



VISVESVARAYA TECHNOLOGICAL UNIVERSITY, Belagavi
Proposed list of MOOCs (NPTEL June-Dec 2022 Timeline) for B.E Degree Honours

Format for submission of Bouquet of MOOCs Courses

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

Name of the Board | **BIOTECHNOLOGY**

Sl. No.	Name of the Subject & Subject Matter Expert(SME)	Duration in Weeks	Start Date	End Date	Exam Dates	Enrolment End Date
1	Genome Editing and Engineering (Prof. Utpal Bora)	12 Weeks	July 25, 2022	October 14, 2022	October 29, 2022	August 1, 2022
2	Industrial Biotechnology (Prof. Debabrata Das)	12 Weeks	July 25, 2022	October 14, 2022	October 29, 2022	August 1, 2022
3	Introduction to Developmental Biology (Prof. Subramaniam K)	12 Weeks	July 25, 2022	October 14, 2022	October 29, 2022	August 1, 2022
4	Drug Delivery: Principles and Engineering (Prof. Rachit Agarwal)	12 Weeks	July 25, 2022	October 14, 2022	October 30, 2022	August 1, 2022
5	Principles Of Downstream Techniques in Bioprocess (Prof. Mukesh Doble)	12 Weeks	July 25, 2022	October 14, 2022	October 29, 2022	August 1, 2022
6	Introduction to Proteogenomics (Prof. Sanjeeva Srivastava)	12 Weeks	July 25, 2022	October 14, 2022	October 30, 2022	August 1, 2022
7	Environmental Biotechnology (Prof. Pinaki Sar)	12 Weeks	July 25, 2022	October 14, 2022	October 30, 2022	August 1, 2022
8	Experimental Biotechnology (Prof. Vishal Trivedi)	12 Weeks	July 25, 2022	October 14, 2022	October 29, 2022	August 1, 2022
9	Animal Physiology (Prof, Mainak Das)	12 Weeks	July 25, 2022	October 14, 2022	October 29, 2022	August 1, 2022
10	Spectroscopic Techniques for Pharmaceutical and Biopharmaceutical Industries (Prof. Shashank Deep)	12 Weeks	July 25, 2022	October 14, 2022	October 29, 2022	August 1, 2022
11	NMR spectroscopy for Structural Biology (Prof. R. V Hosur Prof. Ashutosh Kumar)	12 Weeks	July 25, 2022	October 14, 2022	October 29, 2022	August 1, 2022
12	Fundamentals of Protein Chemistry (Prof. Swagata Dasgupta)	12 Weeks	July 25, 2022	October 14, 2022	October 30, 2022	August 1, 2022
13	Biophysical chemistry (Prof. Prमित Kumar Chowdhury)	12 Weeks	July 25, 2022	October 14, 2022	October 30, 2022	August 1, 2022



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14	Computer Aided Drug Design (Prof. Mukesh Doble)	8 Weeks	Jul 25, 2022	September 16, 2022	September 25, 2022	August 1, 2022
15	Plant Cell Bioprocessing (Prof. Smita Srivastava)	8 Weeks	Jul 25, 2022	September 16, 2022	September 25, 2022	August 1, 2022
16	Introduction to proteomics (Prof. Sanjeeva Srivastava)	8 Weeks	Jul 25, 2022	September 16, 2022	September 25, 2022	August 1, 2022
17	Cell Culture Technologies (Prof. Mainak Das)	8 weeks	Aug 22, 2022	September 16, 2022	Oct 29, 2022	August 22, 2022
18	Tissue engineering (Prof. Vignesh Muthuvijayan)	8 Weeks	Jul 25, 2022	September 16, 2022	September 25, 2022	August 1, 2022
19	Functional Genomics (Prof. S.Ganesh)	4 weeks	Aug 22, 2022	September 16, 2022	Oct 29, 2022	August 22, 2022
20	Bioreactors (Prof. G.K. Suraishkumar)	4 weeks	Aug 22, 2022	September 16, 2022	Oct 29, 2022	August 22, 2022
21	Legal and Regulatory Issues in Biotechnology (Prof. Niharika Sahoo Bhattacharya)	4 weeks	Aug 22, 2022	September 16, 2022	Oct 29, 2022	August 22, 2022

