

## ***Module Descriptor*** **Woodturning**

**Award Type: Minor**  
**Award Level: 3**  
**Award Code: 3N0590**  
**FÁS Assessment Code: 3N0590-020**  
**Validation date 14<sup>th</sup> July 2011**

**Revision 2.0**

## Module Descriptor

**Purpose:** The purpose of this award is to equip the learner with the knowledge, skills and competence to understand the terminology, drawings and diagrams used in woodturning and to use a range of woodturning tools and equipment correctly and safely under supervision in the workshop.

**Module Duration:** The learning effort required from a typical learner to successfully achieve the stated learning outcomes for the module is fifty hours.

**Learning Outcomes:** By the end of this module, the learner will be able to:

1. Select the woodturning tools required to complete a variety of woodturning projects
2. Describe the various types of materials used in woodturning to complete a woodturning project
3. Describe the effects of different chisels on a work piece
4. Carry out correct maintenance to woodturning tools
5. Apply appropriate health and safety work practices when using and maintaining woodturning equipment
6. Follow instructions and drawings to set up and use a woodturning machine
7. Measure and mark out work pieces using correct tools
8. Use a range of tools to rough down, drill, taper, bead and insert grooves in timber
9. Use appropriate techniques of sanding for finishing a project
10. Select appropriate wood finishes to complete a project using the techniques of sealing, waxing and polishing
11. Demonstrate the application of communications, safety awareness and quality awareness in a woodturning workshop environment

## Key Learning Points

**Learning Outcome 1:** Select the woodturning tools required to complete a variety of woodturning projects

### Key Learning Points

- Tools required to complete a range of woodturning tasks
- Reading names, parts and uses of each tool
- Writing names, parts and uses of each tool
- Reading and following manufacturer's instructions

**Learning Outcome 2:** Describe the various types of materials used in woodturning to complete a woodturning project

### Key Learning Points

- Materials used in woodturning
- Materials required to complete a woodturning project
- Identifying different types of materials used in woodturning
- Writing names of woods used in woodturning
- Writing a list of materials required to complete a project

**Learning Outcome 3:** Describe the effects of different chisels on a work piece

### Key Learning Points

- Various chisels
- Results of using different chisels
- Identifying the correct chisel for a task
- Effect of not using the correct chisel on a work piece
- Effect of using a blunt chisel
- Various designs achieved using each chisel

**Learning Outcome 4:** Carry out correct maintenance to woodturning tools

### Key Learning Points

- Maintenance of tools and equipment
- Correct sharpening of woodturning tools
- Safe handling of tools and equipment
- Reading and following manufacturers' instructions
- Following written and verbal instructions

<b>Learning Outcome 5:</b> Apply appropriate health and safety work practices when using and maintaining woodturning equipment
<b>Key Learning Points</b>
<ul style="list-style-type: none"> <li>• Health and safety issues concerning safe workshop practices</li> <li>• Use of personal protective equipment</li> <li>• Writing a list of health and safety precautions/procedures in the workshop</li> <li>• Identifying hazards</li> <li>• Safe use of tools and materials</li> <li>• Following verbal and written instructions</li> </ul>
<b>Learning Outcome 6:</b> Follow instructions and drawings to set up and use a woodturning machine
<b>Key Learning Points</b>
<ul style="list-style-type: none"> <li>• Understanding drawings</li> <li>• Following drawings</li> <li>• Following oral and written instructions</li> <li>• Setting up woodturning machines</li> <li>• Identifying different parts of a woodturning machine</li> <li>• Proper tightening of stock in the chuck</li> <li>• Using woodturning machines</li> </ul>
<b>Learning Outcome 7:</b> Measure and mark out work pieces using correct tools
<b>Key Learning Points</b>
<ul style="list-style-type: none"> <li>• Units of measurement</li> <li>• Identifying the appropriate tool for measuring</li> <li>• Reading measuring tapes and rulers</li> <li>• Procedures for measuring and marking out</li> <li>• Identifying the appropriate tool for marking out timber</li> <li>• Marking out timber accurately</li> <li>• Following written and verbal instructions</li> </ul>
<b>Learning Outcome 8:</b> Perform a number of woodturning tasks with a range of tools to include roughing down excess timber, drilling, tapering, beading and inserting grooves
<b>Key Learning Points</b>
<ul style="list-style-type: none"> <li>• Knowledge of various woodturning tasks</li> <li>• Identifying appropriate tools for woodturning tasks</li> <li>• Understanding woodturning terminology</li> <li>• Knowledge of steps in woodturning from raw stock to finished piece</li> <li>• Using correct tools and equipment for each task</li> <li>• Reading instructions</li> <li>• Following oral and written instructions</li> </ul>
<b>Learning Outcome 9:</b> Use appropriate techniques of sanding for finishing the project

