

## INFORMATION SHEET

### ABOUT

#### THE BACHELOR THESIS AND FINAL EXAMINATIONS FOR THE FULL-TIME AND CORRESPONDENT CIVIL ENGINEERING BSC PROGRAMMES (AS OF 5 SEPTEMBER 2022)

#### GENERAL INFORMATION

Curriculum:	Civil Engineering BSc
Course:	<b>Bachelor Thesis</b>
Course code:	MSB486ANEP
Semester:	8
Course credits:	15
Contact hours (weekly):	0/0/2
Evaluation:	Signature
Prerequisite:	Complex Design 1. (MSB388ANEP)
Course leader:	Dr. Pál-Schreiner Judit
Course lecturer:	The lecturers of the Departments of Civil Engineering and Engineering Studies

#### COURSE DESCRIPTION:

As a summary of their previous studies, the students shall prepare a plan of a civil engineering structure or facility in such a way that their knowledge gained in load-bearing structures, foundations/earthworks, infrastructure, construction management, construction implementation and construction technology be combined.

The course is conducted by internal and external supervisors.

By the end of the semester, all students shall be able to plan a small-scale civil engineering structure or facility in a complex manner, prepare the implementation and understand its technological and structural systems.

The student shall also be able to present their structure at a high level and a complex understanding of the related disciplines on the defence.

#### AIM OF THE COURSE

The aim of the course is that the student shall prove their preparedness and knowledge.

The bachelor thesis is a planning task matching the qualification. Based on the student's previous studies it can be carried out with the help of the supervisors within one semester.

The bachelor thesis is a proof that the student

- has gained sufficient skills to apply the acquired knowledge in practice and in planning and development work under professional management.
- is able to conduct a literature review related to the topic and summarize the background, the work performed and results professionally.

## TEACHING METHODS

The course is based on continuous communication between the lecturers and the students.

Methods:

1. continuous consultations according to the announced schedule
2. independent work according to the announced schedule
3. independent research, data collection, analysis
4. independent consultations with external consultants/experts

## METHODOLOGY AND PREFERENTIAL CRITERIA

In the thesis semester, the student shall develop their plan, supported by continuous professional consultations and do an independent piece of work. Professional consultations are provided in load-bearing structures, foundations/earth works, infrastructure design, construction management, construction implementation and construction technology by Faculty members. The work must be carried out independently, however, the supervisors always help to interpret the data. The thesis consists of a main topic and two subtopics. One of the three topics shall cover structural design.

Examples of choosing a main and two subtopics:

- Steel hall Design + Foundations + Construction Technology
- Static Design of a Reinforced Concrete or Masonry Detached House + Designing parking space/drive + Cost Estimation
- Road or Railway Design + Design of a Footbridge + Construction
- Design of Public Utility + Design of a cross pipe bridge + Scheduling

## THE CONTENTS AND FORMAL REQUIREMENTS OF THE BACHELOR THESIS

### THE CONTENTS OF THE BACHELOR THESIS

**Written part:** the bachelor thesis shall contain about 70-100 pages of printed text. The main topic shall make up 80%, while the two subtopics shall make up 10%-10% of the bachelor thesis.

**Drawings:** Using some drawing software to make the drawings is strongly advised. If the drawings are made by hand, each of them has to be scanned, so that they can be included in the bachelor thesis submitted online. A sample for captioning the drawings can be found in the "Appendices".

### FORMAL REQUIREMENTS OF THE BACHELOR THESIS

#### Written part:

The structure (sample attached):

- Title page (at the top right hand corner of it (cover) the number of the thesis, right under it the date of completion, in the middle of the upper one-third "BSC THESIS" and at the bottom right-hand corner the student's name shall be indicated. The number of the thesis is the same as the student's registration number (see Neptun)).
- Worksheet/Thesis work plan (given by the supervisor of the main topic, to be attached as the second page)
- Table of contents (listing all the chapters and subchapters of the bachelor thesis and providing the page number where each chapter starts. Following the table of contents, the students shall provide a list of the numbered appendices with the page numbers where the appendices can be found)
- Acknowledgements/motto (optional)
- Introduction (providing a general introduction why the topic of the bachelor thesis is relevant and a brief outline of it in 1-2 pages)
- Study (providing a theoretical approach strongly related to the topic of the bachelor thesis, presenting examples, literature review if the topic is adequate for that)

- Elaborating on the main topic (description, analysis, figures/diagrams): approximate calculations/design (at least two draft plans shall be made using approximate calculations), detailed calculations (by giving appropriate justification, the student shall choose one out of the two approximate calculations, based on which additional detailed calculations can be made), technical specifications)
- Elaborating on the first subtopic
- Elaborating on the second subtopic
- Findings and results
- Summary (conclusions, suggestions, and recommendations)
- Bibliography
- Electronic bibliography
- Standards
- Appendices (an addendum to the Bachelor Thesis): including tables, work supporting the calculations, for example illustrations supplementing the main topic, and A4 design drawings.
- Annexes (maps, drawings)

