

**Examination Regulations (Rules) of the Faculty of Agricultural and Nutritional Sciences at Christian-Albrechts-Universität zu Kiel (Kiel University)
for Students of AgriGenomics,
leading to a Master of Science Degree (M.Sc.) - 2017
of 27 July 2017**

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Based on Section 52 (1) Sentence 1 of the Schleswig-Holstein Higher Education Act (HSG) of 5 February 2016 (GVOBl. Schl.-H., page 39), most recently amended by Article 1 of the Act 14 March 2017 (GVOBl. Schl.-H., page 142), after a resolution was passed by the Faculty Convention of the Faculty of Agricultural and Nutritional Sciences at the Christian-Albrechts-Universität zu Kiel of 31 March 2017, the following Rules were issued:

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**§ 1
Scope of application**

These Examination Regulations (in conjunction with the Examination Procedure Regulations (Rules) of Christian-Albrechts-Universität zu Kiel (PVO)) apply to the teaching and assessment of the Master's degree programme AgriGenomics. Admission to modules offered by other faculties or other institutes of the same faculty and assessment of AgriGenomics students are subject to the examination regulations of the respective faculties or institutes.

**§ 2
Objective of the degree programme**

The Master's degree programme aims to equip the student with in-depth professional qualifications. The degree programme will qualify the candidate to apply findings and methods of genome analysis in agricultural research and to optimise procedures and improve products used in agriculture.

§ 3 Academic title

The student is awarded the degree of Master of Science (M.Sc.) by the Faculty of Agricultural and Nutritional Sciences if he or she has obtained at least an overall grade of "sufficient".

§ 4 Admission to the Master's degree programme

- (1) In order to be admitted to the Master's degree programme the student must have completed a Bachelor's degree programme (B.Sc.) in agricultural sciences with a standard period of study of at least three years and with a total of at least 180 ECTS credits at an institution of higher education in the Federal Republic of Germany or an equivalent institution of higher education abroad. Admission to the Master's degree programme with a Bachelor's degree in a related programme or an equivalent degree in agricultural sciences or a related programme is possible, if the qualification does not differ substantially from the Bachelor's qualification in agricultural sciences at CAU in terms of content, scope and scientific requirements, and the remaining conditions of Clause 1 are satisfied.
- (2) Students are also expected to provide evidence of a sufficient command of English. Such evidence may be completion of a degree programme taught in English or an IELTS/TOEFL test or comparable level of achievement. More details can be found in the study qualification rules (*Studienqualifikationssatzung*).
- (3) Admission to optional modules that are part of the study programme may be contingent upon fulfilling certain prerequisites which must be laid down in the module descriptions, as published. The Examination Board may set individual regulations when relevant.

§ 5 Structure of curriculum

- (1) The standard period of study for the Master's degree programme is four semesters. The scope of the degree programme encompasses approximately 62 Semesterwochenstunden (SWS) (weekly 45-minute teaching units for the duration of one semester of about 12 teaching weeks) and 120 ECTS credits, including 27 ECTS credits for the Master's thesis. The type and scope of courses in the compulsory modules are listed in the appendix.
- (2) The Master's degree programme includes the following modules (Annex 1)
 - 9 compulsory modules - 51 ECTS credits
 - compulsory elective modules covering 42 ECTS credits
- (3) The compulsory elective modules are to be selected from the list of available modules for the AgriGenomics degree programme (Appendix 2). With the Examination Board's consent, modules covering up to 12 ECTS credits from other Master of Science degree programmes, from this faculty or other faculties, can be selected provided there are free spaces on the course, and as long as they correspond to the scope and requirements in the AgriGenomics modules.

§ 6 Academic year

The academic year applies to this degree programme. Registrations for odd-numbered semesters are only possible in the winter semester and for even-numbered semesters only in the summer semester.

