



TECHNICAL UNIVERSITY OF VARNA

Ratified by:

Rector

/Prof. Rosen Vasilev, PhD/

CURRICULUM

Professional orientation: **COMMUNICATIONS AND COMPUTER ENGINEERING**

Educational and qualification degree: **BACHELOR**

Programme: **SOFTWARE AND INTERNET TECHNOLOGIES**

Professional qualification: **COMPUTER ENGINEER**

Form of study: **FULL - TIME**

Term of study: **4 YEARS / 8 SEMESTERS**

Number	Subject Name	Forms of assessment				Weekly auditorium load						Unsupervised load	Whole load of students	ECTS credits
		Exams	Inter-semester Evaluation	Course project	Accepted	Lectures	Seminars			Laboratory Exercises	Total load			
							Seminar Exercises	Course project	Assignment					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	English				*		30				30	30	60	2
2	Basic Mathematics	*				30				30	60	115	175	7
3	Web Design	*				15				30	45	130	175	7
4	Programming Fundamentals (part 1)	*				30				30	60	115	175	7
5	Computer Electronics	*				15				30	45	105	150	6
6	<i>Optional Subject</i>				*							30	30	1
a	Specialized Sport Activities, part 1													
b	Sport and Social Adaptation, part 1													
Total for the 1 semesters:		4	0	0	2	90	30	0	0	120	240	525	765	30
7	Mathematics for Computing	*				30				30	60	115	175	7
8	Algorithms and Data Structures	*				30				30	60	115	175	7
9	Digital Logic	*				30				30	60	115	175	7
10	<i>Optional Subject</i>		*			15				30	45	130	175	7
a	Programming Fundamentals, part 2													
b	Graphic Design													
11	<i>Optional Subject</i>				*							30	30	1
a	Specialized Sport Activities, part 2													
b	Sport and Social Adaptation, part 2													
12	Practical Training, part 1				*							30	30	1
Total for the 2 semesters:		3	1	0	2	105	0	0	0	120	225	535	760	30

Number	Subject Name	Forms of assessment				Weekly auditorium load						Unsupervised load	Whole load of students	ECTS credits
		Exams	Inter-semester Evaluation	Course project	Accepted	Lectures	Seminars			Laboratory Exercises	Total load			
							Seminar Exercises	Course project	Assignment					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
13	Discrete Structures	*				30	30				60	65	125	5
14	Data Management		*			30				30	60	65	125	5
15	Object-Oriented Programming Fundamentals (C++)	*				30				30	60	115	175	7
16	Computer Organization and Computer Architectures	*				30				30	60	115	175	7
17	System Analysis	*				30				30	60	90	150	6
18	<i>Optional Subject</i>				*							30	30	1
a	Specialized Sport Activities, part 3													
b	Sports Management, part 1													
Total for the 3 semesters:		4	1	0	1	150	30	0	0	120	300	480	780	31
19	Advanced Object-Oriented Programming (Java)	*				30				30	60	115	175	7
20	WEB Application	*				30				30	60	65	125	5
21	Microprocessors	*				15				30	45	80	125	5
22	Programming Systems	*				30				30	60	90	150	6
23	Graphic Systems		*			30				30	60	65	125	5
24	Object-Oriented Programming Fundamentals (C++), project			*				30			30	30	60	2
25	<i>Optional Subject</i>				*							30	30	1
a	Specialized Sport Activities, part 4													
b	Sports Management, part 2													
26	Practical Training, part 2				*							30	30	1
Total for the 4 semesters:		4	1	1	2	135	0	30	0	150	315	505	820	32
27	Operating Systems Principles	*				30				30	60	115	175	7
28	Software Requirements and Specifications		*			30				30	60	65	125	5
29	Systems with Data Bases	*				30				30	60	115	175	7
30	Computer Networks and Internet	*				30				30	60	65	125	5
31	Software Production Technology	*				30				30	60	90	150	6
32	<i>Optional Subject</i>			*				30			30	30	60	2
a	Programming Systems, project													
b	Advanced Object-Oriented Programming (Java), project													
c	Microprocessors, project													
d	Graphic Systems, project													
Total for the 5 semesters:		4	1	1	0	150	0	30	0	150	330	480	810	32
33	System Programming	*				30				30	60	90	150	6
34	Internet Servers and Services	*				30				30	60	65	125	5
35	Software Projects Management		*			30				30	60	65	125	5
36	Programming for Mobile Internet Devices	*				30				30	60	90	150	6
37	Internet Technologies	*				30				30	60	115	175	7
38	<i>Optional Subject</i>			*				30			30	30	60	2
a	Operating Systems Principles, project													

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							Seminar Exercises	Course project	Assignment					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
b	Computer Networks and Internet, project													
c	Software Production Technology, project													
d	Systems with Data Bases, project													
39	Specialized Practice				*						0	150	150	5
Total for the 6 semesters:		4	1	1	1	150	0	30	0	150	330	605	935	36
40	Network Administration	*				30				30	60	90	150	6
41	Language Processors	*				30				30	60	115	175	7
42	Distributed Processing in Internet	*				30				30	60	115	175	7
43	User Interface Design	*				30				30	60	90	150	6
44	<i>Optional Subject</i>		*			30				30	60	90	150	6
a	Internet Information Retrieval													
b	Information Assurance and Security													
45	Practical Training, part 3				*							30	30	1
Total for the 7 semesters:		4	1	0	1	150	0	0	0	150	300	530	830	33
44	<i>Optional Subject 1</i>	*				30				30	60	90	150	6
45	<i>Optional Subject 2</i>	*				30				30	60	90	150	6
46	<i>Optional Subject 3</i>	*				30				30	60	90	150	6
47	Preliminary Graduation Work			*				30			30	30	60	2
<i>Optional Subjects:</i>														
1	Office Technologies													
2	Artificial Intelligence													
3	Internet Data Protection													
4	Economics and Management													
5	Multimedia Systems and Technologies													
6	Object-Oriented Applications													
7	Script Languages													
8	Information Systems													
9	Cloud Technologies													
10	Evolution and Quality of Software													
11	E-commerce													
12	Economics of Software Production													
13	Cryptography and Data Protection													
14	Business Intelligence Systems													
15	Information Management													
Total for the 8 semesters:		3	0	1	0	90	0	30	0	90	210	300	510	20
Totals for the whole course of education		30	6	4	9	1020	60	120	0	1050	2250	3960	6210	244

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							Seminar Exercises	Course project	Assignment					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Facultative Subjects														

Types of graduation	Semester	Unsupervised load	ECTS credits
Preparation of Diploma Thesis / Preparation for State Examination	8	300	10
Defence of Diploma Thesis / State Examination			

Approved by the Academic Board of TU-Varna:

Protocol № 10 / 25.04.2016

Modified with Protocols: № 11 / 06.06.2016, № 19 / 27.02.2017

Valid from 2016/2017 academic year

The weekly plan of the lessons is fixed according to the Academic Board "Structure of the Learning Process" adopted for the current academic year.

Head of Department:

/Assoc. Prof. V. Bozhikova, Ph.D./

Dean of Faculty:

/Assoc. Prof. N. Nikolov, PhD/