

Doctoral School of Chemistry – University of Szeged

30.06.2022

Rules of the program:

- Doctoral students participating in the organized program have to collect 240 credit points to obtain the absolutorium. The program lasts 48 month, divided to 8 semesters. Students have to collect at least 20 credit points each semester, while the maximum is 45/semester. 90 credits must be collected during the first 4 semesters.
- 15 credits can be obtained each semester with laboratory research work (experimental work, literature search, calculations, etc.). The doctoral students shall gain credit points for international journal articles (10 credits/article, max. 50 in total), own conference presentations (5 credits/talk, max. 15 in total, 3 credits/poster, max. 15 in total). Altogether at least 130 credits need to be obtained with research work (the maximum is 200).
- The coursework is honored with 5 credits/class (2 h/week, 14 weeks/semester). At least 5 courses have to be completed during the first two years (min. 25 credits) and among them 3 courses have to be completed in the given Scientific Program. ~~In the ‘Catalysis, Surface, Colloid and Materials Science’ program, the subjects Surface Chemistry and Heterogeneous Catalysis 1 and 2 are compulsory.~~
- Teaching assistantship is honored with 2 credits/h. Maximum 8 credits/semester can be obtained with teaching. Altogether a minimum of 24 credits have to be gained (max. 48). Maximum of 8 credits of the educational obligation can be completed by the supervision of undergraduate students if 50% co-supervision is registered in the Neptun. 8 credits: supervising during 2 semesters or 4 credits supervising during 1 semester. The credits are registered by the head of the department after the submission of the dissertations.
- At least 1, max. 4 project reports have to be given at the department where the research work of the doctoral student is carried out or at other scientific meetings (e.g. regular meetings of the Working Groups of HAS, or national conferences). 3 credit points will be given for each presentation. One presentation is mandatory in the first year of the PhD training.

Graduation requirements

Complex Exam

All students admitted after 2016 must take a Complex Exam after two years. This exam has two parts. The first part encompasses a regular exam from two subjects (major and minor). In the second part, the student summarizes the research achievements done already, and outlines the work planned for the next two years.

Independent research work

The doctoral student needs to be co-author of at least **3 publications**, published in

international scientific journals, having an impact factor. The cumulative impact factor of these publication has to be at least **IF=4**. In one of the papers the student has to be the first author. The applicant is not the first author, then the corresponding author has to declare the contribution of the student to the publication. The corresponding author cannot give similar declaration to other people about the same publication.

If the topic of the dissertation covers R&D activity, 2 publications (with a cumulative impact factor of 2) are required. In addition, the applicant shall have a claimed patent (with at least 10% share), which has a registration number from the Hungarian Intellectual Property Office.

Knowledge of foreign languages

The applicant needs to have two certified knowledge in two foreign languages. One language shall be English (B2 level or equivalent). The second language exam (or equivalent certificate) at the A1 level can be of a language in which chemical scientific publications are available. For foreign nationals, who are not native Hungarian speakers, Hungarian language counts as a foreign language.

Dissertation

The language of the dissertation is either Hungarian or English. The dissertation shall be descriptive and shall not be more than 100 pages. It shall contain the background and motivation of the research, together with the description of the experimental methods used during the work. It shall contain a detailed results and discussion section, which presents all the important outcome of the doctoral research.

A booklet of Thesis points has to be also compiled. This contains the aims, experimental, and the most important outcomes, summarized in bullet points. The length of the booklet shall be 10-15 pages. All relevant publications have to be listed, together with the relevant conference presentations of the applicant. The IF values have to be shown, and they shall be summarized. The cover page shall contain the name of the applicant, the supervisor, and the doctoral school. The Dissertation and the Booklet of Thesis Points both have to be uploaded into the Repository of the University.

Before submitting the Dissertation, the applicant has to present his thesis to an expert audience. This can be either the Department where the research work has been carried out, or the relevant body of the Hungarian Academy of Sciences. The audience has to give a written supportive opinion that the content of the Dissertation is suitable to submit it. The Supervisor also has to declare in a written form that the application is capable of receiving a scientific degree.