§ 7
Restriction of admission to compulsory or optional courses

- (1) The number of places available for the individual compulsory or optional courses will be determined by the Faculty Convention at the request of the module coordinators. If more students initially register for the seminars and practical exercises than there are places available, the responsible committee will determine whether the remaining students can be accommodated through existing or additional courses.
- (2) If it is not possible to accommodate the remaining students, the person responsible for the course will select the students among those who are registered for a degree programme in which the course is envisaged as part of the curriculum, who have registered in due time before the deadline set by the responsible person and who satisfy the conditions for participation. Preference is to be given to students, whose number of semesters would be increased by non-admission. Equally ranked students will be selected by drawing lots. In order to avoid cases of hardship, the module coordinator may deviate from this procedure upon request.

§ 8
Requirements for admission to module examinations

- (1) If a module contains internships, practical exercises or field trips, admission to the examination assumes regular participation in these courses. A maximum of one course date may be missed without giving reasons for the non-attendance. If other course dates, a maximum of 20% of all dates, however, are missed for reasons according to Section 52 (4) HSG, the module coordinator can determine a substitute for those parts of the course that were missed, upon application by the student and in justified exceptional cases.
- (2) The following examination prerequisites can be defined as admission requirements for examinations:
 - regular attendance to courses in accordance with Section 52 (12) HSG
 - a passed oral presentation

Details on this will be suitably announced at the start of the course, at the latest.

- (3) Modules for which admission to the examination assumes regular participation in the courses are marked in the Annexes and Appendices. In the case of modules from the compulsory elective section offered by the faculty for students of Master's degree programmes, courses which require full attendance for admission to the examination are marked in the module description. For all other courses, regular participation is not required for admission to the examinations.

§ 9
Teaching and examination language

Courses will be offered in English. Examinations will be held in English.

§ 10
Examination Board

Contrary to the provisions of the PVO, the Examination Board consists of four members who are university professors, one member of the scientific personnel and two students. The Dean of Studies and the Study Coordinator shall have an advisory vote.

§ 11
Module examinations and module grades

- (1) The type and number of graded module examinations required as part of the modules can be found in Annex 1 and Appendix 2. The graded examinations required for the additional modules offered by the faculty for the compulsory elective section can be found in the module descriptions approved by the Examination Board and the Faculty Convention

before the start of the semester. These will be published in an appropriate location. The Examination Board determines exceptions.

- (2) Oral examinations (M) and oral presentations (R) are permitted as oral types of examination. The duration of an oral examination must be at least 15 minutes per candidate, but must not exceed 45 minutes.
- (3) Written examinations include written examinations (K), term papers (H) and protocols (P). The duration of a written examination is usually at least 30 minutes and no longer than 90 minutes. The Examination Board determines exceptions, such as in the case of examinations with a practical section.
- (4) A seminar contribution (Sb), consisting of a presentation and a written report is admissible as an other examination.
- (5) If a module examination consists of several examinations, the module grade will be calculated using the weighting of the individual examinations indicated in the Annex and Appendix 2. How the examinations are weighted for the additional modules offered by the faculty for the compulsory elective section will be specified by the Examination Board and the Faculty Convention before the start of the semester and announced in the module descriptions.

§ 12 **Master's thesis**

- (1) Students who have obtained at least 60 ECTS credits in examinations from completed modules may be admitted to a Master's thesis.
- (2) The period from when the topic is issued until the Master's thesis is submitted to the Examination Office is 26 weeks.
- (3) The topic of the Master's thesis may be returned only once and only within six weeks of the topic being issued.
- (4) When applying for admission to the Bachelor's or Master's thesis, the candidate may propose a topic for the thesis, in agreement with the supervisor, without this giving rise to any claim for the proposal to be considered.
- (5) In exceptional cases and with the consent of the Examination Board the Master's thesis may be prepared at an institution outside the university, provided that appropriate supervision of the candidate is available there. Supervision may also be provided by postdocs working at the supervising facility, who are qualified in accordance with Section 4 of the Examination Procedure Regulations (PVO). In cases of doubt the Examination Board will decide.
- (6) The Master's thesis is to be written in English.
- (7) Three hard copies of the Master's thesis and additionally one digital copy are to be submitted to the responsible Examination Office in the form prescribed in the Examination Offices guidelines.
- (8) The Master's thesis will be assessed by both examiners within six weeks of submission.

