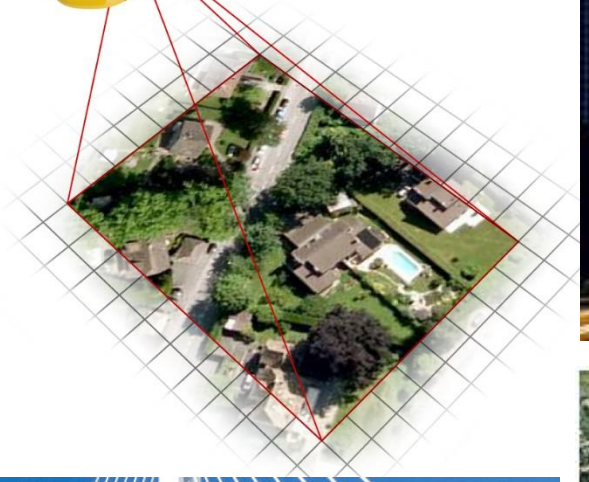
Faculty of Civil Engineering

Tamas Lovas

Course director



Departments – professional areas

- Department of Geodesy and Surveying
- Department of Photogrammetry and Geoinformatics
- Department of Highway and Railway Engineering
- Department of Hydraulic and Water Resources Engineering
- Department of Sanitary and Environmental Engineering
- Department of Construction Materials and Technologies
- Department of Engineering Geology and Geotechnics
- Department of Structural Engineering
- Department of Structural Mechanics

Education cycles

- Pre-Engineering – 2 semesters
- BSc – 8 semesters
  - 240 ECTS (diploma: 24 credits)
- Pre-MSc – 1 or 2 semesters
- MSc – 3 semesters
  - 90 ECTS (diploma: 20 credits)
- PhD – 8 semesters

Core subjects

Civil engineering

- Maths, Physics
- Statics, Strength of materials, Structural Analysis
- Chemistry, geology
- Business, Management
- Informatics
- Surveying, geoinformatics
- Hydraulic engineering, hdyrology
- Roads, Railway tracks
- Construction materials
- Geotechnics, foundation engineering
- Mechanics, stuctural analysis
- Steel structures, Reinforced concrete structures

