

Examination Regulations
for the Master's program in Environmental Toxicology
at the University Duisburg-Essen
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On basis of § 2 para. 4 and § 64 para. 1 of the Law regarding the Universities of the State of North Rhine-Westphalia (Act on Higher Education) dated 10/31/2006 (Law and Ordinance Gazette North Rhine-Westphalia, p. 474) last changed by the law of 10/08/2009 (Law and Ordinance Gazette North Rhine-Westphalia, p. 516), the University Duisburg-Essen has issued the following Examination Regulations:

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I. General Provisions

§ 1

Scope and grant of admission

(1) These Master's Examination Regulations govern admission, the course of studies and graduation in the Master's program in Environmental Toxicology at University Duisburg-Essen.

(2) The prerequisites for the admission to the Master's program in Environmental Toxicology is the successful graduation

- from the Bachelor's program in Biology, Chemistry, Water Science, Medicine or Medical Biology at University Duisburg-Essen or
- an equivalent or comparable academic program in the disciplines of natural sciences or medicine.

The cumulative grade of the degree pursuant to sentence 1 must be at least 3.0 or better.

In addition, respectively at least 15 credits from two of the following fields shall be verified:

- biology,
- chemistry,
- environmental sciences,

as well as practical knowledge in biological and/or analytical laboratory methodology and an experimental Bachelor's thesis on a topic relevant for the field of Environmental Toxicology equivalent to a thesis for Bachelor of Biology or Chemistry (University of Duisburg-Essen).

An application for admission to the program shall be submitted in writing to the Dean's Office of the Faculty of Biology at the latest by July 15th of each year to start studies in the winter semester (preclusion period). Applications received later or incomplete do not have to be considered. The application shall enclose:

- a. a completely filled out application form (available on the website of the Faculty of Biology) and
- b. a verification of all admission requirements defined in sentences 1-3 (officially certified copies of certificates and diplomas in German or English language).

If a graduation certificate pursuant to sentence 1 is not available yet at the time of the application, a transcript of records has to be submitted, wherein at least the grades of the first five semesters are entered (equivalent of 150 ECTS Credit points). The graduation certificate according to sentence 1 shall be presented at registration in case of admission.

The determination of equivalence will be made by the Examination board. In justified individual cases, the Examination board will decide on the exception from the minimum grade required in paragraph 2. In the decision, especially the significance of the deviation from the minimum grade, the grading of the final paper with the grade "good" or better, the program duration as well as excellent individual performance in the major field of studies shall be decisive.

(3) Generally deemed equivalent are

- a relevant academic program of at least three years with a first degree for professional qualification and a total workload of at least 180 credits in the disciplines of natural sciences or medicine at another university within the scope of the Framework Act for Higher Education, or
- a relevant degree from another university outside of the scope of the University Framework Law, unless a significant difference in quality compared to a degree from a university in the scope of the Framework Act for Higher Education can be evidenced,

(4) The program is held in the English language.

Students whose native language is not English are required to verify English language skills according to the completed proficiency level B2 of the common European Framework of Reference for Languages (GER) prior to the commencement of studies. This requirement can be fulfilled by completing an English language test.

The Examination board will decide on the recognition of language skills equivalent of the requirements pursuant to sentence 3.

§ 2

Aim of the course of studies, purpose of the exam

(1) The Master's program leads to an additional academic degree as professional qualification within a consecutive Bachelor's and Master's program.

(2) In the Master's program in Environmental Toxicology, the students acquire the necessary specialist and interdisciplinary knowledge, skills and methods in consideration of the developments and requirements in the professional world, which qualify them for independent scientific work, critical reflection on scientific insights and responsible action.

(3) By successfully completing the exams and the Master's thesis, the student proves that he or she uses knowledge of biological and chemical processes in various environmental compartments in order to assess pollutants in the environment. They analyze the uptake and metabolic processes of pollutants in cells as well as plant and animal organisms. They apply methods independently for the quantitative recording of pollutants in different environmental matrices and for effects at the levels of cells, organisms and ecosystems and are able to objectively and critically classify and evaluate their results by means of guidelines and the European legislation as well as according to the present state of research. They are able to understand scientific contributions to scientific discussion of socially relevant questions, in particular in the fields of diversity and sustainability, evaluate them objectively and ethically and reason the individual and social relevance of research projects. They are able to conceptualize, conduct, analyze and set (scientific) projects in an ecotoxicological and socially relevant

context, with a focus on time and resources, also in a team, and are likewise able to present these projects in oral and written form to a target audience.

(4) The successfully passed Master's degree furthermore qualifies for admission to graduate programs.

§ 3 Master's degree

After the successful completion of the Master's exam of the Master's program in Environmental Toxicology, the Faculty of Biology at University Duisburg-Essen confers the Master's degree "Master of Science", abbreviated "M.Sc."

§ 4 Admission cycle

(1) The course of studies in the Master's program in Environmental Toxicology may only be commenced in the winter semester.

(2) The admission to the program in a senior graduate school semester is possible both in the winter as well as the summer semester.

§ 5 Normal program duration, structure of the studies (modular form)

(1) The normal program duration of the Master's program in Environmental Toxicology including the time for drafting the Master's thesis and the completion of all exams is 2 years of study, respectively 4 semesters.

(2) The program has a modular structure in all sections. A module describes a group of thematically and temporally consolidated teaching/study units, as applies including external internships. Modules are self-containing in terms of content and convey an independent, precisely described partial qualification with regard to the overall aims of the program.

(3) The time required for the successful participation in a module in the normal case for a student (workload) is expressed in a certain number of credits. The credits (regulations on the application of ECTS, see § 10) include the attendance times, pre- and post-processing times and the required exam periods. The credits do not express a qualitative evaluation of the modules (i.e. not a grade).

(4) The subjects of studies are structured in such a way that the program can be completed within the normal program duration. It is ensured in the process that the students may set areas of specialization at their own choice and that compulsory and elective courses are in a well balanced relation.

§ 6 Language of studies and exams

(1) The teaching/study formats are held in English according to the information in the module reference guide.

