

BUDAPEST UNIVERSITY OF TECHNOLOGY AND ECONOMICS
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Sciences
Academic Plan
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Preambulum

The following Academic Plan was established pursuant to the pertinent chapters of Act CCIV of 2011 on National Higher Education, the provisions of Government Decree No. 387/2012. (XII.19.) on doctoral schools, doctoral degree procedure and habilitation, and the guidelines of the Hungarian Accreditation Committee (henceforth HAC) on doctoral degree programs, in accordance with the pertinent chapters of the Doctoral and Habilitation Regulations of the University (DHR) and the Academic Regulations of the University (TVSZ).

Wherever this Academic Plan sets stricter requirements than the higher order state or BME legislation requests or does not regulate, exceptionally it is allowed to modify the requirement to the level of the higher order legislation. The request for the modification must be submitted in written form with a detailed justification to the respective committee: in case of the doctoral studies to the DIT, in case of the degree procedure to the HBDT. The permission is given by the respective committee with a report of the decision.

I. ELEMENTS OF THE PHD STUDIES

1. §. [Parts of the PhD studies]

(1) The PhD program consists of a ***study and research part*** before the comprehensive exam, and a ***research and dissertation part*** following the comprehensive exam.

(2) In the first part of the PhD programme (study and research part) the emphasis is on the deepen of the professional knowledges and the start of the research activity leading to the final results.

(3) In the second part of the PhD programme (research and dissertation part) the emphasis is on research, publishing the results and writing the dissertation.

(4) A criterion to start the second part is the successful passing of the comprehensive exam.

(5) During the time of the program, the Student can obtain credits by research activity, studying of subjects, directed teaching, and publication activities.

2. §. [Research activity]

(1) The ***research activity*** made according to the topic assigned to the student by the doctoral school is the most important part of the PhD study programme.

(2) Each PhD student has only one supervisor that directs her/him with full responsibility and helps her/him to study, conduct research, publish the results and write the dissertation

(3) The tutoring character of the PhD programme is emphasized by the fact that the regular consultation is honoured by credits, and by the support of the research and publication activities.

(4) The supervisor rates the student's preparedness and activity during the consultations with a grade at the end of each semester.

3. §. [Doctoral subjects]

(1) During the PhD studies, besides the ***PhD subjects*** announced for the current semester, students can also choose subjects from the MSc or PhD programme, even offered by other faculty or university, provided that the Council of the Doctoral School has previously accepted and recognised them with credit.

(2) The list of available subjects can be extended with the English presentations of invited guest lecturers or with successful participation at summer or winter schools, previously recognised with credits by the Council of the Doctoral School.

4. §. [Directed teaching]

(1) ***Directed teaching*** is also part of the PhD programme, during which the student improves her/his presentation and communication skills under the guidance of a designated lecturer, giving university classes based on a previously developed and well-documented teaching material.

(2) The subject and its credit are designated by the head of the supervisor's department after consulting with the supervisor. The accomplishment is also certified by the head, based on the supervisor's recommendation.

(3) During the evaluation of directed teaching, 1 teaching credit worth at most 40 hours spent with the teaching activities, including the contact hours, preparation for them and the activities related to evaluation activities.

(4) The Student may not be obliged for teaching activities without assigned credits.

(5) For the teaching activities above the accepted amount of credits, payment must be given following the Article 179 of BME TVSZ.

5. §. [Publication activity]

(1) Credits are obtained for the publication of research results to acknowledge the publication of the new results, their presentation in seminars and conferences (presentation or poster).

(2) The supervisor honours the publication activity with credits and thereby ensures that minimum requirements are satisfied for the registration to the comprehensive exam until the end of the fourth semester, and for the procedure to obtain the doctoral degree until the eighth semester.

(3) Publications from research results can be honoured with credits according to the details of Article 7. Half of the credits are given upon submitting a publication and the remaining credits are given upon acceptance.

(4) Publications published before the admission to the doctoral school are honoured with credits in the first semester.

6. §. [Credit limits]

(1) During the training students shall get 240 credits.