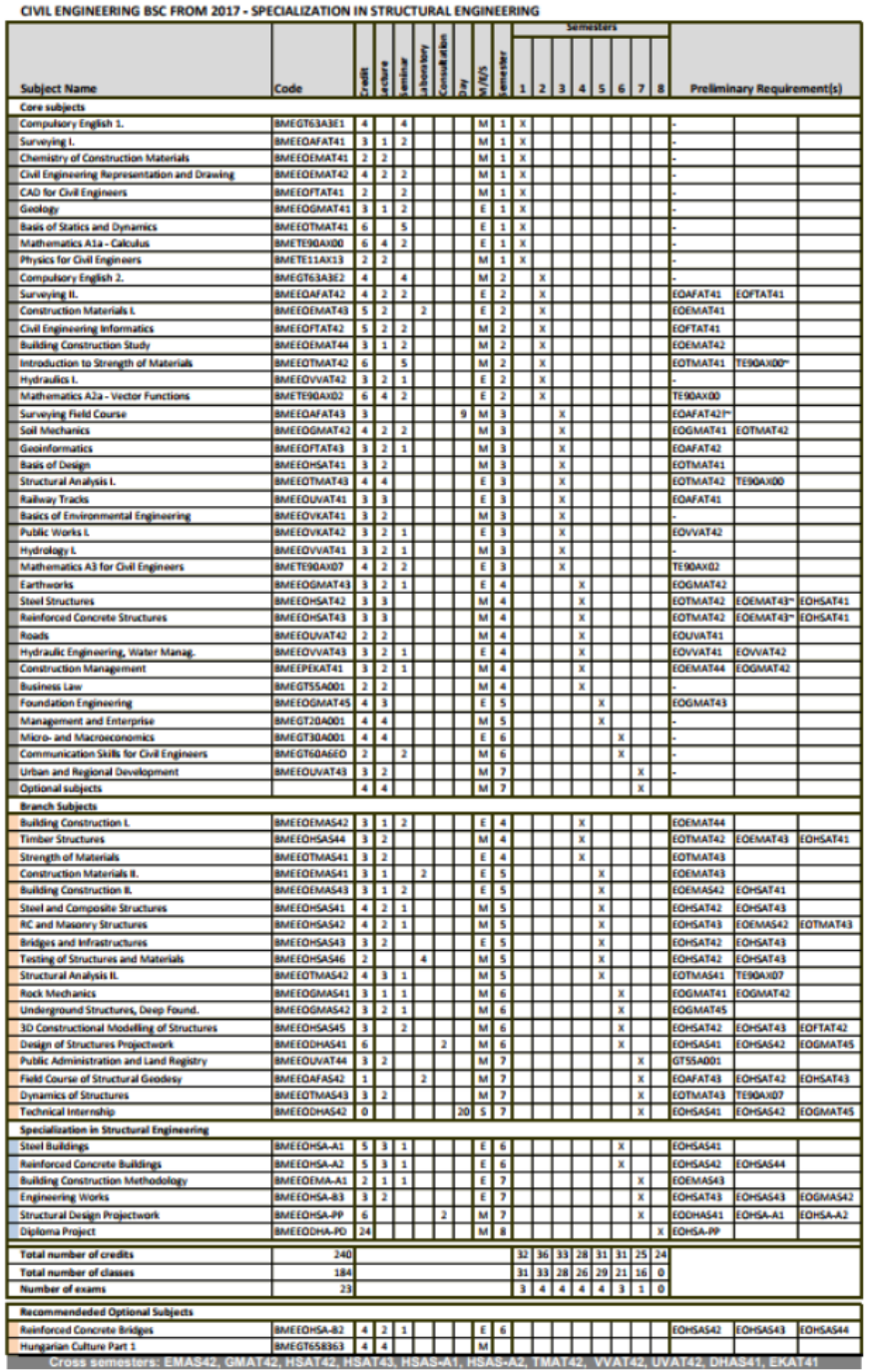
CIVIL ENGINEERING BSC FROM 2017 - SPECIALIZATION IN STRUCTURAL ENGINEERING

Subject Name	Code	Credit	Lecture	Seminar	Laboratory	Consultation	Day	N/E/S	Semester	Semesters 1	2	3	4	5	6	7	8	Preliminary Requirement(s)		
Core subjects																				
Compulsory English 1.	BMEGT63A3E1	4		4				M	1	X								-		
Surveying I.	BMEEOAFAT41	3	1	2				M	1	X								-		
Chemistry of Construction Materials	BMEEOEMAT41	2	2					M	1	X								-		
Civil Engineering Representation and Drawing	BMEEOEMAT42	4	2	2				M	1	X								-		
CAD for Civil Engineers	BMEEOFTAT41	2		2				M	1	X								-		
Geology	BMEEOGMAT41	3	1	2				E	1	X								-		
Basis of Statics and Dynamics	BMEEOTMAT41	6		5				E	1	X								-		
Mathematics A1a - Calculus	BMETE90AX00	6	4	2				E	1	X								-		
Physics for Civil Engineers	BMETE11AX13	2	2					M	1	X								-		
Compulsory English 2.	BMEGT63A3E2	4		4				M	2		X							-		
Surveying II.	BMEEOAFAT42	4	2	2				E	2		X							EOAFAT41	EOFTAT41	
Construction Materials I.	BMEEOEMAT43	5	2		2			E	2		X							EOEMAT41		
Civil Engineering Informatics	BMEEOFTAT42	5	2	2				M	2		X							EOFTAT41		
Building Construction Study	BMEEOEMAT44	3	1	2				M	2		X							EOEMAT42		
Introduction to Strength of Materials	BMEEOTMAT42	6		5				M	2		X							EOTMAT41	TE90AX00**	
Hydraulics I.	BMEEOVVAT42	3	2	1				E	2		X							-		
Mathematics A2a - Vector Functions	BMETE90AX02	6	4	2				E	2		X							TE90AX00		
Surveying Field Course	BMEEOAFAT43	3					9	M	3			X						EOAFAT42**		
