



UNIVERSITY OF DEBRECEN
FACULTY OF ENGINEERING



UNIVERSITY OF DEBRECEN
PEKÁR IMRE DOCTORAL SCHOOL OF MECHANICAL ENGINEERING
RULES OF OPERATION

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1 Legal background

The Rules of Operation of the Imre Pekár Imre Doctoral School of Mechanical Engineering (PIDSME-RoO) have been prepared on the basis of the Doctoral Regulations of the Doctoral Council for Natural Sciences and Engineering of the University of Debrecen (DCNSE-DR), taking into account the legal background on which they are based.

The DCNSE-DR is available at:

https://tttdt.unideb.hu/sites/default/files/upload_documents/doctoralregulation_2022-06-24.pdf

Doctoral training and the awarding of degrees are carried out within the framework of the UD-DR, the DCNSE-DR and the PIDSME-RoO.

2 Organisational framework for doctoral training and doctoral studies

Due to their positions, the voting members of the Doctoral School Council (DSC) are the Doctoral School's (DS) core members and one representative of the PhD students.

DS Secretary is a member of the DSC with advisory rights.

The Head of the DS may propose to extend the DSC with elected members with voting rights or to terminate the membership of elected members. Elected members of the DSC may be professors or professors emeriti of UD, as well as internationally recognised scientists (national or foreign) in the discipline of the DS who are actively involved in the work of the DS. The election of members or the termination of the membership of elected members requires the support of the majority of the members of the DSC.

The Head of the School is obliged to convene the DSC at least once a semester and to report on the main events and decisions taken since the last meeting.

DCNSE-DR CHAPTER III § 1 (13)

2.1 Additional tasks of the DSC:

- defines the range of foreign languages accepted by the DS;
- decides on the composition of the Doctoral Admissions Committee;
- proposes the conduct of the Candidate's defence procedure;
- defines publication requirements according to the specificities of the profession;
- selects and approves the members of the preliminary discussion committee;

Supplement to DCNSE-DR CHAPTER III § 1 (13)

- indicates the optional subjects and subsidiary subjects for the complex examination.

Supplement to DCNSE-DR CHAPTER III § 1 (14)

The additional duties of the DS Secretary not specified in the DCNSE-DR shall be determined by the Head of the Doctoral School.

Supplement to DCNSE-DR CHAPTER III § 2 (7)

Members of the DSC may cast their votes in advance in a sealed envelope if they are unable to attend. The head of DS may also order an electronic vote if necessary.

2.2 Lecturer requirements

University lecturers or researchers with academic degrees, or industrial experts deemed suitable for teaching duties by the DSC, may become lecturers at the DS. Applicants must submit their application to the head of the DS, attaching their professional CV and PhD diploma.

2.3 Supervisor requirements

At DS, university lecturers who meet the minimum requirements for associate professorship at the Faculty of Engineering of the University of Debrecen and who, in the five years prior to their application (if the doctoral degree was obtained within five years, after obtaining the degree) meets the minimum publication requirements for obtaining a degree as prescribed by the DS, with the exception of the requirement for publications in Hungarian. The DSC decides on the application.

For the Doctor of the Hungarian Academy of Sciences the requirements are not applied.

The criteria requirements are listed in the attached table:

At least 5 pieces of a least 4-page-long articles in English.
At least 250% of cumulative authorship in peer-reviewed journal articles of at least 4 pages in English or in articles of at least 4 pages in English published in a WoS/Scopus indexed conference.
At least 150% of cumulative authorship appeared in English-language journal articles with a WoS impact factor of at least 4 pages, at least one of which was published abroad.
At least 150% of cumulative authorship in English-language articles of at least 4 pages with a minimum SJR Q2 rating.
At least 1 presentation in English at an international conference.

2.4 Core member requirement

We consider the requirements set forth by law to be authoritative with regard to tribe members.

3 Admission to organised doctoral studies

Supplement to DCNSE-DR CHAPTER IV § 5 (4)

3.1 Procedure for admission

The requirements for admission to doctoral school ensure the quality of the work of the doctoral students admitted. The University's regulations require an adequate level of language proficiency, a degree in a master's programme that is a prerequisite of the Doctoral School or other related master's programmes, and a well-thought-out research programme. In case of a national degree earned in Hungary no more than two years ago, a minimum qualification of good is required.

