

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY

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Criteria	2 Teaching-learning and Evaluation
Key Indicator	2.3 Teaching – Learning Process
Metric	2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

Examples of Student Centric Method of Teaching

I. Experiential Learning:

Experiential learning is a concept and practice that encourages educators to deliberately include students in hands-on learning and focused reflection in order to advance knowledge, sharpen abilities, and clarify vision. Engaging in Project Works, Industrial visits, participation in various activities are few of the core examples of experiential learning.

a) Industrial Visits:

An industrial visit has a special position in the professional life of a student obtaining a professional degree like engineering. An industrial visit's goal is to provide students an understanding of how organizations operate from inside. Today, we all fully comprehend that having a solid theoretical foundation is insufficient for a successful professional career.

Here, industrial visits give students with a much more realistic understanding of the real workplace and the greater business world by going above and beyond the classroom. All of this makes the value of industrial trips clearer for our students.



Research and Development Facility Visit-CRI Kasauli



Sophisticated Instrument Facility Visit -NABI Mohali



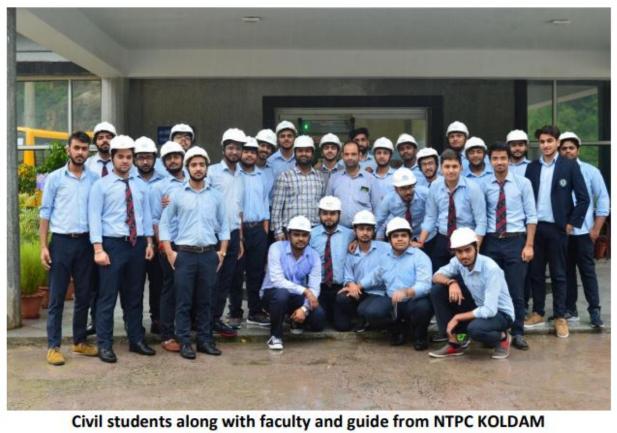
Instrumentation Facility CRI Kasauli



A visit to learn Mushroom Cultivation -DMR Solan



A visit to IMTECH, Chandigarh





Civil students along with faculty and guides from Ambuja Cement

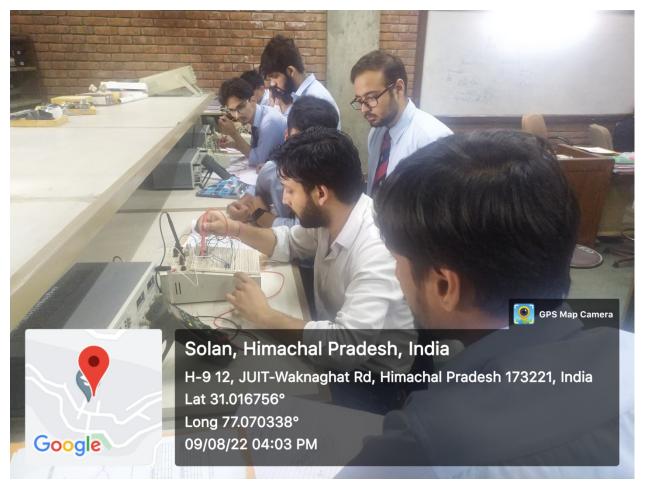
b) Project Work:

PBL (Project Based Learning) is an integral part of teaching-learning process of JUIT that motivates student learning by involving them in practically significant projects. It is an inquiry-based, student-centered learning approach. Here students collaborate in groups over the course of a predetermined amount of time on a project intended to address a complex issue. Students create a product or give a presentation to their supervisor, the concerned committee and their colleagues to showcase their knowledge and talents.

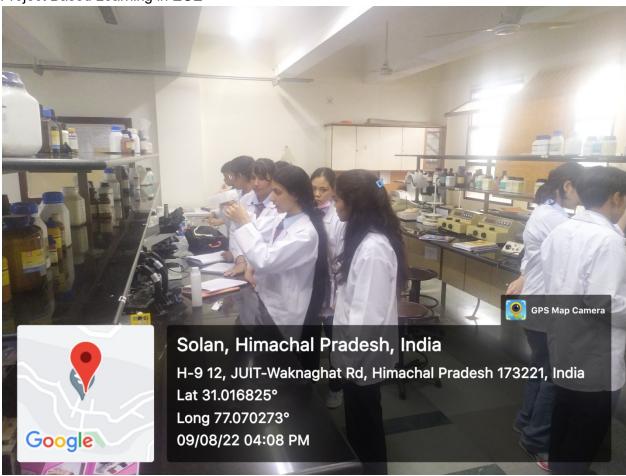
Deep content knowledge can be developed by students through project-based learning activities. PBL is significant because it promotes the growth of 21st century abilities like communication, teamwork, creativity, and critical thinking which completely gels with the vision of the University.



Project Based Learning in ECE



Project Based Learning in ECE



Project Based Learning in BT-BI

Project Based Learning in Civil Engineering



Marshal stability test (Highway Engineering lab)



Autolevel (Surveying lab)



Slump Test (Concrete Lab)



Venturimeter test (Fluid mechanics lab)



Workshop Lab



Workshop Lab



Students working on Research Based Project Assignments in BT-BI

II. Participative Learning:

In this technique there is an intentional sequence of activities or learning events that will help the learner achieve the specified objective or desired outcome, here the teaching-learning will focus on the learner. Group Discussion, Team Work, Role Playing, Case Studies are some of the examples of this methods of teaching.

a) Group Discussion:

Group discussions are a dynamic and creative exercise that encourages students to think critically. A group discussion is an activity in which a small group of students come together in person to openly communicate and share ideas or try to come to a consensus on a shared problem.

