

# Engineering Doctorate Regulations at Wageningen University

## §1 General provisions

### Article 1 Definitions

1. In these regulations, the following terms are defined as stated below.

Evaluation Committee	The Evaluation Committee is tasked with administering the EngD candidate's examination;
CCTO	The Dutch certification commission for technological designer programmes [Certificatie Commissie voor opleidingen tot Technologisch Ontwerper];
Academic Board	The university's Academic Board as specified in Section 9.10 of the Higher Education and Research Act [Wet op het hoger onderwijs en wetenschappelijk onderzoek (WHW)];
Daily supervisor	The member of the supervisory team who takes care of day-to-day supervision of the EngD candidate;
EngD	Professional Doctorate in Engineering;
EngD Board	The EngD Board, consisting of the Dean of Research as the chair, three professors with an affinity with and involved in the EngD study programme and one EngD candidate, is appointed by the Academic Board and performs tasks delegated to this board;
EngD candidate	A person who has been admitted to an EngD study programme;
EngD study programme	A technological designer study programme as defined in Section 1.3(1) of the Higher Education and Research Act offered by the university and evaluated and certified as a two-year post-master's study programme by CCTO;
External Advisory Board	The External Advisory Board is made up of three EngD specialists from other universities and gives solicited and unsolicited advice on quality assurance for the EngD study programme;
Primary supervisor	The member of the supervisory team who has ius promovendi as defined in Article 4.1 of the Doctoral Degree Regulations;
Ius Promovendi	The right to be appointed supervisor based on Section 7.18 of the Higher Education and Research Act;
KIVI Ingenieurs];	Royal Institute of Engineers [Koninklijk Instituut Van

Education Committee	The Education Committee made up of three programme lecturers, one external member from the field served by EngD and one EngD candidate and supported by the Corporate Strategy & Accounts (CSA) department is responsible for the general study programme and in-depth components;
Opponent not affiliated with WU	A member of the Evaluation Committee who has not been involved in the design project and has no ties to the EngD candidate and/or the design project that would mean that the opponent cannot be expected to deliver an independent evaluation;
Credits	Credits as per the European Credit Transfer System (ECTS); one credit represents a study load of 28 hours;
Specialisations	Specialisations offered by Wageningen University that come under the EngD study programme;
University	Wageningen University;
WHW	Higher Education and Research Act;
WUR	Wageningen University & Research.

All other terms used in these regulations are defined as per the Higher Education and Research Act.

2. Any personal pronouns used in these regulations are to be read in the gender-neutral form.

## **Article 2 Engineering Doctorate - degree and diploma**

1. The Engineering Doctorate degree, abbreviated to the designatory letters 'EngD' that a holder of this degree can use immediately after their surname, is a postgraduate degree that can be obtained by successfully completing an EngD study programme. In evidence thereof, a diploma is awarded in the form of a designer certificate as defined in Section 4.21 of the Implementing Decision for the Higher Education and Research Act of 2008.
2. Graduates are registered in CCTO's central register of technological designers. This register is administered by KIVI.

## **§2 EngD study programme**

### **Article 3 Admission and selection**

1. A person seeking admission to an EngD study programme must have completed a relevant Master's programme as defined in Section 7.10a(1) or (2) of the Higher Education and Research Act. In exceptional cases, the Academic Board may admit a person who does not hold the required degree to the EngD study programme if, at

the Academic Board's discretion, this person shows that they possess adequate knowledge.

2. in addition to the requirement from the previous paragraph, a candidate must meet the admission criteria set for the EngD study programme, which include having a good command of spoken and written English. The criteria with respect to language skills are specified in Appendix 1.
3. EngD candidate selection goes through the [selection procedure](#) used by WUR.
4. The Academic Board may set further rules with respect to the admission criteria.
5. When admitted to the EngD study programme, the EngD candidate will be registered at the university.

#### **Article 4 Approval phase**

1. If a candidate does not meet the criteria from Article 3(1)(2) in full, the Academic Board may offer this candidate the option to acquire additional knowledge and/or skills to fill any gaps. This exception is subject to the following rules:
  - The activities to gain additional knowledge and/or skills can cover a maximum of 8 credits;
  - The candidate must complete these activities before starting the EngD study programme.
2. The intended activities will be submitted for approval to the Academic Board with advice from the primary supervisor.
3. After successful completion of the activities, the candidate must meet the admission criteria from paragraphs 1 and/or 2 of Article 3 and the candidate can be admitted to the EngD study programme to which the activities related.

