

According to the resolution of the Board of the Faculty of Agricultural Sciences on 3 July, 2008 and the approval of the university's senate on 13 August, 2008, the Executive Committee of the Georg-August University Göttingen approved on 20 August, 2008 the following PhD examination regulations for the "International Ph.D. Program for Agricultural Sciences in Göttingen (IPAG)" of the Faculty of Agricultural Sciences at the Georg-August University Göttingen {see Lower Saxony University Law (*Niedersächsische Hochschulgesetz; NHG*) § 44 Section 1 Sentence 2 in the version announced on 26 February, 2007 [see also the publication *Niedersächsisches Gesetze and Verordnungsblatt* (Nds. GVBl). p. 69], last changed by law on 13 September, 2007 (Nds. GVBl. p. 444), NHG § 9 Section 3 Sentence 1, § 41 Section 2 Sentence 2, § 37 Section 1 Sentence 3 No. 5b}.

**PhD Examination Regulations**  
**for the**  
**"International Ph.D. Program for Agricultural Sciences in Göttingen (IPAG)",**  
**Faculty of Agricultural Sciences,**  
**Georg-August University Göttingen**

## **Index**

- § 1 Aims of the examination
- § 2 Academic Degree
- § 3 Description and Scope of the PhD examination
- § 4 Examination Committee
- § 5 Doctoral Committee
- § 6 Students and Supervisors
- § 7 Modules
- § 8 Dissertation, Cumulative Dissertation
- § 9 Disputation
- § 10 Grading
- § 11 Results of the Doctoral Examinations, Completion of the Doctoral Program
- § 12 Failure, Repetition
- § 13 Publication of the Dissertation
- § 14 Completion of the Doctorate
- § 15 Declaration of the Invalidity and Disqualification of the Doctorate
- § 16 Inspection of the Examination File
- § 17 Safeguards
- § 18 Prerequisites for a Co-operative Doctoral Examination Procedure
- § 19 Submission to the University of Göttingen
- § 20 Submission to a Foreign University or Faculty
- § 21 Doctoral Certificate
- § 22 Coming into Effect of These Regulations; Temporary Regulations
- § 23 Waiver

Appendix 1 Doctoral Diploma

Appendix 2 Doctoral Examination Certificate

Appendix 3 Revision Certificate

Appendix 4 Study workload

Appendix 5 Diploma Supplement

Appendix 6: Overview of the modules in the IPAG PhD Program

Appendix 7 Module catalogue for the IPAG PhD Program

## **§ 1 Aims of the examination**

(1) By means of the doctoral examination, it should be determined whether the examinee is capable of working on in-depth scientific problems, can develop methods on his or her own, and use the knowledge gained in the respective field(s) of use.

## **§ 2 Academic Degree**

(1) After the candidate has passed the doctoral examination and published his/her dissertation, the Faculty of Agricultural Sciences of the Georg-August University Göttingen is to confer the academic degree of "Doctor of Philosophy" (abbreviation "Ph.D.") or the academic degree of "Dr. Sc. agr." (Doctor Scientiae agriculturae) if a written request for doing this is sent to the Doctoral Committee by the doctoral student.

(2) The faculty is to issue a diploma and a certificate in English – or upon written request in German – (Appendices 1a and 1b, respectively Appendices 2a and 2b). The certificate contains the list of modules which have been successfully completed by the doctoral student.

(3) If the head supervisor of the doctoral thesis is a member of the Göttingen Georg-August University School of Science (GAUSS) and if the dissertation has a mathematical/natural science orientation, the alternative "Dr. rer. nat." (Doctor rerum naturalium) can be conferred in accordance with the GAUSS regulations and doctoral framework regulations [*Rahmenpromotionsordnung*]. In such cases, the doctoral diploma will be made out by the GAUSS. With respect to any deviations to this, the GAUSS regulations and doctoral framework regulations are valid.

## **§ 3 Description and Scope of the PhD examination**

The doctoral examination consists of an independent scientific treatise (dissertation) and an oral examination (disputation). The following achievements must be attained during the doctoral student's studies:

- a) a dissertation with a value of 150 ECTS credits (abbreviation as C) as well as
- b) an oral examination with a value of 6 C (disputation, according to § 9) and
- c) the successful completion of modules from the fields of Annual Progress Report, Methods, Specialised Knowledge and Key Skills, each with a value of 6 C (total 24 C; according to § 7).

#### **§ 4 Examination Committee**

(1) For the organisation of the examinations and the fulfilment of the tasks allocated by these regulations, an Examination Committee is to be set up out of members of the faculty. The committee is to consist of seven individuals, three from the group of professors, one from the group of academic co-workers and one from the group of doctoral students. The members of the Examination Committee are to be nominated by their respective groups in the Faculty Board. The student members have only an advisory role with respect to the assessment and accreditation of examination and study achievements. Any details are regulated by the Examination Committee's internal rules of procedure.

(2) The Examination Committee is to choose its chairperson and its vice-chair from the group of professors.

(3) The Examination Committee is to determine its own rules of procedure.

(4) The Examination Committee is to ensure that the regulations of the Lower Saxony University Law and these examination regulations are upheld. The committee is to report regularly to the faculties taking part in the IPAG PHD program about the development of the examination achievements of the doctoral students including the actual times needed for writing the dissertations and about the distribution of the grades for the different modules and the final total grade. The report is to be published in a suitable manner.

In addition, the Examination Commission is to suggest any necessary reforms of these examination regulations to the IPAG Board of Studies and the Senate Commission responsible for tuition and studying. The Examination Committee is to also make all the decisions for which it is responsible according to these regulations and the study regulations. The committee can suggest general regulations for the undertaking of the examinations. Before such suggestions are sent to the faculty board, they are to be sent to the IPAG Board of Studies for comment.

#### **§ 5 Doctoral Committee**

(1) Both of the dissertation supervisors and at least one further member of the faculty who is an authorised examiner according to § 6 Section 3 are to be named by the Examination Committee to form the Doctoral Committee for each doctoral student. The Doctoral Committee evaluates the

examination achievements of the student's dissertation and disputation. The members of the Doctoral Committee are to choose a chairperson from one of their number.

(2) Professors who are no longer working at the University of Göttingen or have retired should neither supervise dissertations nor take part in doctoral examinations as members of a doctoral committee for any time longer than three years after the end of their period of service. Exceptions to this rule are decided upon by the faculty board.

