

**Proposed List of MOOCs (NPTEL Jan-April-2023 time line) for B.E. Degree Honors**

**Table 1. List of certifiable courses approved for earning the extra credits under type Disciplinary**

Sl. No.	Course Code	Course Title	Course Area	Name of the Subject and Subject matter Expert's name	Course Duration in weeks	Credits	Name of the Board of Studies	Disciplinary Courses	Course Session	Start Date	End date	Exam Date	Enrollment End Date
1	noc23-de04	Design Engineering	Understanding Incubation and Entrepreneurship	Prof. B. K. Chakravarthy	12 Weeks	3	Mechanical Engg	Mechanical Engg	Online Video	January 23, 2023	April 14, 2023	April 29, 2023	January 30, 2023
2	noc23-de05	Design Engineering	Innovation by Design	Prof. B. K. Chakravarthy	4 Weeks	1	Mechanical Engg	Mechanical Engg	Online Video	January 23, 2023	February 17, 2023	March 26, 2023	January 30, 2023
3	noc23-me07	Mechanical Engineering	Robotics and Control : Theory and Practice	Prof. N. Sukavanam Prof. M. Felix Orlando	8 Weeks	2	Mechanical Engg	Mechanical Engg	Online Video	January 23, 2023	March 17, 2023	March 26, 2023	January 30, 2023
4	noc23-me12	Mechanical Engineering	Fundamentals of combustion for propulsion	Prof. S Varankumar Prof. H S Mukunda	8 Weeks	2	Mechanical Engg	Mechanical Engg	Online Video	January 23, 2023	March 17, 2023	March 26, 2023	January 30, 2023
5	noc23-me14	Mechanical Engineering	Product Design and Manufacturing	Prof. J.Ramkumar Prof. Amandeep Singh	12 Weeks	3	Mechanical Engg	Mechanical Engg	Online Video	January 23, 2023	April 14, 2023	April 29, 2023	January 30, 2023
6	noc23-me16	Mechanical Engineering	Mechanics of Machining	Prof. Uday S. Dixit	8 Weeks	2	Mechanical Engg	Mechanical Engg	Online Video	January 23, 2023	March 17, 2023	March 26, 2023	January 30, 2023
7	noc23-me17	Mechanical Engineering	Nature and Properties of Materials	Prof. Bishakh Bhattacharya	8 Weeks	2	Mechanical Engg	Mechanical Engg	Online Video	February 20, 2023	April 14, 2023	April 30, 2023	February 20, 2023
8	noc23-me18	Mechanical Engineering	Smart Materials and Intelligent System Design	Prof. Bishakh Bhattacharya	4 Weeks	1	Mechanical Engg	Mechanical Engg	Online Video	February 20, 2023	March 17, 2023	April 30, 2023	February 20, 2023
9	noc23-me21	Mechanical Engineering	Introduction to Abrasive Machining and Finishing Processes	Prof. Mamilla Ravi Sankar	8 Weeks	2	Mechanical Engg	Mechanical Engg	Online Video	January 23, 2023	March 17, 2023	March 26, 2023	January 30, 2023
10	noc23-me26	Mechanical Engineering	Design Practice	Prof. Shantanu Bhattacharya	8 Weeks	2	Mechanical Engg	Mechanical Engg	Online Video	February 20, 2023	April 14, 2023	April 30, 2023	February 20, 2023
11	noc23-me27	Mechanical Engineering	Fundamentals of Combustion	Prof. V. Raghavan Prof. K. Ramamurthi	12 Weeks	3	Mechanical Engg	Mechanical Engg	Online Video	January 23, 2023	April 14, 2023	April 29, 2023	January 30, 2023
12	noc23-me29	Mechanical Engineering	Explosions and Safety	Prof. Prasad Patnaik Bsv Prof. Asokan Thondiyath	12 Weeks	3	Mechanical Engg	Mechanical Engg	Online Video	January 23, 2023	April 14, 2023	April 30, 2023	January 30, 2023
13	noc23-me30	Mechanical Engineering	Wheeled Mobile Robots	Prof. Santhakumar Mohan	8 Weeks	2	Mechanical Engg	Mechanical Engg	Online Video	January 23, 2023	March 17, 2023	March 26, 2023	January 30, 2023
14	noc23-me38	Mechanical Engineering	Electronic Packaging And Manufacturing	Prof. Anandaroop Bhattacharya	8 Weeks	2	Mechanical Engg	Mechanical Engg	Online Video	January 23, 2023	March 17, 2023	March 26, 2023	January 30, 2023
15	noc23-me44	Mechanical Engineering	Manufacturing Guidelines for Product Design	Prof. Inderdeep Singh	8 Weeks	2	Mechanical Engg	Mechanical Engg	Online Video	February 20, 2023	April 14, 2023	April 30, 2023	February 20, 2023
16	noc23-me48	Mechanical Engineering	Principles of Casting Technology	Prof. P. K. Jha	8 Weeks	2	Mechanical Engg	Mechanical Engg	Online Video	January 23, 2023	March 17, 2023	March 26, 2023	January 30, 2023
17	noc23-me51	Mechanical Engineering	Advanced Robotics	Prof. Ashish Dutta	12 Weeks	3	Mechanical Engg	Mechanical Engg	Online Video	January 23, 2023	April 14, 2023	April 30, 2023	January 30, 2023
18	noc23-me59	Mechanical Engineering	Theory of Composite Shells	Prof. Poonam Kumari	8 Weeks	2	Mechanical Engg	Mechanical Engg	Online Video	January 23, 2023	March 17, 2023	March 26, 2023	January 30, 2023
19	noc23-me66	Mechanical Engineering	Introduction To Uncertainty Analysis And Experimentation	Prof. S.R. Kale	8 Weeks	2	Mechanical Engg	Mechanical Engg	Online Video	January 23, 2023	March 17, 2023	March 26, 2023	January 30, 2023
20	noc23-me67	Mechanical Engineering	Robotics: Basics and Selected Advanced Concepts	Prof. Ashitava Ghosal	12 Weeks	3	Mechanical Engg	Mechanical Engg	Online Video	January 23, 2023	April 14, 2023	April 30, 2023	January 30, 2023
21	noc23-mm10	Metallurgical and Materials Engineering	Solar Photovoltaics: Principles, Technologies & Materials	Prof. Ashish Garg	8 Weeks	2	Mechanical Engg	Mechanical Engg	Online Video	January 23, 2023	March 17, 2023	March 26, 2023	January 30, 2023

