



NATIONAL PROGRAMME ON TECHNOLOGY ENHANCED LEARNING

A JOINT VENTURE BY INDIAN INSTITUTES OF TECHNOLOGY &
INDIAN INSTITUTE OF SCIENCE

FUNDED BY
THE MINISTRY OF HUMAN RESOURCE DEVELOPMENT
GOVERNMENT OF INDIA



Mechanical Engineering – List of Courses (Semester-wise)

Semester 1				
1	Basic Electrical Technology	Web	Prof. G. D. Roy, Prof. N. K. De, Prof. T. K. Bhattacharya	IIT Kharagpur
2	BioChemistry I	Video	Prof. S. Dasgupta	IIT Kharagpur
3	Engineering Chemistry I	Web	Prof. B. L. Tembe, Prof. K. Mangala Sunder	IIT Bombay
4	Engineering Mechanics	Web	Prof. Manoj K. Harbola	IIT Kanpur
5	Engineering Physics I	Video	Prof. K. L. Yadav, Prof. Jagdish Rai, Prof. Ishwar Singh, Prof. G. D. Verma	IIT Roorkee
6	Engineering Physics I (Experiment)	Web	Prof. Alike Khare , Prof. Pratima Agarwal, Prof. S. Ravi	IIT Guwahati
7	Engineering Physics I (Theory)	Web	Prof. Alike Khare , Prof. Pratima Agarwal, Prof. S. Ravi	IIT Guwahati
8	Mathematics I	Web	Prof. Inder K. Rana	IIT Bombay
9	Physics I – Oscillations & Waves	Video	Prof. S. Bharadwaj	IIT Kharagpur

Semester 2				
10	Basic Electronics	Web	Prof. Y. N. Singh, Prof. Joesph John	IIT Kanpur
11	Basic Electronics and Lab	Web	Prof. T. S. Natarajan	IIT Madras
12	Basic Thermodynamics	Web	Prof. K. Srinivasan, Prof. Pradip Dutta	IISc Bangalore
13	Engineering Chemistry II	Web	Prof. H. M. Chawla, Prof. R. N. Ram	IIT Delhi
14	Engineering Chemistry III	Web	Prof. S. Sankararaman, Prof. K.M. Muraleedharan, Prof. Santosh J. Gharpure, Prof. N.Narasimha Murthy	IIT Madras
15	Engineering Physics II	Web	Prof. D. K. Ghosh	IIT Bombay
16	Environment and Ecology	Web	Prof. Anuradha Sharma, Prof. V. B. Upadhyay	IIT Delhi
17	Environmental Chemistry and Analysis	Web	Prof. M. S. Subramanian	IIT Madras
18	Mathematics II	Web	Prof. P. Chandra, Prof. A. K. Lal, Prof. V. Raghavendra, Prof. G. Santhanam	IIT Kanpur

Semester 3				
19	Applied Thermodynamics	Web	Prof. T. Sundararajan, Prof. U. S. Premananda Shet, Prof. J. M. Mallikarjuna	IIT Madras
20	Finite Element Method	Web	Prof. P. M. Dixit	IIT Kanpur
21	Fluid Mechanics	Web	Prof. Gautam Biswas, Prof. S. K. Som (IITKgp)	IIT Kanpur
22	Material Science	Video	Prof. S. K. Gupta	IIT Delhi
23	Materials Science	Web	Prof. Satish V. Kailas	IISc Bangalore

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24	Mathematics III	Web	Prof. M. Guru Prem Prasad , Prof. Durga C. Dalal	IIT Guwahati
25	Numerical Analysis and Computer Programming	Video	Prof. P. B. Sunil Kumar	IIT Madras
26	Numerical Analysis in Computer Programming	Web	Prof. Rathish Kumar, Prof. V. Raghavendra, Prof. M. K. Kadalbajoo, Prof. P. B. Sunil Kumar	IIT Kanpur
27	Strength of Materials	Web	Prof. V. K. Goel, Prof. S. C. Sharma, Prof. B. K. Mishra	IIT Roorkee

