

**STRUCTURE OF THE STUDY PROGRAM PRODUCTION ENGINEERING
FIRST CYCLE OF FOUR-YEAR STUDIES**

Subject programs, first year - first semester

	Code of the subject	Subject	ECTS	Fund of classes	Total classes
1.	2FI100112	Mathematics 1	8	3+2+2	240
2.	2MF100117	Mechanical materials 1	8	3+2+2	240
3.	2MF100617	Engineering graphics	6	2+2+1	180
4.		Elective university subject from a list Nr.1-1	4	2+1+1	120
5.		Elective university subject from a list Nr.1-2	4	2+1+1	120
6.		Sport and Recreation			
Total ECTS			30	12+8+7	900

List Nr.1-1 elective university subject (only one subject)

	Code of the subject	Subject	ECTS	Fund of classes	Total classes
1.	4FF100817	English language A2.1	4	2+1+1	120
2.	4FF100917	German language A1.1	4	2+1+1	120

List Nr.1-2 elective university subject (only one subject)

	Code of the subject	Subject	ECTS	Fund of classes	Total classes
1.	2MF100317	Chemics	4	2+1+1	120
2.	2MF100417	Phisics	4	2+1+1	120

Subject programs, first year - second semester

	Code of the subject	Subject	ECTS	Fund of classes	Total classes
1	2FI100412	Mathematics 2	8	3+2+2	240
2	2MF100517	Mechanical materials 2	6	2+2+1	180
3	2MF100217	Statics	6	2+2+1	180
4		Elective university subject from a list Nr.2	4	2+1+1	120
5		Elective university subject from a list Nr.9	4	0+0+4	120
		Practical teaching *	2	0+0+2	60
Total ECTS			30	9+7+1	900

List Nr.2 elective university subject (only one subject)

	Code of the subject	Subject	ECTS	Fund of classes	Total classes
1	4FF101717	English language A2.2	4	2+1+1	120
2	4FF101817	German language A1.2	4	2+1+1	120

Subject programs, first year - third semester

	Code of the subject	Subject	ECTS	Fund of classes	Total classes
1	2MF100817	Strength of materials	8	3+2+2	240
2	2MF100917	Kinematics and dynamics	8	3+2+2	240
3	2MF101017	Industrial Management	6	2+2+1	180
4		Elective faculty subject from a list Nr.3-1	4	2+1+1	120
5		Elective faculty subject from a list Nr.3-2	4	2+1+1	120
Total ECTS			30	12+8+7	900

List Nr.3-1 elective faculty courses (only one subject)

	Code of the subject	Subject	ECTS	Fund of classes	Total classes
1	2MF101117	Modern engineering materials	4	2+1+1	120
2	2MF101217	Engineering software	4	2+1+1	120

List Nr.3-2 elective faculty courses (only one subject)

	Code of the subject	Subject	ECTS	Fund of classes	Total classes
1	2MF100717	Electrical engineering and electronics	4	2+1+1	120
2	2MF101417	Engineering logistics	4	2+1+1	120

Subject programs, second year - fourth semester

	Code of the subject	Subject	ECTS	Fund of classes	Total classes
1	2MF101517	Mechanical elements 1	6	2+2+1	180
2	2MF101617	Thermodynamics	8	3+2+2	240
3	2MF101717	Numerical mathematics	6	2+2+1	180
4		Elective faculty subject from a list Nr.4	4	2+1+1	120
5		Elective faculty subject from a list Nr.9	4	0+0+4	120
		Practical teaching *	2		
Total ECTS			30	9+7+9	900

List Nr.4 elective faculty courses (only one subject)

	Code of the subject	Subject	ECTS	Fund of classes	Total classes
1	2MF102817	Quality management	4	2+1+1	120
2	2MF101317	Renewable energy sources	4	2+1+1	120

Subject programs, third year - fifth semester

	Code of the subject	Subject	ECTS	Fund of classes	Total classes
1	2MF102017	Fluid mechanics	8	3+2+2	240
2	2MF102117	Basics of internal combustion engines	8	3+2+2	240
3	2MF102217	Mechanical elements 2	6	2+2+1	180
4		Elective faculty subject from a list Nr.5	4	2+1+1	120
5		Elective faculty subject from a list Nr.5	4	2+1+1	120
Total ECTS			30	12+8+7	900

List Nr.5 elective faculty courses (two subject)

	Code of the subject	Subject	ECTS	Fund of classes	Total classes
1	2MF102317	Engineering Economics	4	2+1+1	120
2	2MF102417	Measurement and measuring instruments	4	2+1+1	120
3	2MF102517	Basics of construction	4	2+1+1	120
4	2MF102617	Probability and statistics	4	2+1+1	120

