

I.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY JALANDHAR

(Registrar Office)

No. IKGPTU/REG/NC/35

Dated :

List of new courses introduced during the year 2022-23

Sl.No.	Programme	Subject Code	Subject / Course
Department of Chemical Sciences			
1.	PhD Environmental Science	PHAS - 901	Research Methodology
2.	PhD Environmental Science	RPE	Research and Publication Ethics
3.	PhD Environmental Science		Recent Advances in Environmental Science
4.	PhD Environmental Science		Soil and Environment
5.	PhD Environmental Science		Disaster Management
6.	PhD Environmental Science	ESL964	LABORATORY PRACTICES AND SAFETY
7.	MSc Environment Science	MEVS101	Fundamentals of Environment Science
8.	MSc Environment Science	MEVS102	Ecology and Ecosystem Dynamics
9.	MSc Environment Science	MEVS103	Earth Processes and Natural Hazards
10.	MSc Environment Science	MEVS104	Energy and Environment
11.	MSc Environment Science	MEVS105	Biodiversity Conservation and Natural resource Management
12.	MSc Environment Science	MEVS106	Agriculture and Sustainability
13.	MSc Environment Science	MEVS107	Lab Course -I (Ecology and Ecosystem Dynamics)
14.	MSc Environment Science	MEVS108	Lab Course-II (Biodiversity Conservation and Natural resource Management)
15.	MSc Environment Science	MEVS201	Environment Monitoring and Pollution control
16.	MSc Environment Science	MEVS202	Solid and Hazardous Waste Management
17.	MSc Environment Science	MEVS 203	Environment Chemistry and Toxicology
18.	MSc Environment Science	MEVS204	Analytical Techniques and Instrumentation
19.	MSc Environment Science	MEVS501	Aquatic Environment
20.	MSc Environment Science	MEVS502	Laboratory Safety
21.	MSc Environment Science	MEVS P 205	Lab Course-I (Environment Chemistry & Toxicology and Environment Monitoring and Pollution control)

22.	MSc Environment Science	MEVS 206	Lab Course-II (Analytical Techniques & Instrumentation)
23.	MSc Environment Science	MEVS 207	*Industrial Visit/ Field Trip
24.	MSc Environment Science	MEVS301	Climatology and Meteorology
25.	MSc Environment Science	MEVS 302	Environment Management Plan: EIA and Auditing
26.	MSc Environment Science	MEVS 303	Remote Sensing and GIS
27.	MSc Environment Science	MEVS 304	Hydrology and Water Resources
28.	MSc Environment Science	MEVS503	Environment Toxicology and Bioremediation
29.	MSc Environment Science	MEVS504	Natural Disaster Management
30.	MSc Environment Science	MEVS305	Lab Course-I (EIA and Auditing)
31.	MSc Environment Science	MEVS306	Dissertation and Seminar
32.	MSc Environment Science	MEVS 401	Environment Laws, Ethics and policies
33.	MSc Environment Science	MEVS505	Environment Biotechnology
34.	MSc Environment Science	MEVS506	Watershed management
35.	MSc Environment Science	MEVS402	Dissertation
Department of Physical Sciences			
36.	B.Sc. (Hons) Physics	BSHP-211-21	Mathematical Physics-I
37.	B.Sc. (Hons) Physics	BSHP-212-21	Elements of Modern Physics
38.	B.Sc. (Hons) Physics	BSHP-213-21	Physics Lab-III
39.	B.Sc. (Hons) Physics	BSHP-214-21	Analog Systems and Application
40.	B.Sc. (Hons) Physics	BSHP-215-21	Physics Lab-IV
41.	B.Sc. (Hons) Physics	BHCL-204-21	Physical Chemistry
42.	B.Sc. (Hons) Physics	BSHP-216-21	Workshop Skill Enhancement
43.	B.Sc. (Hons) Physics	BSHP-217-21	Computational Physics
44.	B.Sc. (Hons) Physics	BSHP-218-21	Weather Forecasting
45.	B.Sc. (Hons) Physics	BHCP-208-21	Chemistry Lab-III
46.	B.Sc. (Hons) Physics	BSHP-221-21	Mathematical Physics-II
47.	B.Sc. (Hons) Physics	BSHP-221-21	Thermal Physics
48.	B.Sc. (Hons) Physics	BSHP-223-21	Physics Lab-V

