



LUND
UNIVERSITY

Faculties of Humanities and Theology

**ARKN22, Archaeology and Ancient History: Bone Chemistry
and Bioarchaeological Analysis, 7.5 credits**
Arkeologi och antikens historia: Benkemi och bioarkeologisk analys,
7,5 högskolepoäng
Second Cycle / Avancerad nivå

Details of approval

The syllabus was approved by The pro-dean for First-Cycle Studies at the Faculties of Humanities and Theology on 2022-11-25 to be valid from 2023-03-15, autumn semester 2023.

General Information

The course is offered as a freestanding course.

The course may be included as elective course in the Master's programme Archaeology - Theory and Practice.

It can normally be included in a first or second-cycle degree.

Language of instruction: English

The course is normally taught in English, but can also be taught in Swedish, provided there is a special agreement between the lecturer/s and the students. Such an agreement requires that all teachers and students are proficient in Swedish.

Main field of studies

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Depth of study relative to the degree requirements

A1N, Second cycle, has only first-cycle course/s as entry requirements

Learning outcomes

On completion of the course, the student is to be able to:

Knowledge and understanding

- account for different types of bone chemistry methods in bioarchaeological research,
- account for how bone chemistry methods can be used to increase knowledge of

- people and animals in the past,
- at a general level be able to account for existing ethical guidelines for the handling and destructive sampling of osteological material,

Competence and skills

- critically review interpretations of the past based on data generated from bone chemistry analyses,

Judgement and approach

- apply a scientific and ethical approach to the destructive sampling of osteological material,
- evaluate the potential of bone chemistry analyses and research results and take a position on how this knowledge can be used in archaeological research.

Course content

The use of scientific methods in archaeological research is a growing field that has revolutionised our knowledge about the past in many respects. A large part of current methodological development is connected to bioarchaeology and relates to different types of chemical studies of osteological material such as DNA analyses, proteomics and isotope analyses of different elements. These methods have made a broad impact in most archaeological disciplines and are used for both dating and to provide knowledge of diseases, diet, mobility, kinship and genetic origin, to mention some examples. The research field, which is multidisciplinary or interdisciplinary, stands for a considerable portion of published research results today. It has thus become ever more important for archaeologists and osteologists to be familiar with the basics of these methods, how results can be interpreted and how the methods can be combined with other methods in archaeology.

This course provides basic knowledge of different scientific analyses of skeleton material from people and animals, and gives insight into current methodological development. It also examines sampling strategies and ethical issues regarding destructive sampling and chemical analyses of osteological material. Within the scope of the course, study visits to laboratories are also made to introduce the students to practical work. Furthermore, the course intends to strengthen multidisciplinary and interdisciplinary working methods in order to enable new knowledge of the past.

Course design

The teaching consists of lectures, seminars (2-3), a workshop and study visits (2-3). The seminars and the workshop are compulsory.

If, due to circumstances beyond their control, for example accidents, sudden illness or similar, students are unable to carry out a compulsory component, the University is responsible for ensuring that an equivalent alternative or another time for the component is offered. This also applies to students participating in activities in an elected position as a student representative.

Assessment

Assessment of the course is based on one workshop and one longer 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.

Subcourses that are part of this course can be found in an appendix at the end of this document.

Grades

Marking scale: Fail, Pass.

Entry requirements

To be admitted to the course, students must have completed Bachelor's courses in historical osteology, archaeology, historical archaeology, the culture and social life of classical antiquity or possess equivalent knowledge.

Further information

- The course is offered at the Department of Archaeology and Ancient History, Lund University.
- The credits allocated for course content that in whole or in part is commensurate with another course can only be credited once for a degree.
- For further details, see current registration and information materials.
- The students are expected to have good written and oral proficiency in English.

Subcourses in ARKN22, Archaeology and Ancient History: Bone Chemistry and Bioarchaeological Analysis

Applies from H23

- 2301 Workshop, 1,5 hp
Grading scale: Fail, Pass
- 2302 Take-home Exam, 6,0 hp
Grading scale: Fail, Pass