## RULES AND REGULATIONS OF QUALITY ASSURANCE AND ITS PROCEDURE

Festetics Doctoral School Hungarian University of Agriculture and Life Sciences, Georgikon Campus 8360. Keszthely Deák Ferenc street 16.

The purpose of the doctoral program is stated in the MATE Regulations, according to which the issued doctoral degree certifies the high-quality knowledge of a given discipline, the candidate's suitability for independent research and its cultivation enriched with new or novel results. The above mentioned is defined by the University in its doctoral rules and regulations.

#### I. General principles

- 1. Doctoral training and degree acquisition serve to meet the needs of teachers in research and development in the economy, society and universities, on the one hand, and in higher education, on the other.
- 2. Doctoral training is a part of university training, which prepares for the acquisition of a doctoral degree in post-master's degree training.
- 3. Doctoral training and degree acquisition is a multi-step, long process based primarily on the collaborative activities of EDHT and DS, supervisors, faculty, students, and reviewers, with major stages of pulishing the dissertation topic suggestions, admission, training, and graduation.
- 4. The organization of doctoral training and degree acquisition consists of EDHT, DHK, DS and DIT. Its operating sinks are Doctoral Schools. Doctoral training and degrees are directed by the President of the EDHT. The EDHT is overseen by the Senate. The organization of doctoral training and degree acquisition operates on the one hand in accordance with legal regulations and HAC recommendations, and on the other hand in accordance with the university's internal regulations.
- 5. The Rector is responsible for the quality of doctoral training and degree acquisition. The quality assurance system of doctoral training and degree acquisition is part of the university's quality assurance system and is managed by the university's quality assurance manager. The professional supervision of the development, operation and further development of the University's quality management system is performed by the University's Quality and Performance Management Directorate (MTMI). The quality organization is mandated by

MTMI, the Quality Development and Quality Assurance Committee (MMB), the IIR and Environmental Management System (EMS) operating the profession-specific Integrated Management System, the process managers responsible for the operation and development of the university's main processes, and the quality units of the organizational units (including DI). composed of its agents. MMB is the leadership and management control forum of the quality organization, and is chaired by the Vice Rector for Science and Quality Assurance.

- 6. From the quality point of view, the independent management unit of doctoral training and degree acquisition is the DS. The quality assurance of doctoral training and degree acquisition is managed by the President of EDHT, and the quality assurance of DS by the head of DS.
- 7. The quality of the DS is determined by the values and intellectual culture of the DS organization, especially the scientific abilities, work and material culture (infrastructure) of the supervisors and lecturers, as well as the organization's capabilities, such as the student training system and the organisation's international relations.
- 8. The quality of DS in the training and graduation process can thus be assessed in particular by measuring the satisfaction of the economy, academia, trainees, the university, supervisors and lecturers and the performance characteristics chosen accordingly.
- 9. In order to ensure the quality of doctoral training and degree acquisition, special care should be taken in the design of programs, the selection of supervisors, the admission of students, and the evaluation of training and research results.
- 10. Supervisors are accepted by the DIT. The task of the supervisor is the professional management of the doctoral student's training and research and degree acquisition process.
- 11. Requirement for the supervisor: in the last five years, at least two qualified (impact factor) publications and at least one first-author foreign language publication in the field of the subject. If the efficiency of the supervisor is weak, and he / she is not a successful doctoral student from several doctoral activities, his / her supervisor status may be revoked based on the decision of the DIT.
- 12. Candidates for doctoral training are informed by the student administrator of the DHK Georgikon Campus about the number of doctoral students or doctoral candidates admitted to the supervisor chosen by the applicant and who have obtained a high school diploma or degree so far.
- 13. The supervisor (s) designated for each doctoral student is responsible for the doctoral student's progress. A maximum of two supervisors can be appointed per doctoral student. In the case of a student in individual training, a consultant assists in preparation.

- 14. In order to ensure quality assurance, the EDHT develops guidelines and a uniform system of requirements for the doctoral schools of the university, which are set out in regulations.
- 15. The EDHT examines the schools' curriculum, operating rules and quality assurance plan and decides on their adoption. The code of conduct contains specific provisions for DS quality assurance (selection of topics and supervisors recommended for development, frequency of examinations, invitations to complex examinations and judging committees, etc.).
- 16. The award of a doctoral degree is the right of the EDHT.

#### II. Specifisities of the DS

The quality policy of the Hungarian University of Agricultural and Life Sciences is the cornerstone of the quality assurance of training and scientific research. Related to this is the quality assurance system developed by the doctoral school DIT, the details of which can be found on the website of the doctoral school under the title Quality Assurance Regulations and Procedures. The DS continuously monitors its training activities based on quality assurance aspects and makes any necessary adjustments.