The Doctoral School offers full-time and part-time programmes. The deadline for applications each year is 15 May for courses starting in September and 15 November for courses starting in January.

Application requirements and admission information for the current semester can be found at <https://engphd.unideb.hu/en/further-information-foreign-applicants>.

The Admissions Committee evaluates the performance of applicants at the interview and recommends, recommends conditionally, or does not recommend their admission.

Supplement to DCNSE-DR CHAPTER IV § 5 (9)

The committee will award points in the following categories:

- | | |
|-------------------------------------|------------|
| - professional intelligence upwards | 40* points |
| - diploma upwards | 30 points |
| - academic work, TDK thesis upwards | 30* points |

Professional intelligence:

The Admissions Committee assesses the Candidate's professional knowledge, the research plans to be carried out during the doctoral studies and their soundness. This may be assessed by means of an oral examination and/or on the basis of a written proposal or research plan.

The minimum number of points required (but not necessarily sufficient) for admission is 60.

*If the degree is more than two years old or if the degree is from abroad, the maximum score for professional intelligence and academic work is increased by 15-15 points. The same procedure will be followed if the Candidate's diploma is not certified.

In the case of diplomas obtained abroad, the level of the applicant's academic qualifications and degree are assessed by the Admission Committees.

Those who have the language skills necessary for studying the discipline may be admitted to the Hungarian-language doctoral program.

Language exam certificates are only accepted in languages in which prestigious engineering journals are published. The Doctoral School considers the following languages to be such: English, French, German, Russian, Italian, Spanish, Japanese, and Chinese. The Doctoral School Council decides on the acceptance of other languages as chosen languages.

The language proficiency required for the field of study can be demonstrated by:

- a state-recognized, at least intermediate level (corresponding to level B2 of the Council of Europe's Common European Framework of Reference), complex (certifying both oral and written skills, formerly type "C") or equivalent naturalized language exam, or a monolingual international language exam;
- a degree in linguistics or technical translation in the given language;
- a high school diploma or master's degree obtained in the given language;
- Certificate from the Foreign Language Centre of the Faculty of Medicine / Foreign Language Centre of the Faculty of Arts / Institute of Economic Language Communication of the Faculty of Economics at the University of Debrecen
- fulfilment of foreign language technical language requirements in one of the master's programs at DE MK.
- The language proficiency of students applying for foreign language training is assessed during the admission interview.

Supplement to DCNSE-DR CHAPTER IV § 5 (9)

Diploma:

In the case of a national diploma no more than two years old:

- | | |
|------------------------------|------------|
| - distinguished/exceptional: | 30 points, |
| - excellent/outstanding: | 25 points, |
| - good: | 20 points. |

In the case of Hungarian applicants from outside the EU, the degree classification is determined on the basis of the conversion table used for ERASMUS applications.

Based on Annex UD-DR IV No 3

Scientific work:

It is used to assess the academic "track record", points are awarded on the basis of documented products (publications, TDK thesis, etc.). The scoring is determined by the Admissions Committee taking into account the following tiers:

- | | |
|---------------|--|
| 20–30 points: | – first-author refereed journal publication ("in extenso") |
| | – OTDK award-winning presentation, I-III place |
| | – national design competition, I-III prize (or purchase of the design) |
| | – certified national or international professional competition ranking |
| | – presentation at an international scientific conference |
| 10–20 points: | – non-first-author refereed journal publication |
| | – first author, non-local and non-TDK presentation, poster |
| | – OTDK presentation (and/or paper), non-awarded |
| 0–10 points: | – non-first-author, non-TDK presentation, poster |
| | – presentation at a local, student (non-TDK) conference |

The entry requirement is an intermediate type C language examination, for which no points are awarded. Performance above this level may be rewarded with extra points. An intermediate type C or an advanced type A or B language examination is worth 3 points, while an advanced type C language examination is worth 5 points.

