STRUCTURE OF STUDY PROGRAME- UNDERGRADUATE FOUR YEARS STYDIES

Courses, first year- first semester

No.	Course code	Course	ECTS	No. of hours	Total hours
1.	2FI100112	Mathematics 1	8	3+2+2	240
2.	2FI110112	Electrical Engineering	8	3+2+2	240
3.	2ET100412	Physics	6	2+2+1	180
4.		Elective Faculty courses from Table 1-1	4	2+1+1	120
5.		Elective Faculty courses from Table 1-1	4	2+1+1	120
6.	UGD102712	Sports and recreation			
	Total ECTS		**30**		**900**

Table 1-1 Elective Faculty Courses (select 1 course)

No	Course code	Subjects	ECTS	No. of hours	Total hours
1.	2FI100212	Programming Basics	4	2+1+1	120
2.	2FI133412	Programming Language	4	2+1+1	120

Table 1-2 Elective Faculty Courses (select 1 course)

No.	Course code	Courses	ECTS	No. of hours	Total hours
1.		Linear Algebra	4	2+1+1	120
2.		Discret Mathematics	4	2+1+1	120

Courses, first year, second semester

No..	Course code	Courses	ECTS	No. of hours	Total hours
1	2FI100112	Mathematics 2	8	3+2+2	240
2	2ET100512	Electrical Engineering 2	6	2+2+1	180
3		Object- Oriented Programming	6	2+2+1	180
4		Elective Faculty courses from Table 2-1	4	2+1+1	120

No.		Courses	ECTS	No. of hours	Total hours
5		Elective University courses from Table 9	4	2+1+1	120
		Practical Teaching*	2		60
		Total ECTS	**30**		**900**

* Practical Teaching – mandatory for transfer in next academic year, only for undergraduate studies. Duration 30 days.

Table 2-1 Elective Faculty Courses (select 1 course)

No.	Course Code	Courses	ECTS	No. of hours	Total hours
1	2ET100712	CAD/CAM	4	2+1+1	120
2		Computer Tools In Electrical Engineering	4	2+1+1	120

Courses, second year, third semester

No..	Course code	Courses	ECTS	No. of hours	Total hours
1		Mathematics 3	8	3+2+2	240
2	2ET100812	Electrical Measurements	6	2+2+1	180
3	2ET100912	Electronics	8	3+2+2	240
4		Elective Faculty courses from Table 3-1	4	2+1+1	120
5		Elective Faculty courses from Table 3-2	4	2+1+1	120
		Total ECTS	**30**		**900**

Table 3-1 Elective Faculty Courses (select 1 course)

Ред бр.	Код на предмет	Предмети	ECTS	No. of hours	Total hours
1	2FI130712	Probability and Statistics	4	2+1+1	120
2	2ET102012	System Theory	4	2+1+1	120

Table 3-2 Elective Faculty Courses (select 1 course)

No.	Course Code	Courses	ECTS	No. of hours	Total hours

1	2ET101112	Electrical Installations	4	2+1+1	120
2	2ET101212	Materials in Electrical Engineering	4	2+1+1	120

Courses, second year, forth semester

No.	Course code	Courses	ECTS	No. of hours	Total hours
1	2ET101312	Basics of Automation Control	8	3+2+2	240
2	2ET101412	Power Electronics	6	2+2+1	180
3	2ET101512	Electrical Machines	6	2+2+1	180
4		Elective Faculty courses from Table 4	4	2+1+1	120
5		Elective University courses from Table 9	4	2+1+1	120
		Practical Teaching*	**2**		60
		Total ECTS	**30**		**900**

* Practical Teaching – mandatory for transfer in next academic year, only for undergraduate studies. Duration 30 days.

Table 4. Elective Faculty Courses (select 1 course)

No.	Course Code	Courses	ECTS	No. of hours	Total hours
1	2FP123212	Work Safety	4	2+1+1	120
2	2FI131712	Modelling and Simulations	4	2+1+1	120

Courses, third year, fifth semester

No.	Course Code	Courses	ECTS	No. of hours	Total hours
1		Theory of Electrical Circuits	8	3+2+2	240
2	2ET101712	Logical Circuits and Discrete Systems	8	3+2+2	240
3	2ET101812	Electrical Drives	6	2+2+1	180
4		Elective Faculty Course from Table 5-1	4	2+1+1	120
5		Elective Faculty Course from Table 5-2	4	2+1+1	120
		Total	**30**		**900**

Table 5-1 Elective Faculty Courses (select 1 course)

No.	Course Code	Courses	ECTS	No. of hours	Total hours
1	2ET101912	Remote and Distributed Management	4	2+1+1	120

		Systems			
2		Quality Management	4	2+1+1	120

Table 5-2 Elective Faculty Courses (select 1 course)

No.	Course Code	Courses	ECTS	No. of hours	Total hours
1	2ET102112	Pulse and Digital Electronics	4	2+1+1	120
2	2FI100912	Computer Architecture	4	2+1+1	120

Courses, third year, sixth semester

No.	Course Code	Courses	ECTS	No. of hours	Total hours
1		Basics of Digital Telecommunication	6	2+2+1	180
2	2ET105112	Computer- Controlled Process	8	3+2+2	240
3		Electromagnetics	6	2+2+1	180
4		Elective Faculty Course from Table 6	4	2+1+1	120
5		Elective University Course from Table 9	4	2+1+1	120
		Practical Teaching*	**2**		60
		Total	**30**		**900**

* Practical Teaching – mandatory for transfer in next academic year, only for undergraduate studies. Duration 30 days.

