

# “GHEORGHE ASACHI” TECHNICAL UNIVERSITY OF IAȘI

FACULTY OF ELECTRICAL ENGINEERING

Domain: Power Engineering

Specialization: **Energy Management**

Graduate title: Engineer, bachelor

Length of studies: 4 years

Form of education: with frequency

## CURRICULUM

### 1st YEAR

Crt. no	Course title	Course code UTI.EH...	Conditionings	1st semester						2nd semester									
				Hours/week/ discipline						V	K	Hours/week/ discipline						V	K
				C	S	L	P	SI			C	S	L	P	SI				
101	Mathematical Analysis	EH2.101.DF.DI		2	2			3	E	5									
102	Linear Algebra, Analytic and Differential Geometry	EH2.102.DF.DI		2	2			3	E	5									
103	Physics	EH2.103.DF.DI		3	1	1		3	E	6									
104	Computer assisted Graphics I	EH2.104.DF.DI		1		1		1	C	3									
105	Applied Informatics I	EH2.105.DF.DI		1		2	1	2	E	5									
106	Computer Programming and Programming Languages I	EH2.106.DF.DI		1		2		2	C	4									
DI	107	Differential Equations and Operational Calculus	C1, C2								2	2			2	E	5		
	108	Computer Programming and Programming Languages II	C3								2	2			2	E	5		
	109	Computer assisted Graphics II	C4								2	2			2	VP	4		
	110	Electromagnetic Field Theory	EH2.110.DID.DI								2	1	1		3	E	5		
	111	Physics – Elements of Newtonian Mechanics	EH2.111.DF.DI								2	1			1	E	3		
	112	Mechanics and Material Strength	EH2.112.DID.DI								2	1			1	C	3		
	113	Mechanics	EH2.113.DID.DI								2			1	1	C	2		
	114	Modern Languages	EH2.114.DC.DI			1			1	C	1		1		1	C	1		
	115	Physical Training	EH2.115.DC.DI				1						1			A/R	2		
	DO	116	Intellectual Work Technique	EH2.116.1.DC.DO															
		Professional Communication	EH2.116.2.DC.DO		1				VP	1									
DL	117	Modern Languages	EH2.117.DC.DL			1			C	1		1				C	1		
	118	Physical Training	EH2.118.DC.DL				1		A/R	1									
	119	Ensemble Sports	EH2.119.DC.DL									1				A/R	1		
	120	Personal Development	EH2.120.DC.DL		1	1				C	2								
	121	Mathematics	EH2.121.DF.DL			1				C	1								
Total hours per week, total tests number per semester and total credits per semester, for DI and DO				10	7	7	1	15	4E 3C	30	14	6	6	1	13	4E 3C	30		

Conditionings	Previous compulsory discipline	
	Title	Code
C1	Mathematical Analysis	UTI.EH.EH2.101.DF.DI
C2	Linear Algebra, Analytic and Differential Geometry	UTI.EH.EH2.102.DF.DI
C3	Computer Programming and Programming Languages I	UTI.EH.EH2.106.DF.DI
C4	Computer assisted Graphics I	UTI.EH.EH2.104.DF.DI

**DEAN,**

*Prof.univ.dr.ing. Marinel Temneanu*

**RECTOR,**

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**CURRICULUM**

**2nd YEAR**

Crt. no	Course title	Course code UTI.EH...	Condi- tion- nings	1st semester					2nd semester									
				Hours/week/ discipline					V	K	Hours/week/ discipline					V	K	
				C	S	L	P	SI			C	S	L	P	SI			
DI	201	Electrical Circuits Theory I	EN.201.DID.DI		2	1	1		3	E	5							
	202	Numerical Analysis in Engineering	EN.202.DF.DI	C1	2		2		2	E	5							
	203	Reliability and Industrial Risk	EN.203.DID.DI	C2	2		2		2	C	4							
	204	Electronic Circuits and Devices	EN.204.DID.DI		2		1		2	E	4							
	205	Electrical Safety	EN.205.DS.DI		2		1		2	C	3							
	206	Fluid Mechanics	EN.206.DID.DI		2	1	1		2	E	4							
	207	Electrical Circuits Theory II	EN.207.DID.DI									2		1		2	E	3
	208	Energy Resources and Conversion	EN.208.DID.DI									3	2			3	E	4
	209	Thermotechnics	EN.209.DID.DI									2	1			2	C	3
	210	Electrical and Non-Electrical Measurements I	EN.210.DID.DI									2		2		2	E	4
	211	Hydraulic and Thermal Machines	EN.211.DID.DI	C3, C4								2		2		1	C	4
	212	Electrical Machines I	EN.212.DID.DI									2		2		2	E	4
	213	Physical Training	EN.213.DC.DI				1							1			A/ R	1
	214	Practice, 3 weeks x 40 h/week=120 h	EN.214.DID.DI														C	4
DO	215	Electrical Materials Technology	EN.215.1.DID.DO		2		2		1	E	5							
		Electrical Materials	EN.215.2.DID.DO															
	216	General Economics and Marketing	EN.216.1.DC.DO									2	1			1	C	3
		Marketing Strategies	EN.216.2.DC.DO															
DL	217	Modern Languages	EN.217.DC.DL			1				C	1		1			C	1	
	218	European Civilization and Institutions	EN.218.DC.DL		1					C	1							
	219	Special Mathematics	220.DF.DL		1		1			C	2							
Total hours per week, total tests number per semester and total credits per semester, for DI and DO					14	2	11	0	14	4E 3C	30	15	4	8	0	14	4E 4C	30

Conditionnings	Previous compulsory discipline	
	Title	Code
C1	Mathematical Analysis	UTI.EH.EL.101.DF.DI
C2	Linear Algebra	UTI.EH.EL.102.DF.DI
C3	Thermotechnics	UTI.EH.EN.209.DID.DI
C4	Fluid Mechanics	UTI.EH.EN.206.DID.DI

