2nd Workshop on Qualification and Occupational Standards

6-7 March 2014, Teslić

Working group tasks after the first common workshop	
1. *Group, chairperson of the group, members, date and place of the group internal meeting*	
Group	Engineering
Chairperson	ast. prof. dr Naida Ademović
Members	IUSA: prof. dr. Haris Gavranović (absent) SVMO: M.Sc. Mladen Kustura (absent) SVMO: prof. dr. Vlaho Akmadžić (absent) UISA: prof. dr. Mitar Perušić UISA: prof. dr. Goran Tadić UNBI: doc. dr. Atif Hodžić UNBI: prof. dr. Ifet Šišić UNBL: M.Sc. Grujić Bojana (absent) UNBL: prof. dr. Jokanović Simo (absent) UNMO: prof. dr. Dragi Tiro UNMO: prof. dr Vahida Žujo UNSA: doc. dr Naida Ademović UNSA: prof. dr Majda Čohodar (absent) UNTZ: prof. dr. Sandira Ejšan (absent) UNTZ: prof. dr. Suad Halilčević (absent) UNTZ: prof. Izen Hajdarević (absent) UNZE: doc. dr. Edin Berberović UNZE: prof. dr. Diana Ćubela (absent)
Date	25 April 2014
Place	Vlašić, hotel Blanka
2. *Chosen study programmes at universities in BiH for agreed profile and level of qualification*	
Titles of programmes and universities	First cycle, undergraduate programme in civil engineering (ac. 2013/2014) University of Mostar, Faculty of Civil Engineering
	Undergraduate curriculum (ac. 2011/2012) Džemal Bijedić University of Mostar, Faculty of Civil Engineering
	Civil engineering department, Curriculum – 1st cycle 4+1 University of Bihać, Faculty of Technical Sciences
	Study programme, Civil engineering, 1st cycle curriculum University of Banja Luka, Faculty of Architecture and Civil Engineering
	Undergraduate and graduate curriculum at the Faculty of Civil Engineering in Sarajevo University of Sarajevo, Faculty of Civil Engineering
	University of Tuzla, Faculty of Mining, Geology and Civil

	Engineering Study programme, Civil engineering, 1st cycle
	1st cycle curriculum for civil engineering, University of Zenica, Polytechnic Faculty
3. *Name, level and volume of qualifications of those programmes*	
Name/s	SVMO: bachelor in civil engineering UNMO: bachelor in civil engineering, department indicated UNBI: bachelor in civil engineering, general branch UNBL: graduate civil engineer for the area corresponding to the module selected in the 4th year UNSA: civil engineer / geodetic engineer (Bachelor) UNTZ: graduate civil engineer UNZE: graduate civil engineer
Level	
Range of volume - ECTS	SVMO: 180 ECTS (3 years) UNMO: 180 ECTS (3 years) UNBI: 240 ECTS (4 years) UNBL: 240 ECTS (4 years) UNSA: 180 ECTS (3 years) UNTZ: 240 ECTS (4 years) UNZE: 240 ECTS (4 years)

4. For the selected programmes of study:

- *Analyse topics in study programmes, their learning outcomes and/or content*;
- *Choose and write those that are in all study programmes (or similar);*
- *Organize them in groups and write range of ECTS*.

▪ <u>Key competences for LLL:</u>	ECTS range
○ Mathematics and physics	
- Mathematics 1 / Mathematics for engineering 1	6-10
- Mathematics 2 / Mathematics for engineering 2	6-10
- Design geometry / Descriptive / Design geometry and technical drawing	4-7
- Physics / Physics for civil engineering	3-7
- Probability and statistics / Theory of probability and statistics	3-5
○ Construction theory	
- Mechanics 1 / Mechanics in Civ. Eng. 1 / Technical Mechanics 1	
- Mechanics 2 / Mechanics in Civ. Eng.2 / Technical Mechanics 2	5-7
- Durability of Materials 1	4-6
- Durability of Materials 2	3,5-6
- Construction Statics 1 / Construction Statics 1	5-7
- Construction Statics 2 / Construction Statics 2	5-6
	5-6
○ Construction	
- Introduction to Construction and Building	
- Elements of Building Construction	1-3
	4-7
○ Building Materials	
- Building Materials 1 / Materials in Building Construction 1 / Study of Materials / Chemistry in Construction	3-7
- Building Materials 2 / Materials in Building 2 / Building Materials	

