CURRICULUM
Bachelor's degree program in Electrical Engineering in English
as of 2021/2022 academic year

ECTS Subject code T EEe No
- T – type of course: B for BEng, M for MEng;
- I - IV semester – fundamental subjects - professional field 5.2. Electrical Engineering, Electronics and Automation;
- EEe – specialty "Electrical Engineering" in English;
- No – number of the subject;
Lectures (L), Tutorials (Tut.), Labs (Lab.), Auditorium Total (AT), Self-Study (SS), Exam (E),
Continuous Assessment (CA), Semester Project (SP), Semester Assignment (course work) (SA)

№	Code	SUBJECT	Semester Load						Assesment				ECTS credits
			L	Tut.	Lab.	AT	SS	Total	E	CA	SP	SA	
SEMESTER I													
1	MATe11	Mathematics I	45	30	0	*75*	165	*240*	1				**8**
2	PHYe02	Physics	30	30	15	*75*	165	*240*	1				**8**
3	CHEe02	Chemistry	15	0	30	*45*	105	*150*	1				**5**
4	ENGe06	Fundamentals of Engineering Design	15	0	45	*60*	120	*180*		1		1	**6**
5	LNGe01	Foreign Language I	0	30	0	*30*	30	*60*		1			**2**
6	SPRe01	Sport	0	0	0	*0*	30	*30*		1			**1**
TOTAL			**105**	**90**	**90**	**285**	**615**	**900**	**3**	**3**	**0**	**1**	**30**
SEMESTER II													
7	MATe21	Mathematics II	45	30	0	*75*	135	*210*	1				**7**
8	EEAe01	Electrical Materials	30	0	30	*60*	90	*150*	1				**5**
9	CCEe26	Programming I	30	0	30	*60*	90	*150*		1		1	**5**
10	MECe22	Mechanics	30	30	0	*60*	90	*150*	1				**5**
11	EEAe02	Technical Safety	30	0	15	*45*	105	*150*		1			**5**
12	PRCe01	Practicum	0	0	0	*0*	60	*60*		1			**2**
13	SPRe02	Sport	0	0	0	*0*	30	*30*		1			**1**
TOTAL			**165**	**60**	**75**	**300**	**600**	**900**	**3**	**4**	**0**	**1**	**30**
SEMESTER III													
14	EEAe03	Theoretical Electrical Engineering I	30	30	15	*75*	165	*240*	1			1	**8**
15	EEAe04	Electrical Measurements	30	0	30	*60*	120	*180*	1				**6**
16	MECe23	Mechanical Systems	30	0	15	*45*	105	*150*		1			**5**
17	EEAe05	Semiconductor Devices	30	0	30	*60*	90	*150*	1				**5**
18	EEAe06	Electronic Circuits Theory	30	0	30	*60*	90	*150*		1			**5**
19	SPRe03	Sport	0	0	0	*0*	30	*30*		1			**1**
TOTAL			**150**	**30**	**120**	**300**	**600**	**900**	**3**	**3**	**0**	**1**	**30**
SEMESTER IV													
20	EEAe07	Theoretical Electrical Engineering II	30	30	15	*75*	135	*210*	1			1	**7**
21	CCEe27	Programming and Tools for Mathematical Modeling	15	0	30	*45*	75	*120*		1		1	**4**
22	EEAe08	Automatic Control Theory	30	0	30	*60*	90	*150*	1				**5**
23	EEAe09	Digital electronics	30	0	30	*60*	90	*150*	1				**5**
24	CCEe28	Fundamentals of Telecommunications	30	0	15	*45*	75	*120*		1			**4**
25	EEAe10	Digital electronics – project	0	0	0	*0*	60	*60*			1		**2**
26	PRCe02	Practicum	0	0	0	*0*	60	*60*		1			**2**
27	SPRe04	Sport	0	0	0	*0*	30	*30*		1			**1**
TOTAL			**135**	**30**	**120**	**285**	**615**	**900**	**3**	**4**	**1**	**2**	**30**