(3) The Doctoral Committee is to ensure that the theme of the dissertation is officially registered.

### **§ 6 Students and Supervisors**

(1) The supervision of the doctoral students is the responsibility of a head supervisor and a co-supervisor. One of the supervisors must be a full-time professor at the Faculty of Agricultural Sciences.

(2) The supervisors are to be appointed by the Examination Committee.

(3) Persons who are entitled to supervise a dissertation are lecturers who are actively involved in the IPAG PhD program and lecturers who work in the institutes participating in the PHD program. Under the rules of these regulations, lecturers are defined as habilitated individuals who have been subjected to a university appointment process or an equivalent procedure, and junior professors, including those who are no longer working for the University of Göttingen or have been retired (see § 5 Section 2). Upon a written justified request submitted by the doctoral student, the Examination Committee can also accept as supervisors people from other faculties, universities or research institutes who have the necessary qualifications.

(4) The head supervisor is the person who has set the theme of the dissertation. This person must be entitled to supervise dissertations according to § 6 Section 3. If the head supervisor is not a member of the Faculty of Agricultural Sciences, then the co-supervisor must be a member of this faculty.

### **§ 7 Modules**

(1) A module consists of a workload of 30 hours per ECTS credit and a graded or ungraded examination. The module overview (Appendix 6) determines which modules need to be successfully completed. A failed compulsory module can, in arrangement with the supervisor, be replaced by another compulsory module.

(2) Justified exceptions to Section 1 are to be decided upon by the Examination Committee.

(3) The approval of modules given by other faculties, universities or non-university institutes is to be decided by the Examination Committee upon written application and in agreement with the student's supervisor. A prerequisite for the approval is that the achievements in content, extent and standards are comparable to those of the IPAG PhD program.

(4) The allotment of the ECTS credits to the student is to occur on the submission of written proof to the Examination Office that the student has successfully taken part in a module as described in Sections 1 and 3.

(5) Up to four additional voluntary modules can be included in the doctoral certificate upon written application.

(6) The examination grades can be included in the certificate upon written request by the doctoral student.

(7) The form of examination (graded or ungraded) given at the end of the module is decided upon by the module's lecturer.

### **§ 8 Dissertation, Cumulative Dissertation**

(1) The dissertation must be produced in writing.

(2) The dissertation should prove that the examinee is able to work independently and scientifically on a problem and present their results within a set time period. The dissertation must be scientifically meaningful and should also show that the examinee can independently achieve a solution to an in-depth scientific question in the field in which the topic of the dissertation is set.

(3) Instead of a written dissertation a collection of scientific publications written by the doctoral student and published in respected scientific journals can be accepted. Such publications can only be accepted if the supervisor confirms that they cover the major part of the student's scientific work (cumulative dissertation). With a cumulative dissertation, a comprehensive summary of the investigated themes and a discussion must be also submitted. In addition, a declaration about the examinee's own contribution to the work must be submitted, too.

(4) At the time of dissertation's registration with the Examination Office (at least 8 weeks before the dissertation is submitted), the following documents must also be submitted:

- the theme and the chosen language(s) of the dissertation,
- the names of the members of the Doctoral Committee,
- a curriculum vitae (résumé),
- a passport photograph,
- written confirmation of matriculation,
- written confirmation of the modules completed by the doctoral student,
- a copy of the dissertation's title page,
- a copy of the dissertation's summary.

(5) At the time of submission of the dissertation, the examinee must ascertain in writing that he or she has completed the work on their own and has not used any sources or aids other than those described in the dissertation.

(6) The dissertation must be submitted to the Examination Office within the specified time period set by the faculty board. The date of submission must be registered officially.

(7) As a rule, within six weeks of its submission, the supervisors are to each submit a written report assessing the dissertation, in which its acceptance, its return for reworking within a certain fixed period of time, or its rejection is justified. If the dissertation has been accepted, then the supervisor is also to suggest a grade for it: excellent, very good, good or acceptable (see § 10). Upon written application to the Examination Office, the assessment report can also be written in English.

(8) If the reports from the two supervisors contain differing results, the Examination Committee is to commission an external expert to undertake another assessment of the dissertation. The external expert should be an expert in the field of the dissertation. The external expert is, thereafter,

authorised to take part in the disputation and subsequent discussion as an external member of the Doctoral Committee and is entitled to vote.

(9) The dissertation and the two expert reports are to be made available for viewing for one week before the dissertation is officially accepted. During this time, all lecturers (defined according to § 6 Section 3) at the Faculty of Agricultural Sciences can file a written objection to the dissertation. The veto must be addressed to the Examination Committee. If the Examination Committee considers the objection from the faculty member to be founded, then it will nominate another referee who may not be a member of the Faculty of Agricultural Sciences. This external referee is authorised to attend the disputation and subsequent discussion as an external member of the Doctoral Committee and is entitled to vote. In such cases, after taking into due consideration all the expert reports, the Doctoral Committee makes the final decision of acceptance or rejection of the dissertation in the presence of the Dean. This process is to take place outside of the normal time plan for the dissertation according to these regulations, though the decision must be made within four weeks. The oral examination can only take place at the next possible scheduled appointment. A supervisor or referee who has rejected a dissertation can choose not to be named as referee or supervisor in the dissertation.

(10) The Doctoral Committee is to inform the examinee in writing about its decision with regard to their dissertation. In the case of acceptance, the date of the disputation is also given. In the case of a rejection, the student is informed of the possibility of repetition according to § 12. If the dissertation is rejected, the examination is considered not to be passed. If a dissertation that has been returned for revision is not resubmitted within the given time period, then it is considered to be irrevocably rejected. An irrevocably rejected dissertation may not be resubmitted.

(11) If the dissertation is accepted, then the examinee should be given the appropriate number of ECTS credits for their dissertation according to § 3.

### **§ 9 Disputation**

(1) The prerequisites for admittance to the disputation are the acceptance of the dissertation and the evidence that the student has the required number of ECTS credits from their participation in the various modules. The disputation should be held within eight weeks after the submission of the dissertation.



