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### Contact informations:

University of Szeged  
International Directorate

Address: H-6720 Szeged, Dugonics tér 13.

Tel: +36 62 343 885

E-mail: [international@rekt.szte.hu](mailto:international@rekt.szte.hu)

Web: [www.u-szeged.hu/english](http://www.u-szeged.hu/english)



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## International PhD Programmes

### Faculty of Arts

Doctoral School of Educational Sciences .....	4
Doctoral School of History.....	5
Doctoral School of Literature.....	6
Doctoral School in Linguistics .....	7
Doctoral School of Philosophy.....	8

### Faculty of Economics and Business Administration

Doctoral School in Economics.....	9
-----------------------------------	---

### Faculty of Law and Political Sciences

Doctoral School of Law and Political Sciences .....	10
---	----

### Faculty of Medicine

Doctoral School of Clinical Medicine .....	11
Doctoral School of Interdisciplinary Sciences (Health Sciences, Theoretical Medicine, Experimental Medicine).....	12
Doctoral School of Multidisciplinary Medical Sciences (Clinical and Theoretical Medical Sciences).....	13
Doctoral School of Theoretical Medicine .....	14

### Faculty of Pharmacy

Doctoral School of Pharmaceutical Sciences .....	15
--	----

### Faculty of Science and Informatics

Doctoral School of Chemistry.....	16
Doctoral School of Biology .....	17
Doctoral School of Computer Science.....	18
Doctoral School of Environmental Sciences.....	19
Doctoral School of Geosciences .....	20
Doctoral School of Mathematics .....	21
Doctoral School of Physics.....	22



The University of Szeged is one of the leading higher education institutions in Hungary. The university is located in Szeged, the sunniest town of this Central European country, member of the European Union. The town attracts thousands of young people with its lively (and loveable) urban lifestyle and colourful festivals.

Our university, with a history dating back to 1581, prides itself on a number of its great scientists and researchers, among them the Nobel Laureate Albert Szent-Györgyi who discovered Vitamin C.

According to higher education rankings, based on the examination of the quality of education, teachers and students, the University of Szeged is considered to be among the best universities in the world.

The University of Szeged offers training and research facilities of the highest standard in the fields of natural sciences, social sciences, humanities, technical, medical and health sciences.

You can choose from a wide variety of training courses at different levels of training: our Bachelor (BA/BSc), Master (MA/MSc) and Doctoral (PhD) programmes are waiting for you.

The University of Szeged also offers preparatory courses for English language training.

The international perspective is reflected in the university's research and training activities through the composition of the multilingual teaching staff, the establishment of student exchange programmes and international research cooperation.

In the world of international education the University of Szeged has three decades of experience and receives students from all over the world (USA, Germany, Belgium, France, China, Nigeria, Japan, Iran, etc.) At present nearly 2,500 international students belong to this vibrant, 25 thousand strong community on this city campus of culture and science.

No compromise: you will receive high quality education at competitive prices.

Come to study at our university and be the part of our success!



## Doctoral School of Educational Sciences

**Degree:** PhD

**Duration of the course:** 6 semesters

**Language of tuition:** English

**Description of the programme:** The Doctoral School of Education considers its main objective the training of new generations of researchers in educational sciences, branches of modern, empirically based social sciences. Its curriculum is centred on the fields that emerged from the traditions of the University of Szeged, i.e. research on formal education, teaching and learning. At the same time, the objective of the Doctoral School is to prepare students for engaging in a wide spectrum of research activities related to education, for applying a plethora of research methods, and for studying the social, economic and historical conditions of schooling.

The Doctoral School of Education is organised into seven closely related programmes. Two of these, Teaching and Learning and Educational Evaluation, are related to the main instructional processes of schooling, while the Social and Affective Education programme deals with non-cognitive aspects of education. The Cognitive Neuroscience and Psychology in Education programme provides a deep insight into the biological and psychological foundations of learning. Health Education is an area in applied research which has been gaining importance. The Information and Communication Technologies in Education programme integrates recent technological developments and new trends in the culture of education. Finally, the History of Education programme approaches educational thinking from the perspective of history.

### Application procedure

- Application requirements: at least intermediate level certified by internationally accredited language examination (TOEFL/IELTS/GRE/Other)
- Application deadline: February
- Application fee: 150 EUR
- Registration fee: 200 EUR
- Tuition fee: 3500 EUR/ 4200 USD per semester
- Entrance examination fee: 250 EUR

### For further information please contact:

Prof. Benő Csapó DSc

Faculty of Arts, Institute of Education

Phone/Fax: +36-62-420-034

Erzsébet Korom

e-mail: korom@edspy.u-szeged.hu

Website: www.u-szeged.hu/doctoral



## Doctoral School of History

**Degree:** PhD

**Duration of the course:** 6 semesters

**Language of tuition:** english

**Description of the programme:** the PhD programme embraces three study programmes:

- Ancient Studies,
- Medieval Studies,
- Modern History (Modern and Contemporary History).