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**CURRICULUM**

**3rd YEAR**

Nr. crt.	Denumirea disciplinei	Codul disciplinei UTI.EH. ...	Condiționări	Semestrul 1					Semestrul 2									
				Nr. ore/săpt./disciplină					V	K	Nr. ore/săpt./disciplină					V	K	
				C	S	L	P	SI			C	S	L	P	SI			
DI	301	Electrical Machines II	EN.301.DID.DI	C1	2		1	1	3	E	5							
	302	Electrical and Non-Electrical Measurements II	EN.302.DID.DI	C2	2		2		2	E	5							
	303	Electrical Equipment I	EN.303.DID.DI		3		2		3	E	5							
	304	Electromagnetic Compatibility	EN.304.DID.DI	C3	2		1		2	C	3							
	305	Equipment and Thermal Installations I	EN.305.DID.DI	C4	2	1			1	C	4							
	306	Use of Electrical Energy	EN.306.DS.DI		2		2		2	E	5							
	307	Automatic Control Elements	EN.307.DID.DI									2	2	2	2	E	4	
	308	Thermal and Electrical Energy Production	EN.308.DID.DI									2	2	1	3	E	5	
	309	Electricity Transmission and Distribution I	EN.309.DID.DI	C5								2	2	1	3	E	5	
	310	Electrical Part of Power Plants	EN.310.DID.DI									2	2	2	2	C	4	
311	Practice, 3 weeks x 40 h/week=120 h	EN.311.DID.DI														C	4	
DO	312	Power Electronics	EN.312.1.DS.DO	C6								2	2	2	E	4		
		Static Switch Equipment	EN.312.2.DS.DO															
		Management	EN.313.1.DID.DO															
	313	Financial Resources and Economic Analysis	EN.313.2.DID.DO		2	1			1	C	3							
314	Electrical Equipment II	EN.314.1.DID.DO									2	2	2	C	4			
	Equipment and Thermal Installations II	EN.314.2.DID.DO																
DL	315	Microprocessors in Power Engineering	EN.315.DS.DL	C4							2	1	2	C	4			
Total hours per week, total tests number per semester and total credits per semester, for DI and DO					15	2	8	1	14	4E	30	12	0	12	2	14	4E	30
					<b>26</b>					<b>14</b>	<b>3C</b>	<b>26</b>					<b>14</b>	<b>3C</b>

Conditionnings	Previous compulsory discipline	
	Title	Code
C1	Electrical Machines I	UTI.EH.EN.212.DID.DI
C2	Electrical and Non-Electrical Measurements I	UTI.EH.EN.210.DID.DI
C3	Electromagnetic Field Theory	UTI.EH.EL.110.DF.DI
C4	Thermotechnics	UTI.EH.EN.209.DID.DI
C5	Electrical Circuits Theory II	UTI.EH.EN.207.DF.DI
C6	Electronic Circuits and Devices	UTI.EH.EN.204.DID.DI

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**CURRICULUM**

**4th YEAR**

Crt. no	Course title	Course code UTI.EH...	Condi tion n in g s	1st semester						2nd semester												
				Hours/week/ discipline						V	K	Hours/week/ discipline						V	K			
				C	S	L	P	SI	E			C	S	L	P	SI	E					
DI	401	Secondary Energy Resources	ME.401.DS.DI		2	2	1	3	E	6												
	402	Automation of Industrial Energy Processes	ME.402.DS.DI	C1	2	2		3	E	5												
	403	Thermal Energy Processing I	ME.403.DS.DI		2	1		2	C	4												
	404	Power Quality Management	ME.404.DID.DI		2		2	2	E	5												
	405	Management, Monitoring and Data Acquisition Systems	EN.405.DS.DI		3	2		3	C	6												
	406	Electro-technological Equipment and Installations	ME.406.DS.DI	C2, C3	2	2		2	E	4												
	407	Energy Balance	ME.407.DS.DI								2	2		1	E	4						
	408	Energy Policy Instruments	ME.408.DS.DI								2	1		1	C	3						
	409	Thermal Energy Processing II	ME.409.DS.DI								2		1	1	C	3						
	410	Diploma Project Preparation	ME.410.DS.DI										8	5	C	6						
411	Practice for Diploma Project Drafting, 3 weeks x 40 h/week = 120 h*	ME.411.DS.DI												C	4							
415	Diploma project defend**	ME.415.DS.DI												E	10							
DO	412	Modelling and Optimization of Industrial Energy Processes	EN.412.1.DS.DO								3	2		2	E	5						
		Operational Research	EN.412.2.DS.DO																			
	413	Technologies and Installations for Polluting Emissions Treatment	EN.413.1.DS.DO	C4							2	1	1		3	E	5					
		Power Ecology	EN.413.2.DS.DO																			
414	Industrial Project Management	EN.414.DID.DL		1			2	C	3													
Total hours per week, total tests number per semester and total credits per semester, for DI and DO					13	0	9	3	15	4E	30		11	1	6	9	13	3E	30			
					<b>25</b>						15	2C		<b>27</b>						13	4C	

\*It is accomplished at the diploma co-ordinator, who makes also the evaluation.

\*\*The 10 credits are granted only after succesful defend of the diploma project.

Conditionnings	Previous compulsory discipline	
	Title	Code
C1	Automatic Control Elements	UTI.EH.EN.307.DID.DI
C2	Electrical Equipment I	UTI.EH.EN.303.DID.DI
C3	Electrical Equipment II	UTI.EH.EN.314.1.DID.DO
C4	Thermal and Electrical Energy Production	UTI.EH.EN.308.DID.DI

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