

List of M.Sc. by Research / Ph.D. course work subjects that can be offered under
Mechanical Engineering Group from 2009

Group I		Group II		Group III		Group IV	
Subject Code	Name of the subject	Subject Code	Name of the subject	Subject Code	Name of the subject	Subject Code	Name of the subject
09MPM253	Modern Trends in Management	09MMD152	Optimum Design	09MPD152	Knowledge Management	09MPM246	Nano Technology
09MMT11	Maintenance Engineering & Management	09MPY245	Project Management	09MES22	Energy Management	09MPD241	Product Data Management
09MPD251	Product Planning & Marketing	09MPD143	Quality by design	09MEM141	Human Resource Management	09MEM22	Financial Management
09MEM143	Industrial Relations	09MTP23	Thermal power station-II	09MEM151	Managerial Economics	09MEM152	Computer Applications in Management
09MPM156	Product data management	09MEM23	Organizational Behavior	09MMT152	Surface treatment & finishing	09MDE151	Dynamics and Mechanism Design
09MMD23	Composite Materials	09MEM251	Advanced Operation Research	09MTE12	Theory of Elasticity and Plasticity	09MPD11	Product Design and Development
09MDE153	Advanced Theory of Vibrations	09MDE141	Tribology and Bearing Design	09MDE143	Mechatronics system design	09MMD252	Smart material & structure
09MMD12	Experimental Stress Analysis	09MMD242	Rotor dynamics	09MDE243	Theory of Plates and Shells	09MTP254	Measurement systems & Experimental Techniques
09MPD21	Industrial Design & Economics	09MDE251	Fracture Mechanics	09MPD252	Virtual Reality	09MTP13	Thermal Power Station-I

09MTE143	Jigs and Fixtures Design	09MPD22	Rapid Prototyping	09MMD22	Advanced Machine Design	05MTP251	Design and analysis of piping
09MES11	Non Conventional Energy system	09MTE241	Design Analysis	09MMT21	Failure Mechanism and analysis	09MPD151	Design for manufacture
09MES151	Theory of SI and CI Engines	09MTE21	Finite Element Analysis	09MES12	Conventional Energy Conversion System	09MPM22	Advanced Metal Joining Process
09MES142	Energy Conversion-I	09MES152	Biomass Energy Systems	09MES143	Applied numerical analysis	09MPY242	Ferrous & non ferrous foundry practice
09MTP141	Heat Transfer	09MES252	Energy storage	09MES251	Energy from Wastes	09MPT151	Non Destructive Testing
09MPM21	Computer Integrated Manufacturing and Automation	09MTP22	Design of Heat Exchangers	09MTP151	Computational heat transfer & fluid flow	09MPT145	Production system & control
09MPY11	Theory of Metal Cutting	09MTP11	Advanced Fluid Mechanics	09MES241	Alternate Fuel for IC Engines	09MMD152	Optimum design
09MPM144	Quantitative Techniques in Decision Making	09MTP142	Conduction and Radiation Heat Transfer	09MES13	Thermodynamics and Combustion Engineering	09IAR252	Modeling of management information system
09MPM244	Fluid power and control Engg.	09MTP241	Theory and Design of Steam and Gas Turbines	09MTE251	CNC Machining	09IAR12	Robotics for industrial automation
09MMT22	Maintenance	09MPM141	Robotics	09MPM13	Theory of Metal	09MEA243	Micro Electro

	of Machinery				Forming		Mechanical Systems (MEMS)
09MCM11	Computer aided design	09MPD242	Simulation and Modeling of Mfg. System	09MTE11	Die Casting and Die Design	09MEA11	Theoretical stress & analysis
09MCM13	Advanced material technology	09MPY241	Tool Design	09MPT142	Quality and reliability Engg	09MES141	Wind Energy system
09MDE11	Computer graphics	09MPT23	Non Traditional Machining	09MTE141	Gauges and Measurements	09MCM12	Computer control of manufacturing system
09MEA153	Computational fluid dynamics	09MCM22	Flexible Manufacturing System	09MSE151	Agile Engineering	09MCM243	Machine Tool Dynamics
09MEA22	Power plant design	09IAR141	Modeling simulation and analysis of manufacturing system	09MPM255	Financial management	09MAE242	Structural Design
09IAR254	Artificial intelligence & expert system in automation	09IAR23	Microprocessor & Micro controller	09IAR151	Knowledge based management	09MPT244	Modeling and Analysis of thermal power engineering
09IAR152	Concurrent engineering for manufacturing	09MMD13	Theory of Elasticity	09MPD23	Lean manufacturing system	09MAE153	CAD/CAM
09MMD241	Theory of Plasticity	09MES242	Energy conversion-II	09MTP242	Nuclear Energy Conversion	09MAE252	Material Management & logistic support
09MEA141	Advanced	09MMT142	Operation and	09MTP143	Convective Heat	09MCM142	Condition

	product design		maintenance of hydraulic & Pneumatic systems		& Mass Transfer		based maintenance
09MTP21	Advanced power plant cycles	09MMT241	Noise measurement analysis & control	09MEA143	Production tooling	09MTP243	Engine Flow & Combustion
09MTL01	Experimental Methods in Materials & Mfg. (Lab)	09MTL01	Experimental Methods in Materials & Mfg. (Lab)	09MTL01	Experimental Methods in Materials & Mfg. (Lab)	09MTL01	Experimental Methods in Materials & Mfg. (Lab)