(2) Module and sub-module exams are taken in the English language.

§ 7 Course program and module reference guide

(1) A course program (§ 58 para. 3 Act on Higher Education) is enclosed to the Examination Regulations as Annex and defines the following binding requirements:

- a) the modules and the teaching/study formats as well as exams attributed to them,
- b) the essential contents and qualification aims of the modules,
- c) the attendance periods (teaching/study related) in hpw (hours per week),
- d) the credits,
- e) the compulsory and elective courses,
- f) the exams.

(2) The course program applies to the students as a recommendation for the proficient structure of the course of studies within the normal program duration.

(3) The course program is supplemented by a module handbook. The module handbook must at least include the information that is defined as requirements in the course program. In addition, the module handbook contains detailed descriptions of the subjects taught, the competences to be acquired, the required exams, the forms of teaching, the time required (in credits as in hpw) as well as the separation by compulsory and elective parts. The module handbook shall be adjusted to the course program as needed and in consideration of the course program requirements.

§ 8 Teaching/study formats

(1) In the Master's program for Environmental Toxicology there are the following course types or teaching/study formats:

- a) Lecture
- b) Exercise
- c) Seminar
- d) Colloquium
- e) Laboratory Course
- f) Project/Internship
- g) Independent Study

Lectures offer a cohesive demonstration of basic and specialized knowledge as well as methodological skills in form of a presentation.

Exercises serve as practical application and practice of scientific methods and procedures in tightly defined topical fields.

Seminars offer the opportunity for an active preoccupation of a scientific problem. The participation consists of the presentation of an own contribution to individual pertinent questions, argumentative discussion or appropriate interpretation.

Colloquia serve as open, also interdisciplinary, scientific discourse. They intend an open exchange of ideas.

Laboratory courses are suitable for demonstrating contents and methods of a discipline in exemplary form by

means of experiments and familiarize the student with the experimental methods of a discipline. In this process, the planning of experiments and the reasonable analysis of the experiment results are also to be practiced and the experiments are to be conducted, recorded and analyzed independently.

Projects/Internships serve as practical implementation of empirical and theoretical work. They include the planned and organized, independent development of topics in a work group (project team). The project team organizes the internal division of work on its own. The project work includes project planning, project organization and reflection on project progress in a plenary session, as well as the presentation and discussion of project results in a workshop. Problems posed are worked on in the team, documented and presented.

(2) In teaching/study formats where the regular active participation of students is required to reach the study aims, the Examination Regulations may provide for the obligation of regular attendance of students.

§ 9

Admission restrictions for individual courses

(1) The participation in individual courses may be restricted due to their nature and purpose, or if it is required to limit the number of participants for other reasons of teaching and research.

If a limitation of the number of participants is required for a course due to its nature or purpose, and if the number of applicants exceeds the capacity, the Examination board will regulate access upon application by the teacher. In the process, the applicants who have registered on time within a deadline to be set shall be considered in the following order:

- a) Students who are enrolled at University Duisburg-Essen in the Master's program in Environmental Toxicology and who are reliant on attending the course according to the course plan and their course of studies.
- b) Students who are enrolled at University Duisburg-Essen in a Master's program but who are not reliant on attending the course according to the course plan and their course of studies.

The selection within the groups according to letter a) or b) will be made by the Faculty according to the principle of priority.

(2) The Faculty of Biology may generally restrict the right to attend courses for students if the proper education cannot be assured for the students enrolled in the academic program without this restriction. This provision also applies to visiting students in secondary studies in the definition of § 52 Act on Higher Education.

(3) For students in special situations according to § 23 of these Regulations exceptions may be permitted upon application.

§ 10

Scope of studies according to the European Credit Transfer System (ECTS)

(1) The European Credit Transfer System (ECTS) is applied at University Duisburg-Essen.

(2) In the Master's program in Environmental Toxicology 120 credits must be earned while 30 credits are allocated to each semester.

(3) The credits are distributed as follows:

- a) 30 credits are allocated to the Master's thesis.
- b) 90 credits are allocated to the specific modules in the discipline

(4) A credit account will be established and maintained in the exams department for each student, which serves the purpose of documenting the performances completed.

(5) The credits earned for a module passed will be credited to that account.

§ 11

Examination board

(1) The faculties involved in the Master's program in Environmental Toxicology form an Examination board for the organization of the exams and for the tasks relating to exams and which result from these Examination Regulations. The involved faculties will coordinate the composition of the Examination board.

(2) The Examination board is composed of the Head, a Deputy and three additional members. The Faculty Board will select the Head, the Deputy and one additional member from the group of university professors, one member from the group of academic professionals, as well as one member from the group of students upon recommendation by the respective group. Substitutes for the members of the Examination board will be elected accordingly.

The term in office of the members from the group of university professors as well as from the group of academic professionals is three years; the term in office of student members is one year. Reelection is permissible.

(3) The Examination board is an agency in the definition of the laws on administrative procedures and administrative processes.

(4) The Examination board ensures that the provisions of the Examination Regulations are adhered to and that the exams are conducted according to the rules. It has particular competence for deciding objections against the decisions made in the exam procedure.

(5) Furthermore, the Examination board shall report to the Faculty Board at regular intervals, at least once per year, with regard to the development of the exams and periods required for the course of studies.

(6) The Examination board provides suggestions regarding the reform of the Examination Regulations and the course programs.

(7) The Examination board may delegate the fulfillment of its tasks for all regular cases to the Head of the examination board or they be conducted in circulatory procedure; this does not apply to deciding objections and the report to the Faculty Board.

The Head of the examination board may decide on his or her own in urgent matters (expedited decision). The Head of the examination board shall inform the Examination board of the decision at the latest in its next meeting.

(8) The Head of the examination board convenes the Examination board. The Examination board must be convened when at least one member of the Examination board or a member of the Dean's Office of one of the faculties involved so requests.

