

Action Plan

For Advance Semester in Digital Teaching-Learning Mode

(From 15th July 2020)

Preface

Due to the COVID-19 pandemic the normal education, learning and career of 4000 plus students of MITS have been disrupted. The institute has decided to run advance semester in digital mode so that the students are able to complete their academic requirements within the stipulated time, without loss of semester. The institute has sincerely tried to address the needs of students from different socio-economic strata. Care has also been taken to avoid overburdening of the students and faculty in the name of digital learning.

Though online/digital education cannot replace conventional classroom teaching there are certain advantages, such as

- (i) It offers flexibility of 'anytime anywhere' learning to the students.
- (ii) The students can learn at their own pace.
- (iii) The digital content generated can be augmented easily.
- (iv) Audio, video and multimedia resources can be easily integrated
- (v) The online lectures can be conducted in an interactive manner using available platforms
- (vi) The lecture sessions can be recorded/uploaded for ready availability to students.
- (vii) The students can expand their intellectual horizon and devote energy in learning the use of tools and skills which may not have been possible in traditional teaching environment.

Background of Digital Education at MITS

The MITS had started using ICT based learning from **15th August 2017** when the institute MOODLE server was installed. The MOODLE (Massive modular object-oriented dynamic learning environment) was already being extensively used by

the institute for taking attendance, uploading lecture plans, notes, PPTs, question banks, scheduling online quizzes, for taking online feedbacks on various academic issues (Course outcomes, curriculum, courses) etc. All the faculty members, staff, UG & PG students and PhD scholars are registered on this platform.

The institute also conducted a workshop on “e-learning tools” in collaboration with the Directorate of technical Education, (DTE), Bhopal, for over 1600 technical teachers of the state of Madhya Pradesh from 9th to 11th July 2020.

Due to this preparedness, the institute could very smoothly switch over to digital education when COVID-19 enforced everyone under an unexpected, unforeseen and sudden lockdown. The institute was already in semi-digital mode and hence the transition from classroom to digital teaching-learning was hasty and hassle free. In addition to teaching, MOODLE was employed for smooth conduction of mid-semester examinations also.

Modes of Digital Education at MITS

Synchronous Mode: This is online collaborative learning through video conferencing or interactive online class using zoom, Google meet or similar other platforms.

Asynchronous Mode: This learning happens when the teacher & students are not connected in real time, for example when learning or communication is through e-mails, whats app groups, sms or MOODLE.

On-line Mode: Learning in this mode can be of the following types:

- **Flipped class:** Teachers ask students to study the shared learning material before coming to online class and then discuss and ask questions during the interactive class conducted through video conferencing platforms.
- **Regular online class:** The faculty conducts the regular scheduled classes through any of the chosen online platforms.
- **Live class:** The class can be conducted through any learning management system(LMS), students interact with teacher during class, all learning material, assignments etc shared through the LMS.

Semi-off-line Mode: Learning in this mode can be facilitated for students who have problems with internet connectivity or bandwidth and hence who can't attend scheduled classes.

- Classes are recorded and uploaded on youtube with link on MOODLE. The students, who don't have continuous access or bandwidth to attend all scheduled classes, can download the video lectures/demonstrations/simulations/other learning material/ assignments etc.
- The students can send their queries/assignments through e-mails or what's app to the teachers.
- Once a week an on-line interactive additional class is scheduled for explaining concepts and answering students' queries.
- Question-answer model will be used. Along with notes faculty will provide solutions of assignments.

Adherence to the PRAGYATA guidelines at MITS

The PRAGYATA guidelines issued by the Ministry of Human Resource Development, Government of India for digital education, include **eight** steps of online education that is, Plan, Review, Arrange, Guide, talk, Assign, Track, and Appreciate.

The institute has prepared a **weekly digital learning & assessment** plan. The guidelines being implemented at MITS for digital teaching are aligned with the Pragyata guidelines as follows:

1. **Plan:** The schedule of classes (Time Table) and detailed weekly lesson plan will be uploaded by teachers.
2. **Review:** Department conducts an orientation programme on the first day of the session to brief students about various issues including digital education plan of institute and to find out the status/location/internet availability etc. of the students.
3. **Arrange:** The live/interactive theory & practical classes will be conducted as per schedule. All the learning material/ demonstrations /simulations/recordings/lecture notes/PPTs etc will be made available to the students through MOODLE/youtube for anytime viewing/learning.

