

**Birla Institute of Technology & Science Pilani, Rajasthan**

**B.E. (Hons) Manufacturing Engineering**

Semester wise pattern for students admitted to First degree program - B.E. (Hons) Mechanical Engineering :

<b>Year</b>	<b>First Semester</b>	<b>Second Semester</b>
1	General Biology Biology Laboratory General Chemistry Chemistry Laboratory Mathematics I Physics Laboratory Mechanics, Oscillations and Waves <b>Engineering Graphics</b>	Probability and Statistics Technical Report Writing Mathematics II <b>Workshop Practice</b> Computer Programming Electrical Sciences <b>Thermodynamics</b>
2	Humanities Electives Mathematics III <b>Materials Science &amp; Engineering</b> <b>Fluid Mechanics</b> <b>Applied Thermodynamics</b> <b>Mechanics of Solids</b> <b>Mechanical Engineering Laboratory</b>	<b>Manufacturing Management</b> <b>Machine Design &amp; Drawing</b> <b>Manufacturing Processes</b> <b>Kinematics &amp; Dynamics of Machinery</b> Humanities Electives Principles of Economics or Principles of Management
Summer	Practice School I	
3	Open/Humanities Electives <b>Mechatronics &amp; Automation</b> <b>Tool &amp; Fixture Design</b> <b>Metal Forming &amp; Machining</b> Discipline Electives	Open/Humanities Electives <b>Design of Machine Tools</b> <b>Casting &amp; Welding</b> <b>Computer Aided Design</b> Engineering Optimization Discipline Electives
4	Open Electives Discipline Electives	Practice School II or Thesis or Thesis and Electives

**Elective Courses Offered:**

Instrumentation and Control, Design of Machines Tools, Mechanical Engineering Design, Maintenance and Safety, Automotive Systems, Mechanical Vibrations and Acoustics, Manufacturing Excellence, Noise Engineering, Work System Design, Internal Combustion Engines, Lean Manufacturing, Supply Chain Management, Computer Aided Manufacturing, Quality Control Assurance and Reliability, Advances in Materials Science, Industrial Relations, Precision Engineering, Product Design and Development, Product Design and Development Projects, Project Appraisal, Special Projects.