

**FdSc Horticulture** **UCAS code: TBC**  
**(Fresh Produce and Ornamental Technology Management and Amenity Technology Management pathways)**  
**For students entering Part 1 in 2006**

Awarding Institution:	The University of Reading
Teaching Institution:	Berkshire College of Agriculture
Relevant QAA subject benchmarking group(s):	AFAFCS and LANTRA framework
Faculty of Life Sciences	Programme length: 2 years (ft) 3-4 years (pt)
Date of specification:	March 2006
Programme Director: Deborah Smirfitt (BCA)	
Programme Adviser: Prof. Paul Hadley	
Board of Studies: Horticulture and Landscape	
Accreditation:	

*The award meets many of the recommendations identified within the sector skills framework for Land Management and Production produced by LANTRA (Sector Skills Council for the Land-based Industries)*

### **Summary of programme aims**

- Provide students with a broad portfolio of skills, understanding and technical knowledge across a range of horticultural and related disciplines.
- Develop relevant professional and employability skills through the acquisition of knowledge within a framework supported by work-related learning.
- Support progression to further academic courses and support individual career aspirations.
- Encourage and widen participation rates.

### **Transferable skills**

Transferable skills will be identified as Professional Skills (two modules studied during the course totalling 30 credits) with teaching, learning and assessment of communication, application of number, information technology, working with others, improving own learning and performance and problem solving at Level 3 of the National Qualification Framework (NQF). This is in line with recommendations made by LANTRA, the sector skills council for Production and Amenity Horticulture. Professional skills competencies will naturally occur whilst students undertake year one modules in Project Management and Business Management and year two modules in Contract Management and the Specialist Project.

### **Programme content**

The profile which follows states which modules must be taken and is split into compulsory modules (80 credits in each part) together with a list of optional modules (40 credits in each part). Students will choose one route for the duration of their study, either FdSc Fresh Produce and Ornamental Technology Management or FdSc Amenity Technology Management.

#### **Part 1 (three terms)**

<i>Compulsory modules (80 credits)</i>		<i>Credits</i>
<i>Ref.</i>		
PS1Co1	Principles of Sustainable Horticulture	10
PS1Co2	Practical Horticulture Skills	10
PS1Co3	Soil Use and Substrate Management	10

PS1Co4	Applied Ecology and Plant Physiology	10
PS1Co5	Project Management (Work-based learning)	10
PS1Co6	Business Management (Work-based learning)	10
PS1Co7	Professional Skills 1 (Work-based learning)	20

*Option Modules*

*Fresh Produce Technology Management (40 credits)*

*Ref.*

PS1FP1	Global Fresh Produce and Ornamentals Industry	10
PS1FP2	Introduction to Food Microbiology and Food Technology	10
PS1FP3	Crop Production and Husbandry 1 (Fruit and Vegetables)	10
PS1FP4	Crop Production and Husbandry 2 (Protected Crops)	10

*Amenity Technology Management (40 credits)*

*Ref.*

PS1AT1	Amenity and Decorative Horticulture	10
PS1AT2	Plants in the Landscape	10
PS1AT3	Ecology and the Landscape	10
PS1AT4	Amenity Management & Design Considerations	10

Work placement will be undertaken throughout the duration of the course. Students will be supported by their personal tutor and workplace mentor from within the placement organisation. Personal tutors will undertake periodic workplace visits.

