

BSc Program in English

Form of education: Full time

Level of academic degree: Bachelor of Science-Engineering; BSc

Obtained qualification: Civil Engineer

Study time: 8 semesters

Required credits: 240

Aim of the program:

The aim of the program is to train professionals for work in the broad field of Civil Engineering. Occupations may include engineering design, construction management, working at a government regulatory agency, specialized field and laboratory testing and analysis, operation and maintenance of civil engineering works, site planning and development as well as contract oversight. Civil engineering professionals work with architects, engineers from other disciplines, contractors, government officials, businesspeople, and finance/insurance specialists

The bachelor's program also prepares students to pursue studies for a master's degree.

Language:

The bachelor's program is taught in English. This will enable students find job opportunities with companies throughout the world. They will also be able to continue their studies abroad or fulfill positions within multinational firms.

Project based learning:

Many courses in the program use real world projects to demonstrate concepts and calculations. In two courses students work in teams to design a comprehensive civil engineering project. Additionally, students will work on their own design projects as part of their diploma work.

Possible outcomes:

With a bachelor's degree, civil engineers are able to:

- become a licensed design engineer after obtaining sufficient professional experience.
- solve independently simpler development tasks;
- engage in more complex design work under the supervision of an experienced engineer.

With a bachelor's degree taking into account specialization, civil engineers are able to:

- conduct technical management activities;
- conduct technical inspection activities;
- perform construction, maintenance and operation, business and specialty tasks;
- carry out infrastructure engineering management tasks for local governments.

Course content: The percentage of each training area:

Area/Field of Training:	credits:	%
Knowledge of Natural Sciences	51	21
Knowledge of Economics and Human	17	7

Sciences		
Required Technical Core Courses	117	49
Optional Technical Courses	40	17
Planning of Thesis	15	6
Total credit points	240	100

Professional Practice/Internship:

To be completed outside the university, duration at least 6 weeks. The professional practice is a requirement.

The curriculum courses:

The program consists of a basic set of courses in Natural and Social Sciences followed by a required core of Civil Engineering Technical courses. Following those courses, the student will select Optional Technical Courses to complete their program. Near the last semester, students will select a thesis topic. The thesis is submitted in the final semester and a final exam is taken.

Requirement of the BS diploma work:

The BS diploma is the solution of a civil engineering task in a specific field, or the elaboration of a research topic that can be performed by the student through study of additional literature and with the help of a supervisor. By completing the diploma work, candidates show they have gained the necessary skills in the practical application of their coursework, can perform analytical and planning tasks of a civil engineer, have gained knowledge beyond the teaching material, and can evaluate the economic impact of the project studied.

Conditions for taking the final exam:

Meeting the requirements of the curriculum, including:

- obtaining at least 240 credit points out of which the diploma work is 15 credit points,
- fulfilling the conditions of the practical training as part of the curriculum,
- submitting the diploma work, evaluated, and approved by a reviewer and the department.

Conditions of issuing the degree:

To obtain a bachelor's degree, the student must pass a comprehensive state language exam at intermediate level (B2) or an equivalent secondary school completion certificate in any of the following foreign languages: English, French, German, Italian, Russian, Spanish.

Parts of the final exam:

- presentation and defense of diploma work.
- oral exam from subject areas related to the diploma work.

Final exam grade

The final exam grade is the numerical average of the grades given for the two parts of the exam, rounded to an integer number. If in any part of the exam the students gets a failing grade, the final grade will fail as well.

Diploma grade

Diploma grade is the average of three grades: the total student course work grade, diploma work grade, and oral exam grade.

