



(A) GENERAL DATA

Title	Doctoral School of Earth Sciences
Degree	Doctor of Philosophy (PhD) in Earth Sciences
Type	Degree program
Level	Doctoral level
Accreditation number	OH-FRKP/406-3/2007.
Faculty	Faculty of Science
Institute	Institute of Geography and Earth Sciences
Department(s)	Doctoral School of Earth Sciences
Language	English
Duration	4 + 4 semester
ECTS credits	240
Place	ELTE Lágymányos Campus
Minimum number of new students	1



(B) PROGRAM CONTENT

Short description:

Main research fields in programs of the ELTE Doctoral School of Earth Sciences:

- 1) **Geography** : Physical Geography, Geomorphology, Environmental and Landscape Geography, Geography of Hungary and Central & Eastern Europe, Carpathian Basin, Human Geography, History of Geography, Ethnical Geography, Regional Science, Regional Planning and Modelling, Urban Studies, Rural Geography, Geoinformatics in Geography and Spatial Research
- 2) **Meteorology**: Dynamic and Synoptic Meteorology, Boundary Layer Meteorology, Climatology, Climate Modelling, Agroclimatology, Statistical Climatology
- 3) **Geology**: Physical and Applied Geology, Hidrogeology, Urban Geology, Petrology, Geochemistry, Mineralogy, Lithology, Paleontology, Volcanology, Sedimentology,
- 4) **Geophysics**: Geophysics, Space Science, Geoinformatics in Earth Sciences
- 5) **Cartography and Geoinformatics**: Thematic Cartography, Mathematics in Cartography, Webcartography, History of Cartography, Toponymy, Geoinformatics in Cartography.

Theoretical courses, laboratory works, field studies,

Outcomes: publications, PhD thesis.

Strength of program:

- High scientific quality of the training, personalized research projects.
- High qualified professors, academicians, supervisors, experts from the practice.
- Possibilities for multi- and interdisciplinary research.
- Mainstream research theme.
- Cooperative, cohesive research groups.

Wide range career opportunities.



(C) STRUCTURE

Programs in the Doctoral School

Geography and Meteorology

Geology and Geophysics

Cartography and Geoinformatics

Training phases

Education and research phase (4 semesters)

Credits to be gained: 108-132 credits (including 36 compulsory credits from courses and 2 compulsory credits from written report)

Complex examination

Research and thesis writing phase (4 semesters)

Credits to be gained: 108-132 credits

Moduls: Training Module (courses) , Research module (individualised research with supervisor)

Obligatory credits in each semester: minimum 20 (courses + research).

Requirements for applying for the doctoral process are: final (pre-degree) examination ('abszolutórium'); fulfilling the publication and language exam criteria set by the council of the doctoral school; submitting the proceedings of the 'internal defence' or an in-depth written opinion of the supervisor; and the PhD thesis.

The groups of the courses in Training Module by Programs

Geography:

General physical geography, General human geography, Physical geography of Hungary and the Carpathian Basin, Human geography of Hungary, Regional physical geography, Regional human geography, Urban and regional development, Environmental geography, Regional science, Urban geography, History of geography, Methods of teaching geography, Landscape ecology, Political geography, Urban sociology, Quaternary geography, Soil science, soil geography, GIS, Methods of regional analysis

Meteorology:

Theoretical meteorology, Theoretical climatology, Atmospheric physics, Synoptic



meteorology, Meteorology of environmental protection, Atmospheric chemistry, Dynamic modelling, Agrometeorology, Numerical prediction, Satellite meteorology, Climatology, Hidrometeorology, Micrometeorology

Geology:

Petrology, Geochemistry, Mineralogy, Ore geology, Paleontology, Paleobotany, History of Earth, Stratigraphy, General geology, Sedimentology, Regional geology, Geodynamics, Environmental geology, Hydrocarbon geology and basin analysis, Hydrogeology, Geomathematics and geostatistics

Geophysics:

Gravity, Physical Geodesy, Geomagnetism, Seismology, Geothermics, Mechanical structure, materials and dynamics of the Earth, Applied geophysics (near-surface geophysics), Geophysical well-logging, Geomagnetism and the physics of the Upper Atmosphere, Geophysical methods in Geology

Cartography and Geoinformatics:

Map design and map-making, Thematic cartography, Computer assisted cartography, Map projection, Topography, Geoinformatics, History of cartography, Topographic map systems, Atlas cartography, Toponymy, Remote sensing



(D) CAREER

Career opportunities:

- Academic career (universities, research institutes)
- Governmental career (international organizations, ministries, regional and local authorities)
- Business career (firms: environmental protection, meteorology, mining, cartography, geoinformatics, urban and regional planning etc)

Job examples:

see above



(E) ADMISSIONS FOR THE ACADEMIC YEAR 2017/2018

TUITION AND OTHER FEES

	EU/EEA students	non-EU/EEA students
Tuition fee/semester	1910 (EUR)*	2500 – 4500 (EUR) depending on the research topic
Application fee	160 (EUR)	160 (EUR)
Registration fee	60 (EUR)	60 (EUR)

* Reduced fee: 350 EUR, if you research not in the University territory.

Offered for the academic year 2017/2018?	YES
Deadline for applications – September intake (DD/MM/YYYY)	31 MAY 2017
Is there a February intake (DD/MM/YYYY)?	NO

Admission requirements–Language requirements:

English C1, basic knowledge of the Hungarian language is an advantage.

Admission requirements – Documents to submit with application:

- ✓ Master-level degree
- ✓ Transcript of records
- ✓ CV
- ✓ Motivation letter
- ✓ Research plan
- ✓ Letter of recommendation
- ✓ Application form
- ✓ Copy of the main pages of the passport (needs to be valid)
- ✓ Passport photo



- ✓ Certificate of clean criminal records
- ✓ Copy of application fee transfer
- ✓ Reference work

Application procedure:

The application can be done by sending a letter to Head of Doctoral School and the Program leader with a short CV, copy of the degree certificate, transcript of results, a language examination certificate and a letter of recommendation and short indication of the interest in specific subprograms (see the admission requirements). Prof. József Nemes-Nagy and the program leaders deal only with the educational aspects of admission and do not deal with any bureaucratic and financial issues.

For the thesis topics visit the following website: <http://ttk.elte.hu/node/815>

Important note: It is the student's responsibility to find a qualified teacher in the institute who is willing to act as a supervisor and they write together the research plan which is submitted along the application.

The application package is reviewed by an admission committee. Then the applicant is expected to take an oral entrance examination. If a personal meeting is impossible, the interview is held through Skype. The decision on admission or rejection is made at the earliest date possible.

Criteria for ranking in the admission procedure shall include:

1. previous university achievements (examinations, comprehensive examinations, qualification of degree),
2. achievements related to previous research work (awards obtained in students' academic circles, publications in the particular professional area),
3. the feasibility of the research program.

Procedure of the entrance examination:

Oral entrance interview with focus on the applicant's knowledge compared to what might be supposed from the submitted documents on former qualification and the goals and methods of the planned research project.

Written supplements and exercises might be demanded in order to measure qualification and language proficiency.



(F) CONTACT

Program leaders

Doctoral School

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Program of Geography and Meteorology

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International program coordinator

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