CURRICULUM – 1st YEAR
2023-2024

UNIVERSITY	**GEORGE EMIL PALADE UNIVERSITY OF MEDICINE, PHARMACY, SCIENCE, AND TECHNOLOGY OF TÂRGU MUREȘ**	**PROGRAMME OF STUDY**	**ENERGY SYSTEMS AND INFORMATION TECHNOLOGY**
FACULTY	**FACULTY OF ENGINEERING AND INFORMATION TECHNOLOGIES**	**TITLE AWARDED**	**GRADUATE ENGINEER**
FIELD OF STUDY	**POWER ENGINEERING**	**OFFICIAL LENGTH OF THE PROGRAMME OF STUDY**	**4 YEARS**
LEVEL OF QUALIFICATION	**6 LEVEL CNC**	**NUMBER OF ECTS/SECT CREDITS**	**60 + 2**

No.	Educational activities	Code/Type of course	1st Semester (14 weeks)								2nd Semester (14 weeks)								Total academic year			
			1st Module (7 weeks)				2nd Module (7 weeks)				3rd Module (7 weeks)				4th Module (7 weeks)							
			Course	SLP	ECTS	Verif form	Course	SLP	ECTS	Verif form	Course	SLP	ECTS	Verif form	Course	SLP	ECTS	Verif form	Course	LP	Indiv. Std.	ECTS
	Compulsory courses																					
1	Mathematical analysis	ETI101/DF	6	6S	6	E													42	42	66	6
2	Physics	ETI102/DF	4	4SL	5	E													28	28	69	5
3	English Language I	ETI103/DC	-	4S	2	C													-	28	22	2
4	Physical Education I	ETI104/DC	-	2L	1	A/R													-	14	11	1
5	Linear algebra, analytical and differential geometry	ETI105/DF					6	4S	6	E									42	28	80	6
6	Computer Programming and Programming languages	ETI106/DF					6	4L	6	E									42	28	80	6
7	Electrotechnics I	ETI107/DD					4	4SL	5	E									28	28	69	5
8	Applied Informatics	ETI108/DF									4	4L	5	E					28	28	69	5
9	Electronics	ETI109/DD									6	4L	5	E					42	28	55	5
10	English Language II	ETI110/DC									-	4S	2	C					-	28	22	2
11	Chemistry	ETI111/DF									2	2L	3	C					14	14	47	3
12	Computer Aided Graphics	ETI112/DF													4	2L	4	C	28	14	58	4
13	Special Mathematics	ETI113/DF													6	4S	6	E	42	28	80	6
14	Introduction to electrical engineering	ETI114/DD													4	4S	5	E	28	28	69	5
15	Physical Education II	ETI115/DC													-	2L	1	A/R	-	14	11	1
TOTAL GENERAL		**8DF, 3DD, 4DC**	**10**	**16**	**14**	**2E, 1C, 1A/R**	**16**	**12**	**17**	**3E**	**12**	**14**	**15**	**2E,2C**	**14**	**12**	**16**	**2E,1C, 1A/R**	**364**	**378**	**808**	**62**
TOTAL HOURS/CREDITS		**15 Compulsory**	**27 hours /week ; 30+1 ECTS**								**26 hours/week; 30+1 ECTS**								**742**			

Formative categories		Activities	
DF	Foundamental course	C	Courses
DD	Technical course	S	Seminars
DS	Specialized course	LP	Practical exercise
DC	Complementary course	P	Project

CURRICULUM – 2nd YEAR
2023-2024

UNIVERSITY	**GEORGE EMIL PALADE UNIVERSITY OF MEDICINE, PHARMACY, SCIENCE, AND TECHNOLOGY OF TÂRGU MUREȘ**	**PROGRAMME OF STUDY**	**ENERGY SYSTEMS AND INFORMATION TECHNOLOGY**
FACULTY	**FACULTY OF ENGINEERING AND INFORMATION TECHNOLOGIES**	**TITLE AWARDED**	**GRADUATE ENGINEER**
FIELD OF STUDY	**POWER ENGINEERING**	**OFFICIAL LENGTH OF THE PROGRAMME OF STUDY**	**4 YEARS**
LEVEL OF QUALIFICATION	**6 LEVEL CNC**	**NUMBER OF ECTS/SECT CREDITS**	**60 + 2**

