

Name of Faculty:- Science and Technology

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

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

Indicative Topics for CEP

Sr. No.	Name of the Topic
1	Renewable Energy Education - Demonstrating solar panels, wind turbines, or hydropower, and conducting energy audits for local buildings.
2	Waste Management Solutions - Educating the community on recycling, proper disposal of pharmaceutical waste, and the science of pollution.
3	Public Science Fairs & Demo Shows - Hosting interactive events featuring popular demonstrations like angular momentum (rotating chairs), air pressure (vortex cannons), and electromagnetism
4	School Visits & After-School Clubs -Teaching physics concepts to K-12 students through hands-on projects like building rockets, robots, or simple circuits.
5	Virtual Labs and Mentoring- Developing online, accessible physics simulations for schools without laboratories.
6	Medical Imaging Education- Demystifying technologies like X-rays, MRI, and ultrasound for the public.
7	Radiation Safety Awareness- Explaining the physics behind radiation therapy (e.g., "If radiation can cause cancer, how can it cure it?").
8	Health Technology Tools- Demonstrating everyday physics in health, such as how pulse oximeters work.
9	Citizen Science Projects- Engaging the public in analyzing astronomical data, such as star tracking or searching for dark matter.
10	Stargazing Nights- Using telescopes to show local communities celestial bodies and explaining astrophysics concepts.
11	Art and Science Fusion- Collaborating with artists to create interactive exhibits that explain physical concepts like light and color.
12	Creating Awareness - Electricity Saving Mechanisms, Use of Solar Power, Electronic Waste Management etc.
13	Street Plays - demonstrating various physics concepts to society, the importance of science, twice-yearly events where undergraduates demonstrate physics concepts to the public.
14	Organize workshops to demonstrate physics concepts in everyday activities, such as cooking, cycling, or music.
15	Host a science fair where students can showcase physics-based projects, such as homemade telescopes, electric circuits, or simple machines.
16	Develop interactive physics experiments for school kids, focusing on topics like motion, light, or sound.
17	Collaborate with local communities to install solar panels or wind turbines, teaching physics principles behind renewable energy.
18	Explore the physics behind sports, such as projectile motion in cricket or football, and conduct workshops or demonstrations.
19	Safety & Social Applications Physics of Fire Safety and Disaster Management.
20	Understanding Earthquakes: Physics and Community Preparedness.

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

Evaluation Pattern:-

Evaluation during CEP Program involves two key components:-

External Evaluation 60% (30 Marks)

Internal Evaluation 40% (20 Marks)

Evaluation Chart

(i) 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

(ii) Internal Evaluation by Guide (Marks 20)

Criteria	Marks
Attendance, Community interactions completion and interaction with Supervisor	10
Overall Report quality	10
Total	20

*** Please see the Guidelines for Community Engagement Project for UG Students, as per NEP 2020**

Sd/-
Sign of the
Prof. (Dr.) T. N. Ghorude
Chairman
BOS in Physics

Sd/-
Sign of the
Offg. Associate Dean
Dr. Madhav R. Rajwade
Faculty of Science &
Technology

Sd/-
Sign of the Offg. Dean
Prof. Shivram S. Garje
Faculty of Science &
Technology