Soil Mechanics	BMEEOGMAT42	4	2	2				M	3			X						EOGMAT41	EOTMAT42	
Geoinformatics	BMEEOFTAT43	3	2	1				M	3			X						EOAFAT42		
Basis of Design	BMEEOHSAT41	3	2					M	3			X						EOTMAT41		
Structural Analysis I.	BMEEOTMAT43	4	4					E	3			X						EOTMAT42	TE90AX00	
Railway Tracks	BMEEOUVAT41	3	3					E	3			X						EOAFAT41		
Basics of Environmental Engineering	BMEEOVKAT41	3	2					M	3			X						-		
Public Works I.	BMEEOVKAT42	3	2	1				E	3			X						EOVVAT42		
Hydrology I.	BMEEOVVAT41	3	2	1				M	3			X						-		
Mathematics A3 for Civil Engineers	BMETE90AX07	4	2	2				E	3			X						TE90AX02		
Earthworks	BMEEOGMAT43	3	2	1				E	4				X					EOGMAT42		
Steel Structures	BMEEOHSAT42	3	3					M	4				X					EOTMAT42	EOEMAT43**	EOHSAT41
Reinforced Concrete Structures	BMEEOHSAT43	3	3					M	4				X					EOTMAT42	EOEMAT43**	EOHSAT41
Roads	BMEEOUVAT42	2	2					M	4				X					EOUVAT41		
Hydraulic Engineering, Water Manag.	BMEEOVVAT43	3	2	1				E	4				X					EOVVAT41	EOVVAT42	
Construction Management	BMEEPEKAT41	3	2	1				M	4				X					EOEMAT44	EOGMAT42	
Business Law	BMEGTS5A001	2	2					M	4				X					-		
Foundation Engineering	BMEEOGMAT45	4	3					E	5					X				EOGMAT43		
Management and Enterprise	BMEGT20A001	4	4					M	5					X				-		
Micro- and Macroeconomics	BMEGT30A001	4	4					E	6						X			-		
Communication Skills for Civil Engineers	BMEGT60A6E0	2		2				M	6						X			-		
Urban and Regional Development	BMEEOUVAT43	3	2					M	7							X		-		
Optional subjects		4	4					M	7							X				

