UNIVERSITY of BRADFORD

Faculty of Life Sciences

Programme Specification

Programme title: MSc Archaeological Sciences

Academic Year:	2019-20
Degree Awarding Body:	University of Bradford
Partner(s), delivery organisation or support provider (if appropriate):	N/A
Final and interim award(s):	[Framework for Higher Education Qualifications (FHEQ) level 7] Master of Science Postgraduate Diploma Postgraduate Certificate
Programme accredited by (if appropriate):	N/A
Programme duration:	1 year full-time; minimum 2 years part-time
QAA Subject benchmark statement(s):	N/A
Date last confirmed and/or minor modification approved by Faculty Board	March 2019

Please note: This programme specification has been published in advance of the academic year to which it applies. Every effort has been made to ensure that the information is accurate at the time of publication, but changes may occur given the interval between publishing and commencement of teaching. Any change which impacts the terms and conditions of an applicant's offer will be communicated to them. Upon commencement of the programme, students will receive further detail about their course and any minor changes will be discussed and/or communicated at this point.

Introduction

The MSc Archaeological Sciences is designed to give graduates in Archaeology and related subjects a systematic training in the application of modern scientific methods in archaeology. It provides the necessary practical, analytical and interpretative skills to apply a wide range of specialist approaches in archaeology.

Archaeology engages the entire human past in all its temporal and spatial dimensions. It is fundamental to our understanding of how we evolved and our communities developed, and how we study, preserve and interpret our past. At Bradford, our distinctive approach emphasises the integration of the natural and physical sciences in this enquiry. In accordance with the

University's mission, 'Making knowledge work', the School of Archaeological Sciences aims to provide excellence in a comprehensive range of archaeological topics, with emphasis on both teaching ('Excellent' in the last Subject Review) and research (ranked 7th place nationally for 4* research and 3rd place nationally for research impact, REF 2014), believing in the two activities to be mutually dependent.

The programme aims to prepare students not only for research in archaeological science, but also to further career prospects in all areas of mainstream archaeology. The programme is well-suited both to students who wish to use it as a foundation from which to commence further research or as vocational training to enhance employment prospects in archaeology. The programme is normally offered on a full-time basis but a part-time route is feasible as well. Individual modules are available to candidates wishing to enhance their specialist knowledge in a particular area.

This programme has attracted AHRC funding as a research preparation Masters. Among the distinctive features of this programme are hands-on experience in the School's laboratories, a range of option choices which allow specialisation, and a substantial individual research dissertation. We have excellent PTES results, with 92% overall student satisfaction in 2015.

Programme Aims

The programme is intended to:

A1. Provide graduates in archaeology and related subjects with a systematic training in the application of modern scientific methods to archaeology.

A2. Provide a flexible programme of study that reflects areas of staff expertise.

A3. Encourage development of independent learning skills, by providing a supportive, structured environment.

A4. Develop high-level subject knowledge and understanding, and provide training in discipline skills to enable graduates to pursue further research or careers in archaeological science.

A5. Develop critical and analytical problem solving skills and personal transferable skills to prepare students for careers in non-cognate fields.

Programme Learning Outcomes

To be eligible for the award of Postgraduate Certificate at FHEQ level 7, students will be able to:

LO1. demonstrate a critical awareness of practical, analytical and interpretative approaches in archaeological science

LO2. use a selected range of methods and techniques within archaeological science and interpret the generated data

LO3. apply critical understanding in the wider context of the discipline

LO4. possess advanced laboratory and/or field skills in the study of (according to module selection): artefacts, biological evidence, archaeological prospection, scientific dating methods and cultural resource management

LO5. critically evaluate professional literature in a chosen area and related disciplines

LO6. communicate conclusions in writing and orally to specialist and non-specialist audiences, working effectively in groups, manage and appraise their own leaning and research

LO7. manage time effectively when undertaking complex and extended tasks

LO8. confidently use information technology to critically review, synthesise and carry forward professional research in a specialised area

Additionally, to be eligible for the award of Postgraduate Diploma at FHEQ level 7, students will be able to:

LO9. identify individual learning needs and carry out an achievable learning plan to meet them

LO10. apply instrumental techniques to the analysis of archaeological materials

LO11. use mathematical and statistical approaches to interpret archaeological data

Additionally, to be eligible for the award of Degree of Master at FHEQ level 7, students will be able to:

LO12. design and complete a substantial work of independent study

Curriculum

The programme is offered in full-time (1 year) and part-time (2 or more years) mode. It comprises a core of compulsory modules to provide appropriate background in theory and application of scientific methods in archaeology and a wide range of option choices to develop specialist skills.

The emphasis of the programme is on the learning of fundamental scientific principles across a number of disciplines (e.g. quantitative methods, statistics, physics, chemistry, biology and materials science) and applying these to archaeological contexts, drawing on areas of expertise in the School. In addition to undertaking core modules in 'Nature of Matter and Instrumental Analysis' and 'Archaeometry', students take at least 20 credits of modules that cover specific analytical techniques, which include a strong hands-on element. These modules are chosen to suit the student's specific interests, in discussion with the programme manager and are drawn from a range of modules offered within the University. Students can then choose from a variety of optional modules normally following one of three pathways.

