

DEPARTMENT OF PHYSICS

VISION

To achieve eminence in the field of quality technological education and research

MISSION

To develop SMIT into an institute of excellence capable of producing competent techno-managers who can contribute effectively to the advancement of the society.

OBJECTIVES

- To provide wholesome education to meet the intellectual aspirations of students.
- To equip students with techno-managerial skills to enable them to take their assigned role in the industry.
- To inculcate essential ethics and values to meet the spiritual needs of the students.
- To provide a sound institutional environment nurturing emotional strength, a healthy mind, body and resilience amongst the students.

The major teaching and learning aims of the Department are to:

- Support the aims and objectives of the University in the context of our Department's programmes
- Provide a high-quality degree-level education which establishes the broad foundations of physics
- Produce graduates who are numerate, literate and articulate
- Promote students' creativity and problem-solving abilities, and extend their intellectual curiosity so that it informs and enriches their lives
- Enable our students to communicate and collaborate effectively with their professional colleagues and foster a desire to enlighten their fellows
- Provide broad access for able students from a wide range of backgrounds.

In our three-year BSc Honours Programmes we aim to:

- Provide a scientific education which will equip students for a range of careers both in and beyond the boundaries of physics and cognate disciplines
- Educate students to a level which is acceptable for entry into graduate and research work in physics, for those who are unable or do not choose to undertake a four-year degree.

- Learning is brought about through teaching, teaching process is the arrangement of environment within which the students can interact and study how to learn. The process of teaching learning aims at transmission of knowledge, imparting skills and formation of attitudes, values and behaviour.

Learning is a natural and common attribute in any human being. In common sense terms, the textual meaning of learning is, 'to realise' 'to become aware of, 'to gain by experience' and 'to commit to memory'. This suggests that learning results in 'realising' 'becoming aware of, 'memorising', it is also the result of 'experience'. Learning as a concept is well defined; it refers to relatively permanent change in the behaviour resulting from experience.

Teaching learning strategy is a set of planned activities which would enable the teacher to teach and the child to learn a given type of content so that a set of instructional objectives are effectively achieved.

Methods of Teaching

Teacher Centered Methods; (Lecture, team teaching, demonstration) In these methods instructional interactions originate from the teacher. Students are the recipients in the process; they are led by the teacher through the process in the pre-decided route designed by the teacher. Though both students and the teacher are actively engaged in the process, the focus is on the presentation of learning experiences by the teacher.

- **Learner Centered Methods:** (Self-instructional methods, practical work, library study, assignments, projects) Here students are actively involved with the learning experiences individually. Teacher is in the background, he is the one who specifies the learning experiences, makes available these experiences but is indirectly involved in the instructional process.

- **Group Centered Methods;** (Group discussion, small group discussions, debates, seminars, brain-storming, panel discussion, projects) Here students are engaged in the learning experiences essentially as 'interacting groups'. That is, learning occurs through group interactions. Teacher is also an active participant in the group interactions, but, the student participation is central. Except the theme the process goes on spontaneously and not in any pre-decided sequence. These methods are generally useful in developing higher cognitive abilities.

Seminar Library Physics Department maintains a seminar library, an additional facility for the Honours students to borrow books.

PROCTORIAL CLASS

Each student is assigned to a member of the teaching staff as his proctor. The student is required

to meet the proctor at least once a week as per the time table to inform about his attendance in classes and performances in the examination. The proctor shall advise the student and shall also draw the attention of the concerned teacher and the principal regarding the deficiencies of the activities of the student in side and out side the college. The student of +3 class shall have to do the project work as per the courses of studies for award of grade in work experience prescribed by Utkal University under the guidance of the proctor. Te behavior and conduct certificate etc. will be issued to the student on the recommendation of the proctor if required.