

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-b07	Environmental Chemistry And Microbiology	Biotechnology and Bioengineering	Prof. Sudha Goel	12 Weeks	3	Biotechnology	Biotechnology	Online Video session	January 23, 2023	April 14, 2023	April 30, 2023	January 30, 2023
2	noc23-b08	Aspects Of Biochemical Engineering	Biotechnology and Bioengineering	Prof. Debabrata Das	12 Weeks	3	Biotechnology	Biotechnology	Online Video session	January 23, 2023	April 14, 2023	April 30, 2023	January 30, 2023
3	noc23-b09	Introduction to Professional Scientific Communication	Biotechnology and Bioengineering	Prof. S. Ganesh	4 Weeks	1	Biotechnology	Biotechnology	Online Video session	January 23, 2023	February 17, 2023	March 26, 2023	January 30, 2023
4	noc23-b10	Human Molecular Genetics	Biotechnology and Bioengineering	Prof. S. Ganesh	4 Weeks	1	Biotechnology	Biotechnology	Online Video session	January 23, 2023	February 17, 2023	March 26, 2023	January 30, 2023
5	noc23-b11	Introductory Mathematical Methods for Biologists	Biotechnology and Bioengineering	Prof. Ranjit Padinjareeri	8 Weeks	2	Biotechnology	Biotechnology	Online Video session	January 23, 2023	March 17, 2023	March 26, 2023	January 30, 2023
6	noc23-b12	Bioinformatics: Algorithms and Applications	Biotechnology and Bioengineering	Prof. Michael Gromiha	12 Weeks	3	Biotechnology	Biotechnology	Online Video session	January 23, 2023	April 14, 2023	April 29, 2023	January 30, 2023
7	noc23-b13	Biostatistics and Design of experiments	Biotechnology and Bioengineering	Prof. Mukesh Doble	8 Weeks	2	Biotechnology	Biotechnology	Online Video session	January 23, 2023	March 17, 2023	March 26, 2023	January 30, 2023
8	noc23-b14	Computational Systems Biology	Biotechnology and Bioengineering	Prof. Karthik Raman	12 Weeks	3	Biotechnology	Biotechnology	Online Video session	January 23, 2023	April 14, 2023	April 30, 2023	January 30, 2023
9	noc23-b15	Demystifying The Brain	Biotechnology and Bioengineering	Prof. Srinivas Chakravarthy	4 Weeks	1	Biotechnology	Biotechnology	Online Video session	January 23, 2023	February 17, 2023	March 26, 2023	January 30, 2023
10	noc23-b16	Material and Energy Balances	Biotechnology and Bioengineering	Prof. Vignesh Muthuvelyan	12 Weeks	3	Biotechnology	Biotechnology	Online Video session	January 23, 2023	April 14, 2023	April 30, 2023	January 30, 2023
11	noc23-b17	Medical Biomaterials	Biotechnology and Bioengineering	Prof. Mukesh Doble	8 Weeks	2	Biotechnology	Biotechnology	Online Video session	February 20, 2023	April 14, 2023	April 30, 2023	February 20, 2023
12	noc23-b18	Thermodynamics for Biological Systems - Classical and Statistical Aspect	Biotechnology and Bioengineering	Prof. Surajit Kumar G K Prof. Samita Senapati	12 Weeks	3	Biotechnology	Biotechnology	Online Video session	January 23, 2023	April 14, 2023	April 30, 2023	January 30, 2023
13	noc23-b19	Bioengineering: An Interface with Biology and Medicine	Biotechnology and Bioengineering	Prof. Saneeva Srivastava	8 Weeks	2	Biotechnology	Biotechnology	Online Video session	January 23, 2023	March 17, 2023	March 26, 2023	January 30, 2023
14	noc23-b20	Interactomics - Basics & Applications	Biotechnology and Bioengineering	Prof. Saneeva Srivastava	12 Weeks	3	Biotechnology	Biotechnology	Online Video session	January 23, 2023	April 14, 2023	April 30, 2023	January 30, 2023
15	noc23-b21	Biochemistry - I/II	Biotechnology and Bioengineering	Prof. Subramaniam K	12 Weeks	3	Biotechnology	Biotechnology	Online Video session	January 23, 2023	April 14, 2023	April 30, 2023	January 30, 2023
