INTERNATIONAL UNIVERSITY TRAVNIK
FACULTY OF POLYTECHNIC SCIENCES TRAVNIK
DEPARTMENT:CONSTRUCTION AND ARCHITECTURE

CURRICULUMAND THE PROGRAM
for the I cycle

-CONSTRUCTION-
- ROADS -
- HYDRO-ENVIRONMENTAL ENGINEERING –
- ARCHITECTURE AND URBAN PLANNING-

Academic year 2022/2023

Travnik, 2022

Model: 3+2

Major: CIVIL

ENGINEERING

Ordinal	Subject	Number of	ECTS
And the semester			
1.	MathematicsI	3+2	6
2.	Computer science	3+2	6
3.	MechanicsI	3+2	7
4.	Introductionin construction	3+2	6
5.	Material resistanceI	3+2	5
In totalECTS I semester			30
II semester			
6.	Mathematics II	3+2	6
7.	Mechanics II	3+2	6
8.	Elements of high-rise construction	3+2	6
9.	Engineering geology	3+2	5
10.	Sketchygeometry and graphic communications	3+2	7
In totalECTS II semester			30
In totalECTS I year			**60**

Ordinal	Subject	Number of	ECTS
III semester			
11.	Material resistance II	3+2	6
12.	Construction materialsI	3+2	6
13.	Hydromechanics	3+2	6
14.	Construction physics	3+2	6
15.	Structural staticsI	3+2	6
In totalECTS III semester			30
IV semester			
16.	Geodesy	3+2	6
17.	Structural statics II	3+2	6
18.	Soil mechanicsand rocks	3+2	6
19.	Roads	3+2	6
20.	Engineering economicsI	3+2	6
In totalECTS IV semester			30
In totalECTS II year			**60**

Ordinal	Subject	Number of	ECTS
V semester			
21.	Concreteconstruction I	3+2	8
22.	Steel structures	3+2	8
23.	Construction technology	3+2	7
24.	CHOSEN SUBJECT1	3+2	7
In totalECTS V semester			30
VI semester			
25.	Masonry constructions	3+2	7
26.	CHOSEN SUBJECT2	3+2	7
27.	PROFESSIONAL PRACTICE		6
28.	FINAL WORK		10
In totalECTS VI semester			30
In totalECTS III year			**60**

Ordinal	Subject	Number of	ECTS
Chosen subject1			
1.	Water supplyand waste water removal	3+2	7
2.	Wooden structuresI	3+2	7
3.	Construction organization	3+2	7
Chosen subject2			
1.	Concreteconstruction II	3+2	7
2.	Bridgesand tunnels	3+2	7
3.	Hydrotechnicalbuildings	3+2	7

Model: 4+1

Major: CIVIL ENGINEERING

Ordinal	Subject	Number of	ECTS
And the semester			
1.	MathematicsI	3+2	6
2.	Computer science	3+2	6
3.	MechanicsI	3+2	7
4.	Introductionin construction	3+2	6
5.	Material resistanceI	3+2	5
In totalECTS I semester			30
II semester			
6.	Mathematics II	3+2	6
7.	Mechanics II	3+2	6
8.	Elements of high-rise construction	3+2	6
9.	Engineering geology	3+2	5
10.	Sketchygeometry and graphic communications	3+2	7
In totalECTS II semester			30
In totalECTS I year			**60**

Ordinal	Subject	Number of	ECTS
III semester			
11.	Material resistance II	3+2	6
12.	Construction materialsI	3+2	6
13.	Hydromechanics	3+2	6
14.	Construction physics	3+2	6
15.	Structural staticsI	3+2	6
In totalECTS III semester			30
IV semester			
16.	Geodesy	3+2	6
17.	Structural statics II	3+2	6
18.	Soil mechanicsand rocks	3+2	6
19.	Roads	3+2	6
20.	Engineering economicsI	3+2	6
In totalECTS IV semester			30
In totalECTS II year			**60**

