

685 NPTEL VIDEO COURSES DETAIL (With Direct Access Link to 26,740 Video Lectures - Updated as on November 29, 2016)

Metallurgy and Material Science

No.	Courses	Coordinators	Institute	Syllabus	PDF	MP3
1	Advanced ceramics for strategic applications	Prof. H.S. Maiti	IIT Kharagpur	Syllabus	Y	Y
2	Advanced Characterization Techniques	Dr. Krishanu Biswas, Prof.N.P.Gurao	IIT Kanpur	Syllabus	N	Y
3	Advanced Materials and Processes	Prof. B.S. Murty	IIT Kharagpur	Syllabus	Y	Y
4	Advanced Metallurgical Thermodynamics	Prof. B.S. Murty	IIT Madras	Syllabus	Y	Y
5	Electroceramics	Dr. Ashish Garg	IIT Kanpur	Syllabus	Y	Y
6	Electronic materials, devices, and fabrication	Prof. Parasuraman S	IIT Madras	Syllabus	Y	Y
7	Environmental Degradation of Materials	Dr. Kallol Mondal	IIT Kanpur	Syllabus	N	Y
8	Fuels Refractory and Furnaces	Prof. Satish Ch. Korla	IIT Kanpur	Syllabus	N	Y
9	Introduction to Biomaterials	Dr. Birkamjit Basu, Dr. Kantesh Balani	IIT Kanpur	Syllabus	Y	Y
10	Materials and Energy balance in Metallurgical Processes	Prof. Satish Ch. Korla	IIT Kanpur	Syllabus	Y	Y
11	Materials Characterization	Dr. S. Sankaran	IIT Madras	Syllabus	N	Y
12	NOC:Analysis and Modeling of Welding	Dr. G. Phanikumar	IIT Madras	Syllabus	N	Y
13	NOC:Biomaterials for bone tissue engineering applications	Prof. Bikramjit Basu	IISc Bangalore	Syllabus	N	Y
14	NOC:Fundamentals of electronic materials and devices(Course sponsored IIT Madras)	Prof. Parasuraman S	IIT Madras	Syllabus	N	Y
15	NOC:Fundamentals of Material Processing - I	Prof. Shashank Shekhar	IIT Kanpur	Syllabus	N	Y
16	NOC:Fundamentals of optical and scanning electron microscopy	Dr. S. Sankaran	IIT Madras	Syllabus	N	Y
17	NOC:Heat Treatment and Surface Hardening - I	Dr. Kallol Mondal, Prof. Sandeep Sangal	IIT Kanpur	Syllabus	N	Y
18	NOC:Introduction to crystal elasticity and crystal plasticity	Prof. Swarup bag	IIT Guwahati	Syllabus	N	Y
19	NOC:Introduction to Reciprocal Space and its use in Solids	Dr. Prathap Haridoss	IIT Madras	Syllabus	N	Y
20	NOC:Phase Diagrams in Materials Science and Engineering	Dr. Krishanu Biswas	IIT Kanpur	Syllabus	N	Y
21	NOC:Phase field modelling: the materials science, mathematics and computer simulation	Dr. M.P. Gururajan	IIT Bombay	Syllabus	N	Y
22	NOC:Theory and Practice of Non Destructive Testing	Dr. Ranjit Bauri	IIT Madras	Syllabus	N	Y
23	Non-ferrous Extractive Metallurgy	Mr. L Pugazhenthay, Prof. H.S. Ray	IIT Kharagpur	Syllabus	Y	Y
24	Optoelectronic Materials and Devices	Prof. Monica Katiyar, Prof. Deepak Gupta	IIT Kanpur	Syllabus	Y	Y
25	Physics of Materials	Dr. Prathap Haridoss	IIT Madras	Syllabus	Y	Y
26	Principles of Physical Metallurgy	Prof. R.N. Ghosh	IIT Kharagpur	Syllabus	Y	Y
27	Processing of Semiconducting Materials	Dr. Pallab Banerji	IIT Kharagpur	Syllabus	Y	Y
28	Science and Technology of Polymers	Prof. B. Adhikari	IIT Kharagpur	Syllabus	Y	Y
29	Steel Making	Prof. Satish Ch. Korla, Prof. Dipak Mazumdar	IIT Kanpur	Syllabus	Y	Y
30	Structure of Materials	Dr. Anandh Subramaniam	IIT Kanpur	Syllabus	Y	Y