

| Intake: | | 2020 onwards | | Specialization: | | Mechanical Engineering | | | | |
|----------------------------|--|----------------|-----------------------------------|-----------------|-----------------|---------------------------|-------------|------------|--------------|----|
| Details of the Curriculum | | | | Stream: | | Biomechanical Engineering | | | | |
| Module Code | Module Name | Category C/E/O | Time allocation [Hours/Week] | | Credits offered | | Norm | | Evaluation % | |
| | | | Lecture | Lab / Tute | GPA | NGPA | GPA | NGPA | CA | WE |
| Semester 1 | | | Specialization requirement | | | | 15.0 | | | |
| ME1033 | Mechanics | C | 2 | 2/4 | 2.0 | - | 15.0 | 0.0 | 20 | 80 |
| CE1023 | Fluid Mechanics | C | 2 | 2/4 | 2.0 | - | | | 20 | 80 |
| CS1033 | Programming Fundamentals | C | 2 | 2 | 3.0 | - | | | 20 | 80 |
| EE1040 | Electrical Fundamentals | C | 2 | 2/4 | 2.0 | - | | | 20 | 80 |
| EL1030 | Language Skills Enhancement [S1 & S2] | C | - | 2 | 1.0 | - | | | 100 | - |
| MA1014 | Mathematics | C | 5/2 | 1 | 3.0 | - | | | 20 | 80 |
| MT1023 | Properties of Materials | C | 2 | 2/4 | 2.0 | - | | | 20 | 80 |
| | | | Total | | 15.0 | 0.0 | 15.0 | 0.0 | | |
| Semester 2 | | | Specialization requirement | | | | 21.0 | | | |
| ME1101 | Mechanics of Materials I | C | 2 | 2 | 3.0 | - | 21.0 | 0.0 | 30 | 70 |
| ME1071 | Manufacturing Technology | C | 1 | 4 | 3.0 | - | | | 70 | 30 |
| ME1120 | Engineering Graphics and Machine Drawing | C | 1 | 4 | 3.0 | - | | | 100 | - |
| ME1053 | Fundamentals of Engineering Thermodynamics | C | 5/2 | 2/2 | 3.0 | - | | | 30 | 70 |
| ME2041 | Fundamentals of Mechatronics | C | 1 | 4 | 3.0 | - | | | 50 | 50 |
| MA1024 | Methods of Mathematics | C | 5/2 | 1 | 3.0 | - | | | 30 | 70 |
| MT1814 | Engineering Materials | C | 3/2 | 2/2 | 2.0 | - | | | 40 | 60 |
| EL1030 | Language Skills Enhancement [S1 & S2] | C | - | 2 | 1.0 | - | | | 100 | - |
| | | | Total | | 21.0 | 0.0 | 21.0 | 0.0 | | |
| Semester 3 | | | Specialization requirement | | | | 20.0 | | | |
| ME2093 | Mechanics of Machines I | C | 2 | 2 | 3.0 | - | 20.0 | 0.0 | 40 | 60 |
| ME2061 | Mechanics of Materials II | C | 2 | 2 | 3.0 | - | | | 40 | 60 |
| ME2024 | Manufacturing Processes | C | 3 | 2 | 4.0 | - | | | 40 | 60 |
| MA2014 | Differential Equations | C | 2 | - | 2.0 | - | | | 30 | 70 |
| MA2024 | Calculus | C | 2 | - | 2.0 | - | | | 30 | 70 |
| EE2804 | Applied Electricity | C | 2 | 2 | 3.0 | - | | | 40 | 60 |
| ME2310 | Anatomy and Physiology | C | 5/2 | 2/2 | 3.0 | - | | | 40 | 60 |
| ME2161 | Fundamentals of Automotive Engineering | E | 5/2 | 2/2 | 3.0 | - | | | 40 | 60 |
| | | | Total | | 23.0 | 0 | 20 | 0 | | |
| Semester 4 | | | Specialization requirement | | | | 21.0 | | | |
| ME2051 | Mechanics of Machines II | C | 2 | 2 | 3.0 | - | 21.0 | 0.0 | 40 | 60 |
