

FORMAL REQUIREMENTS AND ADMINISTRATION OF DOCTORAL STUDIES

Version: Last updated: 20.5.2023 (1) Instruction on drafting ISP before entrance examination, (2) instructions on section E - career and soft skills

PhD programme: Environmental Health Sciences (Životní prostředí a zdraví)

Doctoral Board – head contact: prof. Luděk Bláha, blaha@sci.muni.cz

General outline:

- **For the entrance examination** – in addition to other formalities, student with supervisor are required to develop detailed individual study plan (ISP) using the structured template provided by doctoral board, the draft of the ISP will be discussed during the entrance exam
- **Semesters 1 - 4 (first 2 years of study)** - students work on their research project + fulfil other requirements (theoretical courses, preparing for state doctoral exam – SDE, teaching assistance)
- **End of 4th semester – SDE (State Doctoral Exam)***
- **Semesters 5 – 8** – main focus on research (work on doctoral project and thesis, publications, presentations at conferences, etc.)

General requirements for all students in the programme (please see detailed requirements for the Individual Study Plan in the detailed table below):		
Mandatory duties - checked by Dean's Office		
XD100	Ph.D. thesis / Příprava dizertační práce	<i>Enrolled every semester during entire studies, recommended 20-25 ECTS for semesters 1-4, 30 ECTS for semesters 5-8, 20 ECTS for semesters 9 +</i>
E0401	Advances in Environmental Health Sciences	<i>Enrolled in semesters 1 – 8; exception - not required in the semester with "Placement Abroad"</i>
E0403	Research project development and funding	<i>Enrolled in semester 1 or as soon as possible in the study curriculum (lectured during autumn)</i>
C7777	Handling chemical substances / Zacházení s chemickými látkami	<i>Enrolled in every year of study, every autumn semester</i>
XD102	Teaching Assistance / Pomoc při výuce	<i>Get 4 ECTS in semesters 1-4 (corresponding to maximum 100 hours in total)</i>
XD106	Lecture in the foreign language / Odborná přednáška v cizím jazyce	<i>Minimum once during studies (recommended 0 ECTS)</i>
	Placement Abroad / Zahraniční pracovní pobyt	<i>Minimum 1 month stay, min. once during studies (usually 5 ECTS/month), requirement given by law</i> Instructions for recognition of Placement Abroad: https://www.sci.muni.cz/en/students/phd/recognition-of-placements-abroad (the recognition is done via IS application Internship and Stays, by creating record of the stay and request for recognition; the course is then registered by Dean's Office)
Theoretical courses and all other requirements - checked by the Head of Doctoral Board / Head of Doctoral Committee		
• minimum 4 courses during semesters 1-4 with corresponding ECTS (before SDE)		

(* Requirements for theoretical SDE:

Theoretical preparation for SDE (in the middle of studies). The Doctoral Board will check following aspects:

- 1/ proficiency in the **fundamentals of the broader scientific discipline**, i.e. research of interaction between environment and health (20% weight)
- 2/ deep **understanding of the particular scientific specialization** (30% weight)
- 3/ **detailed knowledge within the topic(s) of the doctoral research project** including context (50% weight)