**Table 1. List of certifiable courses approved for earning the extra credits under type Interdisciplinary**

Sl No	Course Code	Course Title	Course Area	Name of the Subject and Subject matter Expert's name	Course Duration in weeks	Credits	Name of the Board of Studies	Disciplinary Courses	Course Session	Start Date	End date	Exam Date	Enrollment End Date
1	noc23-ag05	Cooking Technology: Why and How utilized in Food Processing	Agriculture Engineering	Prof. Tridib Kumar Goswami	12 Weeks	3	Mechanical	Agriculture Engineering	Online Video	January 23, 2023	April 14, 2023	April 29, 2023	January 30, 2023
2	noc23-ch05	Chemical Engineering	Waste to Energy Conversion	Prof. P. Mondal	8 Weeks	2	Chemical Engineering	Chemical Engineering	Online Video	January 23, 2023	March 17, 2023	March 26, 2023	January 30, 2023
3	noc23-ce22	Civil Engineering	Introduction to Lean Construction (Module 1 - Lean Basics)	Prof. Koshiy Varghese Prof. N Raghavan	4 Weeks	1	Civil Engineering	Civil Engineering	Online Video	January 23, 2023	February 17, 2023	March 26, 2023	January 30, 2023
4	noc23-cs51	Computer Science and Engineering	Introduction To Internet Of Things	Prof. Sudip Misra	12 Weeks	3	Computer Science and Engineering	Computer Science and Engineering	Online Video	January 23, 2023	April 14, 2023	April 30, 2023	January 30, 2023
5	noc23-ee01	Electrical and Electronics Engineering	Electric Vehicles - Part 1	Prof. Amit Jain	4 Weeks	1	Electrical and Electronics Engineering	Electrical and Electronics Engineering	Online Video	January 23, 2023	February 17, 2023	March 26, 2023	January 30, 2023
6	noc23-hs10	Humanities and Social Science	Soft Skill Development	Prof. Prasad Patnaik Prof. V. N. Gin	8 Weeks	2	Humanities and Social Sciences	Humanities and Social Science	Online Video	January 23, 2023	March 17, 2023	March 26, 2023	January 30, 2023
7	noc23-hs19	Humanities and Social Sciences	Effective Writing	Prof. Binod Mishra	4 Weeks	1	Humanities and Social Sciences	Humanities and Social Sciences	Online Video	January 23, 2023	February 17, 2023	March 26, 2023	January 30, 2023
8	noc23-mg16	Management	Supply Chain Analytics	Prof. Rajat Agrawal	8 Weeks	2	Management	Management	Online Video	February 20, 2023	April 14, 2023	April 29, 2023	February 20, 2023
9	noc23-mg28	Management	Leadership and Team Effectiveness	Prof. Santosh Rangnekar	12 Weeks	3	Management	Management	Online Video	January 23, 2023	April 14, 2023	April 30, 2023	January 30, 2023
10	noc23-ma07	Mathematics	Basic Linear Algebra	Prof. I.K.Rana	8 Weeks	2	Mathematics	Mathematics	Online Video	February 20, 2023	April 14, 2023	April 30, 2023	February 20, 2023
11	noc23-ma11	Mathematics	Numerical Methods: Finite difference approach	Prof. Aameeya Kumar Nayak	4 Weeks	1	Mathematics	Mathematics	Online Video	January 23, 2023	February 17, 2023	March 26, 2023	January 30, 2023
12	noc23-gs01	Multidisciplinary	NBA Accreditation and Teaching and learning in Engineering (NATE)	Prof. N J Rao Prof. K Rajanikanth	12 Weeks	3	Humanities and Social Sciences	Humanities and Social Sciences	Online Video	January 23, 2023	April 14, 2023	April 30, 2023	January 30, 2023
13	noc23-gs12	Multidisciplinary	Rural Water Resources Management	Prof. Pennan Chinnasamy	12 Weeks	3	Humanities and Social Sciences	Humanities and Social Sciences	Online Video	January 23, 2023	April 14, 2023	April 29, 2023	January 30, 2023
14	noc23-gs14	Multidisciplinary	Outcome Based Pedagogic Principles For Effective Teaching	Prof. Shyamal Kumar Das Mandal	4 Weeks	1	Humanities and Social Sciences	Humanities and Social Sciences	Online Video	February 20, 2023	March 17, 2023	April 30, 2023	February 20, 2023
15	noc23-ge20	Multidisciplinary	Introduction to Reliability Engineering	Prof. Neeraj Kumar Goyal	8 Weeks	2	Humanities and Social Sciences	Humanities and Social Sciences	Online Video	February 20, 2023	April 14, 2023	April 30, 2023	February 20, 2023