

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT
Curriculum of B.Tech. Degree programme in
Mechanical Engineering (Production and Management)
(for 2003 admissions)

| | Code | Title | L | T | P | Cr | | Code | Title | L | T | P | Cr |
|---|----------------------|--|----------|----------|----------|--------------|---|----------------------|--|----------|----------|----------|-----------|
| | S₁ | Semester - I | | | | 20+3* | | S₂ | Semester - II | | | | 23 |
| 1 | MA101T | Mathematics I | 3 | 1 | 0 | 4 | 1 | MA102T | Mathematics II | 3 | 1 | 0 | 4 |
| 2 | SH101T | Physics I | 3 | 0 | 0 | 3 | 2 | SH102C | Physics II | 2 | 0 | 2 | 3 |
| 3 | ZZ101T | Engineering Mechanics I | 2 | 1 | 0 | 3 | 3 | ZZ102T | Engineering Mechanics II | 2 | 1 | 0 | 3 |
| 4 | ZZ103D | Engineering Graphics I | 1 | 0 | 3 | 3 | 4 | ZZ104D | Engineering Graphics II | 1 | 0 | 3 | 3 |
| 5 | SH103C | Chemistry | 2 | 0 | 2 | 3 | 5 | EE101T | Basic Electrical Engineering | 2 | 1 | 0 | 3 |
| 6 | SH106T | Professional Communication | 3 | 0 | 0 | 3 | 6 | EC101T | Basic Electronics Engineering | 2 | 1 | 0 | 3 |
| 7 | ME103L/ CE101L | Mechanical Engineering Workshop/ Civil Engineering Workshop | 0 | 0 | 2 | 1 | 7 | CS102T | Introduction to computing | 2 | 1 | 0 | 3 |
| 8 | OT | Ph. Edn.(1Cr.), Value Education (1Cr.) National Service Scheme (1Cr.) | | | | 3* | 8 | ME103L/ CE101L | Mechanical Engineering Workshop/ Civil Engineering Workshop | 0 | 0 | 2 | 1 |
| | S₃ | Semester - III | L | G | P | 19 | | S₄ | Semester - IV | L | G | P | 20 |
| 1 | MA201T | Mathematics III | 3 | 1 | 0 | 3 | 1 | MA202 T | Mathematics IV | 3 | 1 | 0 | 3 |
| 2 | EE216T | Electrical Measurements & Machines | 3 | 1 | 0 | 3 | 2 | ME 251T | Thermodynamics | 3 | 1 | 0 | 3 |
| 3 | ME211T | Mechanics of Fluids | 3 | 1 | 0 | 3 | 3 | ME 252T | Mechanics of Machinery | 3 | 1 | 0 | 3 |
| 4 | ME212T | Elements of Solid Mechanics | 3 | 1 | 0 | 3 | 4 | ME 253T | Advanced Mechanics of Solids | 3 | 1 | 0 | 3 |
| 5 | PM213T | Materials Science & Metallurgy | 3 | 1 | 0 | 3 | 5 | PM254T | Manufacturing Science | 3 | 1 | 0 | 3 |
| 6 | ME214D | Machine Drawing | 0 | 0 | 3 | 2 | 6 | PM255T | Metrology & Instrumentation | 3 | 1 | 0 | 3 |
| 7 | EE215 L | Electrical Measurements & Machines Lab | 0 | 0 | 3 | 1 | 7 | ME256L | Fluid Mechanics & Fluid Machinery Lab | 0 | 0 | 3 | 1 |
| 8 | CE294 L | Strength of Materials Lab | 0 | 0 | 3 | 1 | 8 | PM257L | Production Engineering Lab I | 0 | 0 | 3 | 1 |
| | S₅ | Semester - V | L | G | P | 20 | | S₆ | Semester - VI | L | G | P | 20 |
| 1 | ME301T | Principles of Management | 3 | 1 | 0 | 3 | 1 | ME 312T | Dynamics of Machinery | 3 | 1 | 0 | 3 |
| 2 | ME311T | Heat and Mass Transfer | 3 | 1 | 0 | 3 | 2 | PM352T | Operations Management | 3 | 1 | 0 | 3 |
| 3 | ZZ301Z | Environmental Studies | 3 | 1 | 0 | 3 | 3 | ME354T | Thermal Engineering | 3 | 1 | 0 | 3 |
| 4 | PM313T | Machining Science & Machine Tools | 3 | 1 | 0 | 3 | 4 | ME361T | Fundamentals of Control System Engineering | 3 | 1 | 0 | 3 |
| 5 | | Elective | 3 | 1 | 0 | 3 | 5 | ME362T | CAD/CAM | 3 | 1 | 0 | 3 |
| 6 | | Elective | 3 | 1 | 0 | 3 | 6 | | Elective | 3 | 1 | 0 | 3 |
| 7 | PM357L | Metrology & Instrumentation | 0 | 0 | 3 | 1 | 7 | ME382L | Thermal Engineering & Heat Transfer Lab | 0 | 0 | 3 | 1 |
| 8 | PM358L | Production Engineering Lab II | 0 | 0 | 3 | 1 | 9 | PM398P/ PM399P | Mini Project / Industrial Training | 0 | 0 | 3 | 1 \$ |
| | S₇ | Semester - VII | L | G | P | 21 | | S₈ | Semester - VIII | L | G | P | 21 |
| 1 | PM351T | Operations Research | 3 | 1 | 0 | 3 | 1 | PM451T | Tool Engineering & Design | 3 | 1 | 0 | 3 |
| 2 | ME401T | Machine Design | 4 | 0 | 0 | 4 | 2 | PM452T | Quality Engineering and Management | 3 | 1 | 0 | 3 |
| 3 | | Elective | 3 | 1 | 0 | 3 | 3 | SH341T | Industrial Economics | 3 | 1 | 0 | 3 |
| 4 | | Elective | 3 | 1 | 0 | 3 | 4 | | Elective | 3 | 1 | 0 | 3 |
| 5 | | Elective | 3 | 1 | 0 | 3 | 5 | | Elective | 3 | 1 | 0 | 3 |
| 6 | PM441L | Management Science Lab | 0 | 0 | 3 | 1 | 6 | PM497S | Seminar | 0 | 0 | 3 | 1 |
| 7 | PM442L | CAD & CAM Lab | 0 | 0 | 3 | 1 | 7 | PM499P | Project | 0 | 0 | 6 | 5 |
| 8 | PM498P | Project | 0 | 0 | 3 | 3 | | | | | | | |

* Three courses of one credit each, to be credited before completing six semesters of the programme.

\$ One of Mini Project and Industrial Training is compulsory. Candidates are free to credit both.