The Ancient Studies Programme focuses on teaching languages of sources (Latin, Greek, and Sanskrit) and emphasises the use of philological methods. Our research work within the programme on the history of the Southeast-Asia and Rome is nationally and internationally acknowledged. As the programme has been accredited since 2001, no PhD thesis within its framework has been defended yet. Participants of the programme can rely on library facilities of the highest standard.

The Medieval Studies Programme of Attila József University was the first to gain accreditation in 1994. Since then the high level of qualifications have earned the programme excellent reputation both at home and abroad. So far 34 PhD theses have been defended in the framework of the programme. Biennially a conference is held especially for the students of the programme, so they can present their recent research topics. These presentations always appear in print as well, which have resulted in the publication of 6 volumes so far. Participants in the programme are provided with a separate research room (equipped with a computer, Xerox-machine, etc.). Appropriate library facilities are also available. The Modern History Programme has been functioning since 1996. This programme is divided into five sub-programmes: 16–18th Century Hungarian History, 19–20th Century Hungarian History, History of Central-East Europe and the Balkan Peninsula, History of Europe and the Mediterranean and History of the Hispanic World. The programme has developed strong international relations, so participants in the programme can rely on an exceptionally wide choice of obtaining scholarships and research opportunities abroad. Foreign professors regularly contribute to the lectures of the universal history sub-programmes. Foreign students also participate in the courses.

### Application procedure

- Application requirements: language proficiency level certified by internationally accredited language examination (TOEFL/IELTS/GRE/Other)
- Application deadline: February
- Application fee: 150 EUR
- Registration fee: 200 EUR
- Tuition fee: 3500 EUR/4200 USD per semester
- Entrance examination fee: 250 EUR

### For further information please contact:

Prof. László J. Nagy DSc,

Faculty of Arts, Department of Modern World History and Mediterranean Studies

Phone: +36-62-544-805

E-mail: toriroda@hist.u-szeged.hu

Website: www.u-szeged.hu/doctoral



## Doctoral School of Literature

**Degree:** PhD

**Duration of the course:** 6 semesters

**Language of tuition:** English/Hungarian/German/French/Italian/Russian etc. depending on the course of your choice

**Description of the programme:** Part of the programme concentrates on traditional forms of study of literary works, the exploration, recovery and publication of unknown or hitherto unavailable texts of Hungarian and European literature. The significance of these projects is underlined by the circumstances dictated by history: Hungarian literary and cultural historians had been unable to fully explore earlier literary sources by the early 20th century, and the collections which remained outside the new borders of Hungary, abruptly redrawn by the Trianon Peace Treaty, became unavailable for further research. Also, the reinterpretation of the romantic notions of national literature and the inclusion of texts written in languages other than Hungarian as integral parts of Hungarian literature gave an enormous boost to the research of texts written in Latin in the 15–18th centuries.

Scholars in Szeged engaged in the research of literary works have been constantly aware of issues posed by literary theory. Workshops of vast importance have been forming here from time to time since the early 1960s, initially with commitment to linguistics and/or semiotics. By today the concerns of most poststructuralist movements have also been integrated into their conceptual frameworks. As a result, numerous original works have been published, earning international recognition. The majority of definitive works of theoretical works have been published in Hungarian translation as well.

In line with the School's versatile character, most major branches of modern philology have also created workshops – with the lamentable exception of Hispanic literature – and each workshop integrates approaches of literary history and/or theory to varying degrees. The School now has programmes in British and American literature and culture, German, French, Italian, Russian literature and comparative literature, the latter covering the literature of neighbouring nations (Polish, Czech, Serbian, Croatian and Romanian) as well.

### Application procedure

- Application requirements: Ma diploma in Literature, advanced or at least intermediate level certified by internationally accredited language examination (TOEFL/IELTS/GRE/Other)
- Application deadline: February
- Application fee: 150 EUR
- Registration fee: 200 EUR
- Tuition fee: 3500 EUR/ 4200 USD per semester
- Entrance examination fee: 250 EUR

### For further information please contact:

Prof. Katalin Szöke DSc  
Faculty of Arts, Institute of Slavic Studies,  
Department of Russian Filology  
Phone/Fax: +36-62-544-160  
E-mail: kszoke@lit.u-szeged.hu  
Website: www.u-szeged.hu/doctoral