(9) The Examination board has a quorum if at least one additional member from the group of university professors as well as at least one more voting member is present besides the Head of the examination board or Deputy. It decides by simple majority. In case of a tied vote, the vote of the Head of the examination board will decide. The member's substitutes may participate in the meetings as advisors. The student members of the Examination board will not contribute to the evaluation and recognition of exam results.

(10) The members of the Examination board have the right to attend the exams being conducted.

(11) The meetings of the Examination board are non-public. The members of the Examination board and their substitutes are obligated for confidentiality in office. If they are not members of the public service, they shall be obligated by the Head of the examination board of the Examination board for confidentiality in accordance with the law on the formal obligation of persons who are not civil servants (Law on Formal Obligation).

(12) The Head of the examination board will be supported in the fulfillment of his or her tasks by the Examination office.

§ 12

Credit for results, admission to senior graduate school semesters

(1) Results from the same accredited academic programs at other scientific universities in the Federal Republic of Germany, or in equivalent academic programs at domestic or foreign universities with ECTS grading will be credited without an assessment of equivalence.

(2) Results from other programs at the University Duisburg-Essen or other universities in the Federal Republic of Germany will be credited provided equivalence is determined; upon application this shall also apply to results from universities outside of the scope of the Framework Act for Higher Education.

Equivalence shall be determined if there is no significant difference between the study aims and competences to be credited in comparison to the course of studies in the Master's program in Environmental Toxicology at University Duisburg-Essen.

For this purpose, not a schematic comparison, but rather a complete view and overall assessment in terms of content shall be made. For the equivalence of periods of study and exam results at foreign universities, the equivalence agreements approved by the Conference of Secretaries of Education and the Conference of University Deans as well as agreements in the context of university partnerships shall be observed.

(3) For crediting periods of study and exam results in state accredited distance learning programs and affiliate programs or in distance learning and affiliate learning units developed by the state of North Rhine-Westphalia and the federal government, paragraphs 1 and 2 apply accordingly. Paragraph 2 also applies to periods of study and exam results, which have been completed at other state or state accredited educational institutions.

(4) Upon application, other knowledge and qualifications may be credited on basis of presented documentation.

(5) Knowledge and skills proven in the placement exam by student applicants, who are entitled to admission to a senior graduate school semester on basis of a placement exam pursuant to § 49 para. 11 Act on Higher Education, shall be credited toward the exam results. The statements in the diploma regarding the placement exam are binding for the Examination board.

(6) Competent for the award of credits pursuant to paragraphs 1 to 6 is the Examination board. The Examination board issues regulations for crediting the results from existing academic programs at University Duisburg-Essen. The competent discipline shall be heard prior to the determination of equivalence.

(7) If study and exam results are credited, insofar as the grading systems are comparable, the grades shall be adopted and the corresponding ECTS credits shall be awarded as applies according to § 5. The adopted grades shall be included in the calculation of the module grades and the cumulative grade. In case of incompatible grading systems, the note "passed" will be included. This evaluation will not be considered in the calculation of the module grade and the cumulative grade. The recognition will be noted in a footnote in the diploma.

(8) If the prerequisites of paragraphs 1 to 3 and 6 are fulfilled, a legal right to recognition is established. All exam results will be credited insofar as at least one exam result (in the normal case the Master's thesis) has to be attained at University Duisburg-Essen. The recognition of periods of study and exam results that have to be attained in the Federal Republic of Germany will be granted by the authorities in own motion. The students shall submit the application and the documents required for crediting to the Examination office, which will forward them to the competent discipline.

§ 13
Examiners and observers

(1) Exclusively university professors, assistant professors, associate professors as well as scientific assistants and teaching staff for special purposes may be appointed as examiners, if they have passed an exam that is at least equivalent of the Master's exam or comparable and have exercised an independent teaching function in the discipline at subject of the exam. Only persons who have taken the corresponding Master's exam or comparable exam may be appointed as observers. The examiner or the observer must be a member or affiliate of University Duisburg-Essen or be involved to relevant extent in teaching in the Master's program in Environmental Toxicology.

(2) The Examination board appoints the examiners and observers. It may delegate the appointment to the Head of the examination board. The appointment of observers may be delegated to the examiners. Generally, teaching staff according to paragraph 1, sentence 1, who has taught in the relevant exam subject, will be appointed as examiners.

(3) The examiners are independent in their examination capacity. They are responsible for the preparation and holding the exams with regard to their contents. They will also decide and inform of the means, which may be used in taking exams.

(4) The students may propose respectively the first examiner (adviser) for the Master's thesis. The proposals shall be considered as far as possible. The proposals however do not establish a right.

II. Master's Exam

§ 14
Admission to the participation in exams

(1) Admission to exams may only be extended to students who are enrolled in the Master's program in Environmental Toxicology at University Duisburg-Essen during the semester in which he or she registers for the exam or takes the exam; and

- a) is not on leave; exceptions are leaves for students in special situations and repeat exams if these are the consequence of a semester spent abroad or in practice, for which a leave has been granted;
- b) who have properly registered in accordance with § 16 para. 4, and
- c) who fulfill the requirements defined for the discipline in the Examination Regulations regarding the admission.

(2) The admission to the participation in exams shall be refused if

- a) the requirements of para. 1 are not fulfilled;
 - b) the student has previously conclusively not passed an exam in the same or comparable Bachelor's program, or
 - c) the student is already in an exam procedure in the same or a comparable Master's program.
- (3) This provision applies to all module and sub-module exams.

§ 15
Structure of the exam including the form of module and sub-module exams

(1) The Master's exam consists of module and sub-module exams as well as the Master's thesis.

(2) Module exams are intended to generally relate to the module's aims for competence. Several modules with a joint exam may likewise be completed. Module exams may also be cumulatively composed of partial exams. If this is the case, it is relevant that upon passing the exam or the partial exams the achievement of the study objectives specific to the module is proven. The scope of the exam has to be limited for this purpose to the necessary measure.

(3) The module or sub-module exams are completed in relation to courses and complete the respective module. Credits will be awarded for each partial exam and module exam after their successful completion.

(4) The module and sub-module exams in courses serve for the timely verification of successful attendance of teaching/study formats, respectively modules and as evidence of the knowledge and skills conveyed in these teaching/study formats, respectively modules.

