



UNIVERSITY IN ZAGREB  
**FACULTY OF GEODESY**

**REGULATIONS**  
**OF THE POSTGRADUATE DOCTORAL STUDY**  
**PROGRAMME OF GEODESY AND**  
**GEOINFORMATICS**



**Zagreb, 17. June 2010**

By virtue of the Law on Scientific Activity and Higher Education (“National Gazette” No. 123/03, 198/03, 105/04, 174/04 and 46/07), of the Statute of the University in Zagreb (of 25. February 2005) and in accordance with the Regulations of the Doctoral Study Programmes at the University in Zagreb) of 20. April 2010), The Faculty Council passed at its 149. regular session held on 17. June 2010 the following Regulations in accordance with the article 50. of the Statute of the Faculty of Geodesy, University in Zagreb:

## **REGULATIONS**

### **OF THE POSTGRADUATE DOCTORAL STUDY PROGRAMME OF THE FACULTY OF GEODESY, UNIVERSITY IN ZAGREB**

#### *General provisions*

##### **Article 1.**

The regulations of the postgraduate doctoral study programme at the Faculty of Geodesy, University in Zagreb (hereinafter referred to as: Regulations) govern the organization and performance of the doctoral studies at the Faculty of Geodesy (hereinafter referred to as: Faculty), provider of the study programme, forms and duration of the studies, admission requirements, teaching and research activities, application procedure, evaluation and defence of doctoral dissertation, rights and obligations of students at the doctoral studies (hereinafter referred to as: doctoral candidate), rights and obligations of advisors, methods of quality assessment, and other issues related to the organization and performance of doctoral studies.

##### **Article 2.**

The Faculty organizes and performs the postgraduate doctoral study programme in the scientific field of technical sciences, discipline geodesy, and conducts the procedure for acquiring the academic degree of PhD (dr.sc.) in this field.

##### **Article 3.**

The doctoral studies are managed by the Committee for Science (hereinafter referred to as: Committee) appointed by the Faculty Council as its permanent working body.

#### *Teaching and research activities at the doctoral studies*

##### **Article 4.**

- (1) The postgraduate doctoral study programme of geodesy and geoinformatics is organised as a full-time university programme lasting three years (six semesters) according to the ECTS credit system. After completing the studies and defending the doctoral dissertation, the candidates earn at least 180 ECTS points.
- (2) The postgraduate study programme involves a mixture of research projects and teaching performed at the Faculty.
- (3) Teaching activities are performed according to the accepted curriculum and syllabus in the form of lectures, consultations, research seminars, workshops and discussion groups.

- (4) According to the specified conditions, the courses at the doctoral studies are open for all doctoral candidates at the University in Zagreb. Some parts of research and teaching activities can be partly open for doctoral candidates from other universities with predetermined conditions and signed agreements.
- (5) In order to achieve the interdisciplinarity, the doctoral candidates can take certain course and participate in some research activities at other research institutions in their homeland or abroad, which is to be reasoned and approved by their advisors.
- (6) The Committee may specify the supplemental courses for doctoral candidates that would provide fundamental knowledge needed for attending and completing the studies.

