

Dodatna pojasnila za izvajanje doktorskega študija na UL FS

V tej prilogi je sta na kratko razložena postopka klasičnega izvajanja doktorskega študija (Preglednica 1) in projektnega izvajanja doktorskega študija (Preglednica 2).

Doktorski študij se formalno začne izvajati z vpisom študenta na doktorski študij in izbiro mentorja.

Naslednji korak pri izvajanju doktorskega študija je registracija izpitov in okvirne teme doktorske naloge.

V primeru **klasičnega izvajanja** doktorskega študija se v tej fazi le izpolni ustrezeni obrazec za registracijo in določi komisijo za zagovor seminarjev.

V primeru **projektnega izvajanja** se v tej fazi: i.) izpolni ustrezeni obrazec za registracijo; ii.) izpolni vlogo za opravljanje obveznosti višjega letnika (izpit 4 in prijava teme doktorske naloge).

Po uspešni predstavitvi teme doktorske disertacije sledijo vsako leto redna srečanja doktorskega študenta in Komisije za spremljanje dela kandidata praviloma proti koncu študijskega leta. Za vsako srečanje se izpolni zapisnik, ki ga podpišeta mentor in doktorand. Ob koncu tretjega letnika doktorskega študija to srečanje sovпада s predstavitvijo rezultatov dela študenta.

V primeru uspešnih objav se lahko doktorski študent v soglasju z mentorjem odloči za pisanje doktorske naloge s članki. Pogoji za takšen način pisanja so definirani v Pravilniku o doktorskem študiju na UL in dodatno s Pravilnikom o doktorskem študiju na FS.

Doktorski študij se zaključí z uspešnim zagovorom doktorske disertacije.

Dokazovanje opravljenih obveznosti na doktorskem študiju pri obeh načinih izvajanja se izvede z naslednjimi dokumenti:

- Z izpolnjenimi in podpisanimi prijavnici za vse izpite in seminar 1.
- Z izpolnjenim in podpisanim Zapisnikom o predstavitvi teme doktorske disertacije na Doktorskem študijskem programu STROJNIŠTVO – III. Stopnja ter podpisano oceno teme doktorske disertacije, ki jo pripravi Komisija za spremljanje doktorskega študenta.
- Z izpolnjenim in podpisanim Zapisnikom o predstavitvi rezultatov raziskovalnega dela na Doktorskem študijskem programu STROJNIŠTVO – III. stopnja.
- Z ocenami doktorskega dela, ki jih napišejo člani Komisije za spremljanje doktorskega študenta.

Posebnost pri **projektnem izvajanju** doktorskega študija je naslednja:

1. V šestem do devetem mesecu študija se izvede zaprti zagovor izpitov ter predstavitev osnutkov seminarja in doktorske teme. Za datum zaprtega zagovora se dogovori mentor z ostalimi člani komisije in ga sporoči v študentski referat. Doktorski študent odda v študentski referat osnutek seminarja in osnutek doktorske teme. Študentski referat nato oba dokumenta posreduje nosilcem predmetov in članom komisije za zagovor seminarja. Zaprti zagovor se izvede pred nosilci izpitov in komisijo za zagovor seminarja. Na tem zagovoru doktorski študent predstavi absolvirano znanje z izbranih predmetnih področij ter predstavi osnutka seminarja in doktorske teme. Po zagovoru se izpolni in podpiše še Zapisnik o predstavitvi osnutka seminarja in doktorske teme na Doktorskem študijskem programu III. stopnje Strojništvo ter zapišejo okvirna izpitna vprašanja. Sestavni del tega zapisnika so tudi komentarji nosilcev predmetov glede absolviranih in morebitnih manjkajočih znanj pri posameznih predmetih ter komentarji glede osnutkov seminarja in doktorske teme. Podpisani zapisnik se odda v študentski referat najkasneje 8 dni po izvedbi zagovora.

2. Zaprtemu zagovoru izpitov sledi javna predstavitev seminarja in doktorske teme predvidoma v devetem do dvanajstem mesecu študija. V vmesnem času mora študent absolvirati manjkajoča znanja z izbranih predmetnih področij ter izdelati seminar in temo doktorske disertacije. V postopku študent v študentski referat odda vlogo za predstavitev teme doktorske disertacije, mentor pa predlog Komisije za spremljanje doktorskega študenta (KSDŠ). KDŠ določi člane KSDŠ, ki jih potrdi senat. Mentor z nosilci predmetov, člani komisije za seminar in člani KSDŠ uskladi termin za predstavitev seminarja in teme doktorske disertacije in jih vsaj 8 dni pred rokom pošlje v študentski referat. Javni zagovor poteka v dveh delih: i.) v prvem delu študent predstavi seminar in odgovori na odprta vprašanja iz posameznih predmetov; opravljene izpite in seminar potrdijo nosilci predmetov in komisija za zagovor seminarja tako, da izpolnijo prijavnico za seminar in vpišejo ocene predmetov v VIS; ii.) v drugem delu študent pred člani KSDŠ javno predstavi temo doktorske disertacije. Uspešni zagovor teme KSDŠ potrdi z zapisnikom in o predstavljeni temi napiše tudi oceno.

