MSc Environmental Archaeology (full-time)
For students entering in 2015/6

Awarding Institution:	University of Reading
Teaching Institution:	University of Reading
Relevant QAA subject Benchmarking group(s):	Archaeology
Faculty:	Science Faculty
Programme length:	12 months
Date of specification:	25/Aug/2015
Programme Director:	Prof Martin Bell
Programme Advisor:	
Board of Studies:	
Accreditation:	n/a

Summary of programme aims

The programme aims to provide a thorough grounding in the principles and methods of earth science and biological science with reference to their application in archaeology and palaeoenvironmental studies. It develops a comprehensive understanding of the main field and laboratory techniques in environmental archaeology. The course equips students with the practical field and laboratory skills, and the critical, writing and presentational skills, for future independent work in the field of professional environmental archaeology or doctoral research. There is a particular emphasis on the application of multidisciplinary approaches to the archaeological assessment and interpretation of ancient landscapes and environments, and human economy, diet, nutrition and health, buried within sediment sequences.

The programme is designed to meet the growing needs of commercial and heritage organisations in relation to environmental assessments, management, and field projects, and to equip students with a range of key research skills that can be developed further at doctoral level. The programme is also designed to provide environmental archaeological work experience with private and public sector organisations. The interdisciplinary character of the course means that students from a wide range of backgrounds, including archaeology, earth science, geography, plant science, Quaternary science and environmental science, can use it as a conversion course to move into the field of environmental archaeology.

Transferable skills

Transferable skills include:

- working as part of a team through participation in field and laboratory group projects
- accurate recording in the field and laboratory
- data acquisition, presentation, analysis, and interpretation
- report writing on field and laboratory projects
- understanding environmental assessment and analysis
- the ability to prepare a paper, in a format and to a standard, suitable for publication
- development of skills in oral, written and graphical presentation to facilitate the communication of research to specialist and non-specialist audiences
- Experience of working in the commercial and heritage sectors

Programme content

The programme consists of a total of 180 credits. Students have a total of 110 credits in compulsory modules and can choose a further 70 credits in optional modules.

Compulsory Modules (total 110 credits)

Mod Code	*Module Title*	*Credits*	*Level*
ARMDEA	Dissertation in Environmental Archaeology	60	7
HEM01	Research Skills and Career Learning	10	7
ARMQME	Quantitative Methods in Environmental Archaeology	10	7
ARMGID	Issues and Debates in Environmental Archaeology	10	7
ARMMEA	Field and Experimental Methods	10	7
ARMS6	Field Course: Earth Science and Archaeological Investigations in the Field	10	7

Optional Modules (total 70 credits)

Select 3 modules at 20 credits each, and 1 module at 10 credits from either Stream 1 (Bioarchaeology) or Stream 2 (Geoarchaeology).

Alternatively

Students who do not wish to follow a particular stream can select 70 credits from across Streams 1 and 2, and from any of the Social Archaeology modules (subject to availability) in the Department of Archaeology (10 and 20 credits), and the 'Research and Enterprise Placement' module (10 and 20 credits).

Stream 1: Bioarchaeology (for students who wish to follow the Bioarchaeology stream)

Mod Code	*Module Title*	*Credits*	*Level*
ARMGMB	Mollusca in Archaeology and Quaternary Science	20	7
ARMO28D	Palaeopathology	20	7
ARMGZO	Zooarchaeology	20	7
ARMGFC	Food and Culture	10	7
ARMIMQ	Introduction to Mollusca in Archaeology and Quaternary Science	10	7
ARMIZO	Introduction to Zooarchaeology	10	7

Stream 2: Geoarchaeology (for students who wish to follow the Geoarchaeology stream)

Mod Code	*Module Title*	*Credits*	*Level*
ARMGQS	Geochemistry in Quaternary Science and Archaeology	20	7
ARMAMA	Applications of Micromorphological Analysis	20	7
ARMGCC	Holocene Climate Change and Human Societies	20	7
ARMQCC	Quaternary Climate Change	20	7
ARMICM	Coastal and Maritime Geoarchaeology	20	7
ARMIGQ	Introduction to Geochemistry in Quaternary Science and Archaeology	10	7
ARMIAM	Introduction to Applications of Micromorphological Analysis	10	7
ARMICC	Introduction to Holocene Climate Change and Human Societies	10	7
ARMIQC	Introduction to Quaternary Climate Change	10	7
ARMEPW	The Edge of the Pleistocene World	20	7

Research and Enterprise Placement

Mod Code	*Module Title*	*Credits*	*Level*
ARMREP	Research and Enterprise Placement	20	7
ARMEMP	Research and Enterprise Micro-Placement	10	7

Part-time or modular arrangements
The programme can be taken part-time over 2 years. The programme in each year is by agreement with the programme director.