16	noc23-b22	Bioreactor Design and Analysis	Biotechnology and Bioengineering	Prof. Smrita Srivastava	8 Weeks	2	Biotechnology	Biotechnology	Online Video session	January 23, 2023	March 17, 2023	March 26, 2023	January 30, 2023
17	noc23-b23	Structural Biology	Biotechnology and Bioengineering	Prof. Saugata Hara	12 Weeks	3	Biotechnology	Biotechnology	Online Video session	January 23, 2023	April 14, 2023	April 30, 2023	January 30, 2023
18	noc23-b24	Plant Developmental Biology	Biotechnology and Bioengineering	Prof. Shi Ran Yadav	4 Weeks	1	Biotechnology	Biotechnology	Online Video session	January 23, 2023	February 17, 2023	March 26, 2023	January 30, 2023
19	noc23-b25	Basics of Biology	Biotechnology and Bioengineering	Prof. Vishal Trivedi	12 Weeks	3	Biotechnology	Biotechnology	Online Video session	January 23, 2023	April 14, 2023	April 30, 2023	January 30, 2023
20	noc23-b26	Data Analysis for Biologists	Biotechnology and Bioengineering	Prof. Biplob Bose	8 Weeks	2	Biotechnology	Biotechnology	Online Video session	January 23, 2023	March 17, 2023	March 26, 2023	January 30, 2023
21	noc23-b27	Biointerface Engineering	Biotechnology and Bioengineering	Prof. Lata M. Panse	8 Weeks	2	Biotechnology	Biotechnology	Online Video session	February 20, 2023	April 14, 2023	April 29, 2023	February 20, 2023
22	noc23-b28	Conservation Economics	Biotechnology and Bioengineering	Prof. Ankur Awadhya	12 Weeks	3	Biotechnology	Biotechnology	Online Video session	January 23, 2023	April 14, 2023	April 30, 2023	January 30, 2023
23	noc23-b29	Forests and their Management	Biotechnology and Bioengineering	Prof. Ankur Awadhya	12 Weeks	3	Biotechnology	Biotechnology	Online Video session	January 23, 2023	April 14, 2023	April 30, 2023	January 30, 2023
24	noc23-b30	Nanotechnology in Agriculture	Biotechnology and Bioengineering	Prof. Mainak Das	8 Weeks	2	Biotechnology	Biotechnology	Online Video session	January 23, 2023	March 17, 2023	March 26, 2023	January 30, 2023
25	noc23-b31	Bioelectrochemistry	Biotechnology and Bioengineering	Prof. Mainak Das	4 Weeks	1	Biotechnology	Biotechnology	Online Video session	January 23, 2023	February 17, 2023	March 26, 2023	January 30, 2023
26	noc23-b32	Cell Biology: Cellular organization, division and processes	Biotechnology and Bioengineering	Prof. Shikha Lalwani	8 Weeks	2	Biotechnology	Biotechnology	Online Video session	January 23, 2023	March 17, 2023	March 26, 2023	January 30, 2023
27	noc23-h05	Host Pathogen Interaction (Immunology)	Biotechnology and Bioengineering	Prof. Himanshu Kumar	12 Weeks	3	Biotechnology	Biotechnology	Online Video session	January 23, 2023	April 14, 2023	April 29, 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	noc22-ch03	Engineering Thermodynamics	Chemical Engineering	Prof. Jayant K. Singh	8 Weeks	2	Chemical Engineering	Chemical Engineering	Online Video session	January 23, 2023	March 17, 2023	March 26, 2023	January 30, 2023
2	noc23-ch02	Basic Principles and Calculations in Chemical Engineering	Chemical Engineering	Prof. Subrata Kumar Majumdar	12 Weeks	3	Chemical Engineering	Chemical Engineering	Online Video session	January 23, 2023	April 14, 2023	April 29, 2023	January 30, 2023
3	noc23-ch03	Fluid Flow Operations	Chemical Engineering	Prof. Subrata Kumar Majumdar	12 Weeks	3	Chemical Engineering	Chemical Engineering	Online Video session	January 23, 2023	April 14, 2023	April 30, 2023	January 30, 2023
4	noc23-ch08	Membrane Technology	Chemical Engineering	Prof. Kaushik Mohanty	12 Weeks	3	Chemical Engineering	Chemical Engineering	Online Video session	January 23, 2023	April 14, 2023	April 30, 2023	January 30, 2023
