

Tárgy neve: Map design and editing L

Tárgyfelelős neve: Dr. Reyes Nunez José Jesús

Tárgyfelelős tudományos fokozata: PhD

Tárgyfelelős MAB szerinti akkreditációs státusza: AT

Az oktatás célja:

a, knowledge

- Complex knowledge of the general geographical, cartographic, planning, mathematical and informatic principles, rules, relationships required for the practice of cartography

- Familiar with the specific tools of the geoinformatics discipline, learn the cartographic elements of field survey procedures, data management and analysis, effective cartographic representation solutions in a geoinformatics environment;

- Knowledge and use of spatial data collection technologies, their cartographic aspects and key elements.

b, abilities

- Ability to select the most effective cartographic tools and software to solve a given task, depending on its complexity;

- Ability to systematically process, evaluate, interpret and analyse the measurement results and to support the drawing of conclusions from these results in cartographic terms, and to visualise them in an optimal way;

- Ability with the acquired cartographic knowledge to carry out effective, user-oriented planning, development and consultancy tasks in the operation of GIS, decision support systems and expert systems.

c, attitude

- Open to professional cooperation with professionals working in related fields.

d, autonomy and responsibility

- Independence regarding the thorough examination and elaboration of professional issues and processes.

- Feels responsible for meeting and making others meet the deadlines. He/she is responsible for his/her work and for his/her co-workers' work in projects.

- With his/her knowledge and skills of geoinformatics, he/she cooperates responsibly with professionals in other fields.

Az oktatás tartalma: The map. The concept of map. Scale, projection, generalization, graphical legend.

Classification of maps according to scale. Map types: base maps, general maps, thematic maps. Sources of map making.

Maps for the public. Types and concepts. General characteristics, scale and legend. Additions to maps: insets, name registers, search grids, alphabetical arrangement.

Map frame. Types of frames. Map model. Map extract. Form of the map sheet. Technical symbols on the map. Legend and explanation of symbols. The process and phases of map making.

Map content. Aspects of representation. Characteristics of objects and phenomena. Map elements. Layers of map content: relief, planimetric features, place names. Representation methods. Generalization: steps, guidelines, limits.

Relief. Representation of relief. Modern cartographic methods. Relationship between method, scale and map type. Planimetric features I. Drainage, elements and groups. Hydrographic objects. Representation of hydrographic features in various scales.

Planimetric features I. Borders. Categories of borders and their representation. Transportation features, their categories and representation. Land coverage. Representation of vegetation in various scales.

Representation of land-use and geographical zones of vegetation cover. Representation of built-up areas and settlements.

Geographical names: Place names. Labelling of places. Writing systems. Names in Latin script. Types of place names and categories of their representation. Parts of names. Typography of labelling place names.

Letter types and traditions of labelling. Names referring to points and point-like features. Settlement names. Hydrographic names of point elements. Names of characteristics geographical points (peaks, passes). Explanatory names. Names referring to areas. Hydrographic names referring to areas. Micro

topographical names. Physical landscape regions in cartography. Names of historical-geographical regions. Administrative names. Names of states and administrative divisions. Names of protected areas. Names of

linear elements. Hydrographic names of linear features. Representation of administrative names referring g

to area and line. Names of public domains. Types of supplementary information on maps. Pictograms and their representation.

Atlases. Types of atlases. Atlases of map sheets. Atlases of separate maps. Editing atlases.

Historical maps. The use of historical maps. Types of historical maps. Spatial representation of historical events. Showing dynamism on a static base. Publications. Relationship between the legend of popular maps and historical maps. Real historical map.

Cartographic fieldwork. Reconnaissance. Maps for orientation on the terrain. Revising tourist maps.

Updating city maps. Sources of updating and revision.

A számonkérés és értékelés rendszere: oral and/or written exam.

Kötelező irodalom:

- Kraak, M.-J., Ormeling, F. (2020) Cartography: Visualization of Geospatial Data. Fourth Edition. CRC Press. ISBN 9781138613959
- Brewer, C. A. (2015) Designing Better Maps: A guide for GIS users. First edition. Esri Press. ISBN: 9781589484405

Ajánlott irodalom:

- Crampton, J. W. (2011) Mapping: A Critical Introduction to Cartography and GIS. First edition. Wiley-Blackwell. ISBN-13: 978-1405121729
- Field, K. (2018) Cartography. First edition. Esri Press. ISBN-13: 978-1589484399
- Raisz, E. (1948) General Cartography. McGraw-Hill Book Company: New York.