| ME2081 | Design of Machine Elements | C | 2 | 2 | 3.0 | - | | | 40 | 60 |
| ME2113 | Fluid Dynamics | C | 5/2 | 2/2 | 3.0 | - | | | 30 | 70 |
| ME2033 | Thermodynamics of Heat and Work Transfer Devices | C | 7/2 | 2/2 | 4.0 | - | | | 30 | 70 |
| MA3014 | Applied Statistics | C | 2 | - | 2.0 | - | | | 30 | 70 |
| ME2230 | Instrumentation and Automation Systems | C | 2 | 2 | 3.0 | - | | | 50 | 50 |
| ME2320 | Biomaterials | C | 2 | 2 | 3.0 | - | | | 30 | 70 |
| ME2171 | Manufacturing Engineering | E | 2 | 4 | 4.0 | - | | | 40 | 60 |
| | | | Total | | 25.0 | 0.0 | 21.0 | 0.0 | | |
| Semester 5 | | | Specialization requirement | | | | 23.0 | | | |
| ME3201 | Machine Design Project | C | - | 8 | 4.0 | - | 23.0 | 0.0 | 100 | - |
| ME3023 | Industrial Fluid Flow Systems | C | 7/2 | 2/2 | 4.0 | - | | | 40 | 60 |
| ME3013 | Control Systems Engineering | C | 5/2 | 2/2 | 3.0 | - | | | 40 | 60 |
| ME3043 | Production and Operations Management | C | 3 | 2 | 4.0 | - | | | 40 | 60 |
| MA3024 | Numerical Methods | C | 2 | - | 2.0 | - | | | 30 | 70 |
| MA3030 | Operational Research | C | 2 | - | 2.0 | - | | | 30 | 70 |
| ME3880 | Engineer and Society [S5 & S6] | C | - | 2 | 1.0 | - | | | 80 | 20 |
| ME3310 | Biomechanics | C | 5/2 | 2/2 | 3.0 | - | | | 40 | 60 |
| | | | Total | | 23.0 | 0.0 | 23.0 | 0.0 | | |
| Industrial Training | | | Specialization requirement | | | | 6.0 | | | |
| ME3993 | Industrial Training | C | - | - | 6.0 | 0.0 | 6.0 | 6.0 | 100 | - |
| | | | Total | | 0.0 | 6.0 | 0 | 6 | | |

| Intake: | | 2020 onwards | | Specialization: | | Mechanical Engineering | | | | |
|--------------------|--|----------------------------|-----|-----------------|--------------|------------------------|--------------|------------|-----|----|
| Semester 6 | | Specialization requirement | | | | 10.0 | | | | |
| ME3902 | Technical Communication for Engineering | C | - | 4 | 2.0 | - | 8.0 | 0.0 | 100 | - |
| ME3330 | Mechanical Engineering Project Formulation | C | 1 | 2 | 2.0 | - | | | 40 | - |
| ME3910 | Social/Community Project | C | 1 | 2 | 2.0 | - | | | 100 | - |
| ME3880 | Engineer and Society [S5 & S6] | C | 1 | 2 | 2.0 | - | | | 100 | - |
| HM-1 | Humanities Elective | E | | | 2.0 | - | 2.0 | 0.0 | 100 | - |
| Total | | | | | 10.0 | 0.0 | 10.0 | 0.0 | | |
| Semester 7 | | Specialization requirement | | | | 15.0 | | | | |
| ME4203 | Final Year Project [S7 & S8] | C | 1 | 4 | 3.0 | - | 15.0 | 0.0 | 100 | - |
| ME4830 | Biomechanics | C | 2 | 2 | 3.0 | - | | | 40 | 60 |
| ME4850 | Design of Sports Equipment | C | 2 | 2 | 3.0 | - | | | 40 | 60 |
| ME4621 | Rehabilitation Engineering | C | 2 | 2 | 3.0 | - | | | 40 | 60 |
| MN3043 | Business Economics and Financial Accounting | C | 3 | - | 3.0 | - | | | 30 | 70 |