**Part 2 (three terms)**

*Compulsory modules (80 credits)*

*Ref.*

PS2Co8	Pesticide Management	10
PS2Co9	Crop Production and Husbandry 3 (Ornamentals and Nursery Stock)	10
PS2Co10	Quality Management Systems and Legislation	20
PS2Co11	Contract Management (Work-based learning)	10
PS2Co12	Specialist Project (Work-based learning)	20
PS2Co13	Professional Skills 2 (Work-based learning)	10

*Option Modules*

*Fresh Produce Technology Management (40 credits)*

*Ref.*

PS2FP5	Crop Protection	10
PS2FP6	Marketing and Product Development	10
PS2FP7	Crop Quality and Post-Harvest Technology	20

*Amenity Technology Management (40 credits)*

*Ref.*

PS2AT5	Planting Design	10
PS2AT6	Business Start-Up	10
PS2AT7	Conservation, Community and Social Considerations	20

Work placement will be undertaken throughout the duration of the course. Students will be supported by their Personal Tutor and Workplace Mentor from within the placement organisation. Personal Tutors will undertake periodic workplace visits.

**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.

In order to pass the Foundation degree overall, students must pass Part 1 and obtain an average of at least 40% in Part 2, with a mark of at least 30% in individual modules amounting to not less than 100 credits.

## **Progression to higher academic study**

Students who complete the Foundation Degree successfully with an average weighted module mark of 60% or above will be able to progress into the third year (Part 3) of the degree in Horticulture delivered at the University of Reading and be able to follow either the crop technology or the amenity options after completing a bridging course successfully. The bridging course is a six week, full-time course in which the students follow 6 'modules'. Three modules will be common to both options (experimental methods; introduction to Part 3 horticulture; computing for horticulture). Students wishing to follow the crop technology option will also attend modules in weed biology, crop pests and diseases, and marketing and crop development. Students wishing to follow the amenity option will attend courses in amenity grassland management, amenity horticulture and landscape management. Courses will also give students training in independent learning, examination technique, scientific writing and presentation skills. Formal teaching will be accompanied with additional guided reading and student seminar sessions. Each student will be assigned a personal tutor and regular tutorial sessions will be carried out throughout the bridging course.

Students gaining 50% or more overall in the bridging course will be guaranteed a place on Part 3 of the degree in Horticulture at the University of Reading.

On completion of the bridging course, students following the crop technology option with the Horticulture degree will attend AS2A1 (Statistics for Life Sciences) as a compulsory module. Students following the amenity option will follow PS2AC2 and PS2HM4 (Landscape management software) as compulsory modules. These will replace PS3HH6 (Introduction to Part 3 Horticulture) and thus students will undertake 60 credits of compulsory modules in Part 3.

One third of the final degree mark will be carried forward from the foundation degree and the bridging course (the foundation degree and the bridging course accounting for 67% and 33% of this mark, respectively).

## **Summary of teaching and assessment**

Teaching and learning opportunities are organised through modules which may involve a combination of teaching and learning methods including lectures, seminars, discussion, independent investigation, group work, and practicals. Assessment will take the form of essays, presentations, seminars, assignments, case studies, coursework/practical portfolio, scientific and experimental reports, plant identification, time constrained tests (TCA), employer witness testimony and annotated bibliography.

Work-based assessment will involve student, course tutor and workplace mentor. A range of assessment methods will be used. Fundamentally, work-based learning will require a sustained engagement with the experience of work drawing on knowledge, reflective practice, involvement

with real work problems and experiential learning. Learners will be supported through the development of a learning contract validated by course tutor, workplace mentor and learner at the commencement of a work placement identifying and agreeing to commit the necessary assessment time and opportunities in order for the student to achieve. An employer mentor handbook and workplace learning, development and assessment handbook have been written to support this element of the programme.

## **Admission requirements**

### *Full-time study*

Students will normally have gained 1 'A' level pass or 2 AS level passes giving a minimum of 40 UCAS tariff points (i.e. one 'A' level at grade E).

Applications from students with the following alternatives will be welcome: A merit grade at National Diploma or GNVQ Advanced, NVQ level 3 in a relevant discipline or the completion of an access qualification. Applicants will be expected to hold supporting passes at GCSE at grade C or above to include English and a science subject. In line with current admissions policies, Key Skills passes and other relevant qualifications will be considered.

Applications from mature students who may not hold standard qualifications will be at the discretion of the admissions staff.

