

## MODULE DESCRIPTOR

<b>MODULE TITLE</b>	Dendrology		
<b>MODULE CODE</b>	MR1046	<b>CREDIT VALUE</b>	20 Credits
<b>MODULE DELIVERY</b>	Semester 1 or Year Long		
<b>MODULE TUTOR</b>	Duncan Slater		
<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 provide the necessary botany skills to be able to identify a mixture of trees, shrubs, herbaceous plants and fungi of significance in U.K. arboriculture. The module will explore the history of plant taxonomy and current developments in this area, including the study of plant introductions, botanical gardens and arboreta. The qualities and character of particular tree species, including their ecology, form, function and cultural associations will be studied in detail.

### MODULE CONTENT

- 1 Identification of Trees, Plants & Fungi**
  - 1.1 Plant nomenclature and the binomial system
  - 1.2 Use & construction of identification keys
  - 1.3 Themed weekly learning of common & important species
  - 1.4 Common associations and plant communities
- 2 Systematic Botany**
  - 2.1 Leaf morphology
  - 2.2 Phyllotaxy
  - 2.3 Floral characters
  - 2.4 Tree form & growth patterns
- 3 Applied Botany**
  - 3.1 Tree and plant selection
  - 3.2 Use of identification for legal and conservation purposes
  - 3.3 Assessing amenity value of specimen trees
  - 3.4 Assessment of habitats for biodiversity in flora
- 4 Taxonomy**
  - 4.1 History and development of taxonomy
  - 4.2 Current taxonomic hierarchies – APG II
  - 4.3 Botanical gardens and arboreta
  - 4.4 Products of taxonomy – floras, monographs
- 5 Species Profiling**
  - 5.1 Distribution & history of introduction
  - 5.2 Traditional usage & cultural associations
  - 5.3 Amenity values of particular tree species
  - 5.4 Structural qualities of particular tree species
  - 5.5 Introduction to pathology of particular species

## LEARNING OUTCOMES

**On successful completion of this module a student will:**

1	Be able to identify the plant family, genus, species and cultivars of at least 150 specimens of trees, woody & herbaceous plants & fungi that are of importance in U.K. arboriculture
2	Be able to describe common features that aid woody plant identification and construct identification keys
3	Be able to outline the history of plant collection in the U.K. and the importance of botanical collections to arboriculture and forestry
4	Be able to give a definition of taxa and relate this to a taxonomic hierarchy
5	Be able to select appropriate woody plants and trees for planting in specified locations, with consideration of their form and function
6	Be able to provide a profile of a particular woody species of plant, providing original work on their botanical characters and cultural associations

## TEACHING AND LEARNING STRATEGY

The module will be delivered by a combination of laboratory practicals, site visits, class exercises and student presentations. One hour a week will be devoted to plant identification assessments and relevant supporting laboratory practicals and/or site visits will be provided. Any laboratory practicals will largely comprise of systematic botany work.

For on-line delivery this module has been formatted as a sequenced series of lecture materials including packaged session notes and articles for further reading. Extensive use is made of photographic material. A number of tree identification tests are provided for completion on a weekly basis. Students are encouraged to undertake field work tree identification and to participate in on-line discussion forums and tutorials.

## INDICATIVE CLASS CONTACT

Lecture 2.5 hours per week for 2 semesters or 5 hours 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

*The assessment strategy for this module is designed to test all the learning outcomes. Students must demonstrate successful achievement of these learning outcomes to pass the module.*

Number of Assignments	Assessment	Weighting %	Type/Duration/ Wordcount (indicative only)	Learning Outcomes being assessed
1	Assignment:  Dendrology portfolio	25%	Students will be required to collect leaf samples from around 40 different species. These are presented as part of a portfolio of work associated with the botany classes undertaken.	2, 3, 4 & 6
1 per week	Identification tests	25%	This will be a weekly test of 20 trees, shrubs, climbers and weeds. Some fungi and other pests/disease identification will also be included.	1 & 2
1	End-of-module examination	50%	Two hours	2, 3, 4, 5 & 6

## MODULE PASS REQUIREMENTS

For successful completion of the module, each individual element of assessment must be passed at 40%.

## BIBLIOGRAPHY AND LEARNING SUPPORT MATERIAL

- Bean, W.J. (1980) *Trees and Shrubs Hardy in the British Isles*. London: Murray
- Courtecuisse, R. & Duhem, B. (1995) *Collins Field Guide to Mushrooms and Toadstools of Britain and Europe*. London: HarperCollins
- Davis, P.H. & Cullen, J. (1989) *The Identification of Flowering Plant Families*. Cambridge: CUP
- Forestry Commission. (1975) *Know Your Broadleaves*. Booklet No 20 TSO
- Gruffydd, B. (1994) *Tree Form, Size and Colour*. London: E. & F.N Spon.
- Heywood, V.H. (1978) *Flowering Plants of the World*. Oxford: Oxford University Press
- Heywood, V.H. (1976) *Plant Taxonomy*. Arnold
- Hillier Nurseries. (1991) *Manual of Trees and Shrubs*. Newton Abbot: David & Charles
- Ingold, C.T. (1984) *The Biology of Fungi*. London: Hutchinson
- Jeffrey, C. (1982) *An Introduction to Plant Taxonomy*. Cambridge: CUP
- Johnson, A.T. & Smith, H.A. (1972) *Plant Names Simplified: Their Pronunciation, Derivation and Meaning*. Landsman Bookshop
- Johnson, O. (2004) *Collins Tree Guide*. HarperCollins
- Jordan, M. (2004) *The Encyclopedia of Fungi*. Frances Lincoln
- Keble-Martin, W. (1969) *Concise British Flora in Colour*. Ebury Press
- Krussman, G. (1984-6) *Manual of Cultivated Broadleaved Trees and Shrubs*. Volumes I-III London: Batsford
- Krussman, G. (1983) *Manual of Cultivated Conifers*. Timber Press
- Miles, A. (1999) *Silva : The Tree in Britain*. Felix Dennis: Ebury Press
- Mitchell, A.F. Hallett, V.E. & Victoria, E. (1990) *Champion Trees in the British Isles*. TSO
- \* Mitchell, A.F. (1978) *A Field Guide to the Trees of Britain and Northern Europe*. Collins
- Mitchell, A.F. (1978) *Conifers in the British Isles: A descriptive handbook No 33*. TSO
- Pakenham, T. (2001) *Meetings with Remarkable Trees*. Weidenfeld Nicolson
- Phillips, R. (1978) *Trees in Britain, Europe and North America*. Pan
- Royal Horticultural Society (1969) *Dictionary of Gardening*. Volumes I, II, III, IV OUP
- Stace, C.A.. (1997) *New Flora of the British Isles*. 2<sup>nd</sup> Edition CUP
- Stearn, W.T. (1992) *Botanical Latin*. Newton Abbot: David & Charles
- Stokes, J. Rodge, D. (2004) *The Heritage trees of Britain & Northern Ireland*. Constable
- Tudge, C. (2006) *The Secret Life of Trees*. Penguin

### \* Recommended reading

## JOURNALS

*The New Plantsman* RHS  
*Watsonia* Botanical Society of British Isles  
*Trees, Structure and Function* Springer Verlag, Heidelberg, Germany