## Doctoral School in Linguistics

**Degree:** PhD

**Duration of the course:** 6 semesters

**Language of tuition:** English/Hungarian/German/French/Turkish/Russian etc. depending on the course of your choice

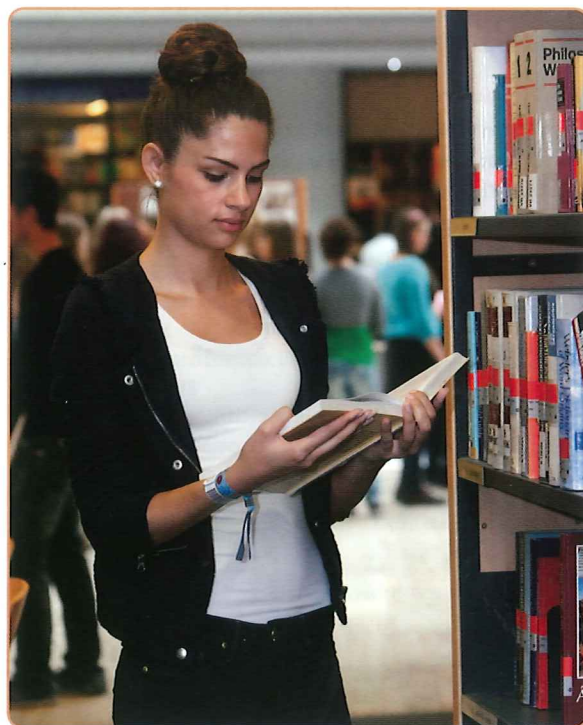
**Fields of study:** Altaic studies, English applied linguistics, French linguistics, German linguistics, Hungarian linguistics, Russian linguistics, Slavic historical linguistics, theoretical linguistics, Uralic linguistics.

### Application procedure

- Application requirements : advanced or at least intermediate level certified by internationally accredited language examination (TOEFL/IELTS/GRE/Other) MA diploma
- Application deadline: February
- Application fee: 150 EUR
- Registration fee: 200 EUR
- Tuition fee: 3500 EUR/ 4200 USD per semester
- Entrance examination fee: 250 EUR
- Entrance examination: oral exam at the end of June

### For further information please contact:

Prof. István Kenesei, DSc  
Faculty of Arts, Department of English  
Phone: +36 62/544-258  
E-mail: ling@sol.cc.u-szeged.hu, kenesei@sol.cc.u-szeged.hu  
Website: www.u-szeged.hu/doctoral  
[http://nydi.bibl.u-szeged.hu/SZTE\\_NYDI/Welcome.html](http://nydi.bibl.u-szeged.hu/SZTE_NYDI/Welcome.html)



## Doctoral School of Philosophy

**Degree:** PhD

**Duration of the course:** 6 semesters

**Language of tuition:** English

**Description of the programme:** Our programme is an integral part of the development of nearly a century's tradition of philosophical research at the University of Szeged with its focus on the history of Continental philosophy from the ancient Greeks to 20th century currents of philosophy such as hermeneutics and phenomenology. Our programmes formally fit in with the newly introduced Bologna system in which the traditionally unified framework of higher education in philosophy has been split into three different disciplines, e.g. philosophy, ethics and aesthetics. Our School is unique in the country in that those obtaining an MA degree in ethics in the Bologna system can integrally pursue their studies in ethics at graduate level with us.

### Programmes of the school are the followings:

- Metaphysics and Criticisms of Metaphysics
- Ethics, Social Theory and Applied Philosophy
- Philosophy of Art

These programmes represent an institutionalised framework of our interdisciplinary profile. We are well aware of the worldwide tendency of disciplinary atomisation, yet we are also convinced that genuinely innovative scientific research often assumes interdisciplinary perspectives, methods and cooperation. As a discipline standing at the borderline of arts subjects and some aspects of the social and natural sciences, philosophy is perfectly able to assume such an integrating and mediating role among various disciplines, even if its traditional status as philosophia perennis appears to have been weakened in the past century.

### Application procedure

- Application requirements: Ma diploma in Philosophy, intermediate level certified by internationally accredited language examination (TOEFL/IELTS/GRE/Other)
- Application deadline: February
- Application fee: 150 EUR
- Registration fee: 200 EUR
- Tuition fee: 3500 EUR/ 4200 USD per semester
- Entrance examination fee: 250 EUR

### For further information please contact:

Prof. Dezső Csejtej, DSc

Faculty of Arts, Institute of Social Theory,

Department of Philosophy

Phone/Fax: +36-62-544-179

E-mail: cse@philo.u-szeged.hu

Website: www.u-szeged.hu/doctoral



## Doctoral School in Economics

**Degree:** PhD

**Duration of the course:** 6 semesters

**Language of tuition:** English

**Description of the programme:** Answering theoretical and practical questions related to the operation of the economy which has necessitated increasingly complex approaches in the past decades; exploring the most important socio-economic problems of our time and providing support to meet all challenges requiring solutions that presuppose the adoption of knowledge acquired in other fields of science.

The science of economics is capable of developing fruitful relations with several PEER sciences. During the development of the research and training structure of the PhD programme the teaching researchers and other employees of the Faculty strived to find the most important topics related to fields of sciences that could constitute a starting point for providing answers to current economic issues in the focus of general interest.

Thanks to specialisation and optional classes, students can select the subjects and fields of research programmes for their PhD training which fit their individual research topics and habits best. The PhD School operates the following research programmes:

- Economic Policy Research Programme
- Regional Economic Development Research Programme

Cooperation in research and training: Taking successful steps towards disseminating research results of the PhD School and building international relations are essential. Besides hosting internationally renowned guest professors in the past years, the organised involvement of PhD students in foreign training programmes has also started. Experienced researchers regularly help young scholars with preparing their publications of suitable quality in professional periodicals.

