	2	0	2	0	0						Gr			100	28	28	44	4.0		DF	DI
4.00 Computer Programming and Programming Languages I	2	0	2	0	0						Gr			100	28	28	44	4.0		DF	DI
5.00 Chemistry	2	0	1	0	0						Gr			100	28	14	58	4.0		DF	DI
6.00 Descriptive Geometry and Technical Drawing	1	0	2	0	0						Gr			100	14	28	58	4.0		DF	DI
7.00 Materials Science and Engineering I	1	0	1	0	0						Gr			75	14	14	47	3.0		DD	DI
8.10 Modern Languages I English	0	1	0	0	0						Gr			50	0	14	36	2.0		DC	DO
8.20 Modern Languages I French	0	1	0	0	0						Gr			50	0	14	36	2.0		DC	DO
8.30 Modern Languages I German	0	1	0	0	0						Gr			50	0	14	36	2.0		DC	DO
9.00 Physical Education and Sports I	0	1	0	0	0						A/R			25	0	14	11	1.0		DC	DI
10.00 Numerical Methods and Special Mathematics						1	0	1	0	0	Gr			75	14	14	47		3.0	DF	DI
11.00 Mechanics I						2	1	0	0	0	Gr			75	28	14	33		3.0	DD	DI
12.00 Electrotechnics and Electrical Machines						2	0	2	0	0	Gr			100	28	28	44		4.0	DD	DI
13.00 Computer Programming and Programming Languages II						2	0	2	0	0	Gr			100	28	28	44		4.0	DF	DI
14.00 Technical Drawing and Infographics						2	0	2	0	0	Gr			75	28	28	19		3.0	DF	DI
15.00 Materials Science and Engineering II						1	0	1	0	0	Gr			75	14	14	47		3.0	DD	DI
16.00 Fundamentals of Robotics						0	0	1	0	0	Gr			25	0	14	11		1.0	DD	DI
17.00 Communication						1	1	0	0	0	Gr			50	14	14	22		2.0	DC	DI
18.10 Modern Languages II English						0	2	0	0	0	Gr			50	0	28	22		2.0	DC	DO
18.20 Modern Languages II French						0	2	0	0	0	Gr			50	0	28	22		2.0	DC	DO
18.30 Modern Languages II German						0	2	0	0	0	Gr			50	0	28	22		2.0	DC	DO
19.00 Physical Education and Sports II						0	2	0	0	0	A/R			50	0	28	22		2.0	DC	DI
20.00 Field Practice I (2 weeks)						0	0	0	0	30	A/R			75	0	60	15		3.0	DD	DI



Dean,
Prof. dr.

Stelian Brad

Department Director,
Prof. dr. ing. Culin Ghe. Dan Neamtu

Prof. dr. ing. Stelian Brad

EXEMPLAR UNIC
Originalul se află la PROCTORATUL DIDACTIC
Data: 10.04.2025 VAR. 1
Semnătura: _____

Domain **MECHATRONICS AND ROBOTICS**
Program Name **ROBOTICS (IN ENGLISH LANGUAGE)**
Study Level **BACHELOR**

CURRICULA

Valid for the Academic Year **2025-2026**

Pag. 2

TOTAL AN	12	6	8	0	0	11	6	9	0	30	sem1	6	2	1	1500	322	466	712	30.0	30.0	
				26.00					26.00		sem2	5	5	1							

101.00	Linear Algebra, Analytical and Differential Geometry II	1	1	0	0	0				Gr		50	14	14	22	2.0		DF	DFac		
200.00	Educational Psychology	2	2	0	0	0				Gr		125	28	28	69	5.0		DC	DFac		
301.00	Volunteering 1	0	1	0	0	0				A/R		50	0	14	36	2.0		DC	DFac		
102.00	Web Technologies						1	0	2	0	0	Gr		50	14	28	8	2.0	DS	DFac	
201.00	Pedagogy I (The Fundamentals of Pedagogy, Curriculum Theory and Methodology)						2	2	0	0	0	Gr		125	28	28	69	5.0	DC	DFac	
302.00	Volunteering 2						0	1	0	0	0	A/R		50	0	14	36	2.0	DC	DFac	
TOTAL AN		3	4	0	0	0	3	3	2	0	0	sem1	1	1	1	450	84	126	240	9.0	9.0
					7.00					8.00		sem2	1	1	1						



Dean,
Prof. dr.ing.dr.ec. Stelian Brad

Department Director,
Prof. dr. ing. Calin Ohe. Dan Neamt

Prof.dr.ing. Stelian Brad

EXEMPLAR UNIC

Originalul se află la PROCTORATUL DIDACTIC

Data: 10.04.2025 VAR

Semnătura: _____

TECHNICAL UNIVERSITY of CLUJ-NAPOCA
FACULTY OF INDUSTRIAL ENGINEERING, ROBOTICS AND PRODUCTION MANAGEMENT

Domain **MECHATRONICS AND ROBOTICS**
Program Name **ROBOTICS (IN ENGLISH LANGUAGE)**
Study Level **BACHELOR**

