



**ENGINEERING TECHNOLOGY LOWESTOFT COLLEGE
AUTOCAD COURSES C&G 7579/201 2D – COURSE LEVEL 2
18 WEEK COURSE FOR AUTO CAD RELEASE 2007 @ 2.5 hours/week(45Hrs)
WINDOWS XP [COMPATIBLE TO LT2007] IN CITY AND GUILDS 7579/201**

This is a City & Guilds new course & there will be periodic updates & additions as the course progresses. The emphasis is to be Geometrical and Mechanical engineering but allowances will be made for Architectural & Electrical Engineers.

Is this the right course for me?

Auto Cad is one of the most popular computer aided drawing packages on the market today. Using Auto Cad requires the development of new skills, but the benefits that accrue will soon be evident.

What will I need to join the course?

A good knowledge of engineering drawing, mechanical or built environment is a good starting place. A good back ground in Windows XP & use of file management is essential to complete in the 18 weeks.

What will I be doing?

Unit aim

This unit aims to equip candidates with the basic understanding and principles of 2D drawing environment, in terms of hardware, software and physical surroundings. It will explore the typical composition of a CAD system and health and safety matters that are associated with safe working practices.

Learning outcomes

There are **eight** learning outcomes to this unit. The learner will be able to:

1. Use associated IT, CAD hardware and operating systems
2. Use basic file management techniques and maintain health and safety requirements
3. Use and identify key components of the software relating to the 2D drawing environment
4. Use a range of viewing commands and set up the drawing space
5. Use drawing commands to produce shapes
6. Use the CAD software's co-ordinate system to aid accurate drawing
7. Use hatch, text and simple dimensioning routines
8. Use basic editing commands and produce simple hard copies

Details of the relationship between the unit and relevant national occupational standards

This unit is linked to the Performing Engineering Operations Level 2, unit 61 Producing CAD models (drawings) using a CAD system.

Endorsement of the unit by a sector or other appropriate body

This unit is endorsed by SEMTA.

Assessment and grading

This unit will be assessed by:

- One GOLA on-line test covering underpinning knowledge – fail/pass/merit/distinct.
- Two assignments covering practical skills - pass/fail.

Level 2 Certificate in Computer Aided Design & Manufacturing (7579-02)

First 13 weeks (Previous knowledge of windows XP & file management essential to complete.)

This is an introductory course involving the use of Microsoft Windows system and basic commands to enable the production of 2-dimensional drawings for orthographic projection.

Direct keyboard entry	-	Use of coordinates in absolute, relative, rectangular & polar
Templates	-	simple borders
Drawing commands	-	line, circle, arc, polygon and ellipse
Edit commands	-	erase, undo, move, copy and trim
Mode commands	-	snap, grid, ortho, dyn & use of dialogue boxes
Selecting objects	-	pick, open windows and crossing windows
Display controls	-	zoom, pan, view, transparent zoom etc
File handling	-	listing files, deleting files, renaming files
Dimensioning	-	horizontal, vertical, aligned, radial, angular and circular
Text	-	justification, style and font, insert text, simple and multi-line text
Plotting	-	simple A4 pages to scale, drawing limits model
<u>space only</u>		
Hatching	-	Simple common hatching techniques
Programme operations	-	Use of new, open, save (as), close, rename files & folders, drives

This is so the student learns more advanced 2D commands to enable more effective 2D drawings.

Plotting	-	hard copies and plotting in different colours. Layers on/off
Drawing commands	-	hatch, solid fill
Advanced editing	-	offset, array, fillet, chamfer, break, divide, measure, extend, rotate, change, properties, scale, mirror
Running object snap	-	permanent object selection, end / mid point of line, centre of circle
Text	-	fonts, new styles
Online help	-	Use the Internet connection for City & Guilds or Autodesk Help.

The course is a 'hands on' course where learning is achieved by a series of structured lessons with the main emphasis on practical exercises.

Last 5 weeks

Exam standard 2D exercises, leading to TWO practical exams in geometrical & drawing insertion.

This is a continuation course which covers topics as assessments including a GOLA on line written part leading to the award of City & Guilds Certificate in the use of Auto Cad at level2 in 2D only.

How long will the course last and what patterns of attendance are available?

Each course is one evening per week at 2.5 hours per session, total 45 hours, including exam.

Two start dates are available depending on numbers enrolled: 6.30 – 9.00 pm for 18 weeks from Tuesday 02nd February 2010 to 01th July 2010

How will my progress on the course be assessed?

The course is a 'hands on' course where learning is achieved by a series of structured lessons with the main emphasis on practical exercises. The assessment is at the end of the course and involves the production of drawings under examination conditions.

Practical and one computer on line written exam.

What will I achieve

We hope that you will register for certification with the City & Guilds of London Institute and achieve the certificate in the use of Auto Cad to City & Guilds 7579/02 – 2D – New Level 2.

What will it cost?

Fees are to be confirmed

And the future?

There are opportunities for courses in 2 dimensional drawings at **Level 3** as a **18 week follow on course from the level 2 in September**. We will be pleased to develop courses to suit particular requirements.

What should I do now?

Ring the Client Co-ordinator Debby Jopson on 01502 525040.

It is the policy of this College that all people are entitled to equality of opportunity in education and training.

All programmes run subject to satisfactory enrolment.

This information is issued without prejudice to the right of the College to make such modifications to the matters dealt with as the College considers necessary without prior notice.

If you would like this factsheet in larger print or alternative format, eg Braille or audio tape, please contact Study Skills Support on 01502 525191.

March 2010