

Course **Specifications**

Valid in the academic year 2023-2024

Cartography (CO01059)

Course size	(nominal values; actual values	may depend on pro	gramme)		
Credits 5.0	Study time 150 h				
Course offerings and t	eaching methods in academic yea	r 2023-2024			
A (semester 1)	Dutch, English	Gent	lecture seminar		
Lecturers in academic	year 2023-2024				
Huang, Haosheng			WE12	lecturer-in-charge	
Offered in the following programmes in 2023-2024				crdts	offering
Bachelor of Arts in Archaeology				5	А
Bachelor of Science in Geography and Geomatics				5	А
Linking Course Master of Science in Geography and Geomatics				5	А
Preparatory Course Master of Science in Geography and Geomatics				5	А

Teaching languages

English, Dutch

Keywords

Thematic cartography, topographic map, semiology, map production, history, Web Mapping, new trends.

Position of the course

General overview on cartography and skills on map conception.

Contents

- Introduction to Cartography and Maps
- Geographic phenomena and data
- Cartographic visual variables, symbols, colours
- Texts, map layout and cartographic design principles
- Map reproduction
- Scale and Map generalization
- Topographic maps and terrain representation
- Map projection: distortion, coordinate transformation
- Thematic mapping: choropleth mapping, isarithmic mapping, proportional symbol mapping, dasymetric mapping, dot maps, flow maps, multivariate mapping, Cartogram
- History of Cartography
- New trends: Mobile GeoICT, VR/AR/MR, Geo(visual) analytics and Geographic Data Science

Initial competences

- Basic knowledge regarding Geodesy.
- Passed or following the course GIS.
- OR having acquired the intended competencies in one way or another.

Final competences

- 1 Be able to explain the key issues in Cartography, the functions of maps, and map types.
- 2 Be able to explain the fundamental concepts in cartography, such as visual variables, scale, map generalization, map projection, and distortion.
- 3 Be able to apply thematic mapping techniques for visualizing geographic data, e. q., using GIS software.

- 4 Be up-to-date regarding recent evolutions in cartography.
- 5 Be able to do a summative presentation of recent scientific literature.
- 6 Be able to critically evaluate the work of fellow-students.

Conditions for credit contract

Access to this course unit via a credit contract is determined after successful competences assessment

Conditions for exam contract

This course unit cannot be taken via an exam contract

Teaching methods

Seminar, Lecture

Learning materials and price

Theorie: course + slides Exercises: slides + assingments (see Ufora)

References

Main:

- Slocum, T., McMaster, R., Kessler, F., Howard, H (2009) Thematic Cartography and Geovisualization, 3rd Edition. Pearson
- De Maeyer, Ph., Ooms, K. 2015, Cartografie, Lannoo Others:
- Uthers:
- Brewer, C. (2015) Designing Better Maps: A Guide for GIS Users. ESRI Press.
- Field, K. (2018) Cartography.. ESRI Press
- Dent, B., Torguson, J. & Hodler, T. (2008) *Cartography: Thematic Map Design*. New York: McGraw-Hill Higher Education, 336.
- Kraak M.-J. & Ormeling, F. (2010) *Cartography: Visualization of Spatial Data.* London: Pearson Education Limited, 231.
- Tyner, J.A. (2010) Principles of Map Design. New York: The Guildford Press, 251.
- Kimerling, A. J., Buckley, A. R., Muehrcke, P. C., & Muehrcke, J. O. (2009). *Map* use: reading and analysis. Esri Press.

Course content-related study coaching

Theory: after the lesson or after an electronic appointment **Exercises:** during the practical sessions or after an electronic appointment

Assessment moments

end-of-term and continuous assessment

Examination methods in case of periodic assessment during the first examination period

Written assessment with open-ended questions

Examination methods in case of periodic assessment during the second examination period

Written assessment with open-ended questions

Examination methods in case of permanent assessment

Participation, Peer and/or self assessment, Assignment

Possibilities of retake in case of permanent assessment

examination during the second examination period is possible

Calculation of the examination mark

Theory: periodical 50%

Exercices + presentations: periodical and non periodical: 50 % (second session possibility of an alternative task for this part).