Tárgy neve: GIS-based cartography

Tárgyfelelős neve: Dr. Reyes Nunez José Jesús
Tárgyfelelős tudományos fokozata: PhD
Tárgyfelelős MAB szerinti akkreditációs státusza: AT

Az oktatás célja:
a, knowledge
- Comprehensive knowledge and understanding of the key relationships and concepts in the field of geoinformatics, in particular in the following areas: geolocation data collection technologies, 2- and 3-dimensional geoinformatics modelling, geovisualization, spatial data infrastructures, geoinformatics programming and application development, vector and raster geoinformatics, digital image processing, web-based geoinformatics solutions, geoinformatics databases, applied geoinformatics systems.
- Understandings, knowledge and application of mobile field, laboratory and practical materials, tools and methods of geoinformatics.
b, abilities
- Ability to creatively and methodically process, evaluate, interpret and analyse measurement results and draw conclusions from them.
- Ability to collect data independently and organize spatial data into a database, as well as to organize the data with the tools of geoinformatics. Ability to perform operations and models with independently organized databases.
- Ability to recognize and apply new problem-solving methods and procedures in his/her field and apply what he/she has learnt in a diverse, multidisciplinary environment.
c, attitude
- Accepts and adheres to the ethical principles of work and organizational culture, especially with regard to the copyright related to geoinformatics.
- Committed to adhering to and making others adhere to quality requirements.
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: During the theoretical introduction to the course, the students become acquainted with the relation between geoinformatics and the world of general graphic software, presenting topics related to the antecedents, features, modules and applications. In the practices, students learn about the interaction of geoinformatics with drawing and editing options, importing and georeferencing GIS and graphic files, as well as preparing base maps, creating thematic maps and formatting a map sheet using a GIS module in a general graphic program. Students will be able to use topology-based drawing commands, to edit objects based on their attributes, to define attribute-based filters, to generate a nomenclature automatically and manually, and finally display the generated maps on printed and different interactive digital media (e.g. web and mobile devices).

A számonkérés és értékelés rendszere: practical course mark based on course work.

Kötelező irodalom:

- Avenza (2020) MAPublisher 10.6: What's new? Accessible on: https://www.avenza.com/help/mapublisher/10.6/index.html?whats_new_in_mapublisher.htm
- Dodge, M., McDerby, M. and Turner, M. John (2008) Geographic visualization: concepts, tools and applications. Wiley&Sons, Ltd. ISBN 978-0-470-51511-2

Ajánlott irodalom:

- Peterson, G. N. (2020) GIS Cartography: A Guide to Effective Map Design, Third Edition. Taylor & Francis Limited, ISBN 0367857944, 9780367857943

- Cairo, A. (2016) The truthful art: data, charts, and maps for communication. New Riders. ISBN 13: 9780321934079
- Sui, D., Elwood, S. and Goodchild, M.(2013) Crowdsourcing Geographic Knowledge (VGI in theory and practice). Springer, ISBN: 978-94-007-9826-7