



**2.3.1- Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences and teachers use ICT- enabled tools including online resources for effective teaching and learning process.**

The Institute organizes various Faculty Orientation Programs on Pedagogical initiatives to improve teaching learning process through innovative methods. As an active institutional practice topics of relevance from modern Pedagogy are included in the course plan by the faculty

### **Teaching- Learning:**

Student centric method deals with all the requirements of a better teaching- learning process. The institute has an explicitly laid out academic calendar that includes working days, days of major events, CIEs and Semester End Examinations (SEE). Problem-solving techniques and interactive learning are both a feature of student-centered learning.

Add-on/Certificate courses, Guest lectures, Group discussions, design projects, workshops, conferences, seminars, industrial visits, major projects, and other major activities are well planned to the Academic Calendar.

### **Experimental/ Practical Learning:**

#### 1. Project based Learning

Our faculty inspires Students to take up projects related to societal interests bringing technical solutions to fair practices of the Modern World. We motivate students to participate in Dehradun International Science and Technology Festival (DISTF), University level project contests and Hackathons like Smart India Hackathon (SIH).

#### 2. Internships / In-plant Training

Our Students are motivated to undergo Internship during Summer/Winter Vacations to have clear insight about the practical applications of technology and obtain fair knowledge with the real-world problems. 378 students have undergone Internship during the academic year 2022-2023.

#### 3. Practical Sessions

Our well-furnished laboratories with latest instruments and apparatus are utilized for exhaustive learning of curriculum based practical sessions engaging the students to practice Experiential Learning. A total of 209 practical courses have been conducted during the academic year 2022 - 2023.



#### 4. Field Works

Our Students are exposed to an ideological ethical learning process wherein they get to know about the impact of environmental behaviour and sustainability practices. Students are required to visit industries regularly at least once in a semester.

#### **Problem solving Methodologies:**

As a Mentor, faculty members support students in a variety of unique activities and guide them to achieve better achievements.

- Faculty supports students in the appropriate way to overcome academic and personal concerns, and every effort is made to ensure academic mentoring of students and offer questions in classes.
- Quizzes, project work, and questions framed in the question paper help students improve their analytical and reasoning skills.

#### **Participating Learning:**

- **Internships, Projects, Industrial Visits-** Enhancing managing skills, communication skills through practical exposure of the industry
- **Group discussions and various competitions-** Enhance the communications and discussion skills
- **PDP Classes-** Enhance personality, aptitude and the reasoning skills
- **Extension Activities** help students to improve their societal/ethical values

#### **ICT-Enabled Tools and Online Resources:**

- **Learning Management Systems (LMS):** Platforms like ERP, MS Team, and Zoom facilitate course management, content delivery, and interaction between teachers and students.
- **Online Courses and MOOCs:** Our faculties motivate students to do MOOCs (Massive Open Online Courses) via access to platforms like NPTEL, Coursera for certification courses.
- **Virtual Labs and Simulations:** Students use Virtual labs and simulations to offer practical and hands-on learning experiences, even when physical labs may not be accessible