#### **Article 5 EngD study programme content and duration**

1. In principle, an EngD study programme starts once or twice a year.
2. The EngD study programme is available as a full-time and a part-time programme. In the full-time version, the nominal duration of the programme is two years. In the part-time version, the EngD study programme can take a maximum of four years. Extension of the programme on an individual basis is possible only on the request of the EngD candidate and on account of exceptional circumstances, and it requires approval from or on behalf of the Academic Board.
3. The total EngD study programme is 120 credits. The study programme consists of various modules including at least a design assignment (minimum of 60 credits), i.e. making a technological design with a description of the design. The EngD candidate will make individual arrangements on the content of the EngD study programme as specified in Article 12 of these regulations.
4. Subjects that the EngD candidate has passed during their Bachelor's or Master's programme, and based on which the EngD candidate was admitted to the EngD study programme, will not be part of the EngD candidate's EngD study programme.
5. Further information and details of the content of an EngD study programme are given in the regulations of the programme in question.

#### **Article 6 Learning outcomes and exit qualifications of the EngD study programme**

1. After completing the EngD study programme, the EngD candidate will be able to:
  - a. As an independent designer:

- Create a design that is endorsed by the different stakeholders;
  - Provide a strong scientific basis for a design;
  - Clearly document and communicate the design process.
- b. Integrate or place the design within the framework of their personal discipline against the background of a broader field of science/design;
  - c. Place the design in a social context.

### §3 Tasks and competencies

#### **Article 7 Tasks and competencies of the Academic Board**

1. The Academic Board has the following tasks and competencies:
  - a. EngD study programme quality assurance;
  - b. setting further rules and regulations;
  - c. appointing the EngD candidate's supervisors;
  - d. setting up the Evaluation Committee;
  - e. appointing the Education Committee;
  - f. granting exemption from one or several admission criteria in exceptional cases;
  - g. approving activities intended to increase a candidate's knowledge/skill level during the approval phase (Article 4);
  - h. granting an exemption from part of an EngD study programme;
  - i. approving the study and supervision plan;
  - j. deciding on a request for individual extension of the EngD study programme;
  - k. deciding whether or not the EngD candidate can continue the EngD study programme (go/no-go);
  - l. awarding the diploma and conferring the EngD degree, either with distinction or not, after having established that the EngD candidate meets the requirements for successful completion of the EngD study programme;
  - m. ruling on objections or disputes.
2. The Academic Board may set up a committee to which it can delegate one or several of the competencies listed in paragraph 1.

#### **Article 8 Tasks and competencies of the EngD Board**

1. The Academic Board has set up a committee called the EngD Board to which the competencies specified in Article 7(1), except for the competency specified in Article 7(1) under I, have been delegated. In addition, the EngD Board is tasked with providing the Academic Board with solicited and unsolicited advice.
2. The EngD Board is accountable to the Academic Board and provides the Academic Board with the requested information on the performance of the delegated competencies listed above. The EngD Board will always abide by guidelines and directions given by the Academic Board.
3. The EngD Board will submit a written annual report to the Academic Board.

#### **Article 9 Tasks and competencies of the Education Committee**

The Education Committee will appoint a chair from its midst. This committee informs and advises the EngD Board and informs and implements the decisions of the EngD Board. The Education Committee will appoint a chair from its midst.

## **Article 10 Supervision**

The EngD candidate will be supervised by a supervision team made up of at least two and no more than four supervisors, including the primary supervisor from within the university and a (technological and methodological) design supervisor representing the client. If the primary supervisor is not the daily supervisor, another supervisor will be appointed daily supervisor. The supervisors are appointed by or on behalf of the Academic Board.

## **Article 11 Supervision team quality requirements**

The supervision team is sufficiently competent on the following points and has:

- a. experience leading complex design projects;
- b. technological and methodological knowledge of the design field;
- c. supervision competencies and skills;
- d. knowledge of financial/economical, legal, social, logistical and ethical aspects of the design process.
- e. Persons who are related to the EngD candidate or have another kind of relationship with the EngD candidate and can consequently not be expected to be objective are not eligible for the role of supervisor.

