

## MODULE DESCRIPTOR

<b>MODULE TITLE</b>	Arboricultural Principles		
<b>MODULE CODE</b>	MR1043	<b>CREDIT VALUE</b>	20 Credits
<b>MODULE DELIVERY</b>	Year Long (Full Time) or Semester 1 (Online)		
<b>MODULE TUTORS</b>	Sam Moon, Andrew Hirons		
<b>DATE APPROVED</b>	19 May 2003, 30 June 2005, April 2008	<b>VERSION NUMBER</b>	3
<b>DEPARTMENT</b>	School of Built & Natural Environment	<b>PARTNER INSTITUTION</b>	Myerscough College

### RELATIONSHIP WITH OTHER MODULES

<b>Co-requisites</b>	None	<b>Pre-requisites</b>	None	<b>Excluded Combinations</b>	None
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### MODULE AIMS

This module aims to promote sustainable practice within the arboricultural industry by providing students with a comprehensive understanding of current techniques and equipment used in arboricultural operations and identify how best practice is applied. Commercial tree production and tree planting in an urban environment will be discussed. The module will identify the importance of teamwork, effective communication and site organisation in arboricultural operations.

### MODULE CONTENT

#### 1 Ornamental Tree Production

- 1.1 Budding and Grafting
- 1.2 Field production techniques
- 1.3 Containerised tree production techniques
- 1.4 Standards relating to nursery stock

#### 2 Tree Planting

- 2.1 Pit planting techniques
- 2.2 Planting site amelioration
- 2.3 Post planting aftercare
- 2.4 Species characteristics

#### 3 Arboricultural Equipment and Techniques

- 3.1 Design considerations for arboricultural clothing
- 3.2 Arboricultural equipment
- 3.3 Performance criteria of specialised equipment
- 3.4 Maintenance of arboricultural equipment
- 3.5 Tree Climbing Techniques
- 3.6 Tree Felling and Dismantling Techniques

#### **4 Arboricultural Operations**

- 4.1 Method Statements
- 4.2 Pruning
- 4.3 Bracing and supporting
- 4.4 Rhizosphere amelioration
- 4.5 Sustainable practice in arboricultural operations

#### **5 Working in Arboriculture**

- 5.1 Teamwork in Arboriculture
- 5.2 Role specific responsibilities
- 5.3 Legal aspects to arboricultural operations
- 5.4 Organisations relating to arboriculture

### **LEARNING OUTCOMES**

**On successful completion of this module a student will be able to:**

<b>1</b>	Outline tree nursery production methods
<b>2</b>	Identify appropriate equipment and techniques used for a range of arboricultural operations
<b>3</b>	Explain the reasons for tree pruning and examine the implications of different pruning techniques
<b>4</b>	Explain how current research has informed industry best practice
<b>5</b>	Describe the range and levels of responsibility within an arboricultural team

### **TEACHING AND LEARNING STRATEGY**

#### **Full Time**

A series of lectures, seminars and practical workshops will provide essential module information. This will be supported by group learning activities and individual project work. Core academic skills will be developed through the use of subject specific literature, case studies and assignments. A virtual learning environment will also provide a range of additional lecture notes, relevant literature, self assessment activities, and links to online resources. The diversity of teaching approaches combined with individual study will ensure all module aims are achieved.

#### **Online**

A virtual learning environment provides a platform to distribute a series of documents providing principle subject knowledge. Further reading from a range of sources supplements core information and contributes towards the achievement of all module aims. Self assessment activities facilitate formative assessment throughout the class and can offer instant feedback on learning. Student interaction and debate is encouraged through a subject specific discussion board and individual support is available via email and telephone.

### **INDICATIVE CLASS CONTACT**

Lecture 2 hrs per week for a full year or 4 hrs per week for 1 semester.

For on-line distance learning, module tutor time equivalent to 3 hours per week for one semester is allocated to support students. On-line students also have 24 hour access to a wide range of on-line learning materials and learning activities.

## INDICATIVE ASSESSMENT

Number of Assignments	Assessment	Weighting %	Type/Duration/ Wordcount (indicative only)	Learning Outcomes being assessed
1	Tree Planting Report	20%	Written report 1000 words	1 & 2
1	Method statement	30%	Written report 1500 words	2, 3, 4,
1	Exam	50%	2 hour written exam	1 - 5

## MODULE PASS REQUIREMENTS

For successful completion of the module, the examination and each element of coursework must be passed at 40%.

## BIBLIOGRAPHY AND LEARNING SUPPORT MATERIAL

- Arboricultural Association. (2005) *A Guide to Good Climbing Practice*. Arboricultural Association. Romsey, Hampshire
- Blair, D. (1999) *Arborist Equipment: A Guide to the Tools and Equipment of Tree Maintenance and Removal, 2nd Edition*. Savoy, US: International Society of Arboriculture
- Bradshaw, A. Hunt, B. and Walmsley, T. (1995) *Trees in the Urban Landscape, Principles and Practice*. E & FN Spon.
- British Standards. (1989) *Tree Work 3998*. British Standards Institute
- Brown, G.E. (2004) *The Pruning of Trees, Shrubs and Conifers; Second Edition with revisions and additions by Tony Kirkham*. Portland: Timber Press
- European Arboricultural Council. (2005) *European Tree Worker*. Patzer Verlag. Berlin-Hannover
- Gilman, E. (2001) *An Illustrated Guide to Pruning*. Delmar Thomson Learning. Also available as an ebook on [www.ebrary.com](http://www.ebrary.com)
- Harris, R.W. Clark, J.R. and Matheny, N.P. (2003) *Arboriculture 4<sup>th</sup> Edition, Integrated Management of Trees, Shrubs and Vines*. Prentice Hall.
- James, N.D.G. (1990) *The Arboriculturist's Companion*. Oxford: Blackwell Publishers Inc
- Jepson, J. (2000) *The Tree Climber's Companion*. Longville, MN: Beaver Tree Publishing
- Lilly, S. (1994) *Tree Climber's Guide*. International Society of Arboriculture, Printec Press
- Lonsdale, D. (1999) *Principles of Tree Hazard Assessment and Management*. Forestry Commission, London: The Stationary Office
- Neely, D. and Watson, G.W. (eds) (1998) *The Landscape Below Ground II, Proceedings of an International Workshop on Tree Root Development in Urban Soils*. International Society of Arboriculture.
- Pirone, P. (2000) *Tree Maintenance*. Oxford: Oxford University Press
- Shigo, A.L. (1989) *Tree Pruning - A Worldwide Photo Guide*. Durham, US: Shigo and Trees Associates
- Shigo, A.L. (1991) *Modern Arboriculture*. Durham, US: Shigo and Trees Associates
- Watson, G.W. and Himelick, E.B. (1997) *Principles and Practice of Planting Trees and Shrubs*. International Society of Arboriculture.
- Watson, G.W. and Neely, D. (eds) (1994) *The Landscape Below Ground, Proceedings of an International Workshop on Tree Root Development in Urban Soils*. International Society of Arboriculture.

## **JOURNALS**

The Journal of Arboriculture and Urban Forestry  
The Arboricultural Journal (The International Journal of Urban Forestry)

## **Electronic Sources**

Arboriculture and Forestry Advisory Group *Industry Safety Guides* HSE Books  
Health and Safety Executive *Information Sheets* HSE Books

Available from:

<http://www.hse.gov.uk/pubns/leaflets.htm>