

Remote Sensing (C003622)

Due to Covid 19, the education and evaluation methods may vary from the information displayed in the schedules and course details. Any changes will be communicated on Ufora.

Course size (nominal values; actual values may depend on programme)
Credits 5.0 Study time 150 h Contact hrs 80.0 h

Course offerings and teaching methods in academic year 2020-2021

A (semester 2)	Dutch	Gent	teaching methods	hours
			seminar: coached	45.0 h
			exercises	
			demonstration	5.0 h
			lecture	30.0 h

Lecturers in academic year 2020-2021

Goossens, Rudi WE12 lecturer-in-charge

Offered in the following programmes in 2020-2021

programme	crdts	offering
Bachelor of Arts in Archaeology	5	A
Bachelor of Science in Geography and Geomatics	5	A
Linking Course Master of Science in Geography and Geomatics	5	A
Preparatory Course Master of Science in Geography and Geomatics	5	A

Teaching languages

Dutch

Keywords

Image processing, image classification, image correction

Position of the course

To learn how to use aerial and space remote sensing data as a base for thematic mapping and how to integrate these documents in a Geographical Information System. The metric aspect deals with photogrammetric methods, the thematic part with interpretation and classification methods. To develop skills in observation and remote sensing data analysis.

Contents

This course deals with image acquisition, image processing and image interpretation. Aerial pictures as well as space born imagery are covered. 3D-techniques are applied on aerial pictures as space images by photogrammetrical techniques. Image interpretation and image classification methods are discussed and applied: image interpretation, image enhancement, image classification, geometric correction, filtering techniques, vegetation indices, principal component analyses and to put the image interpretation in a geographical context.

Initial competences

Basic knowledge as stipulated in the final objectives for secondary education

Final competences

- 1 Analyse and interpret images.
- 2 Turn remote sensing data into simple cartographic representations, in a multi-temporal and multi-scale analysis.

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

Demonstration, lecture, seminar: coached exercises

Learning materials and price

Syllabus and exercise notes.

One copy will be provided to students. Cost: 10 EUR

References

Lillesand and Kiefer, Remote sensing and image interpretation. J. Wiley.

Course content-related study coaching

Lecturer and assistants (AAP)

Evaluation methods

end-of-term evaluation and continuous assessment

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

Written examination with open questions, oral examination

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

Written examination with open questions, oral examination

Examination methods in case of permanent evaluation

Report

Possibilities of retake in case of permanent evaluation

examination during the second examination period is not possible

Calculation of the examination mark

Periodical [75%]

Non-periodical evaluation[25%]

To pass this course or to get a delibratable grade, the student must have participated in all the teaching parts (theory + excursions + exercises).