# MSc Professional Osteoarchaeology – Module summaries

## ARMEPP: In at the Deep End: Practicing Osteoarchaeology

**Summary:**
This unique module prepares you for work within the modern archaeological arena. It explores burial legislation, ethics and health and safety aspects of working as a professional and takes a 'forensic' style approach to the understanding how to excavate human skeletal remains, supervise cemetery excavations and make quick decisions about excavation and sampling strategies. You will be introduced to the roles of other professionals that work on-site, how to work with clients, tender and to make well-reasoned recommendations to those in the commercial and academic heritage sectors. It also explores other job roles including working for museums as educators and curators of human remains. You will meet a variety of specialists working in Museums, Units, and Government agencies through guest lectures and site visits.

**Aims**
This module prepares you for the reality of working on a modern archaeological site as a professional osteoarchaeologists. It explores the skills required to manage large excavations, watching briefs and working with 'clients'. It also explores other job roles including working for museums as educators and curators of human remains.

## ARMMSA: Musculo-Skeletal Anatomy

**Summary:**
This module instructs you on the musculoskeletal system, dental anatomy, skeletal development, and how the action of the soft tissues (muscle, tendons and ligaments) produce the characteristic morphology of individual bones. You will gain comprehensive knowledge to enable you to accurately identify complete and fragmentary adult and child skeletal remains from archaeological contexts, and become familiar with anatomical terms and names of structures. This detailed knowledge of the human skeleton builds up over the module with regular marked assessments and feedback sessions.

**Aims:**
This module provides you with an understanding of the bodies systems, their functions and how they impact the growth, development and remodelling of the human skeleton. You will learn to use anatomical terminology with confidence and develop a comprehensive understanding of the language used to describe features on the child and adult skeleton. Through this familiarity you will be able to identify even fragmentary remains from archaeological sites.

## ARMAHR: Analysis of Human Remains

**Summary:**
This highly practical module provides the essential methods and skills required for the study of human skeletal remains from archaeological contexts. You will apply the most recent

approaches used to assess sex, age, stature, handedness, ancestry, and parity in adult skeletal remains, as well as learn a broad range of metrical and non-metrical measures in both adults and children. The specific techniques required to analyse non-adult human remains will be explored. The history, development and limitations of each method will be outlined through a series of lectures, and reinforced during the practical class.

**Aims:**
This module will provide you with the professional techniques you require to practice human osteology for both commercial units and during primary research.

**ARMIDB: Issues and Debates in Bioarchaeology**

**Summary:**
This module is structured to consider the main theoretical approaches and types of evidence used in bioarchaeology (isotope analysis; aDNA, ancestry and biodistance; life course, migration, stress and deprivation, structured violence, ethics) and key approaches to their analysis. Sessions will provide introductions to the subject matter and lead on to structured discussions, based on seminar presentations and prepared reading about methodological issues and key debates in the field.

**Aims:**
This module provides you with a deeper understanding of the approaches used to analyses human skeletal remains from archaeological contexts, and a critical awareness of central issues within bioarchaeology that can be applied to both the optional modules and the dissertation.

**ARMPAC: Paleopathology of Adults and Children**

**Summary:**
Palaeopathology is the study of the history of disease using primary information from human skeletal remains and secondary sources such as archaeological, ethnographical, artistic, iconographic, documentary and clinical data. It takes a multidisciplinary (biocultural) approach linking the biological evidence for disease with cultural contextual data. This module provides you with the critical skills required to recognise healed and active pathological conditions and interpret their significance in the contexts of key theoretical paradigms. Uniquely, this module has particular focus on the growing field of child palaeopathology.

**Aims:**
An analysis of trauma and disease within a skeletal sample is a critical element of any archaeological cemetery investigation and this module provides critical skills needed for human osteologists to fully interpret the skeletal data. You will learn to identify and address key archaeological questions for inclusion in specialist reports and for primary research projects. The module covers a variety of conditions and how they are differently expressed in adult and child remains. The focus on child skeletal remains is a unique aspect of this module.

**ARM032D: Science and the Dead: the taphonomy and chemistry of human remains**

**Summary:**
Understanding of taphonomy and knowledge of biomolecular methods which are now being routinely applied in burial archaeology are essential for any archaeologist specialising in the study of human remains. This is designed to provide you with an understanding of the key biomolecular methods that are currently employed by modern archaeology to reconstruct the living from the dead.

**Aims:**
Focussing on principles rather than technical detail, this module provides an understanding of human taphonomy, to introduce the most widely used methods in the scientific analysis of human remains (isotopes, elemental analysis and DNA) and to convey an understanding of the advantages and drawbacks of each approach to non-scientists. The module also aims to provide you with an understanding of the principles of statistical analysis of isotope data.

**ARMSAS: Statistical Approaches: understanding your data**

**Summary:**
This module teaches quantitative analytical methods and principals appropriate to scientific archaeological techniques and approaches. The module familiarise you with standard statistical packages, data management and presentation techniques. The module is team-taught using a mixture of lectures and practicals with in-class problems and exercises.

**Aims:**
This module is designed to familiarise you with univariate and mutivariate statistical principals and a range of core and statistical analytical methods and techniques, prior to you undertaking your research project.

**ARMRPP: Research Project**

**Summary:**
This module comprises a series of Dissertation workshops, a Masters Conference and a sustained period of independent supervised research in the writing of a Masters Level Dissertation.

**Aims:**
You will develop key academic research skills and advanced critical evaluation and understanding of current research problems, and method and theory, and in designing, planning and implementing a major independent research project, through writing a dissertation of 15,000 words.