§ 13 **Passing the Master's examination and final grade**

- (1) The Master's examination has been passed if all the necessary compulsory module examinations indicated in the Annex (programme schedule) have been passed and a sufficient number of ECTS credits has been earned through passing examinations in the optional modules and the Master's thesis.

(2) The calculation of the final grade includes:

1. the module grades for the compulsory modules weighted with the ECTS credits allocated to the respective modules,
2. the grade of the Master's thesis with 27 ECTS credits,
3. the section grade of the optional section weighted with 42 ECTS credits. The section grade is calculated from the grades of the modules completed in the optional section weighted with the ECTS credits allocated to the respective modules.
4. The best grades of those modules assigned to the section will be taken into account for the calculation, whose total ECTS credits correspond at least to the number of ECTS credits required for the optional section.

§ 14 Entry into force, expiry, transitional provisions

(1) These Examination Regulations enter into force as of 1 October 2017.

- (2) At the same time, the degree-specific Examination Regulations (rules) of the Faculty of Agricultural and Nutritional Sciences at Christian-Albrechts-Universität zu Kiel (CAU) for students of AgriGenomics, resulting in a Master of Science degree (M.Sc.) published on 22 July 2011 (Bulletin of the Ministry of Education and Science of the Land Schleswig-Holstein (NBI. HS MBW Schl.-H., page 62), most recently amended by statute of 21 November 2013, published on 7 March 2014 (NBI. HS. MBW. Schl.-H., page 16 (Bulletin of the Ministry of Education and Science of the Land Schleswig-Holstein) cease to apply.
- (3) It is possible for students who are registered for the Master of Science degree programme in AgriGenomics at Christian-Albrechts-Universität zu Kiel at the time when these Rules enter into force to obtain a degree up until the end of the summer semester 2019 in accordance with the Examination Regulations which ceased to be in force pursuant to paragraph 2.
- (4) Students can apply to change to the new degree-specific Examination Regulations. Module examinations which have been completed and passed in full by the date these Examination Regulations enter into force will remain valid.
- (5) If a student has completed and passed independent parts of a module examination, these will be recognised. The Examination Board determines which additional examinations are necessary to complete the module, under consideration of the module's learning targets and the purpose of the examination.
- (6) Examinations failed before these Examination Regulations entered into force will be set off against the number of attempts in accordance with the new Examination Regulations, provided the structure of the new module examinations permits recognition.
- (7) The Examination Board decides regarding special cases of hardship for which the student is not responsible.

The University Board at Christian-Albrechts-Universität zu Kiel granted its approval in accordance with Section 52 (1) Clause 1 of the Schleswig-Holstein Higher Education Act in its letter dated 27 July 2017.

Kiel, 27 July 2017

Prof. Dr. Joachim Krieter
Dean of the Faculty of Agricultural and Nutritional Sciences
at Christian-Albrechts-Universität zu Kiel

Annex: Programme schedule for the AgriGenomics Master's degree programme

	Module Code	Module Name	Compulsory	Import	Compulsory Attendance	Graded Exam.	ECTS Credits	
							Sem.	Year
1. Semester	AEF-agrig001	Introduction to Molecular Biology	x		x	M 75% P 25%	6	
	AEF-agrig002	Organization and Analysis of Eukaryotic Genomes	x			M 100%	6	
	AEF-agrig003	Biochemistry and Proteomics	x			M 100%	6	
	AEF-agrig004	Introduction to Crop and Animal Breeding	x			M 100%	6	
		Compulsory Elective Module					6	
							Σ 30	
2. Semester	AEF-agrig006	Applied Genome and Proteome Research	x		x	P 100%	6	
	AEF-agrig007	Applications of Genomics in Agriculture	x			M 50% M 50%	6	
	biol258b	Computational and Comparative Genomics	x	x		K 100%	6	
		Compulsory Elective Module					6	
		Compulsory Elective Module					6	
							Σ 30	Σ 60
3. Semester	AEF-agrig005	Genomics in Research and Industry			x	R 50% H 50%	6	
		Compulsory Elective Module					6	
		Compulsory Elective Module					6	
		Compulsory Elective Module					6	
		Compulsory Elective Module					6	
							Σ 30	
3. Semester	AEF-agrig008	Research Seminar				R 100%	3	
		Master's Thesis					27	
							Σ 30	Σ 60