## **Article 12 Evaluation Committee**

1. For each individual EngD candidate, an Evaluation Committee will be set up by or on behalf of the Academic Board to administer the EngD candidate's examination.
2. The Evaluation Committee consists of four to a maximum of seven members, including in any case:
  - a. the primary supervisor from within the university;
  - b. the supervisor representing the client;
  - c. two opponents, one of which is affiliated with WU and the other is not.
3. The Evaluation Committee has a relevant scientific background and must have both knowledge of and experience with design.
4. The supervision team specified in Article 11 has one joint vote in the evaluation. The opponents specified in paragraph 2(c) of this article have one vote each. A member of the EngD Board acts as technical chair and does not have a right to vote.

## **Article 13 Study and supervision plan**

1. The EngD candidate will make a study and supervision plan that contains agreements on things such as:
  - a. the teaching and training activities to complete to be able to attain the exit qualifications specified in Article 6 and the list of competencies (see Appendix 2);
  - b. a schedule of the programme modules to complete;
  - c. when progress on the design assignment will be evaluated;
  - d. the composition of the supervision team;
  - e. target results for go/no-go evaluation points;
  - f. a data management plan.
2. The study and supervision plan, as well as any adjustments thereto, must be submitted to and approved by or on behalf of the Academic Board within three months after commencement of the study programme.

#### **Article 14 Go/no-go evaluation**

1. After 6 months after the start of the study programme, the EngD candidate's progress will be evaluated by the supervision team, based on which the Academic Board will decide whether or not the EngD candidate can continue (go or no-go) with the EngD study programme, whereby a no-go decision will mean that the study programme will end for the EngD and they will be deregistered. In making this decision, the Academic Board will assess, among other things, whether the EngD candidate can in all reasonableness be expected to successfully complete the programme within the term.
2. The Academic Board may set further rules with respect to the evaluation specified in the previous paragraph.

#### **Article 15 Progress interview**

1. After one year and after one and a half year after the start of the study programme, the supervisor(s) will have a progress interview with the candidate to assess the current situation and the candidate's progress.
2. The conclusions of the progress interview will be recorded in a report.

### **§4 Technological design**

#### **Article 16 Creation of a technological design**

1. The EngD candidate will independently make a technological design with a description in a design plan, which they will do:
  - a. while complying with the code of professional conduct relating to the scientific domain in question;
  - b. while complying with legal rules and university regulations, including the Code of Conduct;
  - c. without limitations contravening academic freedom;
  - d. while complying with guidelines and regulations in place at the university. Any scientific publications must comply with WUR's Open Access policy.
2. In case of an embargo on a publication, the supervisors, members of the Evaluation Committee, and, where relevant, the members of the Visitation Committee will get unrestricted access to design and research data for the performance of their supervisory and evaluation duties.

#### **Article 17 Evaluation of the final report on the technological design**

1. The EngD candidate will submit the final report on the technological design to the primary supervisor.
2. In their evaluation of the final report, the primary supervisor will also take advice from the other supervisors into account.
3. The final report is evaluated by assessing it against the requirements under these regulations, especially those specified in Article 6, Article 18, and on the list of competencies (see Appendix 2).
4. When the primary supervisor concludes that the final report meets the relevant requirements, the primary supervisor will approve the final report.
5. The primary supervisor will inform the Evaluation Committee and the EngD candidate of their approval of the final report in writing. This approval is not a decision but

rather advice to the Academic Board.

6. Following the primary supervisor's approval of the final report, the Academic Board will decide to set up the Evaluation Committee.

### **Article 18 Evaluation of the final report by the opponents**

1. The final report approved by the primary supervisor will be submitted to the opponents appointed for that purpose for evaluation.
2. Within six weeks after receiving the primary report approved by the primary supervisor, the opponents will decide whether the final report is adequate proof that the candidate has reached the competency required to be an independent designer and can, therefore, be admitted to defend the final report. For the candidate to be admitted to the defence procedure, all opponents must believe that the candidate has reached the required level of competency.
3. The decision from Article 18(2) will be based on an assessment of the final report against the exit qualifications formulated by the Academic Board as specified in Articles 6, as well as against Article 21 (Distinction).
4. The Dean of Research will inform the candidate and the primary supervisor of the Evaluation Committee's decision in writing (by email or otherwise). If the Evaluation Committee has decided that the candidate cannot be admitted to the defence procedure, this will be communicated along with the reasons behind this decision.
5. If the Evaluation Committee deems the final report to be indefensible, the candidate will get a chance to improve the final report and/or to write a response. If the primary supervisor deems the amended final report and/or response to meet the relevant criteria, the primary supervisor will submit the amended final report and/or the response. If, after the second submission, the Evaluation Committee stands by its view that the final report is indefensible, the candidate may resume the application procedure six months after the final decision.