(2) The defence of the dissertation (disputation) is to take place in public and is announced per bulletin on the faculty notice boards. The disputation consists of a lecture lasting 30 to 45 minutes, in which the most important results of the dissertation are presented, with a subsequent comprehensive discussion. The disputation is graded by the Doctoral Committee. Minutes of the disputation are to be taken. All of the members of the Doctoral Committee must be present throughout the whole of the disputation. Immediately after the disputation, the members of the Doctoral Committee are to decide whether the disputation has been passed or not and what grade should be given. A simple majority vote of the Doctoral Committee is sufficient for a decision to be made. The decisions of the Doctoral Committee are to be noted by a member of the committee and this is to be signed by the examiners present at the meeting. The total length of the disputation lies between 60 minutes and 90 minutes. The lecture and the subsequent discussion are usually in German or English. Upon written justified request, the Examination Committee can authorise the use of another of the official EU languages. If the disputation is accepted the student is awarded 6 credits.

### § 10 Grading

(1) The following grades are possible:

1 = very good

2 = good

3 = satisfactory

4 = failed

Intermediate grades of 1.5 and 2.5 are acceptable.

(2) The grade "excellent" is also possible for the dissertation. In such cases, an external assessment commissioned by the Doctoral Committee must be obtained.

(3) The total grade is calculated from a weighted average of the grade for the dissertation (70%) and the grade for the disputation (30%).

The total grade is set as follows:

1.0 - 1.50 = *magna cum laude*

1.51 - 2.50 = *cum laude*

2.51 - 3.0 = *rite*.

(4) If the dissertation is judged to be "excellent" and the disputation "very good" (1.0), then the grade *summa cum laude* is given. If not all of the members of the Doctoral Committees come to the result *summa cum laude*, the Doctoral Committee must commission an external referee to produce a report within six weeks. The external referee is to decide in his or her report about the awarding of the grade *summa cum laude*.

### **§ 11 Results of the Doctoral Examinations, Completion of the Doctoral Program**

(1) The Doctoral Committee is to determine the total grade for the doctorate immediately after the disputation.

(2) The candidate cannot receive a doctorate if the disputation has not been passed.

(3) The Dean is to immediately inform the examinee about their total results and provide them with a temporary certificate showing the results of the completed doctoral examination.

(4) With the certification of the completed doctoral program, the graduate is to receive a certificate about the doctoral examination (Appendix 2a or 2b) with a declaration about the study workload (Appendix 4) as well as the diploma supplement (Appendix 5).

(5) The student's doctoral studies finish with the end of the semester in which the certificates are presented. Re-enrolment is only possible in cases of failure or repetition according to § 12.

### **§ 12 Failure, Repetition**

(1) The doctoral program is finished with the rejection of the dissertation or failure of the disputation. The rejected dissertation is to remain filed with all the experts' reports in the Dean's Office. All scientifically closely related faculties within the Federal Republic of Germany are to be informed of the dissertation's rejection.

(2) If a supervisor can be found, the dissertation can be repeated once more. A second repetition is impossible. A new written acceptance of supervision must be sent to the Doctoral Committee within 12 weeks after notification of the rejection, otherwise the examination procedure is considered to be irrevocably at an end.

(3) If the date for the disputation is missed without due reason or in the case of illness without a medical certificate being presented, then the examination is considered to be failed. This is also the case if the student breaks off the disputation.

(4) If the disputation is not passed, then it can be repeated once more within 3 months. A second repetition is not possible and leads to an irrevocable cessation of the doctoral examination procedure. The undertaking of a new doctorate is possible.

(5) Unsuccessful attempts at achieving a doctorate in the agricultural sciences at another university will be taken into account when considering the possibility of repetition.

(6) In the case of an irrevocable cessation of the doctoral examination procedure according to Sections 2—4, the student is to be exmatriculated at the university.

### **§ 13 Publication of the Dissertation**

(1) The dissertation must be published within a year after the day on which the disputation has been passed. The Doctoral Committee can extend this period twice upon written request, each time for one year. If this specified time period is exceeded, then all the rights accrued by passing the examinations will have expired. The cost of publishing the dissertation is to be paid by the candidate.

(2) Publication means:

a) with a cumulative dissertation, the submission of two examples of the published articles and another two examples of the articles including a meaningful summary and discussion according to § 8 Section 3.

b) with a non-cumulative dissertation the presentation to the supervisor of five examples of a version issued by the book trade with its ISBN number and Siegel D 7 (the university's official seal), when a professional publisher undertakes the dissemination of the dissertation via the book trade and a minimum circulation of 150 copies has been proven to the Examination Office.

c) with a non-cumulative dissertation the presentation of two examples of the complete approved version to the Examination Office and a replication of the dissertation in the form of an electronic publication according to the regulations of the Senate of the Georg-August University Göttingen respecting the electronic publication of dissertations.

(3) The Doctoral Committee can make injunctions with respect to factual corrections in the dissertation before it is published. The dissertation may first be published after the Revision Certificate (Appendix 3) has been submitted, in which the fulfilment of the conditions set for the dissertation have been confirmed by the signature of the dissertation's head supervisor.

(4) A warning about the loss of all rights according to Section 1 under the setting of a suitable specified time limit is to be given to the doctoral student.

#### **§ 14 Completion of the Doctorate**

The doctoral studies are completed when the certificates in Appendix 1a or 1b are presented and the publication of the dissertation according to § 13 has been completed. . Once the certificate has been presented, the candidate has the right to carry the title "Ph.D." or "Dr. Sc. agr.". The date of the doctoral examination is the day on which the disputation was passed.

#### **§ 15 Declaration of the Invalidity and Disqualification of the Doctorate**

(1) If either before or after the presentation of the certificate according to Appendix 1a or 1b, it is found that the doctoral candidate has been guilty of deliberate deception with respect to the proof of their doctoral achievements or if it becomes apparent that important prerequisites for the admittance to the doctoral examination have been mistakenly assumed, then the doctoral achievements are to be declared as being invalid. In such cases, the doctoral candidate is to receive written notification including instructions on the right to appeal.

(2) The divestment of the student's doctor title takes place according to the legal regulations.

#### **§ 16 Inspection of the Examination File**

The examinee is allowed to inspect the examination protocol after the completion of the dissertation and disputation upon written request. The request for doing so is to be submitted to the Doctoral Committee within one year after the presentation of the examination certificates or the pronouncement of a failed examination. The Doctoral Committee determines the time and place of the inspection. The inspection of the file includes the right to gain comprehensive knowledge of the file's contents and to take handwritten notes. In addition, a photocopy of the file's contents can be given to the examinee upon payment of an administration fee.

