



SZÉCHENYI ISTVÁN UNIVERSITY  
AUDI HUNGARIA  
FACULTY OF AUTOMOTIVE ENGINEERING

# **Thesis preparation guide**

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# 1. Introduction

Dear Students!

This document serves as a guide for students who will begin their summer internship and the preparation of their thesis. This document contains the most important information that can help students to accomplish a successful internship in time, to prepare a thesis, to successfully evaluate it, and to obtain an even more successful state exam grade.

This document also includes additional help or documents in the form of text or a link that may provide more useful information.

Proper and timely conduct of the process is key to a successful final exam, so we ask all students to read this document with particular care and review the current deadlines independently each semester. This will speed up the process.

This document has been adjusted primarily to the requirement system of the courses of the Audi Hungaria Faculty of Automotive Engineering, Department of Internal Combustion Engines and Propulsion Technology. There are, of course, included information which is useful for students who belong to other departments, however, significant differences in each department and faculty may occur.

We ask all students to study this document thoroughly.

## 2. Authorization and acceptance of professional practices

Professional practice (or internship) are an integral and important part of university studies. In case of bachelor's degree all students must complete 6 weeks of compulsory internship in and 4 weeks in the case of a master's degree.

The benefits of the internship only become apparent after the completion of a certain amount of professional subject. Therefore, the Audi Hungaria Faculty of Automotive Engineering stipulates that the condition for starting the internship is a minimum of 40% of the total credit in the case of BSc and undivided training, and in the case of MSc training, the internship can be started at any time during the training.

Without completing the internship, students cannot obtain an absolute status, so they cannot apply for a final exam. An internship cannot be completed or accepted if less than 6 or 4 weeks have passed between the application and the submission of the document.

All the documents required for the internship can be found in the appendices of the following university regulations (Széchenyi István University, Audi Hungaria Faculty of Automotive Engineering, Internship Procedure, accepted by the Faculty Council on 16 October 2017):

([https://bmt.sze.hu/images/Diplomamunka/Szakmai%20gyakorlat/Procedures%20of%20internship\\_EN.pdf](https://bmt.sze.hu/images/Diplomamunka/Szakmai%20gyakorlat/Procedures%20of%20internship_EN.pdf))

The following website provides a guide to help you applying and writing a documentation:

(<https://karrier.sze.hu/hirek/kotelezo-szakmai-gyakorlat-informaciok>)

The internship must also be completed in the case of a correspondence course!

### 2.1. How to apply

The Audi Hungaria Faculty of Automotive Engineering organizes the internships with the cooperation of the University Service Centre.

Applying for an internship must be on the website of the <https://karrier.sze.hu/kszgy>.

Internship can only be accomplished in a company, firm, organization, etc. with which Széchenyi István University has concluded a Cooperation Agreement. The student must also certify the "Memorandum of Understanding and Job Description for the Internship" document with the chosen hosting company (signature, stamp).

The data required for these documents ("Cooperation Agreement, Memorandum of Understanding and Job Description for the Internship") of <https://karrier.sze.hu/kszgy> site to be completed operating system. The student must print out the documents generated by the system in two copies, then sign and stamp them at the chosen place of practice and hand them over at the University Service Centre.

On behalf of the Audi Hungaria Faculty of Automotive Engineering, the Cooperation Agreement is signed by the Dean.

After signing the documents, the internship will receive an original copy. The university stores the other copy. The application for the professional practice to the company thus becomes final.

If the student wishes to do an internship abroad, he / she must contact the instructor in charge in time, who will decide about the suitability of the internship chosen by the student based on an individual assessment. In this case, the student must also apply as described above. Certified translations of the documents (Cooperation Agreement, Memorandum of Understanding and Job Description for the Internship) in English and German are provided by the University and are available from the University Service Centre.

## **2.2. Documentation**

During the internship, the student must prepare a report in which he / she describes in detail the task assigned to him / her, presents the work done, his / her working method and results, and describes the experience gained.

The report must not contain confidential information.

