

DMX3305 Introduction to Engineering Design Graphics

Level	3
Course Code	DMX3305
Course Title	Introduction to Engineering Design Graphics
Credit value	3
Core/Optional	Core
Course Aim/s	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.
Course Learning Outcomes (CLO):	<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>
Content	<p>Outline Syllabus:</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>Laboratory work:</p> <p>Class room exercises-</p> <ol style="list-style-type: none"> 1. Drawing board practice on geometrical constructions 2. Practicing free hand sketching on projections 3. Practicing free hand sketching on pictorial views 4. Drawing board practice on working drawings <p>Computer aided drafting using CAD packages-</p> <ol style="list-style-type: none"> 1. Familiarization of CAD packages using projections/pictorial views 2. Producing working drawing using CAD packages