(2) The credits obtained by particular activities of Articles 2-5. could have a different distribution for different students or research topics. The planning of each semester is the task of the student under the guidance of the supervisor.

(3) The following table shows the recommended, minimum and maximum credit values for particular activities:

	Subjects	Teaching	Research	Publications
Recommended	30	24	138	48
Minimum to meet	30	10	100	36
Maximum taken into account	48	36	150	60

(4) It is recommended to plan the order of the activities by following the sample curriculum (as detailed in Chapter II).

7. §. [Credits awarded for publication work]

(1) Publications from research results can be honoured with credits according to the table below.

Type of publication	Credits
Book in English /other language	15/12
Book part, chapter in English/other language	5/4
Journal article* in English /other language	12/6
Conference paper in proceedings* in English/other language	4/2
Article in a department publication* in English /other language	2/1
Unpublished scientific presentation in English /other language	2/1

* Only peer-reviewed publications, accessible on paper or electronically. For publications in non peer-reviewed volumes half of the credits above are given. Conference papers and department publications are eligible only if at least 4 pages long.

(2) Half of the credits are given upon submitting a publication and the remaining credits are given upon acceptance.

(3) The credits in the table should be divided by the number of authors, excluding the supervisor (i.e., taking the full credits if a paper is written by the doctoral student and its supervisor).

(4) Exception from the equal distribution of the credits of journal papers can be given in the following circumstances: after the publication of the paper, the co-author statements must be submitted to the HBDT for acceptance, and upon the acceptance the statements and the HBDT decision must be submitted with the actual semester report.

8. §. [Change of the Student status]

(1) The student status is terminated, if the Student does not gets at least 15 credits (BME TVSZ Article 186.§ (2)).

(2) The PhD Student with a state scholarship must obtain 20 credits in an active semester, otherwise the DIT may recommend to reclassify the Student to a self cost-bearer status (BME DHSZ Article 13.§ (8)).

(3) Students with a self cost-bearer status may request for a state scholarship status, which is evaluated by the DIT before the dean's decision (details: BME DHSZ Article 13.§ (8))

II. SAMPLE CURRICULUM

9. §. [Scheduling the credit collection]

(1) The obtaining of the credits shall be planned following the limits of Article 6. in advance with the aid of the supervisor. It is also recommend to keep in mind the intermediate limits as well.

(2) The sample curriculum in the table below is a possible schedule of the study, teaching, research and publication activities, with the consideration of the buliding of the knowledges on each other.

Activity	Credits total	Sem. 1	Sem. 2	Sem. 4	Sem. 4	Sem. 5	Sem. 6	Sem. 7	Sem. 8
Subjects	30								
Subjects*#	30	6/9	6/9	6/9	2/3				
Teaching	24								
Teaching#	24	2/3	2/3	2/3	4/5	3/5	3/5		
Research	138								
Consultation#	44	5/5	5/5	5/5	5/5	6/6	6/6	6/6	6/6
Research [×]	94	10	10	10	10	12	12	15	15
Publications	48								
Publication and conference [×]	48	3	3	3	7	7	7	9	9
<i>In total:</i>	<i>240</i>	<i>30</i>	<i>30</i>	<i>30</i>	<i>30</i>	<i>30</i>	<i>30</i>	<i>30</i>	<i>30</i>

* Summer/winter school course credits are also counted here.

weekly contact hours/credits

[×] credits

(3) To emphasize the tutorial nature of the program, the table of Section (2) contains separately the consultation with the supervisor, but the total research credit of the semester contains the joint and individual research work together.

III. ACQUIRING THE PROFESSIONAL COMPETENCES

(Please consult the original Hungarian document. This chapter hasn't been translated yet.)

IV. THE COMPREHENSIVE EXAM

11. §. [Registration to the comprehensive exam]

(1) Prerequisites for registering to the comprehensive exam:

- a) Fulfil the publication requirements presented in detail in Article 16.
- b) During the first four semesters of the PhD programme obtain at least 90 credits and the minimum course credits specified in the academic plan of the doctoral school.
- c) In the case of individual doctoral candidates, who are not the students of the doctoral school yet, their registration to the comprehensive exam is accepted if they fulfil formally the publication requirements for obtaining the PhD degree (theses are not yet required when applying, so the content of the publications is not evaluated, just the fulfilment of the expected indicators).

