SVKM's NMIMS

School Name: MUKESH PATEL SCHOOL OF TECHNOLOGY MANAGEMENT & ENGINEERING

Course Structure for Academic Year: 2017-18

(As approved in the Academic Council)

| Name of the Programme: B.TECH MECHANICAL | | | | | | | Year: 2017-18 | | | | | | | | Semester: III/IV | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sr. No. | Module / Subject Code | Name of the Module | Theory Hours per week | Practicals Hours per week | Tutorials Hours per week | Total no. of hours for the subject | Credit/s | Term End Exam Duration (Hrs) | | Examination Scheme (Weightage) | | | | | | | | | | Template Codes |
| | | | | | | | | | | *ICA | | | | | TEE | | Total | | | |
| | | | | | | | | Written | Only ICA | Test I | Test II | Term work | Total Marks | Scaled to (Marks) | Marks | Scaled to (Marks) | Marks | Weightage % | |
| Semester – III | | | | | | | | | | | | | | | | | | | | |
| 1 | BTME03001 | Engineering Mathematics - III | 3 | 0 | 2 | 5 | 4 | 3 | - | 15 | 15 | 20 | 50 | 30 | 70 | 70 | 100 | 100 | 7008 | |
| 2 | BTME03002 | Engineering Thermodynamics | 3 | 0 | 2 | 5 | 4 | 3 | - | 15 | 15 | 20 | 50 | 30 | 70 | 70 | 100 | 100 | 7008 | |
| 3 | BTME03003 | Strength of Materials | 3 | 0 | 2 | 5 | 4 | 3 | - | 15 | 15 | 20 | 50 | 30 | 70 | 70 | 100 | 100 | 7008 | |
| 4 | BTME03004 | Fluid Mechanics | 3 | 2 | 0 | 5 | 4 | 3 | - | 15 | 15 | 20 | 50 | 30 | 70 | 70 | 100 | 100 | 7008 | |
| 5 | BTME03005 | Theory of Machines - I | 3 | 2 | 0 | 5 | 4 | 3 | - | 15 | 15 | 20 | 50 | 30 | 70 | 70 | 100 | 100 | 7008 | |
| 6 | BTME03106 | Manufacturing Processes - I | 3 | 0 | 0 | 3 | 3 | 3 | - | 15 | 15 | 20 | 50 | 30 | 70 | 70 | 100 | 100 | 7008 | |
| 7 | BTME03007 | Machine Shop - I | 0 | 2 | 0 | 2 | 1 | - | Only ICA | - | - | 50 | 50 | 50 | - | - | 50 | 100 | 7003 | |
| | Total | | 18 | 6 | 6 | 30 | 24 | 18 | 0 | 90 | 90 | 170 | 350 | 230 | 420 | 420 | 650 | | | |
| Semester – IV | | | | | | | | | | | | | | | | | | | | |
| 1 | BTME04001 | Engineering Mathematics - IV | 3 | 0 | 2 | 5 | 4 | 3 | - | 15 | 15 | 20 | 50 | 30 | 70 | 70 | 100 | 100 | 7008 | |
| 2 | BTME04102 | Machine Drawing ** | 2 | 4 | 0 | 6 | 4 | Practical / 3 | - | 15 | 15 | 20 | 50 | 30 | 70 | 70 | 100 | 100 | 7008 | |
| 3 | BTME04003 | Fluid Machinery | 3 | 2 | 0 | 5 | 4 | 3 | - | 15 | 15 | 20 | 50 | 30 | 70 | 70 | 100 | 100 | 7008 | |
| 4 | BTME04004 | Materials Engineering | 3 | 2 | 0 | 5 | 4 | 3 | - | 15 | 15 | 20 | 50 | 30 | 70 | 70 | 100 | 100 | 7008 | |
| 5 | BTME04005 | Environmental Engineering and Management Systems | 3 | 0 | 0 | 3 | 3 | 3 | - | 15 | 15 | 20 | 50 | 30 | 70 | 70 | 100 | 100 | 7008 | |
| 6 | BTME04006 | Theory of Machines - II | 3 | 2 | 0 | 5 | 4 | 3 | - | 15 | 15 | 20 | 50 | 30 | 70 | 70 | 100 | 100 | 7008 | |
| 7 | BTME04007 | Industrial Electronics | 2 | 2 | 0 | 4 | 3 | 3 | - | 15 | 15 | 20 | 50 | 30 | 70 | 70 | 100 | 100 | 7008 | |
| | Total | | 19 | 12 | 2 | 33 | 26 | 21 | 0 | 105 | 105 | 140 | 350 | 210 | 490 | 490 | 700 | | | |

