# WITTMANN ANTAL PLANT-, ANIMAL- AND FOOD SCIENCES MULTIDISCIPLINARY DOCTORAL SCHOOL AND THE DISCIPLINARY DOCTORAL COUNCIL OF MULTIDISCIPLINARY SCIENSES: PLANT PRODUCTION-, HORTICULTURE - , LIVESTOCK FARMING-, AND FOOD PRODUCTION <br> ORGANISATIONAL AND OPERATIONAL REGULATIONS FROM SEPTEMBER 2016 

Doctoral School leader<br>Prof. Dr. László Varga<br>Doctor of the Hungarian Academy of Sciences

MOSONMAGARÓVÁR

## 1. THE ESTABLISHMENT OF THE DOCTORAL SCHOOL

1.1. The Doctoral School was established in 2001 by the merger of two precursor programs (program "A") according to the Hungarian Accreditation Committee (hereinafter: HAC) ruling No.2002/2/III. The earlier two doctoral programs - authorised by HAC in 1993 were the followings:

[^0]
## "BIOLOGICAL, TECHNOLOGICAL AND ECONOMIC QUESTIONS OF THE PRODUCTION OF ANIMAL PRODUCTS" (program "A")

Head of Programme: Prof. Dr. János Iváncsics, university professor, Doctor of the Hungarian Academy of Sciences
Number of HAC rule: IOAB code: 33
The name of the Doctoral School (until $10^{\text {th }}$ October 2007):
"BIOLOGICAL, TECHNOLOGICAL, ECOLOGICAL, FORAGING AND ECONOMIC QUESTIONS OF THE PRODUCTION OF ANIMAL PRODUCTS"

The new name of the Doctoral School (after $10^{\text {th }}$ October 2007):

## "UJHELYI IMRE DOCTORAL SCHOOL FOR ANIMAL SCIENCES"

1.2. The Rector of the University presented the application to the higher authorities regarding the establishment of the Doctoral School based on the doctoral program "Methods of precision plant production"
The Plenum of the Hungarian Accreditation Committee granted the request for the accreditation ad interim with rule No. 2000/10/III./4.1/2 at the 15th December 2000 regular session.
The proposal prepared for final approval was presented to the authority of HAC with the signature of the Rector of the University and the Chair of the University Doctoral Council. HAC sanctioned the establishment of the Doctoral School with ruling No.2002/2/III. The name of the Doctoral School (after 10th October 2007):

## "APPLIED PLANT SCIENCES DOCTORAL SCHOOL FOR PRECISION PLANT PRODUCTION METHODS"

1.3. "WITTMANN ANTAL PLANT-, ANIMAL- AND FOOD SCIENCES MULTIDISCIPLINARY DOCTORAL SCHOOL" WAS ESTABLISHED BY MERGER AS THE LEGAL SUCCESSOR OF OUR PREVIOUS TWO DOCTORAL SCOOLS.<br>DECISION OF THE SENATE 18. 04. 2014.

2. DISCIPLINARY DOCTORAL COUNCIL OF MULTIDISCIPLINARY SCIENCES (plant production, horticulture, livestock farming, food production)
2.1. The members of the Doctoral Council:

The Chair of the Doctoral Council: Prof. Dr. Vince Ördög DSc, university professor Internal members with full authority: Prof. Dr. Gyula Pinke PhD, university professor

Prof. Dr. Ferenc Szabó DSc, university professor
Prof. Dr. László Varga DSc, university professor
External members with full authority: Prof. Dr. Péter Csontos DSc, scientific advisor
Prof. Dr. Ferenc Husvéth DSc, university professor
Prof. Dr. Tamás Kőmíves, member of the Hungarian Academy of Sciences, scientific research professor
Doctoral student representative: Judit Molnár
2.2. The duties and scope of action of the Disciplinary Doctoral Council shall be:

- making proposals to the University Doctoral Council (hereinafter: UDC) regarding the launch, modification or dissolution of doctoral programmes and concerning the necessary changes in the person of the heads of programme,
- making decisions regarding the division of the financial resources available for the Doctoral School in order to support doctoral training,
- determining the list of foreign languages that can be accepted as the first foreign language (first language certificate) within the foreign language requirements of the doctoral degree,
- confirming the persons of the university teachers of the Doctoral School and the subject material of their courses,
- confirming the persons of the writers of doctoral topics and supervisors
- confirming the topic announcement of the writer of the doctoral topic,
- appointing the members of the doctoral admission committee,
- making proposals to the UDC regarding the admissions to the doctoral training and the award of state scholarships as well as the administrative fees of the doctoral training and the acquisition of the doctoral grade,
- making proposals to the UDC regarding the terms and conditions under which foreign citizens can participate in the doctoral training,
- confirming the doctoral topic of the doctoral candidate (regarding the sub-field of research suitable for the doctoral candidate during the process of the elaboration - with the help of the consultant - in order to acquire the adoption of scientific methods, to obtain appreciable scientific results, furthermore to give evidence of their work with the help of scientific publications, scientific presentations and the doctoral dissertation,
- approving individual, out-of-training schedules for preparation,
- establishing authorities for the recourse to complete or partial legal aid in the case of part-time training (evening or correspondent courses) or at the request of the doctoral candidate who participate in full-time training without state scholarship,
- carrying out the evaluation of academic achievement during the doctoral training
- making decisions on issues of cross-university studies with special regard to conditions established by the host (external) institution,
- making decisions on the admission of credit points, including the acknowledgement of the activities carried out in the framework of partial training abroad,
- judging the requirements of the participants in organised training for the postponement of their studies for an academic year or a half academic year and informing the UDC thereof,
- making decisions to commence proceedings of the acquisition of academic PhD degrees,
- determining the subjects of the examination of the doctoral degree and the members of the board of examiners,
- determining - on the basis of the requirement of the doctoral candidate - whether the dissertation can be submitted in a foreign language
- determining the location of the institutional unit which will organise the work debate and according to the recommendation of the consultant it confirms the person of the chairman, secretary and the opponents of the work debate as well,
- determining the members of the jury of the doctoral work and the official judges as well,
- taking into consideration the statement of the jury it passes judgement on the requirement of the doctoral candidate for a private examination for doctorate in case the doctoral thesis includes proceedings of patent law or contains classified data of national security,
- making proposals to the UDC in order to award doctorates or to terminate unsuccessful proceedings,
- making proposals to the UDC in order to nationalize academic PhD degrees acquired abroad,
- deciding to confer or withdraw a title of emeritus of regular members,
- making proposals - on the basis of requests - to the UDC to award honours doctoral degrees.