In the context of these exams the student is to demonstrate that he or she essentially has command over the contents and methods conveyed in the module and is able to apply the attained competences.

(5) The module and sub-module exams will be graded and the individual grades of the modules will be included in the cumulative grade.

(6) The module and sub-module exams may be taken as

- a) oral exams or
- b) written exams or in electronic form as test, term paper, journal or
- c) lecture, talk or presentation,
- d) colloquium, or
- e) as a combination of the exam forms a) - d).

(7) The students shall be informed of the exam form and time required for the module or sub-module exam at the beginning of the courses by the relevant lecturer.

(8) A module will only be deemed passed when all exam results attributed to the module have been completed successfully.

§ 16
Deadlines for registration and
deregistration for exams

(1) An exam relating to a course according to §§ 17 and 18 will be offered at the latest in the lecture-free period after the end of the respective teaching/study form of the module. The dates will be announced at the latest 6 weeks before the exam date.

In course-related exams according to § 17 the registration period may be shortened by the Examination board if a joint application is filed by the examiner and the student taking the exam.

(2) The student is obligated to check information about the exam dates.

(3) The Examination board will determine the start of the registration period and announce it to the Examination office and the students by posting a notice at least 6 weeks prior to the start of the period.

(4) The student must register with the Examination office for all exams within the registration period that has been determined bindingly by the Examination board (preclusion period).

(5) The student shall deregister from an exam within a period of one week prior to the exam date.

(6) The special concerns of students with disability for exercising equal opportunity must be taken into consideration.

If the student credibly verifies by presentation of a medical certificate that he or she is not able to take an exam in the required form or scope due to a disability persisting for a longer period or permanently, the Head of the Examination board shall permit an equivalent performance in another form to the student upon application.

§ 17
Oral exams

(1) In an oral exam, the candidate shall prove that he or she is familiar with the contexts of the exam field and is able to set special questions into these contexts. It is furthermore to be determined by the oral exam whether he or she has obtained the required competences and reached the study aims.

(2) Oral exams will generally be taken before one examiner in attendance of an observer as individual exam or group exam. Prior to the determination of the grade according to the grading pattern in § 25, the observer shall be heard.

(3) In an oral exam as group exam, no more than four students may be examined at a time.

(4) Oral exams take at least 15 minutes and at most 45 minutes per candidate.

In justified cases, deviations from this timeframe are possible.

(5) The essential subject matters and the result of an oral exam shall be recorded in minutes. The grade shall be announced to the student in subsequence to the oral exam. The minutes and grade of the oral exam shall be notified to the Examination office and the Examination board in writing without delay, at the latest however within one week as of the exam date.

(6) Students who would like to take the same exam at a later exam date may be admitted as audience in oral exams upon application, unless the student to be examined objects. The examiner will decide on the application depending on the requirements of available space. The admission as audience however does not extend to the consultation and disclosure regarding the exam results.

Candidates of the same semester's exam date are excluded from the audience.

§ 18
Written tests

(1) The candidate shall prove in a written test that he or she is able to recognize and find a solution for a problem in the exam field on basis of the necessary basic knowledge, within limited time, by using the permitted means and in application of the common methods of his or her discipline.

In appropriate cases the answer-selection procedure is permitted in the form of a multiple choice exam. In such a case, the written tests will be developed by 2 authorized examiners. The authorized examiners and the assessment principles shall be noted on the test form. The proportion of the point scores to be achieved in the individual questions relative to the overall point score must correspond to the respective degree of difficulty of the question.

(2) Written tests may be conducted as software-assisted exam (e-exams). Para. 1 sent. 2 applies accordingly. The students shall be advised of the exam format. They shall be provided the opportunity to familiarize themselves with the exam conditions and the exam system.

(3) Written tests require 45 minutes up to 180 minutes of time.

(4) Written exams, which conclude the academic program, and repeat exams for which no offsetting possibility is planned if they are finally failed, shall be graded by at least two examiners in the definition of § 13.

(5) Each written test will be evaluated according to the grading pattern in § 25. The grade results from the arithmetic average of the individual evaluations according to § 25 para. 2.

The criteria for the grading of the exam shall be disclosed.

(6) The evaluation process shall generally be completed within 6 weeks. Deviations thereof are possible for pressing reasons; the reasons shall be noted in the file. The grading of a written test shall be notified in writing to the Examination office and the Examination board immediately upon completion of the evaluation procedure.

§ 19

Additional exam formats

The general regulations for term papers, journals, talks, colloquia and presentations as well as other exam results are determined by the Examination board. The provisions of §§ 16 and 18 para. 3 - 5 apply accordingly to term papers. The provisions under § 17 apply to colloquia. The more detailed regulations for journals, talks or presentations are determined by the examiner; the evaluation of these exam formats is in the sole responsibility of the examiner.

§ 20

Master's thesis

(1) The Master's thesis is an exam paper, which normally concludes the scientific education in the Master's Program in Environmental Toxicology. The Master's thesis is to show that the student is able to independently solve and present a limited set of problems from his or her discipline in application of scientific methods within a predefined period. The Master's thesis will be completed by a written presentation and subsequent colloquium. The provisions of § 17 apply to the colloquium.

(2) Only students who have earned the credits required by the Examination Regulations for the registration, in the total of 75 credits, may be admitted to the Master's thesis. The Examination board will decide on exceptions.

(3) The student shall register at the Examination office for the Master's thesis. The Head of the Examination board will issue the Master's thesis topic. The date of issuance shall be noted in the file.

(4) The topic of the Master's thesis will be issued and advised by a university professor, a university lecturer or an associate professor of the Faculty of Biology or the Faculty of Chemistry who holds courses in the Master's Program in Environmental Toxicology. The Examination board will decide on exceptions.

The student has a right to propose a topic for the Master's thesis.

If the Master's thesis is to be conducted at a different Faculty of the University Duisburg-Essen or an institution outside of the university, the approval of the Examination board is required. At request by the student, the Head of the Examination board shall see to the student receiving a topic for a Master's thesis on time.

