

B.E. Mechanical Engineering (Manufacturing)

PROGRAMME EDUCATIONAL OBJECTIVES

1. The graduates acquire ability to create model, design, synthesize and analyze essential production operational skills, mechanism and automation system.
2. The graduates use their talent, self-confidence, knowledge and engineering practice which facilitate them to presume position of scientific and/or managerial leadership in their career paths.
3. The graduates will adopt ethical attitude and exhibit effective skills in communication management team work and leader qualities.
4. The graduates apply their consciousness of moral, professional responsibilities and motivation to practice life-long learning in a team work environment.

PROGRAM OUTCOMES

After the successful completion of the B.E. Mechanical Engineering (Manufacturing) degree programme, the students will be able to:

PO1: INTEGRATION OF KNOWLEDGE Demonstrate strong basics in mathematics, science, engineering and technology which serve as the foundation for the Programme.

PO2: PROBLEM ANALYSIS Demonstrate the ability to design and conduct experiments, as well as to analyze and interpret data in the spheres of fundamental engineering.

PO3: DESIGN AND DEVELOPMENT OF SOLUTIONS Demonstrate the ability to design a system, component or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability and sustainability.

PO4: USE OF MODERN TOOLS AND TECHNIQUES Become familiar with modern engineering tools and analyse the problems within the domains of Manufacturing Technology as the members of multidisciplinary teams

PO5: COLLABORATIVE AND MULTIDISCIPLINARY APPROACH Acquire the capability to identify, formulate and solve engineering problems related to manufacturing engineering in interdisciplinary and multidisciplinary sciences

PO6: ETHICAL PRACTICES AND SOCIAL RESPONSIBILITIES Demonstrate an understanding of professional and ethical responsibility with reference to their career in the field of manufacturing engineering.

PO7: COMMUNICATION SKILLS Interact with engineering community and with society at large, regarding intricate engineering activities on technical perspectives and emerge as an efficient motivator. He will be able to communicate effectively both in verbal and non verbal forms.

PO8: PROJECT MANAGEMENT Design and develop innovative / manufacturable / marketable/ environmental friendly products useful to the society and nation at large. Graduate will be able to manage any organization well and will be able to emerge as a successful entrepreneur

PO9: LIFE LONG LEARNING Understand the value for life long-long learning, in the context of technological challenges.

PO10: ENVIRONMENT AND SUSTAINABILITY Acquire ample knowledge essential for sustainable development in consideration of environmental impacts and contemporary issues.

PO11: SOCIAL RESPONSIBILITY Understand the nature of profession and be vigilant in order to maximize the chances of a positive contribution to society.

PO12: INVESTIGATION OF COMPLEX PROBLEM Perform investigations, design and conduct experiments, analyze and interpret the results to provide valid conclusion.

M.E. Manufacturing Engineering

PROGRAMME EDUCATIONAL OBJECTIVES (PEO)

1. The graduates acquire ability to create model, design, synthesize and analyze essential production operational skills, mechanism and automation system.
2. The graduates use their talent, self-confidence, knowledge and engineering practice which facilitate them to presume position of scientific and/or managerial leadership in their career paths.
3. The graduates will adopt ethical attitude and exhibit effective skills in communication management team work and leader qualities.
4. The graduates apply their consciousness of moral, professional responsibilities and motivation to practice life-long learning in a team work environment.

PROGRAM OUTCOMES (PO)

Upon Completion of the two years of the Master of Manufacturing Engineering Degree,

PO1: INTEGRATION OF KNOWLEDGE Acquire and apply fundamental knowledge and understanding of Science and Technology of Production and Industrial Engineering.

PO2: PROBLEM ANALYSIS Acquire abilities and capabilities to solve problems in the areas of advanced manufacturing methods, quality assurance and shop floor management.

PO3: DESIGN AND DEVELOPMENT OF SOLUTIONS Demonstrate the ability to improve a production process or system that meets desired specifications and requirements by following professional and intellectual integrity, professional code of conduct, ethics on professional practices, understanding responsibilities and norms for sustainable development of society.

PO4: USE OF MODERN TOOLS AND TECHNIQUES Formulate relevant research problems; conduct experimental and/or analytical work and analyzing results using modern mathematical and scientific methods.

PO5: COLLABORATIVE AND MULTIDISCIPLINARY APPROACH Design and validate technological solutions to defined problems and write clearly and effectively for the practical utilization of their work by interacting with the engineering community and with society at large, regarding intricate engineering activities on technical perspectives and emerge as an efficient motivator.

PO6: PROJECT MANAGEMENT Design and develop innovative / manufacturable / marketable/ environmental friendly products useful to the society and nation at large. Graduate will be able to manage any organization well and will be able to emerge as a successful entrepreneur

PO7: COMMUNICATION SKILLS Interact with engineering community and with society at large, regarding intricate engineering activities on technical perspectives and emerge as an efficient motivator. He will be able to communicate effectively both in verbal and non verbal forms.

PO8: SOCIAL RESPONSIBILITY Understand the nature of profession and be vigilant in order to maximize the chances of a positive contribution to society.

PO9: INVESTIGATION OF COMPLEX PROBLEM Perform investigations, design and conduct experiments, analyze and interpret the results to provide valid conclusion.

M.E. Welding Engineering

PROGRAMME EDUCATIONAL OBJECTIVES (PEO)

1. The graduates acquire ability to create model, design, synthesize and analyze essential welding skills, mechanism and automation system.
2. The graduates use their talent, self-confidence, knowledge and engineering practice which facilitate them to presume position of scientific and/or managerial leadership in their career paths.
3. The graduates will adopt ethical attitude and exhibit effective skills in communication management team work and leader qualities.
4. The graduates apply their consciousness of moral, professional responsibilities and motivation to practice life-long learning in a team work environment.

PROGRAM OUTCOMES (PO)

Upon Completion of the two years of the Master of Welding Engineering Degree,

PO1: ASSIMILATION OF KNOWLEDGE Acquire fundamental knowledge and understanding of welding processes and materials.

PO2: INTEGRATION OF KNOWLEDGE Apply knowledge of materials to prescribe appropriate welding technique for specific applications;

PO3: USE OF MODERN TOOLS AND TECHNIQUES Model and simulate welding processes to conduct experiments and analyze the performance using modern tools;

PO4: ETHICAL PRACTICES AND SOCIAL RESPONSIBILITIES Understand the environmental issues related to each welding methods and try to develop „green and clean welding“ methods.

PO5: DESIGN AND DEVELOPMENT OF SOLUTIONS Formulate relevant research problems; conduct experimental and/or analytical work and analyzing results using modern mathematical and scientific methods.

PO6: COLLABORATIVE AND MULTIDISCIPLINARY APPROACH Design and validate technological solutions to defined problems and write clearly and effectively for the practical utilization of their work by interacting with the engineering community and with society at large, regarding intricate engineering activities on technical perspectives and emerge as an efficient motivator.

PO7: PROJECT MANAGEMENT Design and develop innovative / manufacturable / marketable/ environmental friendly products useful to the society and nation at large. Graduate will be able to manage any organization well and will be able to emerge as a successful entrepreneur

PO8: COMMUNICATION SKILLS Interact with engineering community and with society at large, regarding intricate engineering activities on technical perspectives and emerge as an efficient motivator. He will be able to communicate effectively both in verbal and non verbal forms.

PO9: INVESTIGATION OF COMPLEX PROBLEM Perform investigations, design and conduct experiments, analyze and interpret the results to provide valid conclusion.