Specialization subjects

Specialization in Structural Engineering

- Building construction
- Construction materials
- Timber structures
- Steel and composites structures, RC and Masonry structures
- Bridges and infrastructures
- Underground structures, deep foundation, Rock mechanics
- Structural analysis, Strength of materials
- Laboratory practice
- 3D constructional design
- Design of structures projectwork
- Steel buildings
- Reinforced concrete buildings
- Building construction technology
- Engineering works
- Building design projectwork



CIVIL ENGINEERING BSC FROM 2017 - SPECIALIZATION IN STRUCTURAL ENGINEERING

Subject Name	Code	Credit	Lecture	Seminar	Laboratory	Consultation	Day	M/E/S	Semester	Semesters 1	2	3	4	5	6	7	8	Preliminary Requirement(s)		
Core subjects																				
Compulsory English 1.	BMEGT63A3E1	4		4				M	1	X								-		
Surveying I.	BMEEOAFAT41	3	1	2				M	1	X								-		
Chemistry of Construction Materials	BMEEOEMAT41	2	2					M	1	X								-		
Civil Engineering Representation and Drawing	BMEEOEMAT42	4	2	2				M	1	X								-		
CAD for Civil Engineers	BMEEOFTAT41	2		2				M	1	X								-		
Geology	BMEEOGMAT41	3	1	2				E	1	X								-		
Basis of Statics and Dynamics	BMEEOTMAT41	6		5				E	1	X								-		
Mathematics A1a - Calculus	BMETE90AX00	6	4	2				E	1	X								-		
Physics for Civil Engineers	BMETE11AX13	2	2					M	1	X								-		
Compulsory English 2.	BMEGT63A3E2	4		4				M	2		X							-		
Surveying II.	BMEEOAFAT42	4	2	2				E	2		X							EOAFAT41	EOFTAT41	
Construction Materials I.	BMEEOEMAT43	5	2		2			E	2		X							EOEMAT41		
Civil Engineering Informatics	BMEEOFTAT42	5	2	2				M	2		X							EOFTAT41		
Building Construction Study	BMEEOEMAT44	3	1	2				M	2		X							EOEMAT42		
Introduction to Strength of Materials	BMEEOTMAT42	6		5				M	2		X							EOTMAT41	TE90AX00*	
Hydraulics I.	BMEEOVVAT42	3	2	1				E	2		X							-		
Mathematics A2a - Vector Functions	BMETE90AX02	6	4	2				E	2		X							TE90AX00		
Surveying Field Course	BMEEOAFAT43	3					9	M	3			X						EOAFAT42*		
Soil Mechanics	BMEEOGMAT42	4	2	2				M	3			X						EOGMAT41	EOTMAT42	
Geoinformatics	BMEEOFTAT43	3	2	1				M	3			X						EOAFAT42		
Basis of Design	BMEEOHSAT41	3	2					M	3			X						EOTMAT41		
Structural Analysis I.	BMEEOTMAT43	4	4					E	3			X						EOTMAT42	TE90AX00	
Railway Tracks	BMEEOUVAT41	3	3					E	3			X						EOAFAT41		
Basics of Environmental Engineering	BMEEOVKAT41	3	2					M	3			X						-		
Public Works I.	BMEEOVKAT42	3	2	1				E	3			X						EOVVAT42		
Hydrology I.	BMEEOVVAT41	3	2	1				M	3			X						-		
Mathematics A3 for Civil Engineers	BMETE90AX07	4	2	2				E	3			X						TE90AX02		
Earthworks	BMEEOGMAT43	3	2	1				E	4				X					EOGMAT42		
Steel Structures	BMEEOHSAT42	3	3					M	4				X					EOTMAT42	EOEMAT43**	EOHSAT41
Reinforced Concrete Structures	BMEEOHSAT43	3	3					M	4				X					EOTMAT42	EOEMAT43**	EOHSAT41
Roads	BMEEOUVAT42	2	2					M	4				X					EOUVAT41		
Hydraulic Engineering, Water Manag.	BMEEOVVAT43	3	2	1				E	4				X					EOVVAT41	EOVVAT42	
Construction Management	BMEEPEKAT41	3	2	1				M	4				X					EOEMAT44	EOGMAT42	
Business Law	BMEGT55A001	2	2					M	4				X					-		
Foundation Engineering	BMEEOGMAT45	4	3					E	5					X				EOGMAT43		
Management and Enterprise	BMEGT20A001	4	4					M	5					X				-		
Micro- and Macroeconomics	BMEGT30A001	4	4					E	6						X			-		
Communication Skills for Civil Engineers	BMEGT60A6EO	2		2				M	6						X			-		
Urban and Regional Development	BMEEOUVAT43	3	2					M	7							X		-		
Optional subjects		4	4					M	7							X				
Branch Subjects																				
Building Construction I.	BMEEOEMAS42	3	1	2				E	4				X					EOEMAT44		
Timber Structures	BMEEOHSAS44	3	2					M	4				X					EOTMAT42	EOEMAT43	EOHSAT41
Strength of Materials	BMEEOTMAS41	3	2					E	4				X					EOTMAT43		
Construction Materials II.	BMEEOEMAS41	3	1		2			E	5					X				EOEMAT43		
Building Construction II.	BMEEOEMAS43	3	1	2				E	5					X				EOEMAS42	EOHSAT41	
Steel and Composite Structures	BMEEOHSAS41	4	2	1				M	5					X				EOHSAT42	EOHSAT43	
RC and Masonry Structures	BMEEOHSAS42	4	2	1				M	5					X				EOHSAT43	EOEMAS42	EOTMAT43
Bridges and Infrastructures	BMEEOHSAS43	3	2					E	5					X				EOHSAT42	EOHSAT43	
Testing of Structures and Materials	BMEEOHSAS46	2			4			M	5					X				EOHSAT42	EOHSAT43	
Structural Analysis II.	BMEEOTMAS42	4	3	1				M	5					X				EOTMAS41	TE90AX07	
Rock Mechanics	BMEEOGMAS41	3	1	1				M	6						X			EOGMAT41	EOGMAT42	
Underground Structures, Deep Found.	BMEEOGMAS42	3	2	1				M	6						X			EOGMAT45		
3D Constructional Modelling of Structures	BMEEOHSAS45	3		2				M	6						X			EOHSAT42	EOHSAT43	EOFTAT42
Design of Structures Projectwork	BMEEODHAS41	6				2		M	6						X			EOHSAS41	EOHSAS42	EOGMAT45
Public Administration and Land Registry	BMEEOUVAT44	3	2					M	7							X		GT55A001		
Field Course of Structural Geodesy	BMEEOAFAS42	1			2			M	7							X		EOAFAT43	EOHSAT42	EOHSAT43
Dynamics of Structures	BMEEOTMAS43	3	2					M	7							X		EOTMAT43	TE90AX07	
Technical Internship	BMEEODHAS42	0					20	S	7							X		EOHSAS41	EOHSAS42	EOGMAT45
Specialization in Structural Engineering																				
Steel Buildings	BMEEOHSA-A1	5	3	1				E	6						X			EOHSAS41		
Reinforced Concrete Buildings	BMEEOHSA-A2	5	3	1				E	6						X			EOHSAS42	EOHSAS44	
Building Construction Methodology	BMEEOEMA-A1	2	1	1				E	7							X		EOEMAS43		
Engineering Works	BMEEOHSA-B3	3	2					E	7							X		EOHSAT43	EOHSAS43	EOGMAS42
Structural Design Projectwork	BMEEOHSA-PP	6				2		M	7							X		EODHAS41	EOHSA-A1	EOHSA-A2
Diploma Project	BMEEODHA-PD	24						M	8								X	EOHSA-PP		
Total number of credits	240									32	36	33	28	31	31	25	24			
Total number of classes	184									31	33	28	26	29	21	16	0			
Number of exams	23									3	4	4	4	4	3	1	0			
Recommendeded Optional Subjects																				
Reinforced Concrete Bridges	BMEEOHSA-B2	4	2	1				E	6									EOHSAS42	EOHSAS43	EOHSAS44
Hungarian Culture Part 1	BMEGT65B363	4	4					M												

