

**As Per DGET Revised Syllabus -Annexure-A**

# **Craftsman Training Scheme**

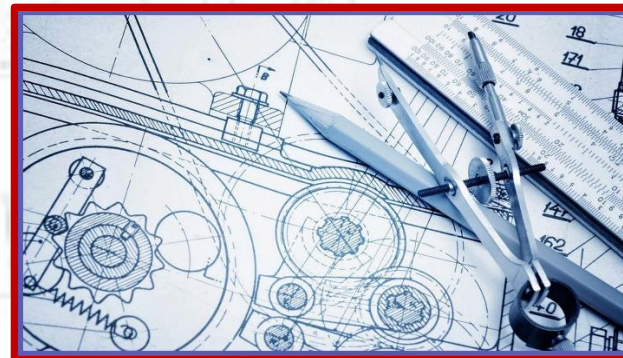
**Industrial Training Institute,**

**Engineering Drawing**

**Splitup Syllabus**

**For First Year**

**All Engineering Trade**



**Name of the ITI :-Industrial Training Institute,**

**Name of the Instructor :-**

## Engineering Drawing Split up Syllabus

CTS Trades Covered: Welder, Welder (Fabrication & Fitting) , Welder (GMAW & GTAW), Welder (Pipe), Welder (Structural), Welder (Welding & Inspection)	Time In Hours	2 Hrs/Week	Date Proposed	Date Taken	CTS Trades Covered: Pump operator cum Mechanic	Time In Hours	2 Hrs/Week	Date Proposed	Date Taken
Introduction to Engineering Drawing and Drawing Instruments –	2	2			Introduction to Engineering Drawing and Drawing Instruments –	2	2		
• Conventions					• Conventions				
• Sizes and layout of drawing sheets					• Sizes and layout of drawing sheets				
• Title Block, its position and content					• Title Block, its position and content				
• Drawing Instrument				• Drawing Instrument					
Free hand drawing of –	4	2			Free hand drawing of –	6			
• Geometrical figures and blocks with dimension					• Geometrical figures and blocks with dimension				
• Transferring measurement from the given object to the free hand sketches.					• Transferring measurement from the given object to the free hand sketches.				
• Free hand drawing of hand tools and measuring tools.					• Free hand drawing of hand tools and measuring tools.				
Lines -Types and applications in drawing	2	2			Drawing of Geometrical figures	4			
Drawing of Geometrical figures:	4	2			• Angle, Triangle, Circle, Rectangle, Square, Rhombus, Parallelogram.				
• Angle, Triangle, Circle, Rectangle, Square, Parallelogram.					• Lettering & Numbering – Single Stroke.				
• Lettering & Numbering – Single Stroke, double stroke, inclined		1			Reading of dimension and Dimensioning Practice.	4	2		
Reading of dimension and Dimensioning Practice.	4	2					2		
		2			Symbolic representation –	10	2		
							2		
Reading of fabrication drawing, sectional view of different types of welding Joints.	10	2			• Different symbols used in the Pump operator cum Mechanic trade.		2		
Sectional view of different pipe joints									
		2			Reading of Job drawing and piping Layout	14	2		
Symbolic representation – different symbols used in the related trades	4	2			Reading of Job drawing and piping Layout		2		
		2					2		
Reading of Job Drawing of related trades.	10	2					2		
		2					2		
		2					2		
		2					2		
		2					2		
Total Hours	40	40				40	40		