49.	B.Sc. (Hons) Physics	BSHP-224-21	Digital Electronics
50.	B.Sc. (Hons) Physics	BSHP-225-21	Physics Lab-VI
51.	B.Sc. (Hons) Physics	BSHM-408-21	Matrices & Ordinary Differential Equations
52.	B.Sc. (Hons) Physics	EVS-101A	Environmental Studies
53.	B.Sc. (Hons) Physics	BSHP-226-21	Electrical Circuits and Network Skills
54.	B.Sc. (Hons) Physics	BSHP-227-21	Basic Instrumentation Skills
55.	B.Sc. (Hons) Physics	BSHP-228-21	Scientific Word Processing
56.	B.Sc. (Hons) Physics	BSHP-311-21	Quantum Mechanics
57.	B.Sc. (Hons) Physics	BSHP-312-21	Solid State Physics
58.	B.Sc. (Hons) Physics	BSHP-313-21	Physics Lab-VII
59.	B.Sc. (Hons) Physics	BSHP-314-21	Computational Physics Lab-I
60.	B.Sc. (Hons) Physics	BSHP-315-21	Department Specific Elective (DSE)-1
61.	B.Sc. (Hons) Physics	BSHP-316-21	Department Specific Elective (DSE)-1
62.	B.Sc. (Hons) Physics	BSHP-317-21	Department Specific Elective (DSE)-2
63.	B.Sc. (Hons) Physics	BSHP-318-21	Department Specific Elective (DSE)-2
64.	B.Sc. (Hons) Physics	BSHP-319-21	Department Specific Elective (DSE)-2
65.	B.Sc. (Hons) Physics	BSHP-315-21	Atomic and Molecular Physics
66.	B.Sc. (Hons) Physics	BSHP-316-21	Nuclear Physics
67.	B.Sc. (Hons) Physics	BSHP-317-21	Dissertation
68.	B.Sc. (Hons) Physics	BSHP-318-21	Communication Electronics
69.	B.Sc. (Hons) Physics	BSHP-319-21	Renewable Energy and Energy Harvesting
70.	B.Sc. (Hons) Physics	BSHP-321-21	Electromagnetic Theory
71.	B.Sc. (Hons) Physics	BSHP-322-21	Statistical Mechanics
72.	B.Sc. (Hons) Physics	BSHP-323-21	Physics Lab -VIII
73.	B.Sc. (Hons) Physics	BSHP-324-21	Department Specific Elective (DSE)-3
74.	B.Sc. (Hons) Physics	BSHP-325-21	Department Specific Elective (DSE)-3
75.	B.Sc. (Hons) Physics	BSHP-326-21	Department Specific Elective (DSE)-4
76.	B.Sc. (Hons) Physics	BSHP-327-21	Department Specific Elective (DSE)-4
77.	B.Sc. (Hons) Physics	BSHP-328-21	Department Specific Elective (DSE)-4
78.	B.Sc. (Hons) Physics	BSHP-324-21	Particle Physics

