

2.3.1 - Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

Instructional Methods and Pedagogical Initiatives: A well-defined process for course allotment and load distribution is adopted at the department level. Three choices are taken from faculty members. Course allocation is made based on the choice or expertise of faculty members a month before the commencement of the semester. Once the courses are allocated, faculty members prepare a detailed course plan, assignment questions, etc. for the particular course. Course materials are prepared as per the teaching plan and course outcomes. Faculty members use various pedagogical methods for the effective teaching-learning process. The department has taken the following pedagogical initiatives:

- i) **Chalk & Board:** The conventional and most effective instructional method is the chalk & board and the faculty exhaustively resort to this traditional method.
- ii) **Project-based learning (PBL):** It is more effective to evolve competent and skilled practitioners. Project-based learning is an innovative practice used to implement outcome-based education at our institute. Students are encouraged to carry out multidisciplinary projects to gain engineering knowledge. The PBL activity is described below;
 - a. A notice is circulated to students by the PBL coordinator to form their group (3-5 students in one group) and choose the guide
 - b. The topic is identified by the group in discussion with the guide and it is submitted to the PBL coordinator.
 - c. At the end of I semester, a poster presentation is conducted and at the end of the year, a project exhibition is organized and is evaluated by a team of experts.
- iii) **Flipped classroom-** Flipped lectures are included in the teaching plan. Accordingly, the students are intimated a week before to prepare the topic. On the day of the presentation, students discuss the topic and faculty members ask probing questions.
- iv) **Industrial visits-** Field visits are organized regularly to support curriculum delivery.
- v) **Case studies:** Case study approaches are used that provide students an application of engineering knowledge.
- vi) **Laboratory experiments beyond syllabus-** Some laboratory experiments are allocated to students to enhance their practical knowledge. Students are asked to use a virtual laboratory platform.
- vii) **Presentations-** Students are asked to deliver a presentation on topics, case studies, recent trends in civil engineering.
- viii) **Brainstorming-**Brainstorming helps students to produce new ideas or solve problems by doing a group discussion

ix) **ICT based Learning-** Faculty members have floated their Youtube Channels, have prepared and upload E-contents (presentations, videos, study materials, assignment, etc.) in Youtube Channel Google classrooms. Online lectures are conducted through Google meet.