5	noc23-ch11	Process Control - Design, Analysis and Assessment	Chemical Engineering	Prof. Raguvaran Rengasamy	12 Weeks	3	Chemical Engineering	Chemical Engineering	Online Video session	January 23, 2023	April 14, 2023	April 30, 2023	January 30, 2023
6	noc23-ch13	Electrochemical Technology in Pollution Control	Chemical Engineering	Prof. J. R. Mudali	8 Weeks	2	Chemical Engineering	Chemical Engineering	Online Video session	January 23, 2023	March 17, 2023	March 26, 2023	January 30, 2023
7	noc23-ch14	Multiphase Flows	Chemical Engineering	Prof. Kishan Kumar Udayrath	8 Weeks	2	Chemical Engineering	Chemical Engineering	Online Video session	January 23, 2023	March 17, 2023	March 26, 2023	January 30, 2023
8	noc23-ch15	Environmental Quality Monitoring & Analysis	Chemical Engineering	Prof. Ravi Krishna R	12 Weeks	3	Chemical Engineering	Chemical Engineering	Online Video session	January 23, 2023	April 14, 2023	April 29, 2023	January 30, 2023
9	noc23-ch16	Chemical Process Technology	Chemical Engineering	Prof. Tamil Banerjee	12 Weeks	3	Chemical Engineering	Chemical Engineering	Online Video session	January 23, 2023	April 14, 2023	April 29, 2023	January 30, 2023
10	noc23-ch17	Biological process design for wastewater treatment	Chemical Engineering	Prof. Vinay Chandra Srivastava	8 Weeks	2	Chemical Engineering	Chemical Engineering	Online Video session	February 20, 2023	April 14, 2023	April 29, 2023	February 20, 2023
11	noc23-ch18	Introduction to Process Modeling In The Membrane Separation Process	Chemical Engineering	Prof. Srinidhi Sankar	4 Weeks	1	Chemical Engineering	Chemical Engineering	Online Video session	January 23, 2023	February 17, 2023	March 26, 2023	January 30, 2023
12	noc23-ch22	Optimization in Chemical Engineering	Chemical Engineering	Prof. Debasis Sanhar	12 Weeks	3	Chemical Engineering	Chemical Engineering	Online Video session	January 23, 2023	April 14, 2023	April 30, 2023	January 30, 2023
13	noc23-ch23	Chemical Process Instrumentation	Chemical Engineering	Prof. Debasis Sanhar	12 Weeks	3	Chemical Engineering	Chemical Engineering	Online Video session	January 23, 2023	April 14, 2023	April 30, 2023	January 30, 2023
14	noc23-ch25	Advanced Thermodynamics and Molecular Simulations	Chemical Engineering	Prof. Prateek Kumar Jha	12 Weeks	3	Chemical Engineering	Chemical Engineering	Online Video session	January 23, 2023	April 14, 2023	April 29, 2023	January 30, 2023
15	noc23-ch26	Process Equipment Design	Chemical Engineering	Prof. Shabina Khanam	12 Weeks	3	Chemical Engineering	Chemical Engineering	Online Video session	January 23, 2023	April 14, 2023	April 30, 2023	January 30, 2023
16	noc23-ch28	Chemical Process Utilities	Chemical Engineering	Prof. Shishu Siroa	12 Weeks	3	Chemical Engineering	Chemical Engineering	Online Video session	January 23, 2023	April 14, 2023	April 29, 2023	January 30, 2023
17	noc23-ch29	Polymer Reaction Engineering	Chemical Engineering	Prof. Shishu Siroa	12 Weeks	3	Chemical Engineering	Chemical Engineering	Online Video session	January 23, 2023	April 14, 2023	April 30, 2023	January 30, 2023
18	noc23-ch30	Physical and Electrochemical Characteristics in Chemical Engineering	Chemical Engineering	Prof. Tamil Banerjee	8 Weeks	2	Chemical Engineering	Chemical Engineering	Online Video session	January 23, 2023	March 17, 2023	March 26, 2023	January 30, 2023
19	noc23-ch38	Thermodynamics Of Fluid Phase Equilibria	Chemical Engineering	Prof. Jayant K. Singh	8 Weeks	2	Chemical Engineering	Chemical Engineering	Online Video session	January 23, 2023	March 17, 2023	March 26, 2023	January 30, 2023
20	noc23-cy04	Transition Metal Organometallics in Catalysis and Biology	Chemistry	Prof. P. Ghosh	12 Weeks	3	Chemistry	Chemistry	Online Video session	January 23, 2023	April 14, 2023	April 30, 2023	January 30, 2023