<b>Key Learning Points</b>
<ul style="list-style-type: none"> <li>• Surface preparation for sanding</li> <li>• Techniques used in sanding for woodturning</li> <li>• Types of sandpaper</li> <li>• Sanding wood evenly</li> <li>• Grain direction</li> </ul>
<b>Learning Outcome 10:</b> Select appropriate wood finishes to complete the project using appropriate techniques of sealing, waxing and polishing
<b>Key Learning Points</b>
<ul style="list-style-type: none"> <li>• Various wood finishes</li> <li>• Sealing and waxing timber</li> <li>• Polishing timber</li> <li>• Identifying appropriate techniques for finishing tasks</li> <li>• Even application of stains</li> <li>• Appropriate materials to seal, wax or polish wood</li> <li>• Reading and following manufacturers' instructions</li> <li>• Finishing tasks</li> </ul>
<b>Learning Outcome 11:</b> Demonstrate the application of communications, safety awareness and quality awareness in a woodturning workshop environment
<b>Key Learning Points</b>
<ul style="list-style-type: none"> <li>• Knowledge of vocational language</li> <li>• Listening and responding to spoken language</li> <li>• Reading and writing to obtain and convey information</li> <li>• Applying appropriate health and safety procedures</li> <li>• Reflecting on own strengths and weaknesses</li> <li>• Identifying areas for improvement</li> <li>• Ability to work independently if required</li> </ul>

## Assessment Specification

<b>Award Title</b>	<b>Woodturning</b>
<b>Award Type</b>	<b>Minor</b>
<b>FÁS Assessment Code:</b>	<b>3N0590-020</b>
<b>Credit Value :</b>	<b>5</b>
<b>Award Code:</b>	<b>3N0590</b>

<b>Unit Learning Outcome</b>	<b>Performance Criteria (Knowledge, Skill &amp; Competence)</b>	<b>Assessment Techniques</b>	<b>Weighting</b>	<b>Assessment Instrument</b>	<b>Assessment Evidence</b>
1	Skill	Skills Demo	5%	Learner's Instructions S1	Assessment Sheet and Artefact
2	Knowledge Skill	Skills Demo	5%	Learner's Instructions S1	Assessment Sheet and Artefact
3	Knowledge	Skills Demo	8%	Learner's Instructions S1	Assessment Sheet and Artefact
4	Knowledge Skill	Skills Demo	11%	Learner's Instructions S1	Assessment Sheet and Artefact
5	Skill	Skills Demo	12%	Learner's Instructions S1	Assessment Sheet and Artefact
6	Knowledge Skill	Skills Demo	12%	Learner's Instructions S1	Assessment Sheet and Artefact
7	Knowledge Skill	Skills Demo	12%	Learner's Instructions S1	Assessment Sheet and Artefact
8	Knowledge Skill	Skills Demo	15%	Learner's Instructions S1	Assessment Sheet and Artefact
9	Knowledge Skill	Skills Demo	8%	Learner's Instructions S1	Assessment Sheet and Artefact
10	Knowledge Skill	Skills Demo	8%	Learner's Instructions S1	Assessment Sheet and Artefact
11	Competence	Skills Demo	4%	Learner's Instructions S1	Assessment Sheet and Artefact

## Suggested Learning Methodologies

- Note taking
- Practical Work Training
- Simulated Work Environment
- Activities
- Exercises
- Discussion Groups
- Text Books
- Videos/DVDs
- Skills Demonstrations
- Internet

## Specific Module Requirements

***The following is a recommended list. The list is not definitive as some of the items listed may not be essential in order to run the course. Items other than those listed may also be acquired for the course at the discretion of the Manager***

Woodturning lathe, basic set of turning tools such as: variety of chisels – turning chisel, square-end chisel, skew chisel; variety of gouges – turning gouge, roughing out gouge, spindle gouge, bowl gouge; sizing tool, callipers, compass, sand paper, polishes, wood sealer, set of personal protective equipment

## Suggested Learning Resources

All of the highlighted Curriculum Resources mentioned below are available on the Moodle Community Services Curriculum and Assessment page. You can access the CSCA Moodle web page from this link:

<http://www.ecollege.ie/site/home.html>

If you do not already have a username and password, ask your supervisor to contact us at [CSCA@fas.ie](mailto:CSCA@fas.ie)

Textbooks and Videos/DVDs

A range of textbooks dealing with Woodturning:

*Woodturning - A Manual of Techniques* by Hugh O'Neill

*Woodturning: A Fresh Approach* by Robert Chapman

*Taunton's Complete Illustrated Guide to Turning (Complete Illustrated Guides (Taunton))* by Richard Raffan

*Woodturning Full Circle* by David Springett

*Learn to Turn: A Beginner's Guide to Woodturning From Start To Finish* by Barry Gross ISBN-10: 1-56523-273-0 or ISBN-13: 978-1-56523-273-0  
*Darlow's Woodturning Series: The Fundamentals of Woodturning/Woodturning Methods/Woodturning Techniques* by Mike Darlow  
*The Lathe Book: A Complete Guide to the Machine and Its Accessories* by Ernie Conover  
*Turn a Bowl with Ernie Conover: Getting Terrific Results the First Time Around* by Ernie Conover  
*Turning Bowls with Richard Raffan* by Richard Raffan ISBN-1-56158-508-4  
*Turning Wood Book* by Richard Raffan  
*Woodturning Book: A Foundation Course* by Keith Rowleys  
*Introduction to Health and Safety at Work* by Phil Hughes and Ed Farrett ISBN 0-7506-6623-4, 2005  
*Oxford English Dictionary*

