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Erasmus+ Programme
of the European Union



Draft bachelor and master curricula

University of Nis

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Rijeka, 20 September 2019

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

University of Nis



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Strengthening of master curricula in water resources
management for the Western Balkans HEIs and stakeholders

Project number: 597888-EPP-1-2018-1-RS-EPPKA2-CBHE-JP

Bachelor study programme – Project Management

Bachelor - Project Management (B.Sc. Engineering Manager)

I semester 30 ECTS

Physics	2+2	5 ECTS
Mathematics	2+2	5 ECTS
Materials	2+2	5 ECTS
Constructions	2+2	5 ECTS
Engineering and Environment	2+2	5 ECTS
Descriptive Geometry	2+2	5 ECTS

Bachelor study programme – Project Management

II semester 30 ECTS

Basics of Management	2+2	5 ECTS
Development of Engineering	2+2	5 ECTS
Basics of Hydrometeorology	2+2	5 ECTS
Basics of Information Technology	2+2	5 ECTS
English - basics	2+2	5 ECTS
Elective course 1	2+2	5 ECTS
Basics of Geosciences or Technical Mechanics		

Bachelor study programme – Project Management

III semester 30 ECTS

Natural Disasters 2+2 5 ECTS

Environmental Projects 2+2 5 ECTS

Urban Infrastructures 2+2 5 ECTS

Informatics 2+2 5 ECTS

English - higher level 2+2 5 ECTS

Elective course 2 2+2 5 ECTS

Fluid Mechanics or Statistics

Bachelor study programme – Project Management

IV semester 30 ECTS

Urbanism 2+2 5 ECTS

Sustainable Development 2+2 5 ECTS

Fundamentals of Road Design 2+2 5 ECTS

Climate Changes 2+2 5 ECTS

Elective course 3.1 2+2 5 ECTS

Elective course 3.2 2+2 5 ECTS

Basics of Hydrology or Earthworks or Soil Mechanics or
Construction Physics

Bachelor study programme – Project Management

V semester 30 ECTS

Risk Assessment	2+2	5 ECTS
Geotechnics	2+2	5 ECTS
<u>Hydrotechnics</u>		2+2 5 ECTS
Technical Documentation	2+2	5 ECTS
Elective course 4.1	2+2	5 ECTS
Elective course 4.2	2+2	5 ECTS
Computer Drawing or Urban Hydrology or <u>Hydropower</u> or Soil Foundation		

Bachelor study programme – Project Management

VI semester 30 ECTS

Practice 5 ECTS

Urban Water 2+2 5 ECTS

Technical Regulations 2+2 5 ECTS

Traffic Planning 2+2 5 ECTS

Elective course 5.1 2+2 5 ECTS

Elective course 5.2 2+2 5 ECTS

Groundwater or Energy Efficiency or Simulation Models or
Green Building

Bachelor study programme – Project Management

VII semester 30 ECTS

Basics of Project Management 2+2 5 ECTS

Climate Change Adaptation 2+2 5 ECTS

Environmental Impact Assessment 2+2 5 ECTS

Elective course 6.1 2+2 5 ECTS

Elective course 6.2 2+2 5 ECTS

Elective course 6.3 2+2 5 ECTS

Construction Technology or Urban Hydrotechnics or Time
Series Analysis or Big Data or Earthquake Engineering

Bachelor study programme – Project Management

VIII semester 30 ECTS

Engineering Management 2+2 5 ECTS

Basics of Smart Cities 2+2 5 ECTS

Elective course 7 2+2 5 ECTS

Construction Organization Design or Environmental
Monitoring

Bachelor Theme 15 ECTS

Bachelor study programme – Project Management

	Existing courses	New courses
1	Fluid Mechanics (ES, III semester)	Basis of hydrometeorology (OS, II semester)
2	Basics of Hydrology (ES, IV semester)	Urban Infrastructures (OS, III semester)
3	<u>Hydrotehnics</u> (OS, V semester)	Urban Hydrology (ES, V semester)
4	Hydropower (ES, V semester)	Urban Water (OS, VI semester)
5	Groundwater (ES, VI semester)	Natural Disasters (OS, III semester)
6	Urban <u>Hydrotehnics</u> (ES, VII semester)	Environmental Projects (OS, III semester)
		Sustainable Development (OS, IV semester)
		Climate Change (OS, IV semester)

Master study programme – Project Management

Master - Project Management (M.Sc. Engineering Manager)

I semester 30 ETCS

Module1: Urban Projects

Project Management 2+2 5 ETCS

Water Treatment Plant Management 2+2 5 ETCS

Sustainable Urban Drainage Systems 2+2 5 ETCS

Smart Cities 2+2 5 ETCS

Elective course 1.1 2+2 5 ETCS

Elective course 1.2 2+2 5 ETCS

Waste Management or GIS in Project Management or Sustainable Settlement Development or Drinking Water Purification

Master study programme – Project Management

Module 2: Environmental Projects

Project Management 2+2 5 ETCS

Natural Resources Management 2+2 5 ETCS

Circular Economy and Wat. Resources 2+2 5 ETCS

Wastewater Treatment 2+2 5 ETCS

Elective course 2.1 2+2 5 ETCS

Elective course 2.2 2+2 5 ETCS

Water Treatment Plant Management or Water Resources

Management or GIS in Project Management or Building

Resilience to Natural Disasters

Master study programme – Project Management

II semester 30 ECTS

Practice

3 ECTS

M. Sc. theses

27 ECTS

Master study programme – Project Management

	Existing courses	New courses
1	Water Treatment Plant Management (OS1)	Sustainable Urban Drainage Systems (OS1)
2	Drinking Water Purification (ES1)	Circular Economy and Water Resources (OS2)
3	Wastewater Treatment (OS2)	Smart cities (OS1)
4.	Water Resources Management (ES2)	Natural Resources Management (OS2)
		Waste management (ES2)

OS- obligate subject, ES - elective subject, 1 - Urban projects, 2 - Environmental projects



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Thank you.

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