

MODULE DESCRIPTOR

MODULE TITLE	Ecology Conservation & Sportsturf Management		
MODULE CODE	MR1215	CREDIT VALUE	20 Credits
MODULE DELIVERY	Semester		
MODULE TUTOR	Jeff Simpkin		
DATE APPROVED	April 2008	VERSION NUMBER	1
DEPARTMENT	School of Built & Natural Environment	PARTNER INSTITUTION	Myerscough College

RELATIONSHIP WITH OTHER MODULES

Co-requisites	None	Pre-requisites	None	Excluded Combinations	None
----------------------	------	-----------------------	------	------------------------------	------

MODULE AIMS

Golf courses and other sportsturf facilities cover extensive areas of land, frequently including woodland, semi-natural grasslands and water courses. This module aims to explore effective management of this land to provide for first class sport and the development of "natural" areas which enhance local ecology.

The module will investigate the basic principles of ecology and apply them to areas of conservation value on a sportsturf facility. Actual or potential environmental issues on a sportsturf facility will be identified and appropriate management solutions will be discussed. Organisations involved in conservation in the UK, the designation of conservation sites and relevant legislation issues will be explored.

MODULE CONTENT

1. Ecological principles

- 1.1 Succession
- 1.2 Fundamentals of landscape ecology
- 1.3 Plant strategies

2. Habitat management

- 2.1 Sand dunes
- 2.2 Grasslands
- 2.3 Heathland
- 2.4 Woodland
- 2.5 Wetlands
- 2.6 Soil ecology

3. Legislation

- 3.1 Designated sites
- 3.2 Protected species and the law
- 3.3 Conservation organisations

LEARNING OUTCOMES

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

1	Outline the principles of ecology relating to sports-turf facilities the United Kingdom.
2	Identify and manage a range of habitats relating to a particular site in order to establish specific conservation objectives.
3	Describe the roles of the range of organisations involved in conservation in the UK and the designation of conservation sites.
4	Recognise the role of legislation in relation to conservation issues on sportsturf areas and assess the need to adhere to such legislation for successful sportsturf management.

TEACHING AND LEARNING STRATEGY

The module will be delivered by means of lectures, visits and directed study. The visits will be used to enhance understanding of the material covered in the lectures. Students will be expected to augment their knowledge of the subject through directed study.

For on-line delivery this module has been formatted as a sequenced series of lecture materials including PowerPoint presentations, packaged files and articles for further reading. A number of self-tests are provided to assist students to monitor their progress and depth of understanding. Students are encouraged to participate in on-line discussion forums and tutorials.

Distance learners will be required to become familiar with named sportsturf facilities and to investigate and explore the ecology and conservation principles related to the site. This will be facilitated through liaison with the Module Tutor and the 'work place' Mentor.

INDICATIVE CLASS CONTACT

Lectures and visits are for 3 hours per week.

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	Assignment	50%	An environmental management review (approx 3000 words)	1 and 2
1	Examination	50%	Two hours	1 - 4