A range of videos/DVDs dealing with Woodturning and Woodturning tools:

*The New Turning Wood DVD* by Richard Raffan  
*Turning Projects* by Richard Raffan  
*First Steps in Wood Turning* by Chris Stott  
*Sharpening Woodturning Tools Volume 1* with Mike Darlow  
*Sharpening Woodturning Tools Volume 2* with Mike Darlow  
*The Practice of Woodturning* with Mike Darlow  
*Turned Bowls Made Easy* by Bill Grumbine  
*Techniques and Projects* by Bonnie Klein  
*Woodturning: Getting Started Right* by Alan Lacer  
*Finishing for Wood Turners* by Chris Stott

### **Generic Skills: Literacy and Numeracy**

The learners will keep and maintain a **Learning Diary** throughout the course in order to record and file any useful and relevant information on any aspect of woodturning and woodturning tools, equipment and materials.

At the end of every week the learners will complete a short **Weekly Reflective Sheet** in order to reflect on their learning and progress during that week.

This Weekly Reflective Sheet will assist the learners to develop their generic skills of literacy, numeracy, communications and quality awareness and will give learners an opportunity to develop their writing skills.

The Learning Diary can be used as a reference for the learner when filling out the Mid-Course and End of Course reflections, Activity A2 and Activity A3.



The learners will create a **Personal Dictionary** of new words, key words and terms relating to woodturning and woodturning tools, equipment and materials. This Dictionary will be updated each week and kept in the Learning Diary.

As a group, the learners will add words and terms to a **Key Word and Terminology** Bank in the classroom, relating to woodturning, woodturning tools, equipment and materials. The learners will find words listed in text books, class notes, manufacturers' product information, DVDs and websites, etc.

The learners will complete a number of **Word Searches**. These are **Word Search for LO1**, **Word Search for LO5**, **Word Search for LO6** and **Word Search for LO11**. When the learners have gained sufficient practice and experience at these, each learner will make up one (1) Word Search/Quiz, which will be completed by the group.

When the learners have completed certain activities/exercises, they will complete a '**True or False**' quiz for that particular Activity/Exercise. These are: **quiz for LO2**, **quiz for LO3** and **quiz for LO4**. There should be at least two (2) days between the completion of the activity/exercise and the completing of the quiz.

### **Generic Skill: Numeracy: Digital**

Learners will practise **using a calculator**, identifying and locating all keys needed to carry out basic calculations

The learners will practise solving various problems, involving litres, metres, etc. set by the instructor, **using the mathematical glossary**.

All notes and information will be kept in the Learning Diary.

### **Generic Skill: Literacy and Health and Safety**

Learners will gather relevant information using text books, the Internet and class notes in order to write a short description of:

- Four (4) woodturning tools
- Three (3) types of wood
- Three (3) types of finishes
- Health and Safety in a workshop environment

This information will be kept in the Learning Diary.

In the diary, learners will compile a file of:

- Different types of articles on woodturning that they have found
- Plans of projects
- Photographs of woodturning tools and lathes

### **Generic Skill: Teamwork and Communications**

Learners will discuss the importance of teamwork with the instructor using the **Teamwork Guide**.

Learners will take part in a **Teamwork** exercise by designing, planning and carrying out a project that will incorporate group discussion.

The learners will complete the **Team Review Sheet** after completing the Teamwork exercise.

### **Practical:**

The learners will carry out any **practical work** or projects dealing with woodturning assigned to them by the instructor.

### **Practical, Health and Safety**

Learners will practise how to use each **woodturning tool** under the instructor's supervision until the instructor is satisfied that a required standard is achieved. The instructor will demonstrate health and safety procedures to be used when using woodturning tools.

<http://www.using-tools.com/>

[http://www.ccohs.ca/oshanswers/safety\\_haz/hand\\_tools/general.html](http://www.ccohs.ca/oshanswers/safety_haz/hand_tools/general.html)

[http://school.mech.uwa.edu.au/~nscott/How\\_to\\_do\\_stuff/hand\\_tools/](http://school.mech.uwa.edu.au/~nscott/How_to_do_stuff/hand_tools/)

<http://www.technologystudent.com/>

<http://www.woodworkireland.com>

<http://www.newwoodworker.com/turning/bwlbsics.html>

<http://www.aroundthewoods.com/>

<http://www.woodturningonline.com/>

<http://www.irishwoodturnersguild.com/>

<http://www.nala.ie/index.cfm/section/publications/top/1/ext/publications/cat/0/page/9> *Useful Guide to Words and Numbers Workbook1*, a workbook published by NALA

Trade Magazines and Journals – these can be bought in any good newsagents:  
*The Woodturner*, published by Nexus  
*Practical Woodworking*, published by Nexus

**Recommended by:** \_\_\_\_\_  
Manager Training Policy Development and Support

**Approved by:** \_\_\_\_\_  
Director Training Policy Development and Support