Ordinal	Subject	Number of	ECTS
V semester			
21.	Concreteconstruction I	3+2	8
22.	Steel structures	3+2	8
23.	Construction technology	3+2	7
24.	Wooden structuresI	3+2	7
In totalECTS V semester			30
VI semester			
25.	Hydrotechnicalbuildings	3+2	7
26.	Modeling of constructions	3+2	8
27.	Masonry constructions	3+2	7
28.	Metal onesconstructions	3+2	8
In totalECTS VI semester			30
In totalECTS III year			**60**

Ordinal	Subject	Number of	ECTS
VII semester			
29.	Mathematics III	3+2	8
30.	Theory of constructions	3+2	8
31.	Platesand scales	3+2	7
32.	CHOSEN SUBJECT1	3+2	7
In totalECTS VII semester			30
VIII semester			
33.	Concreteconstruction II	3+2	7
34.	Bridgesand tunnels	3+2	7
35.	CHOSEN SUBJECT2	3+2	6
36.	FINAL WORK		10
In totalECTS VIII semester			30
In totalECTS IV year			**60**

Ordinal	Subject	Number of	ECTS
Chosen subject1			
1.	Water supplyand waste water removal	3+2	7
2.	Construction organization	3+2	7
3.	Investment managementand projects	3+2	7
Chosen subject2			
1.	Concreteconstruction III	3+2	6
2.	Wooden structures II	3+2	6
3.	Construction materials II	3+2	6

Model: 3+2

Direction: ROADS

Ordinal	Subject	Number of	ECTS
And the semester			
1.	MathematicsI	3+2	6
2.	Computer science	3+2	6
3.	MechanicsI	3+2	7
4.	Introductionin construction	3+2	6
5.	Material resistanceI	3+2	5
In totalECTS I semester			30
II semester			
6.	Mathematics II	3+2	6
7.	Mechanics II	3+2	6
8.	Elements of high-rise construction	3+2	6
9.	Engineering geology	3+2	5
10.	Sketchygeometry and graphic communications	3+2	7
In totalECTS II semester			30
In totalECTS I year			**60**

Ordinal	Subject	Number of	ECTS
III semester			
11.	Material resistance II	3+2	6
12.	Construction materialsI	3+2	6
13.	Hydromechanics	3+2	6
14.	Construction physics	3+2	6
15.	Structural staticsI	3+2	6
In totalECTS III semester			30
IV semester			
16.	Geodesy	3+2	6
17.	Structural statics II	3+2	6
18.	Soil mechanicsand rocks	3+2	6
19.	Roads	3+2	6
20.	Engineering economicsI	3+2	6
In totalECTS IV semester			30
In totalECTS II year			**60**

Ordinal	Subject	Number of	ECTS
V semester			
21.	Concreteconstruction I	3+2	8
22.	Steel structures	3+2	8
23.	RoadsI	3+2	7
24.	CHOSEN SUBJECT1	3+2	7
In totalECTS V semester			30
VI semester			
25.	RailwaysI	3+2	7
26.	CHOSEN SUBJECT2	3+2	7
27.	PROFESSIONAL PRACTICE		6
28.	FINAL WORK		10
In totalECTS VI semester			30
In totalECTS III year			**60**

Ordinal	Subject	Number of	ECTS
Chosen subject1			
1.	Road junctions	3+2	7
2.	Traffic tunnels	3+2	7
3.	Construction organization	3+2	7
Chosen subject2			
1.	Traffic planning	3+2	7
2.	Roads II	3+2	7
3.	Hydrotechnicalbuildings	3+2	7

Model: 4+1

Direction:

ROADS

Ordinal	Subject	Number of	ECTS
And the semester			
1.	MathematicsI	3+2	6
2.	Computer science	3+2	6
3.	MechanicsI	3+2	7
4.	Introductionin construction	3+2	6
5.	Material resistanceI	3+2	5
In totalECTS I semester			30
II semester			
6.	Mathematics II	3+2	6
7.	Mechanics II	3+2	6
8.	Elements of high-rise construction	3+2	6
9.	Engineering geology	3+2	5
10.	Sketchygeometry and graphic communications	3+2	7
In totalECTS II semester			30
In totalECTS I year			**60**

