



NATIONAL INSTITUTE OF TECHNOLOGY PUDUCHERRY
(An Institute of national importance under MHRD, Govt. of India)
KARAIKAL-609 609

B.Tech., Curriculum and Syllabus for 2016 batch

Students admitted in academic year 2016-17 of B.Tech., follows the 2014 batch syllabus and curriculum. The following are the modifications in the 2014 syllabus and curriculum that are applicable only for the students admitted in academic year 2016-17:

1. The course title “CE102: Fundamentals of Civil Engineering” is changed as “CE102: Basic Civil Engineering”. Further the practical hours allotted to the course is removed and adjusted by including the following in the course content:
 - a. “Load carrying capacity of soil, Slabs” in Unit-II, “Bridges” in Unit-III & “Introduction to GIS” in Unit-IV
 - b. The phrase "brick and stone masonry" is replaced by “masonry” in the syllabus
2. The course title “ME102: Elements of Mechanical Engineering is changed as “ME102: Basics of Mechanical Engineering”.
3. The Professional Ethics course in II semester is moved to VI semester for all the departments.
4. The branch specific content of course titled “BS102: Introduction to Mechanical Engineering” is modified and attached as Annexure I.

Sd/-
Academic Coordinator



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Annexure - I

BS102 Introduction to Mechanical Engineering

OBJECTIVES

- To introduce the concepts, significance and importance of various streams of mechanical engineering.
- To introduce the concepts of design, various thermal equipment, various manufacturing processes
- To introduce the concepts of energy conversion system ,

UNIT-I

Introduction to all the mechanical engineering streams - Design, Thermal, Manufacturing, Automobile, Energy. Importance of various streams and its applications. Role of mechanical engineering in industry and society

UNIT-II

Concepts and classification of machine design, general consideration in machine design, General procedure in machine design, Classification of engineering materials, selection of materials for engineering purpose.

UNIT-III

Introduction to various thermal equipments – Boiler, turbine, compressor, pump, heat exchanger, furnace, steam systems, Insulation, Fans, Blower, cooling tower, waste heat recovery.

UNIT-IV

Introduction to various manufacturing processes – casting, machining, forming, joining, forging, Powder metallurgy.

UNIT-V

Introduction to automobile engineering, Classification of vehicles – drives - general layout, Introduction to various energy sources conventional and non-conventional power generation system

OUTCOMES

- Upon completion of this course, the students can able to various streams of mechanical engineering and its significance in various applications.



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TEXT BOOKS

- 1.K. Venugopal and V.Prabhu Raja, Anuradha Publisher, Basic mechanical Engineering
- 2.S.Trymbaka murthy I.K International publishing house Pvt. Ltd, Elements of Mechanical Engineering.Text Books
- 3.Lindberg, R.A.Process and Materials of Manufacture, PHI, 1999.
- 4.Nagpal, Power Plant Engineering, Khanna Publishers, Delhi, 1998.

REFERENCE BOOKS

- 1 Rajput, R K, Engineering Materials, S Chand & Co. Ltd., New Delhi, 2002.
- 2.El.Wakil, M.M., Power Plant Technology, Mc Graw Hill Book Co.,1985.
- 3.Hajra Choudhry, et. al., Workshop Technology Vol I and II, Media Promoters Publishers Pvt. Ltd., Bombay, 2004.