At the end of the internship, both the student and the mentor will receive an email containing a link. The questionnaire on the link must be completed by both the student and the mentor, and only then will the document upload option appear.

The student records the report on the <https://karrier.sze.hu/kszgy> online site, uploads it into the system according to length limits as well as uploading the electronic version of the document certifying the accomplishment of the internship (Corporate/Institutional Certification))

**In case the student fails to record the report, the certification of the internship will be rejected.**

The administrator/contact person of the programmes/specialisations can ask for an oral report on the basis of the uploaded report, then he/she can approve or reject the report (in the latter case, it must be uploaded again).

Internships approved by the administrator/contact person of the majors/specialisations will be recorded in the NEPTUN system by the competent department secretariat.

The student will be informed about the approval of the internship on the NEPTUN system.

The formal requirements of the report are the same as the formal requirements of the thesis. The requirement can be found on the website of the Department of Internal Combustion Engines and Propulsion Technology ([https://bmt.sze.hu/en\\_GB/informations-for-bsc-students](https://bmt.sze.hu/en_GB/informations-for-bsc-students)).

Further information link collection can be found on the website [https://bmt.sze.hu/en\\_GB/information-about-internship](https://bmt.sze.hu/en_GB/information-about-internship).

Further information about the professional practice:

1. **Effi Zentai,**

University Service Centre.

- Telephone number: +36 96 613 683
- Email address: [zentai\\_effi@sze.hu](mailto:zentai_effi@sze.hu)
- Website: [www.karrier.sze.hu](http://www.karrier.sze.hu)
- Office: ÚT 106



2. **Álmos Dávid Tóth**

Department of Internal Combustion Engines  
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(only professional evaluation of practices and  
acceptance of submitted documentation)

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- Website: [www.bmt.sze.hu](http://www.bmt.sze.hu)
- Office: BMT 1. 04



### **3. Thesis / diploma thesis**

The preparation of a thesis is a time-consuming process that requires a lot of information to be gathered.

An average thesis requires an extensive literature search in which the student demonstrates that he / she knows the discipline that is the subject of the thesis and has acquired the knowledge needed to solve the task. A good literature search contains data and facts taken from Hungarian and foreign language literature and presents the results of older and newer developments and research in the given field. In literature research, in order to avoid plagiarism, it is important that each source is inserted into the thesis with sufficient thoroughness and accuracy, proving exactly which information was processed from which literature. It is also possible to refer literally, using quotation marks.

The largest part of the thesis is the self-written part, where the student presents the engineering work he / she has performed, together with its antecedents, results, and practical applicability. The thesis always includes a critical evaluation, where the student analyses how usable, applicable and realistic the results of the development or research he / she has performed, and whether there is a need or opportunity for optimization or further development.

The formal requirements of the thesis may differ from faculty and department to department.