CTS Trades Covered: Foundryman	Time In Hours	2 Hrs/Week	Date Proposed	Date Taken	CTS Trades Covered: Sheet Metal	Time In Hours	2 Hrs/Week	Date Proposed	Date Taken
Introduction to Engineering Drawing and Drawing Instruments –	2				Introduction to Engineering Drawing and Drawing Instruments –	2			
• Conventions		0.5			• Conventions		0.5		
• Sizes and layout of drawing sheets		0.5			• Sizes and layout of drawing sheets		0.5		
• Title Block, its position and content		0.5			• Title Block, its position and content		0.5		
• Drawing Instrument		0.5			• Drawing Instrument		0.5		
Free hand drawing of –	6				Lines- Types and applications in drawing Free hand drawing of –	6	2		
• Geometrical figures and blocks with dimension		2			• Geometrical figures and blocks with dimension		2		
• Transferring measurement from the given object to the sketches.		2			• Transferring measurement from the given object to the sketches.		1		
• Free hand drawing of hand tools and measuring tools.		2			• Free hand drawing of hand tools and measuring tools.		1		
Drawing of Geometrical figures:	10	2			Drawing of -	8			
• Angle, Triangle, Circle, Rectangle, Square, Parallelogram.		2			• Angle, Triangle, Circle, Rectangle, Square, Parallelogram, Ellipse & Parabola.		2		
• Lettering & Numbering – Single Stroke.		2			• Lettering & Numbering – Single Stroke.		2		
		2					2		
		2					2		
• Reading of dimension and Dimensioning Practice.	4	2			• Development of Surfaces				
		2							
Symbolic representation –	8	2			Dimensioning	2	2		
• Different symbols used in the Foundryman trade.		2			• Types of arrowhead				
		2							
		2							
• Basic of Orthographic and Isometric projections	10	2			• Leader line with text				
• Reading of Job drawing related to Foundryman trade.		2			• Position of dimensioning (Unidirectional, Aligned)				
		2			Symbolic representation –	4	2		
		2			• Different symbols used in the Sheet Metal trade.		2		
		2			Concept and reading of Drawing in	10	2		
					• Concept of axes plane and quadrant		2		
					• Concept of Orthographic and Isometric projections		2		
					• Method of first angle and third angle projections (definition and difference)		2		
					Reading of Job drawing related to Sheet Metal trade.	8	2		
							2		
							2		
							2		
							2		
							2		
Total Hours	40	40			Total Hours	40	40		

CTS Trades Covered: Plastic Processing Operator	Time In Hours	2 Hrs/Week	Date Proposed	Date Taken	CTS Trades Covered: - Mechanic Auto Body Repair, Mechanic Auto Electrical and Electronics, Mechanic Diesel, Mechanic Tractor, Mechanic Two and Three-wheeler	Time In Hours	2 Hrs/Week	Date Proposed	Date Taken	
Introduction to Engineering Drawing and Drawing Instruments –	2	2			Introduction to Engineering Drawing and Drawing Instruments –	2				
• Conventions					• Conventions					0.5
• Sizes and layout of drawing sheets					• Sizes and layout of drawing sheets					0.5
• Title Block, its position and content					• Title Block, its position and content					0.5
• Drawing Instrument	• Drawing Instrument	0.5								
Lines- Types and applications in drawing Free hand drawing of –	6	2			Lines- Types and applications in drawing Free hand drawing of –	6				
• Geometrical figures and blocks with dimension		2			• Geometrical figures and blocks with dimension		2			
• Transferring measurement from the given object to the sketches.		2			• Transferring measurement from the given object to the free hand sketches.		2			
• Free hand drawing of hand tools and measuring tools.				• Free hand drawing of hand tools and measuring tools.	2					
Drawing of Geometrical figures:	4	2			Drawing of Geometrical figures:	4	2			
• Angle, Triangle, Circle, Rectangle, Square, Parallelogram.					• Angle, Triangle, Circle, Rectangle, Square, Parallelogram.					
• Lettering & Numbering – Single Stroke.	2				• Lettering & Numbering – Single Stroke.	2				
Dimensioning	2	2			Dimensioning	2				
• Types of arrowhead					• Types of arrowhead					1
• Leader line with text					• Leader line with text					1
• Position of dimensioning (Unidirectional, Aligned)	• Position of dimensioning (Unidirectional, Aligned)									
Symbolic representation –	4	2			Symbolic representation –	4	2			
• Different symbols used in the Plastic Processing Operator trade.		2			• Different symbols used in the related trades of Mechanic Auto Body Repair / Electrical and Electronics / Diesel / Tractor / Two and Three-wheeler.		2			
Concept and reading of Drawing in	14	2			Concept and reading of Drawing in	14	2			
• Concept of axes plane and quadrant		2			• Concept of axes plane and quadrant		2			
• Concept of Orthographic and Isometric projections		2			• Concept of Orthographic and Isometric projections		2			
• Method of first angle and third angle projections (definition and difference)		2			• Method of first angle and third angle projections (definition and difference)		2			
		2					2			
		2					2			
		2					2			
Reading of Job drawing related to Plastic Processing Operator trade.	8	2			Reading of Job drawing related to Mechanic Auto Body Repair /	8	2			
		2			Electrical and Electronics / Diesel / Tractor / Two and Three-wheeler trades.		2			
		2					2			
		2					2			
Total Hours	40	40				40	40			