The topic is advertised in the DS every year, and after the issuance of the end-of-winter newsletter, the proposals are discussed by the DIT in the spring (March-April). The latter body examines and adopts each proposal individually, in addition to the suitability of the advertiser, the topicality of the topic, the classification of the field, the available research infrastructure and the supervisor's effectiveness in doctoral training (number of doctoral students admitted and graduated, "issue"). takes into account both. The opinion of the DS Committees is particularly important in one discipline, because the practitioners of the three disciplines are not equally familiar with the submitted draft scientific topics. Here, the coherence of the research topics of different disciplines and the territorial coherence of FDS research are also reviewed.

In addition to the university's general admission requirements, the DIT expects students to be admitted to communicate verifiably in English. During the admission, the candidate must prove his / her professional skills and ideas in Hungarian as well as in English. The language hearing is necessary because, based on the experience of previous years, the result of the language exam certificate and the communication skills do not always overlap. A sample of the admission protocol used in FDS (Appendix 1) and the points available for publication activity (Appendix 2) can be found as an appendix to these regulations.

The quality aspiration for the selection of future doctoral students is also outlined by the scores given for the diploma. Points can only be awarded for a distinguished and highly qualified diploma. The basic condition for applying is a minimum degree of good standing. At the time of admission, we reward previous publication performance, depending on the quality of the publication (Appendix 2).

Only members who are able to listen to future doctoral students in English and form an opinion on their research habits and performance can be accredited to the selection committee. If avoidable, the candidate's supervisor will not be a member of the admissions committee. If this is unavoidable, the supervisor will refrain from grading the doctoral student.

At the beginning of the training, the doctoral student prepares a detailed work plan, which the DIT submits to the Special Committees, who comment on the draft with the involvement of an external expert. The commission chairs present the opinion of the external expert and the committee at the DIT, after which the DIT approves / returns for correction / rejects the work plan. The work plan submitted for amendment is again managed by the Committees.

Subject programs are reviewed and updated in the framework of DIT meetings. The acceptance and announcement of new objects is continuous, adapted to the current needs. Due to retirement or teacher mobility, changes can be made during the year. The suitability of the person in charge of the announcing subject is decided by the members of the DIT by open voting. The voice of the doctoral students' representative is given special emphasis in the opinion.

The model curriculum details the time-proportionate requirements expected of doctoral students. In addition to continuous publication work (Appendix 3), active participation in public debates, which has a community-forming power, is particularly emphasized in this. All PhD students must attend at least three public debates independent of the discipline each year (paused for an epidemic). Attendance accounting is part of the annual reports that take place each year within the Forum.

During the training, the DS holds a public Forum at the end of August each year, which, in addition to the head of the school's report, includes the regular reporting / evaluation

of doctoral students as an important part. Students who do not make adequate progress will be warned orally by the Assessment Committee. The report covers the research performance of the last school year (publications, research work) and, in addition to language studies, an overview of the progress of the training. Absence of students from the Forum is only allowed in exceptional cases, e.g. participation in a lecture adopted at a conference. The report will be replaced on the basis of a written permit submitted to the Commission on the basis of a separate permit submitted to the head of the DS. Based on the opinion of the Commission, the credit of the credit is decided by the DIT.

At the end of the training phase, the doctoral candidates take a complex exam. The public examination takes place before a committee of at least three members, the important participants of which are the interviewers of the examination subjects, who are 30% external experts with a scientific degree in relevant research fields. Involving senior instructors in the appointment of committee members is our primary goal.

The doctoral dissertation must be defended by the doctoral student before a jury (s), first in a workplace debate and then in a public debate. The supervisor is responsible for organizing the workplace discussion. The composition of the public debate committee is set out in the university regulations. The DIT proposes the staffing, which is approved by the EDHT. The 1/3 external expert involvement is also valid here. The functioning of the committees is constantly monitored by the DIT, and if necessary, it may propose amendments to the selection criteria. The composition of each committee is unique; adapts to the topic of the doctoral student.

The DS also offers part-time study abroad for all doctoral students for the period of doctoral studies. In the implementation of this, the working relations of the supervisors living in a given field are primarily primary, but the international connections of the DS and the University can also help. During the training, all doctoral students are expected to actively participate in the international conference.

The DS periodically analyzes the results of the surveys concerning the school, the proposals received, and on the basis of these, if necessary, formulates recommendations and measures related to doctoral training.

