

ECTS Subject code T IE SN

- T - type of course: B for BEng, M for MEng
- BCSTg – “Computer Systems and Technologies” in German
- FBEE – F fundamental, B - bachelor program, EE – electrical engineering group of specialties
- SN - subsequent number of the subject

Lectures (L), tutorials (Tut.), labs (Lab.);

exam (E), continuous assessment (CA); semester projects (SP)/ semester assignment (course work) (SA)

№	ECTS Subject code	Subject	Semester Load						Assesment				ECTS credits
			L	Tut.	Lab.	Audit. Total	Self Study.	Total	E	CA	SP	SA	
Semester I													
1	BCSTg01	Mathematics – Preliminary.	30	30	0	60	150	210	1				7
2	BCSTg02	Electrical Engineering	30	15	15	60	150	210	1				7
3	BCSTg03	Programming And Computer Use	30	0	45	75	135	210	1				7
4	BCSTg04	Fundamentals Of Informatics	45	15	30	90	150	240	1			1	8
5	BCSTg05	Sports	0	0	0	0	30	30		1			1
Total			135	60	90	285	615	900	4	1	0	1	30
Semester II													
6	BCSTg06	Mathematics I– Linear Algebra	45	45	0	90	150	240	1				8
7	BCSTg07	Programming Paradigms	45	0	30	75	75	150	1				5
8	BCSTg08	Computer Systems (Technical Informatics I)	30	0	30	60	90	150	1				5
9	BCSTg09	Logic	30	0	30	60	60	120		1		1	4
10	BCSTg10	Modeling	30	0	15	45	75	120	1				4
11	BCSTg11	Key Competences And Methods I	30	0	0	30	60	90		1			3
12	BCSTg12	Sports	0	0	0	0	30	30		1			1
Total			210	45	105	360	540	900	4	3	0	1	30
Semester III													
13	BCSTg13	Mathematics II – Analysis	60	30	0	90	150	240	1				8
14	BCSTg14	Algorithms And Data Structures	45	0	30	75	105	180	1				6
15	BCSTg15	Basics Of Theoretical Informatics I	45	0	30	75	75	150	1				5
16	BCSTg16	Computer Architectures	30	15	30	75	75	150	1				5
17	BCSTg17	Key Competences And Methods II	30	0	0	30	60	90		1			3
18	BCSTg18	About Germany I	15	15	0	30	30	60		1		1	2
19	BCSTg19	Sports	0	0	0	0	30	30		1			1
Total			225	60	90	375	525	900	4	3	0	1	30
Semester IV													
20	BCSTg20	Mathematics III	45	30	0	75	105	180	1				6
21	BCSTg21	Basics Of Theoretical Informatics II	30	0	30	60	90	150	1				5
22	BCSTg22	Analysis And Synthesis Of Digital Circuits	30	0	30	60	90	150	1				5
23	BCSTg23	Practical Module – Key Competences And Methods	0	30	0	30	90	120		1		1	4
24	BCSTg24	IT Project Management	30	0	0	30	90	120		1			4
25	BCSTg25	Databases	30	0	30	60	90	150	1				5
26	BCSTg26	Sports	0	0	0	0	30	30		1			1
Total			165	60	90	315	585	900	4	3	0	1	30

