

Assignments & Project-based learning

Assignments are given based the students understanding and coming out with solutions. Group assignments are also given to improve the self-learning and teamwork of students.

The Department frames its curriculum in such a way that students acquire the skills to design and create complex hardware solutions through various activities including main and mini projects. Project-based learning also tends to encourage teamwork among students. Project Exhibitions are conducted in the department every year to enrich the project-developing skills of the students.

The Department curriculum is framed in such a way that the courses include both theory and laboratory components. These courses are exclusively designed to provide a unique learning experience to the students with the concept of layered learning where the students have the chances to practice while learning. These courses are designed by blending both theory and laboratory components in their core curriculum.

Apart from the core curriculum, these courses are conducted by the department to give key knowledge to students in a specific advance in the core field. It improves employability skills and promotes the professional and life-oriented skills of the students.

Objectives of Assignment & Project based Learning Method:

Apart from the core curriculum, these courses are conducted by the department to give key knowledge to students in a specific advance in the core field. It improves employability skills and promotes the professional and life-oriented skills of the students. With increased engagement, Assignment and Project based learning encourages a deeper understanding of content which develops critical thinking, communication, collaboration, and creativity, also known as the Four Cs of 21st-century learning. These skills are required for college, work, and life beyond school. Four Cs of 21st-century learning:

1. Critical thinking
2. Communication
3. Collaboration
4. Creativity

Plan of Execution

Universities and other educational institutions get a lot of benefit from offering project-based learning that connects students with real-world projects and clients. The capacity to offer students high- quality PBL projects creates a differentiation point that can help you attract and retain students, improve their employability and satisfaction, and foster important partnerships with community, government and industry partners.

For educators, the PBL model can expand their repertoire of pedagogical strategies and lead to greater job satisfaction. Here are steps for implementing Assignment & Project based Learning, which are detailed below:

1. Start with the Essential Question.
2. Design a Plan for the Project.
3. Create a Schedule.
4. Monitor the Students and the Progress of the Project.
5. Assess the Outcome.
6. Evaluate the Experience.

Mapping of Innovative T-L Method to Subject

Name of the Faculty	Name of the course	Year & Semester	Topic	Innovative methods
Samudrala Jagadeesh	Biomedical Engineering	III&II	Diagnostic Techniques	Assignment & Project based Learning

Our faculty Samudrala Jagadeesh uses Assignment & Project based Learning Innovative teaching method for teaching the topic Diagnostic Techniques of course Biomedical Engineering in IIIrd Year & IInd Semester. With the model of the PBL, for students, the simple answer is that contemporary work is often project-based work. Forces including globalisation, automation and growth of the gig economy mean predictable and repetitive jobs are increasingly uncommon.

Instead, many current students' careers will involve working on a series of projects. It therefore makes sense for them to have experience with project-based work, along with the knowledge and skills required to be a successful project team member

Benefits over Conventional Teaching Methods

Project based learning also has other advantages for students. These include:

- Deeper engagement and interaction with learning content

- Encouragement of higher order thinking and problem-solving skills
- Development of peer and professional networks
- Engagement with potential employers and career mentors
- Fostering of 21 st century skills like collaboration and communication
- Enhanced autonomy and agency in learning
- A sense of mastery and self-efficacy
- Gaining valuable career insights