Individual study plan elements		Milestones				
		Enrolment to studies (Before semester 1)	End of Semester 1	End of Semester 4 (Theoretical State Doctoral Exam, SDE *)	End of Semester 8 (Preparation for PhD defence)	
(A) research and development activities (ca. 70 % of workload)	1. Research, dissertation project , literature search of the actual state of the topic, planning and the scientific activities itself (50%).	Define framework topic of your PhD project with your supervisor for enrolment. CHECK: Dean's office [enrolment] XD100 for each semester (25 ECTS for semesters 1-4, 30 ECTS for semesters 5-8, 20 ECTS for semesters 9+] CHECK: Dean's office <i>C7777 - every year of study, every autumn semester</i> - CHECK: Dean's office	Submit detailed "research project" for your PhD work to the Doctoral Board. Max 10 pages containing Background, Research hypothesis and objectives, Approach-methods, Timeline of foreseen activities, Expected outcomes (publications). CHECK: Doctoral Board [Submitted project]	Prepare "short thesis" (10-20 pages) with literature review (text may later be used as Introduction-Background to final PhD thesis), state of the PhD project, results so far. Little thesis is made available to SDE committee. CHECK: Doctoral Board [SDE assessment]	Submit PhD thesis according to EHS programme standard, format according to SCI MUNI regulation. CHECK: Doctoral Board, Dean's office	
	2. Publications (thesis should be based on 3 papers demonstrating quality and independence of the student (15%)	No formal check needed	No formal check needed	No formal check needed	No formal check needed Publications of the student may be included in the little thesis for SDE (if relevant).	Three papers - <u>minimum</u> criteria: One student's first-author paper published in IF-journal, preferentially in 1st quartile (ISI WOS). One other published paper, where student is at minimum co-author. One additional paper at minimum as full manuscript. CHECK: Doctoral Board [Thesis].
	3. Presentation of results on scientific seminars,	No formal check needed	No formal check needed	No formal check needed	No formal check needed	At minimum one documented oral presentation in English to appropriate scientific audience,

	symposia, conferences etc., including preparation of talks and/or poster presentations (5%)			List of presentations may be included in the little thesis for SDE (if relevant).	preferentially international conference. CHECK: Dean's office [XD106]
(B) Specialized courses and theoretical preparation (20%)	4. Theoretical courses, preparation to the state doctoral exam – SDE (15%)	Identify student's knowledge gaps and what should be learned for SDE. Plan corresponding courses, trainings for the first two years. Consider courses at MU or outside. Minimum 4 credited courses are required. Selection can be changed/updated for each semester. CHECK: Student a Supervisor	No formal check needed	Successfully passed at minimum 4 credited theoretical courses. CHECK: Doctoral Board [IS.MUNI] Have all other requirements fulfilled (see below in this column) and submit the application to theoretical SDE (Doctoral Board organizes SDE further).	Not relevant anymore, all requirements fulfilled before.
	5. Doctoral seminars (5%)	Enroll E0401 (obligatory seminar for 8 semesters) CHECK: Student	No formal check needed	CHECK: Dean's office [4 semesters of E0401]	Get credits for E0401 for all semesters when student works at MU in Brno. Semesters when student is at international stay abroad are excluded. CHECK: Dean's office [IS.MUNI]
(C) International experience and competitiveness	6. Further improving of English competences (attending courses, seminars, conferences,	No formal check needed	No formal check needed	No formal check needed	No formal check needed

	writign publications, all in English).				
	7. Stay or internship abroad - mandatory participation in international cooperation.	Include planning in your Individual Study plan CHECK: Student, Supervisor, Doctoral Board	No formal check needed	No formal check needed	Minimum is 1 month foreign stay, longer stays (3+ months) are preferred considering the topic. CHECK: Dean's office [stay abroad in IS; e.g. XD110]
(D) Pedagogical competences	8. Teaching assistance - classrooms, exercises, advising undergrad students and comparable.	About 100 hours through the entire doctoral studies; passed during the first four semesters- get 4 ECTS in line with specific RECETOX rules. CHECK: Student	No formal check needed	CHECK: Dean's office [IS; XD102 – 4 ECTS total during semesters 1-4]	Not relevant anymore, all requirements fulfilled before.
(E) Other transferrable skills.	9. Career development - preparation and management of projects, scientific writing, communication, other soft-skills.	Develop in your Individual Study Plan Tips for courses offered by RECETOX: E0403 (obligatory for 1 st semester), E0402 Academic Writing, E0404 Presentation Skills. Check offers of MUNI Mendel Doctorandus (https://mmd.muni.cz/), MUNI PHD Academia or outside of MU. CHECK: Student, Supervisor, Doctoral Board	Enroll to E0403 Research project development and funding - develop and present detailed PhD project CHECK: Student, Supervisor, Doctoral board	No formal check needed	No formal check needed