### Timeline of the preparation of thesis in case of BSc:

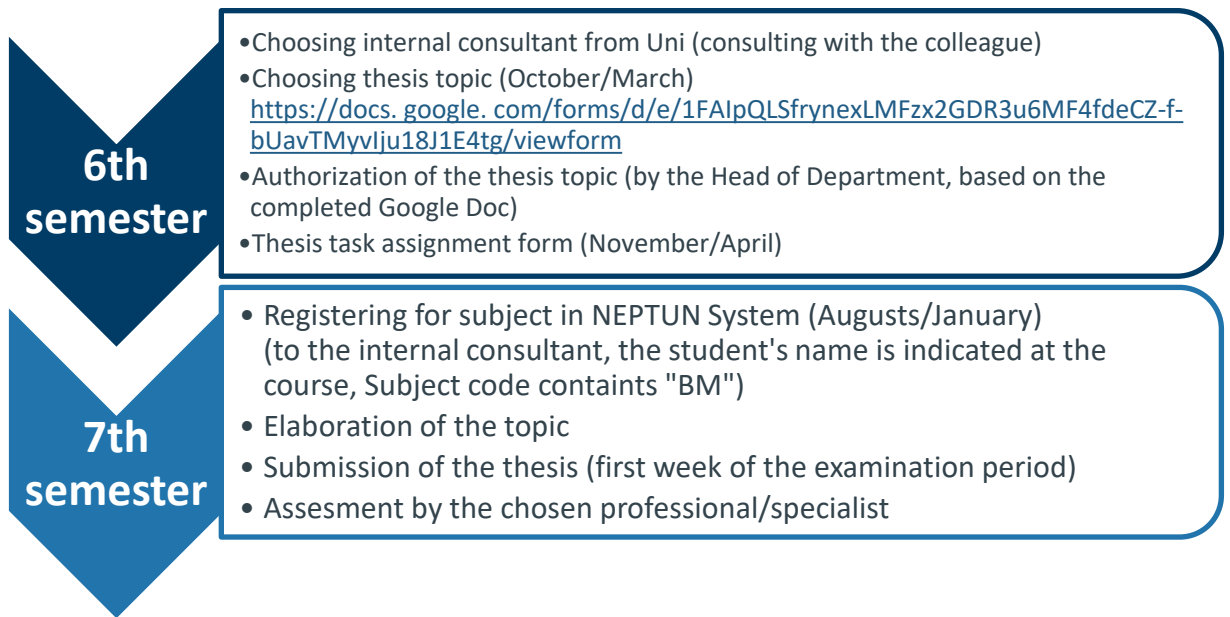


Figure 1st Timeline of the preparation of thesis in case of BSc

### Timeline of the preparation of thesis in case of MSc:

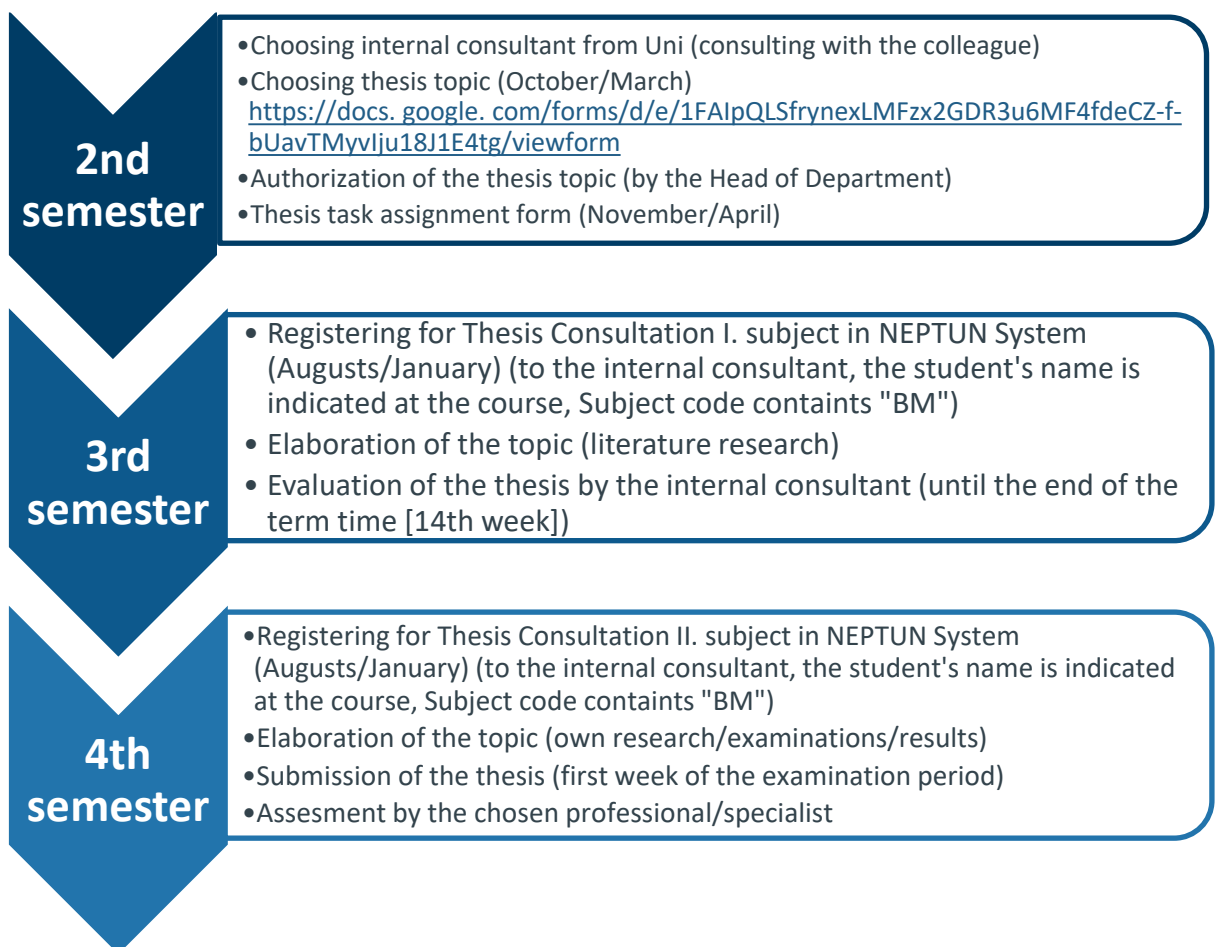


Figure 2nd Timeline of the preparation of thesis in case of MSc



Key deadlines:

Table 1st Summary of key deadlines

<u>Document</u>	<u>Deadline</u>	<u>Recommended semester BSc</u>	<u>Recommended semester MSc</u>
Choosing thesis topic	October / March	6	2
Thesis task assignment form	November / April	6	2
Consultation form	Friday of the first week of the exam period	7	4
Confidentiality handling			
Confidential treatment			
Submission of thesis			
Digital upload of thesis	Thursday of the first week of the exam period	7	4
Submit a review	Two weeks before the start of the final exam period	7	4

### 3.1. Choosing the topic and consultant

The choice of topic is key to a good thesis, as it will be the main area of the student's work in the next 1 or 2 semesters.

The colleagues of the Department of Internal Combustion Engines and Propulsion Technology strongly recommend topics from industry or independently devised and their development, as the number of thesis topics that can be published at the department every six months is very limited. Possible topics of the department can be found on the BMT website:

([https://bmt.sze.hu/en\\_GB/suggestions-for-thesis-topic](https://bmt.sze.hu/en_GB/suggestions-for-thesis-topic))

If the topic is chosen, the following task will be selecting the consultant. For each thesis it is necessary to choose a university supervisor, an internal consultant. An external consultant is also recommended for industrial or external topics. The requirement for an external consultant is that he or she must have at least the degree that the student wishes to obtain. Thus, in the case of a BSc thesis, the external consultant must have at least one BSc or college degree of technical education and

