

Innovations in Student's Learning Practices

Following are the innovative teaching-learning practices, which our faculty adopt to inculcate in the students:

- A. Collaborative Learning that facilitates student
 - 1. Discuss ideas with classmates, in particular Engage in subject specific discussions with peers and get feedback from classmates
 - 2. Learn how to work cooperatively with classmates and support each other
 - 3. Assimilate multiple views to deepen knowledge and promote critical thinking
 - 4. Look for opportunities to work in groups
 - 5. Teach and learn from one another thereby mitigating learner isolation
 - 6. Interact with classmates in and outside of class thereby promoting out-of-class learning
 - 7. Class activities require students to be active participants
 - 8. Develop effective teamwork and communication (including interpersonal and cross cultural awareness) skills
 - 9. Foster individual accountability to the team
 - 10. Develop independent learning strategies
 - B. Interaction with Instructor in and outside of class obtaining Feedback, wherein, student
 - 1. Interacts with instructor in and outside of class as instructor guides learning, rather than lecturing, and instructor gives detailed feedback on student's work frequently
 - 2. Understands assignments and class activities are interrelated that enunciate clear expectations
 - C. Group Learning, Developing Professional Competences: Group Skills are developed, wherein student
 - 1. Discusses ideas and develops ways to resolve conflict and reach agreement
 - 2. Is aware of feelings of members in a group
 - 3. Listens to ideas of others with open mind
 - 4. Always looks for opportunities to work on collaborative projects as a member of a team
- Instructor Specifies instructional objectives in which he/she determines what to achieve through the small group activities, both academically (e.g. knowledge of a topic) and socially (e.g. listening skills). The activity relates closely to the course objectives and class content and is designed to help students learn, not simply to occupy their time.
- When deciding whether or not to use group work for a specific task, we consider these questions: What is the objective of the activity?
 - How will that objective be furthered by asking students to work in groups?

- Is the activity challenging or complex enough that it requires group work?
 - Does the project require true collaboration?
 - Is there any reason why the assignment should not be collaborative?
- D. Learning through value added courses, wherein, student
1. Develops critical thinking on advanced / emerging topics
 2. Gains experience in working on state of the art technologies
- E. Experiential Learning Facilitates Development of Problem-Solving Skills in the students through project based learning, in particular, develop an ability to
1. Design a system, object, product, etc
 2. Solve an unstructured problem
 3. Identify knowledge resources, interacting with peers to solve problem
 4. Evaluate arguments and evidence of competing alternatives
 5. Apply an abstract concept or idea to a real problem
 6. Divide problems into manageable components
 7. Clearly describe a problem orally
 8. Clearly describe a problem in writing
 9. Develop several methods to solve unstructured problems
 10. Identify tasks needed to solve an unstructured problems
 11. Visualize how the product of a design would look
 12. Weigh the pros and cons of possible solutions to a problem
 13. Write a concise technical report on the problem solved
- F. Facilitating interaction with various experts in the field through Guest Lectures, Industrial Visits, Field trips thereby making them familiar with occupational awareness, wherein, student develops an ability to understand
1. What engineers do
 2. The language of design
 3. Engineering has a non-technical side also
 4. The process of design
 5. Importance of societal development
 6. Importance environmental issues etc