An important element of quality assurance is the continuous presence of the student representative in all training sub-processes affecting doctoral students. The student representative

of DIT is in constant contact with the students he represents, asking for their opinion on the training and all its elements. Based on the opinions, you can propose a measure to the DIT.

Some of those who graduated from the legal predecessors of the current DS and have already obtained a degree have remained in employment at the parent institution. Feedback from them is particularly important for DS, as several of them participate in the training as instructors. They fulfill one of the most important objectives of the DS, to ensure the supply of university lecturers.

The career tracking of the graduated doctors is the task of the supervisors, who report on the doctors' jobs and the development of their careers within the framework of the DIT. Some of the external experts who come for the examinations and defenses are our doctor, who directly informs about the development of their destiny, their opinions about the training and their suggestions for changes. The DS is planning to follow the careers of the graduated doctors, the preparations for which are now underway. The career tracking of the doctors of the accreditation period is described in No. 4. is included in Annex.

Each year, the Georgikon Campus awards the title of "Young Researcher of the Year" to the most successful publisher / researcher in the form of an open competition as part of the Science Day celebration. The distinguished young, possibly PhD student, will give a lecture at Science Day next year.

The academic and scientific work within the doctoral school is carried out in full publicity. This is facilitated by university regulations, periodic resolutions, board recommendations, and decisions. These are available on the university website.

The qualification processes (complex exam, public discussion) take place in a public form, the date of which is notified by the DI to the representatives of the relevant field. One of the cornerstones of quality assurance is that 1/3 of the members of the committees are selected from among the excellences of the given field who do not have an employment relationship with MATE. FDS is always open to suggestions from external experts.

Both the supervisor and the doctoral student are responsible for the implementation of scientific ethics, noting that the supervisor directs his / her student based on his / her experience and introduces him / her to the written and unwritten rules of scientific ethics. The Ethics Committee of the University can assist in the assessment of disputes, which brings the

provisions of the Code of Ethics and the practice of university life in line with the available means (Section 10 Ethics Committee (EC) of the MATE SZMR).

## 1st Appendix

Date

## **Minute** of ... academic year's ... semester's entrance examination results of doctoral programme applicants

### (FESTETICS Doctoral School)

Name of applicant/ doctoral advisor	1.Certif icate qualific ation. max 10 points	2.Scientific Performance max. 30 points		Summary of brought points			3. Human and Professionnal Habitus max 30 points		Sum max. 70 points	Ranki	Propositi on of the entrance
		TDK	Publica tions.	Cert.	Sci. Perf.		English Language (max. 5 points)	Profession (max. 25 points)		- ng	committe e

President of the entrance committee

Member of the entrance committee

Member of the entrance committee

Secretary of the entrance committee

## 2nd Appendix

### PHD ENTRANCE EXAM EVALUATION (FDI)

BROUGHT POINTS (1. + 2.)  1. Certificate qualification (based on index average)	MAXIMUM 40 POINTS max.: 10 points			
Index average (Cert. qual) = 5,00 (excellent)	10			
4,51 $\leq$ index average $\leq$ 4,99	5			
$4.01 \le \text{index average} \le 4.51$	0			
4,01≤ index average < 4,51	U			
2. Scientific performance	Max. 30 points			
2.1. TDK conference participation				
The best result to be considered!				
National 1st place	30			
National 2nd place	25			
National 3rd place	20			
Special prize	15			
Institutional 1st place	15			
Institutional 2nd place	13			
Institutional 3rd place	10			
Institutional special prize	10			
participant of institutional contest	5			
2.2. Publishing activity				
The best result to be considered!	_			
First authored article in a foreign language refereed i	nternational journal	30		
Article in a foreign language refereed international journal (as co-author)				
First authored article in a peer-reviewed journal in a foreign language				
Article in a peer-reviewed journal in a foreign language as a co-author				
Article in a refereed journal in Hungarian (first authored)				
Article in a refereed journal in Hungarian (co-author		10		
First authored article in a peer-reviewed journal in H		12		
Co-authored article in a peer-reviewed journal in Hu	ngarian	10		
Foreign language publication in conference proceedi	ng (min. 4 pages) (fa/c-a)	14/8		
Hungarian publication in conference proceeding (mi		10/4		
Book, paragraph in foreign language		15		
Book, paragraph in Hungarian		10		
Presentation at an international conference in foreign	language (as a presenter)	14		
Presentation at an international conference in foreign		10		
Presentation in Hungarian on a conference (as a pres	enter)	10		
Poster in foreign language on a conference (proven of		10*		
Poster in Hungarian on a conference (proven on the		10		
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### 3. HUMAN AND PROFESSIONAL HABITUS

