

The Public Auth	ority for Ap	plied Educatio	n and Training
The Higher Institute of Energy		HIE- TI	D - QP03 – F621
Department			
Major: Hoteling Equipment		d Certificate: Diploma	Program Duration: Two years
Maintenance		,	(4 Semesters)



## FIRST TRAINING SEMESTER

Course Title	ourse Title Mechanical Sciences					
Course Code		PH 101		Credits	5	
Lecture Hours	4	Practical Hours	Practical Hours 2		6	
Lecture Hours 4 Practical Hours 2 Total Hours 6 Course Description						

The course includes the basic concepts of heat engines and combustion science, internal combustion engines, identification of water sources and how to treat them, as well as classification of pumps and compressors.

Course Title Engineering Drawings			s (1)				
Course Code		PO 102		Credits	2		
Lecture Hours 0		Practical Hours	4	Total Hours	4		
Course Description							

A general introduction to technical engineering drawing, explaining the simple engineering processes with the explanation of free-hand drawing, drawing the isometric perspective.

Course Title		Thermodynamics (1)			
Course Code		PO 103		Credits	4
Lecture Hours	4	Practical Hours	Practical Hours 0		4
Lecture Hours 4 Practical Hours 0 Total Hours Course Description					

This course describes ideal gas properties, ideal gas process at constant pressure, volume, temperature, suffocation, and adiabatic process.

Course Title Vocational Behavior					
Course Code		PO 104		Credits	4
Lecture Hours	4	Practical Hours	0	Total Hours	4
Course Description					

The aim of the course is to know the definition of functional behavior - the importance of studying functional behavior - the aim of studying functional behavior and its characteristics (characteristics).

Course Title		Industrial Safety			
Course Code		PO 105		Credits	2
Lecture Hours	2	Practical Hours	0	Total Hours	2
Course Descripti	on				

This course explains the trainee's definition of accident types, workplace safety requirements, protection against electricity hazards, fire types and firefighting equipment.

Course Title		Technical Mathematics				
Course Code		MA 108		Credits	4	
Lecture Hours	4	Practical Hours	0	Total Hours	4	
Course Description						

Algebraic amounts- Equations of second order degree - Cartesian coordinates - static

Course Title		English Language (1)				
Course Code		EN 130		Credits	3	
Lecture Hours 2		Practical Hours	2	Total Hours	4	
Course Description						

Technical texts taken from a first course, in technical English book (1) - designed to furnish the trainer with terminology in specialization - teaching of extracts from the new horizon series book (5) together with exercises.

Course Title		Introduction to Compute			
Course Code		CS 101		Credits	1
Lecture Hours	0	Practical Hours	2	Total Hours	2
Course Description	1				

Computer ( definition , consistence, and operation system - Windows-Microsoft, saving ,and typing reports- shifting through files , tables preparation

## SECOND TRAINING SEMESTER

Course Title	Mechanical Measurement				
Course Code		PM 155		Credits	3
Lecture Hours	2	Practical Hours	2	Total Hours	4
Course Description					

curriculum aims to inform trainee knowledge of mechanical couples ,machining finishing accuracy, fits and tolerance system, dies ,temperature effects on dies, threading dimensions, special measuring tools .

Course Title		Workshop Technolo			
Course Code		PM 151		Credits	4
Lecture Hours	2	Practical Hours	Practical Hours 4		6
Course Descript	ion				

curriculum aims to inform trainee knowledge of metal joining temporary and permanent, metal joining with electric and oxy- acetylene welding ,bras sing and rules of safety in welding .

Course Title		Engineering Drawing (2)			
Course Code		PO 166		Credits	2
Lecture Hours	0	Practical Hours	4	Total Hours	4
Course Description					

curriculum aims to inform trainee knowledge of projections drawing for incarnate which contain hidden lines and cross sections in different sides and engineering symbols.

Course Title		Estimation			
Course Code		PM 153		Credits	4
Lecture Hours	4	Practical Hours	0	Total Hours	4
Course Description					

curriculum aims to inform trainee knowledge of the cost estimation ways for work piece like row materials , operation time ,worker wages, gains . consumable materials in electric and oxy- acetylene welding and calculate time of strait and taper lathing .

Course Title		Theory of Machines			
Course Code		PM 205		Credits	3
Lecture Hours	2	Practical Hours	2	Total Hours	4
Course Description					

curriculum aims to inform trainee knowledge of basis understanding for force, energy ,power, torque and center of gravity , mechanism of transfer rotation motion to frequency motion ,pulley ,inclined plain ,belts, gears, cams functions and specification.

Course Title	Technical Mathematics (2)						
Course Code		MA 154		Credits	3		
Lecture Hours	3	Practical Hours 0		Total Hours	3		
Course Description							
Triangles calculation - Vec	tor -	Compley numbers.	Calci	lations and Integrati	one		

Triangles calculation - Vector - Complex numbers- Calculations and Integrations

Course Title		English Language(2)				
Course Code		EN 166		Credits	2	
Lecture Hours	1	Practical Hours	2	Total Hours	3	
Course Description						

Text from a first Course in Technical English Book ( 2 ) with a view to furnishing the trainer with terminology in specialization Teaching of extracts from the new horizon series book ( 2 ) together with exercises.