№	ECTS Subject code	Subject	Semester Load					Assesment				ECTS credits	
			L	Tut.	Lab.	Audit. Total	Self Study.	Total	E	CA	SP		SA
Semester V													
27	BCSTg27	Software Engineering	30	0	30	60	90	150	1			1	5
28	BCSTg28	Technical Informatics II	30	0	30	60	90	150	1				5
29	BCSTg29	Optional Subject In Module – (List 10)	30	30	0	60	90	150		1		1	5
30	BCSTg30	Optional Subject In Module – (List 1)	30	0	30	60	90	150	1				5
31	BCSTg31	Optional Subject In Module – (List 2)	30	0	30	60	90	150	1				5
32	BCSTg32	Optional Subject – (List 7)*	30	0	30	60	90	150		1			5
Total			180	30	150	360	540	900	4	2	0	2	30
Semester VI													
33	BCSTg33	Computer Networks	30	0	30	60	90	150	1				5
34	BCSTg34	IT Project	0	0	0	0	180	180			1		6
35	BCSTg35	Intelligent Systems	30	0	30	60	90	150	1				5
36	BCSTg36	Optional Subject – (List 8)*	30	0	30	60	90	150		1			5
37	BCSTg37	Optional Subject In Module – (List 3)	30	0	30	60	90	150	1				5
38	BCSTg38	Scientific Seminar	0	45	0	45	75	120		1		1	4
Total			120	45	120	285	615	900	3	2	1	1	30
Semester VII													
39	BCSTg39	Secure Systems	30	30	0	60	90	150	1				5
40	BCSTg40	Optional Subject – (List 9)*	30	0	30	60	90	150		1		1	5
41	BCSTg41	Optional Subject In Module – (List 4)	30	0	30	60	90	150	1				5
42	BCSTg42	Optional Subject In Module – (List 5)	30	0	30	60	90	150	1				5
43	BCSTg43	Optional Subject In Module – (List 6)	30	0	30	60	90	150	1				5
44	BCSTg44	Proseminar	30	15	15	60	90	150		1		1	5
Total			180	45	135	360	540	900	4	2	0	2	30
№	ECTS Subject code	Subject	Semester Load					Assesment				ECTS credits	
			L	Tut.	Lab.	Audit. Total	Self Study.	Total	E	CA	SP		SA
Semester VIII													
46	BCSTg46	Practice 20 weeks, 6 hours a day Total - 600 Hours	0	0	0	0	600	600	Practis report				20
47	BCSTg47	Bachelor Work	0	0	0	0	300	300	Diploma defense				10
Total							900	900	0	0	0	0	30

*Remark: Subjects with equal numbers in lists 7, 8 and 9 build obligatory modules

**Remark: The form of control in the discipline "Sport" is "Pass / No-Pass"

***Remark: The course "German language" from the list of optional subjects in the I and II semesters is mandatory, according to the decision of the AC Protocol 8 / 29.09.2021

II. ОСНОВНИ ПАРАМЕТРИ НА УЧЕБНИЯ ПЛАН

1. Срок на обучение –	4 години,	8 семестъра
2. Аудиторна заетост по учебен план		
2.1. Общо –		2340 часа
2.2. Лекции –		1215 часа
2.3. Семинарни упражнения –		345 часа
2.4. Лабораторни упражнения –		780 часа
3. Извън аудиторна заетост по учебен план –		4860 часа
4. Пълна заетост по учебен план –		7200 часа
5. Общ брой учебни дисциплини –		
5.1. Задължителни –		34
5.2. Избираеми –		10
5.4. Факултативни –		10
5.5. Чужд език –		4
5.6. Спорт –		8
5.7. Проекти –		1
5.8. Практикуми –		1
6. Контрол		
6.1. Изпити –		27
6.2. Текущи оценки –		16
6.3. Курсови проекти –		1
6.4. Курсови работи –		8
7. Практическа подготовка		20 седмици
8. Общ брой кредити по ECTS:		240

Дата: 17.6.2021

Декан на ФаГИОПМ :
/доц. д-р Ал. Ценов/

Приет от ФС на ФаГИОПМ на 17.6.2021 с Протокол № 5
Утвърден от АС на ТУ–София на 7.7.2021 с Протокол № 7

