

Details

The course will be broken down into week-wise objectives. Small (about 10 min. videos) will be recorded for each learning outcome. It is expected that about 9-10 videos (90-100 mts) will cover the weeks syllabus.

To remain conneted with the students the Instructor will meet the class once a week. (S)he will discuss the dificulties the students may have with the topics for that week, work out some examples and explain things if needed. Basically, this will help the instructor stay connected with the class and keep the relationship between the students and the teacher. In addition, there would be an online Question/Answer forum and a periodic chat session. These forums have found to be very effective in increasing the student participation and engagement.

It is necessary to continue weekly assessments and tutorials as usual to ensure that student queries are addressed quickly and to enable hands on experience where necessary. Also, problem solving sessions by the Instructor will go a long way in enhancing student understanding and focusing instructor/ tutor energies in a more meaningful fashion.

Initially it is envisaged to have the same number of Tas/Tutors as the regular version of the course during the trial run. In due course this required number of Tas/Tutors is expected to reduce substantially due to the online mode of interaction during chat sessions and automatic evaluation of assignments online.

One hallmark of IITK education is the so called continued evaluation, where we keep-in-tocuh with the students progress and understanding throughtout the semester. An online medium will contribute to the engagement make this process stronger.

Exams and quizzes will be held regularly as per the norms in existing courses. Mid-semester and end-semester slots will be used to conduct traditional paper/pen proctored exams.

Due to the nature of the medium for dissemination of the course content(videos), it is highly recommended to record the lectures in brief logical modules which effectively capture the attention of the students. A widely recognized standard MOOC procedure is to use modules approximately 8-10 minutes in length. 3-4 such modules can be expected to be equivalent to a typical class room lecture of around 60-90 minutes.

This mode of learning where the (1) lectures are online, available to the student anytime, anywhere (2) The students get to meet the instructor physically once a week (3) The students get to talk to the Instructor, Teaching Assistants and other students over Forums and Chat rooms, (4) Proctored Exams, quizzes, are held as in the traditional course (5) Analytics give a continuous perspective to the Instructor about the students engagement and understanding is what we are calling blended mode of teaching.

Monitoring

A monitoring committee will observe the course in progress and ensure smooth running of blended teaching and avoid any major breakdowns in the initial experimental stage. A review after one month and after conclusion of the course, with feedback from all the stakeholders will be done by the monitoring committee. The committee will present its findings to Senate for review and further guidance.

Requesting the Senate Approval for

1. Running four courses on an experimental basis in the blended mode in the academic year 2015-16

1st Semester

ESO202A Mechanics of solids – Prof. CS Upadhyay

ESc 201 Introduction to Electronics – Prof. Aditya Jagannatham

2nd Semester

MSO 201a - Prof. Neeraj Misra–Probability and Statistics

Com200 Prof. Achala Raina – Communication Skills

2. Nominate a monitoring committee to evaluate the efficacy of this experiment and present it to the senate for review and guidance

Subsequent Steps

It is proposed that this experiment be run over two semesters to gauge the effectiveness of this technique and to learn the pitfalls and shortcomings. If the experience is satisfactory, it can then be tried out in a larger scale. However it is important to point out that all courses may not be appropriate for this kind of conversion.

The future offering can include

- Short Courses for Industry Participants
- Courses for non-IITK students: build an **IITK Online** brand where IIT Kanpur education is made available to students from all over
- Design a stream of courses which can form a specialisation of sorts like Data Sciences

Summary of the Proposal

How will a course be run

The Instructor will release the course Videos every week
Each Video could have multiple choice questions at random points(middle, end)
Online quizzes will be held at periodic intervals
Questions/Answer Forum for clearing doubts and discussion
Realtime Chat at scheduled times
Statistics will be collected continuously
Instructor will meet the class once a week
Tutorials as before
Exams, Quizzes, Assignments as before

What stays the same

Mid-Sem and End-sem Exams
Assignments
Quizzes
Tutorial
Allotment of Tutors, TAs

What are the changes

One contact lecture instead of three
Videos of the lectures
Online MCQs in the middle/end of each video
Online quizzes
Detailed Analytics to measure the engagement of the student

Logistics and automation support

CDTE will provide the complete backend support for delivery, online monitoring and analytics
NPTEL studio facilities will be used for recording the lectures

Flipped Class Room Blended Mode of Teaching

Course Code: _____ Course Title: _____

Name of Instructor In-charge: _____ (% of teaching)

Co-Instructor, if any : _____ (% of teaching)

Condition, if any for the students:

Syllabus:

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Tentative Course Plan:

Lectures: 6 video lectures / week (7 weeks => 42 lecture videos)

Link to the course lectures:

Week	Topics
1	
2	

3	
4	
5	
6	
7	

Course policy: If any

Signatures of Instructor In-charge

Signatures of Co-Instructor

Head of the Department