

ET612Tx: Pedagogy for effective teaching and learning of Computer Science in schools

Conducted by:



IDP in Educational Technology
IIT Bombay

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- **Logistical Details:**

- Prerequisites:
 - This course is exclusively for Computer Science teachers in schools.
 - Such teachers should have gone through the Learning Dialogues (LeDs) and the various activities of ET611Tx course.
- Duration: *4 weeks*
 - Start Date: *May 18th, 2017*
 - End Date: *June 14th, 2017*
- Certification:

Honor code certificate will be awarded by IITBombayX if minimum 40% aggregate score secured

- **Course Content Details:**

- Course Outline:
 - Module 7: Computer Science Pedagogy
 - Module 8: Teaching - Learning of Programming

(Note: Modules 1 to 6 are the part of the ET611Tx course)

About the course:

This 4-week MOOC course is in continuation to ET611Tx course and is aimed exclusively at Computer Science (CS) teachers in schools. The goals of this course are:

- Apply effective pedagogical techniques for teaching-learning of CS topics
- Facilitate teaching of computational thinking and adoption of relevant programming languages
- Develop a collaborative community of CS teachers to share their experiences and best practices

Instructors:

Prof. Sridhar Iyer, Prof. Sahana Murthy (IDP- Educational Technology, IIT Bombay)

About IDP-Educational Technology, IIT Bombay:

The Inter-disciplinary Program in Educational Technology (IDP-ET) at IIT Bombay (<http://www.et.iitb.ac.in/>) is actively engaged in research and education in the area of technologies to improve the learning-teaching process. The thrust areas of research and development are:

- Teacher use of technological tools (TUET)
- Technology-enhanced learning of thinking skills (TELoTS)

Course Activities

The course will have **Learning Dialogues** (LeDs) by instructors that familiarize you with the course content. These LeDs will contain lectures + **Reflection Spots**. When you reach a reflection spot, you are required to pause the video and then think, reflect and write how the discussed content will be applicable in your own context. The LeD videos are also accompanied by the **Learning by Doing** (LbD) activities that are small activities aimed at giving you practice in the content discussed within LeD. There will also be **Learning Extensions** (Lxt) which maybe videos or text. These are supplementary content to advance your learning. There will be

very short **Assimilation Quizzes** based on LxT resources.

We expect all participants to take part in **Learning Experience Interactions (Lxi)** in the discussion forum that will be driven by guiding questions. The learning from the discussion is expected to advance your learning by discussing course content and sharing your experiences with others. There will be short **Reflection Quizzes** based on LxIs.

There will also be 2 other type of assignments:

- **Knowledge Quiz** – This will be summative assessment of current week’s course contents.
- **Resource Creation Assignments** – These will be open-ended assignments wherein you will create resources for your own contexts.

Marks Distribution across assignments

Sr. No.	Assignment (count)	Weightage (%)	Best
1	Knowledge Quizzes (2)	70	1
2	Resource Creation Assignments (2)	15	1
3	Reflection Quiz (1)	10	1
4	Assimilation Quiz (1)	05	1