	5-6,5
○ Foreign language	
- English 1, 2, 3, 4 / Foreign language 1, 2, 3, 4 / Foreign language for specific purposes / English in Civil Engineering	0-4
○ ICT	
- Information sciences / Use of computers / Introduction to IT in engineering / Basic engineering IT / Information sciences 1	
- CAD / CAD technical drawing / CAD/CAM in civil engineering / computer-based construction design	1-5
	1-5
○ Theoretical and applied hydromechanics	
- Hydromechanics / Fluid mechanics / Basic hydromechanics and hydro-technology / Hydromechanics and hydrology	4-7
○ Theoretical and applied hydromechanics	
- Hydromechanics, Fluid mechanics, Basic hydromechanics and hydro-technology	4-7
○ Geology and geo-technology	
- Soil mechanics and foundation engineering / Soil and rock mechanics 1 / Soil mechanics / Soil and rock mechanics	4-7
▪ <u>Core competences:</u>	
○ Construction theory	
- Construction dynamics and earthquake engineering / Construction dynamics and aseismic design / Dynamic construction analysis / Seismic design / Stability and dynamics of construction (Stability and fractal overlapping)	4-7
○ Civil engineering constructions	
- Basic concrete construction / Concrete construction 1	
- Wood construction / Wood construction 1 / Basic wood construction	
- Basic metal construction / Metal construction 1 / Steel construction 1	4-7
- Concrete construction 2	4-6
- Building construction	
- Bridges / Tunnels / Bridges and tunnels / Earthworks and tunnels (partial correspondence)	4-8
- Building design and construction / Building design / Design and supervision	5-6 1-4
	4-7
○ Utility and process hydro-technology	
- Water supply and sewage / Water supply and removal of waste water / Water supply / Water supply and sewage removal	2-4
	4-6
○ Hydro-technology buildings and plants	
- Hydro-technology building construction / Hydro-technology construction / Hydro-technology facilities and systems	
○ Hydrology and water management	
- Hydrology / Hydrology for engineering	2-6

○ Roads - Roads and traffic / Roads / Roads 1 / Roads 2 (partial correspondence) - Railways / Railways 1 / Railways 2 (partial correspondence)	4-10
○ Geodesy - Geodesy	4-10 3-8
○ Geology and geo-technology - Geology for engineering - Geo-technical engineering / Foundation engineering/ Foundation engineering	3-5
○ Construction organisation - Construction organisation / Construction technology / Organisation and technology of construction (partial correspondence)	4-5 4-6
○ Economics and law - Economics and construction regulations / Construction regulations / Economics in construction / Sociology and economics of construction	4-11
○ Spatial design and the environment - Spatial design and the environment / Spatial planning / Urban environment and engineering / Infrastructure planning / Ecological engineering / Environmental protection and spatial planning (partial correspondence)	4-11 1,5-5
○ Practicals - Practicals	
○ Final thesis - Final / Graduation thesis	0-7 5-13

5. *Write all challenges during the work and overcome*

- In some of the programmes there are subjects with similar titles, but with different classification and duration by semester.
- A wide range of ECTS credits for identical or similar subjects.
- In some programmes, two subjects are merged into one, so that there is partial correspondence.
- Subjects listed are those that can be found in most (no less than 4 out of 7) of the programmes analysed.
- A major difference in the number of subjects in three-year and four-year programmes is a particular problem.
- It is not easy to determine the exact percentage of correspondence among the different programmes of study, for all the reasons listed above.