### **Article 19 Defence of the design/final presentation**

After the final report on the technological design has been submitted to the Evaluation Committee and all other parts of the study plan have been completed successfully, the EngD candidate will present the design in public and defend it before the Evaluation Committee.

### **Article 20 Degree conferral and degree certificate**

1. The Evaluation Committee will decide on the Academic Board's behalf on the conferral of the doctorate degree in a closed meeting held immediately after the defence of the design.
2. After the closed deliberations by the Evaluation Committee, the chair will reopen the public meeting and announce the Evaluation Committee's decision.
3. As proof that they have been conferred the doctorate degree, the Professional Doctor of Engineering will receive a degree certificate. The degree certificate will be signed by the Rector Magnificus or their deputy on behalf of the Academic Board, by the primary supervisor, by the design supervisor, and by the Professional Doctor of Engineering himself or herself.
4. If the doctorate degree is conferred with distinction, this will be stated on the degree certificate.



## **Article 21 Conferral of the EngD degree with distinction**

1. If an EngD candidate has shown exceptional competency in independently making a technological design, the Academic Board may confer the EngD degree with distinction.
2. If the Evaluation Committee's evaluation gives grounds for it, the Academic Board may submit the technological design to two experts with the request to issue substantiated written advice on whether or not to confer the degree with distinction. These experts are professors in the field and not affiliated with the university. At least one of these experts works outside the Netherlands. The request submitted to the experts will be accompanied by a recommendation by the Evaluation Committee (as specified in Article 18(3)), or a letter from the primary supervisor in support of the Evaluation Committee's evaluation.
3. When submitting the design, the primary supervisor may include a written recommendation to the Academic Board to confer the degree with distinction. This recommendation must state the reasons for deeming the distinction appropriate and will be submitted to the Evaluation Committee for review.
4. Only if at least one of the experts consulted believes that the degree should be conferred with distinction will the Academic Board call a closed meeting of the Evaluation Committee immediately prior to the presentation and defence of the design. At this meeting, the Evaluation Committee will discuss whether or not to confer the degree with distinction.
5. At the closed meeting specified in Article 20(1), the Evaluation Committee will decide on behalf of the Academic Board on the recommendation to confer the degree with distinction. The recommendation will be accepted if none of the committee members vote against or if no more than one member abstains from voting. If one of the two experts consulted does not agree that the degree should be conferred with distinction, a distinction can only be awarded if the committee members are unanimous.

## **§5 Other provisions**

### **Article 22 Dispute settlement procedure**

1. An EngD candidate or any interested party can apply to the Academic Board in case of a dispute, either with a complaint or an objection regarding a decision made by or on behalf of the Academic Board based on these regulations, within six weeks after the dispute occurred or the decision was made.
2. The Academic Board will first assess whether an amicable settlement is possible and ask the chair of the EngD Board to mediate in the dispute.
3. If mediation does not produce the desired result, the Academic Board will rule on the complaint or the objection. The Academic Board will seek advice from the university's Objection Advisory Board. The Academic Board may decide to turn to a person or committee for advice on a complaint. The Objection Advisory Board is correspondingly governed by Section 7:13(1-6) of the General Administrative Law Act [Algemene wet bestuursrecht].

### **Article 23 Amendments**

1. Amendments to these regulations may be made in a separate decision by the Academic Board.
2. Amendments to these regulations can only take effect during the current year of the study programme if it does in all reasonableness not affect the EngD candidate's interests.
3. Amendments to these regulations must not lead to any adverse changes to a previously made decision regarding the EngD candidate.

### **Article 24 Final provisions**

1. In cases not covered by these regulations or if an article turns out to be multi-interpretable, the Academic Board will decide.
2. In exceptional cases, the Academic Board may permit deviation from the provisions of the regulations if supported by reasons.