(5) The processing time for the Master's thesis is 20 weeks. In individual cases, the Examination board may prolong the processing time by up to eight weeks upon substantiated written application of the student. The application must be received by the Head of the Examination board at the latest one week prior to the submission date for the Master's thesis.

If the student is not able to submit the Master's thesis on time due to illness, and if the incapacity for examination is verified immediately by presentation of a corresponding medical certificate to the Examination office, the submission period will prolong for the duration of the verified incapacity for examination.

(6) The topic, questions and scope of the Master's thesis must be of such nature to allow that the time limit required for processing will be met.

The topic may only be returned once and only within the first month of the processing time.

(7) The Master's thesis may in justified cases be permitted in form of group work, provided the contribution by the individual student that is to be graded as exam result is clearly distinguishable and assessable on basis of the specification of sections, page numbers or other objective criteria that make a delineation of the respective individual performance possible.

(8) The Master's thesis shall be drafted in English or in a foreign language generally accepted by the Examination board, or in a foreign language accepted in the individual case and shall be submitted to the Examination board within the deadline in three copies in printed and bound DIN A4 format, as well as in suitable electronic format.

(9) In the normal case the Master's thesis is to have a volume of 60 to 100 pages. Necessary detail results may, if applicable, be summarized additionally in an annex.

(10) In the submission of the Master's thesis, the student shall assure in writing that he or she has drafted his or her thesis, respectively his or her own appropriately marked contribution in group work for the thesis, on his or her own and that he or she has not used sources or resources other than those cited, and that he or she has marked citations.

(11) The submission date shall be noted in the file at the Examination office. If the Master's thesis is not received on time, it will be graded as "inadequate (5.0)".

(12) The Master's thesis shall generally be evaluated by two examiners; the grading shall be substantiated in writing. The initial grading shall generally be given by the advisor of the Master's thesis, who has provided the topic of the Master's thesis. Exceptions shall be approved by the Examination board. The second examiner shall be appointed by the Examination board. In case of interdisciplinary topics, the examiners must be determined in such a way that the evaluation can be provided with the required expertise in the field. At least one examiner must be a member of the faculty at the University Duisburg-Essen, which is involved in the Environmental Toxicology program to significant extent.

(13) The individual grade will be evaluated according to the grading pattern in § 25. The grade of the Master's thesis will be comprised of the arithmetic average of the individual grades, insofar as the difference does not exceed 2.0. If there is a difference of more than 2.0 or if only one grade is better than inadequate (5.0), the Examination board shall appoint a third examiner for the

evaluation of the Master's thesis. In these cases, the grade will be composed of the arithmetic average of the two better grades. The Master's thesis however can only be graded as "adequate (4.0)" or better if at least two grades are "adequate (4.0)" or better.

(14) The grading process by the examiner may not exceed 6 weeks in the normal case. Deviations thereof are possible for pressing reasons; the reasons shall be noted in the file. The grading of a written test shall be notified in writing to the Examination office and the Examination office immediately upon completion of the evaluation procedure.

§ 21 Repetition of exams

(1) Passed exams for courses, passed project work and a passed Master's thesis may not be repeated. In case exams are conclusively failed, the student will receive a notice with instruction on legal remedies from the Examination board.

(2) Course-related exams not passed or deemed not passed may be repeated twice.

(3) If a course-related exam consists of a written test, the student may undergo an oral supplementary exam in the same exam period after the last repeat exam and prior to the determination of the grade as "inadequate" (5.0). For taking and grading the oral supplementary exam § 17 para. 1 to 5 apply accordingly. Based on the oral supplementary exam, the grade "adequate" (4.0) or the grade "inadequate" (5.0) will be determined.

(4) The respectively next possible exam date should be scheduled for a repetition. The Examination board shall assure that each course-related exam is offered at least twice within two consecutive semesters. At least four weeks have to be between the first exam and the repeat exam. The exam results of the preceding exam must be available at the Examination office least 14 days before the start of registration for the repeat exam.

The final, second repeat exam shall be evaluated by two examiners; the grading shall be substantiated in writing.

(5) A failed Master's thesis can be repeated once. Returning the topic of the second Master's thesis however is only permissible within the period stated in § 20 para. 6, sent. 2 if the student has not used this option in the drafting of his or her first Master's thesis.

§ 22 Failure, withdrawal, deceit, breach of regulations

(1) An exam result will be graded as "inadequate" (5.0) if the student

- misses a binding exam date without pressing reason, or if he or she
- withdraws after the start of an exam he or she has started without pressing reason.

The same applies if a written exam is not submitted within the defined processing time.

(2) The reasons stated for the withdrawal or the failure to appear must be notified in writing and credibly verified to the Examination office without delay, i.e. generally within three workdays after the exam date (Saturdays are not deemed workdays).

In case of an illness, the student shall present a medical certificate. If the reasons for the incapacity for the exam were accepted, the exam attempt will not be counted. In this case, the student shall schedule the next offered exam date.

(3) If the student cares for a child, primarily on his or her own, the illness of the child that is verified by a medical certificate shall be considered as equivalent. The same applies to the illness of a relative who is reliant on nursing care.

(4) If the student attempts to influence the result of his or her performance by deceit, which also includes plagiarism, or use of prohibited resources, the relevant performance will be deemed graded as "inadequate (5.0)". The determination will be made by the relevant examiner or the supervisor and be noted in the file.

The examiner or the Examination board may use a suitable software program or other electronic tools for the determination of the deceit.

A student, who disrupts the orderly process of an exam, may be excluded from the continued participation in the exam by the respective examiner or the supervisor after a warning. In that case the relevant performance will be deemed graded as "inadequate (5.0)". In serious cases, the Examination board may exclude the student from further exams.

(5) The affected student may request within 14 days after the announcement of the grading in an exam that the decisions by the Examination board be reviewed. Incriminating decisions by the Examination board shall be notified by it to the student in writing with a statement of reasons and instruction on the right to appeal.

