BSc (Hons) Horticulture **UCAS code: D250**
For students starting: Part 1 in October 2004

Awarding Institution: The University of Reading
Teaching Institution: The University of Reading
Relevant QAA subject benchmarking group(s): AFAFCS
Faculty of Life Sciences Programme length: 3 years
Date of specification: **26 May 2006**
Programme Director: Prof. P Hadley
Programme Adviser:
Board of Studies: BSc Degrees in Horticulture and Landscape Management
Accreditation: none

Summary of programme aims

The programme aims to equip students with a broad and integrated understanding of the many facets of modern horticulture and an understanding of the science on which the industry is based.

Programme content

The profile that follows states which modules must be taken (the compulsory modules), together with lists of modules from which the student must make a selection (the optional modules). Students must select from these modules as they wish, in consultation with their programme adviser, to make 120 credits in each Part. For an Honours degree, students must take *at least* 100 credits of modules at I level and 100 credits at H level. The number of credits for each module is shown after its title. Some optional modules may not necessarily be taught in each year.

Part 1 (three terms)

Compulsory modules: **(90 credits)**

Module	Title	Credits	Level
PS1HB1	Principles of horticulture	10	C
PS1HC1	Arboriculture and practical horticulture	10	C
BI1Z10	Ecology	10	C
PS1HC2	Amenity horticulture	10	C
PS1HD2	Plants of horticulture	10	C
PS1BA1	Plant world	10	C
PS1BA2	Plant physiology and development	10	C
PS1HU2	Computing for horticulture and landscape management	10	C
SS1C1	Soil use and management	10	C

Optional modules: **(30 credits)**

Module		Title	Credits	Level
PS1HB2	**Either**	Horticultural crop production 1 (Field crops) (Taught in 05/06)	10	C
PS1HF2	**or**	Horticultural crop production 2 (Fruit crops) (Taught in 04/05)	10	C

Module	AND	Title	Credits	Level

	Either			
BI1C10		Cell biology and biochemistry	10	C
BI1C11		Genetics and molecular biology	10	C
LAIP**	**Or**	Institution wide language programme	20	C

Part 2 (three terms)

Compulsory modules: **(90 credits)**

Module	**Title**	**Credits**	**Level**
PS2HH3	Practical horticulture and field course (end of term 3)	10	I
PS2HC4	Amenity turf management	10	I
PS2AC4	Career management and transferable skills	10	I
PS2HB4	Marketing and product development	10	I
PS2HA5	Quality management systems	10	I
PS2HC5	Ornamental crop production	10	I
PS2HE5	Practical horticulture/horticultural technology	10	I
AS2A1	Statistics for life sciences	10	I
PS2HD4	Crop disease and its control	10	I

Optional modules: **(30 credits)**

Module		**Title**	**Credits**	**Level**
PS2HG5	**Either**	Horticultural crop production 1 (Field crops) (taught in 05/06)	10	C
PS2HF5	**Or**	Horticultural crop production 2 (Fruit crops) (taught in 04/05)	10	C
	AND Either 20 credits from			
PS2AB4		Weed biology and control	10	I
PS2AB5		Crop pests and integrated crop protection	10	I
PS2NA4		Introduction to history and philosophy of science	10	I
	Or			
EUIAEI		Aspects of European integration	20	C

Part 3 (Total 120 credits)

Compulsory modules: **(50 credits)**

Module	**Title**	**Credits**	**Level**
PS3HH6	Introduction to Part 3 horticulture (end of term 6)	10	H
PS3HHB	Special study in horticulture	40	H

Optional modules: **(70 credits)**

The student will choose seventy credits from one of the two option blocks below, subject to appropriate pre-requisites, availability and timetable.

A.

Module	Title	Credits	Level
PS3AA7	Plant biotechnology for post-harvest quality	10	H
PS3AB7	Crops and climate	10	H
PS3AE7	Weed management	10	H
PS3AG8	Weed ecology	10	H
PS3HA8	Controlled environment technology	10	H
PS3HB7	Horticultural crop physiology and development	10	H
PS3HH8	Plant developmental genetics and physiology	10	H
PS3HS7	Pests and diseases of horticultural crops	10	H
PS3HV8	Practical pest management	10	H
AP3A76	Principles and practice in biological control	10	H
MM270	The practice of entrepreneurship	20	I **

B.

Module	Title	Credits	Level
PS3HB7	Horticultural crop physiology and technology	10	H
PS3HK8	History of landscape design	10	H
PS2HL4	Landscape design	10	I
PS2HL5	Planting design	10	I
PS3HL7	Garden design	10	H
PS3HM8	Horticultural therapy	10	H
PS3HM7	Community and landscape	10	H
PS3HN7	Landscape ecology and landscape restoration	10	H
PS3HS7	Pests and diseases of horticultural crops	10	H
MM270	The practice of entrepreneurship	20	I **

** In order to graduate, students must have at least 100 credits at "H" level. Therefore only a maximum of 20 credits at "I" level may be selected.

Progression requirements

Part 1
To gain a threshold performance at Part 1 a student shall normally be required to achieve an overall average of 40% over 120 credits taken in Part 1, and a mark of at least 30% in individual modules amounting to not less than 100 credits. In order to progress from Part 1 to Part 2, a student shall normally be required to achieve a threshold performance at Part 1.

Part 2
To gain a threshold performance at Part 2 a student shall normally be required to achieve an overall average of 40% over 120 credits taken in Part 2, and a mark of at least 30% in individual modules amounting to not less than 100 credits. In order to progress from Part 2 to Part 3, a student shall normally be required to achieve a threshold performance at Part 2.

Part 2 contributes on third of the overall assessment and Part 3 the remaining two thirds. In order to be eligible for Honours, students must gain an overall weighted average of 40% and must gain at least 40% in the project module.

