

CURRICULUM

Bachelor's degree program in Design and programming of electronic systems as of 2022/2023 academic year

ECTS Subject code T E 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;													
- p- additional symbol for the Plovdiv branch where the specialty is taught; ES – “Design and programming of electronic systems”;													
- 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	MAT11	Mathematics I	45	30	0	75	165	240	1				8
2	PHY02	Physics	30	30	15	75	165	240	1				8
3	CHE02	Chemistry	15	0	30	45	105	150	1				5
4	ENG06	Engineering graphics	15	0	45	60	120	180		1		1	6
5	LNG01	Foreign language I	0	30	0	30	30	60		1			2
6	SPR01	Sport	0	0	0	0	30	30		1			1
Total			105	90	90	285	615	900	3	3	0	1	30
SEMESTER II													
7	MAT21	Mathematics II	45	30	0	75	135	210	1				7
8	EEA01	Electrical materials	30	0	30	60	90	150	1				5
9	CCE26	Programming 1	30	0	30	60	90	150		1		1	5
10	MEC22	Mechanics	30	30	0	60	90	150	1				5
11	EEA02	Technical safety	30	0	15	45	105	150		1			5
12	PRC01	Practicum	0	0	0	0	60	60		1			2
13	SPR02	Sport	0	0	0	0	30	30		1			1
Total			165	60	75	300	600	900	3	4	0	1	30
SEMESTER III													
14	EEA03	Theory of Electrical Engineering I	30	30	15	75	165	240	1			1	8
15	EEA04	Electrical measurements	30	0	30	60	120	180	1				6
16	MEC23	Mechanical systems	30	0	15	45	105	150		1			5
17	EEA05	Semiconductor Devices	30	0	30	60	90	150	1				5
18	EEA06	Electronic circuits theory	30	0	30	60	90	150		1			5
19	SPR03	Sport	0	0	0	0	30	30		1			1
Total			150	30	120	300	600	900	3	3	0	1	30
SEMESTER IV													
20	EEA11	Analog electronics	30	0	30	60	120	180	1			1	6
21	CCE29	Programming 2	30	0	30	60	120	180		1		1	6
22	EEA12	Electromechanical Systems	30	0	30	60	60	120		1			4
23	EEA09	Digital Electronics	30	0	30	60	90	150	1				5
24	CCE30	Signals and Systems	30	0	30	60	60	120	1				4
25	EEA10	Digital Electronics - Semester Project	0	0	0	0	60	60				1	2
26	PRC02	Practicum	0	0	0	0	60	60		1			2
27	SPR04	Sport	0	0	0	0	30	30		1			1
Total			150	0	150	300	600	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	BpE01	Power supplies	30	15	20	65	115	180	1				6
29	BpES02	Circuitry for impulse and mixed signals	30	10	20	60	90	150		1			5
30	BpE03	Programming III	30	30	0	60	90	150	1			1	5
31	BpES04	Quality and Reliability in Electronics	30	15	10	55	95	150		1			5
32	BpES05	Measurements in electronics	30	0	30	60	90	150	1				5
33	BpES06	Practicum	0	0	0	0	60	60		1			2
34	BpE07	Power supplies - Semester Project	0	0	0	0	60	60			1		2
Total			150	70	80	300	600	900	3	3	1	1	30
SEMESTER VI													
35	BpES08	Circuit design and programming for microprocessors and microcontrollers	30	15	30	75	105	180	1				6
36	BpES09	Electronic converters	30	15	20	65	85	150	1				5
37	BpES10	Control Systems	30	15	20	65	115	180	1			1	6
38	BpES11	Automation of engineering work in electronic devices and systems	30	0	20	50	100	150		1		1	5
39	BpES12	Management and Marketing	30	15	0	45	75	120		1			4
40	BpES13	Practicum	0	0	0	0	60	60		1			2
41	BpES14	Circuit design and programming for microprocessors and microcontrollers – Semester Project	0	0	0	0	60	60			1		2
Total			150	60	90	300	600	900	3	3	1	2	30
SEMESTER VII													
42	BpES15	Learning and self-learning in programming	30	0	15	45	75	120	1				4
43	BpE16	Optional subject 1 (List 1 or List 2)	30	0	20	50	100	150	1				5
44	BpES17	Optional subject 2 (List 1 or List 2)	30	15	20	65	85	150	1				5
45	BpES18	Optional subject 3 (List 1 or List 2)	30	0	25	55	95	150	1				5
46	BpES19	Optional subject 4 (List 1 or List 2)	30	0	20	50	70	120		1			4
47	BpES20	Optional subject 5 (List 1 or List 2)	30	0	20	50	100	150		1		1	5
48	BpES21	Optional semester project from courses BpES16, BpES17 and BpES18	0	0	0	0	60	60			1		2
Total			180	15	120	315	585	900	4	2	1	1	30
SEMESTER VIII													
49	BpES22	Optional subject 1 (List 3 or List 4)	30	0	20	50	100	150	1				5
50	BpES23	Optional subject 2 (List 3 or List 4)	30	0	20	50	100	150		1		1	5
51	BpES24	Optional subject 3 (List 3 or List 4)	30	0	20	50	100	150	1				5
52	BpES25	Optional subject 4 (List 3 or List 4)	30	0	20	50	100	150		1			5
53	BpES26	Diploma project	0	0	0	0	300	300	Defense of diploma thesis			10	
Total			120	0	80	200	700	900	2	2	0	1	30

*Remark: The method of Assessment (Continuous Assessment) for the subjects "Sport" and "Practicum" is "Pass grade"/"No Pass grade".

LIST OF THE OPTIONAL SUBJECTS

List 1		Code
1	Acquisition methods and devices for processing and compression of signals and images	BpES16.1
2	Analysis, modelling and design of electronic converters	BpES17.1
3	Medical electronics	BpES18.1
4	Fundamentals of programmable logic controllers	BpES19.1
5	Sensors and sensor devices	BpES20.1

List 2		Code
1	Real-time control systems	BpES16.2
2	Computer aided design of power electronic circuits	BpES17.2
3	Biomedical engineering	BpES18.2
4	Automation of electronic production	BpES19.2
5	Sensors and actuators	BpES20.2

List 3		Code
1	Fundamentals of network technologies	BpES22.1
2	Optical communication systems	BpES23.1
3	Electronic technologies in the industry	BpES24.1
4	Management information systems	BpES25.1

List 4		Code
1	Industrial computer networks	BpES22.2
2	Information systems with laser radiation	BpES23.2
3	Electronic devices for measuring non-electrical quantities	BpES24.2
4	Microelectronics	BpES25.2

LIST OF THE FACULTATIVE SUBJECTS

№	Code	SUBJECT	Semester Load						Assesment				ECTS credits
			L	Tut.	Lab.	AT	SS	Total	E	CA	SP	SA	
SEMESTER II													
1	FaLNG02	Foreign Language II	0	30	0	30	30	60		1			2
SEMESTER V													
1	FaSPR05	Sport	0	0	0	0	30	30		1			1
SEMESTER VI													
1	FaSPR06	Sport	0	0	0	0	30	30		1			1
2	FaBpES01	Project Management (in English)	15	0	30	45	45	90		1			3
SEMESTER VII													
1	FaSPR07	Sport	0	0	0	0	30	30		1			1
SEMESTER VIII													
1	FaSPR08	Sport	0	0	0	0	30	30		1			1

Note: The contents of the lists of optional and facultative courses and their names are subject to update before the start of the academic year.

Dean of FEA

(Assoc. Prof. Dr. Eng. Georgi Ganey)

Accepted by the Faculty council of FEA on 25 11.2021 with Protocol № 3