MSc in Plant Diversity (full-time)
For students entering in 2017/8

Awarding Institution:	University of Reading
Teaching Institution:	University of Reading
Relevant QAA subject Benchmarking group(s):	
Programme length:	1 year
Date of specification:	14/Aug/2017
Programme Director:	Dr Jonathan Mitchley
Board of Studies:	Biological Sciences MSc Board of Studies

Summary of programme aims
The MSc in Plant Diversity is designed to address the broad area of Plant Systematics and Biodiversity, which has become both socially and scientifically important in the modern world at national and international scales. The course aims to provide professional-level training in the characterisation, assessment and sustainable management of plant diversity, both at the level of the world's flora and of its vegetation. The specific aims are:
a)   To provide a broadly-based practical and theoretical introduction to classical and contemporary aspects of plant taxonomy, conservation and resource management.
b)   To provide a basis for understanding of vegetation ecology and the practical skills necessary to identify higher and lower plants.

Transferable skills
The MSc in Plant Diversity is designed to address the broad area of Plant Systematics and Biodiversity, which has become both socially and scientifically important in the modern world at national and international scales. The course aims to provide professional-level training in the characterisation, assessment and sustainable management of plant diversity, both at the level of the world's flora and of its vegetation. The specific aims are:
a)   To provide a broadly-based practical and theoretical introduction to classical and contemporary aspects of plant taxonomy, conservation and resource management.
b)   To provide a basis for understanding of vegetation ecology and the practical skills necessary to identify higher and lower plants.
Transferable skills
By the end of the course, students will have developed the following transferable skills:
(i)   Practical experience of Microsoft Office, data handling packages, databases and internet resources;
(ii)   design of research projects;
(iii)   development of research, herbarium and field collecting techniques, molecular and morpholical analysis;
(iv)   data analysis using univariate and multivariate statistics and other techniques;
(v)   communication skills, written and verbal including social media and poster presentation;
(vi)   ability to use database/library resources.

Programme content
The modules that make up the taught component of the course are as follows. Note that BIMPB12 Diversity and Identification of Plants, is sometimes taught in part at the Royal Botanic Gardens Kew, the National History Museum, South Kensington, and the Royal Horticultural Society's Garden, Wisley.
Compulsory Modules

Module	Title	Credits	Level
BIMPB12	Diversity and Identification of Plants	20	M
BIMPRO	Research and Professional Skills	20	M
BIMPK12	Vegetation Survey and Assessment	20	M
ARMO44D	Vegetation History and Archaeobotany	20	M
BIMWG2	GIS for Wildlife Managers	10	M
BIMUKFC	UK Field Courses	20	M
BIMPDRP	Research Project	70	M

Part-time or modular arrangements
Students taking their degree part-time over two years are normally expected to take 60 taught credits and conduct half their project work in each academic year. The dissertation is to be submitted by the deadline for the second year of study. Those involved in professional Vegetation Survey or Taxonomy frequently take this course on a part time basis on day release from their jobs.

Progression requirements
See progression requirements below for students following a post-experience diploma.

Summary of Teaching and Assessment
The teaching is organised in modules (totalling 180 credits) that involve a combination of lectures, tutorials, workshops, seminars, field courses and practical sessions. Modules taken during the autumn and spring term will be assessed by a mixture of course work and formal examinations. The remaining credits will be assessed by written reports of the work undertaken.

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

For Masters Degrees
To pass the MSc students must gain an average mark of 50 or more overall in 180 credits, including 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 for all modules marked below 50 must not exceed 55 credits.

Students who gain an average mark of 70 or more overall including a mark of 60 or more for the dissertation and have no mark below 40 will be eligible for a Distinction. Those gaining an average mark of 60 or more overall including a mark of 50 or more for the dissertation and have no mark below 40 will be awarded eligible for a Merit.

For PG Diplomas
To pass the Postgraduate Diploma students must gain an average mark 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 for all modules marked below 50 must not exceed 55 credits.

Students who gain an average mark of 70 or more overall including a mark of 60 or more for the dissertation and have no mark below 40 will be eligible for a Distinction. Those gaining an average of 60 or more overall including a mark of 50 or more for the dissertation and have no mark below 40 will be awarded eligible for a Merit.

Admission requirements
Entrants to this programme will normally be required to have obtained an honours degree in Botany, Biological Science, Plant Science, Environmental Science, Horticulture or a related discipline. Applicants will normally be expected to have gained a Class 2(i) degree, but those with Class 2(ii) degrees may apply, and each case will be considered on its merits. Applicants with alternative qualifications may be expected to attend an ad-hoc year of courses to establish their academic credentials and to fill knowledge gaps.