Progression requirements
To progress from the taught elements to the dissertation, students must have gained an average mark of 50 or more overall and have no module mark below 40. This will be assessed by the Board of Studies in April/May.

Summary of Teaching and Assessment
Teaching is through a combination of lectures, seminars, laboratory practicals and field classes and a placement in the commercial and heritage sectors. Assessment is through a combination of essays, scientific reports, field notebook and presentations.

The University's taught postgraduate marks classification is as follows:

Mark Interpretation
70-100% Distinction
60-69% Merit
50-59% Good standard (Pass)

Failing categories:
40-49% Work below threshold standard
0-39% Unsatisfactory work

Awarding
For Masters Degrees

To qualify for Distinction, students must gain an overall average of 70 or more over 180 credits and a mark of 60 or more for the dissertation, and must not have any mark below 40.
To qualify for Merit, students must gain an overall average of 60 or more over 180 credits and a mark of 50 or more for the dissertation, and must not have any mark below 40.
To qualify for Passed, students must gain an overall average of 50 or more over 180 credits and a mark of 50 or more for the dissertation. In addition, the total credit value of all modules marked below 40 must not exceed 30 credits and of all modules marked below 50 must not exceed 55 credits.

For PG Diplomas
To qualify for Distinction, students must gain an overall average of 70 or more over 120 credits and must not have any mark below 40.
To qualify for Merit, students must gain an overall average of 60 or more over 120 credits and must not have any mark below 40.
To qualify for Passed, students must gain an overall average of 50 or more over 120 credits. In addition, the total credit value of all modules marked below 40 must not exceed 30 credits and of all modules marked below 50 must not exceed 55 credits.
For PG Certificates
To qualify for a Postgraduate Certificate, students must gain an overall average of 50 or more over 60 credits. In addition, the total credit value of all modules marked below 40 must not exceed 10 credits.

Admission requirements
Entrants to this programme are normally required to have obtained a first degree, normally upper-second (2:1) or above, in a subject providing an appropriate foundation for a substantial component of the programme. Suitable degree subjects include: archaeology, earth sciences, environmental sciences, physical geography, plant sciences, and oceanography. Candidates are normally interviewed by two members of staff, including the admissions tutor.

Admissions Tutor:

Support for students and their learning
University support for students and their learning falls into two categories. Learning support is provided by a wide array of services across the University, including: the University Library, the Careers, Placement and Experience Centre (CPEC), In-sessional English Support Programme, the Study Advice and Mathematics Support Centre teams, IT Services and the Student Access to Independent Learning (S@il) computer-based teaching and learning facilities. There are language laboratory facilities both for those students studying on a language degree and for those taking modules offered by the Institution-wide Language Programme. Student guidance and welfare support is provided by Personal Tutors, School Senior Tutors, the Students' Union, the Medical Practice and advisers in the Student Services Centre. The Student Services Centre is housed in the Carrington Building and offers advice on accommodation, careers, disability, finance, and wellbeing, academic issues (eg problems with module selection) and exam related queries. Students can get key information and guidance from the team of Helpdesk Advisers, or make an appointment with a specialist adviser; Student Services also offer drop-in sessions and runs workshops and seminars on a range of topics. For more information see www.reading.ac.uk/student

Career prospects
The programme enables those with training in earth or biological sciences to move into archaeology, and those with training in archaeology to develop their knowledge of geoarchaeology and bioarchaeology. Career opportunities are available in the University sector, and archaeological units, heritage organisations, environmental consultancies, local authorities, and research laboratories and organisations.

Opportunities for study abroad or for placements
There is the opportunity to do the fieldwork part of the dissertation project abroad. However, students are expected to make the necessary arrangements for this with advice from staff. The students also have the opportunity to undertake the assessed placement option modules: either *ARMREP Research and Enterprise Placement (20 credits), or ARMEMP Research and Enterprise Micro-Placement (10 credits)*, or an 'ad-hoc' work experience placement with staff in the Department of Archaeology.