## 3. THE INSTITUTION OF THE DOCTORAL SCHOOL

3.1. Area of Science:
3.2. Discipline:
3.3. The name of the Doctoral School: Wittman Antal Plant-, Animal- and Food Sciences

Place of Operation: SZE (Széchenyi István University), Faculty of
Mail address:
Tel. number:
E-mail:
Homepage:
Scope of operation:

Multidisciplinary Doctoral School Agricultural and Food Sciences
Agronomy
Animal Science, Plant Production and Horticultural Science, Food Science 9200 Mosonmagyaróvár, Vár tér 2. 96/ 566-631
ordog.vince@sze.hu
http://wamdi.sze.hu/
Faculty of Agricultural and Food ScienceS, Mosonmagyaróvár, Vár tér 2.

## Participant academic educational units:

- Department of Animal Science
- Department of Biological Systems and Food Production Technology
- Department of Food Science
- Department of Agricultural Economy and Rural Development
- Department of Water- and Environmental Science
- Department of Plant Science
3.4. The Doctoral School leader shall be university professor, and either Doctor or member of the Hungarian Academy of Sciences (hereinafter: either DSc or MHAS).


## At present: Prof. Dr.Vince Ördög, Doctor of the Hungarian Academy of Sciences.

The Doctoral School leader shall be elected by the University Doctoral Council out of the core members of the Doctoral School who are university teachers on the recommendations of the majority of the core members of the Doctoral School and shall be appointed or recalled by the Rector for a term of office of maximum 5 years. The nomination can be repeatedly extended. After 1st January 2016 the Head of the Doctoral School shall be a core member of the doctoral school who is a university professor and who possesses at least a DSc/ HAS academic title.
3.5. Members of the Doctoral School who help the Doctoral School leader:

- Core members, Emeritus core members, lecturers and scientific leaders. Emeritus core member may be a person who is a founding member of the same doctoral school or had become a core member at least 5 years earlier and who is no longer responsible for the consultation of a doctoral topic. Emeritus core members are not required to accomplish the HAC criteria regarding the recent 5 announcements or to register their reference data into the Database of Hungarian Scientific Works (hereinafter: MTMT). Emeritus core members are no longer involved in the HAC evaluation procedures of the doctoral schools therefore they cannot be included in the requirements of the Doctoral School (DI) that refer to the 7 core members. Their earlier results however will remain in the statistics of the Doctoral School.
- The supervisor (assistant supervisor) of a doctoral topic is a lecturer or researcher holding a scientific degree. His/her topic announcement has been approved by the respective disciplinary council of the Doctoral School and he/she - on the grounds of such topic - is responsible for guiding and assisting doctoral students working on such research topics and doctoral candidates in preparing for the award of the doctoral degree. A full-time lecturer (researcher) of the university shall assist maximum six doctoral students as a supervisor. A part-time time lecturer or researcher of the university may assist maximum four doctoral students as a supervisor. The position of an assistant supervisor will count as a full value supervisor position when the maximum number of the doctoral students per lectures and researchers are to be calculated. The position of supervisor may be accepted by a Professor Emeritus or a Core Member as well.
- The lecturer of the doctoral school will be a lecturer or researcher holding a scientific degree who - on the recommendations of the doctoral school leader - are considered by the disciplinary doctoral council to be qualified to perform the duties of a lecturer, researcher and a supervisor within the scope of the doctoral school. A core member or lecturer of a doctoral school may accept a lecturer mandate in another doctoral school as well.
- Core Members may be the following:
a) who hold a scientific degree;
b) who pursue continuous and high standard scientific activity in the academic discipline and research field of the doctoral school, whose scientific activity artistic activity excluded - is to be inspected on the basis of the Database of Hungarian Scientific Works (hereinafter MTMT);
c) his/her aptitude to lead doctoral candidates was justified by the fact that acting as supervisor at least one such candidate has been awarded the doctoral degree (or he/she acted as an assistant supervisor for at least two candidates who have been awarded the doctoral degree);
d ) being employed full time on a contractual basis or as public servant at the relevant higher education institution as a lecturer or academic researcher pursuant to Section 26 (3) of Act CCIV of 2011 on National Higher Education (hereinafter: NHEA) has indicated this higher education institution with regard to state funding. Scientific advisors or research professors as well in the event that the higher education institution has concluded an agreement with the research institute on their participation in the doctoral training.

Core members:

| Name | Position: | Degree: |
| :--- | :--- | :---: |
| Zsolt Ajtony | associate professor | PhD |
| Ágnes Bali Papp | professor | PhD |
| Péter Csontos | scientific advisor | DSc |
| Ottó Dóka | professor | CSc |
| Borisz Egri | professor | DSc, MRANH |
| Miklós Neményi | professor | MHAS regular member |
| Vince Ördög | professor | DSc |
| Gyula Pinke | professor | PhD |
| János Schmidt | professor emeritus | MHAS regular member |
| Ferenc Szabó | professor | DSc |
| Jenő Szigeti | professor emeritus | CSc |
| László Varga | professor | PhD |

Professor emeritus core members:

| Name | Position | Title |
| :--- | :--- | :---: |
| Pál Benedek | professor emeritus | DSc |
| Károly Kacz | professor emeritus | CSc |
| Katalin Gál Kovács | professor emerita | CSc |
| Tamás Kömíves | research professor | MHAS regular member |
| Aladár Porpáczy | professor emeritus | DSc |
| Lajos Salamon | professor emeritus | CSc |
| Antal Tenk | professor emeritus | CSc |
| Zoltán Varga-Haszonits | professor emeritus | DSc |