Anexa nr. 11 Listat la
Ședința nr. 161 din
data 23.05.2024 26/02/2024

CURRICULA Valid for the Academic Year **2024-2025**

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COURSE CODE AND TITLE						Year II										Methods of Assessment			Credits/Hours/Discipline				Credits/Sem		Discipline		
						SEM 1 14 weeks					SEM 2 14 weeks					E	C	V	Total	C	Apl	Indiv. St.	1	2	cat	type	
						C	S	L	P	PR	C	S	L	P	PR												
21.00	Material Strength					2	0	1	0	0					Gr		125	28	14	83	5.0		DD	DI			
22.00	Mechanics II					2	1	0	0	0					Gr		100	28	14	58	4.0		DD	DI			
23.00	Basics of Automation Systems					1	0	0	2	0					Gr		75	14	28	33	3.0		DD	DI			
24.00	Tolerances and Dimensional Control					2	0	2	0	0					Gr		100	28	28	44	4.0		DD	DI			
25.00	Computer Aided Graphics I					2	0	2	1	0					Gr		100	28	42	30	4.0		DF	DI			
26.00	Electronics and Automation					2	0	2	0	0					Gr		100	28	28	44	4.0		DD	DI			
27.00	Programming in Python					1	0	2	0	0					Gr		100	14	28	58	4.0		DS	DI			
28.10	Modern Languages III English					1	1	0	0	0					Gr		50	14	14	22	2.0		DC	DO			
28.20	Modern Languages III French					1	1	0	0	0					Gr		50	14	14	22	2.0		DC	DO			
28.30	Modern Languages III German					1	1	0	0	0					Gr		50	14	14	22	2.0		DC	DO			
28.40	Ethics and Academic Integrity					1	1	0	0	0					Gr		50	14	14	22	2.0		DC	DO			
29.00	Mechanisms and Machine Elements I										3	0	2	2	0	Gr		125	42	56	27		5.0	DD	DI		
30.00	Fluid Mechanics										2	0	1	0	0	Gr		75	28	14	33		3.0	DD	DI		
31.00	Driving Systems										2	2	0	0	0	Gr		75	28	28	19		3.0	DD	DI		
32.00	Technologies for Industrial Internet of Things										1	0	1	0	0	Gr		50	14	14	22		2.0	DS	DI		
33.00	Control Systems in Robotics										2	0	1	0	0	Gr		75	28	14	33		3.0	DD	DI		
34.00	Computer Aided Graphics II										1	0	2	0	0	Gr		75	14	28	33		3.0	DD	DI		
35.00	Applied Modern Languages										1	1	0	0	0	Gr		50	14	14	22		2.0	DC	DI		
36.10	Electrical Drives of Industrial Robots										2	0	2	0	0	Gr		100	28	28	44		4.0	DS	DO		
36.20	Pneumatic Drives										2	0	2	0	0	Gr		100	28	28	44		4.0	DS	DO		
37.00	Practical Work II (4 weeks)										0	0	0	0	30	A/R		125	0	120	5		5.0	DD	DI		
TOTAL AN						13	2	9	3	0	1	14	3	9	2	30	sem1 sem2	5 5	3 4	0 0	1500	378	512	610		30.0	30.0

103.00 Innovation Management	1	0	2	0	0						Gr			50	14	28	8	2,0		DS	DFac
202.00 Pedagogy II (Instruction Theory and Methodology, Assessment Theory and Methodology)	2	2	0	0	0						Gr			125	28	28	69	5,0		DC	DFac

Rector,
Prof. Dr. Ing. Vasile Topa

Dean, -
Prof. dr. ing. ~~Ida~~ Corina Julieta Birleanu

Department Director,
Prof. dr. ing. Calin, Ghe. Dan Neamtu

Prof. dr. ing. Stelian Brad

EXEMPLAR UNI
Originalul se află la PROCTORATUL DID
12.05.2024-VAB

TECHNICAL UNIVERSITY of CLUJ-NAPOCA
FACULTY OF INDUSTRIAL ENGINEERING, ROBOTICS AND PRODUCTION MANAGEMENT

Listat la : 26/02/2024

Domain MECHATRONICS AND ROBOTICS

Program Name ROBOTICS (IN ENGLISH LANGUAGE)

Study Level BACHELOR

CURRICULA

Valid for the Academic Year 2024-2025

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303.00	Volunteering 3	0	1	0	0	0		A/R	50	0	14	36	2.0	DC	DFac	
104.00	Entrepreneurship						1	0	0	2	0			2.0	DC	DFac
203.00	Didactics of the Specialization						2	2	0	0	0			5.0	DC	DFac
304.00	Volunteering 4						0	1	0	0	0			2.0	DC	DFac
								A/R	50	0	14	36				
TOTAL AN		3	3	2	0	0	3	3	0	2	0	sem1 1 1 1 sem2 1 1 1	450 84 140 226	9.0 9.0		
					8.00					8.00						