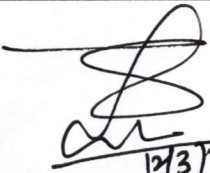
79.	B.Sc. (Hons) Physics	BSHP-325-21	Advanced Mathematical Physics
80.	B.Sc. (Hons) Physics	BSHP-326-21	Advanced Condensed Matter Physics
81.	B.Sc. (Hons) Physics	BSHP-327-21	Experimental Techniques
82.	B.Sc. (Hons) Physics	BSHP-328-21	Radiation Safety
83.	PHD	PHS909	Advanced Nuclear Physics
Department of Mathematical Sciences			
84.	M.Sc. (Mathematics)	MSM-101-22	Algebra-I
85.	M.Sc. (Mathematics)	MSM-102-22	Real Analysis-I
86.	M.Sc. (Mathematics)	MSM-103-22	Complex Analysis
87.	M.Sc. (Mathematics)	MSM-104-22	Ordinary Differential Equations and Special Functions
88.	M.Sc. (Mathematics)	MSM-105-22	Mathematical Methods
89.	M.Sc. (Mathematics)	MSM-106-22	Introduction to Computer Algebra System (Lab)
90.	M.Sc. (Mathematics)	MSM-201-22	Algebra-II
91.	M.Sc. (Mathematics)	MSM-202-22	Real Analysis-II
92.	M.Sc. (Mathematics)	MSM-203-22	Mechanics-I
93.	M.Sc. (Mathematics)	MSM-204-22	Partial Differential Equations
94.	M.Sc. (Mathematics)	MSM-205-22	Numerical Analysis
95.	M.Sc. (Mathematics)	MSM-206-22	Numerical Analysis (Lab)
96.	B.Sc.(Honors Mathematics)	BSHM-101-22	Calculus -1
97.	B.Sc.(Honors Mathematics)	BSHM-102-22	Algebra
98.	B.Sc.(Honors Mathematics)	BSHM-103-22	Programming Lab-I
99.	B.Sc.(Honors Mathematics)	BSHM-201-22	Real Analysis
100.	B.Sc.(Honors Mathematics)	BSHM-202-22	Differential Equation
101.	B.Sc.(Honors Mathematics)	BSHM-203-22	Programming Lab-II
Department of Mechanical Engineering			
102.	M.TECH	MTMTE-101	Advanced Engineering Materials
103.	M.TECH	MTMTE-102	Modern Manufacturing Processes
104.	M.TECH	MTMTE-103	Advanced Casting Processes
105.	M.TECH	MTMTE-104	Operations Management
106.	M.TECH	MTMTE-105	Metal Forming

107.	M.TECH	MTME-201	Research Methodology
108.	M.TECH	MTME-202	Advanced Welding Technology
109.	M.TECH	MTME-203	Corrosion Science
110.	M.TECH	MTME-204	Advanced Material Characterization Technique
111.	M.TECH	MTME-XXX	Elective –I Elective –I
112.	M.TECH	MTME -205	Tribology
113.	M.TECH	MTME -206	Automation and Robotics
114.	M.TECH	MTME -207	Plastics Engineering
115.	M.TECH	MTME -208	Rapid Prototyping
116.	M.TECH	MTME -209	Advanced Metal Cutting
117.	M.TECH	MTME -210	Computer Aided design & Manufacturing
118.	M.TECH	MTME -211	Maintenance and Reliability Engineering
119.	M.TECH	MTME -212	Supply Chain Management
120.	M.TECH	MTME -213	Production Planning and Control
121.	M.TECH	MTME -214	Product Design and Development
122.	M.TECH	MTME -215	Entrepreneurship
123.	M.TECH	MTME -216	Work System Design and Ergonomics
124.	M.TECH	MTME -217	Metrology & Industrial Automation
125.	M.TECH	MTME -218	Finite Element Analysis
126.	M.TECH	MTME -219	Low cost Automation
Department of Electronics & Communication Engineering			
127.	B. Tech. (AI & ML)	BTEC-908F-19	Wireless Sensor Networks
128.	B. Tech. (AI & ML)	BTES-301-18	Digital Electronics
129.	B. Tech. (AI & ML)	BTCS-301-18	Data Structure & Algorithms
130.	B. Tech. (AI & ML)	BTCS-302-19	Object Oriented Programming
131.	B. Tech. (AI & ML)	BTES-302-18	Digital Electronics Lab
132.	B. Tech. (AI & ML)	BTCS-303-18	Data Structure & Algorithms Lab
133.	B. Tech. (AI & ML)	BTCS-304-18	Object Oriented Programming Lab
134.	B. Tech. (AI & ML)	BTCS-305-18	IT Workshop
135.	B. Tech. (AI & ML)	BTES 401-18	Computer Organization & Architecture
136.	B. Tech. (AI & ML)	BTCS 402-18	Operating Systems