(2) Student participating in the doctoral program must submit a preliminary registration form (available on the homepage of the Doctoral School) to the Dean's Office in the beginning of the semester of the comprehensive exam, where the recommended main and secondary subject must be specified.

(3) One can register to the comprehensive exam by filling the registration form available on the doctoral school's homepage and submitting the form in the Dean's Office.

12. §. [Complex exam committee]

(1) The comprehensive exam must be passed publicly, in front of a committee.

(2) The committee consists of at least three members. At least a third of the members is not employed by the institution operating the doctoral school.

(3) The committee chair is a university professor or a Professor Emeritus or a lecturer, researcher with a doctorate of the Hungarian Academy of Sciences.

(4) All members of the committee have scientific degrees.

(5) The examinee's supervisor cannot be a member of the committee.

(6) The exam committee is appointed by the Habilitation Committee and Doctoral Council (HBDT) of the respective scientific branch, in accordance with the university rules.

13. §. [Preparation of the comprehensive exam]

(1) The examinee submits to the committee in electronic form, at least a week before the exam, a short summary of her/his achieved results that can be developed into theses, and her/his published articles and those submitted for publication.

(2) The supervisor sends her/his evaluation of the student's performance to the chair of the committee.

14. §. [Schedule of the comprehensive exam]

(1) The comprehensive exam has two parts: in the first part the committee measures the theoretical knowledge of the examinee („theoretical part), in the second part the examinee presents her/his scientific progression („dissertation part”).

- (2) In the *theoretical part* of the comprehensive exam the examinee takes the exam in a main and a second subject.
- (3) The main subject covers a broader range of studies. The list of possible main subjects, their topics and the recommended literature is available on the web page of the doctoral school.
- (4) Second subjects that can be chosen for the exam are specified in the academic plan of the doctoral school available on its web page.
- (5) The student's main and second subjects are specified in advance by the DIT considering the recommendation of the student.
- (6) In the theoretical part the PhD student presents her/his familiarity in the scientific literature of the respective field of science, and her/his theoretical and methodological knowledge.
- (7) In the *dissertation part* of the comprehensive exam the examinee presents her/his knowledge of the scientific literature, research results and shows her/his research plans for the second part of the PhD studies in the form of a lecture, as well as the time plan for preparing the dissertation and publishing the results. The presentation should cover the scientific significance of her/his results and the innovative content, and – when relevant – the technological motivations of the research and the practical applicability of the results.

15. §. [Evaluation of the comprehensive exam]

- (1) Each member of the committee evaluates the subjects and the dissertation part separately.
- (2) The evaluation is done by secret voting on a scale from 1 to 5.
- (3) The exam of a subject is successful if the examinee reaches 70% of the corresponding maximum points.
- (4) The comprehensive exam is successful if the committee judged all subjects and the dissertation part individually successful.
- (5) A report including a text evaluation is written about the comprehensive exam.
- (6) The result of the exam is announced on the day of the oral exam.
- (7) The result of the comprehensive exam is not considered in the qualification of the PhD degree, but passing it is the condition for entering the second, dissertation part of the PhD studies.

16. §. [**Publication prerequisites for registering to the comprehensive exam**]

- (1) The student can register for the comprehensive exam if
 - a) she/he has at least two submitted or accepted journal paper, at least one of which is in English.

17. §. [Retake of the unsuccessful comprehensive exam]

- (1) If the dissertation part is unsuccessful, then she/he is not allowed to retake the comprehensive exam.

(2) If the examinee fails the comprehensive exam due to the failure of the theoretical part she/he can retake the unsuccessful subject(s) only once and only in the same exam period.

(3) If the failed exam can not be repeated, or the repeated exam is unsuccessful, then the Student can not continue her/his studies and the student status is terminated at the end of the semester.