Cross semesters: EMAS42, GMAT42, HSAT42, HSAT43, HSAS-A1, HSAS-A2, TMAT42, VVAT42, UVAT42, DHAS41, EKAT41

Specialization subjects

Specialization in Infrastructure Engineering

- Water chemistry and hydrobiology
- Hydraulics, Hydrology, Public works
- Roads, Railway tracks, Highway and railway structures, Highway and railway design
- Basics of environmental engineering, Urban environment
- Water quality management, Water resource management
- Transportation networks
- Highway and railway laboratory course
- Hydraulic engineering field course
- Infrastructure design project
- Public administration and land registry
- Earthworks and drainage of transportation infrastructures
- Highway planning and design, Railway planning and design
- Water damage prevention and water use, Drinking water and wastewater treatment
- River basin management, Environmental impact assessment
- Transportation facility design project
- Hydraulic engineering design project
- Urban infrastructure design project

CIVIL ENGINEERING BSC FROM 2019 - SPECIALIZATION IN INFRASTRUCTURE ENGINEERING

Subject Name	Code	Credit	Lecture	Seminar	Laboratory	Consultation	Day	M/E/S	Semester	Semesters 1	2	3	4	5	6	7	8	Preliminary Requirement(s)		
Core subjects																				
Compulsory English 1.	BMEGT63A3E1	4		4				M	1	X								-		
Surveying I.	BMEEOAFAT41	3	1	2				M	1	X								-		
Chemistry of Construction Materials	BMEEOEMAT41	2	2					M	1	X								-		
Civil Engineering Representation and Drawing	BMEEOEMAT42	4	2	2				M	1	X								-		
CAD for Civil Engineers	BMEEOFTA741	2		2				M	1	X								-		
Geology	BMEEOGMAT41	3	1	2				E	1	X								-		
Basis of Statics and Dynamics	BMEEOTMAT41	6		5				E	1	X								-		
Mathematics A1a - Calculus	BMETE90AX00	6	4	2				E	1	X								-		
Physics for Civil Engineers	BMETE11AX13	2	2					M	1	X								-		
Compulsory English 2.	BMEGT63A3E2	4		4				M	2		X							-		
Surveying II.	BMEEOAFAT42	4	2	2				E	2		X							EOAFAT41	EOFTAT41	
Construction Materials I.	BMEEOEMAT43	5	2		2			E	2		X							EOEMAT41		
Civil Engineering Informatics	BMEEOFTA742	5	2	2				M	2		X							EOFTAT41		
Building Construction Study	BMEEOEMAT44	3	1	2				M	2		X							EOEMAT42		
Introduction to Strength of Materials	BMEEOTMAT42	6		5				M	2		X							EOTMAT41	TE90AX00*	
Hydraulics I.	BMEEOVVAT42	3	2	1				E	2		X							-		
Mathematics A2a - Vector Functions	BMETE90AX02	6	4	2				E	2		X							TE90AX00		
Surveying Field Course	BMEEOAFAT43	3					9	M	3			X						EOAFAT42*		
Soil Mechanics	BMEEOGMAT42	4	2	2				M	3			X						EOGMAT41	EOTMAT42	
Geoinformatics	BMEEOFTA743	3	2	1				M	3			X						EOAFAT42		
Basis of Design	BMEEOHSAT41	3	2					M	3			X						EOTMAT41		
Structural Analysis I.	BMEEOTMAT43	4	4					E	3			X						EOTMAT42	TE90AX00	
Railway Tracks	BMEEOUVAT41	3	3					E	3			X						EOAFAT41		
Basics of Environmental Engineering	BMEEOVKAT41	3	2					M	3			X						-		
Public Works I.	BMEEOVKAT42	3	2	1				E	3			X						EOVVAT42		
Hydrology I.	BMEEOVVAT41	3	2	1				M	3			X						-		
Mathematics A3 for Civil Engineers	BMETE90AX07	4	2	2				E	3			X						TE90AX02		
Earthworks	BMEEOGMAT43	3	2	1				E	4				X					EOGMAT42		
Steel Structures	BMEEOHSAT42	3	3					M	4				X					EOTMAT42	EOEMAT43**	EOHSAT41
Reinforced Concrete Structures	BMEEOHSAT43	3	3					M	4				X					EOTMAT42	EOEMAT43**	EOHSAT41
Roads	BMEEOUVAT42	2	2					M	4				X					EOUVAT41		
Hydraulic Engineering, Water Manag.	BMEEOVVAT43	3	2	1				E	4				X					EOVVAT41	EOVVAT42	