**Direct and substantive citations and copied drawings, tables and diagrams shall be introduced with reference to the exact source. It must be clearly identified whether the citation is direct or substantive, eg. in case of literal citation, it shall be in quotation marks. The source shall be indicated in the given context or in the footnote. The lack of source is interpreted as plagiarism and the consequence may be exclusion or denying the signature.**

#### **Recommended margins and font sizes:**

- The margin shall be 2,5 cm, but an additional 1-1,5 cm on the left side may be needed for the binding. As the technical procedures may be different, it is advised to ask for preliminary information.
- Font type: Times New Roman, Arial
- Line spacing: continuous, 1,5 line spacing or "exactly 18 pt" for coherent texts and single spacing for texts containing calculations and figures.
- Font size: 12 pt.

#### **Drawings:**

The drawings shall be made using some computer software. A recommended sample for captioning the drawings can be found in the 'Appendices'. The drawings shall be folded to standard size.

#### **Options for choosing the topic (deadline: 3 October 2022)**

- the student shall choose a topic and designates the external supervisor;
- or the student shall ask the Department Staff for a topic and preferably an external supervisor.
- It is recommended that an external supervisor be chosen.
- The title of the Bachelor thesis shall be submitted to the Secretary of the Final Examination Board ([dormany.andras@mik.pte.hu](mailto:dormany.andras@mik.pte.hu)) no later than 3 October 2022.

#### **Appendices:**

- **Task sheet** (the second page of the Bachelor Thesis): The task sheet is filled in by the internal supervisor. The student shall write a bachelor thesis accordingly/as specified in it. If they fail to do so, the internal supervisor has the right to reject the thesis and the signature for the course.
- **Supervisor Contact Form:** (part of the Bachelor Thesis): the student shall keep the Supervisor Contact Form, each time the student consults with the internal or external supervisor, a brief note shall be written about it. Each log shall bear the date and the handwritten signature of the supervisor. After each consultation the student shall send the signed contact Form to the secretary of the Final Examination Board digitally no later than the given deadline. If the Secretary of the Final Examination Boards fails to receive the Supervisor Contact Form from the student by the deadline designated, he shall warn the student in writing. The student shall have two days to make it up. If the Supervisor Contact Form is not sent after 2 days, the signature will be denied, and the course leader will register it in Neptun.

- **Brief Summary:** (part of the Bachelor Thesis): the student shall make a brief summary of the Bachelor Thesis topic (approx. 1 page). It shall also contain the final title of the thesis topic, the student registration number, the author and the supervisors' names.
- **Student Declaration:** (third page of the Bachelor Thesis): by signing it, the student shall verify that the bachelor thesis is their own work and the sources used in the thesis (texts, illustrations, appendices) are properly cited.

## CONSULTATIONS

The student's work is directed by the supervisors:

1. **Supervisor (main topic):** The student shall obtain signatures by the supervisor documented on the Supervisor Contact Form during the semester. The internal supervisor of the main topic shall be a Faculty member of the Department of Civil Engineering. Exceptions are allowed only by the permission of the programme coordinator. The signatures can be obtained in the consultations. The supervisor shall verify at least consultations by signing the Supervisor Contact Form in accordance with the following schedule.

	<b>Readiness level</b>	<b>Due</b>
1 <sup>st</sup> signature	Topic acceptance	<b>3 October 2022</b>
2 <sup>nd</sup> signature	Headings, contents, calculation steps	<b>24 October 2022</b>
3 <sup>rd</sup> signature	A minimum of 50% readiness	<b>14 November 2022</b>
4 <sup>th</sup> signature	Presenting the finished manuscript	<b>12 December 2022</b>
5 <sup>th</sup> signature	Submission	<b>3 January 2023</b>

2. **Expert supervisors (subtopics):** The student shall work together with the representatives of the related professions when designing. The expert supervisors of the subtopic shall be a Faculty member of the Departments of Engineering Studies and Civil Engineering. Exceptions are allowed only by the permission of the programme coordinator. At least 3 consultations are required. The results of the consultations shall be approved by signatures as below and documented in the bachelor thesis.

