G. Venkataswamy Naidu College (Autonomous), Kovilpatti

Department of Physics (2025 – 2026)

Departmental Policy Document

1. Vision

- To build a vibrant community.
- To provide quality teaching in Physics and make them well equipped for higher education
- To create enthusiasm, passion towards learning physics and work towards the betterment of the society.

2. Mission

- To gain knowledge and skills in Physics through active student - teacher interaction.
- To provide in-depth clarity about theory and experiment through well-equipped laboratory.
- To provide a platform for sharing of resources.
- Transform students from rural background to innovators with holistic values.
- Enable students to use knowledge and skill effectively to achieve career goals.

3. Curriculum, Course Design and Examinations

- The department has been following the syllabus prescribed by TANSCHE (Tamil Nadu State Council for Higher Education) and Curriculum review is conducted periodically through Board of Studies meetings.
- Curriculum delivery as well as CIA and ESE examination question patterns follow Outcome-Based Education (OBE) with Programme Outcomes (POs), Programme Specific Outcomes (PSOs), and Course Outcomes (COs).
- Course comprises of theory papers (Core, Elective generic, skill Enhancement and Ability Enhancement), Practicals (Core and Elective generic), Major Project, Internship/Institutional Training, Open elective courses and Spoken Tutorial/NPTEL Courses.

4. Teaching–Learning methodology

- Faculty members use ICT-enabled teaching tools such as PowerPoint presentations and YouTube animated videos.
- Encourages student-centric activities such as model making, problem-solving sessions, seminars, group discussions and peer teaching.

5. Faculty Enrichment

- Faculty members are encouraged to attend Refresher Courses, FDPs, Orientation Programmes and national/international seminars in Physics and related fields.
- Faculty members are motivated to pursue research, publish in UGC CARE-listed journals and participate in scientific conferences.

6. Research and Publications

- Students are guided to undertake major projects, simple research experiments and science model presentations.
- Faculty members contribute research papers to national & international journals and the college's multidisciplinary research journal.

7. **Laboratory, Outreach and Extension Activities**

- The department conducts laboratory training sessions, physics exhibitions and demonstrations for students.
- Science awareness programmes, school outreach activities and exhibitions are organized to promote interest in physics among rural students.
- Celebrations of National Science Day, World Space Week, other scientific events and Association meetings encourage scientific engagement through Physics Association.

8. Student Mentoring and Guidance

- Bridge course is conducted regularly and based on the course test results, students are being categorized as slow, medium, and advanced learners.
- Remedial classes are offered to slow learners and advanced learners receive enrichment programmes and special training.
- Students are encouraged to participate in intercollegiate competitions, quizzes, science expos, and project presentations.
- Mentor–mentee system is maintained to support academic and personal development.

9. Best Practice

- Students are encouraged to participate in the BARC Essay Competition conducted by the Bhabha Atomic Research Centre, Mumbai, where they secured awards and cash prizes
- Seminars, Workshops and Association meetings were organised to upgrade the knowledge, to provide global exposure and to facilitate academic growth in recent technologies.
- Extension and outreach activities were performed in nearby schools to make the students understand the importance of pursuing science in higher education. the insights

into undergraduate science courses and their future career pathways, to foster interest in physics and to promote awareness of science and technology.

- Bridge course is conducted every year to provide adequate foundation in core subject and to identify slow learners. The course is conducted in order to bridge the gap between school and college education.