Ordinal	Subject	Number of	ECTS
III semester			
11.	Material resistance II	3+2	6
12.	Construction materialsI	3+2	6
13.	Hydromechanics	3+2	6
14.	Construction physics	3+2	6
15.	Structural staticsI	3+2	6
In totalECTS III semester			30
IV semester			
16.	Geodesy	3+2	6
17.	Structural statics II	3+2	6
18.	Soil mechanicsand rocks	3+2	6
19.	Roads	3+2	6
20.	Engineering economicsI	3+2	6
In totalECTS IV semester			30
In totalECTS II year			**60**

Ordinal	Subject	Number of	ECTS
V semester			
21.	Concreteconstruction I	3+2	8
22.	Steel structures	3+2	8
23.	RoadsI	3+2	7
24.	Road junctions	3+2	7
In totalECTS V semester			30
VI semester			
25.	RailwaysI	3+2	7
26.	Roads II	3+2	7
27.	Dynamics of structures	3+2	8
28.	The lower machine of traffic roads	3+2	8
In totalECTS VI semester			30
In totalECTS III year			**60**

Ordinal	Subject	Number of	ECTS
VII semester			
29.	Mathematics III	3+2	8
30.	Theory of constructions	3+2	8
31.	Traffic tunnels	3+2	7
32.	CHOSEN SUBJECT1	3+2	7
In totalECTS VII semester			30
VIII semester			
33.	Traffic planning	3+2	7
34.	RailwaysII	3+2	6
35.	CHOSEN SUBJECT2	3+2	7
36.	FINAL WORK		10
In totalECTS VIII semester			30
In totalECTS IV year			**60**

Ordinal	Subject	Number of	ECTS
Chosen subject1			
1.	Water supplyand waste water removal	3+2	7
2.	Construction organization	3+2	7
3.	Construction technology	3+2	7
Chosen subject2			
1.	Hydrotechnicalbuildings	3+2	7
2.	Concreteconstruction II	3+2	7
3.	Bridgesand tunnels	3+2	7

Model: 3+2

Direction:HYDRO-ENVIRONMENTAL ENGINEERING

Ordinal	Subject	Number of	ECTS
And the semester			
1.	MathematicsI	3+2	6
2.	Computer science	3+2	6
3.	MechanicsI	3+2	7
4.	Introductionin construction	3+2	6
5.	Material resistanceI	3+2	5
In totalECTS I semester			30
II semester			
6.	Mathematics II	3+2	6
7.	Mechanics II	3+2	6
8.	Elements of high-rise construction	3+2	6
9.	Engineering geology	3+2	5
10.	Sketchygeometry and graphic communications	3+2	7
In totalECTS II semester			30
In totalECTS I year			**60**

Ordinal	Subject	Number of	ECTS
III semester			
11.	Material resistance II	3+2	6
12.	Construction materialsI	3+2	6
13.	Hydromechanics	3+2	6
14.	Construction physics	3+2	6
15.	Structural staticsI	3+2	6
In totalECTS III semester			30
IV semester			
16.	Geodesy	3+2	6
17.	Structural statics II	3+2	6
18.	Soil mechanicsand rocks	3+2	6
19.	Roads	3+2	6
20.	Engineering economicsI	3+2	6
In totalECTS IV semester			30
In totalECTS II year			**60**

Ordinal	Subject	Number of	ECTS
V semester			
21.	Water supply	3+2	8
22.	River hydrotechnics	3+2	8
23.	Hydrology	3+2	7
24.	CHOSEN SUBJECT1	3+2	7
In totalECTS V semester			30
VI semester			
25.	Removal of wastewater	3+2	7
26.	CHOSEN SUBJECT2	3+2	7
27.	PROFESSIONAL PRACTICE		6
28.	FINAL WORK		10
In totalECTS VI semester			30
In totalECTS III year			**60**

