

## DMX3305 Introduction to Engineering Design Graphics

<b>Level</b>	3
<b>Course Code</b>	DMX3305
<b>Course Title</b>	Introduction to Engineering Design Graphics
<b>Credit value</b>	3
<b>Core/Optional</b>	Core
<b>Course Aim/s</b>	To highlight the importance of graphics and visualizations in engineering design and be able to apply and demonstrate various visualization techniques in representing and interpreting technical information.
<b>Course Learning Outcomes (CLO):</b>	<p>At the completion of this course student will be able to:</p> <p>CLO1: Identify the need for spatial representation and visualization in engineering design</p> <p>CLO2: Describe various visualization techniques, in communicating engineering designs.</p> <p>CLO3: Identify and describe 2D visualization and sketching techniques in technical visualizations.</p> <p>CLO4: Produce free hand sketching as well as producing technical drawings using of traditional drawing tools by applying 2D visualization techniques.</p> <p>CLO5: Apply software tools in visualization of objects and products.</p> <p>CLO6: Analyze technical drawings to extract and interpret engineering information</p>
<b>Content</b>	<p><b>Outline Syllabus:</b></p> <p>Unit 01: Overview of Engineering Design  Unit 02: Geometrical Constructions  Unit 03: Spatial management  Unit 04: Free hand sketching  Unit 05: Planer Projections  Unit 06: Orthographic Projections  Unit 07: Pictorial views  Unit 08: Multi-views  Unit 09: Working drawings  Unit 10: Introduction to Computer Aided Drawings and Modelling (CO5)</p> <p><b>Laboratory work :</b></p> <p>Class room exercises-</p> <ol style="list-style-type: none"> <li>1. Drawing board practice on geometrical constructions</li> <li>2. Practicing free hand sketching on projections</li> <li>3. Practicing free hand sketching on pictorial views</li> <li>4. Drawing board practice on working drawings</li> </ol> <p>Computer aided drafting using CAD packages-</p> <ol style="list-style-type: none"> <li>1. Familiarization of CAD packages using projections/pictorial views</li> <li>2. Producing working drawing using CAD packages</li> </ol>