### *Part-time study*

Admission onto the part-time programme will be by interview only. Students would be expected to meet some of the criteria above but the expectation is that students will be able to demonstrate sufficient work based skills and experiences to support their application.

### *Accreditation of Prior Learning (APL) and Accreditation of Prior Experiential Learning (APEL)*

It will be possible for learners to gain advanced standing with credit on the basis of their prior learning. This may involve identifying outcomes which match those of one or more modules within the course thereby allowing the learner to gain credits without participating in the module. Alternatively the identification of learning outcomes which fit within the aims and objectives of the programme but do not necessarily fit those of any particular module. Consideration for APL and APEL will be made on a case by case basis and in all cases the validity, reliability, authenticity and currency of the evidence presented will be examined.

### *Work placement/Employment*

Part-time students will be in appropriate employment and will be expected to carry out their placement in their place of work. Admission to this programme will also be conditional on a signed agreement with their employers stating that placement facilities and support will be available. Part-time students will be expected to undertake a minimum of 200 hours of appropriate employment during each academic year if studied over 4 years.

Placements for full-time students will be arranged with core employers. Full-time students will be expected to undertake a minimum of 400 hours of appropriate employment during each academic year of study.

Admissions Tutor: Deborah Smirfitt

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

All students will have access to a range of learning support materials and resources including books, periodicals and information technology situated at both institutions whilst undertaking the

course. Study support tutors will be accessible\*. Each student will have a personal tutor who will be responsible for monitoring progress against agreed objectives and who will also undertake work-based assessment and visits in order to offer appropriate levels of support and guidance. Identified workplace mentors will complete the support arrangements throughout work placement periods. The personal tutor will provide the appropriate academic support and pastoral care for learners. *\*Students will be encouraged to disclose any disability in order that appropriate support can be developed. Students who have disclosed will need to undertake appropriate screening to inform support processes.*

## **Career prospects**

A range of job opportunities exist within the fresh produce and amenity sectors of the horticulture industry locally, nationally or internationally. There is a current shortage of qualified and experienced persons with the necessary subject skills, knowledge and understanding, coupled with essential work based skills to ensure that good career prospects exist. Course development and design has involved employers to further ensure that the course aims support subsequent employment. Particular roles/opportunities could include landscape management in private or public practice, running your own landscape/garden business, garden design, technical managers for commercial growers, quality assurance and quality control managers within the fresh produce sector.

The course will equip people already employed within either the fresh produce or amenity landscape sectors with the breadth of knowledge, understanding and work placed skills essential to develop in management and leadership roles and to seek more demanding and challenging posts to further their careers.

Students who complete the foundation degree and are eligible to progress to an honours programme at the University of Reading will be required to undertake a bridging course delivered by the Centre for Horticulture and Landscape, School of Biological Sciences at the University of Reading. Successful completion of the identified bridging modules will enable students to progress to the final year of the honours degree programme in Horticulture.

## **Opportunities for study abroad or for placements**

Learners will undertake work placement throughout the duration of the programme. Some core employment placements will exist however learners will be encouraged to find their own placements with support from the personal tutor.

## **Educational aims of the programme**

To provide students with subject specific knowledge, understanding and practical skills coupled with the necessary professional and work-based skills in order to support entry to employment, professional development or progression to further academic study.