V. COMPLETING THE STUDIES, THE ABSOLUTORIUM

19. §.

(1) By completing the second part of the PhD-studies the student obtains the absolutorium (=leaving certificate).

(2) Obtaining the absolutorium requires that the student obtains the 240 credits in the PhD programme, between the upper and lower limits in each category specified in Article 6.

20. §.

(1) The absolutorium can be obtained in the 8th semester or earlier in one of the following procedures.

(2) If at any time during the second part of the PhD programme the student prepares the PhD dissertation and fulfils all prerequisites to start the review process, then the student can submit the PhD dissertation to the HBDT and request from the HBDT the acceptance of the missing credits and the starting of the review process, independently of the previously earned credits. The student who fulfils all study and examination requirement and will have earned the 240 credits this way, and so, obtains the absolutorium on the day of the accepting decision of the HBDT. The student's legal status (and the eligibility for a scholarship in case of participation in a scholarship program) who obtains the absolutorium in this process remains active until the end of the semester when the dissertation was submitted (Nftv. 59.§ (1 d)).

(3) A student who does not submit the dissertation to the HBDT until the end of the 8th active semester, must submit a final report by the end of the 8th active semester to obtain the absolutorium. The final report is the basis to earn the credits for the research work, publication work and teaching activities in the last semester. The final report must be signed by the supervisor of the student and the head of the department, and it must be submitted to the Dean's Office by the end of the last semester.

VI. RESEARCH FIELDS

21. §.

(1) In the frame of the doctoral school there are three programmes, uniting the programs of the two preceding doctoral schools of the Faculty. The three programmes and their leaders are as follows:

(2) Structural Civil Engineering program, lead by Prof. László Dunai, university professor, corresponding member of the Hungarian Academy of Sciences

(3) Infrastructure Civil Engineering program, lead by Prof. János Józsa, university professor, member of the Hungarian Academy of Sciences

(4) Surveying and Geoinformatics Engineering program, lead by Prof. Lajos Völgyesi, university professor, corresponding member of the Hungarian Academy of Sciences

(5) Two of the three programs, Structural Civil Engineering and Infrastructure Civil Engineering have – as their name implies – a civil engineering character, whereas the Surveying and Geoinformatics Engineering programme has an earth sciences character. The three programs are an integral continuation of the three MSc programs of the Faculty, offering and exploiting a considerable coherence between them.

(6) It is important to highlight that, in line with international trends, the water engineering as well as the water and aquatic environmental engineering specializations are part of the infrastructure civil engineering programme. These two specialisations, especially through hydrology but also through various environmental and ecological subjects, have a strong link to earth sciences, which helps integrate the two fields of science.

(7) It is also noteworthy that, because the results of structural engineering related to structural mechanics and material behaviour modelling are beneficially used in biomechanics, the doctoral school offers research opportunities for solving structural mechanical problems in that field – with its own scientifically qualified lecturers and researchers.

22. §.

(1) The research topics offered in the programmes of the doctoral school are available on the school's web page, updated each semester.

VII. SUBJECT GROUPS

23. §.

(1) The subjects of the PhD programme are divided into three groups: basic subjects, specialisation subjects and elective subjects.

(2) The grouping of the subjects is different in the three programmes

(3) It is common for all of them that to complete the studies, students have to earn at least 12 credits from the basic subjects and at least 9 credits from the specialisation subjects.

(4) Accredited doctoral subjects of a different programme or different doctoral school (of BME or of another Hungarian university) are considered elective subjects.

(5) In case of courses completed abroad, the Council of the Doctoral School decides about the acceptance and the credits based on their syllabus.

(6) In every programme there is a compulsory course on science philosophy or research methodology, for example an appropriate subject chosen from the programme of the BME Doctoral School of Philosophy and History of Science.

24. §.

(1) Subjects may be announced every semester, every year or every two years, in Hungarian or in English. Details are specified in the Subject Datasheets

(2) The list of actual subjects and their subject datasheets can be reach on the homepage of the Doctoral School.