Supplement to Annex IV No 3 to the UD-DR

To be admitted, the Applicant must have an adequate knowledge of at least one foreign language official in the European Union. For Hungarian nationals, this must be at least one state-recognised, complex (oral and written proficiency at least at intermediate level (equivalent to level B2 of the Council of Europe's Common European Framework of Reference for Languages), previously type "C") or the equivalent of a certificate of proficiency in a certified language or a certificate of competence in translation. For applicants whose mother tongue is not Hungarian, the Doctoral School Council in the given field of science will only accept an adequate level of English as meeting the foreign language requirement.

3.1.1. Application for the organized training

Applications for the admission test are conducted according to the conditions set out in the Admission Guide.

Supplement of DCNSE-DR Chapter IV, Section 5 (9)

The documents required for application:

- application form,
- a brief CV,
- list of publications,
- master's degree or equivalent university degree (photocopy). If the degree is not awarded by UD, a certified copy is required.
- (certified copy of) document(s) proving language proficiency,
- proof of payment of the application fee,
- 2 self-addressed, standard-size envelopes.

Addendum to Chapter IV, Section 5 (9) of the DCNSE-DR

- for graduating students, a certificate of degree qualification [if the applicant is unable to present this certificate by the deadline for the admission decision (for cross-border applicants, the deadline for enrolment), his/her application will be considered invalid],

DCNSE-DR Chapter IV § 12 (2)

3.1.2. Application for individual preparation

- To be eligible for an individual programme, the Applicant must have a university degree, at least five years' experience in education or industrial research and at least 100% of total authorship in a refereed English language article accepted by a journal with at least Q2 SJR rating. Acceptance of an application is conditional upon successful completion of a complex examination by the Doctoral School Committee in the discipline.
- Applicants for individual preparation can be admitted to the doctoral programme through the same admission procedure as other participants, but they must submit a written declaration from their prospective supervisor that the thesis can be submitted within 2 years on the basis of the academic work carried out so far. This declaration must be countersigned by the Admissions Committee of the Doctoral School.

DCNSE-DR Chapter IV § 12 (3)

- After successful admission, the person preparing individually must apply for the complex examination and the degree procedure, the forms for which will be sent out by the DCNSE

together with the admission notification. At the first Council meeting of the semester, the DS will propose the subjects for the complex examination for the individual candidate and the examination board.

- The person preparing individually will be entered in the electronic academic record system when he/she has passed the complex examination. This is possible until 10 October or 10 March of the semester following admission.

3.2 Conducting entrance exams

- The DCNSE is responsible for the administration of the admission tests (administering applications, organising the admission tests, aggregating the results, notifying candidates).
- The PIDSME is informed by the DCNSE Secretary of the number and details of candidates who have applied for the admission tests.
- The members of the Admissions Committee are the head of the DS, the programme leaders, the sub-programme leaders, the secretary of the DS and at least three other subject leaders (at least one per programme/sub-programme).
- The composition of the Admissions Committees is approved by the DCNSE on the basis of a proposal from the PIDSME by 30 April each year or by 30 October in case of modification. The term of office of the committees is one year.
- The PIDSME will notify the DCNSE of the time and place of the admission test. The DCNSE will organise and conduct the admission test.
- The Secretary of the DCNSE will check that the necessary documents and the proposal from the subject leader are available and will ensure that any gaps are filled. He/she then notifies the candidates of the date and place of the admission tests and sends their files to the selection board.
- The PIDSME notifies the DCNSE of the result of the admission test and the recommendation for admission.
- The PIDSME ranks the applicants in the admission test according to their scores, and the PIDSME offers a variable number of scholarships to the applicants with the highest scores. Candidates who pass the admission test but do not receive a scholarship may be considered as doctoral students on the basis of other financial resources.
- Candidates will be notified of the admission decision by DCNSE.

3.2.1. Full-time and part-time (correspondence) form of the organised training

Supplement to DCNSE-DR CHAPTER IV § 6 (4)

- Doctoral students participating in the organised training must register with the DCNSE before the start of the first semester, as announced.
- An extra procedural fee is to be paid after the registration/enrolment deadline.