Preglednica 1 – Klasično izvajanje doktorskega študija

Letnik/ aktivnost	Klasično izvajanje doktorskega študija	ECTS	Mesec študija
1. letnik			
1	Izpiti 1-3	30	M6-M9
2	Seminar (pregled literature)	5	M9-M12
3	Raziskovalno delo	25	M12
	Skupaj ECTS 1. letnik	60	
2. Letnik			
4	Izpit 4	5	M15
5	Tema doktorske disertacije	10	M18
6	Raziskovalno delo	35	M24
7	1. redno srečanje študenta in Komisije za spremljanje dela kandidata + dokazila o napredku		M22-M24
	Skupaj ECTS 2. letnik	60	
3. Letnik			
8	Raziskovalno delo	55	
9	Predstavitev rezultatov dela	5	M34-M36
10	2. redno srečanje študenta in Komisije za spremljanje dela kandidata + dokazila o napredku		M34-M36
	Skupaj ECTS 3. letnik	60	
4. letnik			
11	Raziskovalno delo	55	
12	Izdelava in zagovor doktorskega dela	5	M48
	Skupaj ECTS 4. letnik	60	
SKUPAJ		240	

Preglednica 2 – Projektno izvajanje doktorskega študija

Letnik/ aktivnost	Projektno izvajanje doktorskega študija	ECTS	Mesec študija
1. letnik			
1	Zaprti zagovor: predstavitev Seminarja in Teme doktorskega dela	Priprava na javni zagovor	M6-M9
2	Javni zagovor (hkrati je to 1. Redno srečanje študenta in Komisije za spremljanje Kandidata), ki vključuje:		M9-M12
2.1	Seminar (pregled literature)	5	
2.2	Tema doktorske dizertacije	Se izvede	
2.3	Izpiti 1-3	30	
2.4	Izpit 4	Se izvede	
3	Raziskovalno delo	25	M12
	Skupaj ECTS 1. letnik	60	
2. Letnik			
4	Izpit 4	5 (se vpiše)	M15
5	Tema doktorske disertacije	10 (se vpiše)	M15
6	Raziskovalno delo	35	M24
7	2. redno srečanje študenta in Komisije za spremljanje dela kandidata + dokazila o napredku		M22-M24
	Skupaj ECTS 2. letnik	60	
3. Letnik			
8	Raziskovalno delo	55	
9	Predstavitev rezultatov dela	5	M34-M36
10	3. redno srečanje študenta in Komisije za spremljanje dela kandidata + dokazila o napredku		M34-M36
	Skupaj ECTS 3. letnik	60	
4. letnik			
11	Raziskovalno delo	55	
12	Izdelava in zagovor doktorskega dela	5	M48
	Skupaj ECTS 4. letnik	60	
SKUPAJ		240	

Additional explanations for conducting doctoral studies at UL FME

This appendix briefly explains the procedures for the classic implementation of doctoral studies (Table 1) and the project implementation of doctoral studies (Table 2).

The doctoral study formally begins with the enrolment of a student in the doctoral study and the selection of a mentor.

The next step in implementing doctoral studies is the registration of examinations and the framework topic of the dissertation.

With ***classic implementation*** of doctoral studies, only the relevant registration form is filled in at this stage and a committee for the defence of seminars is appointed.

With ***project implementation***, at this stage: i) Fill in the relevant registration form; ii) Fill in the application to fulfil the obligations of a final year (examination 4 and application for the topic of the doctoral thesis).

The successful presentation of the dissertation topic is usually followed by regular meetings of the doctoral candidate and the Committee supervising the candidate's work towards the end of the academic year. Minutes are taken of each meeting and signed by the mentor and the doctoral candidate. At the end of the third year of doctoral studies, this meeting coincides with the presentation of the results of the student's work.

With successful publications, the doctoral student may decide, in consultation with the mentor, to write a doctoral thesis with papers. The conditions for such a type of writing are laid down in the Rules on doctoral studies at UL and additionally in the Rules on doctoral studies at FME.

The doctoral studies are concluded with a successful defence of the doctoral dissertation.

Proof of completed doctoral studies is provided for both types of implementation with these documents:

- With the completed and signed registration forms for all examinations and the seminar 1.
- With the completed and signed Minutes of the presentation of the topic of the doctoral thesis in the Doctoral programme MECHANICAL ENGINEERING - Level III and signed assessment of the topic of the doctoral dissertation, prepared by the Committee for monitoring the doctoral student.
- With the completed and signed Minutes on the presentation of the results of research work at the Doctoral study programme MECHANICAL ENGINEERING - Level III.
- With the assessment of the doctoral dissertation written by the members of the Committee for monitoring the doctoral student.

