

Mechanical Maintenance Engineering Technology Program
The selected topics included in the Orientation Lecture for the Students

#	Course Name	Code	Topics	Targeted PLOs						Faculty Member	
				K1	S1	S2	S3	S4	V1		V2
1	Applied Thermodynamics	216MMET	<ul style="list-style-type: none">- Thermodynamics system- Open and closed system- Types of equilibrium- Types of energy- Specific heat at constant ‘V’ and ‘P’- Zeroth law, First law & Second law of thermodynamics- heat engine, refrigerator, heat pump- Calculation of efficiency of heat engine- Determination of COP of refrigerator and Heat pump	√	√			√			Dr. R. Sundaresan
2	Metrology and Quality control	231MMET		√		√		√		√	Mr. Farooque
3	Hydraulics and Pneumatics	232MMET	<ul style="list-style-type: none">- Hydraulics & Pneumatics- Pascal’s law- Pressure, Flow and directional control valves- 4/3, 4/2 3/2, way valves- Pneumatic motors, actuators- Boyle’s law and single and double acting cylinders- Safety factors,- Types of electrical control switches- Calculation of forces volume using Boyles law	√	√	√	√			√	Dr. R. Sundaresan

4	Welding and Inspection	233MMET		√			√	√		√	Dr. Osama Hamed
5	Machine Elements	241MMET	<ul style="list-style-type: none"> - Force, Pressure, Torque, Power, friction and efficiency - Stresses and their types - Properties of Areas - Mechanical Sealing - Shafts and axles and their stresses - Blueprints, Fits, and Tolerances - Bearings - Fasteners (Bolts, Keys, Pins) - Power Transmissions - Coupling, Clutches, and Brakes - Springs 	√	√	√		√		√	Dr. Essam Shaban
6	Plant Maintenance	251MMET	<ul style="list-style-type: none"> - Terms in maintenance - Corrective maintenance - Scheduled maintenance - Predictive maintenance - Preventive maintenance - Shutdown maintenance - Lubrication, its functions & types - Couplings maintenance - Seals (static& Dynamic), - Gaskets(Uses, types and maintenance) - Symbols used in plant maintenance - GANTT Chart, CPM , PERT, and TPM 	√		√	√			√	Dr. Anil Kumar
7	Power Generation Systems	261MMET	<ul style="list-style-type: none"> -Technologies of power generation - Renewable energy sources - interconnected operations of different power generation systems 	√	√			√			Dr. Waleed Zakri

			<ul style="list-style-type: none"> - Equipment involve in different power plant and their tasks. - economic aspects in power generation 								
8	Refrigeration and Air Conditioning Technology	271MMET	<ul style="list-style-type: none"> - Refrigeration - Heat pump - Hydrofluro carbons - Vapour compression cycle - Unit of refrigeration - Compressor, condenser, expansion devices, evaporator - Types of condenser - Types of compressor - Efficiency of heat engine - COP of heat pump and Refrigerator 	√	√	√					Dr. R. Sundaresan