in the case of an MSc thesis with he / she must have a technical MSc or university degree. Of course, the minimum requirements can be exceeded in this regard. Contacting internal consultant of the university must be either in person or via email. At the request of an internal consultant, it is advisable to come up with a summary of the topic, as the university lecturer can decide whether he / she can undertake the topic if he / she knows what topic will be processed and at what level the topic is planned to be elaborated.

During a thesis, it is the responsibility of the external consultant to check the professional content of the thesis and to conduct professional consultations during the thesis. It is the responsibility of the internal consultant that the student complies with the university (content, form, stylistics) requirements for the thesis. In the case of a university, internal topic, it is acceptable if a topic does not have an external consultant, in which case the internal consultant is responsible for compliance with both content and formal requirements.

In the case of a thesis / diploma thesis, **it is advisable to start in time** with the choice of topic and supervisor. Based on university regulation of the "Task assignment form" **it has to be submitted to the department secretariat at the course registration week the latest**, however, **it is practical to start to deal with the thesis topic six months earlier because choosing a consultant and defining the exact topic is time-consuming process**. If the **Task assignment form is not in an acceptable condition by the course registration week, the course will not be admitted and delay in semesters is guaranteed**. Students can be informed about the exact deadlines before each semester on the following website:

[https://bmt.sze.hu/en\\_GB/general-informations-deadlines](https://bmt.sze.hu/en_GB/general-informations-deadlines)

### **3.2. Authorization of a topic by the Head of Department**

All thesis topics must be approved by the Head of Department. The basic condition of the authorization process is that the student discuss the topic with his / her internal consultant and the internal consultant also finds the topic appropriate and can undertake it.

