

## Non-invasive Prospection Techniques in Archaeology (A005620)

**Course size** *(nominal values; actual values may depend on programme)*

**Credits 5.0**

**Study time 150 h**

### Course offerings in academic year 2024-2025

A (semester 2)

English

Gent

### Lecturers in academic year 2024-2025

De Smedt, Philippe

LW02

lecturer-in-charge

Maréchal, Sadi

LW02

co-lecturer

Verhegge, Jeroen

LA20

co-lecturer

### Offered in the following programmes in 2024-2025

[Bachelor of Arts in Archaeology](#)

**crdts**

5

**offering**

A

[Exchange Programme Archaeology](#)

5

A

[Preparatory Course Master of Arts in Archaeology](#)

5

A

### Teaching languages

English

### Keywords

Archaeology, prospection, satellite remote sensing, aerial photography, geophysical sensors.

### Position of the course

This advanced course is part of a package Methodology, aimed at a further in-depth exploration of the methods, techniques and aspects of archaeological prospection.

### Contents

Overview of the possibilities of the use of non-invasive prospection techniques in archaeology, especially by means of geophysical sensors and their integration with aerial photography and traditional prospection methods. A practical acquaintance with geophysical prospection equipment in the field is also included in this course.

### Initial competences

To have successfully completed the course Introduction to prospection and excavation techniques or to have acquired the intended competences in another way.

### Final competences

- 1 To have a critical understanding of the possibilities and limitations of the use of non-invasive prospection techniques in archaeology.
- 2 To be in touch with the ethics regarding the use of these methods in archaeological research.
- 3 To be able to integrate non-invasive prospection data into archaeological research programmes.
- 4 Understand what information non-invasive techniques can provide that is relevant to archaeological research.
- 5 Have an understanding of the practical application of non-invasive techniques in commercial (development-led) and research contexts.
- 6 Understand the relationship between archaeological phenomena, soil properties and physical variations measured with non-invasive sensors.

**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**

Lecture, Independent work

**Extra information on the teaching methods**

Lectures.

Self-reliant work: individual reading

Field practice: demonstration with equipment and registration techniques.

**Study material**

Type: Syllabus

Name: overview of geophysical soil properties

Indicative price: Free or paid by faculty

Optional: no

Language : English

Available on Ufora : Yes

Online Available : Yes

Available in the Library : No

Available through Student Association : No

Type: Slides

Name: lecture slides

Indicative price: Free or paid by faculty

Optional: no

Language : English

Available on Ufora : Yes

Online Available : Yes

Available in the Library : No

Available through Student Association : No

Type: Reader

Name: compulsory journal papers to support course units

Indicative price: Free or paid by faculty

Optional: no

Language : English

Available on Ufora : Yes

Online Available : Yes

**References**

- Gaffney C., Gater J., 2011. Revealing the buried past. Geophysics for archaeologists, Stroud: Tempus (reprinted version).

- Wilson D.R., 2000. Air Photo Interpretation for Archaeologists, Stroud: Tempus.

**Course content-related study coaching**

- For specific questions students can contact the lecturers during their office hours and on the discussion forum on Ufora.

**Assessment moments**

end-of-term assessment

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

Written assessment with open-ended questions, Written assessment

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

Written assessment with open-ended questions, Written assessment

**Examination methods in case of permanent assessment****Possibilities of retake in case of permanent assessment**

not applicable

**Extra information on the examination methods**

Written examination with open and multiple choice questions.

**Calculation of the examination mark**

100% periodic evaluation.

**Facilities for Working Students**