Lecturers:

| Name | Position | Tile |
| :--- | :---: | :---: |
| Zsolt Ajtony | associate professor | PhD |
| Báázs Ásványi | associate professor | PhD |
| Ágnes Bali Papp | professor | PhD |
| Beáta Barnabás | Vice-Secretary of HAS | MHAS regular member |
| Pál Benedek | professor emeritus | DSc |
| Zoltán Berzsenyi | research professor | DSc |
| Borbála Biró | professor | DSc |


|  | Zoltán Berzsenyi |
| :---: | :---: |
|  | Péter Csontos |
|  | Ottó Dóka |
|  | Dénes Dudits |
|  | Borisz Egri |
|  | Tibor Érsek |
|  | Nóra Gombkötő |
|  | Attila József Kovács |
|  | Péter Kovács |
|  | Tamás Kőmíves |
|  | Sándor Kukovics |
|  | Erika Lencsés-Varga |
|  | Gábor Milics |
|  | Zoltán Molnár |
|  | Miklós Neményi |
|  | Vince Ördög |
|  | Ferenc Petróczki |
|  | Gyula Pinke |
|  | Borbála Polyáné Hanusz |
|  | László Pongrácz |
|  | Rezső Schmidt |
|  | Ferenc Szabó |
|  | Pál Szakál |
|  | László Szathmári |
|  | Jenő Szigeti |
|  | Károly Tempfli |
|  | Imre Tell |
|  | Tamás Tóth |
|  | György Várallyay |
|  | László Varga |
|  | Zoltán Varga |
|  | Lajos Vörös |
|  | Eszter Zsédely |


| research professor | DSc |
| :--- | :---: |
| scientific advisor | DSc |
| professor | CSc |
| research professor | MHAS regular member |
| professor | $\mathrm{DSc}, \mathrm{MRANH}$ |
| professor emeritus | DSc |
| assistant professor | PhD |
| associate professor | PhD |
| director | PhD |
| research professor | MHAS regular member |
| director | PhD |
| assistant professor | PhD |
| associate professor | PhD |
| associate professor | PhD |
| professor | MHAS |
| progular member |  |
| associate professor | DSc |
| professor | PhD |
| associate professor | PhD |
| associate professor | PhD |
| professor | PhD |
| professor | CSc |
| professor | DSc |
| associate professor | CSc |
| professor emeritus | PhD |
| assistant professor | CSc |
| associate professor | PhD |
| associate professor | CSc |
| research professor | MHAS |
| professor | DSc |
| associate professor | PhD |
| scientific consultant | DSc |
| associate professor | PhD |
|  |  |

3.6. Number of members of the Doctoral School Council ..... 15

- According to duties (doctoral school leader, and doctoral program leaders) ..... 4
- Core members ..... 6
- External members having voting rights ..... 2
- Representatives of doctoral students ..... 1
- Internal members having consultation rights ..... 2
- The members of the University Doctoral Council are nominated or recalled by the Disciplinary Doctoral Council. The expiry of the mandate of the University Doctoral Council members is 3-5 years.

The University Doctoral Council prepares documents on which the decisions of the Disciplinary Doctoral Council are based.

Participants: core members, scientific leaders, lecturers, PhD students and doctoral candidates.

- Duties: discussing the issues of part-time training and the issues of the doctoral training concerning courses, research, publications, employment background conditions, study trips.
- The organisation of the Scientific Forum of the Doctoral School in order to introduce the results of the appropriated research projects the PhD students of the Doctoral School have to carry out within the research schedule of the current academic year (Doctoral students will give a 10-15-minute-long presentation on the results of the research they have carried out).
3.8. The record system of the Doctoral School

The administration work of the Doctoral School is carried out in the PhD office of the Faculty which refers to:

- lecturers and scientific leaders of the Doctoral School
- students admitted to the training
- the organisation of oral entrance examinations
- results of the academic achievement (exam grades, credit points)
- registration of the participants of doctoral trainings and record them in the Neptun system
- the issue of the certificate
- registration of actions and academic results in the process of awarding of the doctoral degree (examination for doctorate, work debate, open debate)
- the appropriation of research funding
- the management of all the other issues regarding students
- the publication of doctoral thesis and upgrading the homepage
- the activities of the Doctoral School regarding the records that are carried out by the PhD office of the Faculty
3.9. The internal establishment of the Doctoral School:

Three programs are functioning within the Doctoral School:

1. Program: Haberlandt Gottlieb Doctoral Program for Plant Science

Program leader: Prof. Dr. Vince Ördög DSc
2. Program: Ujhelyi Imre Doctoral Program for Animal Science

Program leader: Prof. Dr. Ferenc Szabó DSc
3. Program: Pulay Gábor Doctoral Program for Food Science

Program leader: Prof. Dr. Jenő Szigeti CSc

## 4. THE ROLE OF THE DOCTORAL SCHOOL IN THE ADMISSION PROCEDURE

4.1. The announcement of research topics by the nomination of supervisors

- Topics represented in the research program of the Doctoral School introduce the chain of research fields of the programs. In every academic year the potential research topics candidates can apply for are announced out of these topics which shall be announced by the Disciplinary Doctoral Council according to the actuality.
4.2. The subject matter of the entrance examination
- The subject matter of the entrance examination is basically determined by the announced research topics. Apart from these the Admission Committee will gather information about the fundamental knowledge that demonstrate the candidate's knowledge of the profession. During the examination candidates have to prove that they are creative and have the ability to synthesize.
4.3.The point system of the evaluation
- The procedure of the evaluation by points belongs to the preparation process for the decision on admission.
- Criteria for ranking for admission shall include in particular: officially authorised certificate of a language examination, awards obtained at the National Conference of Students' Scholarly Circles, publications in the particular professional area, additional achievements, for instance qualification of another university degree, university tutoring, fellowship granted by the Republic etc.
- The Disciplinary Doctoral Committee shall submit recommendations on the determination of criteria points to the University Habilitation Committee and Doctoral Council (henceforth EHBDT)
4.4. The admission criteria by points:

University degree: max. 50 points (calculation: grade x 10 e.g.: 4, $2 \times 10=42$ )
The doctoral applicant shall certify the grade of his/her degree by presenting their registration book. The student who does not bring the registration book with him/her shall receive the lowest number of points in their category (good, excellent). In the case of applicants who have more than five- year-long professional experience the university degree classified as average mark meaning no disqualification. In such cases publication work shall be taken into account as a weighting factor. The applicant has to bring and present his/her diploma to the entrance examination.

Language competence: State language examination:

| intermediate level | type | A | or | B: | 10 points |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | type |  |  | C: | 20 points |
| $\underline{\text { higher level }}$ | type | A | or | B: | 15 points |
|  | type |  |  | C: | 30 points |
| basic level | type | A | or | B: | 5 points |
|  | type |  |  | C: | 10 points |

In the event of more language certificates of the same foreign language the one of the highest level shall be taken into account.