Compulsory courses

Semester	Code of the course	Name of the course	credit	lectures /week	practical /week	lab /week	assessment form
1	EKNB_EETA018	Descriptive Geometry	3	0	2	0	mid-semester assessment
1	EKNB_KETA029	CAD applications 1	4	0	0	3	mid-semester assessment
1	EKNB_SETA010	Mechanics of Structures 1	6	2	3	0	exam
1	EKNB_SETA031	Introduction to Civil Engineering	3	2	0	0	mid-semester assessment
1	GKNB_FKTA006	Fundamental Physics for Civil Engineers	4	2	0	0	exam
1	GKNB_MSTA001	Mathematics 1	5	4	2	0	exam
1	GKNB_MSTA006	Methods of Engineering Calculation I	2	0	2	0	exam
1	KGNB_MMTA048	Business Economics	5	3	0	0	exam
2	DKNB_JETA001	Rudiments of Law	3	2	0	0	exam
2	EKNB_EETA019	Construction Materials 1.	4	2	0	1	exam
2	EKNB_KETA030	CAD applications 2	4	0	0	3	mid-semester assessment
2	EKNB_KETA031	Urban engineering	4	2	1	0	mid-semester assessment
2	EKNB_KETA052	Geodesy	5	1	2	1	exam
2	EKNB_SETA011	Mechanics of Structures 2	6	2	3	0	exam
2	GKNB_MSTA008	Mathematics II	5	2	2	0	exam
3	EKNB_EETA020	Construction Materials 2.	4	2	0	1	exam
3	EKNB_EETA021	Structural Engineering 1.	4	2	1	0	exam
3	EKNB_KETA025	Transport infrastructure 1	5	2	2	0	exam
3	EKNB_KETA032	GIS	4	2	1	0	exam
3	EKNB_SETA012	Engineering Structures 1	5	2	2	0	exam
3	EKNB_SETA030	Analysis and Design of Structures	5	2	1	0	exam
3	GKNB_MSTA011	Mathematics III	5	2	2	0	exam
4	AJNB_KMTM002	Environmental Protection	2	2	0	0	exam
4	EKNB_EETA023	Structural Engineering 2.	3	0	2	0	mid-semester assessment
4	EKNB_KETA024	Hydrology	4	1	2	0	exam
4	EKNB_KETA026	Transport infrastructure 2	4	2	1	0	exam
4	EKNB_SETA006	Geotechnics 1	5	2	1	1	exam
4	EKNB_SETA009	Bridge Structures 1	4	2	1	0	exam
4	EKNB_SETA013	Engineering Structures 2	6	2	2	0	exam
4	EKNB_SETA032	Engineering Technologies	4	2	1	0	mid-semester assessment
5	EKNB_KETA002	Transport construction project 1	6	0	3	0	mid-semester assessment
5	EKNB_KETA021	Construction management 1	4	2	1	0	exam
5	EKNB_KETA023	Hydraulics	4	1	2	0	exam
5	EKNB_KETA027	Transport infrastructure 3	4	2	1	0	exam
5	EKNB_SETA007	Geotechnics 2	4	2	1	0	exam
5	EKNB_SETA014	Engineering Structures 3	5	2	2	0	mid-semester assessment
5	EKNB_SETA034	Structural Engineering	6	2	1	0	mid-semester

		Project 1					assessment
6	EKNB_KETA022	Construction management 2	4	2	1	0	mid-semester assessment
6	EKNB_KETA028	Public Works	4	2	1	0	exam
6	EKNB_SETA008	Geotechnics 3	4	2	1	0	mid-semester assessment
6	EKNB_KETA008	Railway tracks	4	3	0	0	mid-semester assessment
6	EKNB_KETM010	Road pavements and materials	4	2	0	1	exam
6	EKNB_KETA012	Traffic engineering	4	2	1	0	exam
6	EKNB_SETA043	Timber Structures	4	2	1	0	exam
7	EKNB_SETA033	Engineering Maintenance	4	2	1	0	mid-semester assessment
7	EKNB_KETA046	Urban transport planning	4	2	1	0	exam
7	EKNB_SETA029	BIM in Structural Engineering	4	3	0	0	exam
7	EKNB_SETA044	Steel Structures	4	2	1	0	exam
7	EKNB_SETA045	Reinforced Concrete Structures	4	2	1	0	exam
7	EKNB_KETA013	Hydraulic structures	4	2	1	0	exam
7	EKNB SETA042	Geotechnics in Practice	2	1	f	4	mid-semester assessment
8	EKNB_KETA098	Thesis Consultation (Bachelor Programme)	15	0	0	0	mid-semester assessment
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Free optional courses (9 credit points)

Semester	Code of the course	Name of the course	credit	lectures /week	practical /week	lab /week	assessment form
	AJNB_KMTA024	Engineering Communication Skills	4	1	2	0	mid-semester assessment
	EKNB_EETA031	Fire Protection of Buildings	2	1	1	0	mid-semester assessment
	EKNB_KETA004	Strategic planning	2	1	1	0	mid-semester assessment
	EKNB_EETA030	Building Energetics	2	1	1	0	mid-semester assessment
	EKNB_SETA055	Civil Engineers in Society	2	2	0	0	mid-semester assessment
	EKNB_KETA050	International planning workshop	2	0	0	0	mid-semester assessment
	EKNB_SETA047	Engineering Capability Development	4	0	4	0	mid-semester assessment
	EKNB_SETM071	BIM - Building Information Modelling	2	2	0	0	mid-semester assessment
	EKNB_SETM070	Modern methodologies in architecture	2	2	0	0	exam
	MKNB_DSTA001	Design culture	2	2	0	0	exam

Hungarian Language (compulsory)

Semester	Code of the course	Name of the course	credit	lectures /week	practical /week	lab /week	assessment form
	KGNB_NOKA036	Hungarian Language & Culture 1	0	3	0	0	signature
	KGNB_NOKA037	Hungarian Language & Culture 2	0	3	0	0	signature

Physical education

Semester	Code of the course	Name of the course	credit	lectures /week	practical /week	lab /week	assessment form
	TKNB_TSKA001	Physical education / Swimming	0	2	0	0	signature
	TKNB_TSKA002	Physical education / Strength	0	2	0	0	signature
	TKNB_TSKA003	Physical education / Stamina	0	2	0	0	signature
	TKNB_TSKA004	Physical education / Sports knowledge	0	2	0	0	signature