Authorization should begin by completing the following Google document. This document asks for all the important information related to the thesis and based on that a decision can be made. Please fill the document in the language of the training.

Once the student fills this document, there is nothing more to do with it, the department will arrange for approval.

#### [Thesis topic authorization document](#)

After successful approval, the student will be notified by email from the department secretariat and the preparation of the Task assignment form can begin. In the event of an unsuccessful assessment, it must be modified, which must be done with the help of the internal consultant.

### **3.3. Writing the Task assignment form**

After successful topic authorization, a detailed Task assignment form must be prepared, which must include a short, 10-line description of the topic (importance of researching the topic, potentials, goals related in the topic) and a list of 10 subtasks, which the student must develop in detail later in the thesis. The content of the assignment form must therefore clearly indicate the purpose of the thesis and the tasks to be performed for it. The task assignment form must be prepared and submitted with the consultation of the internal and external consultants. The signatures of the consultants certify that the task assignment form meets their requirements.

The task assignment can be found on the BMT website:

- BSc: [https://bmt.sze.hu/en\\_GB/informations-for-bsc-students](https://bmt.sze.hu/en_GB/informations-for-bsc-students),
- MSc: [https://bmt.sze.hu/en\\_GB/informations-for-msc-students](https://bmt.sze.hu/en_GB/informations-for-msc-students)

The document contains the data of the internal and external consultant. The document must be printed out and signed by the two consultants in one copy in English at the department secretariat.

### **3.4. Registration to the Thesis Consultation course in NEPTUN system**

The student must register to the Thesis Consultation course of the previously announced internal consultant in the NEPTUN system in the subject registration period.

For thesis courses, the number of places available is limited according to the number of topics allowed. Each internal consultant will receive a separate course with the same number of places as the number of signed Task Assignment Forms

received. In the comment field, we also enter the student's name / Neptun code to help choosing the right course. It is the responsibility of each student to take the appropriate course in the NEPTUN system, which will be assisted by the department administrator.

If the final, signed Task Assignment Form has not been received by the secretariat until the middle of the week before the subject registration at the latest, the eligible thesis course place will not be prepared.

Students who take an unauthorized course (without a submitted assignment form) will be disqualified from the course.

### **3.5. Confidential handling (in case of confidential thesis)**

It is typical for a company which gives the thesis topic to ask for confidential handling of the thesis because of data and results included in it. There is opportunity to do that.

The university and also the department have a document confidential handling with which confidentiality may be applied for a maximum period of 5 years. If the company providing the topic wishes to use its own document, this is also possible, in which case it must be duly filled and signed and submitted to the department secretariat. The request for confidentiality should be handled in the first part of the thesis preparation phase.

The confidential handling document of the university can also be found on the website of the BMT department.

During the preparation of the thesis, the student is responsible for the preparation and submission of the confidential handling document.

### **3.6. Preparation of the thesis**

The preparation of the thesis is the duty and responsibility of the student based on the given university content and form requirements. Of course, the joint decision of the student and the external consultant will decide what the content of the completed document will be.

The formal requirements of the thesis are included in the Thesis template on the website of the Department of Internal Combustion Engines and Propulsion Technology. Deviations from the template are not allowed. The internal consultant will only accept the thesis if the student fully complies with the rules contained in it.

Most of the rules related to thesis can be found at the end of the template, written in red letters. Students are asked to examine them carefully.

**Here are some helpful guidelines:**

1. Content: Minimum 45, maximum 60 pages on BSc, minimum 80 pages on MSc, from introduction to the end of the bibliography.
2. A minimum of 10 links must be used, of which the proportion of web links must not exceed one third of all links (33%)
3. The processing of domestic and foreign literature is obligatory in the thesis.
4. The length of a literature review can be 30-50% of the total document on a BSc thesis and 20-40% on an MSc thesis.