### **Article 25 Transitional regulation**

Decisions on EngD matters made prior to these regulations taking effect will remain effective unchanged.

### **Article 26 Entry into force**

These regulations will enter into force as of 15 November 2022.

These regulations have been adopted by the Academic Board on 21 September 2022 and adopted by the Executive Board on 15 November 2022.

These regulations will be published on the university's website.

## Appendix 1 Language requirements

For admission to the EngD study programme, an EngD candidate must have a command of the English language, and if the final report will be written in Dutch, also of the Dutch language, at the level established by the Academic Board.

As far as command of the Dutch language is concerned, the required level is that of the level required for Dutch as a subject on the final exam for pre-university secondary education, as confirmed by a diploma from pre-university secondary education or a similar document.

If the EngD candidate is not a Dutch national, does not come from an English-speaking country, and has not completed higher education where the language of instruction was English, the EngD candidate must submit an internationally recognised certificate of sufficient English proficiency prior to the start of the EngD study programme and prior to enrolment in the EngD study programme at the university. Enrolment at the university is conditional on submission of such a certificate<sup>1</sup>.

The following certificates are recognised and the minimum required scores<sup>2</sup> are as follows:

- Internet-based TOEFL: 90, with a sub-score of at least 20 on the speaking section
- IELTS (academic version): 6.5, with a sub-score of at least 6.0 on the speaking section
- Cambridge Certificate of Advanced English (CAE) with at least a C grade
- Cambridge Certificate of Proficiency in English (CPE), regardless of the grade
- RATEr: this local test is administered only at Wageningen University. To meet the admission criteria, the candidate needs the following scores\*:

Reading & vocabulary	23
Writing	47
Listening	23
Speaking	62
* In order to pass the test, the candidate needs a pass mark on each section	

Test results must be no more than 24 months old on the date of enrolment.

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<sup>1</sup> In cases where the primary supervisor has reasons to give an EngD candidate who does not yet meet the criteria permission to come to Wageningen nonetheless, the primary supervisor must support this in a letter that is enclosed with the enrolment documents.

<sup>2</sup> In such a case, the EngD candidate must meet the language requirements within three months. Wageningen In'to Languages offers an intensive writing course for this purpose, which includes a RATEr test at the end of it (see information about In'to Languages' courses given for PhD candidates).

## Appendix 2 Requirements and target competencies

Evaluation of the EngD candidate is conducted in a reasoned manner based on the below list of competencies, where the following three areas are evaluated: Knowledge, the design, and (design) skills. Competencies are tested through an evaluation of the final design based on the final report, final presentation and completion of approved study and training activities as specified in the study and supervision plan described in Article 13.

### 1) The design

- a. The scientific basis of the design is described at an academic level.
- b. The design is clearly innovative or has innovative elements.
- c. The design has been well compared to alternatives and has been reported on in a clear manner.
- d. The design contains creative/innovative elements.
- e. The design's risk analysis has been done well.
- f. Level of the final report (structure, readability, completeness, language).

### 2) Knowledge

- a. Clear overview of the design context.
- b. In-depth academic knowledge of the field.
- c. Good overview of the available academic literature.
- d. Good overview of knowledge and insight from non-academic literature (e.g. stakeholder knowledge, expert knowledge).
- e. Clear understanding and overview of knowledge from fields related to the design.
- f. Knowledge and understanding of design methods.
- g. Able to weigh up the usefulness of methods based on literature, stakeholder expertise and other experts (among others) and make a well-reasoned choice.

### 3) (Design) skills

- a. Independence in the design process.
- b. Management and planning.
- c. Good reflection on and evaluation of the design process, recognition of points for improvement and able to adjust where necessary.
- d. Design process is documented clearly.
- e. Problem definition integrating stakeholder interests/support.
- f. Able to translate the problem definition, based on academic knowledge and stakeholder interests, into a conceptual design.
- g. Able to view design's relevance from a social and business perspective.
- h. Good communication skills (written and verbal) with peers, industry and stakeholders.
- i. Able to establish and maintain networks.
- j. Able to create innovative technical solutions in a multidisciplinary/interdisciplinary setting.
- k. Knowledge of working in the private sector.
- l. Able to reflect on the design process and personal performance.
- m. Has taken proven steps in career development.
- n. Knowledge and skills surrounding stakeholder analysis and participation.