Table 2. List of certifiable courses approved for earning extra credits by Biotechnology students (Interdisciplinary)

Sl. No.	Name of the Subject & Subject Matter Expert(SME)	Duration in Weeks	Start Date	End Date	Exam Dates	Enrolment End Date
1	Medical Image Analysis (Prof. Ganapathy Krishnamurthi)	12 Weeks	July 25, 2022	October 14, 2022	October 29, 2022	August 1, 2022
2	Fundamentals of micro and nanofabrication (Prof. Sushobhan Avasti Prof. Shankar Selvaraja)	12 Weeks	July 25, 2022	October 14, 2022	October 30, 2022	August 1, 2022
3	Transport Phenomena in Biological Systems (Prof. G.K. Suraishkumar)	12 Weeks	July 25, 2022	October 14, 2022	October 29, 2022	August 1, 2022
4	Introduction to Biomedical Imaging Systems (Prof. Arun K. Thittai)	12 Weeks	July 25, 2022	October 14, 2022	October 29, 2022	August 1, 2022
5	Organic Chemistry In Biology And Drug Development (Prof. Amit Basak)	12 Weeks	July 25, 2022	October 14, 2022	October 29, 2022	August 1, 2022
6	Neuroscience of Human Movements (Prof. Varadhan)	12 Weeks	July 25, 2022	October 14, 2022	October 29, 2022	August 1, 2022



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7	Introductory Neuroscience & Neuro-Instrumentation (Prof. Mahesh Jayachandra)	12 Weeks	July 25, 2022	October 14, 2022	October 30, 2022	August 1, 2022
8	Fundamentals of Food Process Engineering (Prof. Jayeeta Mitra)	12 Weeks	July 25, 2022	October 14, 2022	October 29, 2022	August 1, 2022
9	Dairy and Food Process and Products Technology (Prof. Tridib Kumar Goswami)	12 Weeks	July 25, 2022	October 14, 2022	October 29, 2022	August 1, 2022
10	Introduction to mechanobiology (Prof. Shamik Sen)	8 Weeks	Jul 25, 2022	September 16, 2022	September 25, 2022	August 1, 2022
11	Organ Printing (Prof. Falguni Pati)	8 Weeks	Jul 25, 2022	September 16, 2022	September 25, 2022	August 1, 2022
12	Technologies For Clean and Renewable Energy Production (Prof. P. Mondal)	8 Weeks	Jul 25, 2022	September 16, 2022	September 25, 2022	August 1, 2022
13	Metals In Biology (Prof. D. Maiti)	8 Weeks	Jul 25, 2022	September 16, 2022	September 25, 2022	August 1, 2022
14	Programming, Data Structures And Algorithms Using Python (Prof. Madhavan Mukund)	8 Weeks	Jul 25, 2022	September 16, 2022	September 25, 2022	August 1, 2022
15	Data Science for Engineers (Prof. Ragunathan Rengasamy Prof. Shankar Narasimhan)	8 Weeks	Jul 25, 2022	September 16, 2022	September 25, 2022	August 1, 2022
16	BioMEMS and Microfluidics (Prof. Shantanu Bhattacharya)	8 Weeks	Jul 25, 2022	September 16, 2022	September 25, 2022	August 1, 2022
17	Introduction to Biomimicry (Prof. Shiva Subramaniam Prof. Sivakumar Srinivasan Prof. Satya Seshadri Prof. Mrinalini)	8 Weeks	Jul 25, 2022	September 16, 2022	September 25, 2022	August 1, 2022
18	Cellular biophysics: a framework for quantitative biology (Prof. Chaitanya A. Athale)	8 Weeks	Jul 25, 2022	September 16, 2022	September 25, 2022	August 1, 2022
19	Introduction to Dynamical Models in Biology (Prof. Biplab Bose)	4 weeks	Aug 22, 2022	September 16, 2022	Oct 29, 2022	August 22, 2022
20	Biomedical nanotechnology (Prof. P.Gopinath)	4 weeks	Aug 22, 2022	September 16, 2022	Oct 29, 2022	August 22, 2022