

Archaeometry and Physical anthropology (A005432)

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

Credits 5.0 **Study time 150 h**

Course offerings and teaching methods in academic year 2026-2027

A (semester 2)	Dutch	Gent	seminar
			lecture
			practical

Lecturers in academic year 2026-2027

Pijpelink, April	LW02	staff member
van Hattum, IJk	LW02	staff member
Van Thienen, Vince	LW02	staff member
Vandenabeele, Peter	LW02	lecturer-in-charge
De Grootte, Isabelle	LW02	co-lecturer
Pincé, Possum	LW02	co-lecturer

Offered in the following programmes in 2026-2027

	crdts	offering
Bachelor of Arts in Archaeology	5	A
Preparatory Course Master of Arts in Archaeology	5	A

Teaching languages

Dutch

Keywords

Osteoarcheology, osteology, fysical anthropology, archaeometry, materials analysis

Position of the course

This subject is part of a Methodology package. In this case, the course helps the student gain insight into physical anthropology and archaeometric research. The course unit is in line with the core competences of the Bachelor of Archaeology programme.

Contents

Human osteoarchaeology is the study of human skeletal remains found in an archaeological context. Analysis of the human skeleton is absolutely integral to understanding the past because it provides primary evidence of the people who played and experienced the world.

The focus of the Physical Anthropology section is on identifying human skeletal and dental remains and then applying this knowledge.

The section on Archaeometry situates the field of archaeometry and gives some typical questions. It gives an overview of the most important classes of material in archaeology and the related archaeometric questions. Degradation phenomena of these materials are discussed, as well as the most important production and processing processes. The main archaeological questions related to these materials are addressed, as well as the analysis techniques used.

In this course, students are expected to understand the working principle of these techniques and to be able to select appropriate methods for solving a given question.

During the seminars, specific case studies from the literature and method selection (advantages and disadvantages of the different methods) are discussed.

The main language of this course is Dutch, but some lessons can be given in English or French.

Initial competences

Successful completion of the course unit Introduction to Archaeology or acquisition of the competences in question in another way.

At least a passive knowledge of English and French in order to be able to consult professional literature.

Final competences

- 1 Have knowledge of excavating, identifying and documenting skeletal assemblages.
- 2 Being able to identify all bones, teeth and important morphological features of the human skeleton;
- 3 Being able to identify all bones, teeth and important morphological features of the human skeleton;
- 4 Understand and be able to accurately describe the composition of different archaeological materials.
- 5 Be able to describe the production processes/processes of archaeological materials.
- 6 On the basis of an archaeological question, be able to select a suitable analysis method.
- 7 Be able to explain the working principle of the most important analysis methods
- 8 Be able to critically read and understand an article from the archaeometric literature.
- 9 To be able to situate the field of archaeometry as an interdisciplinary field.

Conditions for credit contract

Access to this course unit via a credit contract is unrestricted: the student takes into consideration the conditions mentioned in 'Starting Competences'

Conditions for exam contract

This course unit cannot be taken via an exam contract

Teaching methods

Seminar, Lecture, Practical

Extra information on the teaching methods

Each theme is introduced by a presentation illustrated with slides, after which working lectures or practicals, discussions and problem-solving are possible. The material is then explored in depth by the student on the basis of the most recent literature. Emphasis is placed on the student's ability to do his/her own work. An excursion to a skeleton depot is planned.

Lecture: students are expected to take additional notes on the provided study material.

Working lecture: on the basis of a number of problems, the students are challenged to come up with suitable solutions during the discussion session.

Practical exercises: carrying out experiments independently in the laboratory (under supervision).

This course unit assumes responsible use of generative artificial intelligence (GAI). Unpublished data should never be entered into GAI tools. The applicable guidelines from Academic Skills are respected throughout the course.

Study material

Type: Handbook

Name: Human bone manual

Indicative price: € 30

Optional: no

Language : English

Author : Tim White and Folkens

ISBN : 978-0-12088-467-4

Number of Pages : 300

Online Available : No

Available in the Library : No

Available through Student Association : Yes

Usability and Lifetime within the Course Unit : intensive

Usability and Lifetime within the Study Programme : regularly

Usability and Lifetime after the Study Programme : occasionally

Type: Slides

Name: course slides

Indicative price: Free or paid by faculty

Optional: no

Type: Handouts

Name: Practical Exercise Book

Indicative price: € 20

Optional: no

References

Een literatuurlijst staat ter beschikking van de studenten (via Ufora).

Edwards H.G.M., Vandenabeele P., (eds.), 2012. *Analytical archaeometry – selected topics*, Cambridge: RSC Publishing. ISBN 978-1-84973-162

Course content-related study coaching

Individual counselling is possible after the lessons, via the Ufora-learning environment or by appointment via e-mail with the trainers or their staff.

Assessment moments

continuous assessment

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

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

Examination methods in case of permanent assessment

Skills test, Participation, Written assessment, Assignment

Possibilities of retake in case of permanent assessment

examination during the second examination period is possible in modified form

Extra information on the examination methods

In view of the permanent evaluation, active participation in all practicals is mandatory (see examination regulations in case of absence). During the evaluation, it is checked whether the student has acquired the necessary insight.

The written exams are a combination of multiple choice and short answer questions. The skills tests and written exams evaluate whether the student has acquired the necessary knowledge. The paper tests the application and understanding of the acquired knowledge.

The tests evaluate whether the student has acquired the necessary insight.

Presentation of the practicals in group.

Individual questioning of students, in which the student discusses one of the topics covered in the course with the questioner. The interviewer asks additional questions, for example about the materials, method selection and the working principles of the analysis techniques. The student has to demonstrate that he/she knows the concepts from the course and can use them adequately.

Attendance and participation during the practicals is mandatory. If this is not possible (e.g. working students), another task can be imposed. The demonstration practical will be tested by means of a short report/open question. The practicals are conducted in small groups. During the practical, the extent to which the students have prepared for the practical and know the most important aspects of the test will be tested (orally). The students write individually a short report of each practical. Guidelines for this report are given at the beginning of the course, taking into account form, insight and the result obtained.

Calculation of the examination mark

The components 'archaeometry' and 'physical anthropology' each count for 50% of the points. Students must obtain a score of at least 40% for each component separately and an average of 50% for both components in order to pass.

Physical anthropology: Skills test (20%), written exam (20%), workpiece (10%)

Archaeometry: participation, preparation and reporting of the practicals (20%), presentation in group (10%), individual examination (20%)

Facilities for Working Students

- Possibility of exemption from attendance.
- Possibility to take an exam at another time during the academic year
- Possibility to get feedback via e-mail, after appointment