

For First Year

All Engineering Trade



Name of the ITI:-Industrial Training Institute,

Name of the Instructor :-

		Eı	ngineeri	ng Draw	ring 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		2			Geometrical figures and blocks with dimension		2		
 Transferring measurement from the given object to the free hand sketches. 					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		
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.		2		
Angle, Triangle, Circle, Rectangle, Square, Parallelogram.	1	1			Lettering & Numbering – Single Stroke.		2		
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		
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					2		
		2					2		
		2							
		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		
Total Hours	40	40				40	40		
1 oldi i loui 3	10					70	-10		

CTS Trades Covered: Foundryman	Time In	2 Hrs/Week	Date	Date Taken	CTS Trades Covered: Sheet Metal	Time In	2 Hrs/Week	Date Proposed	Date Taken
	Hours		Proposed			Hours			
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		
<u> </u>		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		
Total Hours	40	40			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		
					and difference)		2		
					Reading of Job drawing related to Sheet Metal trade.	8	2		
							2		
							2		
							2		
					Total Hours	40	40		

CTS Trades Covered: Plastic Processing Operator	Time In	2 Hrs/Week	Date	Date Taken	CTS Trades Covered: - Mechanic Auto Body Repair, Mechanic Auto	Time In	2 Hrs/Week	Date Proposed	Date Taken
J .	Hours		Proposed		Electrical and Electronics, Mechanic Diesel, Mechanic Tractor,	Hours			
			•		Mechanic Two and Three-wheeler				
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		2			Transferring measurement from the given object to the free		2		
sketches.					hand sketches.				
 Free hand drawing of hand tools and measuring tools. 					Free hand drawing of hand tools and measuring tools.		2		
Drawing of Geometrical figures:	4				Drawing of Geometrical figures:	4			
Angle, Triangle, Circle, Rectangle, Square, Parallelogram.		2			Angle, Triangle, Circle, Rectangle, Square, Parallelogram.		2		
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	2 Hrs/Week	Date	Date Taken	CTS Trades Covered: Fitter, Turner, Machinist, Machinist Grinder,	Time In	2 Hrs/Week	Date Proposed	Date Taken
	Hours		Proposed		Mechanic Machine Tool Maintenance, Operator Advance Machine	Hours			
					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				
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 					Transferring measurement from the given object to the free				
sketches.	1				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	1				Position of dimensioning (Unidirectional, Aligned)				
Concept of Orthographic and Isometric projections	1				Symbolic representation –	4			
 Method of first angle and third angle projections (definition and 	1				Different symbols used in the related trades.				
difference)									
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	2 Hrs/Week	Date	Date Taken	CTS Trades Covered: Plumber	Time In	2 Hrs/Week	Date Proposed	Date Taken
	Hours		Proposed			Hours			
Introduction to Engineering Drawing and Drawing Instruments –	2				Introduction to Engineering Drawing and Drawing Instruments –	2			
• Conventions					Conventions	1			
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: Electrician, Wireman, Electroplater, Lift & Escalator	Time In	2 Hrs/Week	Date	Date Taken	CTS Trades Covered: Tech. Medical Electronics, Technician	Time In	2 Hrs/Week	Date Proposed	Date Taken
Mechanic, Electrician Power Distribution	Hours		Proposed		Mechatronics, Technician Power Electronics System, Electronics	Hours			
					Mechanic, Mechanic Consumer Electronics Appliances, Tech.				
					Electronic System Design & Repair				
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 free	1				Transferring measurement from the given object to the free				
hand sketches.					hand sketches.				
Free hand drawing of hand tools.					Free hand drawing of hand 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	1				Lettering & Numbering – Single Stroke				
Stroke					Symbolic representation –	4			
Dimensioning Practice	2				Different Electronic symbols used in the related trades				
Types of arrowhead					Reading of Electronic Circuit Diagram	14			
Symbolic representation –	4				Reading of Electronic Layout drawing	10			
Different electrical symbols used in the related trades									
Reading of Electrical Circuit Diagram	14]							
Reading of Electrical Layout drawing	8								

CTS Trades Covered: Instrument Mechanic (Chemical Plant), Attendant	Time In	2 Hrs/Week	Date	Date Taken	CTS Trades Covered: Information and Communication Technology	Time In	2 Hrs/Week	Date Proposed	Date Taken
Operator (Chemical Plant), Laboratory Attendant (Chemical Plant),	Hours		Proposed		System Maintenance, Information Technology	Hours			
Maintenance Mechanic (Chemical Plant)									
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 free hand sketches. 					Transferring measurement from the given object to the free hand sketches.				
Free hand drawing of hand tools.					Free hand drawing of hand tools.				
Drawing of Geometrical figures:	4				Symbolic representation –	12			
Angle, Triangle, Circle, Rectangle, Square, Parallelogram.					Different symbols used in the related trades				
Lettering & Numbering – Single Stroke	7				Reading of Network system Diagram& Hardware component	20			
Dimensioning Practice	2			1			<u> </u>		
 Types of arrowhead 									
Symbolic representation –	4								
 Different symbols used in the related trades 									
Reading of chemical plant Circuit Diagram	14								
Reading of Chemical plant Layout drawing	8								

CTS Trades Covered: Mechanic Agricultural Machinery, Mechanic Motor	Time In	2 Hrs/Week	Date	Date Taken	CTS Trades Covered: Refrigeration and Air conditioning & Central Air	Time In	2 Hrs/Week	Date Proposed	Date Taken
Vehicle, Mechanic Electric Vehicle	Hours		Proposed		condition Plant Mechanic	Hours			
Introduction to Engineering Drawing and Drawing Instruments –	2				Introduction to Engineering Drawing and Drawing Instruments –	2			
Conventions	1				Conventions				
Sizes and layout of drawing sheets	1				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	1				Geometrical figures and blocks with dimension				
Transferring measurement from the given object to the free] [Transferring measurement from the given object to the free				
hand sketches.					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] [Method of first angle and third angle projections (definition				
difference)	<u> </u>				and difference)				
Reading of Job drawing of related trades.	8				Reading of Job drawing related to trades.	8			

			1	
CTS Trades Covered: Painter (General)	Time In	2 Hrs/Week	Date	Date Taken
	Hours		Proposed	
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, 	1			
double stroke, inclined				
Dimensioning	10			
Types of arrowhead				
Symbolic representation –	8			
 Different symbols used in the Painter (General) trades. 				