List of elective subjects

List 1 Elective subject		ECTS = 5
1	Visualization	BCSTg30.1
2	Bioinformatics	BCSTg30.2
3	Computational Intelligence in Games	BCSTg30.3
4	XML-Technologies	BCSTg30.4
5	IT-криминалистика	BCSTg30.5
List 2 Elective subject		ECTS = 5
1	Evolutionary algorithms	BCSTg31.1
2	Interactive systems	BCSTg31.2
3	Computer Graphics I	BCSTg31.3
4	Introduction To Industrial Informatics	BCSTg31.4
5	Fundamentals Of Image Processing	BCSTg31.5
List 3 Elective subject		ECTS = 5
1	Applied Systems	BCSTg37.1
2	Interaction Human - Computer	BCSTg37.2
3	Fundamentals Of Programming In C ++	BCSTg37.3
4	Clean code development	BCSTg37.4
5	Data Mining	BCSTg37.5
List 4 Elective subject		ECTS = 5
1	Neuro – Fuzzy Systems	BCSTg41.1
2	Software development for Industrial Applications	BCSTg41.2
3	Introduction to Deep Learning	BCSTg41.3
4	Compilers	BCSTg41.4
List 5 Elective subject		ECTS = 5
1	Information Technologies In Organizations	BCSTg42.1
2	Machine Learning	BCSTg42.2
3	GPU-Programming	BCSTg42.3
4	Game design	BCSTg42.4
List 6 Elective subject		ECTS = 5
1	Management - Information Systems	BCSTg43.1
2	Visualization Of Information	BCSTg43.2
3	Information Retrieval	BCSTg43.3
4	Biometric Project	BCSTg43.4
5	Software Testing	BCSTg43.5
List 7 Compulsory elective subject		ECTS = 5
1	Introduction to Simulation	BCSTg32.1
2	Logistics - Foundations	BCSTg32.2
3	Computer Vision	BCSTg32.3
4	Communication technology for informatics	BCSTg32.4
5	Theory Of Approximation	BCSTg32.5
6	Material Science For Informatics	BCSTg32.6
7	Product Development	BCSTg32.7

List 8 Compulsory elective subject		ECTS = 5
1	Simulations in Industry 4	BCSTg36.1
2	Logistic - Processes	BCSTg36.2
3	Medical Image Processing	BCSTg36.3
4	Communication Systems	BCSTg36.4
5	Applied Mathematics	BCSTg36.5
6	Design And Programming Process	BCSTg36.6
7	Virtual Engineering	BCSTg36.7
List 9 Compulsory elective subject		ECTS = 5
1	Application of Simulation	BCSTg40.1
2	Science For Material Flow	BCSTg40.2
3	Computer Diagnostics And Therapy	BCSTg40.3
4	Telematics	BCSTg40.4
5	Financial Mathematics	BCSTg40.5
6	Methods For Final Processing	BCSTg40.6
7	Product Lifecycle Management	BCSTg40.7
List 10 Elective subject		ECTS = 5
1	Discrete Structures	BCSTg29.1
2	Numerical Methods	BCSTg29.2
3	Statistics and Stochastics	BCSTg29.3

List of Facultative subjects

№	ECTS Subject code	Subject	Semester Load						Assesment				ECTS credits
			L	Tut.	Lab.	Audit. Total	Self Study.	Total	E	CA	SP	SA	
Semester I													
1	FaBCSTg01	Introduction to specialty	15	0	0	15	15	30		1			1
2	FaBCSTg02	German Language	0	120	0	120	120	240		1			8
Semester II													
1	FaBCSTg03	German Language	0	120	0	120	120	240		1			8
Semester III													
1	FaBCSTg04	English Language	0	45	0	45	45	90		1			3
Semester IV													
1	FaBCSTg05	English Language	0	45	0	45	45	90		1			3
СЕМЕСТЪР V													
1	FaBCSTg06	Sports	0	0	0	0	30	30		1			1
Semester VI													
1	FaBCSTg07	Sports	0	0	0	0	30	30		1			1
2	FaBCSTg08	About Germany II	15	15	0	30	30	60		1			2
Semester VII													
1	FaBCSTg09	Sports	0	0	0	0	30	30		1			1
Semester VIII													
1	FaBCSTg10	Sports	0	0	0	0	30	30		1			1

Забележка: Съдържанието на списъците от избираеми и факултативни дисциплини подлежат на актуализация преди започването на учебната година с решение на Факултетен съвет.

Дата:

17.6.2021

Декан на ФаГИОПМ :

/доц. д-р Ал. Ценов/

Приет от ФС на ФаГИОПМ

17.6.2021

с Протокол № 5