[1]Recommendations for online teaching

Preamble:

Due to the unprecedented challenges facing IIT Mandi as we attempt to maintain quality of education amidst a global health crisis, COVID-19 outbreak, this committee was assigned to recommend a course of action regarding online teaching as an alternative to classroom teaching. The committee evaluated the suggestions and challenges/ concerns raised by students and faculty members regarding online teaching, and deliberated over different aspects and feasibility of online teaching. The committee noted that the courses offered in the February-June 2020 semester encompass topics that may be predominantly theoretical, entirely laboratory based, group discussion based, theory-lab combination, programming and data analysis based, mechanical workshop based and advanced design and research oriented. The number of registered students in these courses ranges from 5 to 265. The committee met on 18/03/2020 and 19/03/2020 to discuss various aspects regarding online teaching. Below are the committee's specific recommendations to ensure continuous engagement of students considering diverse class needs of various courses, individual faculty and students.

Recommendations:*

a) Remotely conducted "virtual" teaching/learning will start from Monday 23rd March.

b) During the suspension period, all course instructors should make an effort to engage the students remotely during "virtual contact hours" up to the normal contact hours for the course.

c) For lab based courses, some materials related to the experiments may be shared.

d) To start the process, an email will be sent by the Institute explaining the situation and the importance of academic engagement during the leave period.

e) During 20th-22nd, course instructors should communicate through email to all the students about their proposed plan of action during the leave period. Instructor and students can explore and agree upon the options suited for their course from the various options available for communication/ online teaching suggested below.

f) By 24th March,, the course instructor should submit the course plan for two weeks starting from 23rd March to respective Class Committee Meeting (CCM) Chairs. For example, for a 3-credit course, up to six contact hours can be planned for two weeks. The plan should include the number of hours and the mode of online teaching. If the leave period extends, plan for the extended period need to be submitted as above.

g) Once the classes resume on campus, the first few lectures should be dedicated to recap the topics covered during the leave period. The recap period for each course can be decided in consultation with the students.

h) All evaluations for course grade should be done only when the students are back to the campus. Evaluations for self-assessment may be done remotely.

i) It is expected that the semester will be extended and extra hours will be taken during weekend as needed. The details will be worked out before campus classes resume.

*While making these recommendations, the committee assumed that all the students have access to email during the suspension period.

1) Teaching/ learning Options:
a) Sharing Lecture Notes/ Reading materials/ Assignments etc. on Moodle or via Email.
b) Providing links to pre-recorded lectures (NPTEL, open course ware, your own lectures etc.)
c) PowerPoint slides with voice/video recording.
d) Sharing voice clips using services like Vocaroo etc.
e) Sharing lecture materials through IIT Mandi Cloud, social media etc.
f) Completely online methods (live sessions with students using zoom). Zoom offers free video conferencing for 40 minutes for up to 100 participants.
g) Live streaming of lectures through NKN classrooms (broadcast mode).

Instructors will choose suitable options based on the convenience of most of the students. For this, instructor can use Moodle poll or google form etc. Reading materials, audio/video clips, etc of size up to 10s of KB may be freely shared via email and/or Moodle. Large video lectures of MB in size should be used only if all the students have good Internet access.

1) Equipment and Technical support:

(a) Own laptop's webcam lecture recording option (Photo Booth for Mac OS, Cheese for Linux, Camera app in Windows 10 etc.)
(b) Equipment available with the Institute, which include 2 Logitech BCC950 conference cameras and 1 Logitech group conference camera. NKN staff can be approached for any assistance.
(c) 2 NKN classrooms and 5 conference rooms in South campus and 1 conference room in North campus are available for recording of lectures. Two lectures can be recorded in parallel. NKN staff can be approached for any assistance.

1) DO's and DONT's:

The following DOs and DON'Ts are suggested in order to maintain standards consistent with an uninterrupted semester:
DOs:
a) Try to ensure the participation of every student.
b) Allow the student some time to adjust to the new mode of teaching.
c) Get periodic feedback from the students.
d) Modify your teaching style/ speed based on the feedback.
e) Ensure good quality of the audio and visuals.
f) If you are using video clips, use short videos so that the downloading can be convenient.
g) Promptly respond to students' doubts via a platform that is convenient for both.
h) Ensure that there are no copyright issues with the material posted online.
i) Be regular during scheduled online tasks (posting materials, meetings etc.)
j) For any live interaction (live chat, telephone etc.) use scheduled class hours as per the existing time table as much as possible.

DON'Ts
a) Don't conduct any evaluation contributing to the course grade during this period.
b) Don't compromise on course contents.

c) Don't provide material for more hours than what is assigned to that course based on credit. Note that for 1 contact hour, a student is expected to spend 2 hours outside the classroom.

After the suspension period:

a) It is preferred that the evaluation pattern of a course be kept same as that recorded in the first CCM. However, if required, modification to this can be considered.

b) Hold a special CCM (mostly faculty members) during the last week of the leave period to assess and record the status of the courses. Based on the report of CCM and considering the requirements for adjustment of remaining class hours, lab practicum, etc., the Class Room Committee (CRC) shall revise the Time-Table. The Academic Calendar will also be modified accordingly.

c) If needed, the course instructor may conduct special classes for the students who could not cope up or access the online uploaded teaching/ learning components *(uploaded during the leave duration)*.

Appendix:

Summary of the inputs by faculty and students:

Students expressed concern that since many of them live in areas with less Internet connectivity, some may have difficulty accessing online material. It was felt that the emphasis during the hiatus period should be on engaging rather than evaluating students. It was felt that while some courses lend themselves more easily to online learning, others of more interactive nature might not be well served by it. It was also felt that these were exceptional circumstances where some students might not be able to focus intensively on academics. Faculty also expressed their suggestions and concerns. Suggestions were made to upload recorded lectures, lecture notes, and other materials to various online platforms. Few faculty members have already started engaging their classes through different methods. Concerns were raised that a significant percentage of students might not be able to access large-size materials (example video lectures) due to connectivity issues.