137.	B. Tech. (AI & ML)	BTCS 403-18	Design & Analysis of Algorithms
138.	B. Tech. (AI & ML)	BTES 402-18	Computer Organization & Architecture Lab
139.	B. Tech. (AI & ML)	BTCS 404-18	Operating Systems Lab
140.	B. Tech. (AI & ML)	BTCS 405-18	Design & Analysis of Algorithms Lab
141.	B. Tech. (AI & ML)	BTES 501-20	Statistical Computing Techniques using R
142.	B. Tech. (AI & ML)	BTCS 501-18	Database Management Systems
143.	B. Tech. (AI & ML)	BTCS 502-18	Formal Language & Automata Theory
144.	B. Tech. (AI & ML)	BTAIML 501-20	Programming in Python
145.	B. Tech. (AI & ML)	BTAIML 502-20	Artificial Intelligence
146.	B. Tech. (AI & ML)	BTES 502-20	Statistical Computing Techniques using R lab
147.	B. Tech. (AI & ML)	BTCS 505-18	Database Management Systems lab
148.	B. Tech. (AI & ML)	BTAIML 503-20	Programming in Python Lab
149.	B. Tech. (AI & ML)	BTAIML 504-20	Artificial Intelligence Lab
150.	B. Tech. (AI & ML)	BTCS 504-18	Computer Networks
151.	B. Tech. (AI & ML)	BTCS 619-18	Machine Learning
152.	B. Tech. (AI & ML)	BTCS 603-18	Project-1
153.	B. Tech. (AI & ML)	BTCS 507-18	Computer Networks Lab
154.	B. Tech. (AI & ML)	BTCS 620-18	Machine Learning Lab
155.	B. Tech. (AI & ML)	BTCS 601-18	Compiler Design
156.	B. Tech. (AI & ML)	BTAI ML70 1-20	Computer Vision
157.	B. Tech. (AI & ML)	BTCS 703-18	Project-II
158.	B. Tech. (AI & ML)	BTCS 801-20	Semester Training
159.	B. Tech. (AI & ML)	BTAIML 505-20	Data Visualization using tableau
160.	B. Tech. (AI & ML)	BTAIML 506-20	User Interface development
161.	B. Tech. (AI & ML)	BTAIML 509-20	Java Programming
162.	B. Tech. (AI & ML)	BTCS702-18	Data Mining and Data Warehouse
163.	B. Tech. (AI & ML)	Graph Theory	Graph Theory
164.	B. Tech. (AI & ML)	Big Data Analytics	Big Data Analytics
165.	B. Tech. (AI & ML)	BTAIML603-20	Neural Networks
166.	B. Tech. (AI & ML)	BTAIML605-20	Recommender System
167.	B. Tech. (AI & ML)	BTAIML607-20	Advance Computing and Network