Subject programs, third year - sixth semester

	Code of the subject	Subject	ECTS	Fund of classes	Total classes
1	2MF102717	Production technologies	8	3+2+2	240
2	2MF101817	Welding technology	6	2+2+1	180
3	2MF102917	CAD Technology	6	2+2+1	180
4		Elective faculty subject from a list Nr.6	4	2+1+1	120
5		Elective university subject from a list Nr.9	4	0+0+4	120
		Practical teaching *	2	0+0+4	60
Total			30	9+7+13	900

List Nr.6 elective faculty courses (only one subject)

	Code of the subject	Subject	ECTS	Fund of classes	Total classes
1	2MF103017	Thermotechnical machines	4	2+1+1	120
2	2MF103117	Occupational safety	4	2+1+1	120

Subject programs, fourth year - seventh semester

	Code of the subject	Subject	ECTS	Fund of classes	Total classes
1	2MF103317	Conventional and numerically controlled metal cutting machines and aids	8	3+2+2	240
2	2MF103417	Hydraulic machines and components	8	3+2+2	240
3	2MF103517	Basics of Control systems	6	2+2+1	180
4		Elective faculty subject from a list Nr.7.1	4	2+1+1	120
5		Elective faculty subject from a list Nr.7.2	4	2+1+1	120
Total			30	12+8+7	900

List Nr.7.1 elective faculty courses (only one subject)

	Code of the subject	Subject	ECTS	Fund of classes	Total classes
1	2MF103617	Programming of CNC machines and CAM	4	2+1+1	120
2	2MF103217	Process technique	4	2+1+1	120

List Nr.7.2 elective faculty courses (only one subject)

	Code of the subject	Subject	ECTS	Fund of classes	Total classes
1	2MF104117	Product development management	4	2+1+1	120
2	2MF103817	Transportation devices	4	2+1+1	120

Subject programs, fourth year - eighth semester

	Code of the subject	Subject	ECTS	Fund of classes	Total classes
1	2MF103917	Designing technological processes	4	2+1+1	120
2	2MF104017	Plastic deformation processing machines and tools	4	2+1+1	120
3	2MF103717	Mechanization	4	2+1+1	120
4		Elective faculty subject from a list Nr.8	4	2+1+1	120
5		Elective university subject from a list Nr.9	4	0+0+4	120
		Practical teaching - interdisciplinary project	4	0+0+4	120
		Diploma thesis	6	0+0+8	180
Total			30	8+4+20	900

List Nr.8 elective faculty courses (only one subject)

	Code of the subject	Subject	ECTS	Fund of classes	Total classes
1	2MF104217	Heating, air conditioning and heating systems	4	2+1+1	120
2	2MF105817	Simulation of processing technology	4	2+1+1	120

List Nr.9 of electives from the free list of University subjects for the first cycle of studies (four subjects to be selected)

	Code	List of University electives subjects II, IV, VI and VIII semester			
		Subjects	ECTS	Classes	Total
1.	UGD100117	Macedonian literature and culture	4	0+0+4	120
2.	UGD100217	Macedonian language, orthography	4	0+0+4	120
3.	UGD100317	Ethics	4	0+0+4	120
4.	UGD100417	History of Macedonia	4	0+0+4	120
5.	UGD100517	Copyright	4	0+0+4	120
6.	UGD100617	Tolerance and conflict resolution	4	0+0+4	120
7.	UGD100717	Business systems	4	0+0+4	120
8.	UGD100817	Tourism industry	4	0+0+4	120
9.	UGD100917	Entrepreneurship and innovation	4	0+0+4	120
10.	UGD101017	Management of self-development and behavior	4	0+0+4	120
11.	UGD101117	Business Economics	4	0+0+4	120
12.	UGD101217	Choir singing	4	0+0+4	120
13.	UGD101317	Music and art	4	0+0+4	120
14.	UGD101417	Introduction to film history	4	0+0+4	120
15.	UGD101517	Dramaturgy	4	0+0+4	120
16.	UGD101617	Basics of drawing	4	0+0+4	120
17.	UGD101717	History of classical painting	4	0+0+4	120
18.	UGD101817	Health promotion	4	0+0+4	120
19.	UGD101917	Oral health and hygiene	4	0+0+4	120
20.	UGD102017	Precious and semi-precious minerals	4	0+0+4	120
21.	UGD102117	Earth science	4	0+0+4	120
22.	UGD102217	Living science	4	0+0+4	120
23.	UGD102317	Environmental Protection	4	0+0+4	120
24.	UGD102417	Intelligent electronic components and devices	4	0+0+4	120
25.	UGD102517	Experiment planning	4	0+0+4	120
26.	UGD102617	History of clothing	4	0+0+4	120
27.	UGD102717	Management and quality control	4	0+0+4	120
28.	UGD102817	Informatics	4	0+0+4	120
29.	UGD102917	Basics of programming	4	0+0+4	120