Summary of teaching and assessment

Teaching is organised in modules that may involve lectures, practicals, tutorials, project work or any combination of these approaches. Assessment methods depend on teaching methods and expected learning outcomes for each module.

Admission requirements

Entrants to this programme are normally required to have obtained:

- Grade C or better in English in GCSE; GCSE in mathematics, biology and chemistry if not taken at a higher level; and achieved
- UCAS Tariff: 200 points, biology or chemistry required
- International Baccalaureate: 27 points
- Irish Leaving Certificate: Acceptable
- Two AS grades are accepted in place of one A-Level

Admissions Tutor: Dr R. W. Cameron

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 4,000 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 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, the Careers Advisory Service, the University's Special Needs Advisor, Study Advisors, Hall Wardens and the Students' Union.

Career prospects

There is considerable national and international demand for Horticulture graduates especially in the production and marketing sectors of horticulture, in consultancy, research and in publishing. A significant minority of graduates have established their own businesses as nurserymen or landscape contractors.

Opportunities for study away from Reading

Students are encouraged to take a relevant placement for one year between Parts 2 and 3. Past students have secured a wide range of placements in the UK and overseas.

Educational aims of the programme

The programme aims to equip students with a broad and integrated understanding of the many facets of modern horticulture and an understanding of the science on which the industry is based. In particular students will be asked to

- Recognise the factors influencing the development of commercial and amenity horticulture
- Describe and assess the characteristics and production systems for major horticultural crops
- Assess factors that are likely to influence the use of plants in gardens, amenity landscapes and for therapeutic purposes
- Evaluate scientific, technical and socio-economic advances and trends having potential impacts on the horticultural industry

Programme Outcomes

The programme provides opportunities for students to develop and demonstrate knowledge and understanding, skills, qualities and other attributes in the following areas:

Knowledge and Understanding

A. Knowledge and understanding of: The fundamental concepts and techniques of Horticulture in the UK including 1. A broad and integrated introduction to all the major sectors of horticulture including amenity horticulture 2. The scientific knowledge underpinning the development of current horticultural knowledge 3. The historical development of gardens and landscapes and the major influences shaping that development 4. Current advances in commercial, amenity and social aspects of horticulture	**Teaching/learning methods and strategies** The knowledge base is developed through formal lectures, seminars, practical classes and visits. There is considerable emphasis throughout the programme on application of acquired knowledge in practical exercises and projects as a means of reinforcing the knowledge base. *Assessment* Most knowledge is tested through a combination of coursework (including oral presentations) and unseen final examinations. The dissertation plays a significant part in final assessment.

Skills and other attributes

B. Intellectual skills – able to 1. Think logically 2. Define, analyse and solve problems 3. Organise tasks into a structured form 4. Understand the evolving state of knowledge and appreciate the balance between knowledge and judgement 5. Transfer appropriate knowledge and methods from one aspect of the subject to another 6. Plan, conduct and write a report on an independent project.	**Teaching/learning methods and strategies** Defining, analysing and solving problems and thinking logically are taught by example in lectures, practical exercises and seminars, by preparing experimental reports, preparing presentations and seminar material, by written and numerical work throughout most modules, and by the requirement to find and select appropriate information from sources such as the library and the web. In several practical exercises students are required not only to organise tasks but to analyse and report on their approach to those tasks and its effectiveness. Therefore, all aspects 1-6 are integral to the programme. *Assessment* 1-6 are assessed directly and indirectly throughout the programme but especially in Practical Horticulture modules. 4 is assessed in Principles of Horticulture, Horticultural Crop Production and Horticultural Crop Physiology; 5 and 6 are assessed in the Special Study.

C. Practical skills – able to

1. Understand plant structure and identify plant species
2. Carry out a range of practical horticultural operations
3. Demonstrate basic experimental skills in ecology, physiology, entomology, plant pathology, micro-propagation and genetics
4. Plan and conduct a research project within time and resource constraints

Teaching/learning methods and strategies

Practical skills in plant structure and function, plant identification and horticultural operations are taught in Part 1 and Part 2. Experimental skills are taught in lectures, practicals and in individual and group project work in Part 1 and Part 2. A supervised research project on a specific horticultural topic is carried out in Part 3.

Assessment

1 and 2 are assessed in practical classes and through practical notebooks. 3 in the assessment of modules specifically associated with these subject areas. . in the assessment of project work in Part 3.

D. Transferable skills – able to

1. Use IT for general (word-processing, spread sheet and data processing)
2. Use numerical skills
3. Use library and other information resources
4. Use verbal and graphic skills in presentations
5. Work as part of a team
6. Manage time effectively
7. Plan their career

Teaching/learning methods and strategies

The Career Management and Transferable Skills module (Part 2) including the Career Management Skills (CMS) sub-module deals specifically with all these facets. 1 is taught specifically in Part 1 (Computing); 2 is incorporated in Practical Horticulture (Part 1 Part 2), Physiology (Part 1) and Research Project (Part 3). 3 is taught in CMS. 4 and 5 are taught specifically in the Presentation Skills component of Management and Transferable Skills but are also addressed in the majority of modules taught by the Horticulture and Landscape Department. An understanding of the importance of time management is developed by working on projects of increasing complexity to strict deadlines. 7 is addressed in the CMS sub-module, through the Personal and Academic Record system.

Assessment

1 and 2 are assessed through coursework. 3 is assessed indirectly in seminar and report preparation and especially by the quality of the bibliography in the dissertation. 4 and 5 are assessed in several Part 2 modules. Attendance and punctuality are assessed in Part 1 Horticulture modules especially. Other aspects of time management are not assessed specifically but are needed for the successful outcome of most project work, in essay preparation and in examinations. 7 is not specifically assessed.

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.