Construction Management	BMEEPEKAT41	3	2	1				M	4				X					EOEMAT44	EOGMAT42	
Business Law	BMEGT55A001	2	2					M	4				X					-		
Foundation Engineering	BMEEOGMAT45	4	3					E	5					X				EOGMAT43		
Management and Enterprise	BMEGT20A001	4	4					M	5					X				-		
Micro- and Macroeconomics	BMEGT30A001	4	4					E	6						X			-		
Communication Skills for Civil Engineers	BMEGT60A6E0	2		2				M	6						X			-		
Urban and Regional Development	BMEEOUVAT43	3	2					M	7							X		-		
Optional subjects		4	4					M	7							X				
Branch Subjects																				
Infrastructure CAD Course	BMEEOUVAM45	1			2			M	4				X					EOUVAT41	EOVKAT42	EOFTAT42
Water Chemistry and Hydrobiology	BMEEOVKAM43	3	2		1			E	4				X					EOVKAT41		
Legal Aspects of Water and Environment	BMEEOVKAM45	2	2					M	4				X							
Hydraulics 2	BMEEOVVAM42	3	2	1				E	4				X					EOVVAT42		
Highway and Railway Structures	BMEEOUVAM41	5	4					E	5					X				EOUVAT41	EOUVAT42	
Highway and Railway Design	BMEEOUVAM43	5	3	2				E	5					X				EOUVAT41	EOUVAT42	EOAFAT43
Public Works 2	BMEEOVKAM41	5	2	2				E	5					X				EOVKAT42		
Urban Environment	BMEEOVKAM42	3	2			1		M	5					X				EOVKAT41		
Water Quality Management	BMEEOVKAM44	3	2	1				M	5					X				EOVKAM43	EOVVAM42	
Hydrology 2	BMEEOVVAM43	3	2	1				M	5					X				EOVVAT41		
Transportation Networks	BMEEOUVAM42	3	2					M	6						X			EOUVAT42		
Highway and Railway Laboratory Course	BMEEOUVAM44	1			3			M	6						X			EOUVAM41		
Water Resources Management	BMEEOVVAM43	3	2					E	6						X			EOVVAT43		
Hydraulic Engineering Field Course	BMEEOVVAM44	2					6	M	6						X			EOVVAM41	EOVVAM42	
Infrastructure Design Project	BMEEODHAM41	6				2		M	6						X			EOVVAT43	EOUVAM43	EOVKAM41
Public Administration and Land Registry	BMEEOUVAT44	3	2					M	7							X		GT55A001		
Earthworks and Drainage of Transportation Infrastruc	BMEEOGMAM41	3	3					E	7							X		EOGMAT43	EOVVAT41	
Technical Internship	BMEEODHAM42	0					20	S	7							X		EOVVAT43	EOUVAM43	EOVKAM41
Specialization in Infrastructure Engineering																				
Highway Planning and Design	BMEEOUVA-E1	3		2				E	7							X		EOUVAM43		
Water Damage Prevention and Water Use	BMEEOVVA-F1	5	4					E	6						X			EOVVAT43	EOVVAM41	EOVVAM42
Drinking Water and Wastewater Treatment	BMEEOVKA-H1	4	3					E	6						X			EOVKAM41		
Railway Planning and Design	BMEEOUVA-E2	3		2				E	7							X		EOUVAM43		
River Basin Management	BMEEOVVA-F2	3	2					E	7							X		EOVVAM43	EOVKAM44	
Environmental Impact Assessment	BMEEOVKA-H3	3	3					E	7							X		EOVKAM42	EOVKAM44	EOVKAM45
Transportation Facility Design Project	BMEEOUVA-QP	6				2		M	7							X		EODHAM41	EOUVAM44	EOUVA-E2P
Hydraulic Engineering Design Project	BMEEOVVA-QP	6				2		M	7							X		EODHAM41	EOVVA-F1	EOVVA-F2P
Urban Water Infrastructure Design Project	BMEEOVKA-QP	6				2		M	7							X		EODHAM41	EOVKA-H1	EOVKA-H3P
Diploma Project	BMEEODHA-QD	24						M	8								X	*EOUVA-QP	*EOVVA-QP	*EOVKA-QP
Total number of credits		240								32	36	33	28	32	31	25	24			
Total number of classes		184								31	33	28	26	28	21	16	0			
Number of exams		23								3	4	4	4	4	3	1	0			
Recommendeded Optional Subjects																				
Bridges and Infrastructures	BMEEOHSAS43	3	2					E	5					X				EOHSAT42	EOHSAT43	
Field Course of Structural Geodesy	BMEEOAFAS42	1			2			M	7							X		EOAFAT43	EOHSAT42	EOHSAT43
Hungarian Culture Part 1	BMEGT65B363	4	4					M												