## § 17 Safeguards

(1) If the examinee can show believably that he/she is not in a position (e.g. due to long-term or continual physical handicap), to achieve all or part of the examination in the standard manner, then he or she can have a prolonged period of time for doing the work or be allowed to undertake the examination in another form to achieve the equivalent examination standards. A medical certificate in original must be presented to confirm the situation; a copy is not acceptable. The decision for such an exception is made by the Examination Committee.

(2) Illness of the doctoral candidate and the essential single-handed caring for a close relative have the same value when they affect the student's ability to conform to the specified time limits set for the first registration for examinations or the repetition of examinations or the upholding of dates for submitting examination work or if they are reasons for missing examinations. Close relatives are children, parents, grandparents, and spouses or domestic partners.

(3) Pregnant women may not undertake examinations or any other parts of their studies if this endangers the health of the mother or baby and this is confirmed by a medical certificate. Pregnant women may not undertake any examinations or studies between six weeks before the birth date and in the first eight weeks after parturition (12 weeks after premature or multiple births), unless the student expressively wishes to do so and confirms this in writing. Such confirmation can be withdrawn at any time. Pregnant women may not undertake examinations or do study work that involves heavy physical work or extra work as defined by the German maternity protection laws [*Mutterschutzgesetz*] §§ 4 and 8. Pregnant women and breast-feeding mothers may not undertake examinations or study work between 8 p.m. and 6 a.m., nor may they work on Sundays or public holidays.

(4) A student with a child

a) from a spouse or domestic partner,

b) for whom they bear official responsibility,

c) whom they have taken into their care with the aim of fostering or adopting, or

d) for whom they can receive child benefits without having the official rights of responsibility as given in the examples in § 1 Section 1 Sentence 3 or Section 3 No. 3 of the German law on child benefits and parental leave [*Gesetz zum Erziehungsgeld und zur Elternzeit*], or in cases of

hardship as defined in § 1 Section 5 of the German law on child benefits and parental leave and with whom they cohabit and take care of and raise themselves, are entitled to parental leave according to §§ 15 and 16 of the German law on child benefits and parental leave.

(5) No disadvantages should arise for the doctoral student when they adhere to these regulations. Fulfilment of the requirements of Sections 1 to 4 have to be confirmed by suitable documentation, e.g. medical certificate, birth certificate, or confirmation from the German residents' registration office [*Einwohnermeldeamt*].

### **§ 18 Prerequisites for a co-operative doctoral examination procedure**

(1) A cooperative doctoral examination procedure with a foreign University or faculty has the following two prerequisites:

- a) an agreement of transnational/international co-supervision of the doctorate has been made with the foreign university or faculty, or an individual co-operation contract for a joint (cotutelle) doctoral degree has been set up with the foreign university or faculty.
- b) the student must be enrolled in the doctoral degree course both at the University of Göttingen and the foreign university or faculty.

(2) The dissertation can be submitted either at the University of Göttingen or the foreign university (or faculty) if this is so regulated in the agreement according to Section 1. A dissertation that has already been submitted at the foreign university (or faculty) and has been accepted or rejected there may not be submitted at the University of Göttingen. The agreement according to Section 1 must ensure that a dissertation which has been submitted to the University of Göttingen and has been accepted or rejected by this university cannot be subsequently submitted to the foreign university (or faculty).

(3) If the dissertation is submitted to the University of Göttingen, then the regulations in § 19 are to be applied, whereas if the dissertation is submitted to the foreign university (or faculty), then the regulations in § 20 are applicable.

### **§ 19 Submission to the University of Göttingen**

(1) If the dissertation is submitted to the University of Göttingen, then the relevant parts of § 8 Section 5 are to be applied.

(2) During the doctoral program, the supervision is to be undertaken by one authorised person from the University of Göttingen and an authorised person from the foreign university or faculty. The supervision is dictated by the agreement set up according to § 18 Section 1.

(3) In contrast to § 5, the faculty undertaking the doctoral examination is to nominate an Examination Committee in agreement with the foreign university (or faculty). The committee should be comprised of equal numbers of scientists from both institutions. The exact composition of the committee should be regulated by the agreement set up according to § 18 Section 1. The supervisors from both universities or faculties should be nominated as examinees.

(4) If the dissertation is accepted by the University of Göttingen, it must then be sent to the foreign university or faculty so that it may be decided there if the doctoral examination procedure should be continued. If the foreign university or faculty also accepts the dissertation, then the oral examination (disputation) is to take place at the faculty responsible for the doctoral examination at the University of Göttingen. The disputation is governed by the regulations set out in § 9; though in justified exceptions these may be varied according to the agreement set up under § 18 Section 1.

(5) If the dissertation is accepted by the University of Göttingen but rejected by the foreign university or faculty, then the common doctoral examination procedure is ended. The doctoral examination procedure is then continued according to the general regulations of these PhD Examination Regulations. A new Examination Committee should be nominated according to the rules laid out in § 5.

### **§ 20 Submission to a foreign university or faculty**

(1) If the dissertation is submitted to the foreign university or faculty, then the foreign university or faculty is to decide if the dissertation should be accepted or how the examination process should be continued. If their decision is positive, then the faculty at the University of Göttingen which is responsible for the dissertation should decide whether or not to accept the dissertation according to § 8 after the submission of all the necessary reports including the report of the supervisor from the University of Göttingen. The Dean informs the foreign university (or faculty) of the Göttingen faculty's decision. In addition, the Dean informs the foreign university (or faculty) of

the names of the examiners who are to take part in the oral examination (disputation). The disputation is then to take place at the foreign university or faculty.

(2) If the dissertation is rejected by the University of Göttingen, then the common doctoral examination procedure is ended. The rejected dissertation may not be resubmitted to the University of Göttingen. The regulations concerning the repetition of the doctorate are not affected (see § 12).

(3) If the dissertation has been rejected by the foreign university (or faculty), then the common doctoral examination procedure is ended. The procedure will then be continued according to §§ 8—14.

### **§ 21 Doctoral certificate**

After the successful completion of the doctoral examination procedure in co-operation with a foreign university or faculty, the successful candidate is to be presented with a doctoral certificate signed by both institutions. It is to be stated in the certificate that a mutually conferred doctorate for scientific achievement has been given.

### **§ 22 Coming into Effect of These Regulations; Temporary Regulations**

(1) These regulations will come into effect once they have been officially announced in the publication "*Amtliche Mitteilungen*" of the Georg-August University in Göttingen.