No.	Educational activities	Code/Type of course	1st Semester (14 weeks)								2nd Semester (14 weeks)								Total academic year			
			1st Module (7 weeks)				2nd Module (7 weeks)				3rd Module (7 weeks)				4th Module (7 weeks)							
			Course	SLP	ECTS	Verif form	Course	SLP	ECTS	Verif form	Course	SLP	ECTS	Forma verif	Course	SLP	ECTS	Verif form	Course	LP	Indiv. Std.	ECTS
	Compulsory courses																					
1	Electrotechnics II	ETI201/DD	4	6SL	6	E													28	42	80	6
2	Heat Engineering I	ETI204/DD	4	4L	5	E													28	28	69	5
3	Technology of Materials	ETI217/DD	4	4L	5	C													28	28	69	5
4	Tehnics of artificial intelligence	ETI212/DD					4	2L	3	E									28	14	33	3
5	Electrical and Electronic Measurements	ETI203/DD					6	4SL	6	E									42	28	80	6
6	Hydraulic Bases	ETI216/DD					4	2L	3	E									28	14	33	3
7	English Language III	ETI206/DC					-	4S	2	C									-	28	22	2
8	Physical Education III	ETI207/DC					-	2L	1	A/R										14	11	1
9	Numerical Methods	ETI205/DF									6	4S	6	E					42	28	80	6
10	Renewable energy	ETI209/DD									4	4L	5	E					28	28	69	5
11	English Language IV	ETI213/DC									-	2S	2	C					-	28	22	2
12	Ethics and academic integrity	ETI218/DC									2	-	1	C					14		11	1
13	Physical Education IV	ETI214/DC									-	2L	1	A/R					-	14	11	1
14	The theory of automatic adjustment	ETI208/DD													4	4SL	4	E	28	28	44	4
15	Electric Machines and Drive Systems	ETI210/DD													4	6LP	5	E	28	42	55	5
16	Equipments and thermal installations	ETI211/DD													4	4L	3	E	28	28	19	3
17	Practical training	ETI215/DD	90														4	C	-	90	10	4
TOTAL GENERAL		**1DF, 11DD, 5DC**	**12**	**14**	**16**	**2E,1C**	**14**	**14**	**15**	**3E, 1C, 1A/R**	**12**	**14**	**15**	**2E,2C, 1A/R**	**12**	**14**	**16**	**3E, 1C**	**350**	**482**	**718**	**62**
TOTAL HOURS/CREDITS		**15 Compulsory, 2 Optional**	**27 hours/week; 31 ECTS**								**26 hours/week ; 31 ECTS**								**832**			

Formative categories		Activities	
DF	Foundamental course	C	Courses
DD	Technical course	S	Seminars
DS	Specialized course	LP	Practical exercise
DC	Complementary course	P	Project

CURRICULUM – 3rd YEAR
2023-2024

UNIVERSITY	**GEORGE EMIL PALADE UNIVERSITY OF MEDICINE, PHARMACY, SCIENCE, AND TECHNOLOGY OF TÂRGU MUREȘ**	**PROGRAMME OF STUDY**	**ENERGY SYSTEMS AND INFORMATION TECHNOLOGY**
FACULTY	**FACULTY OF ENGINEERING AND INFORMATION TECHNOLOGIES**	**TITLE AWARDED**	**GRADUATE ENGINEER**
FIELD OF STUDY	**POWER ENGINEERING**	**OFFICIAL LENGTH OF THE PROGRAMME OF STUDY**	**4 YEARS**
LEVEL OF QUALIFICATION	**6 LEVEL CNC**	**NUMBER OF ECTS/SECT CREDITS**	**60**

No.	Educational activities	Code/Type of course	1st Semester (14 weeks)								2nd Semester (14 weeks)								Total academic year			
			1st Module (7 weeks)				2nd Module (7 weeks)				3rd Module (7 weeks)				4th Module (7 weeks)							
			Course	SLP	ECTS	Verif form	Course	SLP	ECTS	Verif form	Course	SLP	ECTS	Verif form	Course	SLP	ECTS	Verif form	Course	LP	Indiv. Std.	ECTS
	Compulsory courses																					
1	Electric Networks I	ETI304/DD	4	6SL	6	C													28	42	80	6
2	Data structures and algorithms	ETI301/DS	4	4L	4	C													28	28	44	4
3	Echipamente electrice I	ETI302/DD	4	4S	5	E													28	28	69	5
4	Power Electronics	ETI303/DS					4	4LP	4	E									28	28	44	4
5	Transformer and Substation Points	ETI306/DS					4	2L	3	E									28	14	33	3
6	Electrical Devices II	ETI309/DD					4	4L	5	C									28	28	69	5
7	Electric Networks II	ETI310/DD					4	-	2	E									28	-	22	2
		ETI311/DD					-	2P	1	C									-	14	11	1
8	Programming microprocessor and microcontrollers	ETI308/DS									4	6LP	6	E					28	42	80	6
9	Computer networks	ETI307/DS									4	4L	4	E					28	28	44	4
10	Electromagnetic compatibility	ETI305/DS									4	2L	3	C					28	14	33	3
11	Reliability power systems	ETI315/DD													4	4S	4	E	28	28	44	4
12	Production of electric power and thermal	ETI316/DD													6	6LP	6	E	42	42	66	6
13	Data base in energetic	ETI314/DS													4	4L	3	E	28	28	19	3
14	On-site Training	ETI313/DS	90														4	C	-	90	10	4
TOTAL GENERAL		**9DD, 9DS**	**12**	**14**	**15**	**1E,2C**	**16**	**12**	**15**	**3E, 2C**	**12**	**12**	**13**	**2E,1C**	**14**	**14**	**17**	**3E, 1C**	**378**	**454**	**668**	**60**
TOTAL HOURS /CREDITS		**11 Compulsory, 3 Optional**	**27 hours/week; 30 ECTS**								**26 hours/week; 30 ECTS**								**832**			