21	noc23-cy13	Ultrafast Laser Spectroscopy	Chemistry	Prof. Arindita Das	12 Weeks	3	Chemistry	Chemistry	Online Video session	January 23, 2023	April 14, 2023	April 30, 2023	January 30, 2023
22	noc23-cy15	Bioinorganic Chemistry	Chemistry	Prof. S. P. Rath	4 Weeks	1	Chemistry	Chemistry	Online Video session	January 23, 2023	February 17, 2023	March 26, 2023	January 30, 2023
23	noc23-cs08	Data Analytics with Python	Computer Science and Engineering	Prof. A. Ramesh	12 Weeks	2	Computer Science and Engineering	Computer Science and Engineering	Online Video session	January 23, 2023	April 14, 2023	April 30, 2023	January 30, 2023
24	noc23-cs17	Data Science for Engineers	Computer Science and Engineering	Prof. Nagarathn Rengasamy	8 Weeks	2	Computer Science and Engineering	Computer Science and Engineering	Online Video session	January 23, 2023	March 17, 2023	March 26, 2023	January 30, 2023
25	noc23-cs21	Python for Data Science	Computer Science and Engineering	Prof. Nagarathn Rengasamy	4 Weeks	1	Computer Science and Engineering	Computer Science and Engineering	Online Video session	January 23, 2023	February 17, 2023	March 26, 2023	January 30, 2023
26	noc23-cs49	Programming in Java	Computer Science and Engineering	Prof. Debasis Samanta	12 Weeks	3	Computer Science and Engineering	Computer Science and Engineering	Online Video session	January 23, 2023	April 14, 2023	April 30, 2023	January 30, 2023
27	noc23-cs50	Programming in Modern C++	Computer Science and Engineering	Prof. Partha Pratik Das	12 Weeks	3	Computer Science and Engineering	Computer Science and Engineering	Online Video session	January 23, 2023	April 14, 2023	April 29, 2023	January 30, 2023
28	noc23-cs51	Introduction To Internet Of Things	Computer Science and Engineering	Prof. Sudip Misra	12 Weeks	3	Computer Science and Engineering	Computer Science and Engineering	Online Video session	January 23, 2023	April 14, 2023	April 30, 2023	January 30, 2023
29	noc23-cs53	Problem Solving Through Programming in C	Computer Science and Engineering	Prof. Anupam Basu	12 Weeks	3	Computer Science and Engineering	Computer Science and Engineering	Online Video session	January 23, 2023	April 14, 2023	April 29, 2023	January 30, 2023
30	noc23-hs25	Health Research Fundamentals	Humanities and Social Sciences	Prof. P. Manickam	8 Weeks	2	Humanities and Social Sciences	Humanities and Social Sciences	Online Video session	January 23, 2023	March 17, 2023	March 26, 2023	January 30, 2023
31	noc23-hs40	Introduction to Environmental Economics	Humanities and Social Sciences	Prof. Dipriyanshi Nayak	12 Weeks	3	Humanities and Social Sciences	Humanities and Social Sciences	Online Video session	January 23, 2023	April 14, 2023	April 30, 2023	January 30, 2023
32	noc23-hs50	Intellectual Property	Humanities and Social Sciences	Prof. Feruz Ali	12 Weeks	3	Humanities and Social Sciences	Humanities and Social Sciences	Online Video session	January 23, 2023	April 14, 2023	April 30, 2023	January 30, 2023
33	noc23-mg05	Data Analysis and Decision Making - I	Management	Prof. Raghu Nandan Sengupta	12 Weeks	3	Management	Management	Online Video session	January 23, 2023	April 14, 2023	April 29, 2023	January 30, 2023
34	noc23-mg21	Ethics in Engineering Practice	Management	Prof. Sumati Mahapatray	8 Weeks	2	Management	Management	Online Video session	February 20, 2023	April 14, 2023	April 29, 2023	February 20, 2023
35	noc23-mg28	Safety and Risk Analytics	Management	Prof. Jhanswar Mali	12 Weeks	3	Management	Management	Online Video session	January 23, 2023	April 14, 2023	April 30, 2023	January 30, 2023