

# Indian Institute of Technology Goa

## *B.Tech. Mechanical Engineering Curriculum – 2019 Batch*

<b>Semester 1</b>
Introduction to Computing
Calculus
Quantum Physics and applications
Physical Chemistry
Organic Chemistry & Inorganic Chemistry
National Sports Organisation
Chemistry Lab
Foundation Programme in Humanities and Social Sciences
Introduction to Manufacturing
Introduction to Profession

<b>Semester 2</b>
Introduction to Electrical and Electronics Engineering
Basic Linear Algebra
Ordinary Differential Equations
Electricity and Magnetism
Statics and Dynamics
Introductory Biology
National Sports Organisation
Physics Lab
Engineering Graphics and Computer Aided Design

<b>Semester 3</b>
Thermodynamics
Fluid Mechanics
Mechanics of Materials
Economics
Differential Equations II

<b>Semester 4</b>
Manufacturing Process I
Numerical Analysis
Engineering Metallurgy
Machine Drawing Lab

<b>Semester 5</b>
Applied Thermodynamics
Manufacturing Processes II
Language and Society
Kinematics & Dynamics of Machines
Manufacturing Processes Lab
Fluid Mechanics Lab
Solid Mechanics Lab

<b>Semester 6</b>
Machine Design
Industrial Engineering and Operations Research
Mechanical Measurements & Metrology
Digital Manufacturing Lab
Heat Transfer

<b>Semester 7</b>
6 MONTHS INTERNSHIP
OR
BTP
Elective 1
Elective 2

<b>Semester 8</b>
BTP Phase 2/Elective 1
Elective 2
Elective 3
Elective 4

<b>List of Electives offered</b>
Advance Convective Heat Transfer
Computational Heat and Fluid Flow
Fundamentals of Combustion
Finite Element Method
Mechanics of Composite Materials
Microscale Transport Phenomena and Microfluidics
Energy, Environment and Economics
Gas Dynamics
Continuum Mechanics
Mathematical Methods
Computer integrated Manufacturing
Introduction to Scientific and Parallel computing
Introduction to Interfacial science and Nanotechnology
Fracture, Fatigue and Durability of Materials