

B. Tech. COURSE STRUCTURE
MECHANICAL ENGINEERING
NIT SILCHAR

New Structure w.e.f. July, 2009

3rd Semester

Code	Subject	L-T-P	Credit
MA 201	Mathematics - III	3-1-0	8
ME 201	Thermodynamics-I	3-1-0	8
ME 202	Theory of Mechanisms & Machines	3-1-0	8
HU 201	Humanities - II (Industrial Sociology & Accountancy)	3-0-0	6
ME 203	Machine Drawing	1-0-3	5
ME 204	Manufacturing Process - I	3-0-0	6
EC 201	Electrical Science - II	3-1-0	8
EC 202*	Electrical Science Lab	0-0-2	2
Total Credit Points			51

4th Semester

Code	Subject	L-T-P	Credit
ME 205	Introduction to Instrumentation	3-0-0	6
ME 206	Thermodynamics-II	3-1-0	8
ME 207	Material Science	3-1-0	8
ME 208	ME Lab.-I	0-0-2	2
ME 209	Fluid Mechanics Lab	0-0-2	2
ME 210	Mechanics of Fluid - I	3-1-0	8
MA 204	Mathematics - IV	2-1-0	6
ME 211	Mechanics of Solid-I	3-1-0	8
ME 212	Workshop Practice - II	0-0-2	2
Total Credit Points			50

5th Semester

Code	Subject	L-T-P	Credit
ME 301	Engg. Inspection & Quality Control	3-0-0	6
ME 302	Machine Design - I	3-1-0	8
ME 303	Manufacturing Process - II	3-1-0	8
ME 304	ME Lab - II	0-0-2	2
ME 305	Heat transfer	3-1-0	8
ME 306	Workshop Practice - III	0-0-3	3
ME 307	Mechanics of Solid - II	3-0-0	6
ME 308	Mechanics of Fluid - II	3-1-0	8
Total Credit Points			49

B. Tech. COURSE STRUCTURE

6th Semester

Code	Subject	L-T-P	Credit
ME 312	Automobile Engineering	3-1-0	8
ME 311	Machine Design - II	3-1-0	8
ME 309	Turbo Machinery	3-1-0	8
ME 310	Dynamics & Control of Machinery	3-1-0	8
HU 301	Humanities - III (Managerial Economics)	3-1-0	8
ME 313	Manufacturing Process - III	3-0-0	6
ME 314	ME Lab - III	0-0-2	2
Total Credit Points			48

7th Semester

Code	Subject	L-T-P	Credit
ME 401	Industrial Engg. & Operation Research	3-1-0	8
ME XXX	Deptt. Elective - I	3-0-0	6
ME XXX	Deptt. Elective - II	3-0-0	6
ME 403	ME Lab - IV	0-0-2	2
ME 404	Power Plant Engineering	3-1-0	8
ME 405	Project - I	0-0-10	10
ME 406	Industrial Training & Seminar	0-0-2	2
ME 402	Refrigeration & Air conditioning	3-1-0	8
Total Credit			50
Points			

8th Semester

Code	Subject	L-T-P	Credit
HU 401	Management and Economics of Globalization	3-0-0	6
ME 408	Computer Aided Design & Manufacturing	3-0-0	6
ME XXX	Deptt. Elective - III	3-1-0	8
ME XXX	Institute Elective	3-0-0	6
ME 409	Project - II	0-0-10	10
ME 410	ME Lab - V	0-0-2	2
CE 414	Environmental Studies	3-0-0	6
Total Credit Points			44

TOTAL CREDIT - 390

B. Tech. COURSE STRUCTURE

List of Departmental Elective - I, II, III (Mech. Engg.)

Elective - I

1. ME 421 Advanced Refrigeration system
2. ME 422 Production Management
3. ME 423 Finite Element Method (FEM) in Engineering
4. ME 424 Numerical Control of Machine tools
5. ME 425 Computational Fluid Dynamics
6. ME 426 Composite Materials
7. ME 427 Fundamental of Industrial Design
8. ME 428 Energy Engineering & Management

Elective - II

9. ME 429 Robotics and Robot Applications
10. ME 430 Hydraulic Machinery
11. ME 431 Gas Dynamics
12. ME 432 Holistic Approach to Engineering Design
13. ME 433 Diagnostic Maintenance of Mechanical Equipments
14. ME 434 Convective Heat and Mass Transfer
15. ME 435 Metal Forming and Metal Cutting Technology
16. ME 436 I.C. Engine

Elective - III

17. ME 437 Viscous Fluid Flow
18. ME 438 Compressor and Gas Turbine
19. ME 439 Mechanical Vibrations
20. ME 440 Air Conditioning
21. ME 441 Production Process
22. ME 442 Metal Cutting & Cutting Tools Design
23. ME 443 Non-traditional Machining
24. ME 444 Mechatronics
25. ME 445 Non-conventional Energy
26. ME 446 Theory of Elasticity and Plasticity
27. ME 447 Tribology
28. ME 448 Design of Mechanical System
29. ME 449 MEMS and nanotechnology
30. ME 450 Total Quality Management

B. Tech. COURSE STRUCTURE

List of Open/Institute Electives

- | | | |
|-----|--------|---|
| 31. | ME 451 | Entrepreneurship Development |
| 32. | ME 452 | Reliability Engineering |
| 33. | ME 453 | Hydraulic Machines |
| 34. | ME 454 | Environmental Pollution and its Control |
| 35. | ME 455 | Optimization Method in Engineering |
| 36. | ME 456 | Solar Architecture |
| 37. | ME 457 | Marketing Management |
| 38. | ME 458 | Supply Chain Management |

* To be shared between Electrical and Electronics & Communication Engineering Departments