### Application procedure

- Application requirements: MA in Economics, fluent English (certified by internationally accredited language examination at B2 level)
- Application deadline: 15th May
- Application fee: 150 EUR
- Registration fee: 200 EUR
- Tuition fee: max. 5000 EUR per semester

### For further information please contact:

Prof. Imre Lengyel DSc

Institute of Economics and Economic Development

Phone: +36 (62) 544-678

E-mail: ilengyel@eco.u-szeged.hu

Website: www.u-szeged.hu/doctoral



## Doctoral School of Law and Political Sciences

**Degree:** PhD

**Duration of the course:** 6 semesters

**Language of tuition:** English, German

**Description of the programme:** Our doctoral school aims to give the opportunity for doctoral students to deepen their knowledge in legal research methodology and to gain more experience in the theoretical background and the practical issues according to their special professional interests. Training in the Doctoral School consists of two parts: uniform lectures throughout six semesters and research work conducted by the students' advisor at the host department. The best scholars of our faculty give the lectures and do the advisory work.

The current scientific work builds upon the rich tradition we inherited from past famous professors of this faculty. On one hand, it sets a high academic standard we intend to achieve and, on the other hand, it makes us responsible to nurture and broaden our international relationships with other universities and research institutes all over the world.

**Research fields:** Civil Law, Civil Procedural Law, Criminal Law, Criminal Procedural Law, Environmental Law, European Union Law, Financial Law, International Law, Labour and Social Law, Legal History, Legal Sociology and Philosophy, Political Science, Private International Law, Public Administration Law and Roman Law

### Application procedure

- Application requirements: at least intermediate proficiency level of the English or German language, certified by internationally accredited language examination
- Application deadline: first week of each semester
- Tuition fee: 3000 EUR per semester

### For further information please contact:

Dr. Norbert Varga

Department of Hungarian Legal History

Phone/Fax: +36-62-544-409

E-mail: [vargan@juris.u-szeged.hu](mailto:vargan@juris.u-szeged.hu)

Website: <http://www.ajtkdi.hu/jogikar/oldal/jogikar.php?ID=46>



## Doctoral School of Clinical Medicine

**Degree:** PhD

**Duration of the course:** 6 semesters

**Language of tuition:** English/German

### Educational programmes:

- Immunology
- Reproductive Health
- Clinical and Experimental Neuroscience
- Experimental and Clinical Investigation of the Cardiovascular System
- Clinical and Experimental Research for Reconstructive and Organ-Sparing Surgery
- Study on the Pathomechanism and Therapeutic Possibilities of Different Vascular Diseases in Children
- Dental Medicine

### Co-operating Institutions:

- Biological Research Center of the Hungarian Academy of Sciences Institute of Biochemistry
- Biological Research Center of the Hungarian Academy of Science Institute of Biophysics
- Biological Research Center of the Hungarian Academy of Sciences Institute of Genetics
- Biological Research Center of the Hungarian Academy of Sciences Institute of Plant Biology
- Bay Zoltán Foundation for Applied Research Institute for Plant Genomics Human Biotechnology and Bioenergy

### Application procedure

- Application requirements: at least intermediate level certified by internationally accredited language examination (TOEFL/IELTS/GRE/Other)
- Application fee: 150 EUR
- Registration fee: 200 EUR
- Tuition fee: max. 5000 EUR per semester

### For further information please contact:

Prof. Lajos Kemény MD, DSc

Faculty of Medicine

Phone: (+36 62) 545 277

E-mail: [kl@mail.derma.szote.u-szeged.hu](mailto:kl@mail.derma.szote.u-szeged.hu)

Website: [www.u-szeged.hu/doctoral](http://www.u-szeged.hu/doctoral)



## Doctoral School of Interdisciplinary Sciences (Health Sciences, Theoretical Medicine, Experimental Medicine)

**Degree:** PhD

**Duration of the course:** Three academic years; 6 semesters

**Language of tuition:** English/German

**Description of the programme:** The School offers a PhD programme to graduate students and focuses its research and training on the role of health-threatening microorganisms and dangerous environmental effects. Both epidemiologic and experimental studies are necessary to identify physical and chemical effects that cause health problems. The courses of the Medical Microbiology and Preventive Medicine programmes are combined in this Doctoral School and offer a wide variety of research.

Fields of study: medical microbiology, antimicrobial immunity; preventive medicine.

### Application procedure

- Application requirements: at least intermediate level certified by internationally accredited language examination (TOEFL/IELTS/GRE/Other)
- Application fee: 150 EUR
- Registration fee: 200 EUR
- Tuition fee: max. 5000 EUR per semester

### For further information please contact:

Prof. Yvette Mándi MD, DSc

Department of Medical Microbiology and Immunobiology  
Faculty of Medicine

Phone/Fax: +36-62-545-115 / 545-113

E-mail: [yvette@comser.szote.u-szeged.hu](mailto:yvette@comser.szote.u-szeged.hu)

Website: [www.u-szeged.hu/doctoral](http://www.u-szeged.hu/doctoral)



## Doctoral School of Multidisciplinary Medicine (Clinical and Theoretical Medical Sciences)

**Degree:** PhD

**Duration of the course:** Three academic years; 6 semesters

**Language of tuition:** English

**Description of the programme:** The programme is dedicated to providing high quality educational and research opportunities for young scientists. The program offers a PhD course in Neuroscience to students having graduated from medical universities or faculties of natural sciences.