MAX. 30 POINTS

Assessing the professional knowledge proven during the entrance examination (according to the rules of the DS in hungarian and in a foreign language)

Sum (1.-3.) MAX. 70 points

## 3rd Appendix

# Publication credits and minimal requirements for the model curriculum

Type of publicaion	Credit
a) article in a foreign language, impact factor journal	50
b) article in a foreign language, refereed journal	30
minimal requirement:	60
c) article in mother tongue <sup>2</sup> , peer-reviewed journal	10
minimal requirement:	10
d) published in full in a conference publication	10
minimal requirement:	10
e) published in the summary volume of the conference publication	5

## Minimum publication requirement of the DS for obtaining a doctoral degree:

- three refereed / revised \* scientific papers, one of which has an impact factor;
- publications should include one in a foreign language as a first author,
- a conference presentation or poster participation, which is published in min. 4 pages length

A manuscript published in journals that have an editorial board can be considered a peer-reviewed publication (article, scientific publication), the submitted manuscripts are proofread, a complete bibliography is included at the end of the dissertation, and in the case of a Hungarian-language dissertation it has a foreign language summary.

<sup>&</sup>lt;sup>1</sup> a referenced journal article in a foreign language can be replaced by an impact factor article

<sup>&</sup>lt;sup>2</sup> foreign students can replace it with a notice published in a world language

<sup>\*</sup> Referenced journals can be followed in Scopus and in the list of scientific journals adopted by the Department of Agricultural Sciences of the Hungarian Academy of Sciences.

### 4th Appendix

## Career tracking of doctoral graduates from the last 5 years

#### Animal sciences

Borzák Réka, PhD defense 2019. Current job: ÁOTI Institute of Veterinary Science. Position: research associate. She specializes in fish pathology and parasitology.

Borzák Réka, PhD defense 2019. Current job: MTA-ÁOTI, research associate. She specializes in fishing relevance. (GYED)

Demeter Krisztián, PhD defense 2019. current job: Dalmand Zrt., fisheries manager, entrepreneurial / competitive sector. Specialization: fisheries relevance

Beliczky Gábor Péter, PhD defense 2019. Current job: MATE Georgikon Campus, assistant professor. Specialization: fisheries relevance

Márton Aliz, PhD defense 2018. Current job: MATE Georgikon Campus Institute of Physiology and Nutrition, Department of Nutrition and Nutrition Physiology Keszthely. Job title: assistant professor. Specialization: reproductive biology of ruminant species.

#### Plant sciences

Erzsébet Nagy, PhD defense 2020. Current job: MATE Institute of Genetics and Biotechnology, Festetics Bioinnovation Group. Job title: Full-time research assistant in our GINOP-2.3-2-15-2016-00054 application. She specializes in plant biotechnology.

Bernadett Farkas, PhD defense 2020. Current job: Institute of Plant Protection, Job title: lecturer. She specializes in horticulture (viticulture and winemaking).

Gyöngyi Németh, PhD defense 2020. Current job: MATE Institute of Genetics and Biotechnology, Festetics Bioinnovation Group. Job title: Full-time research assistant in the GINOP-2.3-2-15-2016-00054 application. She specializes in horticulture (viticulture and winemaking).

Nikoletta Czotter, PhD defense 2019. The NAIK Institute of Agricultural Biotechnology. She is currently in GYES. She specializes in horticulture (viticulture and winemaking).

Alíz Novák, PhD defense 2018. Current job: CRA, Scope International, Budapest. Responsibilities: clinical investigation of the effects of drugs (Clinical Phases 1-4) in Hungarian hospitals and clinics. She follows the fate of the experimental material she produces and maintains a working relationship with a research colleague who continues experiments in the field.

Zsolt Gulyás, PhD defense 2017. Current job: Agricultural Research Center Agricultural Institute, ELKH, Martonvásár. Job title: can. coworker. Excellent researcher, Won -OTKA 128637 application. He specializes in genetics.

Attila Dunai, PhD defense 2017. After obtaining the academic degree, from 2018 he worked as an assistant professor at the Department of Plant Production and Land Use of PE GK, and then at the Institute of Plant Production Sciences of MATE.

Margit Kollaricsné Horváth, PhD defense 2019. Current job: RF Consulting Kft, Zalaegerszeg. Job: project manager.

Erzsébet Nagy, PhD defense 2020. Current job: MATE Georgikon Campus, Institute of Genetics and Biotechnology, Department of Microbiology and Applied Biotechnology, Festetics Bioinnovation Group, Keszthely. Job title: Research Assistant. Areas of expertise: microarray technology, plant stress response genetics.