### *Admission requirements*

#### **Article 5.**

- (1) The candidates who have completed the graduate study programme at the Faculty of Geodesy, University in Zagreb with the minimum average grade 3,5 obtained during their graduate studies, i.e. with the equivalent grade from other grade systems and with earned 300 ECTS points are considered for direct admission to the postgraduate doctoral study programme.
- (2) According to the proposal of the Committee, the Faculty Council may exceptionally approve the admission of the candidate who has completed the (under)graduate study programme at the Faculty of Geodesy, University in Zagreb with the minimum average grade 3,0 with two letters of recommendation from professors at the Faculty of Geodesy.
- (3) The candidates who have earned their master's degree of science in the field of technical science, the discipline of geodesy can be admitted to the 2. year of doctoral studies.
- (4) The adequacy for the admission to the doctoral study programme for the candidates who have completed the university (under)graduate study programme other than the scientific discipline of geodesy with the average grade 3,5 will be determined by the Committee and forwarded to the Faculty Council for approval. The Committee shall define the supplemental exams for such candidates for the courses at the (under)graduate studies of geodesy and geoinformatics that are necessary for attending the doctoral studies and defined in the Attachment 1. being an integral part of these Regulations.
- (5) The adequacy for the admission to the doctoral study programme for the candidates who have completed the university (under)graduate study programme at some foreign university will be determined by the Committee and forwarded to the Faculty Council for approval. The Committee may define for such candidates the supplemental exams for the courses at the (under)graduate studies of geodesy and geoinformatics that are necessary for attending the doctoral studies.
- (6) The candidates are required to pass the supplemental exams before applying for the doctoral study programme. The supplemental exams are not included into the sum of ECTS points.
- (7) The candidates from the section 5. of this article are required to submit also the decision on the recognition of foreign higher education qualification issued by the competent body of the Republic of Croatia when applying for the PhD programme.
- (8) The candidates who are foreign citizens are admitted to the study programme under the same conditions as Croatian citizens.
- (9) Each individual admission application for doctoral study programme, as well as all other issues related to the admission to the doctoral study programme of geodesy and geoinformatics, is considered by the Committee.
- (10) The candidates who have made significant scientific achievements and meet the requirements from the article 73. section 3. of the Law on Scientific Activity and Higher Education shall be admitted to the postgraduate doctoral studies, but shall not attend the courses and take the exams.
- (11) The candidates from the previous section should attach to their admission application the evidence of their significant scientific achievement.

- (12) Based on the proposal of the Committee, the Faculty Council shall pass the decision about the fulfilled conditions for the admission to the postgraduate study programme and for the achievement of the doctoral degree without attending the courses and taking exams.

### *Duration of studies*

#### **Article 6.**

- (1) Full time doctoral study <sup>1</sup> at the Faculty or some other research institution (full-time students) lasts three years, and can be extended to five years if there are justified grounds that are to be judged by the Committee.
- (2) Part time doctoral study <sup>2</sup> (part-time students) lasts mostly five years, and it can be extended to seven years if there are justified grounds that are to be judged by the Committee.
- (3) After the expiration of eight years since the enrolment, the doctoral candidate forfeits the right to defend the doctoral dissertation.
- (4) If the quality of the work of a doctoral candidate is assessed in annual evaluation procedures carried out by the Committee as unsatisfactory, the Committee can determine on the forfeiture of the candidate's right to continue his/her studies.

### *Admission to study programme*

#### **Article 7.**

- (1) The admission to the postgraduate doctoral studies is preformed on the basis of the public call for admission applications published by the Faculty Council at least a month before the beginning of classes.
- (2) The public call for admission applications is normally published only once each academic year in press and on the web site of the Faculty.
- (3) The public call for admission applications contains the information about admission requirements and other application attachments, admission deadlines, enrolment criteria and other data.
- (4) The Faculty Council passes the final decision about the performance of the postgraduate doctoral study programme that the public call has been published for, if it should determine that there is a sufficient number of candidates fulfilling the admission requirements.
- (5) Applicants are required to apply for the admission to the study programme by the deadline specified in the public call and to submit the supporting documents listed in the public call. The admission application should also include the proposal of the research area, of the advisor, and the statement of purpose related to the selected study programme.
- (6) The interview with the candidate is a mandatory integral part of the admission procedure. All necessary prerequisites for the completion of the studies in the planned period are clearly defined at the time of admission.
- (7) The names of selected candidates, their qualifications, as well as the names of recommenders shall be published on the web site of the study programme.
- (8) When enrolling, each doctoral candidate shall state in writing whether he/she will be a full-time or a part-time student. The full-time student should attach a statement specifying that he/she will be able to attend to his/her student obligations according to the study plan during his/her employment.
- (9) At the time of admission to the study programme, the Committee can appoint an advisor who shall help him/her during the studies, monitor the work and achievements of doctoral candidate and prepare together with him/her the plan of obligations (doctoral candidate portfolio). The advisor is employed at the Faculty holding a research and teaching or research rank.

<sup>1</sup> **Full-time** – Doctoral candidates attending the courses at the doctoral study programme, prepare for exams and work on research projects related to their doctoral thesis full-time.

<sup>2</sup> **Part-time** – Doctoral candidates employed on professional jobs outside of the research activity who can prepare for exams and work on their research after their usual working hours, i.e. in their free time.