TDK (hereinafter: NCSSC - National Conference of Student's Scholarly Circles)

| Faculty Conference | University Conference | National Conference |  |
| :--- | :--- | :--- | :--- |
| participation | 4 points | participation | 4 points |
| participation I | 14 points |  |  |


| placing <br> $1^{\text {st }}-3^{\text {rd }}$ | 7 points | $3^{\text {rd }}$ place | 6 points | $3^{\text {rd }}$ place | 16 points |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |
|  | $2^{\text {nd }}$. place | 8 points | $2^{\text {nd }}$ place | 18 points |  |
|  | $1^{\text {st }}$. place | 10 points | $1^{\text {st }}$. place | 20 points |  |

In the event that the student has written a paper in one subject matter the points obtained at a University NCSSC shall not count.
Awards obtained at International Conferences of Student's Scholarly Circles can be graded with similar points as that of the NCSSC.

## Publications:

published abroad in a peer reviewed specialist journal: 5 points/paper
published in a foreign language in Hungary in a peer reviewed specialist journal:
5 points/paper
published in Hungarian in a peer reviewed specialist journal: 4 points/ paper
presentations in a foreign language:
4 points/presentation
scientific presentations in Hungarian: 3 points/presentation
other presentations in Hungarian:
posters:
promotional articles:
1 point/presentation
(max. 10 points)
2 points/poster
1 point/paper (max. 10 points)

## Oral examination (professional intelligence):

## Professional competence, aptitude:

max: $0-40$ points

$$
0-30 \text { points }
$$

Rewarding other professional achievements (justified by the admission committee)

$$
0-10 \text { points }
$$

(second degree, doctoral diploma, academic competitions, work as a professor's graduate assistant etc.)
4.5. The admission procedure conducted by the Admission Committee

- Admission Committees are set up with a chairman and at least two members as well as the representatives of the doctoral students with the right of consultation. The chairman and the members shall be nominated by the Doctoral School Council.
- The admission procedure consists of an oral aptitude test where the applicant will present his/her scientific research, will give an outline of his/her scientific research scheme and will give argumentation of his/her competence in the selected research topic and in a foreign language as well.
- The Admission Committee will decide - on the basis of the presented documents whether the applicant can be allowed to enter the oral aptitude examination. Applicants will be informed by the Faculty PhD Office about the decision at least one week before the date of the oral aptitude examination.
- The Admission Committee will consider the work and achievements of the Applicant, the grade of the degree, possible NNSSC activities, publications), his/her language
competence, his/her competence in the chosen research topic, professional intelligence and will judge the points to be given on the basis of these factors. The Doctoral School Council will determine the number of points that can be given related to every single factor and it will also determine the minimum number of points required for admission. The number of points required for admission can be different in each doctoral programs.
- During the admission procedure the committee will submit recommendations on the basis of the oral aptitude examination to the University Habilitation Committee and Doctoral Council for admission or refusal.


### 4.6. The decision on admission

- The Disciplinary Doctoral Council will prepare the recommendation for the approval of graduates who are grant holders, or who have applied for part-time and individual studies. The decision on admission will be approved by the University Doctoral Council.
- External supervisors can assist full-time grantee PhD students in the event of the approval of the Dean of the University Faculty.


### 4.7. Notification

- The Doctoral School leader sends a written notification to the applicants on the basis of the decision of the University Doctoral and Habilitation Council within 8 workdays.


### 4.8. Registration

- The registration of the students who have been admitted is due in the first week of September every year, by the notification of the head of the Doctoral School. They receive a registry book and a student card.
- During the registration the first-year PhD students are informed of how to prepare the work schedule, about the compulsory and elective courses in the PhD Office of the Faculty
4.9. Amount of tuition fees and deadline for payment

The tuition fee is 1.2 times the prevailing minimum wage. The tuition fee must be paid by $30^{\text {th }}$ September in the first semester, by $30^{\text {th }}$ March in the second semester. The examination period can only be started after paying the tuition fees.

## 5. ACADEMIC WORK OF THE DOCTORAL SCHOOL

### 5.1. Tasks of PhD students:

The doctoral training is education, research and report activities in the framework of individual or group preparation which conforms to the characteristics of the discipline and the needs of PhD students. It consists of training and research, and research and thesis stages. The training and research stage is carried out in the first two years.

- The PhD students work on the basis of their prepared work schedule approved by the doctoral council of their discipline. The work schedule is divided into the study
schedule and the research schedule. Students are allowed to choose 1 compulsory course from the compulsory courses of the other two programs with the consent of the program leader. In case of the facultative (optional) courses, two courses can be chosen from any lists with the consent of the supervisor and the program leader. The minimum academic requirement is 40 credit points, a maximum of 45 points can be taken and achieved.
- The PhD students' academic and research work is managed by the scientific leaders (supervisor) during the doctoral training.
- Every semester the PhD student takes the courses according to their study schedule in the Neptun system. It is compulsory to participate in the lessons. Exemption can be requested from the lecturer. The conditions are determined by the lecturer. In case of argument the parties can appeal to the Disciplinary Doctoral Council. The professor must confirm the accomplishment of requirements on the examination sheet. Student grants can only be paid in the following semester on the basis of successfully finishing the previous semester (proportional performance of research topics).
- At the beginning of the semesters the program leaders negotiate the place and time of the course with the lecturers and inform the doctoral administrator and PhD students.
- It is the task of the Disciplinary Doctoral Council to approve of the syllabus of the lectures and seminars, to announce courses, to determine credit awarded.
- The contact lessons can be held every week or in blocks.
- At the end of the course the course leader confirms the accomplishment of the course with their signature in the HIR (Student Information System).
- Credit is the unit of measure of the academic and research work for completing the requirements of PhD students. The PhD student is obliged to take examinations in the courses. The examinations are evaluated by the following: excellent (5), good (4), satisfactory (3), pass (2), fail (1).
- If students fail the examination, there is a possibility to retake and correct it once. The Doctoral School Council can give exemption from the examination where appropriate.
- The PhD student must dispose of at least 90 credit points by the end of the training and research stage. The Doctoral School Council prescribes the accomplishment of a doctoral seminar for which students are entitled credit points.
- All activities related to the education of PhD students must be recorded in the PhD contract, and a copy of this contract must be sent to the doctoral school leader.
- The lesson times for professors determined in the Employment Requirements are valid for PhD students participating in the education, moreover, in case of PhD students one research hour counts as one lesson.
- The PhD student carries out their research tasks continuously in the way determined in the research schedule and publishes their research results. It must be ascertained in the seminars and on the basis of the written records.
- A certain part of the academic requirements can also be fulfilled at other universities by the recommendation of the supervisor, with the consent of the doctoral school leader and on the basis of the decision of the Disciplinary Doctoral Council.
- The PhD students who fulfil their requirements with delay (closing semesters, enrolment, registration, payment of tuition fees, etc.) or lose their student cards, must pay special procedure fees. The special procedure fees amount to the price of the documents to be replaced as well $1 \%$ of the monthly amount of the national grant. The special procedure fees can be linked to time by the Disciplinary Doctoral Council that is to say a default lasting for a longer period of time can be charged with multiple amount of the given sum of money.