4. **Guide:** The class coordinators will act as a link between the students/parents and the institute administration. They will be in constant touch with the students to monitor their progress, to motivate them, to counsel and to facilitate them. The concerns expressed by the parents/students will be communicated back to the administration who in turn will try to find a solution in the best possible manner.
5. **Talk:** Once a week an on-line interactive additional class is scheduled for explaining concepts and answering students' queries.
6. **Assign:** Weekly assignments and quiz will be given to the students to ensure their learning after the class. The assignments will be designed in such a manner that students find them interesting. It will also be part of continuous internal assessment.

Assignments will be activity based, will consist of open ended problems and application based questions. The use of pen and paper will be limited and emphasis will be on activities/mini projects/ problems which can be solved using ICT based tools or open source softwares.

At the end of the month a group assignment will also be given.

7. **Track:** The teachers will check the assignments and track the progress of learning of students.
Slow learners and fast learners will be identified and separate mechanisms will be used to facilitate both kinds of learners.
8. **Appreciate:** Based on attendance, submission of assignments, performance in quiz, group projects etc; grades will be allotted to students to encourage and motivate them.

Delivery Mode of Theory & Laboratory Sessions at MITS

(A) For students with unlimited internet/bandwidth availability

Online Mode of Conduction

Theory Classes/week	Practical Sessions/week	Additional/Make-up/Remedial Sessions/week
3 hours per course	2 hours per lab course	30 minutes per course
<ul style="list-style-type: none"> ▪ Synchronous Mode ▪ online teaching through video conference ▪ Interactive class ▪ Flipped class ▪ Recording provided after class on youtube ▪ Lecture notes available for anytime learning on youtube ▪ PPTs available for anytime learning on youtube ▪ A large question bank will be available 	<ul style="list-style-type: none"> ▪ Live laboratory classes ▪ Virtual labs ▪ Students can interact, note observations/readings on line ▪ Recording of lab session on youtube ▪ Format of report to be submitted will be supplied ▪ The same will also be available on MOODLE ▪ Viva-voce question with answers will be made available on MOODLE 	<ul style="list-style-type: none"> ▪ Interactive doubt clearing classes ▪ Needs of slow learners will be met through question/answer model ▪ Personalized attention through phone call/whats app/email etc as per the need ▪ Guidance related to examinations ▪ Attending to any other special needs as per the response/feedback received

(B) For students with less internet/bandwidth availability

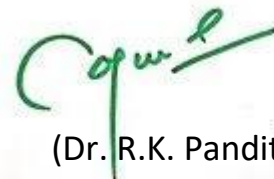
Semi-online Mode of Conduction

Theory Classes/week	Practical Sessions/week	Additional/Make-up/Remedial Sessions/week
3 hours per course	2 hours per lab course	30 minutes per course
<ul style="list-style-type: none"> ▪ Asynchronous Mode ▪ Live class recording provided after class on youtube/through google drive ▪ Lecture notes available for anytime learning on youtube ▪ PPTs available for anytime learning on youtube 	<ul style="list-style-type: none"> ▪ recorded laboratory classes available on youtube/ google drive for anytime downloading & viewing ▪ Recorded Virtual lab sessions for anytime downloading & viewing ▪ Additional lab classes will be arranged in the laboratories (as and when the situation becomes normal again) 	<ul style="list-style-type: none"> ▪ Interactive doubt clearing classes as per need ▪ Needs of slow learners will be met through question/answer model ▪ Personalized attention through phone call/whats app/email etc as per the need ▪ Fast learners & synchronous learners will be motivated to help learners with difficulties.

Continuous Assessment of Theory & Laboratory Sessions

To keep track of student learning and to keep students engaged and interested in the online education being imparted through this advanced academic session for July-December 2020, the following assessment schedule will be implemented for both synchronous & asynchronous learner.

Theory Assessment	Practical Assessment
<ul style="list-style-type: none">▪ Minimum 01 short quiz per course per week as scheduled by teacher▪ Minimum 01 short assignment per week (hand written)▪ Mid-semester exams: 02 (average score)▪ Group project & presentation (twice in semester)▪ Course end seminar(01)	<ul style="list-style-type: none">▪ Submission of hand written/typed lab report after each class▪ Minimum 01 short practical quiz per course per week as scheduled by teacher▪ Minimum 01 internal viva per month as scheduled by the teacher(01 x number of weeks)▪ Final internal viva (01)



(Dr. R.K. Pandit)

Director