

# MSc Geoarchaeology

For students entering in 2006

Awarding institution:	The University of Reading
Teaching Institution:	The University of Reading
Faculty of Science	Programme length: 1 year (2 years part-time)
Date of specification:	January 2006
Programme Director:	Dr Petra Dark
Board of Studies:	MSc Geoarchaeology
Accreditation:	Not appropriate

## Summary of programme aims

The programme aims to provide a thorough grounding in the principles and methods of earth science with reference to their application in archaeology and palaeoenvironmental studies. It develops a comprehensive understanding of the main field and laboratory techniques in geoarchaeology. 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 geoarchaeology or doctoral research. There is a particular emphasis on the application of multidisciplinary approaches to the archaeological assessment and interpretation of ancient landscapes 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 interdisciplinary character of the course means that students from a wide range of backgrounds, including archaeology, earth science, geography, plant science, Quaternary science and soil science, can use it as a conversion course to move into the field of geoarchaeology.

## 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.
- 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.

## Programme content

Modular code	Module title	Credits	Level
ARMS1	Geoarchaeology: Principles and Practice	10	M
ARMFM	Field Methods and Experimentation in Geoarchaeology	10	M
ARMS6	Field Course	10	M
ARMLM	Laboratory Methods in Geoarchaeology	10	M
ARMAM	Applications of Micromorphological Analysis	10	M
SSMSIA	Soils in Archaeology	10	M

ARMR1D	Research Resources and Skills	10	M
Various	Option modules	20	H/M
ARMSCD	Dissertation	90	M
Total		180	

### **Part-time / 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 overall module mark below 40 for the modules ARMS1 *Geoarchaeology: Principles and Practice*, ARMLM *Laboratory Methods in Geoarchaeology* and SSMSIA *Soils in Archaeology*. This will be assessed by the Board of Studies after the examinations in April/May.

### **Summary of teaching and assessment**

Teaching is through a combination of lectures, seminars, laboratory practicals and field classes. Assessment is through a combination of exams, essays, scientific reports, field notebook and presentations. Exams are held in April/May.

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

<u>Mark</u>	<u>Interpretation</u>
70-100%	Distinction
60-69%	Merit
50-59%	Good standard (Pass)
<u>Failing categories:</u>	
40-49%	Work below threshold standard
0-39%	Unsatisfactory work

### **Awarding**

#### For Masters Degrees

**Distinction:** A weighted average mark of 70 or more over 180 credits AND a mark of 60 or more for the dissertation AND no mark below 40.

OR

A weighted average mark of 66 or more over 180 credits AND a mark of 70 or more in 90 credits AND a mark of 60 or more for the dissertation AND no mark below 40.

**Merit:** A weighted average mark of 60 or more over 180 credits AND a mark of 50 or more for the dissertation AND no mark below 40.

OR

A weighted average mark of 58 or more over 180 credits AND a mark of 60 or more in 90 credits AND a mark of 50 or more for the dissertation AND no mark below 40.

**Passed:** A weighted average mark of 50 or more over 180 credits AND a mark of 50 or more for the dissertation AND no significant weakness (ie no mark below 40 in the modules ARMS1 *Geoarchaeology: Principles and Practice*, ARMLM *Laboratory Methods in Geoarchaeology* and SSMSIA *Soils in*

*Archaeology*) AND no absolute weakness (ie the total credit value summed for all modules marked below 40 does not exceed 30 credits and for all modules marked below 50 does not exceed 55 credits).

OR

A weighted average mark of 48 or more over 180 credits AND a mark of 50 or more in 90 credits AND a mark of 50 or more for the dissertation AND no significant weakness (ie no mark below 40 in the modules ARMS1 *Geoarchaeology: Principles and Practice*, ARMLM *Laboratory Methods in Geoarchaeology* and SSMSIA *Soils in Archaeology*) AND no absolute weakness (ie the total credit value summed for all modules marked below 40 does not exceed 30 credits and for all modules marked below 50 does not exceed 55 credits).

Failed: A performance which fails to fulfil the criteria for the above classifications.

#### For PG Diplomas

Distinction: A weighted average mark of 70 or more over 120 credits AND no mark below 40.

OR

A weighted average mark of 66 or more over 120 credits AND a mark of 70 or more in 60 credits AND no mark below 40.

Merit: A weighted average mark of 60 or more over 120 credits AND no mark below 40.

OR

A weighted average mark of 58 or more over 120 credits AND a mark of 60 or more in 60 credits AND no mark below 40.

