



CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY

An Autonomous Institute | Affiliated to Osmania University
Kokapet Village, Gandipet Mandal, Hyderabad, Telangana-500075, www.cbit.ac.in



COMMITTED TO
RESEARCH,
INNOVATION AND
EDUCATION

45
years

Department of Biotechnology

List of NPTEL / SWAYAM Courses for Honours Degree in Biotechnology from 2020 admitted batch onwards

S.No	Course	Subject Code	Duration	Credits	Click here to join the course
1	Introduction to mechanobiology	CBIT/NPTE L/BT H06	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc21_bt31/preview
2	Introduction to Dynamical Models in Biology	CBIT/NPTE L/BT H22	4 Weeks	1	https://onlinecourses.nptel.ac.in/noc21_bt42/preview
3	Conservation Geography	CBIT/NPTE L/BT H65	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc21_bt44/preview
4	Wildlife Ecology	CBIT/NPTE L/BT H26	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc21_bt45/preview
5	Organic Chemistry in Biology and Drug Development	CBIT/NPTE L/BT H25	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc21_cy30/preview
6	Legal and Regulatory Issues in Biotechnology	CBIT/NPTE L/BT H44	4 Weeks	1	https://onlinecourses.nptel.ac.in/noc21_lw04/preview
7	Nanomaterials and their Properties	CBIT/NPTE L/BT H68	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc21_mm38/preview
8	Ecology and Environment	CBIT/NPTE L/BT H27	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc21_ge16/preview
9	Bioreactors	CBIT/NPTE L/BT H37	4 Weeks	1	https://onlinecourses.nptel.ac.in/noc21_bt28/preview
10	Transport Phenomena in	CBIT/NPTE L/BT H23	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc21_bt40/preview

	Biological Systems				
11	Technologies For Clean And Renewable Energy Production	CBIT/NPTE L/BT H41	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc21_ch42/preview
12	Principles and Practices of Process Equipment and Plant Design	CBIT/NPTE L/BT H42	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc21_ch52/preview
13	Patent Law for Engineers and Scientists	CBIT/NPTE L/BT H43	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc21_hs71/preview
14	Bio microfluidics	CBIT/NPTE L/BT H08	4 Weeks	1	https://onlinecourses.nptel.ac.in/noc21_bt24/preview
15	Biomedical nanotechnology	CBIT/NPTE L/BT H07	4 Weeks	1	https://onlinecourses.nptel.ac.in/noc21_bt30/preview
16	Introduction to Biomedical Imaging Systems	CBIT/NPTE L/BT H36	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc21_bt50/preview
17	Biomechanics of Joints and Orthopaedic Implants	CBIT/NPTE L/BT H35	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc21_me130/preview
18	Neuroscience of Human Movements	CBIT/NPTE L/BT H24	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc21_ge17/preview
19	Current regulatory requirements for conducting clinical trials in India for investigational new drugs/new drug (Version 3.0)	CBIT/NPTE L/BT H40	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc21_ge25/preview
20	Introduction to Proteogenomics	CBIT/NPTE L/BT H30	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc21_bt25/preview
21	Introduction to proteomics	CBIT/NPTE L/BT H31	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc21_bt26/preview
22	Computer Aided Drug Design	CBIT/NPTE L/BT H32	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc21_bt29/preview