## ***Mentorship***

### **Article 8.**

- (1) Mentor is a person holding research and teaching rank or research rank leading the doctoral candidate in the process of his/her work on the doctoral thesis. A person can be appointed a mentor if he/she :
  - a. holds at least research and teaching rank or the rank of research associate, or an equivalent rank if the potential mentor has earned an academic rank abroad;
  - b. is a head or a member of a research project, i.e. an active researcher in the field of research that the doctoral thesis belongs to;
  - c. is active in research activities, relevant in the international scientific community and has published scientific works related to the topic of the doctoral research in the last five years.
  - d. A mentor can exceptionally be *professor emeritus*, which is to be decided by the Faculty Council or the Technical field council.
- (2) The Committee defines the number of doctoral candidates a mentor can supervise at the same time.
- (3) Before assuming one's first mentorship, one is required to take a mentorship workshop organised by the University in Zagreb (hereinafter referred to as: University) or by accredited international schools.
- (4) A mentor who is not an employee of the University or of the Faculty should sign an agreement on cooperation and responsibilities with the dean of the Faculty.
- (5) A teacher of the Faculty can be a mentor at another University, if approved by the Faculty or University.
- (6) A mentor who assumed mentorship before retirement may continue to be mentor until the completion of the study programme with the consent of the Committee.
- (7) For the purpose of providing high quality of the doctoral thesis, another mentor can be appointed if necessary (for example, the interdisciplinarity of research, or conducting research in several institutions).
- (8) The decision on the appointment of mentor is passed by the Faculty Council according to the proposal of the Committee.

### ***Mentor's obligations***

### **Article 9.**

- (1) A mentor is obliged to guide a doctoral candidate in his/her work on doctoral thesis, monitor the quality of doctoral candidate's work, encourage the publication of his/her works and provide the possibility for the student to participate in research projects.
- (2) If there are several mentors involved, each of them takes the responsibility for the part of research and work on doctoral thesis defined in advance.
- (3) Mentor is obliged to submit a report once a year to the Committee about the work of the doctoral candidate, which is to be made on a form issued by the University ([Obrazac DR.SC.-05](#)). Before the appointment of mentor, such report is submitted by advisor.

### ***Duties and rights of doctoral candidate***

### **Article 10.**

- (1) Doctoral candidate is obliged to submit a report about his/her work to the Committee once a year (preferably in the form of research presentation), on the form issued by the University ([Obrazac DR.SC.-04](#)).
- (2) Doctoral candidate is entitled to change his/her mentor or topic once by submitting a written request and a statement of a person acting as a mentor hitherto, using the form issued by the University ([Obrazac DR.SC.-06](#)).
- (3) Before defending his/her doctoral thesis, a doctoral candidate must have at least one internationally reviewed work published or accepted for publishing that is thematically related to the doctoral research (with the doctoral candidate being the principal author). Each work can serve to qualify only one doctoral candidate, unless a special explanation is provided.

### ***Status of doctoral candidate***

#### **Article 11.**

Doctoral candidate enrolled at the university doctoral study programme can be:

1. research assistant or teaching assistant whose studies are funded from the system of science and higher education;
2. recipient of the Croatian or international scholarship;
3. doctoral candidate whose studies are funded by a legal person being his/her employer;
4. doctoral candidate funding the studies himself/herself.

### ***Doctoral dissertation***

#### **Article 12.**

- (1) Doctoral dissertation is a public research work subject to public scholarly evaluation.
- (2) The restriction of public access to doctoral dissertation is possible only exceptionally as specified in the article 18. of these Regulations.

#### **Article 13.**

Forms of doctoral dissertation:

- (1) Monograph – standard form of doctoral dissertation.
- (2) A collection of published scientific works accompanied by a critical survey chapter consisting of introduction, discussion, conclusion and comprehensive survey of relevant literature (so called Scandinavian model). The critical survey puts the results of doctoral dissertation into the context of already existing knowledge. Such form of dissertation is possible only within the scope of research work during the doctoral studies, and scientific works should be published after the admission to the doctoral study programme. The scientific works thus collected and proposed as doctoral dissertation need to constitute a unique material of at least three articles published in the journals cited by *Web of Science*, with at least one in a journal with an impact factor higher than the median impact factor of the journal from the area of doctoral research. Each article can serve to qualify only one doctoral candidate, unless a special explanation is provided. The doctoral candidate must be the principal author of at least two of the above mentioned works. The collected works must present a new scientific contribution related to the individual works.

