



Faculty of Science & Technology

**COMMUNITY ENGAGEMENT PROGRAMME** 

### Nep 2020 Compliant Curriculum

#### **1. INTRODUCTION:**

The Community Engagement Programme (CEP) aims to immerse science students into real-world community contexts and promote scientific approaches in addressing rural problems using fieldwork, surveys, and low-cost technological interventions.

To achieve the objectives of the socio-economic development of New India, HEIs can play an important role through active community engagement. This approach will also contribute to improving the quality of both teaching and research in HEIs in India. India is a signatory to the global commitment for achieving Sustainable Development Goals (SDGs) by2030. Achieving these 17 SDG goals requires generating locally appropriate solutions. Community engagement should not be limited to a few social science disciplines alone. It should be practiced across all disciplines and faculties of HEIs.

Rapid urbanization has distanced many students from the socio-environmental realities of rural and peri-urban India. For science students, understanding the grassroots of challenges be it water quality, waste management, health, or agricultural practices etc., it is essential to apply theoretical knowledge for local problem-solving. These can take the forms of enumerations, surveys, awareness camps and campaigns, training, learning manuals/films, maps,study reports, public hearings, policy briefs, cleanliness and hygiene teachings, legal aid clinics, etc.

#### **2. OBJECTIVES:**

- Promote scientific temper and evidence-based reasoning among students in real-world contexts.
- Apply scientific knowledge to local challenges in environment, agriculture, health, and education.
- Develop problem-solving skills through field observations and scientific experimentation.
- Foster empathy and awareness about rural and semi-urban challenges.
- Engage in interdisciplinary community service using science-based interventions.

#### **3. LEARNING OUTCOMES:**

- Apply classroom scientific concepts to rural/local issues.
- Understand environmental, health, and resource challenges in rural communities.
- Engage in basic scientific inquiry and reporting for social development.
- Develop empathy and mutual respect with local communities.
- Explore avenues for science-based social entrepreneurship.

#### 4. CREDITS:

Two Credit Course; 60 hours of active participation



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#### **5. COURSE STRUCTURE:**

Sr. No.	Module Title	Module Content	Methodology
1	Science and Society	Role of science in sustainable development, ethical scientific practice, popularization of science in society, traditional vs modern science	Classroom discussion, group tasks, field-based observation, journals etc.
2	Environmental Monitoring	Water quality, soil health, air pollution, biodiversity survey, climate change impacts	Field visit, sample collection, testing, analysis, data reporting etc.
3	Health, Nutrition & Hygiene	Public health awareness, anemia survey, malnutrition, sanitation, menstrual hygiene, biomedical waste	Field campaigns, interviews, awareness camps, surveys etc,
4	Local Scientific Innovations	Study of low-cost tech, traditional agricultural science, herbal medicine, rainwater harvesting, local inventions	Interaction with local innovators/farmers, documentation, solution brainstorming etc.



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#### 6. TENTATIVE FIELD-BASED ACTIVITIES (Suggested):

- Water quality testing (pH, turbidity, TDS) in villages and reporting findings.
- Soil sample analysis and awareness drive for soil health cards.
- Biodiversity recording using mobile apps like iNaturalist.
- Energy audit in homes: promoting solar energy and energy efficiency.
- Survey of anemia among adolescent girls and nutrition awareness.
- Menstrual hygiene awareness and low-cost pad-making sessions.
- Demonstration of composting and waste segregation.
- Visiting herbal medicine practitioners and documenting knowledge.
- Conducting basic digital literacy for school students or women.
- Data collection for village health/hygiene/education indicators using Google Forms or apps.
- Science exhibitions or mobile labs in rural schools.
- Any CEP activity other than mentioned above, involving social outreach based on the use of scientific
  - knowledge.

#### 7. IMPORTANT RULES & REGULATIONS:

- Concurrent Fieldwork: Mandatory field-based activities related to each module.
- Journal Maintenance: Students must maintain a field diary detailing observations, tasks, and reflections.
- Group Conferences: Bi-weekly (fortnightly) review meetings with faculty.
- Attendance: 100% attendance is compulsory; missed work must be compensated.
- Rural Camp: One short rural camp (2–3 days) involving immersion and hands-on work.



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#### 8. EVALUATION SCHEME (TOTAL: 50 MARKS):

#### Internal Assessment (20 Marks):

- Participation & Initiative: 10 Marks
- CEP Proposal with Scientific Approach: 10 Marks

#### External Evaluation (30 Marks):

- Oral Presentation: 10 Marks
- Scientific Report with Data, Findings, & Reflection: 20 Marks
- Students should keep a field diary/journal to record contents, readings and field visit planning. The assessment pattern is Internal and External i.e. 20+30=50

CA-Internal Evaluation: 20Marks [P]				
(To be Conducted by Internal Examiner)				
Participation in the Community Engagement Programme Initiation	10Marks			
Proposal for Community Engagement Programme	10Marks			
with all the necessary components				
Total	20Marks			
UA-End Semester Practical Examination: 30 Marks [P]				
(To be Conducted by Internal Examiner and External Examiner)				
	1014			
Oral Presentation of the CEP Activity	IUMarks			
Preparation and Presentation of Community Engagement Programme Report with all the necessary components	20Marks			
Total	30Marks			