Supplement to DCNSE-DR Chapter IV § 6 (6)

- During the first 4 semesters of the doctoral programme, a minimum of 16 study credits must be obtained by completing (by examination) 2-credit courses announced or approved by PIGDTI. Of the 16 study credits, a minimum of 12 credit points must be obtained by completing courses announced within PIGDTI. A maximum of 4 credit points may be obtained by completing courses offered by other doctoral schools of the University with the prior approval of the subject supervisor, the credits being decided by the head of the doctoral programme. The maximum of 4 credit points may also be obtained at another university or during the doctoral student's study abroad, subject to the prior approval of the subject supervisor.

Supplement to DCNSE-DR Chapter IV § 6 (7)

- During the 8 semesters of the full-time course, a maximum of 40 teaching credits can be obtained by participating in the teaching activities of the University of Debrecen (1 credit: 12 contact hours per semester or 30 hours of other teaching activities).

Supplement to DCNSE-DR Chapter IV § 6 (8)

- During the 8 semesters of the doctoral programme, a minimum of 240 credit must be acquired. Of these, at least 16 credits can be earned from exams and 224 credits from research. The 224 research credits that can be earned can be replaced by a maximum of 40 credits from teaching. The supervisor may recognise the research work in units of 26 or 30 credits. As described in the curriculum, it is recommended that the student earn an average of 30 credits in each semester, which is 26 research credits and 4 teaching credits in the first four semesters, and 30 credits of research per semester in semesters 4-8.
- The secretary of PIDSME administers and monitors the study, research and teaching activities of PhD students each semester through the electronic study system.
- The lecturer enters the result achieved by the student in the electronic learning system.
- The performance of the research work is graded by the supervisor, taking into account the opinion of the assessor appointed by DSC. The invited referee is a professional with an academic degree and an outstanding research record (publications and/or patents) in the relevant subject area.
- The improvement of an "unsatisfactory" mark may be attempted twice in one examination period. A subject can be taken three times, but the maximum number of examinations is six during the training period.
- A semester may be valid even if the student does not earn any academic credits during the semester. However, in the latter case, the completion of the research work must be certified by the supervisor.
- Courses are organised by the PIDSME, on a semester-by-semester basis.
- It is not possible to obtain study points by attending language courses.

Supplement to DCNSE-DR CHAPTER IV § 11 (5)

- The amount of the payment is determined by the PIDSME and notified to the DCNSE. Doctoral students in training must pay this training contribution at the time of enrolment and registration.

3.2.2. Non-state, external scholarship holder's organized doctoral training

Supplement to DCNSE-DR Chapter IV § 9 (5)

- Contracts under PIDSME's remit must specify the definition of the material costs of the research and the way in which they are to be reimbursed and borne. The amount of the in-kind costs shall be determined by the competent programme leader.

Supplement to Chapter IV, § 9 (10) of DCNSE-DR

- A doctoral student who has not been admitted to the full-time scholarship programme due to lack of places, but who agrees to cover the costs of the training and the research programme, may pursue studies in the full-time fee-paying programme.

3.2.3. Individual preparation

Supplement to Chapter IV, Section 12 (1) of the DCNSE-DR

- Applicants for individual preparation may be admitted to doctoral studies by submitting the documents regulated in paragraph 2.§ (1.2), within the framework of the admission procedure regulated in paragraph 2.§ (1.1).

4 The complex exam

DCNSE-DR CHAPTER IV § 13 (2)

- For the PIDSME for the complex exam at least 90 credits required, in which 16 credits needed from exams and 74 credits from research, research credits can be reduced by maximum of 20 credits from lecturing.

Addendum to Chapter IV, Section 13 (6) of the DCNSE-DR

- The optional exam subjects can be found in the document PIDSME complex exam subjects.

Supplement to Chapter IV, Section 13 (9) of the DCNSE-DR

- The Candidate presents to the Committee the published or planned works that will form part of the dissertation.
- The candidate must have at least 100% of total authorship in a refereed English language article accepted by a journal with at least Q2 SJR rating.
- When presenting scientific results, progress according to the research plan must be demonstrated and that the publication requirements for obtaining a degree can be met by the deadline for submitting the dissertation.