TÁRGYAK A KÉMIA DOKTORI ISKOLÁBAN (SUBJECTS IN THE CHEMISTRY DOCTORAL SCHOOL)

1. KUTATÁS & MUNKABESZÁMOLÓ & OKTATÁS (RESEARCH & PROJECT REPORT & TEACHING)

Tárgyak / Subjects		kredit / credit	Tárgyfelvétel típusa / Subject admission type	subject name in English
Tárgykód / Subject Code	Kutatómunka ^a	min 130 max 200		Research work ^a
	<i>Szaklaboratórium ^b</i>	$\Sigma 120$ (=8×15)	Kötelező (obligatory)	<i>Labwork ^b</i>
KDIT84_4/1	Szaklaboratórium_4/1	15		Labwork_4/1
KDIT84_4/2	Szaklaboratórium_4/2	15		Labwork_4/2
KDIT84_4/3	Szaklaboratórium_4/3	15		Labwork_4/3
	<i>Nemzetközi publikáció</i>	max 50	Kötelezően választható (optional with obligations)	<i>International Publication</i>
KDIT200_4/1	Nemzetközi publikáció_4/1	10		International Publication_4/1
KDIT200_4/2	Nemzetközi publikáció_4/2	10		International Publication_4/2
	<i>Nemzetközi konferencia előadás</i>	max 15	Kötelezően választható (optional with obligations)	<i>International Conference Lecture</i>
KDIT87_4	Nemzetközi konferencia előadás	5		International Conference Lecture
	<i>Nemzetközi konferencia poszter</i>	max 15	Kötelezően választható (optional with obligations)	<i>International Conference Poster</i>
KDIT86_4/1	Nemzetközi konferencia poszter_4/1	3		International Conference Poster_4/1
KDIT86_4/2	Nemzetközi konferencia poszter_4/2	3		International Conference Poster_4/2
	Munkabeszámoló ^c	min 3 max 12	Kötelező (obligatory)	Project Report ^c
KDIT85_4/1	Munkabeszámoló_4/2	3		Project Report_4/1
KDIT85_4/2	Munkabeszámoló_4/2	3		Project Report_4/2
	Oktatás ^d	min 24 max 48	Kötelező (obligatory)	Teaching ^d
KDIT90-8_4/1	Oktatás 8kr_4/1	8		Teaching 8cr_4/1
KDIT90-8_4/2	Oktatás 8kr_4/2	8		Teaching 8cr_4/2
KDIT90-8_4/3	Oktatás 8kr_4/3	8		Teaching 8cr_4/3
KDIT90-6_4/1	Oktatás 6kr_4/1	6		Teaching 6cr_4/1
KDIT90-6_4/2	Oktatás 6kr_4/2	6		Teaching 6cr_4/2
KDIT90-6_4/3	Oktatás 6kr_4/3	6		Teaching 6cr_4/3
KDIT90-4_4	Oktatás 4kr_4	4		Teaching 4cr_4

Kreditek: A 4-éves képzés alatt min. 240. Szemeszterenként: min. 20, max. 45. Komplex vizsgáig: min. 90. A fenti tantárgyak mindegyike 3-szor felvehető. **Credits:** During the 4-year training: you need min. 240 credits. In each semester min. 20, max. 45. Till the complex exam: you need min. 90. The subjects listed above can be attended 3 times.

^a Kutatás / Research: min. 130, max. 200 kredit / credits.

^b 120 = 8×15 kredit (minden szemeszterben egy szaklaboratórium / in each semester 1 Labwork).

^c első évben: min. 3 kredit / in the first year period: min. 3 credit

^d 8 kredit a heti 4 órás oktatásért, 6 kredit a heti 3 órás oktatásért, max. 8 kredit hallgatók regisztrált témavezetésért. / 8 credits for teaching 4h/week, 6 credits for teaching 3h/week, max. 8 credits for registered supervising of undergraduates

Részletes leírás: https://www2.sci.u-szeged.hu/chem/phd_chem/KDIfiles/SZTE-KDI_kreditszabalyzat.pdf

For more detailed information: https://www2.sci.u-szeged.hu/chem/phd_chem/KDIfiles/SZTE_KDI_credits-requirements.pdf

2. KURZUSOK (COURSES): 5 KREDIT / KURZUS (5 CREDITS/ COURSE)

[HTTPS://WWW2.SCI.U-SZEGED.HU/CHEM/PHD_CHEM/KURZUSOK.HTML](https://www2.sci.u-szeged.hu/chem/phd_chem/kurzusok.html)

[HTTPS://WWW2.SCI.U-SZEGED.HU/CHEM/PHD_CHEM/COURSES.HTML](https://www2.sci.u-szeged.hu/chem/phd_chem/courses.html)

MINIMUM: 25 KREDITS (25 CREDITS) AZ ELSŐ KÉT ÉVBEN (IN THE FIRST 2 YEARS), EBBŐL MIN. 15 KREDIT A PROGRAMBÓL (OUT OF THIS MIN. 15 CREDITS FROM THE OWN PROGRAM)

EGY LEHETŐSÉG...