The special feature of the project implementation of the doctoral study is the following:

3. In the sixth to ninth month of study, there is a closed defence of exams and a presentation of drafts of the seminar and doctoral topic. The date for the closed defence is agreed by the mentor with the other members of the Committee and communicated to the Student Affairs Office. The doctoral student submits a draft seminar and a draft doctoral topic to the Student Affairs Office. The Student Affairs Office then forwards both documents to the course conveners and members of the Seminar defence committee. The closed defence is conducted in front of the exam conveners and the Seminar defence committee. In this defence, the doctoral candidate presents the completed knowledge from selected subject areas and presents the draft seminar and doctoral topic. After the defence, the Minutes of the presentation of the draft seminar and the doctoral topic in the Doctoral Study Program of level III of Mechanical Engineering are filled in and signed and the questions of

the framework examination are noted down. An integral part of these Minutes are also the comments of the course conveners on the completed and possibly missing knowledge in the individual subjects, and the comments on the drafts of the seminar and the doctoral topic. The signed Minutes are submitted to the Student Affairs Office within 8 days after the defence.

4. The closed defence of the exams is followed by a public presentation of the seminar and the doctoral topic, presumably in the ninth to twelfth month of study. Meanwhile, the student must complete the missing knowledge from selected subject areas and prepare a seminar and the topic of the doctoral dissertation. In the process, the student applies to the student office for the presentation of the topic of the doctoral dissertation, and the mentor submits a proposal of the Committee for monitoring the doctoral student (KSDŠ). KDS appoints the members of KSDŠ, who are confirmed by the Senate. The mentor coordinates the date for the presentation of the seminar and the topic of the doctoral dissertation with the lecturers, members of the Seminar committee and members of KSDŠ and sends them to the Student Affairs Office at least 8 days before the date. The public defence takes place in two parts: i) In the first part, the student presents a seminar and answers open questions from individual subjects; the passed examinations and the seminar are confirmed by the course conveners and the Seminar defence committee by filling out the Seminar application form and entering the grades in the VIS; ii) In the second part, the student presents the topic of the doctoral dissertation publicly to the members of KSDŠ. The KSDŠ confirms the successful defence of the topic with the Minutes and writes an assessment of the presented topic.

Table 1- Classic implementation of doctoral studies

Year/ activity	Classic implementation of doctoral studies	ECTS	Month of study
Year 1			
1	Exams 1-3	30	M6-M9
2	Seminar (literature review)	5	M9-M12
3	Research work	25	M12
	Total ECTS year 1	60	
Year 2			
4	Exam 4	5	M15
5	Doctoral dissertation topic	10	M18
6	Research work	35	M24
7	1 st regular meeting of the student and the Committee for monitoring the doctoral candidate + evidence of progress		M22-M24
	Total ECTS Year 2	60	
3. 2			
8	Research work	55	
9	Presentation of the study results	5	M36
10	2 nd regular meeting of the student and the Committee for monitoring the doctoral student + evidence of progress		M36
	Total ECTS Year 3	60	
Year 4			
11	Research work	55	
12	Preparation and defence of the doctoral dissertation	5	M48
	Total ECTS Year 4	60	
TOTAL		240	

Table 2 - Project implementation of the doctoral study

Year/ activity	Project implementation of doctoral studies	ECTS	Month of study
Year 1			
1	Closed defence: presentation of the Seminar and Topic of the doctoral dissertation	Preparation for the public defence	M6-M9
2	Public defence (simultaneously it is the 1 st regular meeting of the student and the Commission for monitoring the candidate), which includes:		M9-M12
2.1	Seminar (literature review)	5	
2.2	Doctoral dissertation topic	To be carried out	
2.3	Exams 1-3	30	
2.4	Exam 4	To be carried out	
3	Research work	25	M12
	Total ECTS year 1	60	
Year 2			
4	Exam 4	5 (to be entered)	M15
5	Doctoral dissertation topic	10 (to be entered)	M15
6	Research work	35	M24
7	2 nd regular meeting of the student and the Committee for monitoring the doctoral student + evidence of progress		M22-M24
	Total ECTS Year 2	60	
3. 2			
8	Research work	55	
9	Presentation of the study results	5	M36
10	3 rd regular meeting of the student and the Committee for monitoring the doctoral candidate + evidence of progress		M36
	Total ECTS Year 3	60	
Year 4			
11	Research work	55	
12	Preparation and defence of the doctoral dissertation	5	M48
	Total ECTS Year 4	60	
TOTAL		240	