	<b>Readiness level</b>	<b>Due</b>
1 <sup>st</sup> signature	Subtopic acceptance	<b>24 October 2022</b>
2 <sup>nd</sup> signature	A minimum of 50% readiness	<b>14 November 2022</b>
3 <sup>rd</sup> signature	Submission	<b>12 December 2022</b>

## BACHELOR THESIS SUBMISSION

**Thesis submission deadline: 3 January 2023 (Tuesday) 10:00 CET**

The completed thesis must be submitted to the main topic supervisor by 10:00 a.m. on 3 January 2023 at the latest, both in hard copy (text and appendices in spiral binding, plans printed and in a folder) and electronically (sent to the official email address). After the submission, the Professional Jury of the Department of Civil Engineering will evaluate the thesis and decide whether the thesis can be submitted and uploaded to Neptun or not. In the latter case, the student must continue working on the thesis and may only submit it in the following semester.

**Thesis upload deadline: 6 January 2023 (Friday) 24:00 CET**

- The thesis must be uploaded to the NEPTUN study system in electronic format by the above deadline. The platform of uploading in the NEPTUN system is Study system/Studies/Thesis/Thesis application/Thesis upload.
- All the attachments must be uploaded together with the thesis in a single, merged pdf. file in the following order: written material; drawings; the Student Declaration signed by the student; the Supervisor Contact Forms signed by the student's supervisors; a short abstract of the thesis signed by the student (max. 1 typed page, including the exact title of the thesis, the Student ID, the names of the author and the supervisor(s)).

**These requirements are obligatory, any deviation can be made with the internal supervisor's permission exclusively!**

### **REVIEW OF THE BACHELOR THESIS**

The bachelor thesis shall be reviewed. The reviewer shall be an external expert with an MSc degree, a university professor or researcher. The reviewer will be appointed by the Department of Civil Engineering.

The bachelor thesis review report and the supervisor's evaluation must be made available for the students at least five days before the thesis is defended, so that they can respond to the observations and questions included therein. /The student shall be informed about the evaluation at least five days before the defence.

The reviewer makes a suggestion for the grade of the thesis. The result of the review is only a recommendation to the Final Exam Board, it is not qualified as a grade and will become valid after the defence.

### **EVALUATION OF THE COURSE "BACHELOR THESIS"**

The completion of the semester requirements is verified by the lecturer's signature. Course credits (signature) shall be obtained on the basis of the student's performance. In order to obtain a signature, the student shall have a minimum of 4 consultations regarding the main topic and 2-2 consultations regarding the subtopics, perform the tasks agreed with their supervisor to an acceptable extent and have the supervision sheet signed by their supervisor. The supervisor of the main topic shall declare in writing whether the student shall be granted a signature or not. The course leader will register the signature in Neptun after receiving the written declaration.

### **FINAL EXAMINATIONS**

***The student shall be granted entry to the final examinations after:***

- they have obtained the pre-degree certificate and
- they have prepared and submitted the bachelor thesis by the due date.

***The student shall be awarded a degree certificate if:***

- they have passed their final examinations

**Scheduled period of the final examinations: 20 January 2022 – 27 January 2022**

***Registration for the final examinations:***

- Registering for the final examination via Neptun
- Deadline: **11 December 2022 (Sunday) 24:00 CET**

***Parts of the final examinations***

- defending the Bachelor Thesis in front of the Final Examination Board. The student shall bring a hard copy of the Bachelor Thesis, the Appendices and Annexes to the defense. At the end of the defense, the Bachelor Thesis shall be returned to the student.
- oral final examinations in front of the Final Examination Board **only after the successful defense.** If the student fails to defend their Bachelor Thesis, they are not permitted to take an oral final exam. The oral final examinations consist of three topics that are divided into three topic groups: A1 Theoretical Mechanics, A2 Designing Engineering structures, A3 Implementation, implementation technology. The topics are made available for the students at the beginning of the semester. The student draws the one topic from each topic group (3 altogether) at the beginning of the final examinations.
- The results of the final examinations (RFE) are calculated as follows:  
TA: the credit-weighted average of the grades of all the courses successfully completed by the student during their studies and evaluated by credits and a grade in a five-grade scale  
D: is the grade given for the bachelor thesis  
A1, A2, A3: grades given for the subjects of the final examinations.

- The final examinations are deemed as successful if the examinee has completed each part with a minimum pass grade.
- A successful final examination cannot be retaken.

**Classification of the degree certificate:**

The classification of the degree certificate must be calculated by using the degree certificate result, rounded up to two decimals, as follows:

- a) excellent, if the grade is at least 4.50,
- b) good, if the grade is at least 3.50, but less than 4.50
- c) satisfactory, if the grade is at least 2.50, but less than 3.50,
- d) pass, if the grade is at least 2.00, but less than 2.50.

appendices: recommended sample for captioning the drawings:

University of Pécs Faculty of Engineering and Information Technology Institute of Smart Technology and Engineering Department of Civil Engineering			Date:
Title of the bachelor thesis:			Size:
Title of the drawing:			Number of the drawing:
Made by:	Internal supervisor:	External supervisor:	