#### **Article 14.**

- (1) Doctoral dissertation can be written and defended both in Croatian and English.
- (2) Title, abstract and key words of the doctoral thesis must be written both in Croatian and English. The abstract should allow the understanding of the dissertation objectives, research methods, results and conclusion.
- (3) Graphic layout of the doctoral dissertation is regulated by the University ([Obrazac DR.SC.-08](#)).

***Procedures of submitting the dissertation proposal, evaluation and approval of the doctoral research topic***

**Article 15.**

- (1) In the first year of doctoral studies, a doctoral candidate shall propose a mentor and a topic, and discuss the conditions of work, especially the terms of research funding.
- (2) Doctoral candidate shall initiate the procedure for the approval of doctoral dissertation by submitting an application that contains general information about the doctoral candidate, curriculum vitae and the list of his/her works, the title of the proposed topic, the information about the proposed mentor and his/her competences, the justification of the topic and the expected original scientific contribution of the proposed research, the evaluation of research expenses, and the statement that the proposal for dissertation with the identical topic has not been submitted to some other study programme at the University, i.e. at some other university. The proposal for the topic of the doctoral dissertation is submitted on the form issued by the University ([Obrazac DR.SC.-01](#)).
- (3) According to the proposal of the Committee, the Faculty Council shall appoint the committee for the evaluation of the topic and for the appointment of mentor. It consists of three of five members with at least one of them not being employed as a teacher in the study programme or at the Faculty. The proposed mentor cannot be appointed a president of the committee.
- (4) The proposed topic is defended publicly in front of the committee for the evaluation of the topic and the appointment of mentor, of other doctoral candidates and other interested parties.
- (5) The Committee for the evaluation of the topic and the appointment of mentor recommends the evaluation of the original scientific contribution and assessment of financial and organizational feasibility of the research, and proposes a mentor at least three months after the proposal has been submitted ([Obrazac DR.SC.-02](#)).
- (6) The Faculty Council must respond to the recommendation of the committee for the evaluation of the topic and the appointment of mentor by the time the doctoral candidate enrolls the fourth semester ([Obrazac DR.SC.-03](#)).
- (7) The proposal of the topic and mentor is forwarded to the Technical Field Council that sends the proposed topic and mentor to the Senate of the University for adoption. The Senate should confirm the topic and mentor during the fourth semester at the latest.

***Procedure for evaluation of doctoral dissertation***

**Article 16.**

- (1) The dissertation accompanied by mentor's written approval and assessment of the research performed and the achieved original scientific contribution is to be submitted by doctoral candidate to Registry Office of the Faculty. If the mentor refuses to give his/her approval, he/she must provide a written explanation in writing within 15 days. In both cases, the mentor's explanation is sent to the members of the Dissertation evaluation committee for the for further consideration.
- (2) Before initiating the procedure for the evaluation of dissertation, it is to be asserted that the doctoral candidate has fulfilled his/her obligations required by the study programme.
- (3) Doctoral candidate needs to submit his/her dissertation both in printed form and in electronic format.
- (4) According to the proposal of the Committee, the Faculty Council shall appoint the committee for the evaluation of doctoral dissertation.
- (5) The Committee consists of three or five evaluators with at least one of them being neither a teacher in the study programme nor an employee of the Faculty, and is, if possible, the employee at some other Croatian university or the university abroad, or at some other related

institution. The mentor cannot be a member of the Dissertation evaluation committee, unless appointed by the Senate according to the proposal of the Technical Field Council.

- (6) The members of the Dissertation evaluation committee must have at least the research and teaching rank of assistant professor or the rank of research associate, or an equivalent rank earned abroad.
- (7) The University shall publish the title and the abstract of dissertation in Croatian and English on the University web pages along with the appointment of the Dissertation evaluation committee, and provide the supervised insight into the doctoral dissertation to all interested members of the professional public.
- (8) The members of the Committee for the evaluation of dissertation and all parties having the possibility of insight into the doctoral dissertation must treat the data and expertise contained in the dissertation with confidentiality in order to protect the scientific contributions of the dissertation and intellectual property.
- (9) The Dissertation evaluation committee should submit a written report with the evaluation of doctoral dissertation within two months after its appointment ([Obrazac DR.SC.-10](#)). The president of the Committee prepares the report on the basis of collected written opinions of the Committee members, and the report must be signed by all members of the Committee. Each member has the right to present a separate evaluation.
- (10) The Dissertation evaluation committee recommends in its report:
  - a. acceptance of the dissertation with an explicit statement related to the achieved original scientific contribution, or
  - b. revision of the dissertation and final evaluation, or
  - c. rejection of the dissertation where after the doctoral candidate is no longer entitled to be granted a PhD degree at the postgraduate study programme of the Faculty of Geodesy.
- (11) An explanation is a mandatory part of the report. At its first next session, the Faculty Council shall pass the decision about the evaluation of the dissertation and appoint the dissertation defence committee.