Table 6. Elective Faculty Courses (select 1 courses)

No	Course Code	Courses	ECTS	No. of hours	Total hours
1	2ET102512	Discrete Management System	4	2+1+1	120
2	2ET102612	Process Automation	4	2+1+1	120

Courses, fourth year, seventh semester

No.	Course code	Courses	ECTS	No. of hours	Total hours
1	2ET102912	Microprocessor Systems	6	2+2+1	180
2	2ET103012	Electrical Actuators and Sensor	8	3+2+2	240
3	2ET103112	Robotics and Automation	8	3+2+1	240
4		Elective Faculty Course from Table 7-1	4	2+1+1	120
		Elective Faculty Course from Table 7-2	4	2+1+1	120

No.					
5					
Total			**30**		**900**

Table 7-1 Elective Faculty Courses (select 1 course)

No.	Course Code	Courses	ECTS	No. of hours	Total hours
1	2ET103212	Management of Electrical Engineering Projects	4	2+1+1	120
2		Engineering Economics	4	2+1+1	120

Table 7-2 Elective Faculty Courses (select 1 course)

No.	Course Code	Courses	ECTS	No. of hours	Total hours
1	2ET103412	Electricity Market	4	2+1+1	120
2	2ET103512	Telecommunication Networks	4	2+1+1	120

Courses, fourth year, eight semester

No.	Course Code	Courses	ECTS	No. of hours	Total hours
1	2ET103912	Mechatronics	6	2+2+1	180
2	2ET103712	Microcomputers and Programmable Controllers	6	2+2+1	180
3					
4		Elective Faculty Course from Table 8	4	2+1+1	120
5		Elective University Course from Table 9	4	2+1+1	120
		Practical Teaching- interdisciplinary Project	4	2+1+1	120
	2ET104012	BSc Thesis	6	2+2+1	180
Total			**30**		**900**

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Table 8 Elective Faculty Courses (select 1 course)

No.	Course Code	Courses	ECTS	No. of hours	Total hours
1		Sustainable Energy Development	4	2+1+1	120
2		Industrial Robots	4	2+1+1	120

Table 9. Elective University Courses for first cycle of studies (select 4 courses)

Code	Table of Elective University Courses II, IV, VI and VIII Semester			
	П Р Е Д М Е Т	EKTS	Hours	Total
UGD100117	Macedonian Literature and Culture	4	0+0+4	120
UGD100217	Macedonian Language, spelling and speaking	4	0+0+4	120
UGD100317	Ethics	4	0+0+4	120
UGD100417	Macedonian History	4	0+0+4	120
UGD100517	Copyrights	4	0+0+4	120
UGD100617	Tolerance and Conflict Resolution	4	0+0+4	120
UGD100717	Bussines Systems	4	0+0+4	120
UGD100817	Touristic Industry	4	0+0+4	120
UGD100917	Entrepreneurship and Innovation	4	0+0+4	120
UGD101017	Management of self-development and behavior	4	0+0+4	120
UGD101117	Bussines Economy	4	0+0+4	120
UGD101217	Choral singing	4	0+0+4	120
UGD101317	Musics and art	4	0+0+4	120
UGD101417	Introduction to History of Film	4	0+0+4	120
UGD101517	Dramaturgy	4	0+0+4	120
UGD101617	Basic of Drawinf	4	0+0+4	120
UGD101717	History of classical	4	0+0+4	120
UGD101817	Health Promotion	4	0+0+4	120
UGD101917	Oral Health and Hygiene	4	0+0+4	120
UGD102017	Precious and semiprecious minerals	4	0+0+4	120
UGD102117	Earth Science	4	0+0+4	120
UGD102217	Wildlife Science	4	0+0+4	120
UGD102317	Environmental Protection	4	0+0+4	120
UGD102417	Intelligent Electronic Components and Devices	4	0+0+4	120
UGD102517	Experiment Planning	4	0+0+4	120
UGD102617	History of Clothing	4	0+0+4	120
UGD102717	Management and Quality Control	4	0+0+4	120
UGD102817	Informatics	4	0+0+4	120
UGD102917	Basic Programming Languages	4	0+0+4	120