Fields of study: physiology, pathophysiology and pharmacology of the cardiovascular system; biochemistry, biophysics, molecular and cell biology.

### Application procedure

- Application requirements (education, language proficiency): at least intermediate level certified by internationally accredited language examination (TOEFL/IELTS/GRE/Other)
- Application fee: 150 EUR
- Registration fee: 200 EUR
- Tuition fee: max. 5000 EUR per semester

### For further information please contact:

Prof. László Dux DSc

Department of Biochemistry

Phone: +36-62-545-096

E-mail: [dux.laszlo@med.u-szeged.hu](mailto:dux.laszlo@med.u-szeged.hu)

Website: [www.u-szeged.hu/doctoral](http://www.u-szeged.hu/doctoral)



## Doctoral School of Theoretical Medicine

**Degree:** PhD

**Duration of the course:** Three academic years; 6 semesters

**Language of tuition:** English/German

**Description of the programme:** The program is dedicated to providing high quality educational and research opportunities for young scientists.

Fields of study: physiological and pathological function of the neuroendocrine system; neuroscience.

### Application procedure

- Application requirements (education, language proficiency): at least intermediate level certified by internationally accredited language examination (TOEFL/IELTS/GRE/Other)
- Application fee: 150 EUR
- registration fee: 200 EUR
- Tuition fee: max. 5000 EUR per semester

### For further information please contact:

Prof. Gábor Jancsó, MD, DSc

Department of Physiology

Phone: +36-62-545-099, 544-577

E-mail: jancso@phys.szote.u-szeged.hu

Website: www.u-szeged.hu/doctoral



## Doctoral School of Pharmaceutical Sciences

**Degree:** PhD

**Duration of the course:** Three academic years; 6 semesters

**Language of tuition:** English

**Description of the programme:** The especially advanced possibilities of complex pharmaceutical research are exploited at the Faculty of Pharmacy, University of Szeged since its different institutes represent the whole area of pharmaceutical research from the synthesis or isolation of biologically active compounds through their pharmacological or biopharmaceutical investigations to their formulation. Students can join different fields of pharmaceutical research according to their interests, at the same time gain wide-ranging knowledge on other fields as well on the available courses. The scientific parts of each program are introduced separately although they represent a single unit.

Fields of study: pharmaceutical chemistry and drugs research; pharmacodynamics, biopharmacy and clinical pharmacy; pharmacognosy. Chemical diversity and utilization of plants (pharmacobotany, phytochemistry, utilization of medicinal plants); pharmaceutical technology; pharmaceutical analysis.

### Application procedure

- Application requirements: Master's degree, language proficiency
- Application fee: 150 EUR
- Registration fee: 200 EUR
- Tuition fee: max. 4000 EUR per semester

### For further information please contact:

Prof. Ferenc Fülöp, member of the Hungarian Academy of Sciences

Institute of Pharmaceutical Chemistry

Phone.: +36-62-545-564; fax: +36-62-545-705

E-mail: fulop@pharm.u-szeged.hu

Website: www.u-szeged.hu/doctoral





## Doctoral School of Chemistry

**Degree:** PhD

**Duration of the course:** 6 semesters

**Language of tuition:** English

**Description of the programme:** Chemistry PhD is a six-semester programme that involves both highly personalised graduate-level courses and conducting research in various areas of chemistry or at the boundaries of chemistry. Research in chemistry and allied sciences (e.g. biological chemistry, materials science, environmental sciences and drug development) has long-standing and internationally acknowledged traditions in the University of Szeged. Of our great scientists of the past the name of Albert Szent-Györgyi must be mentioned in the first place, who received the Nobel Prize in 1937 for his groundbreaking research carried out at the University of Szeged. He was followed by excellent scientists, who continued in the tradition of the highest standards in teaching and research. Today chemistry is one of the flagship research areas of the University, and chemists contribute to the success of various research projects ranging from nanosciences to the discovery of new drugs. The Chemistry Doctoral School features different programmes covering the major disciplines (e.g. physical chemistry, organic chemistry, analytical chemistry) as well as currently developing fields (e.g. theoretical chemistry, nanosciences, catalysis). The total enrolment is around 30, but applications of talented scholars are always welcome.