Ordinal	Subject	Number of	ECTS
Chosen subject1			
1.	Corporateand social responsibility	3+2	7
2.	Processingdrinking water	3+2	7
3.	Hydrodynamics of groundwater	3+2	7
Chosen subject2			
1.	Stochastic hydrology	3+2	7
2.	Managementwaters	3+2	7
3.	Environmental ethics for engineers	3+2	7

Model: 4+1

Direction:HYDRO-ENVIRONMENTAL ENGINEERING

Ordinal	Subject	Number of	ECTS
And the semester			
1.	MathematicsI	3+2	6
2.	Computer science	3+2	6
3.	MechanicsI	3+2	7
4.	Introductionin construction	3+2	6
5.	Material resistanceI	3+2	5
In totalECTS I semester			30
II semester			
6.	Mathematics II	3+2	6
7.	Mechanics II	3+2	6
8.	Elements of high-rise construction	3+2	6
9.	Engineering geology	3+2	5
10.	Sketchygeometry and graphic communications	3+2	7
In totalECTS II semester			30
In totalECTS I year			**60**

Ordinal	Subject	Number of	ECTS
III semester			
11.	Material resistance II	3+2	6
12.	Construction materialsI	3+2	6
13.	Hydromechanics	3+2	6
14.	Construction physics	3+2	6
15.	Structural staticsI	3+2	6
In totalECTS III semester			30
IV semester			
16.	Geodesy	3+2	6
17.	Structural statics II	3+2	6
18.	Soil mechanicsand rocks	3+2	6
19.	Roads	3+2	6
20.	Engineering economicsI	3+2	6
In totalECTS IV semester			30
In totalECTS II year			**60**

Ordinal	Subject	Number of	ECTS
V semester			
21.	Water supply	3+2	8
22.	River hydrotechnics	3+2	8
23.	Hydrology	3+2	7
24.	Hydrogeology	3+2	7
In totalECTS V semester			30
VI semester			
25.	Engineeringin environmental protection	3+2	8
26.	Corporateand social responsibility	3+2	8
27.	Landfills	3+2	7
28.	Renewable sources of energy	3+2	7
In totalECTS VI semester			30
In totalECTS III year			**60**

Ordinal	Subject	Number of	ECTS
VII semester			
29.	Mathematics III	3+2	8
30.	Processingdrinking water	3+2	7
31.	Hydraulics	3+2	8
32.	CHOSEN SUBJECT1	3+2	7
In totalECTS VII semester			30
VIII semester			
33.	Hydrotechnicalbuildings	3+2	7
34.	Drainage of waste water	3+2	6
35.	CHOSEN SUBJECT2	3+2	7
36.	FINAL WORK		10
In totalECTS VIII semester			30
In totalECTS IV year			**60**

Ordinal	Subject	Number of	ECTS
Chosen subject1			
1.	Hydrodynamics of groundwater	3+2	7
2.	Transformationand transportation of hazardous materials	3+2	7
3.	Investment managementand projects	3+2	7
Chosen subject2			
1.	Stochastic hydrology	3+2	7
2.	Managementwaters	3+2	7
3.	Environmental ethics forengineers	3+2	7

Model: 3+2

Direction:ARCHITECTURE AND URBAN PLANNING

Ordinal	Subject	Number of	ECTS
And the semester			
1.	MathematicsI	3+2	6
2.	Computer science	3+2	6
3.	MechanicsI	3+2	7
4.	Introductionin construction	3+2	6
5.	Material resistanceI	3+2	5
In totalECTS I semester			30
II semester			
6.	Mathematics II	3+2	6
7.	Mechanics II	3+2	6
8.	Elements of high-rise construction	3+2	6
9.	Theoryand design methodology	3+2	5
10.	Sketchygeometry and graphic communications	3+2	7
In totalECTS II semester			30
In totalECTS I year			**60**

Ordinal	Subject	Number of	ECTS
III semester			
11.	Material resistance II	3+2	6
12.	Construction materialsI	3+2	6
13.	Hydromechanics	3+2	6
14.	Construction physics	3+2	6
15.	Structural staticsI	3+2	6
In totalECTS III semester			30
IV semester			
16.	Theoryand the history of architecture	3+2	6
17.	Structural statics II	3+2	6
18.	Soil mechanicsand rocks	3+2	6
19.	Construction structure	3+2	6
20.	Engineering economics	3+2	6
In totalECTS IV semester			30
In totalECTS II year			**60**