* Practical examination to be conducted at school level

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SVKM's NMIMS

School Name: MUKESH PATEL SCHOOL OF TECHNOLOGY MANAGEMENT & ENGINEERING

Course Structure for Academic Year: 2017-18

(As approved in the Academic Council)

**Name of the Programme: B.TECH MECHANICAL** | **Year: 2017-18** | **Semester: V/VI**

| Sr. No. | Module / Subject Code | Name of the Module | Theory Hours per week | Practicals Hours per week | Tutorials Hours per week | Total no. of hours for the subject | Credit/s | Term End Exam Duration (Hrs) | | Examination Scheme (Weightage) | | | | | | | | | Template Codes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | *ICA | | | | | TEE | | Total | | |
| | | | | | | | | Written | Only ICA | Test I | Test II | Term work | Total Marks | Scaled to (Marks) | Marks | Scaled to (Marks) | Marks | Weightage % | |
| **Semester – V** | | | | | | | | | | | | | | | | | | | |
| 1 | BTME05001 | Thermal Engineering | 3 | 0 | 2 | 5 | 4 | 3 | - | 15 | 15 | 20 | 50 | 30 | 70 | 70 | 100 | 100 | 7008 |
| 2 | BTME05002 | Manufacturing Processes - II | 3 | 0 | 0 | 3 | 3 | 3 | - | 15 | 15 | 20 | 50 | 30 | 70 | 70 | 100 | 100 | 7008 |
| 3 | BTME05003 | Design of Machine Elements - I | 3 | 2 | 0 | 5 | 4 | 3 | - | 15 | 15 | 20 | 50 | 30 | 70 | 70 | 100 | 100 | 7008 |
| 4 | BTME05004 | Mechatronics and Controls | 3 | 2 | 0 | 5 | 4 | 3 | - | 15 | 15 | 20 | 50 | 30 | 70 | 70 | 100 | 100 | 7008 |
| 5 | BTME05005 | Mechanical Measurement and Metrology | 3 | 2 | 0 | 5 | 4 | 3 | - | 15 | 15 | 20 | 50 | 30 | 70 | 70 | 100 | 100 | 7008 |
| 6 | BTME05006 | Machine Shop - II | 0 | 2 | 0 | 2 | 1 | 0 | Only ICA | - | - | 50 | 50 | 50 | - | - | 50 | 100 | 7003 |
| 7 | BTME05007 | Industrial Engineering | 3 | 2 | 0 | 5 | 4 | 3 | - | 15 | 15 | 20 | 50 | 30 | 70 | 70 | 100 | 100 | 7008 |
| | **Total** | | **18** | **10** | **2** | **30** | **24** | **18** | **0** | **90** | **90** | **170** | **350** | **230** | **420** | **420** | **650** | | |
| **Semester – VI** | | | | | | | | | | | | | | | | | | | |
| 1 | BTME06001 | Heat Transfer | 3 | 2 | 0 | 5 | 4 | 3 | - | 15 | 15 | 20 | 50 | 30 | 70 | 70 | 100 | 100 | 7008 |
| 2 | BTME06002 | I. C. Engines | 3 | 2 | 0 | 5 | 4 | 3 | - | 15 | 15 | 20 | 50 | 30 | 70 | 70 | 100 | 100 | 7008 |
| 3 | BTME06003 | Design of Machine Elements - II | 3 | 2 | 0 | 5 | 4 | 3 | - | 15 | 15 | 20 | 50 | 30 | 70 | 70 | 100 | 100 | 7008 |
| 4 | BTME06004 | Vibration Engineering | 3 | 2 | 0 | 5 | 4 | 3 | - | 15 | 15 | 20 | 50 | 30 | 70 | 70 | 100 | 100 | 7008 |
| 5 | BTME06005 | Manufacturing Management | 3 | 0 | 2 | 5 | 4 | 3 | - | 15 | 15 | 20 | 50 | 30 | 70 | 70 | 100 | 100 | 7008 |
| 6 | BTME06006 | Presentation and Communication Techniques | 2 | 0 | 2 | 4 | 3 | 3 | - | 15 | 15 | 20 | 50 | 30 | 70 | 70 | 100 | 100 | 7003 |
| 7 | BTME06007 | CAD/CAM/CIM | 3 | 2 | 0 | 5 | 4 | 3 | - | 15 | 15 | 20 | 50 | 30 | 70 | 70 | 100 | 100 | 7008 |
| | **Total** | | **20** | **10** | **4** | **34** | **27** | **21** | **0** | **105** | **105** | **140** | **350** | **210** | **490** | **490** | **700** | | |

