EUROPEAN COMPUTER DRIVING LICENCE
CAD Version 1.5

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The official version of ECDL / ICDL CAD Syllabus V1.5 is the version published on the ECDL Foundation website which can be found at:
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ECDL CAD Version 1.5 Syllabus.

The following is the Syllabus for *CAD Version 1.5*, which provides the basis for the practice-based tests in this module domain.

Module Goals

ECDL CAD	***ECDL CAD*** is an introductory level syllabus for two-dimensional design targeting engineering or architectural students or candidates who require a general grounding in CAD. The candidate shall be able to demonstrate competency in using some of the standard available features of a CAD application to create and manipulate objects or elements and to modify objects or elements. The candidate shall also be able to change object properties and to undertake printing or plotting activity associated with the delivery of outputs. In addition, the candidate is required to demonstrate competency in using some of the more advanced features of CAD applications software, such as inserting objects from other applications.

Category	Skill Set	Ref	Task Item
1.1 Getting Started	*1.1.1 First Steps*	1.1.1.1	Open (and close) a CAD application.
		1.1.1.2	Open one, several drawings.
		1.1.1.3	Create a new drawing.
		1.1.1.4	Set drawing units/working units; metric, imperial.
		1.1.1.5	Set drawing limits.
		1.1.1.6	Set, display grid and snap/grid lock.
		1.1.1.7	Create a drawing using an existing specified template/seed file.
		1.1.1.8	Save a drawing as a template/seed file.
		1.1.1.9	Save a drawing to a location on a drive.
		1.1.1.10	Save a drawing under another name.
		1.1.1.11	Switch between open drawings.
		1.1.1.12	Display, hide built in toolbars.
		1.1.1.13	Close a drawing.
		1.1.1.14	Use available Help functions.
	1.1.2 Navigating	1.1.2.1	Use zoom/magnification tools.
		1.1.2.2	Create named/saved views, set/recall named/saved views.
		1.1.2.3	Use pan tool.
		1.1.2.4	Use redraw, regen/update tools.
	1.1.3 Using Layers/Levels	1.1.3.1	Create layers/levels and assign properties.
		1.1.3.2	Modify the properties/attributes of a layer/level.
		1.1.3.3	Make a layer/level current or active.
		1.1.3.4	Modify levels/layers status: on, off, freeze, thaw, lock, unlock.

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Category	Skill Set	Ref	Task Item
	1.1.4 Drawing Exchange	1.1.4.1	Export a drawing in another file type: .dxf, .dwg, .wmf, .dwf/.pdf.
		1.1.4.2	Import a dxf, dwg file into a drawing.
1.2 Main Operations	*1.2.1 Create Objects/Elements*	1.2.1.1	Apply co-ordinate systems: absolute, relative/rectangular, polar.
		1.2.1.2	Draw a line, rectangle/block, polyline/smartline.
		1.2.1.3	Draw an arc, polygon, circle, ellipse, donut.
		1.2.1.4	Draw a spline/point curve.
		1.2.1.5	Create a hatch.
		1.2.1.6	Divide objects/points along an element.
		1.2.1.7	Use snapping tools.
	1.2.2 Selection Tools	1.2.2.1	Select single, multiple objects.
		1.2.2.2	Use window/fence selection tools.
		1.2.2.3	Use grips/handles.
		1.2.2.4	Select by property/attribute, layer/level.
	1.2.3 Manipulate Objects /Elements	1.2.3.1	Copy objects/elements within, between drawings as objects/elements, as a block.
		1.2.3.2	Move objects/elements within a drawing, between drawings.
		1.2.3.3	Delete objects/elements.
		1.2.3.4	Rotate objects/elements.
		1.2.3.5	Scale objects/elements.
		1.2.3.6	Mirror objects/elements.
		1.2.3.7	Stretch objects/elements.
		1.2.3.8	Offset/copy parallel objects/elements.
		1.2.3.9	Create arrays/patterns of objects/elements.
		1.2.3.10	Trim objects using other objects/elements.
		1.2.3.11	Break/partially delete objects.
		1.2.3.12	Explode/drop objects/elements.
		1.2.3.13	Extend, lengthen objects/elements.
		1.2.3.14	Apply chamfers.
		1.2.3.15	Apply fillets.
		1.2.3.16	Edit polylines/complex elements.
		1.2.3.17	Convert objects/elements to polylines/complex elements.
	1.2.4 Using Inquiry Commands	1.2.4.1	Measure distances, angles.
		1.2.4.2	Measure areas.

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Category	Skill Set	Ref	Task Item
	1.2.5 Properties	1.2.5.1	Change layer/level properties/attributes of objects/elements.
		1.2.5.2	Match properties/attributes between objects/elements.
		1.2.5.3	Set, change linetype/linestyle, line weight, colour of objects/elements.
	1.2.6 Annotation (text and dimensions)	1.2.6.1	Insert, edit text.
		1.2.6.2	Create, set, edit text styles.
		1.2.6.3	Change style, font for text objects.
		1.2.6.4	Add dimensions.
		1.2.6.5	Create, set, edit dimension styles.
		1.2.6.6	Change style, font for dimension objects.
		1.2.6.7	Insert geometric tolerance.
1.3 Advanced Features	*1.3.1 Using Blocks/Cells*	1.3.1.1	Create blocks/cells.
		1.3.1.2	Insert blocks/cells in a drawing.
		1.3.1.3	Create a wblock.
		1.3.1.4	Create a cell library.
		1.3.1.5	Create, edit attributes/tags.
		1.3.1.6	Insert objects/elements, files from a library.
		1.3.1.7	Extract/report, attributes/tags from a block/cell e.g. to create a parts list.
	1.3.2 Using OLE	1.3.2.1	Embed/link a file and display as an object.
		1.3.2.2	Add a hyperlink to an object.
1.4 Outputs	*1.4.1 Plot/Print Options*	1.4.1.1	Use model space, paper space/design model, sheet model.
		1.4.1.2	Create, use, modify layouts/sheet models.
		1.4.1.3	Create, use, scale different viewports/views.
		1.4.1.4	Add a titleblock.
		1.4.1.5	Select a printer/plotter.
		1.4.1.6	Add and use a plot style/pen table.
		1.4.1.7	Plot/print all, part of a drawing to scale, fit to page.

Ref: SWGCAD1.5

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