### Application procedure

- Application requirements: at least intermediate level certified by internationally accredited language examination (TOEFL/IELTS/GRE/Other)
- Application deadline: 15 May
- Application fee: 150 EUR
- Registration fee: 200 EUR
- Tuition fee: 4000 USD per semester
- Entrance examination fee: 250 EUR

### For further information please contact:

Prof. Tamás Kiss DSc

Head of the Chemistry Doctoral School

Faculty of Science and Informatics

Department of Inorganic and Analytical Chemistry

E-mail: tkiss@chem.u-szeged.hu

Website: www.u-szeged.hu/doctoral

Departmental websites:

<http://www2.sci.u-szeged.hu/physchem/home.html>

<http://www2.sci.u-szeged.hu/appchem/index.html>

[http://www2.sci.u-szeged.hu/inorg/index\\_eng.html](http://www2.sci.u-szeged.hu/inorg/index_eng.html)

<http://www2.sci.u-szeged.hu/orgchem/index.php>



## Doctoral School of Biology

**Degree:** PhD

**Duration of the course:** 6 semesters

**Language of tuition:** English

**Description of the programme:** The high standards of the Doctoral School in Biology at the University of Szeged are ensured by the tradition of teaching biology here, the close collaboration between the university and the Biological Research Centre of the Hungarian Academy of Sciences, and the technological background of the participating institutions. More than one and a half decade of experience proves the efficiency of PhD training in Szeged and shows that experts, having obtained their degrees here, are competitive in the international field. Fields of study: biochemistry; biotechnology; neurobiology; genetics; molecular biology; microbiology; plant biology; human biology.

### Application procedure

- Application requirements: at least intermediate level (B2) certified by an internationally accredited language examination (TOEFL/IELTS/GRE/Other)
- Application deadline: 15 May
- Application fee: 150 EUR
- Registration fee: 200 EUR
- Tuition fee: 4500 USD per semester
- Entrance examination fee: 250 EUR

### For further information please contact:

Prof. Csaba Vágvölgyi DSc

Faculty of Science and Informatics,

Department of Microbiology

Phone: +36-62/544-823

E-mail: csaba@bio.u-szeged.hu

Website: www.bdi.u-szeged.hu/



## Doctoral School of Computer Science

**Degree:** PhD

**Duration of the course:** 6 semesters

**Language of tuition:** English

**Description of the programme:** All major fields of computer science and its applications are offered as research topics, including theoretical computer science, software engineering, software maintenance, artificial intelligence, natural language processing, image processing and medical applications, operations research and combinatorial optimisation, network science, measurement theory, robotics and applications of computer science.

The School prescribes the completion of 8 courses, active participation in the Institute's seminars, and conducting research under the supervision of a thesis adviser appointed by the Council of the School. The courses embrace a number of fields in computer science without the intention of being exhaustive. All relevant doctoral courses are offered in English. A course may be offered as a reading course if enrolment is low. In such cases consultation in English is provided.

Main research areas: theoretical computer science; operations research and combinatorial optimisation; software engineering, applications of computer science.

### Application procedure

- Application requirements: at least intermediate level (B2) certified by an internationally accredited language examination (TOEFL/IELTS/GRE/Other)
- Application deadline: 15 May
- Application fee: 150 EUR
- Registration fee: 200 EUR
- Tuition fee: max. 2500 EUR per semester
- Entrance examination fee: 250 EUR

### For further information please contact:

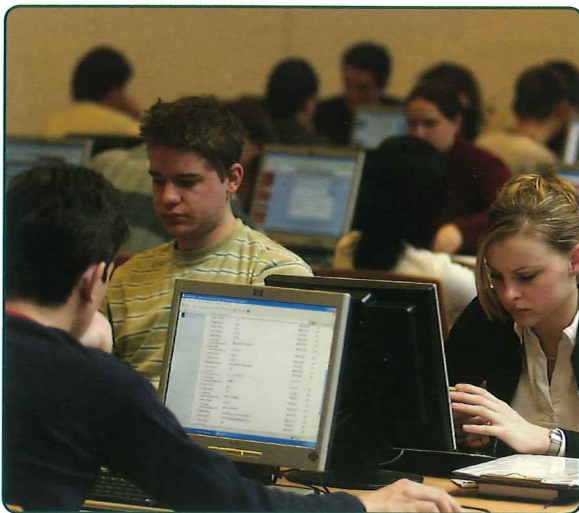
Prof. Tibor Csendes DSc

Faculty of Science and Informatics, Institute of Informatics

Phone: (+36 62) 544 305

E-mail: csendes@inf.u-szeged.hu

Website: www.u-szeged.hu/doctoral



## Doctoral School of Environmental Sciences

**Degree:** PhD

**Duration of the course:** 6 semesters

**Language of tuition:** English

**Description of the programme:** The regular training in environmental sciences at graduate and postgraduate level has started in the early years of the last decade. The doctoral education in environmental sciences started in 1993 by the amalgamation of five accredited PhD programmes, such as Environmental Biochemistry and Biotechnology, Ecological Protection, Geographical Analysis of Regional Processes and Urban Climate and Air Pollution, Environmental Chemistry and Analysis and Environmental Geology. Following the reorganisation of the structure in doctoral education in Hungary, the PhD School of Environmental Sciences was founded and accredited in the year 2001. In the last decade almost 200 students took part in the three-year-long training courses and more than 60 participants have obtained PhD degrees.

Applicants have to pass difficult exams to gain admission into a doctoral training course, in addition to meeting present requirements (good university results, foreign language proficiency, previous scientific work, successful interview, etc.). Having been admitted, they obtain student status.

