Joint Faculties of Humanities and Theology

ARKN25, Archaeology and Ancient History: Advanced 3D Recording, Processing and Visualization in Archaeology, 15 credits

Arkeologi och antikens historia: Avancerad 3D dokumentation, bearbetning och visualisering i arkeologi, 15 högskolepoäng

Second Cycle / Avancerad nivå

Details of approval

The syllabus was approved by The Pro Dean of First and Second Cycle Studies at The Joint Faculties of Humanities and Theology on 2024-06-03 (U 2024/395) and was last revised on 2026-08-26 (U 2026/288). The revised syllabus comes into effect 2026-08-26 and is valid from the spring semester 2027.

General information

The course is offered as a freestanding course. It can normally be included in a general qualification for first or second-cycle studies.

Language of instruction: English

Main field of study	*Specialisation*
Archaeology and Ancient History	A1N, Second cycle, has only first-cycle course/s as entry requirements

Learning outcomes

On completion of the course, students shall be able to

Knowledge and understanding

- give an account of extensive knowledge of the use of 3D documentation, visualisation and analysis in archaeology, its technologies and applications in general to document, simulate, visualise and communicate archaeological data and interpretations
- Through speech, images and writing, clarify and communicate how in general this research field increases our knowledge of humankind and environments of the past.

Competence and skills

- select and use hardware or software for advanced 3D data processing and visualisation
- independently design and carry out projects using digital technologies for advanced visualisation and communication, e.g. in museums and for archaeological fieldwork.

Judgement and approach

- from a scientific critical perspective, design and produce 3D models especially tailored to archaeological projects in order to answer specific research questions.

Course content

The course focuses on the use of 3D technology for collection, processing and visualisation of 3D data including point clouds, surface models and boundary models. The students will gain both practical and theoretical knowledge about how 3D digitalisation processes are integrated in digital archaeology and archaeological fieldwork. The principles for construction of 3D models are studied, together with discussions about the presentation and consequences of 3D models in different archaeological study contexts. Practical knowledge is gained about the use of technology and methods such as image-based 3D modelling (including 3D photogrammetry, structure from motion technology and dense stereo matching technology), laser scanning and advanced 3D modelling technologies.

Course design

The teaching consists of exercises, lectures and seminars.

Attendance is compulsory at all teaching activities. In order to meet the attendance requirement, students must participate in at least 80% of the scheduled activities. If overall participation falls within the range of 70–80%, the student must complete a compensatory assignment in accordance with the instructions provided by the course coordinator in order to achieve a pass grade. If participation is below 70%, no final grade will be awarded for the course, and the student must re-register for and retake the course, subject to availability.

However, if a student has been unable to participate due to circumstances beyond their control, for example due to an accident, sudden illness or similar, they will be given the opportunity to complete one or more supplementary assignments according to the lecturer's instructions to receive a grade of Pass. This also applies to students participating in activities in an elected position as a student representative.

Assessment

Assessment of the course is based on an invigilated on-campus exam and a take-home exam.

The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

Grades

Grading scale includes the grades: Fail, Pass, Pass with distinction
For the grade of Pass on the whole course, students must have been awarded at least the grade of Pass on all exams. For the grade of Pass with Distinction on the whole course, the student must in addition have been awarded this grade on the take-home exam.

Entry requirements

To be admitted to the course, the student must have completed courses ARKK01, ARKK04, AKSK04, ARKH04 and HOSK04 or equivalent.

Further information

- The course is offered at the Department of Archaeology and Ancient History, Lund University.
- The course replaces ARKN10.
- The number of credits allocated for course content that is shared in whole or in part with another course can only be credited once for a degree.
- For further details, see current registration and information material.

This is a translation of the syllabus
which was established in Swedish.