

CHE-231-FP: Field Project

Course Type: Field Project (FP)

No. of Credits: 2

Objective:

To engage students in field-based experiential learning by applying chemistry concepts to real-life problems or environments.

Course Outcomes

At the end of the course, student will be able to

1. Learn the fundamental chemistry concepts to real-world environmental and community
2. Understand the appropriate methodologies for collecting chemical and environmental data through fieldwork.
3. Apply the chemistry concepts to real life problems or environments
4. Analyse the experimental or observational data to derive meaningful conclusions about local chemical or environmental conditions.
5. Evaluate local problems through a scientific lens and suggest chemistry-based solutions or awareness strategies.
6. Prepare a scientific report and presentations based on their findings.

Field Project (FP) Guidelines

1. Project Themes (Chemistry-Oriented):

- Water quality analysis of local sources.
- Soil sampling and pH, salinity, and metal analysis.
- Survey of household or industrial waste disposal and chemical hazards.
- Study of local industries and their chemistry-related processes.
- Investigation of adulteration in food samples.
- Air quality monitoring.
- Testing of cleaning agents, soaps, or cosmetics from local markets.
- Chemistry awareness in nearby schools or communities.
- Use of herbal medicines and local knowledge in chemistry.
- Any other related to chemistry

2. Process:

- Students may work individually or in groups (preferably 2–3 students/group).
- Selection of project topic in consultation with a faculty mentor.

- Planning of field visits, data collection tools, and methodology.
- Minimum 1 field visit is mandatory.
- Compilation of data, interpretation, and report writing.

3. Duration:

Minimum **60 hours** (including planning, fieldwork, and report preparation).

4. Report Structure:

- Title page
- Certificate of completion of Field project from mentor and HOD.
- Declaration by candidate regarding plagiarism
- Index
- Abstract of the project
- Chapter-1: Introduction to problem (introduction, signification of research problems selected, aims and objectives) (5 to 6 pages)
- Chapter-2: Review of Literature (Related Research Problem) (5-6 pages)
- Chapter-3: Material and Methods/Methodology/Experimental (5-7 pages)
- Chapter-4: Results and Discussion or Data and Interpretation of data (8 – 10 pages)
- Chapter-5: Conclusions (1-2 pages)
- Bibliography/References
- Acknowledgement

Assessment Criteria (Suggested):

Criteria	Marks
Relevance and Originality	7
Data Collection & Analysis	7
Fieldwork Involvement	7
Report	7
Presentation/Viva	7
Total	35 Marks

Note: Remaining 15 marks for internal assessment

5. General Guidelines (Common to FP and CEP):

- Projects can be interdisciplinary but must involve chemistry as a core element.
- Ethical conduct and respect for community are essential.

- Students are encouraged to present their work in college exhibitions or seminars.
- Photographic or video evidence should support fieldwork/CEP.

6. Faculty Responsibilities:

- Approve project topics.
- Guide students throughout the project.
- Monitor and document student participation.
- Organize viva/presentation for evaluation.