

AICTE-NPTEL Online Faculty Development Programme

List of Courses in July-Dec 2018

No	Course title	Department	Duration	Start date	End date	Exam date
1	Fundamentals of Combustion (Part 2)	Aerospace Engineering	8 weeks	6-Aug	28-Sep	7-Oct
2	Design of fixed wing Unmanned Aerial Vehicles	Aerospace Engineering	8 weeks	27-Aug	19-Oct	28-Oct
3	Dairy and Food process and products technology	Agriculture Engineering	12 Weeks	30-Jul	19-Oct	28-Oct
4	Contemporary Architecture and Design	Architecture	8 weeks	27-Aug	19-Oct	28-Oct
5	Biomicrofluidics	Biotechnology & Bioengineering	4 Weeks	27-Aug	21-Sep	28-Oct
6	Biomedical nanotechnology	Biotechnology & Bioengineering	4 Weeks	27-Aug	21-Sep	28-Oct
7	Computational Systems Biology	Biotechnology & Bioengineering	12 Weeks	30-Jul	19-Oct	28-Oct
8	WildLife Conservation	Biotechnology & Bioengineering	8 weeks	27-Aug	19-Oct	28-Oct
9	Functional Genomics	Biotechnology & Bioengineering	4 Weeks	27-Aug	21-Sep	28-Oct
10	Computer Aided Drug Design	Biotechnology & Bioengineering	8 weeks	6-Aug	28-Sep	7-Oct
11	Nanotechnology in Agriculture	Biotechnology & Bioengineering	8 weeks	27-Aug	19-Oct	28-Oct
12	Optimization in Chemical Engineering	Chemical Engineering	12 Weeks	30-Jul	19-Oct	28-Oct
13	Infrared spectroscopy for pollution monitoring	Chemical Engineering	4 Weeks	13-Aug	7-Sep	7-Oct
14	Natural Gas Engineering	Chemical Engineering	8 weeks	27-Aug	19-Oct	28-Oct
15	Introduction to Polymer Physics-IITG	Chemical Engineering	8 weeks	6-Aug	28-Sep	7-Oct
16	Introduction to Polymer Physics-IITR	Chemical Engineering	12 Weeks	30-Jul	19-Oct	28-Oct

17	Chemistry: Atomic Structure and Chemical Bonding	Chemistry	12 Weeks	30-Jul	19-Oct	28-Oct	
18	Computational Chemistry and Classical Molecular Dynamics	Chemistry	8 weeks	6-Aug	28-Sep	7-Oct	
19	Inorganic Chemistry of Life: Principles and Perspectives	Chemistry	12 Weeks	30-Jul	19-Oct	28-Oct	
20	Chemical Crystallography	Chemistry	12 Weeks	30-Jul	19-Oct	28-Oct	
21	Advanced Chemical Thermodynamics and Kinetics	Chemistry	12 Weeks	30-Jul	19-Oct	28-Oct	
22	Theory of Elasticity	Civil Engineering	12 Weeks	30-Jul	19-Oct	28-Oct	
23	Advanced Concrete Technology	Civil Engineering	12 Weeks	30-Jul	19-Oct	28-Oct	
24	Reinforced Concrete Road Bridges	Civil Engineering	4 Weeks	27-Aug	21-Sep	28-Oct	
25	Wastewater Treatment and Recycling	Civil Engineering	12 Weeks	30-Jul	19-Oct	28-Oct	
26	Glass in buildings : Design and applications	Civil Engineering	12 Weeks	30-Jul	19-Oct	28-Oct	
27	Fire Protection, Services and Maintenance Management of Building	Civil Engineering	12 Weeks	30-Jul	19-Oct	28-Oct	
28	Geosynthetics Testing Laboratory	Civil Engineering	4 Weeks	27-Aug	21-Sep	28-Oct	
29	Geoenvironmental Engineering (Environmental Geotechnology); Landfills, Slury Ponds & contaminated Sites	Civil Engineering	12 Weeks	30-Jul	19-Oct	28-Oct	
30	Remote Sensing and Digital Image Processing of Satellite Data	Civil Engineering	8 weeks	6-Aug	28-Sep	7-Oct	
31	Photogeology In Terrain Evaluation (Part ? 2)	Civil Engineering	4 Weeks	27-Aug	21-Sep	28-Oct	
32	Unsaturated Soil Mechanics	Civil Engineering	12 Weeks	30-Jul	19-Oct	28-Oct	
33	Introduction to Accounting and Finance for Civil Engineers	Civil Engineering	8 weeks	27-Aug	19-Oct	28-Oct	
34	Data Base Management System	Computer science and engineering	8 weeks	6-Aug	28-Sep	7-Oct	
35	Scalable Data Science	Computer science and engineering	8 weeks	6-Aug	28-Sep	7-Oct	
36	Introduction to Machine Learning	Computer science	8 weeks	27-	19-	28-	