№	Code	SUBJECT	Semester Load						Assesment				ECTS credits
			L	Tut.	Lab.	AT	SS	Total	E	CA	SP	SA	
SEMESTER V													
28	**BEEe01**	Electrical Machines I	45	0	30	*75*	105	*180*	1			1	**6**
29	**BEEe02**	Electrical Apparatus I	45	0	30	*75*	105	*180*	1			1	**6**
30	**BEEe03**	High Voltage Tengineering	30	0	30	*60*	90	*150*	1				**5**
31	**BEEe04**	Embedded systems and programmable controllers	45	0	0	*45*	75	*120*	1				**4**
32	**BEEe05**	Lighting and Installation Technology	30	0	15	*45*	75	*120*		1			**4**
33	**BEEe06**	Energy technology	15	0	0	*15*	75	*90*		1			**3**
34	**BEEe07**	Embedded systems and programmable controllers – project	0	0	0	*0*	60	*60*			1		**2**
TOTAL			**210**	**0**	**105**	**315**	**585**	**900**	**4**	**2**	**1**	**2**	**30**
SEMESTER VI													
35	**BEEe08**	Electrical Machines II	45	0	30	*75*	105	*180*	1			1	**6**
36	**BEEe09**	Electrical Apparatus II	45	0	30	*75*	105	*180*	1			1	**6**
37	**BEEe10**	Electrical converters and energy efficiency	45	0	25	*70*	110	*180*	1				**6**
38	**BEEe11**	Design of Electrical Machines	45	0	20	*65*	115	*180*	1				**6**
39	**BEEe12**	Economics of the electrical industry	30	0	0	*30*	90	*120*		1			**4**
40	**BEEe13**	Design of Electrical Machines– project	0	0	0	*0*	60	*60*			1		**2**
TOTAL			**210**	**0**	**105**	**315**	**585**	**900**	**4**	**1**	**1**	**2**	**30**
SEMESTER VII													
41	**BEEe14**	Electrical drives	45	0	25	*70*	110	*180*	1				**6**
42	**BEEe15**	Electrical Power Engineering	45	0	0	*45*	105	*150*	1				**5**
43	**BEEe16**	Switchgear and controlgear	45	0	25	*70*	110	*180*	1				**6**
44	**BEEe17**	Industrial Technologies in Electrical Engineering and Electronics	45	0	25	*70*	110	*180*	1				**6**
45	**BEEe18**	Ecology and Renewable Energy Sources	40	0	20	*60*	90	*150*		1			**5**
46	**BEEe19**	Switchgear and controlgear– project	0	0	0	*0*	60	*60*			1		**2**
TOTAL			**220**	**0**	**95**	**315**	**585**	**900**	**4**	**1**	**1**	**0**	**30**
SEMESTER VIII													
47	**BEEe20**	Elective subject* (List 1)	30	0	20	*50*	100	*150*	1			1	**5**
48	**BEEe21**	Elective subject* (List 2)	30	0	15	*45*	105	*150*	1				**5**
49	**BEEe22**	Elective subject* (List 3)	30	0	15	*45*	105	*150*	1				**5**
50	**BEEe23**	Elective subject* (List 4)	30	0	15	*45*	105	*150*	1				**5**
51	**BEEe24**	Diploma project	0	0	0	*0*	300	*300*	Defense of diploma thesis				**10**
TOTAL			**120**	**0**	**65**	**185**	**715**	**900**	**4**	**0**	**0**	**1**	**30**

Remark:

The form of control (Current assessment) in the disciplines "Sport" and "Practicum" is "Respected / Not respected".

LIST OF THE OPTIONAL SUBJECTS

List 1 Compulsury elective subject	ECTS = 5
1 Computer modeling of fields and processes	**BEEe20.1**
2 Computer Aided Design of Electrical Apparatus	**BEEe20.2**
List 2 Compulsury elective subject	**ECTS = 5**
1 Electromagnetic and electromechanical system	**BEEe21.1**
2 High voltage electrical apparatus	**BEEe21.2**
List 3 Compulsury elective subject	**ECTS = 5**
1 Electrical Machines with Electronic Control	**BEEe22.1**
2 Contactless devices and hybrid circuit breakers	**BEEe22.2**
List4 Elective subject	**ECTS = 5**
1 Test methods, monitoring and diagnostics of electromechanical systems	**BEEe23.1**
2 Electrotechnology	**BEEe23.2**

LIST OF THE FACULTATIVE SUBJECTS

№	Code	SUBJECT	Semester Load						Assesment				ECTS credits
			L	Tut.	Lab.	AT	SS	Total	E	CA	SP	SA	
СЕМЕСТЪР II													
1	**FaLNGe21**	Foreign Language II	0	30	0	*30*	30	*60*		1			**2**
СЕМЕСТЪР V													
1	**FaSPRe05**	Sport	0	0	0	*0*	30	*30*		1			**1**
СЕМЕСТЪР VI													
1	**FaSPRe06**	Sport	0	0	0	*0*	30	*30*		1			**1**
СЕМЕСТЪР VII													
1	**FaSPRe07**	Sport	0	0	0	*0*	30	*30*		1			**1**
2	**FaBEEe01**	Facultative subject (List 5)	30	0	30	*60*	90	*150*	1				**5**
СЕМЕСТЪР VIII													
1	**FaSPRe08**	Sport	0	0	0	*0*	30	*30*		1			**1**
1	**FaBEEe02**	Facultative subject (List 6)	0	0	0	*0*	30	*30*		1			**1**

LIST OF FACULTATIVE SUBJECTS

List 5 Facultative subject		ECTS = 5
1	Multimedia engineering presentations	**FaBEEe01.1**
2	Electrical Contact	**FaBEEe01.2**
3	Electrical sensors	**FaBEEe01.3**
4	Industrial technologies	**FaBEEe01.4**
5	Neural networks and deep learning	**FaBEEe01.5**
List 6 Facultative subject		**ECTS = 5**
1	Electromagnetic and electromechanical system	**FaBEEe02.1**
2	Electrical Apparatus in Automation	**FaBEEe02.2**
3	Electrical discharges and plasma technologies	**FaBEEe02.3**
4	Production technologies	**FaBEEe02.4**
5	Introduction to network technologies	**FaBEEe02.5**