(6) The Examination board may request the student to provide an assurance in lieu of oath that the exam has been performed independently by him or herself and without impermissible outside help. Students who commit attempted deceit according to paragraph 4 act in administrative offense. The administrative offense may be punished with a monetary fine of up to EUR 50,000.

(7) The administrative authority competent for the prosecution and punishment of administrative offenses is the Head of Administration.

In case of multiple or otherwise serious attempted deceit the student may be exmatriculated in addition.

§ 23

Students in special situations

(1) The special concerns of students with disabilities for the protection of their equal opportunity shall be taken into consideration beyond § 16 paragraph 6 for the study performance. Upon application by the student the Examination board shall determine regulations deviating from these Examination Regulations in consideration of the individual case.

(2) For students to whom the protection provisions according to §§ 3, 4, 6 and 8 of the Maternal Leave Act apply or to whom the periods of the Act on the Payment of Child Raising Benefit and Child Raising Leave apply, the Examination board will determine the exam requirements that are defined in these Examination Regulations in consideration of the individual case upon application by the student.

(3) For students who verify by medical certificate that they provide nursing care to their marital spouse, their civil partners or a direct relative or first in-law by marriage, provided they are in need of nursing or care, the Examination board will determine the deadlines and due dates that are defined in these Examination Regulations upon application by the student in consideration of absence times caused by this nursing care and in consideration of the circumstances of the individual case.

(4) Students who care for a child primarily on their own or who prove an obligation pursuant to para. 3 may be exempted upon their application from the requirement of regular attendance of teaching/study units for obtaining an attendance record required by these Regulations. The prerequisites for the exemption is the performance of studies in addition as independent study, which is equivalent and appropriate to the workload of the absence periods. This shall be determined by the person conducting the course in agreement with the student. If no agreement is reached, the Examination board will decide.

§ 24

Passing and failing the Master's exam

(1) The entire exam in the Master's program is passed when all exams according to §§ 17-19 and the Master's thesis according to § 20 was completed successfully, and the credits required for the program have been earned.

(2) The Master's thesis is conclusively failed if:

a required exam according to paragraph 1 was not completed successfully,

and a repetition of this exam according to § 21 is no longer possible

(3) If the Master's exam is conclusively failed, a certificate will be issued by the Examination board upon application by the student and against submission of the corresponding records, as well as the exmatricultation confirmation, which documents the successfully completed exams, their grades and earned credits and which evidences that the Master's exam has not been passed.

§ 25

Composition of the exam grades

(1) For the evaluation of the individual exam results, the examiners shall use the following grade points. Subtotals are to allow for a differentiated evaluation of the exam results.

1.0 = very good
(an excellent result)

1.7 oder 2.0 or 2.3 = good
(a result that is considerably above the average requirements)

2.7 oder 3.0 or 3.3 = satisfactory
(a result meeting the average requirements)

3.7 oder 4.0 = adequate
(a result that still fulfills the requirements despite its deficiencies)

5.0 = inadequate
(a result that no longer fulfills the requirements due to its deficiencies.)

(2) If an exam is graded by several examiners, the grade consists of the arithmetic average of the individual grades. In the composition of the grade, only the first decimal behind the comma is considered; all additional decimals are struck without rounding. The grade:

with an average up to and including 1.5
= very good

with an average of 1.6 up to and including 2.5
= good

with an average of 2.6 up to and including 3.5
= satisfactory

with an average of 3.6 up to and including 4.0
= adequate

with an average from 4.1
= inadequate

(3) An exam is passed if it was graded as "adequate" (4.0) or better. An exam is conclusively failed if it was graded as "inadequate" (5.0) and all possibilities for repetition according to § 21 have been exhausted.

(4) An exam following the question-answer procedure is passed if the student taking the exam has reached the absolute passing limit (at least 50 percent of the maximally possible grade points) or the relative passing limit. The relative passing limit results from the average grade points of those students taking the exam, who have participated in the exam for the first time, lesser by 10 percent. The relative passing limit shall only be considered, if it is below the absolute passing limit and if a statistically relevant number of students taking the exam is available. A passing limit that is not an integer will be rounded to the advantage of the students. Furthermore, an exam is passed if the grade is at least "adequate" (4.0).

(5) In an exam following the multiple choice procedure, the exam grades are composed as follows: If the minimum grade points (relative passing limit, if it has a lesser value, or the absolute passing limit) has been reached, the grade will be

- 1.0, if additionally at least 90 percent
- 1.3, if additionally at least 80 percent but fewer than 90 percent
- 1.7, if additionally at least 70 percent but fewer than 80 percent
- 2.0, if additionally at least 60 percent but fewer than 70 percent
- 2.3, if additionally at least 50 percent but fewer than 60 percent
- 2.7, if additionally at least 40 percent but fewer than 50 percent
- 3.0, if additionally at least 30 percent but fewer than 40 percent
- 3.3, if additionally at least 20 percent but fewer than 30 percent
- 3.7, if additionally at least 10 percent but fewer than 20 percent
- 4.0, if additionally none or fewer than 10 percent

of the grade points that exceed the minimum grade point total have been reached. A grade limit that is not an integer will be rounded to the advantage of the students.

If the minimum grade points have not been reached, the grade will be 5.0

§ 26 Module grades

(1) A module is passed when all performance attributed to this module has been completed and the module grade of at least "adequate" (4.0) has been given.

(2) If a module exam consists of one single exam, the grade achieved will simultaneously be the grade earned for the module exam. If a module exam consists of several partial exams, each partial exam must be passed.

(3) The grade of the module exam is the weighted average of the grades for the individual exam performances (grade points). The weighted average is calculated from the sum of all credits multiplied by the individual grades and divided by the total sum of the graded credits for the module.

§ 27

Composition of the cumulative grade

(1) The cumulative grade is calculated from the grade point average as the arithmetic average of

- the module grades in the specific subject and
- the grade for the Master's thesis and the Master's colloquium.

Ungraded performances (e.g. ungraded lectures, performances recognized without grade) are not considered in the calculation of the cumulative grade.