## Programme Outcomes

### *Knowledge and Understanding*

<p><b>A. Knowledge and understanding of:</b></p> <ol style="list-style-type: none"><li>1. The scientific principles that underpin horticulture applied to the fresh produce and amenity landscape sectors.</li><li>2. Core horticultural practices relevant to fresh produce and amenity landscape horticulture.</li><li>3. Key principles and techniques of business management and project management applied to specific horticultural activities and work places.</li><li>4. The application and integration of professional skills (including communication, application of number, information technology, working with others, improving own learning and performance and problem solving) within the context of supporting effective learning and employment.</li></ol>	<p><b>Teaching/learning methods and strategies</b></p> <p>The knowledge base is developed through formal lectures, seminars, practical classes, discussion, group activity and visits. There is considerable emphasis throughout the programme on the application of acquired knowledge in practical/experimental exercises as a means of reinforcing the knowledge base. Individual tutorials will take place throughout the course.</p> <p><i>Assessment</i></p> <p>Knowledge and understanding will be assessed through coursework assignments in the form of essays, reports, project work, presentations, seminars, TCAs, case studies and scientific/experimental reports. Students will undertake real projects in the workplace (Business Management, Project Management, Contract Management and Specialist Project). These will integrate with professional skills assessment.</p>
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### *Skills and other attributes*

<p><b>B. Intellectual skills – able to:</b></p> <ol style="list-style-type: none"><li>1. Think logically and creatively to solve problems within group and individual situations.</li><li>2. Organise tasks into a structured form and work effectively to individual targets.</li><li>3. Understand the evolving state of knowledge and appreciate the balance between knowledge and judgement.</li><li>4. Transfer appropriate knowledge and techniques from one situation to another.</li><li>5. Plan, conduct and write an analytical independent work-based report.</li></ol>	<p><b>Teaching/learning methods and strategies</b></p> <p>Undertaking experimental work will support the acquisition of logical thought processes and develop organisational skills (Applied Ecology and Plant Physiology and Soil and Substrate Management). Students will have to select appropriate information from various sources and judge the relevance of subject specific knowledge to produce organised, objective essays and reports. All work will be systematically referenced.</p> <p><i>Assessment</i></p> <p>All (1-5) are assessed either directly or indirectly throughout course modules but especially in Practical Horticulture Skills. The Specialist Project module will assess all. Other work-based modules will assess 2, 4 and 5. Modules where annotated bibliography is used as assessment will meet 3 (Plants in the Landscape, Crop Production and Husbandry)</p>
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**C. Practical skills – able to:**

1. Carry out a range of fundamental practical and experimental horticulture tasks relevant to the aims of the foundation degree.
2. Appreciate the wider implications of decision making for a range of horticultural and work place activities.
3. Identify plant species

**Teaching/learning methods and strategies**

Experimental skills will be taught in Part 1 in core modules including Soils and Substrate Management and Applied Ecology and Plant Physiology. Practical skills will be developed in part 1 module Practical Horticulture Skills. In practical exercises students are required not only to organise tasks but to analyse and report on their approach to those tasks and its effectiveness (Amenity and Decorative Horticulture and Practical Horticulture Skills.)

*Assessment*

Practical portfolios and experimental reports for modules in Practical Horticulture Skills and Applied Ecology and Plant Physiology will address assessment of 1. Modules in Amenity Management and Design Considerations and year two option modules in Crop Quality and Post-Harvest Technology and Conservation, Community and Social Considerations explore from a practitioner's viewpoint practical application of knowledge and understanding developed. All work-based module assessments will support item 2 also. Practical Horticulture Skills, Amenity and Decorative Horticulture and Plants in the Landscape will assess 3.

**D. Transferable skills – able to:**

1. Use Information Technology to produce reports that contain information presented with the use of word processing and spreadsheet packages.
2. Communicate effectively through written and spoken word.
3. Use quantitative skills in order to support the production of a report.
4. Work effectively as part of a team.
5. Identify methods and activities to improve performance.
6. Apply problem-solving skills to work-based situations.

**Teaching/learning methods and strategies**

All of the transferable skills identified opposite will be taught through Professional Skills modules. Teaching will be facilitated through a small number of taught sessions but group work and independent study will also be facilitated. Learning outcomes relating to these skills will also be embedded within a number of subject-specific modules and support the application of these skills.

*Assessment*

All 1-6 will be assessed through portfolios produced by students as a natural product of work-based 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 processes or external sources, such as professional bodies, requires a change to be made. In such circumstances, a revised specification will be issued.**