Environmental Archaeology (which includes the following optional modules: 'Analysis of Human Remains', 'Plants and Animals in Past Societies') focuses on subsistence and health through studies of animal bones, plant remains and biomarkers in human and non-human hard tissue. It also introduces environmental issues which impact on humans, including environmental change. **Landscape Archaeology** (which includes 'Plants and Animals in Past Societies' 'Site Evaluation Strategies and GIS', and 'Archaeological Prospection and Visualisation') focuses on understanding and interpreting landscapes in the past using scientific methods. **Biomolecular Archaeology** (which includes 'Analysis of Human Remains', 'Grave Concerns: Investigating Archaeology of Death') allows students to specialise in the use of biomolecular methods to study both human remains and artefacts. The pathways are intended to guide students through appropriate modules; they are indicative rather than prescriptive and students may choose to take the optional modules offered in any combination, subject to timetabling.

The module in 'Professional Development' starts by guiding students to identify their own learning needs and the resources to address them, and goes on to prepare students for their research project, including planning of research, research design, time management, ethics, and health and safety. The final element of the programme is a substantial dissertation.

It is expected that students who successfully complete the entire programme will be fully prepared to undertake research at MPhil or PhD level.

Postgraduate Certificate

Module Code	Module Title	Type	Credits	Level	Study period
ARC7035-B	Archaeometry	Core	20	7	2
ARC7008-B	Analysis of Human Remains	Option	20	7	1
ARC7046-B	Plants and Animals in Past Societies	Option	20	7	1
ARC7044-B	Archaeological Prospection and Visualisation	Option	20	7	1
ARC7036-B	Grave Concerns: Investigating the Archaeology of Death and Burial	Option	20	7	2
ARC7048-B	Site Evaluation Strategies and GIS	Option	20	7	2

Students will be eligible to exit with the award of Postgraduate Certificate if they have successfully completed 60 credits and achieved the award learning outcomes (LO1-8).

Postgraduate Diploma- modules above plus

Module Code	Module Title	Type	Credits	Level	Study period
ARC7041-B	Professional Development	Core	20	7	1 & 2
ARC7045-B	Nature of Matter and Instrumental Analysis	Core	20	7	1 & 2
	FLS Analytical Elective*	Core	20	7	1/2

*FLS Analytical Elective module is drawn from existing modules within the MSc Analytical Sciences and the exact choice is flexible depending on availability and student interests. It will typically be one of CFS7027-B Separation Science and Mass Spectrometry, CFS7030-B Spectroscopy, CFS7028-B Imaging, CFS7026-B Solid Analysis.

Students will be eligible to exit with the award of Postgraduate Diploma if they have successfully completed at least 120 credits and achieved the award learning outcomes (LO1-11).

Master of Science- modules above plus

Module Code	Module Title	Type	Credits	Level	Study period
ARC7034-E	Dissertation	Core	60	7	3

Students will be eligible for the award of Degree of Master if they have successfully completed at least 180 credits and achieved the award learning outcomes (LO1-12).

The curriculum may change, subject to the University's programme approval, monitoring and review procedures.

Learning and Teaching Strategies

The teaching and learning strategy takes into consideration the learning outcomes, the nature of the subject, and the need for students to take responsibility for their own learning as part of this advanced taught programme.

The thematic modules are delivered in a combination of formal lectures, student-led intensive seminars/tutorials and extensive practical instruction. Coursework (laboratory and field reports, worksheets, essays) is geared towards demonstrating relevant knowledge, understanding and professional skills in principal approaches to the application and use of scientific methods in archaeology. Elements of group work are part of core specialist modules; communication skills are tested in both written and oral form in several modules.

The degree progresses through a spiral curriculum, with each teaching / assessment block developing and building on prior learning. The underlying knowledge and understanding is then drawn upon in the Dissertation

(c.15000 words) which encompasses a substantial piece of original research, ultimately assessed for its publishable merit.

Assessment Strategy

The assessment strategy is designed to support the learning outcomes of each specific module. It uses a wide range of assessment methods, including coursework (worksheets, critiques, laboratory reports, research design, essays), exams (practical tests), and oral presentations. Assessment elements are regularly structured in a way that allows MSc candidates to benefit from formative learning towards summative assessment.

Assessment Regulations

This Programme conforms to the standard University Regulations which are available at the following link:

http://www.bradford.ac.uk/aqpo/ordinances-and-regulations/

Admission Requirements

The University welcomes applications from all potential students and most important in the decision to offer a place is our assessment of a candidate's potential to benefit from their studies and of their ability to succeed on this particular programme. Consideration of applications will be based on a combination of formal academic qualifications and other relevant experience.

The standard entry requirements for the programme are as follows:

A first degree in Archaeology or another relevant discipline, normally with a second-class degree, or equivalent is required for UK students. Other relevant qualifications and past experience will also be considered for admission to the programme. Admission will be judged on an individual basis for overseas students, at an equivalent level to UK entry requirements. For North American students, normally a GPA of at least 2.5 on a scale of 4.0 is required, or an equivalent. Students whose first language is not English must have IELTS at 6.0, with no sub-test less than 5.0, or the equivalent. Students who do not meet the IELTS requirement can take a University of Bradford pre-sessional English course. Admissions are made on the basis of demonstrated ability, qualifications, experience, references, and, occasionally, interviews. A completed application form, references, official transcripts, or a list of programmes/modules and grades/marks stamped by the applicant's undergraduate department or student registry are required of all applicants.

Applications are welcome from students with non-standard qualifications or mature students (those over 21 years of age on entry) with significant relevant experience.

Recognition of Prior Learning

If applicants have prior certificated learning or professional experience which may be equivalent to parts of this programme, the University has procedures to evaluate and recognise this learning in order to provide applicants with exemptions from specified modules or parts of the programme.

Minor Modification Schedule

Version Number	Brief description of Modification	Date of Approval (Faculty Board)