

## Study programme: Civil engineering-Transport infrastructure module

<b>Semester I</b>				
Required subject				
Code	Subject	ECTS	Hours per week	Total hours
2FI100112	Math 1	8	3+2+2	216
2FP119612	Physics	8	3+2+2	216
UGD101312	Informatics	6	2+2+1	156
	Optional subject from faculty	4	2+1+1	120
	Optional subject from faculty	4	2+1+1	120
<b>Total:</b>		30	12+8+7	828

### Optional subject from faculty

2FP160412 - Descriptive geometry with drafting  
 2FP100912 - Engineering graphics  
 2FP114012 - Engineering geology and hydrogeology  
 2FP150112 – Introduction to construction\*  
 (\*) Requirement for second cycle

<b>Semester II</b>				
Required subject				
Code	Subject	ECTS	Hours per week	Total hours
2MF100212	Technical mechanics 1	8	3+2+2	216
2FI100412	Math 2	6	2+2+1	156
2FP150312	Construction materials 1	6	2+2+1	156
	Optional subject from faculty 3	4	2+1+1	120
	Foreign language 1	6	2+2+1	156
	Sports and Recreation		0+0+2	24
<b>Total:</b>		30	11+9+8	828

### Optional subject from faculty:

2FP101512-Numerical methods\*  
 2FP160712 - CAD systems  
 (\*) Requirement for second cycle

<b>Semester III</b>				
Required subject				
Code	Subject	ECTS	Hours per week	Total hours
2MF100412	Strength of materials	8	3+2+2	216
2FP150512	Infrastructure facilities - basis	8	3+2+2	216
2MF100612	Technical mechanics 2	6	2+2+1	156
	Optional subject from faculty 4	4	2+1+1	120
	Optional subject from faculty 5	4	2+1+1	120
<b>Total:</b>		30	12+8+7	828

**Optional subject from faculty:**

2FP104012- Rock mechanics \*  
 2FP102312- Fluid mechanics  
 2FP150712- Construction materials 2\*

(\*) Requirement for second cycle

<b>Semester IV</b>				
Required subject				
Code	Subject	ECTS	Hours per week	Total hours
2FP150612	Projecting of roads	8	3+2+2	216
2FP150412	Building constructions	6	2+2+1	156
2FP101812	Surveying	6	2+2+1	156
	Optional subject from faculty 6	4	2+1+1	120
	Optional subject from university 2	6	2+2+1	156
<b>Total:</b>		30	11+9+6	804

**Optional subject from faculty:**

2FP150812- Geotechnical structures and foundation \*  
 2FP150912- Project and technical documentation

(\*) Requirement for second cycle

<b>Semester V</b>				
Required subject				
Code	Subject	ECTS	Hours per week	Total hours
2FP151012	City roads	8	3+2+2	216
2FP151112	Undercarriage of roads and railways	8	3+2+2	216
2FP151212	Organization and mechanization	6	2+2+1	156
	Optional subject from faculty 7	4	2+1+1	120
	Optional subject from faculty 8	4	2+1+1	120
<b>Total:</b>		30	12+8+7	828

**Optional subject from faculty:**

2FP151312- Traffic techniques, equipment and parking \*  
 2FP151412- Preparation and execution of construction works  
 2FP151512- Planning of urban infrastructure  
 2FP123212- Occupational Safety and Health

(\*) Requirement for second cycle

<b>Semester VI</b>				
Required subject				
Code	Subject	ECTS	Hours per week	Total hours
2FP151612	Upper line of the road	8	3+2+2	216
2FP151712	Management and maintenance of roads	6	2+2+1	156
2FP132612	<b>Final exam</b>	6	2+2+1	156
	Optional subject from faculty 9	4	2+1+1	120
	Optional subject from university 3	6	2+2+1	156
<b>Total:</b>		30	11+9+6	804

**Optional subject from faculty:**

2FP151812- Tunnels \*  
2FP151912- Building regulations

(\*) Requirement for second cycle

**Optional subject from university:**

Code	<i>Optional subject from university (for 180/240 ECTS are selected 3/4 subjects)</i>			
<b>First year</b>				
UGD100112	Foreign language 1 – English 1*	6	0+0+4	156
UGD100212	Foreign language 1- Italian 1*	6	0+0+4	156
UGD100312	Foreign language 1- German 1*	6	0+0+4	156
UGD100412	Foreign language 1– French 1*	6	0+0+4	156
UGD100512	Foreign language 1- Spanish 1*	6	0+0+4	156
UGD100612	Foreign language 1 - Russian 1*	6	0+0+4	156
<b>Second year</b>				
UGD100712	Foreign language 2 – English 2**	6	0+0+4	156
UGD100812	Foreign language 2 – Italian 2**	6	0+0+4	156
UGD100912	Foreign language 2 - German 2**	6	0+0+4	156
UGD101012	Foreign language 2 – French 2**	6	0+0+4	156
UGD101112	Foreign language 2 – Spanish 2**	6	0+0+4	156
UGD101212	Foreign language 2 – Russian 2**	6	0+0+4	156
<b>Third year</b>				
UGD101412	Math	6	2+2+1	156
UGD101512	Phylosophy	6	2+2+1	156
UGD101612	Ethics	6	2+2+1	156
UGD101712	Macedonian	6	2+2+1	156
UGD101812	Entrepreneurship	6	2+2+1	156
UGD101912	Environmental protection	6	2+2+1	156
UGD102812	Contractual right	6	2+2+1	156
<b>Fourth year</b>				
UGD102212	Fundamentals of Tourism	6	2+2+1	156

<b>UGD102312</b>	Eart scieance	6	2+2+1	156
<b>UGD102412</b>	Physics	6	2+2+1	156
<b>UGD102512</b>	Biology	6	2+2+1	156
<b>UGD102612</b>	Health care	6	2+2+1	156
<b>UGD102012</b>	History of Art	6	2+2+1	156
<b>UGD102112</b>	National History	6	2+2+1	156