Cross semesters: GMAT42, HSAT42, HSAT43, TMAT42, VVAT42, UVAT42, DHAI41, EKAT41

Specialization subjects

Specialization in Geoinformatics Engineering

- Surveying
- Geoinformaics
- Adjustment calculations
- Large scale mapping
- Geodetic control networks and projections
- Satellite positioning
- Engineering surveying
- Photogrammetry and laser scanning
- Geodesy
- Field course of geodetic control networks
- Remote sensing
- Geoinformatics field course
- Surveying and geoinformatics project
- Topography
- Surveying for engineering planning
- Field course of structural surveys
- Geospatial databases
- Geodetic surveys
- Geospatial analysis

CIVIL ENGINEERING BSC FROM 2017 - SPECIALIZATION IN GEOINFORMATICS ENGINEERING

Subject name	Code	Credit	Lecture	Seminar	Laboratory	Consultation	Day	M/E/S	semester	semesters 1	2	3	4	5	6	7	8	Preliminary requirement(s)		
Core subjects																				
Compulsory English 1	BMEGT63A3E1	4		4				M	1	X								-		
Surveying 1	BMEEOAFAT41	3	1	2				M	1	X								-		
Chemistry of Construction Materials	BMEEOEMAT41	2	2					M	1	X								-		
Civil Engineering Representation and Drawing	BMEEOEMAT42	4	2	2				M	1	X								-		
CAD for Civil Engineers	BMEEOFTAT41	2		2				M	1	X								-		
Geology	BMEEOGMAT41	3	1	2				E	1	X								-		
Basis of Statics and Dynamics	BMEEOTMAT41	6		5				E	1	X								-		
Mathematics A1a - Calculus	BMETE90AX00	6	4	2				E	1	X								-		
Physics for Civil Engineers	BMETE11AX13	2	2					M	1	X								-		
Compulsory English 2	BMEGT63A3E2	4		4				M	2		X							-		
Surveying 2	BMEEOAFAT42	4	2	2				E	2		X							EOAFAT41	EOFTAT41	
Construction Materials 1	BMEEOEMAT43	5	2		2			E	2		X							EOEMAT41		
Civil Engineering Informatics	BMEEOFTAT42	5	2	2				M	2		X							EOFTAT41		
Soil Mechanics	BMEEOGMAT42	4	2	2				M	2		X							EOGMAT41		
Introduction to Strength of Materials	BMEEOTMAT42	6		5				M	2		X							EOTMAT41	TE90AX00"	
Hydraulics 1	BMEEOVVAT42	3	2	1				E	2		X							-		
Mathematics A2a - Vector Functions	BMETE90AX02	6	4	2				E	2		X							TE90AX00		
Surveying Field Course	BMEEOAFAT43	3					9	M	3			X						EOAFAT42"		
Building Construction Study	BMEEOEMAT44	3	1	2				M	3			X						EOEMAT42		
Geoinformatics	BMEEOFTAT43	3	2	1				M	3			X						EOAFAT42		
Basis of Design	BMEEOHSAT41	3	2					M	3			X						EOTMAT41"		
Structural Analysis 1	BMEEOTMAT43	4	4					E	3			X						EOTMAT42	TE90AX00	
Railway Tracks	BMEEOUVAT41	3	3					E	3			X						EOAFAT41		
Basics of Environmental Engineering	BMEEOVKAT41	3	2					M	3			X						-		
Public Works 1	BMEEOVKAT42	3	2	1				E	3			X						EOVVAT42		
Hydrology 1	BMEEOVVAT41	3	2	1				M	3			X						-		
Mathematics A3 for Civil Engineers	BMETE90AX07	4	2	2				E	3			X						TE90AX02		
Earthworks	BMEEOGMAT43	3	2	1				E	4				X					EOGMAT42		
Steel Structures	BMEEOHSAT42	3	3					M	4				X					EOTMAT42	EOEMAT43"	EOHSAT41
Reinforced Concrete Structures	BMEEOHSAT43	3	3					M	4				X					EOTMAT42	EOEMAT43"	EOHSAT41
Roads	BMEEOUVAT42	2	2					M	4				X					EOUVAT41		
Hydraulic Engineering, Water Manag	BMEEOVVAT43	3	2	1				E	4				X					EOVVAT41	EOVVAT42	
Construction Management	BMEEPEKAT41	3	2	1				M	4				X					EOEMAT44	EOGMAT42	
Business Law	BMEGT35A001	2	2					M	4				X					-		
Foundation Engineering	BMEEOGMAT45	4	3					E	5					X				EOGMAT43		
Management and Enterprise	BMEGT20A001	4	4					M	5					X				-		
Micro- and Macroeconomics	BMEGT30A001	4	4					E	6						X			-		
Communication Skills for Civil Engineers	BMEGT60A6EO	2		2				M	6						X			-		
Urban and Regional Development	BMEEOUVAT43	3	2					M	7							X		EOVVAT42		
Elective subject		4	4					M	7							X				
Branch Subjects																				
Land Registry and Evaluation	BMEEOAFAT44	3	3					M	4				X					EOAFAT43	EOEMAT44	
Fundamentals of Geophysics	BMEEOAFAG42	3	2					E	4				X					TE90AX02	TE11AX13	
Adjustment Calculations	BMEEOFTAG42	4	1	2				E	4				X					EOAFAT43	TE90AX02	EOFTAT42
Large Scale Mapping	BMEEOAFAG41	4	1	2				M	5					X				EOAFAT44		
Geodetic Control Networks and Projections	BMEEOAFAG43	4	3	1				M	5					X				EOEMAT42	EOAFAT43	EOFTAG42
Satellite Positioning	BMEEOAFAG45	3	2					E	5					X				EOAFAT43		
Engineering Surveying	BMEEOAFAG46	5	2	2				E	5					X				EOAFAT43	EOEMAT44	EOFTAG42
The Digital Earth	BMEEOFTAG41	3	2	1				M	5					X				EOFTAT43		
Photogrammetry and Laser Scanning	BMEEOFTAG43	4	2	2				E	5					X				EOFTAG42		
Geodesy	BMEEOAFAG44	4	3	1				E	6						X			EOAFAG42	EOAFAG43	
Field Course of Geodetic Control Networks	BMEEOAFAG47	2					6	M	6						X			EOAFAG43		
Remote Sensing	BMEEOFTAG44	4	2	2				M	6						X			EOFTAG43		
Geoinformatics Field Course	BMEEOFTAG46	2					6	M	6						X			EOFTAG41		
Surveying and Geoinformatics Project	BMEEODHAG41	6				2		M	6						X			EOAFAG46	EOAFAG41	EOFTAG43
Topography	BMEEOFTAG45	3	2	1				E	7							X		EOFTAT43		
Technical Internship	BMEEODHAG42	0					20	S	7							X		EOAFAG46	EOAFAG41	EOFTAG43
Specialization in Geoinformatics Engineering																				
Surveying for Engineering Planning	BMEEOAFA-I2	4	2	2				E	6						X			EOAFAG46		
Field Course of Structural Surveys	BMEEOAFAS42	1			2			M	7							X		EOAFAT43	EOHSAT42	EOHSAT43
Geospatial Databases	BMEEOFTA-J2	5	2	1				M	6						X			EOFTAG41		
* Geodetic Surveys	BMEEOAFA-I4	4	2	1				E	7							X		EOAFAG44	EODHAG41	
* Infrastructure CAD Course	BMEEOUVAI45	1			2			M	6						X			EOUVAT41	EOVKAT42	EOFTAT42
* Geospatial Analysis	BMEEOFTA-J1	5	2	2				M	7							X		EOFTAG41		
* Surveying Project	BMEEOAFA-RP	6				2		M	7							X		EODHAG41	EOAFA-I2	EOAFA-I4
* Geoinformatics Project	BMEEOFTA-RP	6				2		M	7							X		EODHAG41	EOFTA-J2	EOFTA-J1
Diploma Project	BMEEODHA-RD	24						M	8								X	*EOAFA-RP	*EOFTA-RP	

Why BME Faculty of Civil Engineering?