EXEMPLAR UNIC

Originalul se află la PRORECTORATUL DIDACTIC

Data: 12.04.2024-142.0

Semnătura: _____

Rector,
Prof.Dr.Ing.Vasile Toma

Dean,
Prof. dr. ing. Corina Julieta Birleanu

Department Director,
Prof. dr. ing. Calin Ghe. Dan Neamtu

Prof.dr.ing. Stelian Brad

Domain **MECHATRONICS AND ROBOTICS**
Program Name **ROBOTICS (IN ENGLISH LANGUAGE)**
Study Level **BACHELOR**

CURRICULA

Valid for the Academic Year

2022-2023

Pag. 7

COURSE CODE AND TITLE	Year IV										Methods of Assessment E C V	Nr.of Hours/Discipline				ECTS/Sem		Discipline	
	SEM 1 14 weeks					SEM 2 14 weeks						Total	C	Apl	Indiv. St.	1	2	cat	type
	C	S	L	P	PR	C	S	L	P	PR									
55.00 Digital Production	2	0	2	0	0						Gr	100	28	28	44	4.0		DS	DI
56.00 Mechanical Construction of Industrial Robots II	2	0	0	1	0						Gr	100	28	14	58	4.0		DS	DI
57.00 NC Machine Tool Control and Programming	2	0	1	0	0						Gr	100	28	14	58	4.0		DS	DI
58.00 Conception and Exploitation of Robotic Production Systems	2	0	0	0	0						Gr	50	28	0	22	2.0		DS	DI
59.00 Conception and Exploitation of Robotic Production Systems (project)	0	0	0	2	0						Gr	50	0	28	22	2.0		DS	DI
60.00 Robots for Services I	1	0	1	0	0						Gr	50	14	14	22	2.0		DS	DI
61.00 Flexible Manufacturing Systems II	2	0	2	0	0						Gr	100	28	28	44	4.0		DS	DI
62.10 Interfaces for Human-Robot Interaction	2	0	2	0	0						Gr	100	28	28	44	4.0		DS	DO
62.20 Development of Intelligent Industrial Robotic Systems	2	0	2	0	0						Gr	100	28	28	44	4.0		DS	DO
63.10 Applications with Microcontrollers in Industrial Robotics	1	0	2	0	0						Gr	100	14	28	58	4.0		DS	DO
63.20 Programmable Logical Controllers and Manufacturing Automation	1	0	2	0	0						Gr	100	14	28	58	4.0		DS	DO
64.00 Quality Engineering and Management						2	0	2	0	0	Gr	125	28	28	69	5.0		DS	DI
65.00 Mechatronics Systems						2	0	2	0	0	Gr	125	28	28	69	5.0		DD	DI
66.00 Robots for Services II						2	0	0	1	0	Gr	50	28	14	8	2.0		DS	DI
67.00 Robots with Parallel Structures and Applications						2	0	1	0	0	Gr	125	28	14	83	5.0		DS	DI
68.10 Virtual Reality						2	0	1	0	0	Gr	125	28	14	83	5.0		DS	DO
68.20 Pneumatic actuation and control of robot manipulators						2	0	1	0	0	Gr	125	28	14	83	5.0		DS	DO
69.00 Graduation Project						0	0	0	4	0	Gr	100	0	56	44	4.0		DS	DI
70.00 Field-Specific Research for the Graduation Project						0	0	0	0	5	Gr	100	0	70	30	4.0		DS	DI
71.00 BSc Thesis Defense						0	0	0	0	0	Gr	0	0	0	0	10.0		DS	DI
TOTAL AN	14	0	10	3	0	10	0	6	5	5	sem1 sem2	1500	336	406	758	30.0 + 10	30.0		

107.00 Rapid Prototyping	1	0	2	0	0						Gr	50	14	28	8	2.0			
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Rector,
Prof.Dr.Ing.Vasile Topa

Dean,
Prof.dr. Ing. Corina Julieta Birleanu

Department Director,
Prof. dr. Ing. Calin Ghe. Dan Neamtu

Prof.dr.Ing. Stelian Brad

2. **EXEMPLU**
Originalul se afla la PROIECTORIATUL DIO
Data: 20.05.2022
Mara: _____

Domain MECHATRONICS AND ROBOTICS
Program Name ROBOTICS (IN ENGLISH LANGUAGE)
Study Level BACHELOR

CURRICULA

Valid for the Academic Year

2022-2023

Pag. 8

008.00 Medical Robotics	1	0	2	0	0		Gr	50	14	28	8	2.0	DC	DFac
007.00 Volunteering 7	0	1	0	0	0		A/R	50	0	14	36	2.0	DC	DFac
008.00 Volunteering 8						0	A/R	50	0	14	36	2.0	DC	DFac
TOTAL AN	2	1	4	0	0	0	sem1	0	2	1	200	28	84	88
							sem2	0	0	1		6.0	2.0	
						7.00					1.00			

Rector,
Prof. Dr. Ing. Vasile Topa

Dean,
Prof. dr. ing. Corina Julieta Birleanu

Department Director,
Prof. dr. ing. Calin Ghe. Dan Neamtu

Prof. dr. Ing. Stelian Brad

EXEMPLAR UNII
Originalul se afla la PROIECTORATUL DID

Data: 20.05.2022

Signature