The two parts of the process of becoming a doctor are: (a) completing a training course, which takes 3 years and each student (except those studying individually) has to take part in courses prescribed by the programme or the tutor (altogether approximately 15 courses in 6 semesters) and collect credits during the courses; participating in the training of undergraduate level students, (b) the degree awarding process: the prerequisites are completed training, intermediate level (B2) proficiency in two foreign languages (verified by state-approved examinations) and an original scientific work verified by original publications and summarised in a written thesis. Students have to pass three oral doctoral exams and defend the theses in public.

### Application procedure

- Application requirements: at least intermediate level (B2) certified by an internationally accredited language examination (TOEFL/IELTS/GRE/Other)
- Application deadline: 15 May
- Application fee: 150 EUR
- Registration fee: 200 EUR
- Tuition fee: max. 5000 EUR per semester
- Entrance examination fee: 250 EUR

### For further information please contact:

Prof. Zoltan Kónya DSc

Faculty of Science and Informatics,

Department of Applied and Environmental Chemistry

Phone: +36-62-544-620 Fax: +36-62-544-619

E-mail: konya@chem.u-szeged.hu

Website: www.u-szeged.hu/doctoral



## Doctoral School of Geosciences

**Degree:** PhD

**Duration of the course:** 6 semesters

**Language of tuition:** English

**Description of the programme:** PhD students (5–8 full-time and 10 part-time students admitted per year) have the opportunity to choose from more than 80 courses per Academic year. Students have obligatory courses and other courses of free choice (for credits). Information on the existing credit system, requirements and the courses are available on the web page of the school (<http://fdi.fft-geo.hu/>). While the supervisor must provide students with all the necessary information and help, the Department's duty is to provide the appropriate infrastructural background for the student's work. This infrastructural background includes library and computer facilities, free information access etc. For all the PhD students in the Programme are obliged to attend discussion seminars once a week, where the actual stage of their doctoral research and current agenda are discussed and analysed.

The entrance exam takes place according to the standards of the doctoral committee. The applicants have one month after the official announcement to apply. The contents and questions of the application form are issued by the doctoral committee of the university. The scores of the entrance exams partly depend on the diploma results (MSc max. 10 marks) and research activity (student competitions, articles in scientific journals etc.). The other significant part is the oral exam which takes place in the last week of June, where the scientific and research skills of the applicant are examined (max. 10 marks). Two additional marks may be earned with a second, intermediate level, state approved language examination in a foreign language (one is compulsory). According to the final scores, the School forwards its recommendations to the Doctoral Committee of the University.

### Application procedure

- Application requirements: at least intermediate level (B2) certified by an internationally accredited language examination (TOEFL/IELTS/GRE/Other)
- Application deadline: 15 May
- Application fee: 150 EUR
- Registration fee: 200 EUR
- Tuition fee: max. 5000 EUR per semester
- Entrance examination fee: 250 EUR

### For further information please contact:

Prof. Gábor Mezösi DSc

Faculty of Science and Informatics,

Department of Physical Geography and Geoinformatics

Phone: +36-62-544-155, Fax: +36-62-544-158

E-mail: [mezosi@earth.geo.u-szeged.hu](mailto:mezosi@earth.geo.u-szeged.hu)

Website: [www.u-szeged.hu/doctoral](http://www.u-szeged.hu/doctoral)



## Doctoral School of Mathematics

**Degree:** PhD

**Duration of the course:** 6 semesters

**Language of tuition:** English

**Description of the programme:** Today the Bolyai Institute consists of six departments: Algebra and Number Theory, Analysis, Applied and Numerical Mathematics, Geometry, Set Theory and Mathematical Logic and Stochastics. The Institute has 50 academic staff members with a wide range of research interests. The Library of Bolyai Institute offers more than 250 current mathematical journals, almost 20 thousand books and more than 20 thousand volumes of journals to professors, researchers and students.

The doctoral education in the Bolyai Institute started in 1993. Between 2002 and 2008, the School consisted of two educational programmes: mathematics and informatics. The School reached its present form in 2009.

The duration of each PhD training course is minimum 3 years, the average duration is 4-5 years. Students have to choose at least 8 courses of which at least 3 are general or basic courses. The Bolyai Institute offers 5 general courses (Algebra, Theory of Measure and Integral, Topology, Discrete Mathematics, Probability Theory), 27 basic courses and several dozen specialised courses. Two basic courses and 11 specialised courses are devoted to the Didactics of Mathematics. The lectures are given mostly by members of the Bolyai Institute or, occasionally, by invited experts.

Educational programmes: Algebra; Analysis; Dynamical Systems; Geometry, Combinatorics and Theoretical Computer Science, Stochastics; Didactics of Mathematics.