		and engineering		Aug	Oct	Oct	
37	Deep Learning	Computer science and engineering	12 Weeks	30-Jul	19-Oct	28-Oct	
38	Software testing	Computer science and engineering	12 Weeks	30-Jul	19-Oct	28-Oct	
39	Software Engineering	Computer science and engineering	12 Weeks	30-Jul	19-Oct	28-Oct	
40	Cloud Computing	Computer science and engineering	8 weeks	6-Aug	28-Sep	7-Oct	
41	Cloud Computing and Distributed Systems	Computer science and engineering	8 weeks	27-Aug	19-Oct	28-Oct	
42	Introduction to Internet of Things	Computer science and engineering	12 Weeks	30-Jul	19-Oct	28-Oct	
43	Artificial Intelligence Search Methods for problem Solving	Computer science and engineering	12 Weeks	30-Jul	19-Oct	28-Oct	
44	Blockchain Architecture Design and Use Cases	Computer science and engineering	12 Weeks	30-Jul	19-Oct	28-Oct	
45	Switching Circuits and Logic Design	Computer science and engineering	12 Weeks	30-Jul	19-Oct	28-Oct	
46	Hardware Modeling using Verilog	Computer science and engineering	8 Weeks	27-Aug	19-Oct	28-Oct	
47	Model Checking	Computer science and engineering	12 Weeks	30-Jul	19-Oct	28-Oct	
48	Multi-Core Computer Architecture ? Storage and Interconnects	Computer Science and Engineering	8 weeks	6-Aug	28-Sep	7-Oct	
49	Embedded Systems-- Design Verification and Test	Computer Science and Engineering	12 Weeks	30-Jul	19-Oct	28-Oct	
50	Introduction to parallel Programming in Open MP	Computer Science and Engineering	4 Weeks	13-Aug	7-Sep	7-Oct	
51	Social Networks	Computer Science and Engineering	12 weeks	30-Jul	19-Oct	28-Oct	
52	Electrical Distribution System Analysis	Electrical Engineering	8 weeks	6-Aug	28-Sep	7-Oct	
53	Recent Advances in Transmission Insulators	Electrical Engineering	4 Weeks	27-Aug	21-Sep	28-Oct	
54	Principles of Signal Estimation for MIMO/ OFDM Wireless Communication	Electrical Engineering	12 Weeks	30-Jul	19-Oct	28-Oct	
55	Computational Electromagnetics & Applications	Electrical Engineering	12 Weeks	30-Jul	19-Oct	28-Oct	

56	Advanced Linear Continuous Control Systems: Applications with MATLAB Programming and Simulink	Electrical Engineering	8 weeks	27-Aug	19-Oct	28-Oct	
57	Introduction to Wireless and Cellular Communications	Electrical Engineering	12 Weeks	30-Jul	19-Oct	28-Oct	
58	Design of Photovoltaic Systems	Electrical Engineering	12 Weeks	30-Jul	19-Oct	28-Oct	
59	Fabrication Techniques for MEMS-based sensors : clinical perspective	Electrical Engineering	12 Weeks	30-Jul	19-Oct	28-Oct	
60	Op-Amp Practical Applications: Design, Simulation and Implementation	Electrical Engineering	12 Weeks	30-Jul	19-Oct	28-Oct	
61	Physical Modelling for Electronics Enclosures using Rapid prototyping	Electrical Engineering	8 weeks	6-Aug	28-Sep	7-Oct	
62	Information Theory, Coding and Cryptography	Electrical Engineering	12 Weeks	30-Jul	19-Oct	28-Oct	
63	An Introduction to information theory	Electrical Engineering	8 weeks	6-Aug	28-Sep	7-Oct	
64	Digital Image Processing	Electrical Engineering	12 Weeks	30-Jul	19-Oct	28-Oct	
65	Introduction to Smart Grid	Electrical Engineering	8 weeks	6-Aug	28-Sep	7-Oct	
66	Advanced Topics in Probability and Random Processes	Electrical Engineering	8 weeks	6-Aug	28-Sep	7-Oct	
67	Nonlinear and Adaptive Control	Electrical Engineering	4 Weeks	13-Aug	7-Sep	7-Oct	
68	Control System Design	Electrical Engineering	12 Weeks	30-Jul	19-Oct	28-Oct	
69	Technical english for engineers	Humanities and Social Science	8 weeks	6-Aug	28-Sep	7-Oct	
70	Developing Soft Skills and Personality	Humanities and Social Science	8 weeks	27-Aug	19-Oct	28-Oct	
71	Introduction to Literary Theory	Humanities and Social Science	8 weeks	6-Aug	28-Sep	7-Oct	
72	Applied linguistics	Humanities and Social Science	12 Weeks	30-Jul	19-Oct	28-Oct	
73	Introduction to Basic Spoken Sanskrit	Humanities and Social Science	4 Weeks	27-Aug	21-Sep	28-Oct	
74	Gender Justice and Workplace Security	Humanities and Social Science	4 Weeks	27-Aug	21-Sep	28-Oct	
75	Introduction to cultural studies	Humanities and	12 Weeks	30-	19-	28-	

