



Certificate Program for Faculty in Computer Science Education

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Effective Teaching Techniques

This module is being offered under the [CSEDU](#) Program for faculty members in colleges/universities/institutions.

Module Name: Effective Teaching Techniques

Instructor: Pankaj Jalote

Start Date: October 10, 2022

Duration (# of weeks): 2 Weeks

Weekly session time:

Oct 10, Mon, 4:30 pm to 6:00 pm

Oct 12, Wed, 4:30 pm to 6:00 pm

Oct 17, Mon, 4:30 pm to 6:00 pm

Oct 19, Wed, 4:30 pm to 6:00 pm

Intended Audience: Faculty members from any discipline in universities/colleges.

To be an effective teacher for a course on a subject in higher education, the teacher needs two types of skills: subject matter expertise and an understanding of effective teaching practices. It is well known that even faculty with good subject matter expertise may not be effective teachers, and faculty with modest subject matter expertise can be excellent teachers. The aim of this module is to help faculty who have decent subject matter expertise to become effective teachers.

There is a vast body of literature on Teaching and Learning (T&L) and pedagogy at the college level. Most of the well-known universities across the world have centers for T&L

which conduct workshop for their faculty. Unfortunately, this aspect has not been given due attention in India. This module will discuss a few key concepts and practices for effective teaching which are widely accepted and recognized as being effective in improving the teaching and learning process. Its aim is to help a faculty member become a more effective teacher.

The module will have 4 sessions. Topics for each session:

- 1. Teaching and Learning.** Teaching and learning process, concepts related to learning, what facilitates learning.
- 2. Course Planning with Learning Outcomes.** A good course starts with establishing the learning outcomes. Framework like the Bloom's taxonomy can be used to establish the learning outcomes. Finally, assessments (including quizzes, assignments, term papers, exams) have to be planned.
- 3. Active Learning, peer learning, collaborative learning.** With learning outcomes established, plans have to be made to deliver them, including lecturing and teaching and learning activities inside and outside the lectures. Lectures become much more effective with active learning using in-class interjections, or other approaches like flipped classroom, etc. Other well established ways to facilitate learning are peer learning and collaborative learning (e.g. assignments, projects, etc).
- 4. Assessment and Student Motivation.** Assessments are integral to ensure learning. Assessment instruments include assignments, quizzes, tests, projects, presentations, etc. Student motivation is also essential to ensure learning, and an instructor can enhance student motivation through some simple practices.

Some reference articles will also be provided to attendees for most of the above topics.