### Application procedure

- Application requirements: at least intermediate level (B2) certified by an internationally accredited language examination (TOEFL/IELTS/GRE/Other)
- Application deadline: 15 May
- Application fee: 150 EUR
- Registration fee: 200 EUR
- Tuition fee: max. 5000 EUR per semester
- Entrance examination fee: 250 EUR

### For further information please contact:

Prof. Gábor Czédli DSc

Faculty of Science, Bolyai Institute

Phone: +36-62-544-093, fax: +36-62-544-548

E-mail: [czedli@math.u-szeged.hu](mailto:czedli@math.u-szeged.hu)

Website: [www.u-szeged.hu/doctoral](http://www.u-szeged.hu/doctoral)



## Doctoral School of Physics

**Degree:** PhD

**Duration of the course:** 6 semesters

**Language of tuition:** english

**Description of the programme:** The Doctoral School of Physics was established in 1994, based on four traditional research fields of physics at University of Szeged (formerly JATE University): atomic physics, optics and laser physics, solid state physics and biophysics. Since then new co-operating institutions and groups has joined the School, which led to a significant expansion of the research areas and profiles. The School reached its present form in 2007, integrating 11 co-operating departments of 3 national research/educational institutes. The School offers graduate courses in a broad range of physics, including atomic and molecular physics, optics and laser physics, material science, mathematical physics, astrophysics, biophysics, clinical radiology and nuclear medicine. Well-equipped laboratories are available for experimental research projects. Facilities include several high-intensity and ultrashort-pulse lasers, atomic-force-, optical- and electron microscopes, spectrographs, vacuum chambers, clinical CT-, MR- and SPECT-equipments, a computer grid and an astronomical observatory. The research projects are funded by national (OTKA, NFÜ) and international (mainly EU) agencies.

Educational programmes:

- Optics, laser physics, application of lasers
- Theoretical and Mathematical Physics
- Solid-state physics, laser-matter interaction
- Biophysics
- Radiology and nuclear medicine
- Astrophysics

### Application procedure

- Application requirements: at least intermediate level (B2) certified by an internationally accredited language examination (TOEFL/IELTS/GRE/Other)
- Application deadline: 15 May
- Application fee: 150 EUR
- Registration fee: 200 EUR
- Tuition fee: max. 5000 EUR per semester
- Entrance examination fee: 250 EUR

### For more information:

Prof. Gábor Szabó DSc/MHAS  
Faculty of Science and Informatics,  
Department of Optics and Quantum Electronics  
Phone/Fax: +36 62 544 272  
E-mail: gszabo@physx.u-szeged.hu  
Website: www.u-szeged.hu/physics-phd



## Research, Development and Innovation

The intellectual potential accumulated at the University of Szeged and the research conducted here has turned the institution not only into an important centre of Hungarian higher education, but also a crucial workshop of innovation in Hungary. The University's 19 doctoral schools and its internationally respected research groups participate in high quality education and also organise and conduct basic and applied research in various areas. The centres of research and knowledge are in close working relationships and cooperate with renowned Hungarian and foreign partner organisations. As a result of the cooperation with the Hungarian Academy of Sciences (MTA), 15 research groups in 4 faculties of the University enjoy the support of the MTA.

The University of Szeged, along with its industrial partners such as companies engaged in biotechnology, is the driving force of innovation in the Southern Great Plain region. These partnerships are managed and coordinated by the University's Directorate for Research and Development and Innovation.

The University of Szeged is actively involved in drawing up medium- and long-term programmes (e.g. Biopolisz Pólus) shaping the development of Szeged and the Southern Great Plain region. The key to the regional strategy for the coming decades can be the programme based on the cooperation of natural sciences and various related disciplines. Knowledge-based elements of this programme focus on the health industry, agricultural biotechnology, environmental technology and information technology (which also prospers on its own) and support other scientific developments. The human resources for all these developments are ensured by constantly expanding and diversifying post-secondary vocational education and technical education in accordance with European endeavours and expectations.

### ELI

The ELI (Extreme Light Infrastructure) Laser Research Centre, using ultrahigh intensity laser, is being built with international cooperation at three different East European locations, but will operate under a single management and use a common research strategy. The Attosecond Light Pulse Source in Szeged will provide opportunities for researchers to examine the duration of elementary processes. The main mission of the Attosecond Light Pulse Source, the laser research institution in Szeged, is to facilitate taking snapshots of electron dynamics in atoms, molecules, plasmas and biological samples on the timescale of attoseconds and femtoseconds. Medical diagnostic procedures and particle beam-based treatment are also among the applications that make use of this technology. These technologies use laser light or the so-called secondary light sources emitted by plasma generated in gas or solid target objects. The foundation stone of ELI was laid in a solemn ceremony on 6 February 2014 in Szeged.

### The greenest Hungarian University

The University of Szeged is the greenest Hungarian university, and on the Green Universities top list it is ranked 19th in 2014.

What makes a university green? A green university is committed to environmentally responsible behaviour and environmental consciousness as an educational concern. Whether in its energy strategy concerning larger investments or in its everyday climate-friendly activities, the University of Szeged always attempts to demonstrate through its popular programmes that the staff and students of the institution take the protection of the environment seriously. As a result, according to the Indonesian UI Green Metric Ranking of World Universities, the University of Szeged was found the greenest university in Eastern Europe in the last years.