Pandit Deendayal Petroleum University (PDPU), Gandhinagar
School of Technology
Department of Mechanical Engineering
M.Tech Mechanical Engineering (Manufacturing Technology)

About the Program

Manufacturing of any product using conventional techniques, involves several steps such as primary manufacturing (using casting, forming and powder metallurgy) to impose basic size and shape on the product, joining & welding, machining and finishing. In today's world, industries are applying changes in manufacturing filed to take advantages of high productivity, low cost and special properties of manufactured component. In connection to same, research and academia are growing in leaps and bounds. To meet this ever rising changes, the talent pool has to be grown and trained to cater the needs to the market. This master course titled "M.Tech Mechanical Engineering (Manufacturing Technology)" has been designed to enable learning about history & philosophy of industry and to understand the advance of manufacturing process and engineering along with development of managerial skills and in-depth technical knowledge by keeping focus on energy and energy based systems.

Department of Mechanical Engineering has in total about 29 faculties and out of them 23 are holding Doctorate Degree and other faculties are pursuing their Ph.D. Department has a good strength of faculties who have their specialization in the domain of **Manufacturing Engineering/Technology**. Department is also equipped with the required laboratories that can be used to prepare the students for the academics and research. Following is the list of such laboratories:

- Manufacturing Processes laboratory (Central Workshop)
- Production Technology (Central Workshop)
- Welding research laboratory (Central Workshop)
- Computer aided manufacturing laboratory (Central Workshop)
- Mechanical measurements and metallurgy lab (Second floor, E block)
- Advanced manufacturing laboratory (Siemens CoE)
- CIM simulation laboratory (Siemens CoE)

The key objectives of this program are to prepare students:

- To understand and analyze advanced manufacturing processes and their technologies
- To gain insights of advanced joining, additive manufacturing processes and materials processing.
- To attain knowledge on advanced machining processes and its behavior.

Who is eligible to apply?

Minimum aggregate 60% or CPI/CGPA 6.5 in 10 points scale in the qualifying degree in respective discipline.

Pre-requisite:

Students are expected to have good background in mechanical/production/automobile/metallurgy/manufacturing/industrial engineering.

About Curriculum

The curriculum for the course has been designed by referring the curriculum of reputed Indian & Foreign Universities. It is further fine-tuned as per the industry requirement.

The curriculum has been structured in three phases:

1. Core Courses: The core courses are essential to provide critical understanding of theoretical and practical issues relating to manufacturing engineering.

2. Elective Courses: While core courses provide the breadth of program, the elective courses of manufacturing provide the length in the respective domains of the materials and manufacturing.

3. Research Project: The objective of this course is to affiliate the students from day one towards research in the manufacturing and materials processing with not only theory but practical aspects.