### 5.2. Announcement of courses

- To approve of courses not part of the Doctoral School Programs is the competency of the Senate on the basis of the recommendation of the Disciplinary Doctoral Council.
- The syllabus made by the course leader and the course leader's personal documents (if they are not yet present in the Doctoral School) must be submitted to the Disciplinary Doctoral Council by the program leader.
- The syllabus contains the name of the course, the names of the course leader and the lecturers, the type of the course (compulsory, facultative), the obtainable credit points, the topics to be covered, the course requirements and its suggested bibliographic references.


## 6. TASKS OF THE DOCTORAL SCHOOL RELATED TO THE RESEARCH ACTIVITIES OF PHD STUDENTS

### 6.1. Tasks of the Doctoral School

- The PhD student endorses their work schedule with the supervisor and with the program leader, then forwards 4 copies to the Faculty PhD Office.
- The PhD administrator files one copy and forwards two copies to the Doctoral School leader.
- The Doctoral School leader asks two reviewers on the basis of the supervisor's opinion to comment on the work schedule in writing. On the basis of the reviewer's view the Doctoral School Council comes to a decision on the acceptance of the work schedule, on its modification with supplements or its rejection.
- At the arrival of the reviews, the Doctoral School leader informs the supervisors about the decision of the Doctoral School Council.
- The work schedules to be revised must be submitted within two weeks after receiving it, according to the previously determined way.
- In case the reviewer recommends a total revision, the Doctoral School leader asks for another review of the revised work schedule.
- In case of the repeated rejection of the work schedule the Disciplinary Doctoral Council must make a decision on assigning a new supervisor or modifying the topic. The PhD student can be excluded from the training following multiple warnings in case of serious default.
- Monitoring, reviewing the PhD students’ short written reports on their annual research results (the internal expert assigned by the supervisor's recommendation makes a review, the student necessarily modifies the report by taking the critical remarks into account; at the end of the first year the critical analysis of the literature composes the focal part of the research work).
- On the evaluation form the supervisor prepares a substantive written assessment about the PhD student's activities in two copies, and they make a recommendation on whether the student should continue the training or they should be excluded.
- The Doctoral School leader monitors the evaluation forms and makes an opinion and signs them. One of their copies is filed by the Doctoral School leader, and one copy will be filed in the Faculty PhD Office.
- During the meeting of the Doctoral School Council the Doctoral School leader provides an account of the PhD students' activities and makes recommendations on the settlement of the possible shortcomings.
- The Doctoral School Council conducts an investigation by involving the program leaders, the supervisors and the representatives of the PhD students of the Faculty in the cases when the supervisor and the program leader make a statement on the evaluation form about the exclusion of the PhD student, or their inadequacy for the research work.
6.2. The doctoral complex examination (comprehensive examination):

The research and thesis stage takes place in the third-fourth year after a successful complex examination.
Conditions of applying for the complex examination:

- the fulfilment of the foreign language requirements of obtaining a doctoral degree in two foreign languages to confirm the knowledge necessary for cultivating the field of science, as determined in the doctoral regulation.
- Obtaining at least 90 credit points in the "training and research stage" of the doctoral training (first four semesters) and all "training credit points" prescribed in the training curricula of the Doctoral School, except for the students preparing individually for obtaining the doctoral degree whose student status is established with the application to the complex examination and its acceptance.
- The complex examination takes place in the second year of the training period during the summer examination period.
- In the theoretical part of the complex examination the examinee takes an examination in two courses (topics).
- For the report part of the complex examination the student must prepare a minimum of 20 , maximum of 30 -page long paper about the knowledge of literature related to their topic, the research accomplishments, and they have to present the research schedule and the scheduling of result publishing related to the second stage of the doctoral training. The paper must include the supporting, consentient opinion of the supervisor(s). The student must send the above mentioned paper to the Doctoral School leader two weeks before the examination. The Doctoral School leader will forward it to the examiners not later than 8 days before the examination. The student must present their paper in the form of a 20 -minute long free lecture illustrated with ppt.


## Comprehensive examination courses of the Haberlandt Gottlieb Doctoral Program for Plant Science:

## Major course:

Biological, technological and technical basics of precision crop production and plant protection

## Topics

- Characteristics of natural and agro-ecological systems
- GIS and remote sensing
- Decision support plant physiological and hydrologic models
- The technical conditions of precision crop production
- Microalgae biotechnology
- Soil cultivation
- Principles of arable crop production
- Horticultural production
- Plant pathology
- Plant protection zoology
- Weed control
- Plant protection of organic farming


## Minor course:

The knowledge of one of the facultative subjects related to the research topic at the level of the comprehensive examination.

## Comprehensive examination courses of the Ujhelyi Imre Doctoral Program for Animal Science:

## Major course:

Genetic, physiological, nutrition, breeding, technological, environmental, hygienic, research context of the production of animal products.

## Topics:

- Quantitative genetics in animal husbandry
- Use of molecular genetics methods in animal husbandry. Direct gene tests, QTL analysis at domestic animals
- Physiology of muscle functions
- Digestive physiology
- The organs and physiology of excretion
- N-circulation of domestic animals
- Energy flow of domestic animals
- Energy- and protein value of feeds
- Reproduction biology of the given animal species
- Breeding methods of given animal species and their types
- Technological varieties of the production of certain animal products
- Research methods by animal species


## Minor course:

The knowledge of one of the facultative subjects related to the research topic at the level of the comprehensive examination.