Formative categories		Activities	
DF	Foundamental course	C	Courses
DD	Technical course	S	Seminars
DS	Specialized course	LP	Practical exercise
DC	Complementary course	P	Project

CURRICULUM – 4th YEAR
2023-2024

UNIVERSITY	**GEORGE EMIL PALADE UNIVERSITY OF MEDICINE, PHARMACY, SCIENCE, AND TECHNOLOGY OF TÂRGU MUREȘ**	**PROGRAMME OF STUDY**	**ENERGY SYSTEMS AND INFORMATION TECHNOLOGY**
FACULTY	**FACULTY OF ENGINEERING AND INFORMATION TECHNOLOGIES**	**TITLUL ABSOLVENTULUI**	**GRADUATE ENGINEER**
FIELD OF STUDY	**POWER ENGINEERING**	**OFFICIAL LENGTH OF THE PROGRAMME OF STUDY**	**4 YEARS**
LEVEL OF QUALIFICATION	**6 LEVEL CNC**	**NUMBER OF ECTS/SECT CREDITS**	**60**

No.	Educational activities	Code/Type of course	1st Semester (14 weeks)								2nd Semester (14 weeks)								Total academic year			
			1st Module (7 weeks)				2nd Module (7 weeks)				3rd Module (7 weeks)				4th Module (7 weeks)							
			Course	SLP	ECTS	Verif form	Course	SLP	ECTS	Verif form	Course	SLP	ECTS	Verif form	Course	SLP	ECTS	Verif form	Course	LP	Indiv. Std.	ECTS
	Compulsory courses																					
1	Optimization of energetical process	ETI412/DS	6	4L	6	E													42	28	80	6
2	Programs of simulation and virtual instrumentation	ETI406/DS	4	4L	5	E													28	28	69	5
3	Integration, interconnection and operating SRE	ETI407/DS	4	4L	4	C													28	28	44	4
4	Smart energy systems	ETI405/DS					4	6LP	5	E									28	42	55	5
5	Techniques of High Level Voltages	ETI404/DS					6	4L	6	E									42	28	80	6
6	Data Transmission	ETI413/DS					4	2L	4	C									28	14	58	4
8	SCADA systems in driving energy process	ETI401/DS									4	6LP	5	E					28	42	55	5
9	Theory and modelling energy systems	ETI402/DS									6	4L	5	C					42	28	55	5
		ETI403/DS									-	2P	2	C					-	14	36	2
10	Automation and protection SEE	ETI409/DS													6	6LP	5	E	42	42	41	5
11	Electrical Energy Use	ETI408/DS													6	4L	5	E	42	28	55	5
12	Diploma project practical training	ETI410/DS	70														4	C	-	70	30	4
13	Diploma project drafting	ETI411/DS									-	4P			-	4P	4	C	-	56	44	4
TOTAL GENERAL		**14DS**	**14**	**12**	**15**	**2E,1C**	**14**	**12**	**15**	**2E,1C**	**10**	**16**	**12**	**1E, C**	**12**	**14**	**18**	**2E,2C**	**350**	**448**	**702**	**60**
TOTAL HOURS/CREDITS		**11 Compulsory/ 3 Optional**	**26 hours/week; 30 ECTS**								**26 hours/week; 30 ECTS**								**798**			

Formative categories		Activities	
DF	Foundamental course	C	Courses
DD	Technical course	S	Seminars
DS	Specialized course	LP	Practical exercise
DC	Complementary course	P	Project