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

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

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| Classification ISCED | 0611 Computer use |

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| Available grade | Competent / Not yet competent |

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| Modification history | N/A |

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| **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. |

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|  | **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 |

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|  | **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 |

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|  | * 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). |