Glossary:

M= mündliche Prüfung: oral examination

R= Referat: seminar paper

K= Klausur: written examination

H= Hausarbeit: assignment

P= Protokoll: protocol

Sb= Seminarbeitrag (zusammengesetzte Prüfung – 2 Leistungen): seminar contribution (composite examination - 2 examination parts)

V = Vorlesung: Lecture

S = Seminar: Seminar

Ü = Übung: Exercise

E = Exkursion: Field trip

P = Praktikum: Internship

PÜ =Praktische Übung: Practical Exercise

SWS (Semesterwochenstunden) = weekly 45-minute teaching units for the duration of one semester

WS = Wintersemester: Winter Semester

SS = Sommersemester: Summer Semester

Appendices 1 - 2 (not part of the Examination Regulations)

Appendix 1 Compulsory modules: Course type and number of SWS

Module Code	Module Name	V SWS	S SWS	Ü SWS	PÜ SWS	E SWS	P SWS	Compulsory Attendance
AEF-agrig001	Introduction to Molecular Biology	2					2	P
AEF-agrig002	Organization and Analysis of Eukaryotic Genomes	4						
AEF-agrig003	Biochemistry and Proteomics	4						
AEF-agrig004	Introduction to Crop and Animal Breeding	4						
AEF-agrig005	Genomics in Research and Industry		2			2		E
AEF-agrig006	Applied Genome and Proteome Research						4	P
AEF-agrig007	Applications of Genomics in Agriculture	4						
AEF-agrig008	Research Seminar		2					
biol 258b	Computational and Comparative Genomics	2	4					

Appendix 2 Compulsory elective modules: Course type and number of SWS

Module Code	Module Name	WS/SS	ECTS	Import	Graded Exam.	V SWS	S SWS	Ü SWS	PÜ SWS	E SWS	P SWS	Compulsory Attendance
AEF-agr046	Methods for Breeding Field Crops	WS	6		M 100%	4						
AEF-agrig010	Utilization of Genome Analysis in Animal Breeding	WS	6		M 100%	4						
AEF-agrig012	Genetically Modified Plants	SS	6		M 75% P 25%	2					2	P
AEF-agrig013	Biotechnology in Phytomedicine	SS	6		M 75% P 25%	2					2	P
AEF-agrig014	Biocontrol Biotechnology	WS	6		M 75% Sb 25%	2	2					
AEF-agrig015	Functional Genomics in Phytopathogen Research	WS	6		M 75% P 25%	2		2				
AEF-el008	Nutrigenomics and Nutrigenetics	WS	6		K 100%	2	2					
biol260	Molecular Genetics of Plants and Fungi	WS/SS	10	x	P 80% R 20%						16	P
AEF-agrig017	Biological Systems as Bioreactors	SS	6		M 100%	2	2					
AEF-agrig018	Recent Progress in Plant Breeding and Genome Research	WS/SS	6		Sb 100%		WS 4 SS 3			SS 1		E
biol214	Environmental Stress Adaptation in Plants	WS	5	x	K 70% R 30%	1	1	3				
biol265	Molecular Physiology and Plant Developmental Biology	WS/SS	10	x	P 75% R 25%		1				15	P
biol244b	Population Genomics	WS	6	x	P 50% R 50%		2				2	P

V = Vorlesung (Lecture), S= Seminar (Seminar), Ü= Übung (Exercise), E= Exkursion (Field trip), P= Praktikum (Internship), PÜ=Praktische Übung (Practical Exercise) * Ergänzungsveranstaltung (supplementary course)