CTS Trades Covered: Carpenter	Time In Hours	2 Hrs/Week	Date Proposed	Date Taken	CTS Trades Covered: Fitter, Turner, Machinist, Machinist Grinder, Mechanic Machine Tool Maintenance, Operator Advance Machine Tool, TDM (D&M), TDM (J&F), Mechanic Mining Machinery, Technician Mechatronics, Textile Mechatronics, Basic Designer & Virtual Verifier, Advanced CNC machining, Aeronautical Structure & Equipment Fitter	Time In Hours	2 Hrs/Week	Date Proposed	Date Taken
Introduction to Engineering Drawing and Drawing Instruments –	2				Introduction to Engineering Drawing and Drawing Instruments –	2			
• Conventions					• Conventions				
• Sizes and layout of drawing sheets					• Sizes and layout of drawing sheets				
• Title Block, its position and content					• Title Block, its position and content				
• Drawing Instrument				• Drawing Instrument					
Lines- Types and applications in drawing Free hand drawing of –	6				Lines- Types and applications in drawing Free hand drawing of –	6			
• Geometrical figures and blocks with dimension					• Geometrical figures and blocks with dimension				
• Transferring measurement from the given object to the sketches.					• Transferring measurement from the given object to the free hand sketches.				
• Free hand drawing of hand tools and measuring tools.				• Free hand drawing of hand tools and measuring tools.					
Drawing of Geometrical figures:	4				Drawing of Geometrical figures:	4			
• Angle, Triangle, Circle, Rectangle, Square, Parallelogram.					• Angle, Triangle, Circle, Rectangle, Square, Parallelogram.				
• Lettering & Numbering – Single Stroke.				• Lettering & Numbering – Single Stroke.					
• Reading of dimension and Dimensioning Practice.	2				Dimensioning	2			
• Different joints used in the carpenter trade.	4				• Types of arrowhead				
Concept and reading of Drawing in	14				• Leader line with text				
• Concept of axes plane and quadrant					• Position of dimensioning (Unidirectional, Aligned)				
• Concept of Orthographic and Isometric projections					Symbolic representation –	4			
• Method of first angle and third angle projections (definition and difference)				• Different symbols used in the related trades.					
Reading of Job drawing related to carpenter trade.	8				Concept and reading of Drawing in	14			
					• Concept of axes plane and quadrant				
					• Concept of Orthographic and Isometric projections				
					• Method of first angle and third angle projections (definition and difference)				
				Reading of Job drawing of related trades.	8				