5 General conditions for earning the degree

DCNSE-DR CHAPTER V, § 14 (5)

During the graduation procedure, the candidate begins the defence procedure by submitting:

- Minutes of preliminary debate
- the dissertation and theses (which includes the list of authentic publications)
- proof of language proficiency (language examination type B)
- a ranked list of publications with scientometric and other characteristic data of publications (impact factor, ISBN/ISSN number, name of the referring journal and place of citation, etc.)
- at the same time, the DS proposes the composition of the jury, which is approved by DCNSE
- The dissertation reviewer may be someone who fulfils the requirements for obtaining a degree in the last 5 years in respect of scientific articles.

Addendum to Section 14 (5) of Chapter V of DCNSE-DR

- proof of payment of the procedural fee for those who are required to pay it,,
- a written declaration by the candidate that he/she consents to the processing of personal data generated in connection with graduation

Supplement to Section 17 (7) of Chapter V of DCNSE-DR

5.1 Documents required to initiate the defence procedure

- doctoral dissertation in 7 copies – in B5 format (in accordance with the formal requirements) – signed by the candidate and the supervisor,
- 15 thesis booklets in A5 format – compiled in Hungarian-English (in accordance with formal requirements) the certified list of publications must be bound on the last pages of the thesis,
- each dissertation is accompanied by the most important scientific publications on an electronic medium or printed out of the two most important publications,
- Copy of language examination type "b" (according to UD-DR and DCNSE procedures) (2 copies)
- Minutes of preliminary debate and attendance list (2 copies)
- Proposal of the Doctoral School for the Defence Committee (signed 1 copy)
- A further condition of the defence is that the candidate registers on the mtmt.hu website (uploading his/her publications) and submits the ID received there to the secretary of the doctoral school together with submitting the proposal of the Defence Committee,
- the dissertation and thesis must also be uploaded to the DEA electronic repository.
- to be submitted electronically at the doktori@eng.unideb.hu e-mail address: the doctoral thesis, the detailed, ranked list of publications

The required form and cheque will be provided to applicants by a designated administrator of DCNSE.

Supplement to Section 14 (7) of Chapter IV of DCNSE-DR

Upon receipt of the request from the Committee, the member of the Committee shall declare in writing any conflict of interest.

5.2 Knowledge of foreign languages

Supplement to Section 16 (2) of Chapter IV of DCNSE-DR

At the Imre Pekár Doctoral School of Mechanical Engineering, a prerequisite for obtaining a degree is that the candidate has the language skills necessary to pursue the discipline.

Language exam certificates are only accepted in languages in which prestigious engineering journals are published. The Doctoral School considers the following languages to be such: English, French, German, Russian, Italian, Spanish, Japanese, and Chinese. The Doctoral School Council decides on the acceptance of other languages as chosen languages.

The language proficiency required for the field of study can be demonstrated by:

- a state-recognized, at least intermediate level (corresponding to level B2 of the Council of Europe's Common European Framework of Reference), complex (certifying both oral and written skills, formerly type "C") or equivalent naturalized language exam, or a monolingual international language exam;
- a degree in linguistics or technical translation in the given language;
- a high school diploma or master's degree obtained in the given language;
- Certificate from the Foreign Language Centre of the Faculty of Medicine / Foreign Language Centre of the Faculty of Arts / Institute of Economic Language Communication of the Faculty of Economics at the University of Debrecen

The language proficiency required for the field of study must be demonstrated by the time the doctoral dissertation is submitted at the latest.

5.3 The dissertation

Supplement to Section 17 (1) of Chapter IV of DCNSE-DR

- The doctoral thesis is public, researchable and citable. A restrictive exception to full disclosure may be works involving national security or delayed disclosure (intellectual property protection, patenting, etc.).
- When submitting the doctoral dissertation, the doctoral candidate declares in writing that he or she has not previously submitted his/her dissertation at another institution or that he or she consents to the processing of personal data generated in connection with obtaining the degree.

Supplement to Section 17 (4) of Chapter IV of DCNSE-DR

- Electronic versions of dissertations and theses are stored in the DEA electronic repository and handed over to the UD Directorate of Science.

5.4 The definition of thesis

- The thesis must be reproducibly verifiable, and in the dissertation, the candidate must prove that it is not merely the conclusion of an engineering thought process, but the result of inventive activity.