MODULE PASS REQUIREMENTS

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

BIBLIOGRAPHY AND LEARNING SUPPORT MATERIAL

- Agate, E. (2002) *Woodlands – A Practical Handbook*. Wallingford, UK: BTCV
- Brennan, A.M. (1996) *Living Together – Golf and Nature in Partnership*. English Golf Union
- Brooks, A. & Adcock, S. (1999) *Dry Stone Walling – A Practical Handbook*. Wallingford, UK: BTCV
- Brooks, A. & Agate, E. (1998) *Hedging – A Practical Guide*. Wallingford, UK: BTCV
- Brooks, A. & Agate, E. (2001) *Sand Dunes: A Practical Conservation Handbook*. Wallingford, UK: BTCV
- Brooks, A. & Agate, E. (2001) *Waterways and Wetlands: A Practical Handbook*. Wallingford, UK: BTCV
- Brown, R. & Robinson, R. (1998) *Bracken Management Handbook*. Rhone-Poulenc
- Cornelius, B. & Gardner, E. (2007) *Golf Course Management for the Benefit of Butterflies and Moths*. Butterfly Conservation
- Crofts, A. & Jefferson, R.G. (1999) *The Lowland Grassland Management Handbook*. The Wildlife Trust
- Dodson, R.G. (2000) *Managing Wildlife Habitat on Golf Courses*. Europe: Wiley & Sons Inc
- English Golf Union. (1996) *Living Together: Golf and Nature in Partnership*. UK: Burlington Press (Cambridge) Ltd
- English Nature. (1999) *Managing Ponds for Wildlife*. Peterborough, UK: English Nature
- Environment Agency. (2000) *Environment 2000 and Beyond*. London, UK: The Stationery Office
- European Golf Association Ecology Unit. (1995) *An Environmental Strategy for Golf in Europe*. Pisces Publications
- European Golf Association Ecology Unit. (1996) *An Environmental Management Programme for Golf Courses*. Pisces Publications
- European Golf Association Ecology Unit. (1997) *The Committed to Green Handbook for Golf Courses*. Pisces Publications
- Gaston, K.J. & Spicer, J.I. (1998) *Biodiversity: An Introduction*. UK: Blackwell Science
- Gilbert, O. & Anderson, P. (1998) *Habitat Creation and Repair*. UK: Oxford University Press
- Gillihan, S.W. (1999) *Bird Conservation on Golf Courses: A Design & Management Manual*. Chelsea, USA: Ann Arbor Press
- Institute of Environmental Assessment (1995) *Guidelines for Baseline Ecological Assessment*. London, UK: E & F N Spon
- Kiser, B. (1996) *Trees and Aftercare – A Practical Handbook*. Wallington, UK: BTCV
- Libby, G. Harker, D.F. Harker, K. & Mackay, J. (2004) *Managing Wetlands on Golf Courses*. John Wiley & Sons
- Lilly, S. (1999) *Golf Course Tree Management*. Wiley & Sons Inc
- Morris, P. & Therivel, R. (2001) *Methods of Environmental Impact Assessment*. 2nd Edition London, UK: Spon Press
- Nature Conservation Council (1989) *On Course Conservation: Managing Golf's Natural Heritage*. UK: Nature Conservation Council

Petts, J. (1999) *Handbook of Environmental Impact Assessment Volume 1: Environmental Impact Assessment: Process, Methods and Potential*. Oxford, UK: Blackwell Science (particularly Chapter 15)

Petts, J. (1999) *Handbook of Environmental Impact Assessment Volume 2: Environmental Impact Assessment in Practice: Impact & Limitations*. Oxford, UK: Blackwell Science (particularly Chapter 16)

RSPB. (1995) *Wildlife Impact: The Treatment of Nature Conservation in Environmental Assessment*. Sandy, UK: The RSPB

Sachs, P.D. & Luff, R.T. (2002) *Ecological Golf Course Management*. Wiley & Sons Inc

Scottish Golf Course Wildlife Group. (1997) *Golf's Natural Heritage*. UK: Scottish Golf Course Wildlife Group

Taylor, R.S. (1995) *A Practical Guide to Ecological Management of the Golf Course*. Bingley, UK: The Sports Turf Research Institute

Taylor, R.S. (1996) *Studies in Golf Course Management: No 1 Heathland/ Moorland Management*. Bingley, UK: The Sports Turf Research Institute

Taylor, R.S. & Hart-Woods, J. (1996) *Studies in Golf Course Management: No 2 Nest Boxes for Birds & Mammals*. Bingley, UK: The Sports Turf Research Institute

Treweek, J. (1999) *Ecological Assessment*. Oxford, UK: Blackwell Science

OTHER PUBLICATIONS - JOURNALS

Treweek, J. (1996) *Ecology & Environmental Impact Assessment*, Journal of Applied Ecology Volume 33. Pages 191-199

Journal of the Turfgrass and Sports Surface Science
Golf Course Management (Golf Course Superintendents Association of America)
Grounds Maintenance
Greenkeeper International
Green Section Record (United States Golf Association)

ELECTRONIC INFORMATION SOURCES

Milko, R. (1998) *Wetlands Environmental Assessment Guideline*. Minister of Public Works & Government Services, Canada
Available on the internet at: http://www.cws-scf.ec.gc.ca/eass/intro_e.html

Milko, R. (1998) *Migratory Birds Environmental Assessment Guideline*. Minister of Public Works & Government Services, Canada
Available on the internet at: http://www.cws-scf.ec.gc.ca/eass/intro_e.html

Milko, R. (1998) *Environmental Assessment Guideline for Forest Habitat of Migratory Birds*. Minister of Public Works & Government Services, Canada
Available on the internet at: http://www.cws-scf.ec.gc.ca/eass/intro_e.html

Turfgrass Information Center: <http://turf.lib.msu.edu/>