The use of the Bibliography, List of Abbreviations and Symbols, List of Figures and List of Tables in the thesis is mandatory, as described in the Thesis template.

There is an Abstract in the thesis, which must be prepared in both Hungarian and in foreign language. The Abstract summarizes in  $\frac{3}{4}$  pages the topic's motivation, the research and development carried out, the results of the research and development, the most important findings, and the possibilities for future development. Under no circumstances may the Abstract be longer than one page.

The thesis further contains the confidential handling document, which the student has obtained and prepared as 3.5 stated.

The thesis also includes the task assignment form, which after the preparation of the thesis and after the printing and binding of the thesis, the consultants certify with their signature that the thesis is in a state that can be submitted. The head of the department confirms the acceptance of the thesis by signing it.

The internal consultant can provide additional assistance in using the Thesis template.

The requirement of the thesis is an appropriate part of the literature research, which cannot be omitted from the thesis. In the case of a two-year MSc diploma thesis course, the minimum requirement for the first semester is to review the literature and complete the literature search in accordance with the formal requirements set out in the thesis template and under the guidance of the internal consultant.

### **3.7. Confidential treatment**

The purpose of the Confidentiality treatment is that in the case of a confidential thesis, the university or department can ensure that everyone who sees, reads or listens to the presentation in the state exam will handle every information confidentially.

**The preparation of the Confidential treatment is also the responsibility of the student.** The form can be found on the BMT website, in 3.3. on the links described in this chapter. It is necessary to make place for the signature of the internal consultant, the external consultant, the reviewer and the members of the state examination committee in the document. This generally means a total of 6-8 place to be signed.

### **3.8. Consultation during the preparation of the thesis - Consultation sheet**

In the case of a thesis, continuous professional consultation with the external and/or internal consultant is essential. During the consultations, not only the technical developments and research results should be discussed, but thesis as a document should also be continuously developed. It is the responsibility of the consultants to support this continued progress.

At the Department of Internal Combustion Engines and Propulsion Technology based on previous experiences the submitted thesis will only be accepted if the student has a separate so-called Consultation Form (download from the website of the department). This document should include professional consultations with both the external and internal consultants. By signing, the consultants certify that the consultations have taken place and that the content of the thesis is progressing at the right pace. At the bottom of the Consultation Form, both the external and internal consultants must certify that the thesis is in a condition to be submitted and its assessment can begin.

During a semester, at least 5 signatures are required for the thesis to be submitted. If you do not have 5 consultations with 5 signatures, your thesis cannot be submitted to the department.

### 3.9. Uploading the thesis

The thesis - which is completed and accepted by the consultants - must be uploaded in PDF format on the basis of the relevant instructions to the University Library website ([https://lib.sze.hu/en\\_GB/degree](https://lib.sze.hu/en_GB/degree)). The following guide offers help for uploading ([https://lib.sze.hu/images/Thesis%20uploading%20guide\\_english.pdf](https://lib.sze.hu/images/Thesis%20uploading%20guide_english.pdf)).

During the upload, any appendices of the thesis must also be uploaded.

The uploaded and printed documents must be 100% identical.

The deadline for uploading can also be found on the BMT website. The deadline for digital upload is decided by the university which must be kept.

To upload, it is essential to log in to the university system.

### 3.10. Printing, binding and submission of the thesis

After uploading the thesis in digital form, one printed and bonded copy has to be handed over to the secretariat of the Department of Internal Combustion Engines and Propulsion Technology. The printed copy has to include the Task assignment form in which the external- and internal consultants certifies with their signature that the thesis is in a condition that it can be submitted. The thesis cannot be accepted without signatures. The printed and bonded copy of the thesis will be handed back to the students after the final exam.

It is not necessary to enclose a version written on a CD when submitting the thesis.

A sample for the binding of the thesis can be found on the website of the department and based on that the cover and backbone of the thesis can be easily prepared.

