

As Per NEP 2020

University of Mumbai



Syllabus for Field Projects (FP)

Name of the Programme – B.Sc. (Chemistry)**Faculty of Science and Technology****Board of Studies in Chemistry****Semester****III****Duration**30 hrs (Field Work + Survey)
+ 15hrs (Discussion + Report Writing) :
45 hrs**From the Academic Year****2025-26**

Name of Faculty:- Science and Technology

Name of Programme :- B.Sc. (Chemistry)

Duration :- 30 hrs (Field Work + Survey) + 15hrs (Discussion + Report Writing) : 45 hrs

Sr. No.	Name of the Topic
1	Study of Solar in Educational Institute
2	Study of Waste Management Processes
3	Study of Pesticide Residues in Food Products
4	Study of Water Quality of Local Water Bodies
5	Study of wastewater treatment processes at municipal or industrial sites
6	Study of bio-composting and organic waste decomposition
7	Survey of domestic or industrial cleaning agents
8	Phytochemical screening of medicinal plants
9	Study of herbal soaps and detergents and comparison with commercial soaps and detergents
10	Study of Heavy Metal Contaminants in Local Water Bodies
11	Study of Fluoride Content in Groundwater Samples
12	Comparative Study of Air Quality Near Industrial and Residential Areas
13	Study of Soil for pH, Organic Content, and Nutrients in Agricultural Lands
14	Study of Water Quality Using Physicochemical Parameters
15	Phytochemical Screening of Medicinal Plants Used in Traditional Medicine
16	Study of Antioxidant Activity in Common Fruits and Vegetables
17	Comparative study of compost vs chemical fertilizers on soil pH
18	Survey and analysis of local industries: effluent treatment and waste management practices
19	Study of corrosion in public infrastructure (bridges, pipelines) and prevention methods
20	Survey of pesticide residue in locally grown vegetables and fruits
21	Study of dissolved oxygen levels in lake water
22	Rainwater harvesting: chemical quality of collected water
23	Comparative study of groundwater vs municipal water quality
24	Study of air particulate matter near busy traffic zones

25	Visit to water treatment plant: chemical processes involved
26	Analysis of cement composition from local suppliers
27	Chemistry behind dairy product processing
28	Study of hardness and composition of borewell water
29	Conductivity measurement of water samples from different sources (river, well, tap, RO water)
30	Field survey on types of galvanic protection used in pipelines or water tanks
31	Survey on public knowledge of nuclear disaster preparedness
32	Study of corrosion in steel reinforcement bars in buildings at different environments (coastal, urban, rural)
33	Study of natural dyes used in textile industries
34	Study of different battery types used in household / field equipment
35	Study of biodegradable vs non-biodegradable plastic materials in local markets
36	Study of salinity and chloride content of seawater from different coastal spots
37	Study of pH and dissolved oxygen study of backwaters and estuaries
38	Study of shell material (CaCO_3 content) of molluscs collected from beaches
39	Study of sand composition (silica, calcium carbonate) from different beaches
40	Comparative study of traditional and modern fish preservation chemicals
41	Study of waste management practices in fish processing units
42	Corrosion protection methods for boats and marine equipment used by fishermen
43	Study of herbal medicines used by tribal people
44	Study of natural oils used by tribal people
45	Study of traditional methods of food preservation by Tribal People

The topics are indicative and the faculty members should allot Field Projects that are relevant and important as per core Subject. The Field Project may be taken individual or in a group up to 5 students with proper guidance from Faculty.

Evaluation Chart

(i) Internal Evaluation by Guide (Marks 20)

Criteria	Marks
Field visit completion, Attendance and interaction	10
Overall Report quality	10
Total	20

(ii) External Evaluation (Marks 30)

Criteria	Marks
Objectives, Literature Review , Methodology, Data Analysis, Conclusion and Recommendations	15
Overall Project Report Structure and Style	5
Presentation Skills & Communication	10
Total	30

Chairman
BoS in Chemistry

Associate Dean

Dean