(2) At the same time, the examination regulations of the doctoral program "International Ph.D. Program for Agricultural Sciences in Göttingen (IPAG)" in the version published on 26 October, 2006 (*Amtliche Mitteilungen* 32/2006, p. 4899) will become invalid. Exceptions from the terms in Sentence 1 are those students who have started their doctoral program before the beginning of the present examination regulations and have taken a break in their studies before continuing. Such students may, on written application, request that they be examined according to the examination regulations of the "International Ph.D. Program for Agricultural Sciences in Göttingen (IPAG)" in the version from 26 October, 2006. However, the final time in which an examination according to the 2006 regulations can be undertaken is in the summer semester of 2011.

### **§ 23 Waiver**

Only the German version of these IPAG PhD Examination Regulations is valid before the law





---

**Appendix 1a**

Emblem der Universität Göttingen  
Fakultät für Agrarwissenschaften

**Promotionsurkunde**

Die Georg-August-Universität Göttingen, Fakultät für Agrarwissenschaften, verleiht mit dieser Urkunde

Frau/Herrn<sup>\*)</sup>, geb. am ..... in .....,  
den Hochschulgrad

**Doctor Scientiarum Agrarium**

(abgekürzt: Dr. Sc. agr.),

nachdem die Prüfung im "**International Ph.D.-Program for Agricultural Sciences in Göttingen (IPAG)**"

am ..... bestanden wurde.

Göttingen, den .....

(Siegel der Universität)

.....

.....

Die Dekanin/Der Dekan<sup>\*)</sup>

Die/Der<sup>\*)</sup> Vorsitzende des Promotionskomitees

---

**Appendix 1b**

Emblem of the University of Göttingen

Faculty of Agricultural Sciences

**Ph.D. Certificate**

The Georg-August University Göttingen, Germany, Faculty of Agricultural Sciences, confers upon

Ms/Mr

born on .....in .....

the degree of

**Doctor of Philosophy**

**(Ph.D.)**

after having completed the Ph.D. examination requirements in Agricultural Sciences.

Göttingen, .....

Seal of Faculty  
of Agricultural Sciences

(Dean of the Faculty)

(Chair of Doctoral Committee)

**Anlage 2a**

Emblem der Universität Göttingen  
Fakultät für Agrarwissenschaften

**Zeugnis über die Promotionsprüfung**

Frau/Herr\*\*) ..... , geboren am ..... in ..... , hat die Promotionsprüfung im "International Ph.D.-Program for Agricultural Sciences in Göttingen (IPAG)" mit der Gesamtnote.....bestanden.

Module im Promotionsstudiengang:

	Anrechnungspunkte	Note
1. ....	.....	
2. ....	.....	
3. ....	.....	
4. ....	.....	

Die dissertation mit dem Thema

“ ..... ”

wurde mit der Note „.....“ bewertet.

disputation                      Note: .....

Göttingen, den .....

(Siegel der Universität)

.....

Die Dekanin/Der Dekan\*)

Die/Der\*) Vorsitzende des Promotionskomitees

---

\* Den Notenschlüssel entnehmen Sie der beigefügten Zeugnisanlage

**Appendix 2b**

Emblem of the University of Göttingen  
Faculty of Agricultural Sciences

**Ph.D. Transcript**

Ms./Mr. ...., born on..... in ....., has passed the Ph.D. examination in the "International Ph.D. Program for Agricultural Sciences in Göttingen (IPAG)" with the total grade.....

Examinations in the Program:

	Credits	Grade
.....		
.....		
.....		
.....		

The Ph.D. thesis with the topic

..... was given the grade.....

**Disputation**                      **Grade:** .....

Göttingen, .....(Date).

(Seal of the University)

.....  
Dean

.....  
Chair of Examination Committee

---

\* See appendix for explanation of grading system

**Appendix 3**

Emblem der Universität Göttingen  
Fakultät für Agrarwissenschaften

**Revisionschein**

Die Druckvorlage der Dissertation von Frau / Herrn\*

.....

aus .....

betitelt: .....

ist mir vorgelegt worden. Ich habe gegen den Druck dieser Dissertation nichts einzuwenden und bescheinige dies nach § 13 Abs. 2 der Prüfungsordnung durch meine Unterschrift.

Göttingen, den .....

\* Nichtzutreffendes streichen

## **Appendix 4**

### **Study workload**

A European Credit Transfer System (ECTS) credit consists of a workload of 30 hours. The workload covers the time spent attending the course (lectures, practicals, seminars, etc.), time spent doing independent or guided preparation and follow-up work, homework, preparation for the examinations, and the examination itself. The doctoral program includes compulsory courses in the form of modules. The total time involved in these modules before the final doctoral examination is equivalent to 24 ECTS credits. In addition, other lectures, practicals, seminars, etc. providing in-depth knowledge will be offered during the doctoral program. The student's participation in these additional events is voluntary. A workload equivalent to 150 ECTS credits has been fixed for the completion of the dissertation. The disputation is equivalent to 6 ECTS credits. The total of 180 ECTS credits  $\times$  30 hours/credit = 5,400 hours of work. The total grade is calculated from a weighted average of the grade for the dissertation (70%) and the grade for the disputation (30%).

## **Appendix 5**

### **Diploma Supplement**

#### **Outline structure for the diploma supplement.**

This Diploma Supplement follows the model developed by the European Commission, Council of Europe and UNESCO/CEPES. The purpose of the supplement is to provide sufficient independent data to improve the international 'transparency' and fair academic and professional recognition of qualifications (diplomas, degrees, certificates etc.). It is designed to provide a description of the nature, level, context, content and status of the studies that were pursued and successfully completed by the individual named on the original qualification to which this supplement is appended. It should be free from any value judgements, equivalence statements or suggestions about recognition. Information in all eight sections should be provided. Where information is not provided, an explanation should give the reason why.