The deadline for submission of the hard copy is the working day following the deadline for digital upload, which is usually Friday. To avoid any misunderstanding, this date is always indicated on the BMT website.

Along with the submission of the thesis, it is necessary to submit the confidentiality handling and the consultation form.

**Please note that due to electronic submission, it is not possible to deviate from the deadlines!**

### **3.11. Assessment of thesis**

For the assessment of the thesis the department will look for a suitable reviewer. At the Department of Internal Combustion Engines and Propulsion Technology students may recommend reviewers for assessment. The conditions for the person who is reviewing the thesis: in case of a BSc thesis the reviewer must have a BSc university or college degree of technical education, in case of MSc thesis the reviewer must have a MSc university or undivided degree of technical education. If the student is unable to recommend a reviewer, please notify the internal consultant in time as the assessment can also be a time-consuming process.

### **3.12. Applying for the final exam**

The prerequisite for applying for the final exam is the submission of the thesis. It is advisable to start the application in time.

To apply for the final exam, a DPR questionnaire (<https://oregdiak.sze.hu/dpr-kerdoivek>) must be filled in for all graduating students.

To apply for the final exam, you must fill in a Final Exam application form (<https://neptun.sze.hu/downloadmanager/details/id/17429/m/6074>), which must be certified at the Career Office at AKIK.

The Final Exam application form must be submitted together with the certificate to the Academic Registry Office, to the administrative colleague, by the specified deadline. A photocopy of the intermediate type C language examination certificate must be submitted, or if the original has not yet been presented to the Department of Studies, it must also be presented.

More information about applying for the final exam can be found on the website [https://neptun.sze.hu/en\\_GB/information-on-final-examination-periods](https://neptun.sze.hu/en_GB/information-on-final-examination-periods).

To successfully apply for the final exam, the student must also complete all the required documents which the website of Academic Information for Students prescribes in the given final examination period:

[https://neptun.sze.hu/en\\_GB/home](https://neptun.sze.hu/en_GB/home)

### **3.13. Selecting of state exam subjects**

Students can get information about the options of the state exam subjects on the website of the department ([https://bmt.sze.hu/en\\_GB/information-about-final-exam](https://bmt.sze.hu/en_GB/information-about-final-exam)).



Every state examination committee has an assigned department secretary, who oversees the state exam schedule and the choice of state exam subjects. The secretary inquires the students about what subject they want to take an exam. Of course, the student can also send the information in advance to the email address of the department secretariat or to the secretary of the state exam. Selected subjects must be sent to the department no later than the 3rd week before the final exam.

At the final exam the students have to draw 1-1 items from the compulsory and selected courses and they must take an oral exam about the items of subjects. The oral exam's length is maximum 10 minutes from each subject.

### **3.14. Thesis presentation**

The other part of the final exam is the presentation of the thesis topic to the final exam committee. The duration of the presentation is 10 minutes, after which the committee can ask questions for 5-10 minutes. During the presentation, the committee evaluates the professional content of the prepared thesis, the student's presentation skills and professional knowledge of the topic processed in the thesis.

The presentation should briefly describe the need and relevance of the topic processing, the research processes and development methods used, the results and their evaluation. The presentation concludes with a brief summary and future outlook.

It is obligatory to use a departmental template for the presentation, which can be found on the website of the department, in chapter 3.3.

It is recommended to make the presentation clear and simple. During the presentation, the student should also pay attention to his / her nonverbal communication: a presentation towards a projection screen is not effective and is not recommended. Give the committee a presentation because they need to be convinced of the values of the work done. When creating a presentation, animations can be used where appropriate, but avoid too much or unreasonable animation, which only distracts attention from important details. The primary purpose of the presentation is to describe the tasks performed by the student and their results, so it is recommended that the student focus on these parts during his / her presentation.

Tools, workpieces (eg. manufactured or damaged workpieces, parts) may also be used during the presentation, if the student deems it necessary

If you have any further questions, please contact the secretariat of the Department of Internal Combustion Engines and Propulsion Technology or your university's internal consultant.

The Department of Internal Combustion Engines and Propulsion Technology wishes you good job!

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