Semester 4

28	Advanced Strength of Materials	Web	Prof. V. K. Goel, Prof. S. C. Sharma, Prof. B. K. Mishra	IIT Roorkee
29	Industrial Engineering	Web	Prof. Pradeep Kumar, Prof. H. S. Shan, Prof. P. K. Jain	IIT Roorkee
30	Kinematics	Web	Prof. Sudipto Mukherjee, Prof. A .K. Mallik (IITK)	IIT Delhi
31	Kinematics of Machines	Video	Prof. Ashok K. Mallik	IIT Kanpur
32	Manufacturing Processes I	Web	Prof. H. S. Shan, Prof. S. R. Gupta, Prof. Pradeep Kumar	IIT Roorkee
33	Mechanical Measurements and Metrology	Web	Prof. S. P. Venkateshan, Prof. M. S. Shanmugam	IIT Madras
34	Principles of Mechanical Measurements	Video	Prof.R.Raman	IIT Madras

Semester 5

35	Concept of Management and Evolution of Management thought	Video	Prof K B Akhilesh	IISc Bangalore
36	Design of Machine Elements I	Web	Prof. S. K. Roychowdhury, Prof. B. Maiti, Prof. G. Chakraborty	IIT Kharagpur
37	Dynamics of Machines	Web	Prof. P. Seshu, Prof. K. Kurien Isaac, Prof. C. Amarnath	IIT Bombay
38	Heat and Mass Transfer	Web	Prof. Pradip Dutta	IISc Bangalore
39	Management Science I	Web	Prof. M. Thenmozhi	IIT Madras
40	Management Science II	Web	Prof. R. Madhumathi	IIT Madras
41	Manufacturing Processes II	Web	Prof. A. K. Chattopadhyay, Prof. A. B. Chattopadhyay, Prof. S. Paul	IIT Kharagpur

Semester 6

42	Fluid Machinery	Web	Prof. Gautam Biswas, Prof. S. Sarkar, Prof. S. K. Som (IITKgp)	IIT Kanpur
43	Machine Design II	Web	Prof. K. Gopinath, Prof. M. M. Mayuram	IIT Madras
44	Materials Selection and Design	Web	Prof. Bishakh Bhattacharya	IIT Kanpur
45	Project and Production Management	Web	Prof. Arun Kanda, Prof. S. G. Deshmukh	IIT Delhi
46	Refrigeration and Air Conditioning	Web	Prof. M. Ramgopal	IIT Kharagpur

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Semester 7				
47	Computer Aided Design and Manufacturing	Video	Prof. Anoop Chawla, Prof. P. V. Madhusudan Rao	IIT Delhi
48	Computer Aided Design and Manufacturing I	Web	Prof. Anoop Chawla	IIT Delhi
49	Computer Aided Design and Manufacturing II	Web	Prof. P. V. Madhusudan Rao	IIT Delhi
50	Manufacturing Processes I	Web	Prof. H. S. Shan, Prof. S. R. Gupta, Prof. Pradeep Kumar	IIT Roorkee
51	Robotics	Web	Prof. C. Amarnath, Prof. B. Seth, Prof. K. Kurien Issac, Prof. P. S. Gandhi, Prof. P. Seshu	IIT Bombay

Electives				
52	Advanced Operations Research	Video	Prof. G. Srinivasan	IIT Madras
53	Computational Methods in Design and Manufacturing	Video	Dr. R. Krishnakumar	IIT Madras
54	Introduction to Turbulence	Web	Prof. G. Biswas	IIT Kanpur
55	Mechanical Vibrations	Web	Prof. Rajiv Tiwari, Prof. S. K. Dwivedy	IIT Guwahati
56	Vibration Engineering	Video	Prof. Rajiv Tiwari, Prof. S. K. Dwivedy	IIT Guwahati