			Technologies
168.	B. Tech. (AI & ML)	BTAIML703-20	NLP and Information Retrieval
169.	B. Tech. (AI & ML)	BTAIML705-20	Network Security Applications using AI
170.	B. Tech. (AI & ML)	BTAIML707-20	Robotics and Intelligent systems
171.	B. Tech. (AI & ML)	BTCS704-18	Deep Learning
172.	B. Tech. (AI & ML)	BTAIML709-20	Applied Intelligence
173.	B. Tech. (AI & ML)	BTAIML711-20	Augmented and Virtual reality
Department of Food Science & Technology			
174.	B.Sc (Hons) Food Technology	BSFT211-21	Food Microbiology
175.	B.Sc (Hons) Food Technology	BSFT212-21	Food Chemistry-I
176.	B.Sc (Hons) Food Technology	BSFT213-21	Technology of Fruits, Vegetables and Plantation Crops
177.	B.Sc (Hons) Food Technology	BSFT214-21	Lab - Food Microbiology
178.	B.Sc (Hons) Food Technology	BSFT215-21	Lab - Food Chemistry-I
179.	B.Sc (Hons) Food Technology	BSFT216-21	Lab- Technology of Fruits, Vegetables and Plantation Crops
180.	B.Sc (Hons) Food Technology	BSCGE-201-21	Introduction to Biology
181.	B.Sc (Hons) Food Technology	BSCGE-202-21	Introduction to Biology (Lab)
182.	B.Sc (Hons) Food Technology	BMPD302-18	Mentoring and Professional Development
183.	B.Sc (Hons) Food Technology	BSFT221-21	Technology of Cereals, Pulses and Oilseeds
184.	B.Sc (Hons) Food Technology	BSFT222-21	Food Chemistry-II
185.	B.Sc (Hons) Food Technology	BSFT223-21	Technology of Meat, Fish & Poultry
186.	B.Sc (Hons) Food Technology	BSFT224-21	Lab - Technology of Cereals, Pulses and Oilseeds
187.	B.Sc (Hons) Food Technology	BSFT225-21	Lab - Food Chemistry-II
188.	B.Sc (Hons) Food Technology	BSFT226-21	Lab- Technology of Meat, Fish & Poultry
189.	B.Sc (Hons) Food Technology	BSCSE-104-21	Confectionary Technology (Lab)
190.	B.Sc (Hons) Food Technology	BSCGE-205-21	Biochemistry
191.	B.Sc (Hons) Food Technology	BSCGE-206-21	Biochemistry (Lab)
192.	B.Sc (Hons) Food Technology	BMPD402-18	Mentoring and Professional Development
Department of Architecture (Mohali-Campus-II)			
193.	B.Arch	BARCH301-21	Architectural Design- III

194.	B.Arch	BARCH302-21	Architectural Presentation
195.	B.Arch	BARCH303-21	History of Architecture- II
196.	B.Arch	BARCH304-21	Building Construction - III
197.	B.Arch	BARCH305-21	Structure Design- I
198.	B.Arch	BARCH306-21	Structure System -I
199.	B.Arch	BARCH307-21	Theory of Design- II
200.	B.Arch	BARCH308-21	Climate and Architecture-I
201.	B.Arch	BARCH309-21	Computer Application- II
202.	B.Arch	BARCH310-21	4 week Summer Training
203.	B.Arch	BARCH401-21	Architectural Design- IV
204.	B.Arch	BARCH402-21	Building Construction -IV
205.	B.Arch	BARCH403-21	History of Architecture-III
206.	B.Arch	BARCH404-21	Structure System-II
207.	B.Arch	BARCH405-21	Structure Design-II
208.	B.Arch	BARCH406-21	Building Services-I
209.	B.Arch	BARCH407-21	Climate and Architecture-II
210.	B.Arch	BARCH408-21	Building Materials-I
211.	B.Arch	BARCH409-21	Mentoring and professional Development-II
212.	B. Planning	BUP-101	Fundamentals of Urban and Regional Planning
213.	B. Planning	BUP-102	Principles of Construction and Building Structures
214.	B. Planning	BUP-103	Technical Report Writing and Research Methodology
215.	B. Planning	BUP-104	Basic Architectural Design
216.	B. Planning	BUP-105	Map Preparation
217.	B. Planning	BUP-106	Map Graphics
218.	B. Planning	BUP-107	Communicative English-I


 12/3/2024
(Dr. S.K. Misra)
Registrar