23	Drug Delivery: Principles and Engineering	CBIT/NPTE L/BT H33	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc21_bt37/preview
24	Functional Genomics	CBIT/NPTE L/BT H34	4 Weeks	1	https://onlinecourses.nptel.ac.in/noc21_bt39/preview
25	Maternal Infant Young Child Nutrition	CBIT/NPTE L/BT H45	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc22bt01/preview
26	Optical Spectroscopy and Microscopy: Fundamentals of optical measurements and instrumentation	CBIT/NPTE L/BT H46	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc22bt05/preview
27	Human Molecular Genetics	CBIT/NPTE L/BT H20	4 Weeks	1	https://onlinecourses.nptel.ac.in/noc22bt07/preview
28	Demystifying The Brain	CBIT/NPTE L/BT H21	4 Weeks	1	https://onlinecourses.nptel.ac.in/noc22bt14/preview
29	Medical Biomaterials	CBIT/NPTE L/BT H18	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc22bt15/preview
30	Forests And Their Management	CBIT/NPTE L/BT H17	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc22bt24/preview
31	Nanotechnology In Agriculture	CBIT/NPTE L/BT H12	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc22bt25/preview
32	Bio electrochemistry	CBIT/NPTE L/BT H47	4 Weeks	1	https://onlinecourses.nptel.ac.in/noc22bt26/preview
33	Plant Developmental Biology	CBIT/NPTE L/BT H48	4 Weeks	1	https://onlinecourses.nptel.ac.in/noc22bt27/preview
34	Conservation Economics	CBIT/NPTE L/BT H16	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc22bt31/preview
35	Soft Nano Technology	CBIT/NPTE L/BT H49	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc22ch11/preview
36	Understanding Design	CBIT/NPTE L/BT H50	4 Weeks	1	https://onlinecourses.nptel.ac.in/noc22de01/preview
37	Design, Technology and Innovation	CBIT/NPTE L/BT H51	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc22de05/preview
38	Emotional Intelligence	CBIT/NPTE L/BT H52	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc22hs11/preview

39	Exploring Survey Data on Health Care	CBIT/NPTE L/BT H53	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc22hs40/preview
40	Material and Energy Balances	CBIT/NPTE L/BT H54	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc22bt04/preview
41	Bioreactor Design and Analysis	CBIT/NPTE L/BT H55	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc22bt19/preview
42	Waste to Energy Conversion	CBIT/NPTE L/BT H56	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc22ch05/preview
43	Physico-chemical processes for wastewater treatment	CBIT/NPTE L/BT H57	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc22ch25/preview
44	Renewable Energy Engineering: Solar, Wind and Biomass Energy Systems	CBIT/NPTE L/BT H58	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc22ch27/preview
45	Biomass Conversion and Biorefinery	CBIT/NPTE L/BT H59	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc22ch28/preview
46	Environmental Quality Monitoring & Analysis	CBIT/NPTE L/BT H60	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc22ch33/preview
47	Bio photonics	CBIT/NPTE L/BT H61	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc22ee59/preview
48	Introduction to Environmental Engineering and Science - Fundamental and Sustainability Concepts	CBIT/NPTE L/BT H62	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc22ge06/preview
49	Computational Systems Biology	CBIT/NPTE L/BT H28	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc22bt03/preview
50	Interactomics: Basics & Applications	CBIT/NPTE L/BT H63	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc22bt11/preview
51	Data Analysis	CBIT/NPTE	8	2	https://onlinecourses.nptel.ac.in/noc22bt20/preview

	for Biologists	L/BT H64	Weeks		w
52	Biointerface Engineering	CBIT/NPTE L/BT H19	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc22bt21/preview
53	RNA Biology	CBIT/NPTE L/BT H69	12 Weeks	3	https://nptel.ac.in/courses/102106097
54	Biomechanics	CBIT/NPTE L/BT H70	12 Weeks	3	https://nptel.ac.in/courses/102106098
55	Enzyme Sciences and Technology	CBIT/NPTE L/BT H66	12 Weeks	3	https://nptel.ac.in/courses/102103097
56	Metabolic Engineering	CBIT/NPTE L/BT H39	8 Weeks	2	https://nptel.ac.in/courses/102105086
57	Aspects Of Biochemical Engineering	CBIT/NPTE L/BT H29	12 Weeks	3	https://nptel.ac.in/courses/102105064
58	Introduction to Professional Scientific Communication	CBIT/NPTE L/BT H71	4 Weeks	1	https://nptel.ac.in/courses/102104061
59	Bioengineering: An Interface with Biology and Medicine	CBIT/NPTE L/BT H72	8 Weeks	2	https://nptel.ac.in/courses/102101068
60	Interactomics : Basics & Applications	CBIT/NPTE L/BT H73	12 Weeks	3	https://nptel.ac.in/courses/102101082
61	Structural Biology	CBIT/NPTE L/BT H15	12 Weeks	3	https://nptel.ac.in/courses/102107086
62	Cellular Biophysics: A Framework For Quantitative Biology	CBIT/NPTE L/BT H74	8 weeks	2	https://onlinecourses.nptel.ac.in/noc22_bt32/preview
63	Environmental Biotechnology(being offered as Elective in our R20 curriculum)	CBIT/NPTE L/BT H75	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_bt60/preview
64	Industrial Biotechnology(being offered as Elective in our R20 curriculum)	CBIT/NPTE L/BT H76	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_bt61/preview
65	Introduction To Biostatistics	CBIT/NPTE L/BT H77	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc23_bt58/preview
66	Medical Image	CBIT/NPTE	12		https://onlinecourses.nptel.ac.in/noc23_bt40/preview