		Social Science		Jul	Oct	Oct	
76	Introduction to Modern Indian Political Thought	Humanities and Social Science	12 Weeks	30-Jul	19-Oct	28-Oct	
77	Visual Perception and Art: A Survey Across the Cultures	Humanities and Social Science	4 Weeks	13-Aug	7-Sep	7-Oct	
78	Cognition,Transformation and Lives	Humanities and Social Science	4 Weeks	13-Aug	7-Sep	7-Oct	
79	Consumer Psychology	Humanities and Social Science	8 weeks	6-Aug	28-Sep	7-Oct	
80	Educational Leadership	Humanities and Social Science	8 weeks	6-Aug	28-Sep	7-Oct	
81	Intellectual Property	Humanities and Social Science	12 Weeks	30-Jul	19-Oct	28-Oct	
82	Economic Growth and Development	Management	8 weeks	6-Aug	28-Sep	7-Oct	
83	Economics of Health and Health Care	Management	8 weeks	27-Aug	19-Oct	28-Oct	
84	Leadership	Management	4 Weeks	27-Aug	21-Sep	28-Oct	
85	Marketing Management-I	Management	8 weeks	6-Aug	28-Sep	7-Oct	
86	Selected Topics in Decision Modeling	Management	8 weeks	6-Aug	28-Sep	7-Oct	
87	Data Analysis and Decision Making - I	Management	12 Weeks	30-Jul	19-Oct	28-Oct	
88	Business Analytics & Data Mining Modeling Using R Part II	Management	4 Weeks	13-Aug	7-Sep	7-Oct	
89	E-Business	Management	12 Weeks	30-Jul	19-Oct	28-Oct	
90	Innovation, Business Models and Entrepreneurship	Management	8 weeks	6-Aug	28-Sep	7-Oct	
91	Simulation of Business Systems: An Applied Approach	Management	8 weeks	27-Aug	19-Oct	28-Oct	
92	Total Quality Management - I	Management	8 weeks	6-Aug	28-Sep	7-Oct	
93	Working Capital Management	Management	12 Weeks	30-Jul	19-Oct	28-Oct	
94	Introduction to Operations Research	Management	8 weeks	6-Aug	28-Sep	7-Oct	
95	Industrial Safety Engineering	Management	12 Weeks	30-	19-	28-	

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96	Management of Inventory Systems	Management	12 Weeks	30-Jul	19-Oct	28-Oct	
97	Knowledge Management	Management	8 weeks	6-Aug	28-Sep	7-Oct	
98	Integral Equations,calculus of variations and its applications	Mathematics	12 Weeks	30-Jul	19-Oct	28-Oct	
99	Ordinary and Partial Differential Equations and Applications	Mathematics	12 Weeks	30-Jul	19-Oct	28-Oct	
100	Matrix Solver	Mathematics	12 Weeks	30-Jul	19-Oct	28-Oct	
101	Introduction to Abstract and Linear Algebra	Mathematics	8 weeks	27-Aug	19-Oct	28-Oct	
102	Regression analysis	Mathematics	12 Weeks	30-Jul	19-Oct	28-Oct	
103	RAC Product Design	Mechanical Engineering	4 Weeks	13-Aug	7-Sep	7-Oct	
104	Heat Exchangers: Fundamentals and Design Analysis	Mechanical Engineering	12 Weeks	30-Jul	19-Oct	28-Oct	
105	Energy Conservation and Waste Heat Recovery	Mechanical Engineering	12 Weeks	30-Jul	19-Oct	28-Oct	
106	Design for Quality, Manufacturing and Assembly	Mechanical Engineering	8 weeks	6-Aug	28-Sep	7-Oct	
107	Mechanics of Human Movement	Mechanical Engineering	12 Weeks	30-Jul	19-Oct	28-Oct	
108	Advanced Composites	Mechanical Engineering	12 weeks	30-Jul	19-Oct	28-Oct	
109	Manufacturing of Composites	Mechanical Engineering	8 weeks	6-Aug	28-Sep	7-Oct	
110	Smart Materials and Intelligent System Design	Mechanical Engineering	4 Weeks	13-Aug	7-Sep	7-Oct	
111	Engineering Metrology	Mechanical Engineering	12 Weeks	30-Jul	19-Oct	28-Oct	
112	Noise Management and Control	Mechanical Engineering	12 Weeks	30-Jul	19-Oct	28-Oct	
113	Theory of Rectangular Plates-Part1	Mechanical Engineering	4 Weeks	13-Aug	7-Sep	7-Oct	
114	Fundamentals of Surface Engineering: Mechanisms,Processes and Characterizations	Mechanical Engineering	12 Weeks	30-Jul	19-Oct	28-Oct	