(2) In the composition of the grade, respectively only the first decimal behind the comma will be considered; all additional decimals are struck without rounding. Furthermore, § 25 applies accordingly.

(3) ECTS grades are additionally allocated to the cumulative grade if a number of at least 50 graduates has been reached over two years of study.

The students receive the following ECTS grades:

- A "Passed" - the best 10%
 - B "Passed" - the next 25%
 - C "Passed" - the next 30%
 - D "Passed" - the next 25%
 - E "Passed" - the next 10 %
-

FX "Not passed" - improvements are required before the result can be credited

F "Failed" - considerable improvements are required

(4) If the Master's thesis was graded with 1.0 and if the average of all other grades is 1.3 or better, the overall rating of "passed with distinction" is conferred in the diploma according to § 25 para. 1.

§ 28 Optional exams

(1) The student may undergo an exam in further subjects in addition to the compulsory and elective fields (optional exams).

(2) The result of an exam in such an optional exam will not be included in the determination of module grades and the cumulative grade.

§ 29

Certificate and Diploma Supplement

(1) If the student has passed the Master's exam, he or she will receive a certificate in German and English language. The certificate includes the following information:

- name of the University and faculty/faculties;
- last name, first name, date of birth and place of birth of the student;
- name of the academic program;
- descriptions and grades of the completed modules with the earned credits;
- the topic and grade of the Master's thesis with the earned credits and attributed ECTS grade;
- cumulative grade with the credits earned in total and the attributed ECTS grade;
- the duration of studies in the discipline required to complete the Master's program upon application by the student;
- the results of the possible completed optional exams according to § 28 upon application by the student;
- the date of the day on which the last exam was taken;
- the signatures of the Head of the competent Examination board as well as the Dean or the Dean of the Faculty;
- and the seal of the University.

The Transcript of Records may be prepared as an annex to the certificate. The Transcript of Records contains all exams including the exam grades.

(2) Along with the graduation certificate the graduate will be conferred a Diploma Supplement in German and English language. The Diploma Supplement contains

- the personal information as in the certificate (see para. 1),
- general information regarding the nature of the degree,
- information on the university conferring the degree,
- information on the course of studies including detailed information on the performance and evaluation system, as well as regarding the credits earned by the respective exams.

The Diploma Supplement bears the same date as the certificate.

§ 30

Master's Diploma

(1) Upon passing the Master's exam, the graduate will be issued the Master's Diploma and the Diploma Supplement at the same time as the certificate. The Diploma states the conferred Master's title pursuant to § 3 and bears the date of the certificate likewise as the Diploma Supplement.

(2) The diploma will be signed by the Head of the Examination board and the Dean or the Dean of the Faculty conferring the degree and provided with the seal of the University Duisburg-Essen.

(3) At the same time as the graduate will receive the certificate and the Diploma Supplement, the graduate will also receive a corresponding Diploma in the English language.

III. Final Provisions

§ 31

**Invalidity of the Master's exam,
derecognition of the Master's degree**

(1) If the student has committed deceit in an exam and if this fact becomes known only after the issuance of the certificate, the Examination board may accordingly correct the grades for those exams in which the deceit was committed or declare the exam failed in full or in part.

(2) If the prerequisites for the admission to an exam have not been fulfilled without the student's intended a deceit, and if this fact becomes known only after issuance of the certificate, this defect will be remedied by passing the exam. If the admission was effected unjustly with intent, the Examination board shall decide on the legal consequences in consideration of the law on administrative proceedings for the state of North Rhine-Westphalia.

(3) Prior to a decision, the person concerned shall be granted the opportunity to make statements.

(4) All incorrect exam certificates shall be retracted and as the case may be, new ones shall be issued. The decision pursuant to paragraph 1 and paragraph 2, sent. 2 will be precluded after a period of five years as of the issuance of the exam certificate.

(5) If the exam has been declared failed on the whole, the conferred degree shall be derecognized and the issued diploma retracted.

**§ 32
Access to the written tests**

The students shall be granted access to inspect their written tests upon application following to individual exams. The application must be filed within one month after announcement of the exam result. More details are regulated by the Examination board.

**§ 33
Maintaining exam files,
retention periods**

- (1) The exam files are maintained electronically.
- a) The following data is stored electronically:
- Last name, first name, student number, date of birth, place of birth
 - Academic program
 - Start of studies
 - Exam results
 - Registration data, deregistration data
 - Date of the program completion
 - Date of the issuance of the certificate.
- b) The following documents are maintained and archived as paper copies:
- Master's thesis
 - Certificate
 - Diploma
 - Written tests
 - Minutes of exams
 - Medical certificates, objections and approval applications.
- (2) The retention periods are:
- for the Master's thesis, the written exams and minutes of exams: 5 years
 - for the certificate and the diploma: 50 years.
- (3) The files retained pursuant to para. 2 are archived by the Examination office.

**§ 34
Scope**

These Examination Regulations apply to all students who are matriculated for the first time in the winter semester 2010/2011 and who are enrolled in the Environmental Toxicology Master's Program at University Duisburg-Essen.

**§ 35
Taking effect and publication**

These Examination Regulations for the Master's Program in Environmental Toxicology shall become effective upon its publication in the Gazette of the University Duisburg-Essen.

Issued on basis of the resolution of the Faculty Board of the Faculty of Biology dated 09/08/2011.