### ***Procedure of dissertation defence***

#### **Article 17.**

- (1) Doctoral candidate can defend his/her doctoral dissertation after the Faculty Council has accepted the positive evaluation of the Dissertation evaluation committee, however, within two months at the latest.
- (2) The dissertation defence committee consists of three or five evaluators. The dissertation defence committee can have the same members as the Dissertation evaluation committee. Mentor participates in the procedure of dissertation defence, but does not participate in final evaluation, except in exceptional cases according to the article 16. section 4. of these Regulations.
- (3) The dissertation defence is public. The announcement of the public defence must be published at least 8 days before the defence itself. The defence must be held in the premises of the University, i.e. of the Faculty of Geodesy in the language in which the dissertation has been written. In case of joint or dual doctoral dissertation, the defence can be held at another university. The defence procedure is regulated by protocol. ([Obrazac DR.SC.-11](#)).
- (4) The dissertation defence committee brings forward its evaluation after the defence. The defence evaluation can be *has defended* or *has not defended*. The evaluation is passed with the majority vote of the members of the dissertation defence committee.
- (5) A record is kept of the defence procedure in Croatian, and if the dissertation is defended in English, the record is kept in that language too.
- (6) The dissertation can be defended only once.

#### **Article 18.**

- (1) If the dissertation results should include innovation suitable for the protection by the intellectual property rights, the doctoral candidate and his/her mentor should notify the Technology Transfer Office at the University. In that case, the doctoral candidate can request the dissertation to be treated with confidentiality before submitting the dissertation for evaluation and with mentor's approval until it is publicly defended.
- (2) The Technology Transfer Office conducts the procedure of legal protection and commercialization of research results in accordance with the Regulations on Technology Transfer Office. In this case, the public defence can be postponed with the consent of the doctoral candidate for one year at most since the dissertation has been submitted for evaluation. An acknowledgement note from the Technology Transfer Office should be attached to the request for the postponement of the public defence. ([Obrazac DR.SC.-07](#)).
- (3) The entire procedure of the evaluation and defence related to the case mentioned in the section 1. and 2. of this article is regulated by a special decree of the University.

### ***Publishing and filing of doctoral dissertation***

#### **Article 19.**

- (1) Doctoral dissertation is published completely on the web pages of the University one month after the defence at the latest. In exceptional situations and with previous explanatory statement submitted to the Office for Doctoral Studies, the publication of the dissertation on web pages of the University can be postponed for up to two years.
- (2) The dissertation is filed in the National and University Library and in the University Archives.

### ***Promotion***

#### **Article 20.**

- (1) Doctoral candidate earns the rights pertaining to PhD degree regulated by labour law on the day of successfully defended dissertation, and the full rights of the academic title and the diploma are acquired by taking a pledge at the promotion and by being entered in the book of PhDs.
- (2) Within a month following the defence, the doctoral candidate must fill in the university form for a promotion into a PhD and submit a bound dissertation as well as electronic version for publication on University web pages.
- (3) The doctoral diploma is handed to the doctoral candidate by the Rector at a promotion ceremony that the doctoral candidate is required to attend in person or have legally authorized representative with PhD degree.

### ***Modalities of doctoral study quality assurance***

#### **Article 21.**

- (1) The Committee keeps a detailed record on the research work and other fulfilled obligations of each doctoral candidate including the plan of obligations (doctoral candidate portfolio). The Committee takes care of the work load and achievements of mentor, as well as the record on the number of doctoral candidates enrolled and the number of those who have defended their dissertations for each mentor (within the frame of the form [Obrasca DR.SC.-09](#)).
- (2) The Committee performs a self-evaluation each year on the basis of the annual reports of mentors and doctoral candidates. It submits the report about its work to the Faculty Council and to the University on the University form ([Obrazac DR.SC.-09](#)).
- (3) Annual self-evaluation reports are attached to the re-accreditation application.
- (4) The criteria for the evaluation include the following: scholarly production of teachers and

doctoral candidates, teaching, relevance and quality of dissertations, statistical indicators of study duration, statistical indicators of annual number of new PhDs relative to the number of doctoral candidates, and achieved results in international cooperation.

