

Faculty of Land and Food Resources

Master of Urban Horticulture

(Incorporating the Graduate Diploma in Urban Horticulture as an exit point)

1 **Background**

Horticultural training has been provided at Burnley College since 1891. Postgraduate courses commenced in 1985. Programs have been both coursework based (Graduate Certificate /Diploma in Horticulture) and research based (Master of Horticulture). It is proposed to introduce a “new-generation” or “professional Masters” program entitled the Master of Urban Horticulture. This is a coursework program which will retain the Graduate Diploma program as an exit point.

The term 'horticulture' generally describes the cultivation of plants. The horticulture of food crops is mainly referred to as 'food production horticulture', while the horticulture associated with ornamental, recreational and functional settings has been described by a number of different terms. Early terms used included 'ornamental' or 'amenity horticulture'. More recent terms include 'landscape', 'urban' or 'environmental horticulture'. Environmental horticulture has been described as being “concerned with plants and the enrichment of the built or man-made environment” (Mullins 1978). The sectors that make up the industry include:

- arboricultural services and management
- garden and residential landscape design
- horticultural and garden maintenance services
- landscape construction
- landscape and public open space management
- nursery and greenhouse management
- urban revegetation and restoration
- turfgrass maintenance and management

The focus of the proposed Master of Urban Horticulture will be on the design and implementation of urban landscapes and their management. The new name links to national and international best practice. Urban horticulture is where our graduates will seek and gain employment. A survey of the desired career outcomes of the 2002 intake of students identified the management of urban public open space, landscape design, landscape construction and landscape maintenance as the main areas in which they would seek employment.

Related to employment is the fact that urban horticulture as an industry continues to be in a period of growth across the globe, largely due to demographic and economic changes. Some examples are as follows:

- Australia - Parks and Gardens employment grew at an annual growth of 5% per annum from 1996 to 2001, making it the 8th fastest growth sector in Australia (Business Review Weekly, October 2002).
- Australia – There has been dramatic growth in the Lifestyle Horticulture Industry in Queensland, now generating over \$1billion in gross value each year (Queensland DPI, 2003)
- USA - Urban Horticulture is one of the fastest growing industry sectors in the country. Census of Agriculture data from 1992 to 1997 showed that nursery and greenhouse enterprises grew by 43% across the country (Agricultural and Resource Economics Review, October 2003).
- UK – There are widespread skills gaps and shortages in trained professionals to manage and maintain parks and green spaces. This is coming largely

through insufficient graduates from HE horticulture courses across the UK (Horticulture Week, February, 2004)

Apart from attracting students with non-cognate backgrounds to the Masters program, one of the challenges is to attract existing horticultural graduates who are either three-year degree or honours-trained, to return to higher study. Over the period 1985 to 2005, over 600 students have graduated with a three – year undergraduate degree in horticulture and over 40 students have completed honours.

2 Course/Program Objectives

On completion of the Master of Urban Horticulture, students should be able to:

- (a) display skills, knowledge, understanding and competence in the area of urban horticulture;
- (b) analyse problems, advise, guide, develop and organise horticultural programs and operations;
- (c) develop a holistic approach to horticultural management through an understanding of the biological, socio-cultural and environmental factors within the system;
- (d) extend scholarly and critical attitudes in the discipline of urban horticulture.
- (e) develop an understanding of a range of problem solving methodologies suited to horticultural management;
- (f) apply such understanding to a contemporary issue or problem affecting urban horticulture.

3 Entry Requirements

To be separately recommended by Academic Board.

4 Statement of how the course allows students to achieve the University of Melbourne Graduate Attributes and how it meets the statement of Expectations of a Professional Masters

In addition to the learning specific technical skills and knowledge, the course will develop generic skills and attributes that will be central to the students' development as horticultural professionals. Attachment 5 shows the relationship between the core and key elective subjects for the course and the attributes of the postgraduate coursework graduate, as adapted from the Graduate Attributes approved by the Academic Board. These are:

- a profound respect for truth, intellectual and professional integrity, and the ethics of scholarship;
- capacity to engage with issues within urban horticulture relevant to contemporary society;
- appreciation of the social and cultural diversity from a regional to a global context;
- advanced understanding of the international context and sensitivities of the specialist area;
- capacity to initiate and manage change within the professional horticultural communities;
- interest in the mentoring and development of future professionals;
- advanced understanding of the changing knowledge base in urban horticulture
- capacity for independent critical thought, rational inquiry and self directed learning and research;
- ability to evaluate and synthesise the research and professional literature in the discipline;
- advanced skills and techniques applicable to the professional horticultural discipline;
- well-developed applied problem-solving abilities in the discipline area characterised by flexibility of approach;
- awareness of and ability to utilise appropriate communication technology and methods for the storage, management and analysis of data;

- capacity to articulate knowledge and understanding in oral and written presentations and to allow informed dialogue with individuals and groups from industry, government and community;
- ability to collaborate, contribute to teams, exchange ideas and debate within face-to-face and on-line learning environments;
- capacity to management competing demands on time, including self-directed project work.