## Comprehensive examination courses of the Pulay Gábor Doctoral Program for Food

 Science:
## Major course:

Production, storage and quality assurance of drinks and foodstuffs

## Topics:

- Products made of cattle and their quality assurance
- Foodstuffs made of pigs and their quality assurance
- Processing of lamb-, goat- and game meat and their quality assurance
- Production and quality assurance of poultry industry products
- Production and quality assurance of dairy products
- Production and quality assurance of products of refrigeration industry
- Production and quality assurance of fish and fish products
- Production and quality assurance of soft drinks
- Production and quality assurance of products of canned food industry
- Production and quality assurance of cereal products
- Production and quality assurance of vegetable oil products
- Production and quality assurance of spirituous beverages
- Production and quality assurance of food supplements


## Minor course:

The knowledge of one of the facultative subjects related to the research topic at the level of the comprehensive examination.

## If applicable, the Doctoral School Council can modify the courses of the comprehensive examination.

### 6.3. Evaluation of the complex examination:

- The complex examination board consists of a chairperson and 2 more members. Every member of the board must dispose of a doctorate degree. At least one member of the appointed board must be an external expert. The complex examination can be conducted if the chairperson and the 2 members - including the external member - are present. The Disciplinary Doctoral Council must appoint a substitute chairperson and a substitute member.
- The board evaluates the theoretical and dissertation parts of the examination separately in a closed session with secret ballot.
- Text reviews of the complex examination are also recorded in the minutes taken during the examination. The result of the oral examination is announced on the day of the examination by the board. The complex examination is successful as long as the majority of the members of the board assess both parts as successful. They decide separately in respect of the main- and secondary courses (1-2-3-4-5 point(s)). Should the examinee fail the theoretical part of the examination, they are given a chance to retake it once from the unfulfilled course(s) in the given examination period. If the final result achieved is $60 \%$ but is less than $80 \%$, the qualification of the comprehensive examination is "rite" (satisfactory), if it achieves or passes $80 \%$ but less than $90 \%$, the qualification is "cum laude" (good) and if it achieves or passes $90 \%$, the qualification is "summa cum laude" (excellent).
- The result of the doctoral complex examination must be qualified. The qualification of the complex examination: elaboration and oral presentation of the academic problem or the average of the points allocated separately to the two courses must be given in the percentage of the obtainable points.
- The presentation on the research work is also evaluated by the board (1-2-3-4-5 point(s)). This part of the complex examination can be regarded as successful if the majority of the board allocates 3 or more points for the presentation. The chairperson of the board must call the board members' attention to the fact that the critical opinion
must be presented during the complex examination in case of giving one or two points. Students must be provided a response option to this opinion.
- The "thesis part" of the examination cannot be retaken in the given examination period in case of failure.
- No exemption from the doctoral complex examination can be given.
- The comprehensive examination can be retaken by the decision of the Disciplinary Doctoral Council in case of a certified absence from the doctoral complex examination. The possibly certified absence (e.g. in case of a long-term illness) must be reported in writing at least 3 workdays before the time of the comprehensive examination. Uncertified absence from the doctoral complex examination is qualified as an unsuccessful examination, and in this case students are allowed to retake the complex examination once in the given examination period. Where appropriate, the occurring extra costs or a part of the costs can be devolved upon the student.


### 6.4. Organising a workplace debate:

- The doctoral dissertation written on the basis of the research results must meet the content and formal requirements.
- The supervisor - in agreement with the program leader - gives the dissertation for review to two opponents recognised in the profession and confirmed by the Disciplinary Doctoral Council.
- There are 2 months available for preparing the review of the dissertation.
- The workplace debate can be organised depending on the opponent reviews. In case one of the opponents does not recommend carrying out the debate, a third opponent can be asked for a review on the dissertation.
- The chairperson, the secretary and the opponents of the workplace debate shall be invited by the director of the given institute. The workplace debate shall be considered the full rehearsal held on the basis of the scenario of the public defence. All the people with whom the student cooperated in some form or whose topic is closely related to the student's research program must be invited for the workplace debate for clarifying any possible ethical questions. Minutes and an attendance sheet shall be prepared of the workplace debate.
- The PhD students makes the modifications by taking into consideration the opponent reviews and the remarks made during the debate, then they submit the finished dissertation for procedure to the Disciplinary Doctoral Council.