Duisburg and Essen, on Thursday, October 06, 2011

For the President
of University Duisburg-Essen
The Head of Administration
per pro.
Eva Lindenberg-Wendler

Annex 1:

Course Program of the Master's Program in Environmental Toxicology

Module	Specialized semester	Credits per module	Courses	Credits per course	Compulsory (CP)	Elective (EC)	Type of course	Weekly hours per semester (WHS)	Category	Admission requirements	Exam	Number of exams per module
MA-Envi-Tox-1 Aspects of environmental research	1	1	1.1 Aspects of environmental research	1	X		VO	1	Fundamentals	none	none	0
MA-EnviTox-2 Environmental Chemistry	1	13	2.1 Biogeochemical cycles	3	X		VO	2	Fundamentals	none	Combined written test 2.1 and 2.2	2
			2.2 Contaminants: Sources and Pathways	5	X		ÜB	2				
			2.3 Water chemistry	5	X		VO/SE	2+1			Written test	
MA-EnviTox-3 Biosciences	1	8	3.1 Biochemistry: Structure and function of biomolecules	3	X		VO	2	Fundamentals	none	Written test	2
			3.2 Bioinformatics	5	X		VO	3			Written test	
MA-EnviTox-4 Biological Interactions	1 2	13	4.1 Ecotoxicology I: Uptake and metabolism	3	X		SE	2	Effects Effects	none none	Pesentation and test	5 5
			4.2 Environmental Microbiology	5			VO/SE	2+1			Written test Written test, Term paper	
			4.3 Ecology and Protection of Freshwater Ecosystems and Aquatic Organisms	5	X X		VO/Ü	2+2				
MA-EnviTox-5 Environmental analytics	2	10	5.1 Applied Analytical Chemistry	5	X		VO/SE	2+1	Fundamentals	none	Written test	2
			5.2 Environmental Analytics	5	X		SE/PR	1+6			Colloquium	
MA-EnviTox-6 Effects on biological functions	2	15	6.1 Ecotoxicology II: Effects	4	X		VO/SE	2+1	Effects	none	Written test and oral exam for 6.1 and 6.2	4
			6.2 Applied methods in ecotoxicology	6	X		SE/PR	2+4				
			6.3 Cellular toxicity	5	X		PR	4	Oral test and protocol			
MA-EnviTox-7 European Environmental Legislation	3	8	7.1 Introduction to EU-environmental legislation	3	X		VO/SE	1+1	Applied Environmental Toxicology	none	conjoined written test 7.1 and 7.2	1
			7.2 Assessment of Chemicals under REACH	5	X		VO/SE	2+1				
MA-EnviTox-8 Internship	3	22	8.1 Internship	22		X	PR/SE	16 weeks	Applied Environmental Toxicology	none	Journal	1
MA-EnviTox-9 Master's Project	4	30	9.1 Master's Thesis	28		X	Thesis	20 weeks	Applied Environmental Toxicology	75 credits	Master's thesis	2
			9.2 Master's Colloquium	2		X	Colloquium	2		Submission of the Master's thesis	Colloquium	
Sum of credits		120		120								

Annex 2: Module Aims of the Master's Program in Environmental Toxicology

Module 1: 1.1 Aspects of environmental research

Students receive an overview of the current state of research in the field "Environmental Toxicology". They are able to reflect on the aims of the program. They are able to interpret the research results critically.

Module 2: Environmental chemistry

Students have an understanding of chemical and biochemical processes in soils, air and aquatic systems. They receive an overview of the transformation and transport processes, which influence the mobility and toxicological relevance of pollutants in soils, air and aquatic systems. They apply knowledge of biological and chemical processes in different environmental matrices in order to assess the behavior of pollutants in the environment. They are familiar with various modern methods and techniques for the quantitative recording of pollutants in different environmental compartments.

Module 3: Biosciences

Students know the meaning of the interrelations between molecular structure and function regarding the signal transmission in cells. Students analyze absorption and metabolism of pollutants in cells and are able to thereby assess the behavior of pollutants in cells and organisms.

They are familiar with methods of processing, analyzing and modeling biological data by means of computer.

Module 4: Biological interactions

Students analyze absorption and metabolisms of pollutants in cells, plant and animal organisms as well as in ecosystems.

They are familiar with processes of ground water and wastewater treatment by means of biological filtration.

They apply knowledge of biological and chemical processes in different environmental matrices in order to assess the behavior of pollutants in the environment.

They are familiar with the assessment systems for surface waters and the measures by which an ecologically good condition can be instated for these.

Students are able to comprehend contributions to the scientific discussion of socially relevant questions, in particular in the sub-fields of diversity and sustainability as well as resource protection, and are able to evaluate these technically and ethically and reason their social relevance.

Module 5: Environmental analytics

Students are familiar with the various modern methods and special techniques to detect pollutants and their effects as well as to quantify them and apply these independently.

They are able to assess and evaluate advantages and disadvantages as well as the limits of these methods with regard to the questions to be answered in critical and technical terms.

They are able to assess, critically interpret and set the measuring results obtained in an ecotoxicological context.

They use this knowledge for the evaluation and classification of research and test results of other scientists.

They are able to present the results of their analyses in oral and written form to a target audience.

Module 6: Effects on biological functions

Students are familiar with the various modern methods and special techniques to detect pollutants and their effects in cells, plants and animals, as well as to quantify them and apply these independently.

They are able to assess and evaluate advantages and disadvantages as well as the limits of these methods with regard to the questions to be answered in critical and technical terms.

They are able to assess, critically interpret and set the measuring results obtained in an ecotoxicological context.

They use this knowledge for the evaluation and classification of research and test results of other scientists.

They are able to present the results of their analyses in oral and written form to a target audience.

Module 7: European environmental legislation

Students are familiar with the European legal bases in the sub-field of ecotoxicology.

They use this knowledge for the evaluation and classification of research and test results.

Students are able to comprehend contributions to the scientific discussion of socially relevant questions, in particular in the sub-fields of diversity and sustainability as well as resource protection, and are able to evaluate these technically and ethically and reason their individual and social relevance.

Module 8: Internship

Students independently develop questions posed as well as hypotheses. They plan (research) projects with a focus on time and resources. They conduct (research) projects in application of appropriate methods and techniques, also in multidisciplinary teams, analyze results and interpret results critically and objectively, and set the results in an ecotoxicological and social context. They are able to present these results in oral and written form to a target audience.

Module 9: Master's project

Students independently develop questions posed as well as hypotheses. They plan (research) projects with a focus on time and resources. They conduct (research) projects in application of appropriate methods and techniques, also in multidisciplinary teams, analyze results and interpret results critically and objectively, and set the results in an ecotoxicological and social context. They are able to present these results in oral and written form to a target audience.