Practical training

- Assignments/homeworks on design
- Laboratory practices/courses
- Field courses – summer courses
  - Surveying
  - Hydrology
- Practical experiments
  - Several courses
- Complex projectworks
- Option to accomplish industrial practice at the home country

Why BME Faculty of Civil Engineering?

Experience-quality

- Experience
  - 150+ regular students
  - 40-60 Erasmus students each semester
- Quality
  - Harmonized education program with major EU university curricula
  - Same curriculum as that of Hungarian students
  - Qualified lecturers, professors
- State-of-the-art
  - Cutting edge technologies in education
  - Integrating the latest research achievements in education
  - Completely updated BSc curriculum from 2015
  - Completely updated MSc curriculum from 2017

Why BME Faculty of Civil Engineering?

Flexibility-support

- Flexibility
  - Running difficult courses in both fall and spring semesters
  - No course limits for international students
  - Extra administrative/consultant support ensured by the Faculty
- Options to reduce tuition fee
  - If less than 24 credits taken in a semester

Why BME Faculty of Civil Engineering?

Perspectives

- Quality diploma
  - Internationally ranked
  - Wordwide connections
  - Especially highly rated in EU
- MSc in civil engineering
- PhD in civil engineering and earth sciences

MSc in civil engineering

- Specialization in Numerical Modeling
- Specialization in Structures
- Specialization in Geotechnics and Geology
- Freedom in selecting elective courses
- Opportunity to get involved in research work
- Option to attend Pre-MSc program for 1-2 semester
  - Learning high-level BSc courses

	Code	Credit	Lecture	Seminar	Laboratory	Consultation	Day	M/E/S	Semester
Core Subjects									
Advanced Mathematics	BMETE90MX33	3	2	1				E	1
Physics Laboratory	BMETE11MX22	1			1			M	2
Methods of Engineering Analysis	BMEEOHSMK51	3	1	1				M	1
Numerical Methods	BMEEOFTMK51	4			3			M	1
Geodynamics	BMEEOGMMS51	3	2					M	2
FEM for Civil Engineers	BMEEOTMMS51	5	2	2				E	1
Soil-Structure Interaction	BMEEOGMMS52	5	3	1				M	1
Structures 1	BMEEOHSMS51	5	3	1				E	1
Decision Supporting Methods	BMEEPEKMST4	2	2					M	3
Accounting, Controlling, Taxation	BMEGT35M014	2	2					M	3
Corporate Finance	BMEGT35M411	2	2					M	3
Engineering Ethics	BMEGT41M004	2	2					M	3
Optional Subjects		5							
Specialization in Numerical Modeling									
Obligatory Subjects									
Numerical modeling project	BMEEOTMMS5P	5				2		M	2
Structural Dynamics	BMEEOTMMN-1	4	2	1				M	2
Stability of Structures	BMEEOHSMT-2	4	2	1				E	2
Nonlinear Mechanics	BMEEOTMMN-2	4	2	1				E	1
Elective Subjects		11							
Diploma Project	BMEEODHMN-D	20						M	3
Recommended Elective Subjects									
Plasticity	BMEEOTMMN61	3	1	1				M	2
Nonlinear FEM	BMEEOTMMN62	3	2					M	2
Analysis of Rods and Frames	BMEEOTMMN63	3	1	1				M	2
Discrete Element Method	BMEEOTMMN64	3	1	1				M	2
Specialization in Structures									
Obligatory Subjects									
Structures project	BMEEOHSMS5P	5				2		M	2
Structures 2	BMEEOHSMT-1	4	2	1				E	2
Stability of Structures	BMEEOHSMT-2	4	2	1				E	2
Seismic Design	BMEEOHSMT-3	4	2	1				M	2
Structural Dynamics	BMEEOTMMN-1	4	2	1				M	2
Elective Subjects		7							
Diploma Project	BMEEODHMT-D	20						M	3
Recommended Elective Subjects									
Applied Fracture Mechanics	BMEEOHSMT61	4	2	1				M	2
Prestressing Technologies	BMEEOHSMT62	3	1	1				M	2
Strengthening of Structures	BMEEOHSMT63	3	1	1				M	2
Specialization in Geotechnics and Geology									
Obligatory Subjects									
Geotechnics and engineering geology project	BMEEOGMMS5P	5				2		F	2
Engineering Geology MSc	BMEEOGMMG-1	4	2	1				V	2
Environmental Geology	BMEEOGMMG-2	4	2	1				F	1
Geotechnical Design	BMEEOGMMG-3	4	2	1				F	2
Earthworks of Infrastructures	BMEEOGMMG-4	4	2	1				F	2
Elective Subjects		7							
Diploma Project	BMEEODHMG-D	20						F	3
Recommended Elective Subjects									
Tunneling	BMEEOGMMG61	3	2					F	2
Hydrogeology	BMEEOGMMG62	3	2					F	2
Numerical Methods of Geotechnics	BMEEOGMMG63	3	1		1			F	1
Engineering Geology of Hungary	BMEEOGMMG64	3	2					F	2