					összes kredit	kurzusok	25
					242	kutatás	175
					kredit/félév	oktatás	42
1.év	I.	KDIT84_4/1	Szaklaboratórium_4/1	15	34		
		KDIT85_4/1	Munkabeszámoló_4/1	3			
		KDIT90-6_4/1	Oktatás 6kr_4/1	6			
		KDIT-szakmai	Szakmai kurzus- a Programból	5			
		KDIT-szakmai	Szakmai kurzus	5			
	II.	KDIT84_4/1	Szaklaboratórium_4/1	15	31		
		KDIT90-6_4/1	Oktatás 6kr_4/1	6			
		KDIT-szakmai	Szakmai kurzus- a Programból	5			
		KDIT-szakmai	Szakmai kurzus- a Programból	5			
2.év	I.	KDIT84_4/1	Szaklaboratórium_4/1	15	36		
		KDIT200_4/1	Nemzetközi publikáció_4/1	10			
		KDIT90-6_4/1	Oktatás 6kr_4/1	6			
		KDIT-szakmai	Szakmai kurzus	5			
	II.	KDIT84_4/2	Szaklaboratórium_4/2	15	24		
		KDIT90-6_4/2	Oktatás 6kr_4/2	6			
		KDIT86_4/1	Nemzetközi konferencia poszter_4/1	3			
3.év	I.	KDIT84_4/2	Szaklaboratórium_4/2	15	34		
		KDIT200_4/1	Nemzetközi publikáció_4/1	10			
		KDIT86_4/1	Nemzetközi konferencia poszter_4/1	3			
		KDIT90-6_4/2	Oktatás 6kr_4/2	6			
	II.	KDIT84_4/2	Szaklaboratórium_4/2	15	36		
		KDIT200_4/1	Nemzetközi publikáció_4/1	10			
		KDIT87_4	Nemzetközi konferencia előadás	5			
		KDIT90-6_4/2	Oktatás 6kr_4/2	6			
4.év	I.	KDIT84_4/3	Szaklaboratórium_4/3	15	27		
		KDIT85_4/1	Munkabeszámoló_4/1	3			
		KDIT86_4/1	Nemzetközi konferencia poszter_4/1	3			
		KDIT90-6_4/3	Oktatás 6kr_4/3	6			
	II.	KDIT84_4/3	Szaklaboratórium_4/3	15	20		
		KDIT87_4	Nemzetközi konferencia előadás	5			

ONE POSSIBILITY FOR THE TRAINING

					summed credits	<i>courses</i>	25
					242	<i>research</i>	175
					credits/semester	<i>teaching</i>	42
1st year	I.	KDIT84_4/1	Labwork_4/1	15	34		
		KDIT85_4/1	Project Report_4/1	3			
		KDIT90-6_4/1	Teaching 6cr_4/1	6			
		KDIT-courses	Course from the Program	5			
		KDIT-courses	Course	5			
	II.	KDIT84_4/1	Labwork_4/1	15	31		
		KDIT90-6_4/1	Teaching 6cr_4/1	6			
		KDIT-courses	Course from the Program	5			
		KDIT-courses	Course from the Program	5			
2nd year	I.	KDIT84_4/1	Labwork_4/1	15	36		
		KDIT200_4/1	International Publication_4/1	10			
		KDIT90-6_4/1	Teaching 6cr_4/1	6			
		KDIT-courses	Course	5			
	II.	KDIT84_4/2	Labwork_4/2	15	24		
		KDIT90-6_4/2	Teaching 6cr_4/2	6			
		KDIT86_4/1	International Conference Poster_4/1	3			
3rd year	I.	KDIT84_4/2	Labwork_4/2	15	34		
		KDIT200_4/1	International Publication_4/1	10			
		KDIT86_4/1	International Conference Poster_4/1	3			
		KDIT90-6_4/2	Teaching 6cr_4/2	6			
		II.	KDIT84_4/2	Labwork_4/2		15	36
	KDIT200_4/1	International Publication_4/1	10				
	KDIT87_4	International Conference Lecture	5				
	KDIT90-6_4/2	Teaching 6cr_4/2	6				
4th year	I.	KDIT84_4/3	Labwork_4/3	15	27		
		KDIT85_4/1	Project Report_4/1	3			
		KDIT86_4/1	International Conference Poster_4/1	3			
		KDIT90-6_4/3	Teaching 6cr_4/3	6			
		II.	KDIT84_4/3	Labwork_4/3		15	20
	KDIT87_4	International Conference Lecture	5				