ME MANUFACTURING

SEM I

MME 601 Advanced Machining Science

CO1 Student will able to Classify conventional and non-conventional machining processes.

CO2 Student will able to Understand mechanism of metal cutting.

CO3 Student will able to Determine force, stress, temperature, tool life, tool wear in metal cutting.

CO4 Student will able to Identify method of cutting fluid delivery, surface integrity evaluation and minimum cost and production time in metal cutting.

CO5 Student will able to Describe the mechanism and mechanics of grinding processes.

CO6 Student will able to Understand mechanism, application, limitations and benefits of various non-conventional machining processes.

MME 602 Advanced Joining Processes

CO1 Students will understand the theoretical aspects of welding technology in depth.

CO2 Students will be able to intelligently select the appropriate Modern welding process for an application.

CO3 Students will be able to describe the basic metallurgy of the melted and heat-affected zone of a metal or alloy

CO4 Students will be able to choose or adjust welding parameters and techniques to optimize the weldment properties.

MME 603 Computer Integrated Manufacturing

CO1 Students will able to learn the different types of manufacturing available today such as the Special manufacturing System, the Manufacturing Cell, and the Flexible Manufacturing System (FMS).

CO2 Students will able to learn the fundamentals of computer assisted numerical control programming and programming languages.

CO3 Students will able to learn the concepts of Computer Integrated Manufacturing and Management System and automated flow lines.

CO4 Students will able to learn the guidelines and criteria for implementing CAD/CAM Systems and associated software for design, Manufacturing, and a common CAD/CAM data base organized to serve both design and manufacturing.

CO5 Students will able to discuss current research trends and possible future development.

MME 604 Processing of Advanced Materials

CO1 Student will able to Understand the advanced materials and their applications

CO2 Student will able to Describe the manufacturing methods for GFRP composites

CO3 Student will able to Explain the manufacturing methods for MMC and CMC composites

CO4 Student will able to Identify the difficulties in machining of advanced materials

CO5 Student will able to Understand the application of High speed machining for advanced materials

MME 641-C Technology and Knowledge Management

CO1 Student will able to Define knowledge edge and classify drivers of knowledge management.

CO2 Student will able to Study the process of conversion from information to knowledge.

CO3 Student will able to Understand the different phases of knowledge management.

CO4 Student will able to Study different strategies to achieve successful knowledge management system.

CO5 Student will able to Explain infrastructural need and different layers for knowledge management.

CO6 Student will able to Study the measuring process of knowledge growth and failure and creating the knowledge management blue print.

Course Outcome

SEM II

MME 651 Metal Forming Processes

CO1 Student will able to Understand theory of plasticity and yield criteria

CO2 Student will able to Do the mathematical modeling of metal forming processes

CO3 Student will able to Analyze metal forming processes

CO4 Student will able to Design rolls for rolling, forging and extrusion

CO5 Student will able to Describe the latest trends in metal forming

MME 652 Manufacturing Process Modeling

CO1 Student will able to Explain the Principles of the Manufacturing Process Modeling

CO2 Student will able to Study the Simulation, Models and Applications of the Simulation

CO3 Student will able to To represent the Graph Theoretic Algorithms & Regression Methods

CO4 Student will able to Understand the Neural Network and Search Techniques

MME 653 Robotics and Manufacturing Automation

CO1 Student will able to To Study the Development in Sensors and Grippers

CO2 Student will able to Understand the Stepper Motor and Servo Motor in Robotics

CO3 Student will able to Describe Applications of Robots in Manufacturing Process

CO4 Student will able to Understand the Robot Path Control

MME 654 Manufacturing Meteorology and Quality Engineering

CO1 Student will able to To Study the instruments based on Laser Meteorology

CO2 Student will able to To understand the CMM (Co-Ordinate Measuring Machine)

CO3 Student will able to To Study Optoelectronic and Vision System

CO4 Student will able to To understand Computer integrated Quality Assurance.

MME 691-D Manufacturing Management

CO1 Student will able to To understand the Scope of Manufacturing Management and World Class Manufacturing

CO2 Student will able to To Study Just in time Manufacturing and Kaizan

CO3 Student will able to To study the Supply Chain Management and Lean Manufacturing.

SEM III

MME 731 Dissertation Part I

CO1 Student will able to Identify methods and materials to carry out experiments/develop code.

CO2 Student will able to Reorganize the procedures with a concern for society, environment and ethics.

CO3 Student will able to Analyze and discuss the results to draw valid conclusions.

CO4 Student will able to Prepare a report as per recommended format and defend the work

CO5 Student will able to Explore the possibility of publishing papers in peer reviewed journals/conference proceedings.

SEM IV

MME 781 Dissertation Part II

CO1 Student will able to Identify methods and materials to carry out experiments/develop code.

CO2 Student will able to Reorganize the procedures with a concern for society, environment and ethics.

CO3 Student will able to Analyze and discuss the results to draw valid conclusions.

CO4 Student will able to Prepare a report as per recommended format and defend the work

CO5 Student will able to Explore the possibility of publishing papers in peer reviewed journals/conference proceedings.