Ordinal	Subject	Number of	ECTS
V semester			
21.	Climate and environmental protection	3+2	8
22.	Architecturallyconservation	3+2	8
23.	Installation design	3+2	7
24.	CHOSEN SUBJECT1	3+2	7
In totalECTS V semester			30
VI semester			
25.	Urbanisticdesigning	3+2	7
26.	CHOSEN SUBJECT2	3+2	7
27.	PROFESSIONAL PRACTICE		6
28.	FINAL WORK		10
In totalECTS VI semester			30
In totalECTS III year			**60**

Ordinal	Subject	Number of	ECTS
Chosen subject1			
1.	Systemicinterior equipment	3+2	7
2.	Architecturalphysics	3+2	7
3.	Reinforced concretearchitectural constructions	3+2	7
Chosen subject2			
1.	Woodenand metal structures	3+2	7
2.	Urbanconcepts and urban composition	3+2	7
3.	Regulatory and levelingplan	3+2	7

Model:4+1

Direction:ARCHITECTURE AND URBAN PLANNING

Ordinal	Subject	Number of	ECTS
And the semester			
1.	MathematicsI	3+2	6
2.	Computer science	3+2	6
3.	MechanicsI	3+2	7
4.	Introductionin construction	3+2	6
5.	Material resistanceI	3+2	5
In totalECTS I semester			30
II semester			
6.	Mathematics II	3+2	6
7.	Mechanics II	3+2	6
8.	Elements of high-rise construction	3+2	6
9.	Theoryand design methodology	3+2	5
10.	Sketchygeometry and graphic communications	3+2	7
In totalECTS II semester			30
In totalECTS I year			**60**

Ordinal	Subject	Number of	ECTS
III semester			
11.	Material resistance II	3+2	6
12.	Construction materialsI	3+2	6
13.	Hydromechanics	3+2	6
14.	Construction physics	3+2	6
15.	Structural staticsI	3+2	6
In totalECTS III semester			30
IV semester			
16.	Theoryand the history of architecture	3+2	6
17.	Structural statics II	3+2	6
18.	Soil mechanicsand rocks	3+2	6
19.	Construction structure	3+2	6
20.	Engineering economics	3+2	6
In totalECTS IV semester			30
In totalECTS II year			**60**

Ordinal	Subject	Number of	ECTS
V semester			
21.	Climate and environmental protection	3+2	8
22.	Architecturallyconservation	3+2	8
23.	Basics of design I	3+2	7
24.	Architecturalcompositions I	3+2	7
In totalECTS V semester			30
VI semester			
25.	Structure of materials and construction	3+2	7
26.	Basics of design II	3+2	8
27.	Urbanisticdesign I	3+2	7
28.	Installation design	3+2	8
In totalECTS VI semester			30
In totalECTS III year			**60**

Ordinal	Subject	Number of	ECTS
VII semester			
29.	Basics of design III	3+2	8
30.	Architecturalcompositions II	3+2	8
31.	Free drawing	3+2	7
32.	CHOSEN SUBJECT1	3+2	7
In totalECTS VII semester			30
VIII semester			
33.	Installationcomplex buildings	3+2	7
34.	Urbanisticdesign II	3+2	7
35.	CHOSEN SUBJECT2	3+2	6
36.	FINAL WORK		10
In totalECTS VIII semester			30
In totalECTS IV year			**60**

Ordinal	Subject	Number of	ECTS
Chosen subject1			
1.	Systemicinterior equipment	3+2	7
2.	Architecturalphysics	3+2	7
3.	Reinforced concretearchitectural constructions	3+2	7
Chosen subject2			
1.	Woodenand metal structures	3+2	6
2.	Urbanconcepts and urban composition	3+2	6
3.	Regulatory and levelingplan	3+2	6