**Programs in the Doctoral School of Earth Sciences**

- 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