### 6.5. Public defence:

- The PhD student must submit a doctoral dissertation according to the requirements set in the doctoral regulations within three years after the complex examination. As it is determined in the doctoral regulations, this deadline may be extended with a maximum of one year in cases of special appreciation (childbirth, accident, illness, other reasons besides the student's fault). The student status may be pretermitted for a maximum of two semesters in the degree obtainment procedure.
- PhD students shall require submitting the thesis in a foreign language with the consent of the Disciplinary Doctoral Council.
- The most important results of the doctoral dissertation must be summarised in theses. The thesis of the doctoral dissertation introduces the results of the individual scientific
work in a system understandable by itself, it presents the new statements itemised and built upon the candidate's scientific publications.
- The thesis must be prepared in Hungarian and in English, in a printed and an electronic form as well.
- The formal requirements of the doctoral dissertation and the thesis are included in Appendix no. 7.
- On the third page of the dissertation the name of the supervisor(s) and their review on admitting the dissertation to defence must be indicated (Appendix no. 8). The dissertation can only be published with the written consent of the supervisor(s). The supervisor(s) must inform the Disciplinary Doctoral Council of any rejecting opinion in writing and a copy of the related documents must be enclosed. In case of a rejecting opinion, the candidate may turn to the Disciplinary Doctoral Council for legal remedy. The Disciplinary Doctoral Council shall make a decision about the justification and legality of the rejection within 15 days, after hearing the supervisor(s) and the candidate.
- The doctoral dissertation must be submitted in 5, corresponding bound copies together with the following:
a) a declaration that the dissertation is the candidate's individual work, the literary references are obvious and complete (Appendix no. 5),
b) the minutes and attendance sheet prepared during the preliminary presentation (workplace debate),
c) theses in written form (thesis booklet), in the language of the dissertation and in English,
d) the dissertation and the thesis booklet in electronic form,
e) a short (maximum 8-10 lines) abstract in English with the translation of the title,
f) a maximum one page long professional curriculum vitae narrated in third person singular,
g) the list of publications related to the topic of the dissertation, with the offprints or with the statement about the acceptance for publication,
h) written statement of the supervisor(s) about the publication activity,
i) the statement in which the co-authors allow the candidate to use the results published in the common publication in the dissertation,
j) the certificate on the payment of the administrative fee.
- The doctoral dissertation and its thesis booklet marked with the adequate Digital Object Identifier (DOI) in compliance with the generally accepted international practice are readily available for everybody. Upon the request of the PhD candidate and subject to the positive opinion of the review committee and the approval of the Disciplinary Doctoral Council, the publication of a doctoral dissertation and its theses affected by a patent or trademark procedure may be postponed up to the date of registration of the patent or trademark. A doctoral dissertation or doctoral thesis including data qualified for national security reasons shall be published after the period of qualification is over.
- The university bears responsibility for the registration of the electronic and written dissertation and thesis and the publication of these documents in full length by placing 1-1 printed copy of the doctoral dissertation and thesis catalogued in the Central Library, and by making the electronic version available via the MTMT by means of its own doctoral repository. The requirements and use of the MTMT and the SzE Doctoral Repository are contained in separate instructions of the rector.
6.6. The evaluation of the dissertation
- The Disciplinary Doctoral Council invites two official reviewers holding academic degrees to form opinion on the dissertation. A person who is in relationship of dependency with or is a relative of the candidate, or from whom the objective opinion on the dissertation cannot be expected for other reasons, cannot be an official reviewer or expert-committee member. One of the reviewers cannot be employed by the university. The reviewers can reject the task within 14 days because of the above mentioned conflict of interests or professional reasons. Two months from the submission of the dissertation are available for the reviewer to prepare their review (excluding the term time).
- The reviewers must send the reviews prepared for the debate together with the reviews of the dissertation and thesis booklet.
- The candidate must be informed of the reviewers' identities. The candidate can object to the persons in case of incompatibility or partiality. In case of objection the Disciplinary Doctoral Council makes a decision on the question of the change of person.
- The content and formal virtues and mistakes must be detailed in the review with special attention to whether the theses are acceptable or not, and finally a summarising recommendation must be made about the acceptance or rejection of the dissertation serving as the basis of awarding the doctoral degree. The candidate shall be asked questions in the review. If one of the reviewers gives a negative review, the Disciplinary Doctoral Council invites a further reviewer.
- The Disciplinary Doctoral Council requires the review to be prepared in 4-4 copies. The necessary data (reviewers' name, opinion, dates) are entered on the third page of the dissertation by the administration. 1-1 copy of the review must be handed over to the candidate who is obliged to respond to them in writing - then orally during the defence, in the open debate. The candidate is obliged to submit 4-4 copies of their written response. The open debate of the dissertation must be appointed within 2 months from the arrival of the two supportive reviews in the term time. The doctoral administrator sends the written responses to the opponents before the defence.
- If the dissertation is rejected by both reviewers, the doctoral procedure is terminated.
6.7. The open debate of the dissertation:
- The dissertation must be defended in front of the review committee appointed by the disciplinary doctoral council. The disciplinary doctoral council invites a review board of at least 5 members, the chairperson of which should be a professionally competent university professor, a professor emeritus of the university or a habilitated associate professor or a habilitated college professor. The members of the committee are the reviewers (opponents) and further 2 members at least one of whom must be an external expert not being in a legal employment relationship with the university. Every member of the review committee must dispose of an academic degree. The candidate's supervisor cannot be a member of the committee. During the open debate of the dissertation only one of the two reviewers (opponents) of the workplace debate can be the reviewer (opponent) of the dissertation. The open debate can only be conducted if the chairperson and at least three - including the external opponent and/or one external member - are present. The competent Disciplinary Doctoral Council is obliged to appoint a substitute chairperson and substitute member(s) in order to avoid the postponement of the defence.
- The open debate can be held after passing the comprehensive examination and the workplace debate.
- At the candidate's request, on the basis of the supportive opinion of the reviewer committee and with the consent of the Disciplinary Doctoral Council a closed defence can be held as long as the doctoral dissertation is affected by patent procedures or contains data qualified for national security reasons.
- The candidate, the members of the review committee, all the members of the disciplinary doctoral council and the professionally competent institutions of the university must be informed of the time of the open defence. In the information it must be stated that anybody can speak up and can also make comments in writing in advance. If any opinions or questions arrive in writing in advance, the chairperson must present them during the debate, to which the candidate is obliged to respond.
- The doctoral dissertation must be made accessible for everybody at least 15 days before the set time of the defence. For this purpose, 1 copy must be placed in the university library, and the dissertation must be made available on the website of the doctoral school as well. The open debate must not be set in a time interval shorter than 3 weeks after submitting the response to the opponent opinions.
- The members of the review committee must be provided access to the reviews and the answers prior to the open debate.
- In case of a dissertation in a foreign language the defence can be held in Hungarian or in the foreign language.
- During the debate the candidate describes the main results and the theses of the accomplished work in a short (maximum 20-minute long) free lecture. After this the reviewers present their opinion, then the candidate responds to the questions of the reviewers and the questions and contributions of the participants of the open debate. Finally, the reviewers and the participants of the debate makes a statement on whether they accept the candidate's responses or not.
- After closing the debate, the review committee makes a decision on the result of the defence in a closed session with secret voting (1-5 point(s)). The opponent also takes part in giving the points. The dissertation can only be considered accepted if the amount of the points reaches $60 \%$ of the total points. In case it achieves $60 \%$ but is less than $80 \%$, the qualification of the defence of the dissertation is "rite" (satisfactory), if it achieves or passes $80 \%$ but less than $90 \%$, the qualification is "cum laude" (good) and if it achieves or passes $90 \%$, the qualification is "summa cum laude" (excellent).
- Minutes are taken of the events of the defence and the closed session which are signed by the members of the review committee. The minutes are public. The third page of the dissertation is signed as appropriate at that time.
- The chairperson announces the result of the defence following the closed session.
- The university makes a certificate - on the candidate's request - about the result of the doctoral comprehensive examination and the defence in which they indicate that the certificate does not mean the award of doctoral degree.
- An unsuccessful defence cannot be retaken. In case of two rejecting reviews or an unsuccessful defence a new procedure can only be launched in the same doctoral topic at least one more time after 2 years at the earliest.
6.8. The doctoral candidate status is terminated by closing the doctoral degree obtainment procedure and in the case if the candidate has not submitted their doctoral dissertation within 2 years of the complex examination.


