Complete Course List

Semester 3
- Mathematics 3
- Waves and Vibrations
- Fluid Mechanics
- Rational Mechanics
- Probability and Statistics
- Computer Science 3
- Technical Drawing
- Practical Work: Waves and Vibrations
- Basic Technology
- Metrology (Science of Measurement)
- Technical English

Semester 4
- Thermodynamics 2
- Mechanical Manufacturing
- Mathematics 4
- Numerical Methods
- Strength of Materials
- Computer-Aided Design (CAD)
- Practical Work: Fluid Mechanics
- Practical Work: Numerical Methods
- Practical Work: Strength of Materials
- Practical Work: Mechanical Manufacturing
- Industrial Electricity
- Materials Science
- Communication, Information, and Expression Techniques

Semester 5
- Analytical Mechanics
- Mechanical Structures 1
- Strength of Materials 2
- Elasticity
- Industrial Drawing
- Computer-Aided Design and Manufacturing (CAD/CAM)
- Practical Work: Metrology
- Control and Regulation
- Maintenance
- Environment and Sustainable Development

Semester 6
- Mechanical Structures 2
- Mechanism Theory
- Heat Transfer
- Structural Dynamics

- Final Year Project
- Internal Combustion Engine
- Practical Work: Heat Transfer
- Hydraulic and Pneumatic Systems
- Non-Metallic Materials
- Entrepreneurship and Business Management

Master's Degree

Semester 1
- Continuum Mechanics
- Advanced Strength of Materials
- Internal Combustion Engines
- Applied Fluid Mechanics
- Practical Work: Finite Element Method / Strength of Materials
- Conventional and Advanced Manufacturing Techniques
- Industrial Systems Automation
- Technical English and Terminology

Semester 2
- Finite Element Method
- Advanced Structural Dynamics
- Articulated Mechanical Systems and Robotics
- Mechanical Systems Design
- Practical Work: Finite Element Method
- Computer-Aided Design and Manufacturing (CAD/CAM)
- Optimization
- Compliance with Standards, Ethics, and Integrity

Semester 3
- Materials
- Dynamics of Rotating Machines
- Metallic Structures
- Composite Materials
- Fracture Mechanics and Fatigue
- Methods Office
- Turbomachinery
- Numerical Simulation Software in Mechanics
- Literature Review and Thesis Preparation