Gyöngyi Németh, PhD defense 2020. Current job: MATE Georgikon Campus, Institute of Genetics and Biotechnology, Department of Microbiology and Applied Biotechnology, Festetics Bioinnovation Group, Keszthely. Job title: Research Assistant. Areas of practice: genetics of domestic bees, honey analysis.

Bernadett Farkas, PhD defense 2020. After obtaining the academic degree, he worked as a teaching assistant at the Institute of Plant Protection of PE GK and then of SZIE.

Jaksa-Czotter Nikoletta, PhD defense 2019. Current job: MATE Plant Protection Institute, Gödöllő. Job title: research associate.

Ágnes Kun, PhD defense 2020. Current job: BAMKH Plant and Soil Protection Station, Pécs. Job title: research associate.

#### **Environmental sciences**

Ágnes Hilga Hernádi, PhD defense 2020. Current job: MATE (Hungarian University of Agricultural and Life Sciences, Institute of Environmental Sciences, Department of Environmental Sustainability), Georgikon Campus, Keszthely. Job title: Assistant Professor. Areas of expertise: environmental chemistry, soil protection.

Péter Kóbor, PhD defense 2020. Current job: Hermann Ottó Institute, formerly Hungarian

Natural History Museum, resp. Plant Protection Research Institute. Job: museologist

Brigitta Simon-Gáspár, PhD defense 2020. Current job: MATE (Hungarian University of Agricultural and Life Sciences, Institute of Environmental Sciences, Department of Environmental Sustainability), Georgikon Campus, Keszthely. Job title: Assistant Professor. She specializes in agrometeorology, environmental sciences.

Rafael Szabó, PhD defense 2020. Current job: SUEZ Water Technologies and Solutions Hungary KfT. Job title: Senior Quality Manager. Area of expertise: Investigation of PVDF membranes.

Illés Bernadett Sárfiné, PhD defense 2019. Current job: MATE (Hungarian University of Agricultural and Life Sciences, Institute of Environmental Sciences, Department of Environmental Sustainability), Georgikon Campus, Keszthely. Job title: Assistant Professor. She is currently short. Area of expertise: environmental protection, waste management.

Adrienn Grúz, PhD defense 2019. Current position: Regulatory Publishing Specialist, TATA Consultancy Services Hungary, Job title and area of expertise: Compilation of applications for the authorization of clinical trials and voluntary harmonization procedures in EU Member States, Switzerland and Canada, and the submission of submissions for the renewal of marketing authorizations for various medicinal products.

Éva Kormos, PhD defense 2018. Current position, workplace: Hungarian University of Agricultural and Life Sciences, Institute of Plant Protection, Department of Plant Protection. Upon obtaining the degree, he is an assistant professor, an assistant professor from 2020. She specializes in plant protection administration and consulting.

Péter Tanos, PhD defense 2018. Current job: MATE, Gödöllő Campus, Technical Institute, Department of Engineering Informatics, Gödöllő. Job title: Assistant Professor. She specializes in data science, environmental processes and artificial intelligence..

Nikoletta Horváth, PhD defense 2018. Current job: Eurofins Technologies Hungary Kft., Budapest. Job title: Quality Management Manager. She specializes in the establishment, operation and control of the company's quality management system. Her team is responsible for supporting and documenting the transfer of biotechnology products, as well as for the management-centric design and overall control of the production process at the end of the transfer. Decides on the suitability of processes and products. She is responsible for the certification of the company, leads the external and internal audits. It liaises with authorities, partners, manufacturers, auxiliaries and sales departments.

Heléna Matics, PhD defense: 2018. She is currently caring for her 2 year old daughter and this will continue for 1.5 years. She has no job, did not get a job after the defense.

László Menyhárt, PhD defense 2016. Current job: MATE Technical Institute, Department of Agricultural Engineering, Georgikon Campus, Keszthely. Job title: associate professor. Participates in FDI work as an educator. Areas of expertise: research methodology, informatics.

Mihály Kocsis, PhD defense 2016. Current job: MATE KÖTI KFT (Hungarian University of Agricultural and Life Sciences, Institute of Environmental Sciences, Department of Environmental Sustainability). Job title: departmental engineer Specialization: construction, sorting, filtering of soil databases, editing of digital soil maps.

Dorottya Angyal, PhD defense 2016. Current job: Facultad De Ciencias UNAM-UMDI, Sisal, Mexico (and Hungarian Museum of Natural History). Job: museologist

Fülep Teofil, PhD defense 2016. Current job: at the University of Miskolc. Job title: high school teacher and lecturer.

Katinka Varga, PhD defense 2016. Current job: freelancer. Job title: plant protection and (professional) graphic artist