5 Course/Program Structure

To successfully complete the program students will need to complete 200 points in core and elective units. Students may elect to take project work to the value of 25, 50 or 75 points along the lines of the project course available within the Master of Environment (Office of Environmental Programs).

Students coming from a non cognate degree will be required to undertake 207 4XX Horticultural Plant Science and 207 4XX Contemporary Plant Production and Establishment. Students with a cognate degree would substitute electives for these subjects. Students need to complete 75% of the designated first year subjects and one of the project methodology subjects before enrolling in either Urban Horticultural Project B or C. Otherwise there are no year to year progression requirements.

Students who have completed 100 points in the program (Year 1) and do not wish to proceed will be awarded a Graduate Diploma in Urban Horticulture. Completion of an Honours in a cognate area or Graduate Diploma in a cognate area gives advanced standing of 100 points into the Master of Urban Horticulture.

Table 3 Program structure – Master of Urban Horticulture

	1	2	3	4
Yr 1				
Sem 1	207 4XX Managing Urban Green Space 1*	207 4XX Environments of Urban Landscapes (new) 2	207 4XX Horticultural Plant Science Or Elective 1	207 4XX Contemporary Plant Production and Establishment Or Elective 2
Sem 2	207 714 Horticultural Flora 1	Elective choice ** 207 402 Management of Plant and Animal Invasions 1	Elective choice 207 4XX Garden History and Design or 207 4XX Urban Horticulture Project A 2	Elective choice 207 4XX Managing Trees in Urban Landscapes Or 207 4XX Urban Horticulture Project A 2
Yr 2				
Sem 1	207 506 Social Research Methods (block) Or 220 404 Methods for Forest & Ecosystem Research (block) Or	Elective choice 207 5XX Social and Therapeutic Horticulture	Elective choice Or 207 5XX Urban Horticulture Project C (semester long)	Elective choice Or 207 5XX Urban Horticulture Project C

	208 730 Project management (online)			
	3	3	4	4
Sem 2	Elective choice 485 855 Perception of the Environment Or 207 5XX Urban Horticulture Project B (year long)	Elective choice 705 676 Landscape Heritage (or similar) Or 207 5XX Urban Horticulture Project B	Elective choice Or 207 5XX Urban Horticulture Project B Or 207 5XX Urban Horticulture Project C	Elective choice Or 207 5XX Urban Horticulture Project B Or 207 5XX Urban Horticulture Project C
	3	3	4	4

* suggested year if student completing the program on a part-time basis over 4 years

** refer Attachment 3 for an indicative list of elective offerings

The program allows for project related work ranging from 25 points to a maximum of 75 points. The latter would typically comprise a combination of Project A (25 points) and one of Project B (50 points) or C (50 points).

The core consists of:

- 207 4XX Managing Urban Green Space
 - 207 4XX Environments of Urban Landscapes
 - 207 4XX Horticultural Plant Science (formerly Science of Horticulture)
 - 207 708 Contemporary Plant Production and Establishment (formerly Horticultural Fundamentals)
 - 207 714 Horticultural Flora
- And one of:
- 207 506 Social Research Methods
 - 220 404 Methods for Forest & Ecosystem Research (block)
 - 208 730 Project Management

A small number of elective units have been chosen or developed specifically for the program. These are:

- 207 402 Management of Plant and Animal Invasions
- 207 4XX Garden History and Design (new)
- 207 4XX Managing Trees in Urban Landscapes
- 207 5XX Social and Therapeutic Horticulture (new)
- 485 855 Perception of the Environment

Graduate Diploma in Urban Horticulture

Course objectives for exit award are as for the Masters program (par 11(a) – (d)). The structure of the program is as for Year 1 of the Masters program. The Graduate Diploma provides a balance of core and elective subjects consistent with the achieving the stated course objectives. Subject choices cater to students from both cognate and non-cognate backgrounds. Students are not permitted to enrol directly into the exit award.

6 Availability of Course

The program will be available from 2008 on a full-time and part-time basis, and will be offered to CSP students, fee-paying international students and fee-paying Australian students.