

Master of Technology in 'Mechanical Engineering'- (2020-21)

| Semester/ Subject | Semester Course Code, Course Name (L-T-P) Credits | | | | | L | T | P | Contact Hour per semester | Credits |
|----------------------|--|--|---|--|--|----|---|----|---------------------------------|-------------------------|
| 1 | MEL-570 Production and Operation Management (2-1-0) 3 | MEL-510 Introduction to FEM (2-1-0) 3 | MEL-613-IP Project Management (2-1-0) 3 | MEL-530 Advanced Manufacturing Processes (2-1-0) 3 | MEL-580 Advanced Fluid Dynamics (2-0-2) 3 | 10 | 4 | 2 | 240 | 15 |
| 2 | MEL-550 Advanced Heat and Mass Transfer (2-1-0) 3 | MEL-560 Advanced Machine Design (2-1-0) 3 | Open Elective-1 3 Credits | Programme Elective-1 3 Credits | MAL616 Intro. To Research Methodology (2-1-0) 3 | 12 | 3 | | 225 | 15 |
| 3 | MED-600 Project Part -1 4 Credits | MEC-620 Seminar 2 Credits | Open Elective-2 3 Credits | Programme Elective-2 3 Credits | Programme Elective-3 3 Credits | 9 | | 4 | 195 | 15 |
| 4 | MED-610 Project Part -2 12 credits | | | | | | | 12 | 180 | 12 |
| | | | | | | 31 | 7 | 18 | | Total Credits=57 |

Programme Core (PC)

| S. No. | Course Code | Title | L-T-P | Credits |
|--------|-------------|--------------------------------------|-------|---------|
| 1 | MEL 510 | Introduction to FEM | 2-1-0 | 3 |
| 2 | MEL 530 | Advanced Manufacturing Processes | 2-1-0 | 3 |
| 3 | MEL 550 | Advanced Heat & Mass Transfer | 2-1-0 | 3 |
| 4 | MEL 560 | Advanced Machine Design | 2-1-0 | 3 |
| 5 | MEL 570 | Production and Operations Management | 2-1-0 | 3 |
| 6 | MEL 580 | Advanced Fluid Dynamics | 2-0-2 | 3 |
| 7 | MEL 613-IP | Project Management | 2-1-0 | 3 |
| 8 | MAL 616 | Intro. To Research Methodology | 2-1-0 | 3 |
| | | Total Credits | | 24 |

Programme Electives (PE)

| PROGRAMME ELECTIVE-1, 2 & 3 (For Specialization in Mechanical Engineering Design) | PROGRAMME ELECTIVE-1, 2 & 3 (For Specialization in Thermal Engineering) | PROGRAMME ELECTIVE-1, 2 & 3 (For Specialization in Production and Industrial Engineering) |
|--|--|--|
| MEL603-MD Design for manufacturing Assembly (2-1-0) | MEL601-TH Computational Fluid Dynamics and Heat Transfer (2-0-2) | MEL-617-IP Manufacturing Economics and Costing (2-0-2) |
| MEL607-MD Advanced Mechanics of Solids (2-1-0) | MEL609-TH Modern Power Plants (3-0-0) | MEL-603-MD Design for manufacturing & Assembly (2-1-0) |
| MEL617-MD Composite Materials (2-1-0) | MEL-611-TH Renewable Energy Sources (2-1-0) | MEL-609-IP Concurrent Engineering (2-0-2) |
| MEL625-MD Vibration & Noise Engineering (2-0-2) | MEL621-TH Analysis of IC Engine systems (2-1-0) | MEL677-IP–Optimization Techniques (2-0-2) |
| MEL627-MD Mechatronics (2-0-2) | MEL520-Advanced Thermodynamics (2-1-0) | MEL-611-IP Product Life cycle Management (2-0-2) |
| OTHER PROGRAMME ELECTIVE | | |
| MEL590 Selected Topics in Mechanical Engineering (2-1-0) | | |

