

The Chair of Geopedology and Landscape Development
at the Brandenburg University of Technology Cottbus-Senftenberg (BTU)
awards a

doctoral scholarship (36 + 3 months)

on the topic

**"Late Quaternary relief and soil development in the Lusatian Urstromtal
(Elbe-Elster lowlands and peripheral areas)"**

The Chair of Geopedology and Landscape Development focuses on the geoecological analysis of the earth's surface and the shallow subsurface. We investigate the close causal and functional relationship between the formation, distribution and properties of landforms and the soils and sediments found therein against the background of historical and prehistoric land use. Our studies are therefore based on geomorphological, sedimentological and pedological fieldwork, which we also carry out in the context of archaeological questions. In addition, we use both classical and modern laboratory methods as well as geophysical prospection methods.

In the coming years we will intensify our research activities on questions of Holocene landscape development in South Brandenburg. A central object of investigation is the Bronze Age burial mound located in the "Schweinert", district of Elbe-Elster, one of the most important of its kind in Central Europe and the largest in Germany. Within the framework of a DFG project, we are conducting geoarchaeological investigations in the "Schweinert" and its immediate surroundings in order to clarify the context of Holocene relief, soil, and sediment formation. To complement the DFG research, a PhD project should reconstruct the Late Quaternary relief and soil development in the wider surroundings of the "Schweinert", specifically in the valley of the Schwarze Elster from Elsterwerda to Herzberg and by means of the above-mentioned geopedological methods.

We are looking for

a team player and research driven candidate
with a diploma or master's degree in

- geography,
- soil science,
- geosciences,
- geoarchaeology,
- environmental sciences,
- or similar,

with knowledge in

- Quaternary relief and soil development (especially Central Europe),
- geomorphology (especially fluvial/alluvial forms/sediments),

experience with

- geophysical prospection methods (GPR, ERT, magnetics),
- pedological profile description

and with the ability/willingness to

- communicate in written and spoken English and German,
- carry out field work in the South Brandenburg area

as well as a driver's license class: B.

We offer

- a friendly and respectful dynamic environment with a wide range of opportunities to develop and technical and methodological support,
- a high-performance laboratory infrastructure for standard soil parameters complete with modern analytical equipment (e.g. Micromeritics SediGraph, EC/pH meter, Kjeldahl apparatus, Scheibler apparatus, Elementar CN elemental analyser vario MAX cube, Agilent MP-AES 4200, Bruker FTIR Tensor 27 with ATR unit and HTS-XT, Terra InXitu FP RDA, Niton XL3t FP XRF, Olympus Stereo Microscope BX51 with Axiocam ICc 5),
- extensive field equipment including vehicles for field work as well as equipment for geophysical prospection (e.g. VW minibus, Mala single-channel GPR RAMAC, GSSI dual-channel GPR UtilityScan Pro, Lippmann ERT, magnetic susceptibility, percussion core probing with hydraulic puller, Leica Terrestrial Laser Scanner ScanStation C10),
- a network of national and international cooperation partners,
- a liveable city and region with a more extensive infrastructure, favourable housing conditions and a wide range of cultural and leisure activities,
- a young, dynamic university with a modern campus in the city,
- public transportation to Berlin, Dresden and Leipzig and
- an annually dynamic scholarship with a total duration of 36 + 3 months, i.e.
 - 1.000,- € per month in the 1st year,
 - 1.100,- € per month in the 2nd year,
 - 1.200,- € per month in the 3rd year and
 - 1,200 € per month for 3 months upon submission of the dissertation at the end of the 3rd year.

Application and selection procedure

Interested applicants should send their informative documents to fg-geopedologie@b-tu.de by 15.11.2021. Applications will be evaluated in a two-stage procedure. The scholarship will be awarded after the selection of a suitable candidate at the earliest possible date. A scholarship start date of 01.04.2022 is aimed for.

Current and further information on the Chair of Geopedology and Landscape Development can also be found at <https://www.b-tu.de/fg-geopedologie/>.

If you have any questions, please contact Prof. Dr. Thomas Raab (raab@b-tu.de).