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SVKM's NMIMS

School Name: MUKESH PATEL SCHOOL OF TECHNOLOGY MANAGEMENT & ENGINEERING

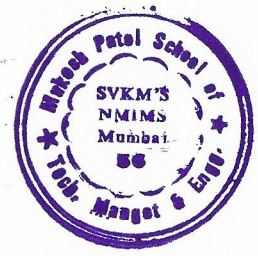
Course Structure for Academic Year: 2017-18

(As approved in the Academic Council)

| Name of the Programme: B.TECH MECHANICAL | | | | | | | Year: 2017-18 | | | Semester: VII/VIII | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sr. No. | Module / Subject Code | Name of the Module | Theory Hours per week | Practicals Hours per week | Tutorials Hours per week | Total no. of hours for the subject | Credit/s | Term End Exam Duration (Hrs) | | Examination Scheme (Weightage) | | | | | | | | | | Template Codes |
| | | | | | | | | | | *ICA | | | | | TEE | | Total | | | |
| | | | | | | | | Written | Only ICA | Test I | Test II | Term work | Total Marks | Scaled to (Marks) | Marks | Scaled to (Marks) | Marks | Weightage % | |
| Semester - VII | | | | | | | | | | | | | | | | | | | | |
| 1 | BTME07001 | Design of Mechanical Systems | 3 | 2 | 0 | 5 | 4 | 3 | - | 15 | 15 | 20 | 50 | 40 | 60 | 60 | 100 | 100 | 7005 | |
| 2 | BTME07002 | Refrigeration and Air Conditioning | 3 | 2 | 0 | 5 | 4 | 3 | - | 15 | 15 | 20 | 50 | 40 | 60 | 60 | 100 | 100 | 7005 | |
| 3 | BTME07003 | Finite Element Analysis | 3 | 2 | 0 | 5 | 4 | 3 | - | 15 | 15 | 20 | 50 | 40 | 60 | 60 | 100 | 100 | 7005 | |
| 4 | BTME07004 | Project Part - I | 0 | 6 | 0 | 6 | 3 | 0 | - | - | - | 50 | 50 | 50 | - | - | 50 | 100 | 7003 | |
| 5 | | Elective I | 3 | 0 | 2 | 5 | 4 | 3 | - | 15 | 15 | 20 | 50 | 40 | 60 | 60 | 100 | 100 | 7005 | |
| | Total | | 12 | 12 | 2 | 26 | 19 | 12 | 0 | 60 | 60 | 130 | 250 | 210 | 240 | 240 | 450 | | | |
| Semester - VIII | | | | | | | | | | | | | | | | | | | | |
| 1 | BTME08001 | Total Quality Management | 3 | 0 | 0 | 3 | 3 | 3 | - | 15 | 15 | 20 | 50 | 40 | 60 | 60 | 100 | 100 | 7005 | |
| 2 | BTME08002 | Additive Manufacturing | 3 | 2 | 0 | 5 | 4 | 3 | - | 15 | 15 | 20 | 50 | 40 | 60 | 60 | 100 | 100 | 7005 | |
| 3 | BTME08004 | Engineering Economics and Accounting | 3 | 0 | 0 | 3 | 3 | 3 | - | 15 | 15 | 20 | 50 | 40 | 60 | 60 | 100 | 100 | 7005 | |
| 4 | BTME08005 | Project Part - II | 0 | 8 | 0 | 8 | 4 | 0 | - | - | - | 100 | 100 | 100 | - | - | 100 | 100 | 7003 | |
| 5 | | Elective II | 3 | 0 | 2 | 5 | 4 | 3 | - | 15 | 15 | 20 | 50 | 40 | 60 | 60 | 100 | 100 | 7005 | |
| | Total | | 12 | 10 | 2 | 24 | 18 | 12 | 0 | 60 | 60 | 180 | 300 | 260 | 240 | 240 | 500 | | | |

| Elective I | |
|---|---|
| Code | Subject |
| BTME07005 | Tribology |
| BTME07006 | Non Conventional Energy Sources |
| BTME07007 | Advanced Turbomachinery |
| BTME07008 | Automobile Engineering |
| BTME07009 | Introduction to Nano-Technology |
| BTME07010 | Project Management |

| Elective II | |
|---|---|
| Code | Subject |
| BTME08006 | Dynamic System Modeling and Analysis |
| BTME08007 | Product Design and Development |
| BTME08008 | Reliability Engineering |
| BTME08009 | Computational Fluid Dynamics |
| BTME08010 | Robotics |
| BTME08011 | Operations Research |

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