|  |  |
| --- | --- |
| Title | **Create 3D interface drawings** |
| Level | **3** | **Credits** | **8** |

|  |  |
| --- | --- |
| Purpose | The competency standard is designed to explore the basic Three (3) dimensional interfaces with thickness and elevation to visualize the model. |

|  |  |
| --- | --- |
| Classification ISCED | 0611 Computer use |

|  |  |
| --- | --- |
| Available grade | Competent / Not yet competent |

|  |  |
| --- | --- |
| Modification history | N/A |

|  |  |  |
| --- | --- | --- |
| **Competency Unit** | **Performance Criteria** | **Knowledge and Understanding** |
| **C1:****Develop familiarity with 3D Basics interface in AutoCAD** | **The trainee will be able to:****P1.** Use different options to draw 3D Basic Ribbons, including:* Create
* Edit
* Draw
* Modify
* Selection
* Coordinates
* Layers
* Views

**P2.** Recognise the steps of executing Pull down menus including:* Home
* Render
* Insert
* Manage
* Output
* Plug-ins
* Online
* Express Tools
 | **The trainee will be able to:****K1.** Describe how to draw 3D Basic Ribbons using different tools.**K2.** Identify different options of Pulldown menus. |

|  |  |  |
| --- | --- | --- |
|  | **P3.** Execute the steps to apply 3D Modelling panels including:* Modelling
* Mesh
* Solid
* Editing
* Draw
* Modify
* Section,
* Coordinates
* View
* Selection
* Layers
* Groups

**P4.** Identify options 3D Modelling Pull down menus including:* Home
* Solid
* Surfaces
* Mesh
* Render
* Parametric
* Insert
* Annotate
* View
* Manage
* Output
* Plug-ins
* Online Express Tools
 | **K3.** Recall a good knowledge of 3D Modelling interface (Panels, Pulldown menus).**K4.** Recognize different options 3D Modelling Pulldown menus |

|  |  |  |
| --- | --- | --- |
|  | **P5.** Identify Viewports (-VPORTS command) including:* Pre-set 3D Viewports
* Named Views.

**P6.** Apply the technique to track the cursor (Steering Wheel) including:* Over wedge as full navigation wheel
* View object wheel
* Orbit, walk up/down
* Rewind and its setting

**P7.** Identify Viewpoints including:* VPOINT command (Rotate switch, DDVPOINT command)
* PLAN command
 | **K5.** Remember different Viewport options**K6.** Recognise the different techniques to track the cursor (Steering Wheel)**K7.** Define the Vpoint, DDVpoint and Plan View techniques. |
| **C2: Introduce Thickness and Elevation** | **The trainee will be able to:****P1.** Apply the Thickness command at command prompt with different values or modify general properties of an object**P2.** Execute the “Elev” command at command prompt with different values. | **The trainee will be able to:****K1.** Describe how to execute the “Thickness” command at command prompt**K2.** Explain how to set the Elevation of object. |
| **C3: Visualise the Model** | **The trainee will be able to:****P1.** Identify different Styles including:* Display of edges
 | **The trainee will be able to: K1.** Define different styles |

|  |  |  |
| --- | --- | --- |
|  | * Shading (Visual Styles) in the viewport

**P2.** Manage different Styles through:* 2D Wireframe
* 3D Wireframe
* 3D Hidden
* Realistic
* Shaded
* Shaded with Edges
* Shades of Gray
* Sketchy
* X-Ray

**P3.** Apply different visual functions including:* Regenerate a three-dimensional model with hidden lines using HIDE command.
* Set the grid with DSETTINGS command.
 | **K2.** Explain how to Manage different Styles using different options:**K3.** Define different visual functions (hide, grid). |