#### **1 INFORMATION IDENTIFYING THE HOLDER OF THE QUALIFICATION**

- 1.1 Family name(s):
- 1.2 Given name(s):
- 1.3 Date of birth (*day/month/year*):
- 1.4 Student identification number or code (*if available*):

#### **2 INFORMATION IDENTIFYING THE QUALIFICATION**

- 2.1 Name of qualification and (*if applicable*) title conferred (*in original language*):
- 2.2 Main field(s) of study for the qualification:
- 2.3 Name and status of awarding institution (*in original language*):
- 2.4 Name and status of institution (*if different from 2.3*) administering studies (*in original language*):
- 2.5 Language(s) of instruction/examination:

#### **3 INFORMATION ON THE LEVEL OF THE QUALIFICATION**

- 3.1 Level of qualification:
- 3.2 Official length of programme:
- 3.3 Access requirements(s)



#### **4 INFORMATION ON THE CONTENTS AND RESULTS GAINED**

4.1 Mode of study:

4.2 Programme requirements:

4.3 Programme details: (e.g. modules or units studied), and the individual grades/marks/credits obtained:

*(if this information is available on an official transcript this should be used here)*

4.4 Grading scheme and, if available, grade distribution guidance:

4.5 Overall classification of the qualification *(in original language)*:

#### **5 INFORMATION ON THE FUNCTION OF THE QUALIFICATION**

5.1 Access to further study:

5.2 Professional status *(if applicable)*:

#### **6 ADDITIONAL INFORMATION**

6.1 Additional information:

6.2 Further information sources:

#### **7 CERTIFICATION OF THE SUPPLEMENT**

7.1 Date:

7.2 Signature:

7.3 Capacity:

7.4 Official stamp or seal:

#### **8 INFORMATION ON THE NATIONAL HIGHER EDUCATION SYSTEM**

*(N.B. Institutions who intend to issue Diploma Supplements should refer to the explanatory notes that explain how to complete them.)*

## **Appendix 6: Overview of the modules in the IPAG PhD Program**

A total of 180 ECTS credits (C) must be attained.

### **A. Specialised studies**

Modules to a total of 18 C must be successfully completed.

#### **I. Annual Progress Report**

One compulsory module worth 6 C must be successfully completed.

PAG 0001	PhD colloquium: Plants and Soils in Agriculture (6 C/3 SPW <sup>1</sup> ) (E <sup>2</sup> )
PAG 0002	Carl Sprengel Colloquium (6 C/3 SPW) (D <sup>3</sup> )
PAG 0003	Doctoral Student Seminar: Agricultural Economy and Rural Development (6 C/3 SPW) (G)
PAG 0004	Ecology Seminar (6 C/3 SPW) (E)
PAG 0005	Colloquium: Animal Sciences (6 C/3 SPW) (G)
PAG 0006	Colloquium: Phytomedicine (6 C/3 SPW) (G)
PAG 0007	Plant Pathology and Plant Protection Seminar (6 C/3 SPW) (E)
PAG 0008	Progress in Plant Breeding Research (6 C/3 SPW) (E)

#### **II. Methods**

One of the following compulsory modules worth 6 C must be successfully completed. After the student has applied to take part in one module, the registration for another module is only allowed when the student has completely failed the first module they have applied for.

---

<sup>1</sup> SWP = semester periods / week

<sup>2</sup> (E) = English

<sup>3</sup> (G) = German

PAG 0040	Selected Aspects of the Utilisation Theory und Welfare Economics (6 C/4 SPW) (G)
PAG 0041	Selected Methodological Problems of Environmental and Resource Economic Analysis (6 C/4 SPW) (G)
PAG 0042	Bioanalytical Techniques in Environmental and Plant Sciences (6 C/4 SPW) (E)
PAG 0043	Efficiency and Productivity Analysis: Stochastic Approaches (6 C/3 SPW) (E)
PAG 0044	Molecular Genetics: Fundamental techniques in Plant Pathology and Entomology (6 C/4 SPW) (E)
PAG 0045	New Methods and Developments in Animal Science (6 C/4 SPW) (G)
PAG 0046	Special Methods for Quality Assessment (6 C/4 SPW) (G)

### III. Specialist knowledge

One of the following compulsory modules worth 6 C must be successfully completed. After the student has applied to take part in one module, the registration for another module is allowed only when the student has completely failed the first module they have applied for.

PAG 0060	Advanced Methods in Animal Breeding and Statistical Genetics (6 C/4 SPW) (E)
PAG 0061	Advanced Methods and Developments in Livestock and Bio-engineering (6 C/4 SPW) (E)
PAG 0062	Bacteriology (6 C/5 SPW) (G)
PAG 0063	Empirical Methods in Agribusiness (6 C/3 SPW) (G)
PAG 0064	Genome Analysis in Agricultural Animals (6 C/4 SPW) (G)
PAG 0065	Market Integration and Price Transmission (6 C/4 SPW) (E)
PAG 0066	Molecular Biological/Immunological Methods in Animal Science, English (6 C/4 SPW) (E)
PAG 0067	Molecular Biological/Immunological Methods in Animal Science, German (6 C/4 SPW) (G)
PAG 0068	New Areas in Plant Breeding (6 C/2 SPW) (E)
PAG 0069	Plant Production and Upstream and Downstream Production Layers in Central Europe (6 C/6 SPW) (G)
PAG 0070	Risk Analysis and Risk Management in Agriculture (6 C/5 SPW) (E)

PAG 0071 Value-added Chains and Healthy Nutrition (6 C/4 SPW) (G)

### **B. Key Skills**

One of the following compulsory modules worth 6 C must be successfully completed. After the student has applied to take part in one module, the registration for another module is allowed only when the student has completely failed the first module they have applied for.

PAG 0020 Scientific Writing and Publishing in Crop Sciences (6 C/3 SPW) (E)

PAG 0021 Scientific Writing for Agricultural Economists (6 C/4 SPW) (E)

PAG 0022 Scientific Writing and Presentation for Doctoral Students  
(6 C/4 SPW) (G)

### **C. Dissertation**

The student earns 150 C with the successful completion of their dissertation.

### **D. Disputation**

The student earns 6 C with the successful completion of their disputation.