Admissions Tutor: Dr. J.A. Hawkins

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, In-sessional English Support Programme, the Study Advice and Mathematics Support teams and IT Services. 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 the Support Centres. If a student has a general enquiry and is unsure where to seek help, they should visit their Support Centre. There are five Support Centres across the University, including one based at the London Road Campus. The Support Centre will be

able to advise on matters such as extenuating circumstances, module selection, suspensions, withdrawals, timetable queries and transferring programme. The Support Centre will also be able to signpost students to Carrington building where other University services related to disability, financial support, counselling and wellbeing, accommodation and careers can be found. More information on what student services are available can be found here: http://student.reading.ac.uk/essentials.

Career prospects

There is an expanding market for graduates with the ability to document, classify, assess, manage and conserve global biodiversity. Many of the graduates who do not go on to higher degrees are likely to find employment in our internationally recognised associated institutions, the RHS Wisley, the Royal Botanic Gardens, Kew, the National History Museum, South Kensington or in similar institutions elsewhere in the country or abroad. Graduates whose project is field based have usually gone into consultancies undertaking environmental impact assessment, on working with conservation organisations.

Opportunities for study abroad or for placements

This course introduces the students to plants from around the world through glasshouse based teaching at Reading and other UK botanical gardens. In addition, the project work gives plenty of opportunities to work overseas should this be appropriate.

Programme Outcomes

Knowledge and Understanding

A. Knowledge and understanding of:

1. The range of plant diversity.
2. The factors affecting vegetation types and species distributions
3. The assessment of biodiversity.
4. The classification of plants.
5. The characters which can be used to classify plants.
6. The need for and methods available for conservation.
7. The factors which control plant distribution.
8. The assessment of rarity.
9. Methods of vegetation survey

Teaching/learning methods and strategies

All these are covered in taught modules, by lectures and practical work.
5 is taught through hands-on field and herbarium experience
9 is taught hands-on in the field

Assessment
The taught modules are assessed by some combination of examination, in-course tests, oral presentations and written assignments. 1 is also assessed by an identification quiz. 9 is assessed in fieldwork reports.
2,3,4,5,7,8 and 9 are often components of the research project.

Skills and other attributes

B. Intellectual skills - *able to:*

1. Understand the principles, underlying plant classification.
2. Understand the principles underlying the classification of plant communities.
3. Understand the concepts underlying statistical data analysis.
4. Interpret vegetation surveys.
5. Select appropriate characters for plant classification.
6. Understand the interactions between climate, soils and vegetation.
7. Understand the principles of genetic change and evolution.

Teaching/learning methods and strategies

All these areas are covered by taught modules. The lectures are often supported by practical work or by a combination of lectures and seminars. 4 is also taught on field courses.

Assessment
Examination questions will test understanding in 1 and 2.
3, 4 and 5 are tested by practical or fieldwork reports.
6 and 7 are tested by in-course assignments.

C. Practical skills - *able to:*

1. Use keys to identify plants.
2. Conduct field surveys.
3. Use statistical and classification computer packages.
4. Manage plant collections.
5. Carry out laboratory work with microscopes, chemicals and a variety of metering instruments.
6. Dissect and describe a flower.

Teaching/learning methods and strategies

Fieldwork and laboratory work are components of most of the taught modules, and all these areas are addressed by hands-on experience. Most research projects will contain evidence of use of more than one of these skills.

Assessment
1 is assessed in identification tests
2 is assessed in fieldwork reports
3 & 5 are assessed in the research project
3, 4 and 5 are assessed in laboratory reports on practical work.
6 is assessed by an in-course plant description exercise.

D. Transferable skills - *able to:*

1. Use of the Internet.
2. Use of statistical packages.
3. Preparation of a research proposal.
4. Prosecution of research by applications of laboratory or field techniques.
5. Written and verbal communication skills.
6. Use of databases and library search methods.
7. Time management.

Teaching/learning methods and strategies

1,2,6 and 7 are incorporated within taught modules.
3 in the module containing research report preparation.
4 is taught in laboratory and field based practicals.
5 is taught in feedback given on essays, oral presentations and the research report.

Assessment
1,2 and 6 come within modular assessment of one particular module.
4 is assessed in laboratory and fieldwork reports.
5 and 7 are tested in essays, oral presentations and the research report.

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.