

NSQF Curriculum in Electrical Technology Level-1

UNIT CODE & NAME	ELE-110: Engineering Drawing – 1	
DURATION	50 Hours	
UNIT OVERVIEW	Student will be able to use drawing & drafting instruments properly & prepare engineering drawings with appropriate convention.	
ELE-110-E1	PERFORMANCE CRITERIA	KNOWLEDGE CRITERIA
Introduction to engineering drawing (ED) and its applications	Able to understand the importance of engineering drawing (ED) and its applications	Introduction to engineering drawing (ED) and its applications
ELE-110-E2	PERFORMANCE CRITERIA	KNOWLEDGE CRITERIA
Introduction to drawing instruments and accessories	Able to use drawing instruments and accessories	Identification drawing instruments accessories& their uses, sizes of drawing Sheets
ELE-110-E3	PERFORMANCE CRITERIA	KNOWLEDGE CRITERIA
Pattern of lines lettering & numbers	Able to draw different types of lines, lettering & numbering pattern according to applications	Identification and Use of different pattern of lines , lettering & numbers
ELE-110-E4	PERFORMANCE CRITERIA	KNOWLEDGE CRITERIA
Basic geometric constructions	Able to draw the geometrical constructions of – division of line & angle, triangle, quadrilateral, polygons, circles etc.	Basic geometric constructions
ELE-110-E5	PERFORMANCE CRITERIA	KNOWLEDGE CRITERIA
Drawing scale	Able to apply appropriate scale in Drawings	Application drawing scale
ELE-110-E6	PERFORMANCE CRITERIA	KNOWLEDGE CRITERIA
Dimensioning techniques	Able to apply appropriate dimensioning techniques In engineering drawing	Dimensioning techniques and application
ELE-110-E7	PERFORMANCE CRITERIA	KNOWLEDGE CRITERIA
Concept of projections	Able to draw projections & planes i.e. H.P.,V.P.,A.V.P. & G.L. in first and third angle method	Understanding the concept of projections, projection planes in first and third angle method
ELE-110-E8	PERFORMANCE CRITERIA	KNOWLEDGE CRITERIA
Projection methods Projection of solids	Able to draw projection of solids (cylinder, cone, prism and pyramid and composite object) using first and third angle method	Projection methods- first angle and third angle projections Projection of solids (cylinder, cone , prism and pyramid and composite object)using first and third angle method
ELE-110-E9	PERFORMANCE CRITERIA	KNOWLEDGE CRITERIA
Introduction to CAD	Able to start CAD, modify tool bar and setting up drawing area	Introduction to CAD ,advantages, getting started with CAD, windows, drawing properties and coordinate system

Drawing should be drawn on half imperial Drawing sheets

Sheet Nos.	Name of Sheet	Periods
1	Lettering & Numbering and types of Lines	6
2	Geometrical Constructions	6
3	Projection of Solids (Prism, Pyramid, cylinder, Cone) any-two	6
4	To draw simple electrical symbols	6
5	Household wiring diagram (any-four)	6

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Unit Nos.	Units	Theory	Practical	Total
ELE-110-E1	Introduction to engineering drawing (ED) and its applications	2	0	2
ELE-110-E2	Drawing instruments ,accessories& their uses, Sizes of drawing sheets	3	0	3
ELE-110-E3	Pattern of lines, lettering and numbers	2	2	4
ELE-110-E4	Basic geometric constructions	3	5	8
ELE-110-E5	Drawing scale	1	0	1
ELE-110-E6	Dimensioning techniques	1	0	1
ELE-110-E7	Concept of projections	2	2	4
ELE-110-E8	Projection methods – Projection of solids (cylinder , cone ,prism and pyramid and composite objects)	3	16	19
ELE-110-E9	Introduction to CAD	3	5	8
		20	30	50