## 7. MANAGEMENT OF THE DOCTORAL SCHOOL

- The principles of the distribution of the available resources are determined by the Disciplinary Doctoral Council.
- The funds of the PhD's participation in national and international conferences and study trips may be covered from tendering resources and from resources planned in the framework of research support.


### 7.1. Tendering activities of the Doctoral School

- The professors and researchers participating in the Doctoral School, as well as the students apply for tenders individually or jointly for the compatible topics of the announced tenders belonging to the research topic.
- In case the tender is awarded, the candidates take part in the accomplishment of the research with the task and in the proportion determined by the supervisor.


## 8. THE PUBLICATION PRACTICE OF THE DOCTORAL SCHOOL

- The PhD student makes the results of their research work public in lectures held at national and international forums, by publishing their publications in national and international journals.
- The PhD student is obliged to publish articles in a minimum of 3 revised journals in their study year until the defence of the dissertation:
a) in one case as the primary author,
b) in a university academic journal,
c) one must be published as a foreign language publication (preferably in a foreign journal).
- Each of the doctoral candidates in the Doctoral School is recommended to publish an article with impact factors. (It can be carried out together with co-authors.). In case there are not any possibilities to publish a publication with impact factors in the given field of science, the article in a foreign language must be published in a foreign paper. The prescribed requirements may be made more severe by the supervisor or the program leader.
- All the three programs of the Doctoral School require the students to prepare a review article in the given topic using a large number of literature by the end of the first year. The review article must be published in a revised paper.
- The content and formal requirements of the doctoral dissertation must be validated according to the prescriptions of the University Doctoral and Habilitation Council.
- The size of the doctoral ( PhD ) dissertations and thesis are the same ( $\mathbf{1 7 X 2 4} \mathbf{~ c m}$ ). The dissertation must be bound in a white or light coloured cover.


## 9. TASKS OF THE DOCTORAL SCHOOL DURING THE HABILITATION PROCEDURES

- The request for starting the habilitation procedure and its appendixes must be submitted to the University Doctoral Council in 5 copies. The request which is formally inappropriate or is submitted imperfectly must be resent to the candidate for supplying a deficiency who can recall the request or can submit it with the requested rectification again at any time. The habilitation procedure is considered started if the

University Doctoral Council - asking for the opinion of the disciplinary competent doctoral school - has made a decision on the personal composition of the expert committee of the procedure in possession of the request appropriate in form and complete in content.

- By taking the university and faculty regulations into consideration the Disciplinary Doctoral Council makes a statement on the acceptance of the application.
- A recommendation is made on the expert committee, on its chairperson, secretary and members. The appointment of the persons is recommended by the Disciplinary Doctoral Council and it is approved of by the University Doctoral and Habilitation Committee.
- Following the start of the official procedure the Disciplinary Doctoral Council organises the hearing of the candidates in possession of the expert opinions, then makes a recommendation on the opening of the procedure.
- The Disciplinary Doctoral Council organises the lessons and the academic debate.


## 10. THE ALUMNI POLICY OF THE DOCTORAL SCHOOL

- It is the task of the Faculty PhD Office to keep a record of the graduates and to keep the contact with them.


## 11. THE QUALITY ASSURANCE SYSTEM OF THE DOCTORAL SCHOOL

### 11.1. Principles

- The admission of people (students) possessing knowledge, efficiency, creative abilities.
- During the entrance examinations the admission of quality applicants must be validated.
- The admitted students be awarded a place on the course with such qualifications on the basis of international standards.
11.2. The quality assurance system contains questions related to:
- the training (compulsory and facultative subjects, examinations, credit points, consultation, seminars),
- the research (literature search, library, information technology, laboratory conditions, publishing possibilities, national and international study trips),
- operation (financial resources of the research, travels, conferences),
- economy (financial part, grant),
- student life (flat, eating, tutoring, grant supplement).
11.3. Partnerships in education and research:
- Student-professor relationship
- Domestic relationships (internationally recognised excellent qualified researchers, academicians, people with "honorary doctorate" title must take part in the training)
- International relationships (part-time trainings, study trips, special examinations)
- A quality-centred Doctoral School management shall prevail in the attitude, the development strategies, the services. The efficiency of operation must be measured and evaluated.
- The professors must dispose of an academic degree whose results are known and acknowledged by the national and international public life.
- The contact lesson system of the education must be completed with seminar system consultations.
- The training conducted in the Doctoral School shall be an activity realising independent methodology, pedagogical and educational organization.
- Compact seminars
- Individual consultations
- Individual student work in the library, in compiling a professional bibliography, in experimental areas (laboratories, greenhouses, phytotron experimental sites, study farms, pilot farms)
- Publications
- Professor and student relation
- The training methodological, pedagogical and educational organisation elements, including information, infrastructure and complaint management and their regulation, shall be uniformly employed in the Doctoral School.
- The forms of examinations are described to the students by the course lecturers at the beginning of the semester.
- The student evaluation of the work of professors must be realised.
- During the doctoral training the conditions of continuous work must be provided.
- The background institutions serving the research shall contribute to the efficiency of the PhD research work: instrumental laboratories, phytotrons, greenhouses, experimental sites, (own and cooperative) study farms, pilot farms, agricultural factories and food processing industrial plants.
- The tender system must be operated in an organised way so that the financial resources of the Doctoral School could contribute to successful research as efficiently as possible.
- The results achieved during the research work shall be presented to the public in the form of publications, which at the same time contributes to the increase of citation index and impact factor.
- The need for enhancement of foreign language knowledge must be urged and to realize communication in world languages. The appropriation of new knowledge must be accelerated by becoming connected to the international computer network.
- Regular self-evaluation must be carried out in connection with the activities of the Doctoral School and the results must be compared with international results.


### 11.4. Statistical data and their analyses:

- The performance of the students applying to the Doctoral School is evaluated according to both academic and scientific aspects.
- The rate of students admitted to the university and finishing their doctoral studies is presented, together with the time elapsed from the admission to the end of studies.
- PhD students' opinion on the operation, organisation, achievement of the Doctoral School and about the professor-researcher-students' relationships are requested during the annual forums.


[^0]:    "THE IMPROVEMENT OF THE SUPPLY OF NOURISHING SUBSTANCE FOR FARM-ANIMALS" (program "A")
    Head of Program: Prof. Dr. János Schmidt, university professor, Doctor of the Hungarian Academy of Sciences
    Number of HAC rule: IOAB, code: 32

