

## MODULE DESCRIPTOR

<b>MODULE TITLE</b>	Cultural Practices in Sportsturf		
<b>MODULE CODE</b>	MR1102	<b>CREDIT VALUE</b>	20 Credits
<b>MODULE DELIVERY</b>	Semester 1 or Year Long		
<b>MODULE TUTORS</b>	Brian King, Lance Butters		
<b>DATE APPROVED</b>	19 May 2003, 21 November 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 develop underpinning knowledge and skills necessary to develop effective playing surfaces. The module will discuss and appraise a range of sportsturf machinery appropriate to cultivation practices in sportsturf. The principles of design, construction and operation of modern sportsturf equipment will be explored. The module will address the safe and correct use of sportsturf machinery and develop transferable skills in IT, communication and problem solving.

Success in this module will underpin the student's ability to progress to the Level 2 module 'Sportsturf Machinery Management'.

### MODULE CONTENT

- 1 Grass cutting equipment**
  - 1.1 Flail
  - 1.2 Rotary
  - 1.3 Cylinders
  - 1.4 Pedestrian
  - 1.5 Ride on and self propelled
  - 1.6 Tractor powered and trailed
- 2 Thatch control**
  - 2.1 Grooming and verti – cutting
  - 2.2 Scarification
  - 2.3 Top dressing
- 3 Aeration**
  - 3.1 Slitting – spiking – coring
  - 3.2 Compaction and verti drain techniques
- 4 Top Dressing**
  - 4.1 Pedestrian
  - 4.2 Power driven
- 5 Soil Management Techniques**
  - 5.1 Seed bed preparation
  - 5.2 Cultivation techniques

- 6 Utility Vehicles**  
 Range of machines  
 Range of attachments  
 People carriers  
 Risk assessment.

**LEARNING OUTCOMES**

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

1	Select appropriate sportsturf machinery for a specific use.
2	Prepare and use in an effective and safe manner a range of modern sportsturf machinery.
3	Prepare and correctly diagnose a range of problems related to sportsturf growth and development that can be prevented or alleviated by mechanised cultivation practices.
4	Select an appropriate method for remedying identified sportsturf grassed area problems.
5	Identify common sportsturf machinery faults and problems, select and take appropriate corrective action.
6	Plan and calculate machinery requirements with a schedule of routine sportsturf maintenance.
7	Select the appropriate strategy for the movement of personnel
8	Communicate in the form of a written report.

**TEACHING AND LEARNING STRATEGY**

The module will be delivered by means of a series of lecturers, seminars and tutorials, augmented with demonstrations, practicals, case studies and directed study. These will be reinforced by access to resource based learning facilities.

The lecturers and seminars will be used to establish principles and the practicals will be used both to augment the principles and to provide the student with first hand experience.

Group activities will integrate theory and practice and provide opportunities for student centred learning.

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 Learning students are required to be actively engaged in the sportsturf industry. This engagement will facilitate access to and use of a range of sportsturf maintenance equipment/machinery. Through liaison with the Module Tutor and 'workplace' Mentor a planned series of practical machinery activities will be undertaken. Where necessary the Module Tutor will engage in dialogue with the learner to facilitate access to a wider range of machinery to extend learning opportunities. Furthermore, specific links to sportsturf machinery manufacturing web based material embedded within the on-line module will allow the distance learner ready access to current machinery based resources (service schedules, manuals etc).

**INDICATIVE CLASS CONTACT**

Lectures 2 hours per week for 2 semesters or 4 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

Number of Assignments	Assessment	Weighting %	Type/Duration/ Wordcount (indicative only)	Learning Outcomes being assessed
1	Site based Practical Workbook	40%	4 assessments x 30 minutes duration	3, 4, 5, 7 & 8
1	Machinery Evaluation Assignment	60%	2500 words	1, 2, 6 & 7

### MODULE PASS REQUIREMENTS

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

### BIBLIOGRAPHY AND LEARNING SUPPORT MATERIAL

- Adams, W. & Gibbs, A. (1994) *National Turf for Sport and Amenity Science and Practice*. CAB International
- Balls, R. (1985) *Horticultural Engineering Technology: Field Machinery*. Macmillan
- Balls, R. (1995) *Fifty Years of Garden Machinery*. Farming Press
- Bell, B. & Cousins, S. (1997) *Machinery for Horticulture*. Farming Press
- Bell, M.B.E. (1995) *Fifty Years of Garden Machinery*. Old Pond Publishing
- Culpin, C. (1992) *Farm Machinery*. (12<sup>th</sup> Edition)
- Culpin, D.J. & Bloxham, P. (eds) (2004 Edition expected) *Culpins Farm Machinery*. UK: Blackwell Science
- Deere, J. *Fundamentals of Service Series*. (FOS)
- Deere, J. *Fundamentals of Service Operation Series*. (FMO)
- Dempsey, P. (1994) *Briggs and Stratton Engines*. TAB Books
- Hawker, & Keenlyside. (1995) *Horticultural Machinery* 3<sup>rd</sup> Edition. Longman
- Shanks, S. (2000) *Lawnmower Manual: DIY Maintenance, Repair and Renovation of Rotary and Cylinder* 3<sup>rd</sup> Edition. Sparkford: Haynes
- Stewart, V.I. (1984) *Sports Turf Science, Construction and Maintenance*. E & F Spon
- Whitney. (1988) *Choosing and Using Farm Machines*. Longman

### ELECTRONIC INFORMATION SOURCES

- <http://www.kubta-plus.co.uk>
- <http://www.grow.co.uk/horticulture/machinery.htm>
- <http://www.howstuffworks.com>
- <http://www.plantuk.com/toro>
- <http://www.toro.com>
- <http://www.ransomesjacobsen.com>

### OTHER PUBLICATIONS

- Manufacturer's Operating Manuals
- Horticulture Week
- Grower