| ME4443 | Heat Transfer | E | 5/2 | 2/2 | 3.0 | - | | | 30 | 70 |
| ME4243 | Energy Systems Engineering | E | 5/2 | 2/2 | 3.0 | - | | | 30 | 70 |
| ME4463 | Industrial Automation Systems | E | 2 | 2 | 3.0 | - | | | 60 | 40 |
| ME4311 | Micro/Nano Electro Mechanical Systems and Nanotechnology | E | 2 | 2 | 3.0 | - | | | 40 | 60 |
| ME4453 | Industrial Project Management | E | 2 | 2 | 3.0 | - | | | 40 | 60 |
| ME4533 | Industrial Ergonomics | E | 2 | 2 | 3.0 | - | | | 40 | 60 |
| ME4333 | Computer Aided Design & Manufacture | E | 2 | 2 | 3.0 | - | | | 40 | 60 |
| ME4513 | Industrial Products and Machinery Development | E | 1 | 4 | 3.0 | - | | | 70 | 30 |
| ME4373 | Aerodynamics | E | 7/2 | 2/2 | 4.0 | - | | | 40 | 60 |
| ME4433 | Computational Fluid Dynamics | E | 5/2 | 2/2 | 3.0 | - | | | 50 | 50 |
| Total | | | | | 46.0 | 0.0 | 15.0 | 0.0 | | |
| Semester 8 | | Specialization requirement | | | | 15.0 | | | | |
| ME4203 | Final Year Project [S7 & S8] | C | 1 | 8 | 5.0 | - | 15.0 | 0.0 | 100 | - |
| ME4840 | Sports Performance Analysis | C | 2 | 2 | 3.0 | - | | | 40 | 60 |
| ME4860 | Medical Robotics | C | 3 | 2 | 4.0 | - | | | 40 | 60 |
| ME4181 | Intelligent Systems | C | 5/2 | 2/2 | 3.0 | - | | | 40 | 60 |
| ME4393 | Advanced Manufacturing Engineering | E | 2 | 2 | 3.0 | - | | | 40 | 60 |
| ME4473 | Computer Aided Engineering | E | 2 | 4 | 4.0 | - | | | 60 | 40 |
| ME4423 | Energy Conservation | E | 5/2 | 2/2 | 3.0 | - | | | 30 | 70 |
| ME4383 | Refrigeration and Air Conditioning | E | 7/2 | 2/2 | 4.0 | - | | | 40 | 60 |
| ME4673 | Control Systems Design | E | 5/2 | 2/2 | 3.0 | - | | | 50 | 50 |
| ME4730 | Engineering Decision Making and Risk Assessment | E | 5/2 | 2/2 | 3.0 | - | | | 60 | 40 |
| ME4073 | Industrial Engineering | E | 3 | 2 | 4.0 | - | | | 40 | 60 |
| ME4211 | Auditory and Visual Comfort | E | 5/2 | 2/2 | 3.0 | - | | | 30 | 70 |
| ME4663 | Mould Design | E | 2 | 2 | 3.0 | - | | | 40 | 60 |
| ME4633 | Automotive Engineering | E | 7/2 | 2/2 | 4.0 | - | | | 40 | 60 |
| Total | | | | | 49 | 0 | 15.0 | 0.0 | | |
| Grand Total | | | | | 212.0 | 6.0 | 140.0 | 6.0 | | |

| | | |
|--|--|--------------|
| Total credit requirement for the Specialization | | 146.0 |
| Faculty/Specialization Electives beyond the specialization requirements [refer faculty electives table]* | | 4.0 |
| TOTAL CREDIT REQUIREMENT FOR GRADUATION | | 150.0 |

| Service modules | | | | | | | | | |
|-----------------|-------------|----------|------------------------------|------------|---------|------|------------|--------------|----|
| Code | Module Name | Semester | Time allocation [Hours/Week] | | Credits | | Offered to | Evaluation % | |
| | | | Lecture | Lab / Tute | GPA | NGPA | | CA | WE |
| | Not offered | | | | | | | | |
| | | | | | | | | | |