115	Surrogates and Approximations in Engineering Design	Mechanical Engineering	4 Weeks	13-Aug	7-Sep	7-Oct	
116	Design Practice - II	Mechanical Engineering	8 weeks	27-Aug	19-Oct	28-Oct	
117	Introduction to Abrasive Machining and Finishing Processes	Mechanical Engineering	8 weeks	6-Aug	28-Sep	7-Oct	
118	Engineering fracture mechanics	Mechanical engineering	12 Weeks	30-Jul	19-Oct	28-Oct	
119	Experimental Stress Analysis-An Overview	Mechanical Engineering	4 Weeks	27-Aug	21-Sep	28-Oct	
120	Nature and Properties of Materials	Metallurgical & Materials Engineering	8 weeks	6-Aug	28-Sep	7-Oct	
121	Advanced Materials and Processes	Metallurgical & Materials Engineering	12 Weeks	30-Jul	19-Oct	28-Oct	
122	Structural Analysis of Nanomaterials	Metallurgical & Materials Engineering	4 Weeks	13-Aug	7-Sep	7-Oct	
123	Analysis and Modeling of Welding	Metallurgical & Materials Engineering	8 weeks	6-Aug	28-Sep	7-Oct	
124	Steel Quality : Role of Secondary Refining & Continuous Casting	Metallurgical & Materials Engineering	12 Weeks	30-Jul	19-Oct	28-Oct	
125	Phase field modelling: the materials science, mathematics and computational aspects	Metallurgical & Materials Engineering	12 Weeks	30-Jul	19-Oct	28-Oct	
126	Elementary Stereology for Quantitative Metallography	Metallurgical & Materials Engineering	4 Weeks	13-Aug	7-Sep	7-Oct	
127	Phase Equilibria in Materials (Nature & Properties of Materials-II)	Metallurgical & Materials Engineering	8 weeks	27-Aug	19-Oct	28-Oct	
128	Health Research Fundamentals	Multidisciplinary	8 weeks	6-Aug	28-Sep	7-Oct	
129	Introduction to research	Multidisciplinary	8 weeks	6-Aug	28-Sep	7-Oct	
130	Neuroscience of Human Movement	Multidisciplinary	12 Weeks	30-Jul	19-Oct	28-Oct	
131	Non-Conventional Energy Resources	Multidisciplinary	12 Weeks	30-Jul	19-Oct	28-Oct	

132	Outcome Based Pedagogic Principles for Effective Teaching	Multidisciplinary	4 Weeks	27-Aug	21-Sep	28-Oct	
133	Symbolic Logic	Multidisciplinary	8 weeks	6-Aug	28-Sep	7-Oct	
134	Stress Management	Multidisciplinary	4 Weeks	13-Aug	7-Sep	7-Oct	
135	Biology for engineers and other non-biologists	Multidisciplinary	4 Weeks	27-Aug	21-Sep	28-Oct	
136	HSE Practices for Offshore and Petroleum Industries	OceanEngineering	12 Weeks	30-Jul	19-Oct	28-Oct	
137	Structural Health Monitoring	OceanEngineering	12 Weeks	30-Jul	19-Oct	28-Oct	
138	Hydrostatics and Stability	OceanEngineering	12 Weeks	30-Jul	19-Oct	28-Oct	
139	Introduction to Non-linear Optics and its Applications	Physics	12 Weeks	30-Jul	19-Oct	28-Oct	
140	Theory of groups for physics applications	Physics	12 Weeks	30-Jul	19-Oct	28-Oct	
141	Science of Clothing Comfort	Textile Technology	12 Weeks	30-Jul	19-Oct	28-Oct	