	Analysis	L/BT H78	Weeks	3	ew
67	Introduction To Developmental Biology (being offered as Elective in our R20 curriculum)	CBIT/NPTE L/BT H79	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_bt43/preview
68	Tissue Engineering (being offered as Elective in our R20 curriculum)	CBIT/NPTE L/BT H80	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc23_bt46/preview
69	Organ Printing	CBIT/NPTE L/BT H81	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc23_bt49/preview
70	Genome Editing And Engineering	CBIT/NPTE L/BT H67	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_bt51/preview
71	Next Generation Sequencing Technologies : Data Analysis And Applications	CBIT/NPTE L/BT H82	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_bt34/preview
72	Computational Neuroscience	CBIT/NPTE L/BT H83	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc23_bt64/preview
73	Neurobiology	CBIT/NPTE L/BT H84	4 weeks	1	https://onlinecourses.nptel.ac.in/noc23_bt65/preview
74	Neural Science for Engineers	CBIT/NPTE L/BT H85	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc24_ee01/preview
75	Classics in Neuroscience	CBIT/NPTE L/BT H86	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc24_bt38/preview
76	Human Behaviour	CBIT/NPTE L/BT H87	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc24_hs35/preview
77	Biointerface Engineering	CBIT/NPTE L/BT H88	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc24_bt16/preview
78	Microsensors, Implantable Devices and Rodent Surgeries for Biomedical Applications	CBIT/NPTE L/BT H89	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc24_bt37/preview
79	Education for Sustainable Development	CBIT/NPTE L/BT H90	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc24_hs04/preview
80	Advances in Omics	CBIT/NPTE L/BT H91	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc24_bt42/preview

81	Statistics for Biomedical Engineers	CBIT/NPTE L/BT H92	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc24_bt70/preview
82	Design for Biosecurity	CBIT/NPTE L/BT H93	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc24_bt77/preview
83	Advanced Fluorescence Microscopy and Image Processing	CBIT/NPTE L/BT H94	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc25_bt01/preview
84	Computational Genomics	CBIT/NPTE L/BT H95	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc25_bt13/preview
85	Microbial Biotechnology	CBIT/NPTE L/BT H96	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc25_bt33/preview
86	Optical Spectroscopy and Microscopy : Fundamentals of Optical Measurements and Instrumentation	CBIT/NPTE L/BT H97	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc25_bt37/preview
87	Pharmacognosy & Metabolic Engineering	CBIT/NPTE L/BT H98	12 weeks	3	https://onlinecourses.nptel.ac.in/noc25_bt38/preview
88	Biological Data Analysis and Visualization with R	CBIT/NPTE L/BT H99	8 Weeks	2	https://onlinecourses.nptel.ac.in/noc25_bt43/preview
89	Experimental Nanobiotechnology	CBIT/NPTE L/BT H100	4 Weeks	1	https://onlinecourses.nptel.ac.in/noc25_bt44/preview
90	Algorithms in Computational Biology and Sequence Analysis	CBIT/NPTE L/BT H101	12 Weeks	3	https://nptel.ac.in/courses/106108571
91	Biophotonics	CBIT/NPTE L/BT H102	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc24_ge11/preview
92	Comprehensive Molecular Diagnostics and Advanced Gene Expression Analysis	CBIT/NPTE L/BT H103	12 Weeks	3	https://onlinecourses.nptel.ac.in/noc24_ge36/preview

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Dept. of Biotechnology**