## Appendix 7

### Module catalogue for the IPAG PhD Program

<b>Module title (Language)</b>	<b>Entrance requirements</b>	<b>Examination requirements</b>	<b>Prerequi- sites for being able to take part in the ex- amination</b>	<b>Type of examina- tion</b>	<b>ECTS (SPW)</b>
PAG 0001 PhD Colloquium: Plants and Soils in Agriculture (E)	None	Excellent knowledge of ones own area of research and suitable presentation abilities.	Participation in 18 seminars	PR ca. 90 min. (3 times)	6 ECTS (3)
PAG 0002 Carl Sprengel Colloquium (G)	None	Excellent knowledge of ones own area of research and suitable presentation abilities. The student's results presented in the lecture will be assessed and commented upon by the student's own supervisor.	Participation in 18 seminars	PR ca. 90 min. (3 times)	6 ECTS (3)
PAG 0003 Doctoral Student Seminar: Agricultural Economy and Rural Development (G)	None	Excellent knowledge of ones own area of research and suitable presentation abilities. The student's results presented in the lecture will be assessed and commented upon by an internal or external secondary examiner. The lecture is not graded but poor standards will lead to a repetition of the lecture and the student will receive individual feedback by their own supervisor.	Participation in 18 seminars	PR ca. 90 min. (3 times)	6 ECTS (3)
PAG 0004 Ecology Seminar (E)	None	Excellent knowledge of ones own area of research and suitable presentation abilities. Independent drafting of background knowledge to questions on general and applied ecology as well as the preparation of an independently prepared seminar paper and subsequent discussion.	Participation in 18 seminars	PR ca. 90 min. (3 times)	6 ECTS (3)

<b>Module title</b>	<b>Entrance requirements</b>	<b>Examination requirements</b>	<b>Prerequisites for being able to take part in the examination</b>	<b>Type of examination</b>	<b>ECTS (SPW)</b>
PAG 0005 Colloquium: Animal Sciences (G)	None	Excellent knowledge of ones own area of research and suitable presentation abilities. The successful presentation and discussion of scientific results.	Participation in 18 seminars	PR ca. 90 min. (3 times)	6 ECTS (3)
PAG 0006 Colloquium: Phytomedicine (G)	None	Excellent knowledge of ones own area of research and suitable presentation abilities. The doctoral students present and discuss the results of their scientific work annually in front of an academic audience.	Participation in 18 seminars	PR ca. 90 min. (3 times)	6 ECTS (3)
PAG 0007 Plant Pathology and Plant Protection Seminar (E)	None	Excellent knowledge of ones own area of research and suitable presentation abilities. PC presentation of the student's own results in English; participation and discussion of other students' presentations.	Participation in 18 seminars	PR ca. 90 min. (3 times)	6 ECTS (3)
PAG 0008 Progress in Plant Breeding Research (E)	None	Excellent knowledge of ones own area of research and suitable presentation abilities. Presentation of the student's own results; participation and discussion of other students' presentations.	Participation in 18 seminars	PR ca. 90 min. (3 times)	6 ECTS (3)
PAG 0020 Scientific Writing and Publishing in Crop Sciences (E)	None	Specific abilities: preparation of a manuscript for publication in a scientific journal; review of an article.	None	HW, max. 15 pages	6 ECTS (3)

<b>Module title</b>	<b>Entrance requirements</b>	<b>Examination requirements</b>	<b>Prerequisites for being able to take part in the examination</b>	<b>Type of examination</b>	<b>ECTS (SPW)</b>
PAG 0021 Scientific Writing for Agricultural Economists (E)	Solid knowledge of applied econometrics	Very good knowledge about peer-reviewed journals in the field of agricultural economy; literature data banks that are most commonly used in agricultural economy and how they can be used. Very good knowledge about the impact factor and how it can be interpreted; how the peer-review process functions, and what is required of the authors and reviewers at the various levels of the review process.	None	PW	6 ECTS (4)
PAG 0022 Scientific Writing and Presentation for Doctoral Students (G)	None	Intensive Knowledge and successful application of the teaching contents of scientific essays and monographs, production of graphs and tables, the production of presentations and lectures. Submission of an evaluated seminar report (summary of the contents and a formal evaluation) for one seminar. Drafting of a PowerPoint presentation and the giving of a lecture. Drafting of a scientific publication.	Proven participation in 10 seminars during the course of two semesters	PR ca. 90 min. (50%) PW (50%)	6 ECTS (4)
PAG 0040 Selected Aspects of the Utilisation Theory und Welfare Economics (G)	None	Detailed knowledge of the complete spectrum of the utilisation theory and welfare economics; especially of applied ethics and the history of the utilisation theory and the present-day development of this theory. The oral examination is based on the course contents of the whole semester. A selected aspect is to be considered in the seminar paper.	None	OE ca. 25 min. (50%) PR (50%)	6 ECTS (4)

<b>Module title</b>	<b>Entrance requirements</b>	<b>Examination requirements</b>	<b>Prerequisites for being able to take part in the examination</b>	<b>Type of examination</b>	<b>ECTS (SPW)</b>
PAG 0041 Selected Methodological Problems of Environmental and Resource Economic Analyses (G)	None	Very good knowledge in the area of modelling and statistical methods, which are used in positive and normative environmental and resource economic analyses. The oral examination is based on the course contents of the whole semester. A selected subproblem is to be considered in the seminar paper.	None	OE ca. 25 min. (50%) PR ca. 20 min. (50%)	6 ECTS (4)
PAG 0042 Bioanalytical Techniques in Environmental and Plant sciences (E)	None	Very good practical knowledge of mass spectrometry and ionisation techniques, chromatographic and electrophoretic methods for the separation and analysis of peptides and proteins, biophotonics, immunochemical methods and molecular genetic verification procedures.	Regular participation	OE ca. 25 min.	6 ECTS (4)
PAG 0043 Efficiency and Productivity Analysis: Stochastic Approaches (E)	None	In-depth knowledge of the econometric bases of stochastic frontier analysis, maximum likelihood estimations: asymptotics, tests, numerical anomalies; models with composite error terms, estimations of the product frontier and retailer efficiency; extension to behavioural applications (cost function, profit function); distance function, productivity analysis.	None	OE ca. 30 min. (50%) PR ca. 20 min. (50%)	6 ECTS (3)
PAG 0044 Molecular Genetics: Fundamental techniques in Plant Pathology and Entomology (E)	None	Very good knowledge of the basic and advanced techniques of DNA analysis and manipulation, which are used in phytopathology. A laboratory report must be written about the laboratory research work and its assessment, in which the success of the experiments undertaken and the understanding of the underlying concepts are documented.	None	HW max. 10 pages	6 ECTS (4)