CTS Trades Covered: Mason	Time In Hours	2 Hrs/Week	Date Proposed	Date Taken	CTS Trades Covered: Plumber	Time In Hours	2 Hrs/Week	Date Proposed	Date Taken
Introduction to Engineering Drawing and Drawing Instruments –	2				Introduction to Engineering Drawing and Drawing Instruments –	2			
• Conventions					• Conventions				
• Sizes and layout of drawing sheets					• Sizes and layout of drawing sheets				
• Title Block, its position and content					• Title Block, its position and content				
• Drawing Instrument				• Drawing Instrument					
Free hand drawing of –	6				Free hand drawing of –	6			
• Geometrical figures and blocks with dimension					• Geometrical figures and blocks with dimension				
• Transferring measurement from the given object to the sketches.					• Transferring measurement from the given object to the sketches.				
• Free hand drawing of hand tools and measuring tools.				• Free hand drawing of hand tools and measuring tools.					
Drawing of Geometrical figures:	8				Drawing of Geometrical figures:	8			
• Angle, Triangle, Circle, Rectangle, Square, Parallelogram.					• Angle, Triangle, Circle, Rectangle, Square, Parallelogram.				
• Reading of dimension and Dimensioning Practice.	4				• Reading of dimension and Dimensioning Practice.	4			
Symbolic representation –	8				Symbolic representation –	10			
• Different symbols used in the trades.					• Different symbols and Pipe joints used in the trade.				
Reading of Plan drawing	12				Reading of layout plan drawing in piping	10			







CTS Trades Covered: Mechanic Agricultural Machinery, Mechanic Motor Vehicle, Mechanic Electric Vehicle	Time In Hours	2 Hrs/Week	Date Proposed	Date Taken	CTS Trades Covered: Refrigeration and Air conditioning & Central Air condition Plant Mechanic	Time In Hours	2 Hrs/Week	Date Proposed	Date Taken
Introduction to Engineering Drawing and Drawing Instruments –	2				Introduction to Engineering Drawing and Drawing Instruments –	2			
• Conventions					• Conventions				
• Sizes and layout of drawing sheets					• Sizes and layout of drawing sheets				
• Title Block, its position and content					• Title Block, its position and content				
• Drawing Instrument					• Drawing Instrument				
Lines- Types and applications in drawing Free hand drawing of –	6				Lines- Types and applications in drawing Free hand drawing of –	6			
• Geometrical figures and blocks with dimension					• Geometrical figures and blocks with dimension				
• Transferring measurement from the given object to the free hand sketches.					• Transferring measurement from the given object to the free hand sketches.				
• Free hand drawing of hand tools and measuring tools.					• Free hand drawing of hand tools and measuring tools.				
Drawing of Geometrical figures:	4				Drawing of Geometrical figures:	4			
• Angle, Triangle, Circle, Rectangle, Square, Parallelogram.					• Angle, Triangle, Circle, Rectangle, Square, Parallelogram.				
• Lettering & Numbering – Single Stroke.					• Lettering & Numbering – Single Stroke.				
Dimensioning	2				Dimensioning	2			
• Types of arrowhead					• Types of arrowhead				
• Leader line with text					• Leader line with text				
• Position of dimensioning (Unidirectional, Aligned)					• Position of dimensioning (Unidirectional, Aligned)				
Symbolic representation –	4				Symbolic representation –	4			
• Different symbols used in the related trades.					• Different symbols used in the related trades.				
Concept and reading of Drawing in	14				Concept and reading of Drawing in	14			
• Concept of axes plane and quadrant					• Concept of axes plane and quadrant				
• Concept of Orthographic and Isometric projections					• Concept of Orthographic and Isometric projections				
• Method of first angle and third angle projections (definition and difference)					• Method of first angle and third angle projections (definition and difference)				
Reading of Job drawing of related trades.	8				Reading of Job drawing related to trades.	8			

CTS Trades Covered: Painter (General)	Time In Hours	2 Hrs/Week	Date Proposed	Date Taken
Free hand drawing of –	8			
• Geometrical figures and blocks with dimension				
• Transferring measurement from the given object to the free hand sketches.				
• Free hand drawing of hand tools and measuring tools.				
Drawing of Geometrical figures:	12			
• Angle, Triangle, Circle, Rectangle, Square, Parallelogram.				
• Lettering & Numbering – Single Stroke, double stroke, inclined				
Dimensioning	10			
• Types of arrowhead				
Symbolic representation –	8			
• Different symbols used in the Painter (General) trades.				