An individual's mental process is influenced by the thoughts and opinions of the other participants in a group conversation. Additionally, it depends on how and where the conversation's tone shifts. Each participant in a group discussion is allowed to express his or her opinions. Speaking and listening are both essential for a productive conversation. It offers a deeper comprehension of the topic. It enhances one's capacity for critical thought. It offers several methods for resolving issues. It facilitates decision-making for the group. It provides a chance to learn about other people's viewpoints. It allows a participant to express their point of view. Specific courses have been designed in JUIT which offers the opportunity to students for appearing in group discussion.



Group Discussion



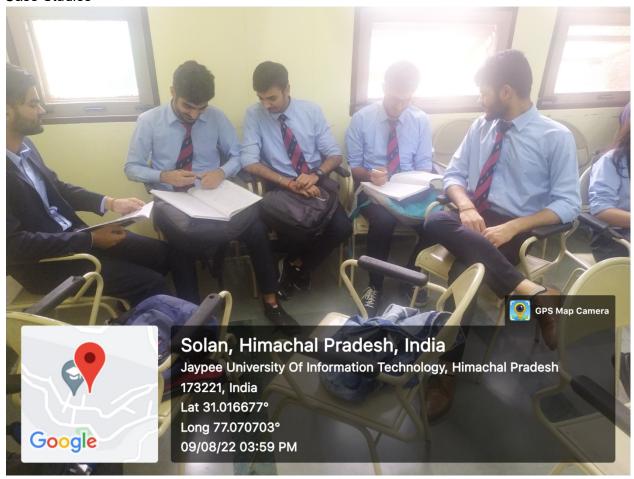
Group Discussion

b) Case Studies:

The case study teaching method is a highly adaptable style of teaching that involves problem-based learning and promotes the development of analytical skills. By presenting content in the format of a narrative accompanied by questions and activities that promote group discussion and solving of complex problems, case studies facilitate development of the higher levels of Bloom's taxonomy of cognitive learning; moving beyond recall of knowledge to analysis, evaluation, and application



Case Studies



Case Studies



Case Studies

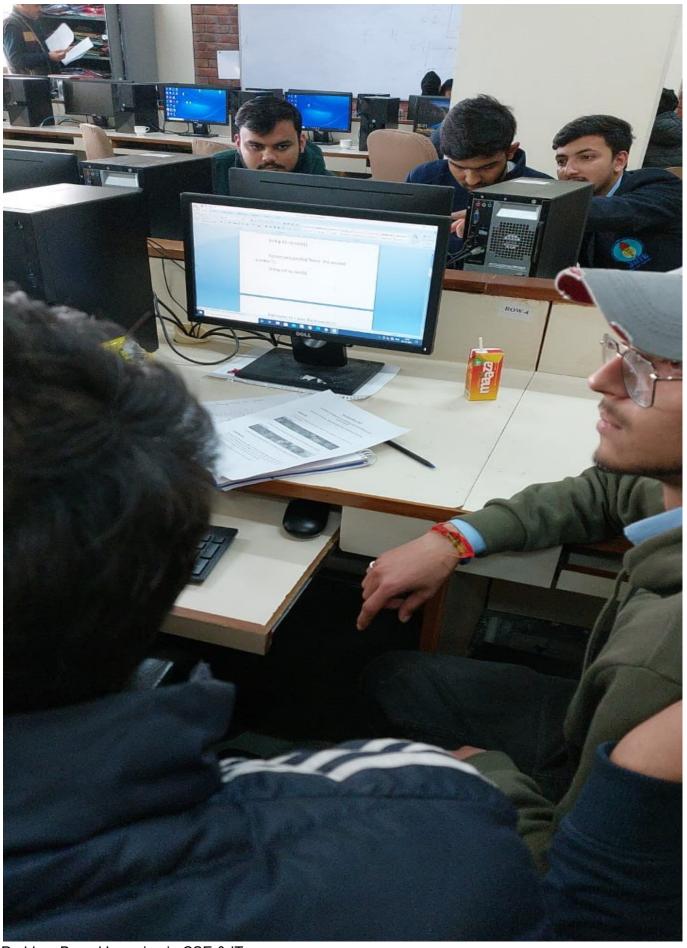
III. Problem Solving:

JUIT adopts a problem-solving strategy as a technique for students to better comprehend their difficulties and create the best answers possible. By assisting students in overcoming binary ways of thinking, JUIT enable them to come up with more creative ideas.

This gives the pupils the opportunity to confront and solve challenges as they learn new information. In order to get a thorough comprehension of the topic, the students must observe, comprehend, analyze, interpret, find solutions, and carry out applications. It fosters the development of scientific method abilities. This technique aids in the development of a concept-learning strategy that uses brainstorming.

Students' problem-solving strategies and knowledge of the underlying science are grounded in common sense. It doesn't begin with a textual foundation. Instead, it starts with experiencing and then gradually forms concepts through reading books afterwards. The process moves from practice to theory, not the other way around. Here, learning is not a goal but rather a by-product of doing job. Students that live in the real world and enjoy working with tangible objects that they can touch, feel, and control benefit from this strategy for kicking off the science learning process.

At different level project based assignments are given by different departments to all the students and it has been made an integral part of the course curriculum.



Problem Based Learning in CSE & IT



Problem Based Learning in CSE & IT

Apart from regular academic activities, JUIT also promotes **Project Based Learning** and it is an integral part of the curriculum. The link of projects undertaken by students of various departments are listed below

• CSE&IT: https://www.juit.ac.in/academic-research-projects-cse-it

• ECE: https://www.juit.ac.in/Innovation-Projects-and-Problems

• Civil: https://www.juit.ac.in/research-and-development-ce

BT-BI: https://www.juit.ac.in/biotechnology-and-bioinformatics-rd