Course Title		Computer				
Course Code		CS 101		Credits	1	
Lecture Hours	0	Practical Hours	2	Total Hours	2	
Course Description						

Computer ( definition , consistence, and operation system - Windows- Microsoft, saving ,and typing reports- shifting through files , tables preparation .

Institute Director Department Head



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## THIRD TRAINING SEMESTER

Course Title		Combustion Techno			
Course Code		PH 201		Credits	4
Lecture Hours	4	Practical Hours	0	Total Hours	4
Course Description					

The course aims to give the trainee the theoretical and imperial principals of combustion process and the methods used in get rid of solid , liquid and gas wastes.

Course Title		Infection Sciences				
Course Code		PH 202		Credits	3	
Lecture Hours	3	Practical Hours	0	Total Hours	3	
Course Description	1					

The course aims to give the trainee theoretical principals of infection control science in hospitals and its applications in all the department in the hospital specially in central sections.

Course Title	Workshop Technology (3)			3)	
Course Code		PM 201		Credits	4
Lecture Hours	2	Practical Hours	4	Total Hours	6

Course Description

The course aims to give the trainee the theoretical and empirical principals to carry out machining process on lathe , shipping , milling, and drilling machines

Course Title	Mechanical Vibrations				
Course Code		PM 209		Credits	3
Lecture Hours	2	Practical Hours	2	Total Hours	4
Course Description					

curriculum aims to inform trainee knowledge of moving science ,moving particle ,vibration motions round and harmonious, free vibration, Newton second law, damping free vibration ,non-vibration motion, lost energy in viscous damping and recognition vibration measuring instrument .

Course Title		Lub. & Grease Techi	ogy			
Course Code PN		PM 211		Credits	3	
Lecture Hours	2	Practical Hours	2	Total Hours	4	
Course Description						

curriculum aims to inform trainee knowledge of oil types , flame point, pour point, freezing point, carbon precipitation, power transmit by oil, viscosity units, viscosity measurement, equipment of lubrications ,grease types, turbine oil specifications.

Course Title		Diagrams Reading			
Course Code		PO 168		Credits	3
Lecture Hours	2	Practical Hours	2	Total Hours	4
Course Description					

This course covers the recognized type of diagram especially for power station and how to read it.

Course Title		Control and Protection System				
Course Code		NH202		Credits	3	
Lecture Hours	2	Practical Hours 2		Total Hours	4	
Course Description						

Electrical installation - Executions and faults of electrical installation-Types of switches - Earth leakage - Types of motor - Ammeter Voltmeter instrument, control panel of motor - contactor - - push button - single line diagram .

Course Title		Technical English (1	)					
Course Code		EN 201	201 Credits		2			
Lecture Hours	1	Practical Hours	2	Total Hours	3			
Course Description								

Teaching materials based on the series ( MAMILAN CAREER ENGLISH-MECHANICAL ENGINEERING) designed to familiarize trainees with idioms and technical terminology in his professional field .

## FOURTH TRAINING SEMESTER

Course Title		Laundry Equipment	Mair	ntenance	2		
Course Code		PH 251	Credits		3		
Lecture Hours	0	Practical Hours	6	Total Hours	6		
Course Description							

The course aims to give the trainee a basic principle to do maintained to washing machine and its accessories such as heaters , gear boxes , shaft alignments ,

Course Title		Burning Equipment	Main	tenance	
Course Code		PH 252 Credits		Credits	3
Lecture Hours	0	Practical Hours	6	Total Hours	6

**Course Description** 

This course gives the trainee a principal to maintain machines used in waste combustions and its accessories such as combustion chamber , waste ( solid - liquid - gas treatment )unit

Course Title		Auxiliary Equipment	Mai	ntenance		
Course Code		PH 253 Credits		Credits	3	
Lecture Hours	cture Hours 0 Practical Hours		6	Total Hours	6	
Course Description						

The course aims to give the trainee a necessary knowledge about pumps , compressors , filters piping and its maintenance

Course Title		Hoteling Equipment Operation				
Course Code		PH 254 Credits		Credits	4	
Lecture Hours	3	Practical Hours	2	Total Hours	5	

**Course Description** 

This course aims to give the trainee the basic principles to operate equipment in washing hole such as boilers, washers , dryer & ironing machine

Course Title		Mechanical Maintena	ance	Management		
Course Code		PM 251 Credits		Credits	4	
Lecture Hours	4	Practical Hours 0		Total Hours	4	
Course Description						

curriculum aims to inform trainee knowledge of maintenance types , preventive and corrective maintenance ,corrective and preventive maintenance programs, maintenance charts, maintenance economy and maintenance contracts .

Course Title		Technical English (2	hnical English (2)				
Course Code		EN 251		Credits	3		
Lecture Hours	1	Practical Hours	2	Total Hours	4		

**Course Description**Teaching materials based in information presented in Hoteling equipment

maintenance fundamentals. How an operator obtains information of instrument action, determines what is happening in the system. Detects problems and takes actions during emergencies, this teaching material includes exercises, idioms and technical terminology used in his professional field.

Institute Director Department Head