

Thematic Cartography P

The aim of education:

a) knowledge

- He/she has a complex knowledge of the general cartographic, geographic, mathematical and informatics principles, rules and interrelationships necessary for the practice of cartography and geoinformatics, in particular in the following subjects: surveying (geodesy, topography, remote sensing, photogrammetry), map construction and design, projection, thematic cartography, geovisualisation, geoinformatics, building geographic information systems.
- Comprehensive knowledge and understanding of the most important general theories, contexts, facts and related concepts in the field of cartography, in particular in the following areas: thematic cartographic representations, map design principles, cartographic software applications, cartographic principles and visualisation solutions for web mapping services.
- Knowledge of methods and tools for professional and effective written, oral and networked knowledge management in cartography and geoinformatics. Ability to evaluate, use as source material and process as a database national and foreign, old and new maps and other cartographic publications (globes, sky globes, relief maps, etc.).
- Ability to create maps and geoinformatics systems that can be used by economic sectors or clients in the desired field.

b) abilities

- Ability to apply knowledge of cartography and geoinformatics in a creative and managerial manner.
- Ability to interpret and formalise complex professional problems in the field of cartography and geoinformatics, to identify the necessary theoretical and practical background and to solve the problem. Ability to provide consultancy, problem-solving, design, development, operation and management of cartographic and geoinformatics systems, decision support systems and expert systems.
- Ability to apply what has been learned in a diverse, multidisciplinary professional environment

c) attitude

- He/She monitors professional and technological developments in the field of cartography and geoinformatics and the opportunities that will enable it to work in the public sector, in various companies or to set up and run its own business.
- Shares his/her own knowledge and values the dissemination of professional results in cartography and geoinformatics.
- He/She is committed to meeting and enforcing quality standards (accuracy, commitment).

d) autonomy and responsibility

- Responsible for meeting and enforcing deadlines. Assumes responsibility for his/her own work and that of his/her colleagues working under his/her direction and with him/her (in a project).
- In the case of mission-critical mapping and geoinformatics systems, may be given development and operational responsibility appropriate with his/her professional competences.

Content of education:

During the semester, students will work in teams, step-by-step, to create parts of a thematic atlas. In small groups, they work on two or three topics (chapters). To complete the task, they also have to collect material and data under the guidance of a tutor. The material produced should give a complex (comprehensive) picture of the topic. During the semester, the student will be able to independently structure and complete a major mapping assignment requiring research.

The student will submit a total of four thematic maps (2 of Europe, and 2 of countries) and two short essays for assessment by the end of the semester. Each assignment will be graded on a five-point scale. The end-of-semester grade is calculated as the average of these grades, using the rounding method commonly used at the University.

Course outline:

- Description of the assignment, grouping, and study of examples.
- Exploring the topics chosen, and editing background maps.
- Data collection, and map editing.
- Cartography.

Evaluation system: practical course mark based on course work.

Literature:

Obligatory

- Klinghammer, I., & Papp-Váry, Á. (1983). Földünk tükre a térkép (Map, mirror of the Earth). Budapest, Gondolat.
- Klinghammer, I. (2010). Térképészet és geoinformatika. ELTE Eötvös Kiadó.
- Field, K. (2018). Cartography. ISBN: 9781589484399.

Recommended

- Slocum, T. A., McMaster, R. B., Kessler, F. C., & Howard, H. H. (2022). Thematic cartography and geovisualization. CRC Press.
- Field, K. (2021). Thematic Mapping: 101 Inspiring Ways to Visualise Empirical Data. ISBN: 9781589485570