***Transitional and final  
provisions***

**Article 22.**

- (1) University forms are an addition to these Regulations that specify their usage.
- (2) Article 8. section 3. of these Regulations will come into effect after the mentorship workshops have been organised at the University.

**Article 23.**

- (1) The students who were admitted to the doctoral study programme before these Regulations came into effect are entitled to complete the studies according to the curriculum and conditions that were applicable at the time of admission.
- (2) The students who were admitted to the doctoral study programme before these Regulations came into effect can continue the studies according to the provisions specified in these Regulations at their own request through the Committee and with the consent of the Faculty Council.
- (3) The final deadline for completing the postgraduate studies at the Faculty of Geodesy that started before the establishment of the postgraduate studies according to the provisions of the Law on Scientific Activity and Higher Education is defined by the same Decision.
- (4) The procedure of dissertation approval, evaluation and defence is applied also for acquiring PhD degree outside of doctoral study programme.

**Article 24.**

- (1) These Regulations will come into effect on the eight day following the date of their publication on the bulletin board and the web pages of the Faculty and are applied for the students of the postgraduate doctoral study programme who were admitted to the study programme after their coming into effect.
- (2) On the effective date of these Regulations, the Regulations on the postgraduate study programme at the Faculty of Geodesy passed on 30. October 2008 shall be no longer effective.
- (3) The procedure for amending these Regulations is executed in the same way as the procedure applied to these Regulations.

Dean

Prof. Stanislav Frangeš, PhD

Zagreb, 17. 06. 2010

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These Regulations are published on the bulletin board and on web pages of the Faculty of Geodesy University in Zagreb, on 23. June 2010

**ATTACHMENT 1.****SUPPLEMENTAL  
EXAMS****for the admission to the doctoral study programme of geodesy and  
geoinformatics**

The students who have not completed the study programme of geodesy, i.e. of geodesy and geoinformatics and want to be admitted to the postgraduate doctoral study programme at the Faculty of Geodesy are required to enrol and pass altogether *six (6) supplemental exams*, as follows:

A) Out of this group of courses, the candidates are required to select *two (2) courses*

No.	<i>Teacher</i>	<i>Course</i>	<b>ECTS</b>
1.	Džapo, M.	Cadastral Survey	6
2.	Kapović, Z.	Engineering Geodesy in Construction	6
3.	Mastelić Ivić, S.	Land Consolidation	6
4.	Novaković, G.	Geodetic Networks for Special Purposes	6
5.	Roić, M.	Spatial Management Support	6

B) Out of this group of courses, the candidates are required to select *two (2) courses*

No.	<i>Teacher</i>	<i>Course</i>	<b>ECTS</b>
1.	Bačić, Ž.	Satellite Positioning	6
2.	Bačić, T.	State Survey	6
3.	Medak, D.	Spatial Databases	6
4.	Pribičević, B.	Maritime Geodesy	6
5.	Rožić, N.	Analysis and Processing of Geodetic Measur.	6

C) Out of this group of courses, the candidates are required to select *one (1) course*

No.	<i>Teacher</i>	<i>Course</i>	<b>ECTS</b>
1.	Frangeš, S.	Cartography	6
2.	Lapaine, M.	Map Projections	6
3.	Vučetić, N.	Digital Cartography	6

D) Out of this group of courses, the candidates are required to select *one (1) course*

No.	<i>Teacher</i>	<i>Course</i>	<b>ECTS</b>
1.	Gajski, D.	Photogrammetry	6
2.	Bajić, M.	Remote Sensing	6
3.	Gajski, D.	Geoinformation Systems	6

The supplemental exams need to be passed before the admission to the doctoral study programme. The supplemental exams are not included into the sum of ECTS points.

The supplemental exams must be passed before taking the exams specified in the fundamental study programme of this postgraduate study programme (before taking the exam in the first semester).