Programme Outcomes

The programme aims to provide a thorough grounding in the underlying principles and methods of earth science and biological science with reference to their application in archaeology and palaeoenvironmental studies. Students will develop a knowledge and understanding of current practice and problems in the discipline. The programme also aims to develop knowledge of the main field and laboratory techniques, given particular emphasis through practical projects within the taught part of the programme, and 7 day conducted field class and the dissertation. The range of techniques acquired, and the critical, writing and presentational skills developed, will provide effective foundations for PhD research on a wide range of archaeological science and palaeoenvironmental topics. The programme is designed to meet the continued need of commercial and heritage organisations in relation to environmental archaeological assessments and field projects.

Knowledge and Understanding

A. Knowledge and understanding of:	**Teaching/learning methods and strategies**
(1) The range of earth science and biological science principles and methods employed in archaeology. (2) The range of field and laboratory analytical techniques employed in geoarchaeology and bioarchaeology.	(1) Combination of lectures, seminars, and practical field and laboratory classes in the core modules, and associated assessment via field and laboratory reports. (2) As above. *Assessment*

Skills and other attributes

B. Intellectual skills - *able to:*	**Teaching/learning methods and strategies**
1. Outline the objectives of a piece of geoarchaeological and bioarchaeological research, identify appropriate methodology, make and record accurate observations, and interpret and critically review the results. 2. Present a report in a good standard of written English and with a good standard of illustrations in the form of a paper suitable for publication. 3. Develop self-direction and originality in problem-solving. 4. Critically evaluate and debate the work of others. 5. Synthesise and integrate evidence from archaeological and earth and biological science sources, including the integration of humanities and science-based approaches to research problems.	(1) Field and laboratory projects for core modules and the dissertation. (2) As above (3) As above (4) Seminars (including in *Research Skills and Career Learning*, *Issues and Debates in Environmental Archaeology*, and option modules), dissertation critiques, field discussions and field notebook. (5) *Issues and Debates in Environmental Archaeology* and case-studies used in core module, option and field methods teaching. *Assessment*

C. Practical skills - *able to:*	**Teaching/learning methods and strategies**
1. Achieve a good standard of accuracy in field recording. 2. Assess archaeological sites and landscapes in the field. 3. Select and apply appropriate methods of field sampling to a range of depositional contexts 4. Select and apply laboratory techniques appropriate to the analysis of soils, sediments, rocks and artefacts and human, plant and animal remains. 5. Use a microscope to analyse a selection of mineralogy, soil thin sections and biological (human, pland and animal) evidence.	(1) Notebooks kept during the *Field Course* and fieldwork for the dissertation. (2) Fieldwork in *Field Methods and Experimentation* and the *Field Course*. (3) Fieldwork in *Field Methods and Experimentation*. (4) Dissertation module and option module practical classes. (5) As above. (6) Coursework projects and the dissertation. (7) *Research Skills and Career Learning* and *Dissertation* modules. (8) As above.

6. Organise, conduct and write up a piece of research and present the results to a specialist audience.
7. Develop digital literacy skills, including how to navigate, assess and generate information using web and internet based resources.
8. Develop skills in the use of a Geographical Information System (GIS), database creation and management and graphic design.

Assessment

D. Transferable skills - *able to:*

(1) Work as part of a team.
(2) Record, present and analyse data.
(3) Communicate their results to specialist and non-specialist audiences
(4) Prepare a paper in a format and to a standard suitable for publication.
(5) Exercise initiative and personal responsibility.
(6) Make decisions in complex and unpredictable situations.
(7) Learn independently and develop new skills to a high level.
(8) Demonstrate self-direction and originality in tackling and solving problems, and act autonomously in planning and implementing tasks at a professional or equivalent level.
(9) Implement entrepreneurial and business skills especially with respect to the design, implementation and management of projects.

Teaching/learning methods and strategies

(1) Group field and laboratory work.
(2) Practical classes, field and laboratory reports, *Research Skills and Career Learning, Issues and Debates in Environmental Archaeology* coursework, and dissertation.
(3) Field and laboratory reports, *Research Skills and Career Learning*, *Issues and Debates in Environmental Archaeology*, seminars in option modules, and dissertation.
(4) Practical field and laboratory projects and dissertation.
(5) The taught programme as a whole and the dissertation.
(6) As above.
(7) As above.
(8) Dissertation module.
(9) *Research Skills and Career Learning* module.

Assessment

Please note - This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. More detailed information on the learning outcomes, content and teaching, learning and assessment methods of each module can be found in the module description and in the programme handbook. The University reserves the right to modify this specification in unforeseen circumstances, or where the process of academic development and feedback from students, quality assurance process or external sources, such as professional bodies, requires a change to be made. In such circumstances, a revised specification will be issued.