<b>Module title</b>	<b>Entrance requirements</b>	<b>Examination requirements</b>	<b>Prerequisites for being able to take part in the examination</b>	<b>Type of examination</b>	<b>ECTS (SPW)</b>
PAG 0045 New Methods and Developments in Animal Science (G)	None	Very good knowledge and the application of new methods of animal breeding, population genetics, animal nutrition, ethnology and their respective methods of assessment, the assessment of production systems, specific fish breeding techniques, the use of ultrasound in animal breeding as well as carcase classification and meat quality assessment.	Participation in the practical work	WE 90 min.	6 ECTS (4)
PAG 0046 Special Methods for Quality Assessment (G)	None	Complete command of the theoretical and practical basis of the methods of content analysis in plant production, quality analysis in sugar beet and methods of mycotoxin analysis. Scientific assessment of the collected data using statistical methods. Presentation of the student's results in comparison to the literature in an oral presentation.	None	PR ca. 20 min.	6 ECTS (4)
PAG 0060 Advanced Methods in Animal Breeding and Statistical Genetics (E)	None	Very good knowledge of the methodological aspects of the student's own project. The participants present the methodological aspects of their own project in detail in a compulsory seminar including the methodological basis of their work and submit a written description of the methods used. The participants undertake graded practical exercises during the module.	None	HW max. 20 pages (34%) PR ca. 20 min. (33%) PP (33%)	6 ECTS (4)
PAG 0061 Advanced Methods and Developments in Livestock and Bio-engineering (E)	None	In-depth knowledge of the area of emissions, utilisation of air conditioning plants, neuronal networks and the use of radio frequency identification (RFID) technology in animal husbandry.	None	OE ca. 30 min. (50%) PR ca. 20 min. (50%)	6 ECTS (4)
PAG 0062	None	Very good knowledge of the taxonomy of phytopathogenic	Group	OE	6 ECTS

<b>Module title</b>	<b>Entrance requirements</b>	<b>Examination requirements</b>	<b>Prerequisites for being able to take part in the examination</b>	<b>Type of examination</b>	<b>ECTS (SPW)</b>
Bacteriology (G)		bacteria, recognition of important bacterial infections, the command of isolation and cultivation techniques for bacterial pathogens. Identification of bacteria using phenotypical, physiological and biochemical characteristics. Knowledge of serological verification procedures. Methods of controlling phytopathological bacteria.	protocols and presentation of results	ca. 20 min.	(5)
PAG 0063 Empirical Methods in Agribusiness (G)	Knowledge of empirical social research and the basics of statistics and econometry	Very good knowledge of multivariate methods proven by being applied to a data set (if possible the student's own data set) in a piece of homework. The choice of suitable methods is undertaken in a preliminary discussion. The homework is to be written so that it can be subsequently submitted to a peer-reviewed journal.	None	HW max. 15 pages	6 ECTS (3)
PAG 0064 Genome Analysis in Agricultural Animals (G)	Knowledge of molecular biology and biotechnology in animal science	Profound knowledge of standard molecular biological techniques (isolation of RNA and, DNA, DNA sequencing, the setting up of gene banks, electrophoresis, cloning) and the application of microbiological techniques in genetic analysis. Completion of a project-related scientific manuscript.	None	WE 90 min.	6 ECTS (4)
PAG 0065 Market Integration and Price Transmission (E)	None	Good knowledge of the determinants of the connections between the prices of spatially separated markets, between the prices for different agricultural products, and between the prices at the different levels of the product process chain. Advanced econometric methods of analysis of price transmission processes (threshold and other non-linear cointegration models, Markov switching methods, parity bounds models).	None	OE ca. 20 min. (25%) PR ca. 20 min., (75%)	6 ECTS (4)

<b>Module title</b>	<b>Entrance requirements</b>	<b>Examination requirements</b>	<b>Prerequisites for being able to take part in the examination</b>	<b>Type of examination</b>	<b>ECTS (SPW)</b>
PAG 0066 Molecular Biological/Immunological Methods in Animal Science, English (E)	None	Advanced knowledge of molecular biological techniques for the analysis of pro- and eukaryotic genes, viral genetics, the construction and analysis of gene banks, protein-biochemical and immunological techniques, basic techniques in the preparation of samples and their cultivation, molecular biological techniques for the analysis of infectious pathogens and toxins, the analysis of cellular receptors and ligand/receptor interactions, analysis of the immunology of the B and T cells, antibody techniques for cytokines, signal transduction and immunoregulation.	Regular participation	OE ca. 25 min.	6 ECTS (4)
PAG 0067 Molecular Biological/Immunological Methods in Animal Science, German (G)	None	Advanced knowledge of molecular biological techniques for the analysis of pro- and eukaryotic genes, viral genetics, the construction and analysis of gene banks, protein-biochemical and immunological techniques, basic techniques in the preparation of samples and their cultivation, molecular biological techniques for the analysis of infectious pathogens and toxins, the analysis of cellular receptors and ligand/receptor interactions, analysis of the immunology of the B and T cells, antibody techniques, analysis of cytokines, signal transduction and immunoregulation.	Regular participation	OE ca. 25 min. (in English)	6 ECTS (4)
PAG 0068 New Areas in Plant Breeding (E)	None	Comprehensive knowledge of new methodology used in present-day breeding research and the command of such methods.	None	PR ca. 30 min.	6 ECTS (2)

<b>Module title</b>	<b>Entrance requirements</b>	<b>Examination requirements</b>	<b>Prerequisites for being able to take part in the examination</b>	<b>Type of examination</b>	<b>ECTS (SPW)</b>
PAG 0069 Plant Production and Upstream and Downstream Production Layers in Central Europe (G)	None	In-depth knowledge of plant production in the context of process cycles in the upstream production layers (breeding, plant protection, fertilisation, agricultural machinery) and in the downstream production layers (food industry). Independent drafting of case studies to these themes including a presentation with preparation and follow-up work.	Participation in the seminars and the excursions	PR ca. 30 min.	6 ECTS (6)
PAG 0070 Risk Analysis and Risk Management in Agriculture (E)	None	Very good knowledge of the statistical concepts, cause and effect insurances, dynamic programming and the option pricing theory.	None	PR ca. 30 min.	6 ECTS (5)
PAG 0071 Value-added Chains and Healthy Nutrition (G)	None	The student must prove that they have a very good knowledge about the areas of the value-added chain and plant production including selected upstream and downstream production layers, of the food industry (primary and secondary processing levels), trade (wholesale and retail, including advisory services and marketing) and the customer (nutritional behaviour and health).	None	HW max. 20 pages	6 ECTS (4)

Key: WE = written examination, OE = oral examination, HW = homework, PR = presentation, PP= practical examination, PW = project work; (E) = English, (G) = German