Passed: A weighted average mark of 50 or more over 120 credits AND no significant weakness (ie no mark below 40 in modules agreed at validation to be of special significance to the programme) AND no absolute weakness (ie the total credit value summed for all modules marked below 40 does not exceed 30 credits and for all modules marked below 50 does not exceed 55 credits).

OR

A weighted average mark of 48 or more over 120 credits AND a mark of 50 or more in 60 credits AND no significant weakness (ie no mark below 40 in modules agreed at validation to be of special significance to the programme) AND no absolute weakness (ie the total credit value summed for all modules marked below 40 does not exceed 30 credits and for all modules marked below 50 does not exceed 55 credits).

Failed: A performance which fails to fulfil the criteria for the above classifications.

#### For PG Certificates

Passed and Failed categories only will be awarded for PG Certificates as follows:

Passed: A weighted average mark of 50 or more over 60 credits AND no significant weakness (ie no mark below 40 in the modules ARMS1 *Geoarchaeology: Principles and Practice*, ARMLM *Laboratory Methods in Geoarchaeology* and SSMSIA *Soils in Archaeology*) AND no absolute weakness (ie the total

credit value summed for all modules marked below 40 does not exceed 10 credits).

OR

A weighted average mark of 48 or more over 60 credits AND a mark of 50 or more in 30 credits AND no significant weakness (ie no mark below 40 in the modules ARMS1 *Geoarchaeology: Principles and Practice*, ARMLM *Laboratory Methods in Geoarchaeology* and SSMSIA *Soils in Archaeology*) AND no absolute weakness (ie the total credit value summed for all modules marked below 40 does not exceed 10 credits).

Failed: A performance which fails to fulfil the criteria for the above classifications.

### **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.

### **Support for students and their learning**

University support for students and their learning falls into two categories. Learning support includes IT Services, which has several hundred computers and the University Library, which across its three sites holds over a million volumes, subscribes to around 4000 current periodicals, has a range of electronic sources of information and houses the Student Access to Independent Learning ([S@IL](#)) computer-based teaching and learning facilities. There are language laboratory facilities both for 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 Programme Director, the Careers Advisory Service, the University's Special Needs Advisors, Hall Wardens and the Student's Union.

### **Career prospects**

The programme was established in response to a Survey of Science Training Needs conducted by the Council for British Archaeology. This showed that there was inadequate provision for training in geoarchaeology in Britain. The programme enables those with training in earth or environmental sciences to move into archaeology, and those with training in the scientific aspects of archaeology to develop their knowledge of earth sciences. Career opportunities are available in 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.

### **Educational aims of the programme**

The programme aims to provide a thorough grounding in the underlying principles and methods of earth 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, an 8 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. There is also particular emphasis on the archaeological assessment of ancient landscapes buried within sediment sequences and the planning context of this work. The programme is designed to meet the growing needs of commercial and heritage organisations in relation to environmental assessments and field projects.

### **Programme outcomes**

#### **A. Knowledge and understanding of:**

- (1) the range of earth science principles and methods employed in archaeology.
- (2) the range of field and laboratory analytical techniques employed in geoarchaeology.

#### **Teaching/learning methods and strategies**

- (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.

#### **B. Intellectual skills – students will be able to:**

- (1) outline the objectives of a piece of geoarchaeological 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 science sources, including the integration of humanities and science-based approaches to research problems.

#### **Teaching/learning methods and strategies**

- (1) Field and laboratory projects for core modules and the dissertation.
- (2) As above
- (3) As above
- (4) Seminars (including in *Research Resources and Skills* and option modules), dissertation critiques, field discussions and field notebook.
- (5) *Geoarchaeology: Principles and Practice* and case-studies used in core module, option and field methods teaching.

**C. Practical skills** – Students will be able to:

- (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.
- (5) use a microscope to analyse mineralogy, soil thin sections and biological evidence.
- (6) organise, conduct and write up a piece of research and present the results to a specialist audience.

**Teaching/learning methods and strategies**

- (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) Practical classes in *Applications of Micromorphological Analysis, Geoarchaeology: Principles and Practice*, and *Laboratory Methods*.
- (5) As above.
- (6) Coursework projects and the dissertation.

**D. Transferable skills** – students will be 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

**Teaching/learning methods and strategies**

- (1) Group field and laboratory work
- (2) Practical classes, field and laboratory reports, *Research Resources and Skills* coursework, and dissertation.
- (3) Field and laboratory reports, 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

**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 processes or external sources, such as professional bodies, requires a change to be made. In such circumstances, a revised specification will be issued.**