

SRM UNIVERSITY AP, ANDHRA PRADESH

Standard Operating Procedure (SOP) for Online classes

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1. Introduction

The prevailing COVID-19 pandemic situation around the world has turned normal life by 180 degrees. The global citizens are now surrounded by a cordon of multiple preventive measures, such as maintaining social distancing, using masks and sanitizers, avoiding travels, and social gatherings. Providing education to the students in a traditional (physical) classroom may not be feasible until a cure for COVID-19 is available. Hence, all the educational Institutions around the world have resorted to the virtual world of computers and the Internet to run undergraduate, postgraduate, and Ph.D. programmes. Even though online classes are not an appropriate substitute for the traditional classroom method, online teaching and learning have become inevitable in the current scenario.

At SRM University AP, Andhra Pradesh, the decision was made to conduct online classes during the month of March 2020, following the Government of India's lockdown announcement. Online classes were initiated by the University for the students from March 26th to May 16th and a few remedial classes went on up to May 30th. Despite challenges, it was an enriching experience for the faculty as well as students. Currently, faculty members of the University are focused on preparing the course material suitable for the online mode of delivery. They are also working to implement novel and innovative ways of lecture delivery and assessment of the students. Students too are adapting to this new model of learning. Both the faculty and students however, have to face one important limitation: availability of adequate Internet data capacity from the place where they would participate in the teaching and learning process. Despite all these limitations, online teaching and learning will prosper around the world during and after these COVID-19 days.

Thus, at SRM University AP, Andhra Pradesh, it is proposed to conduct online classes till the situation improves and Government guidelines allow for in-person classes to commence. The faculty members of the University shall use the latest computer hardware and software tools for knowledge dissemination to the students using the Internet in a seamless and continuous manner. The faculty members of the University shall be allowed to Teach From Anywhere (TFA) and the students shall be permitted to Learn From Anywhere (LFA). To make LFA and TFA more effective, the Standard Operating Procedures (SOPs) are proposed for implementation by various stakeholders of the University. These SOPs are described in the remaining sections of the document.

2. SOP for Faculty members

It is proposed to follow Active Learning and Flipped class room teaching-learning methodologies for improving the learning experience of the students. The SOPs are proposed for implementing these methodologies effectively through online and hence the students get exposed to a quality learning environment. In this section, the SOPs to be followed by the faculty members to handle the online classes effectively are provided.

2.1 Online Class Conduct and Format

- (a) The plan of online teaching for a subject/course (course plan) is prepared by the faculty by including Learning Objectives and Learning Outcomes of the course. This course plan also includes
 - (i) Topics to be covered in each online class
 - (ii) Number of polls, quizzes to be conducted in the session
 - (iii) Number of assignments to be submitted by the students by indicating the deadline
 - (iv) Number of discussions to be made with student groups.
- (b) The faculty uploads the course plan in the Learning Management System (LMS) at the beginning of the semester, after getting due approval from the concerned authorities (Head of the Department (HOD)/ Dean of the School (DoS)). The power point slides (PPTs), Audio and Video information and Notes in document form prepared for the topics to be covered in each session, have to be uploaded in the LMS by the faculty at least one week before the conduct of the online session.
- (c) The evaluation scheme of the theory course such as marks allocated for Mid Term 1 and Mid Term 2 exams, Quizzes, Polls, Assignments, Seminars, Online discussions, has to be shared with the students by the faculty at the beginning of the semester and same can be documented and uploaded in the LMS.
- (d) The evaluation scheme for the practical courses such as marks allotted for
 - (i) Carrying out regular experiments through virtual or simulation environment
 - (ii) Completion of project on time and submission

(iii) Recording the details of the experiments carried out in the Observation note book

(iv) Submission of Record note book

(v) Final examination

(vi) Oral presentation (Viva voce) conducted

has to be shared with the students by the faculty at the beginning of the semester and the same can be documented and uploaded in the LMS.

e) The evaluation scheme for the Project oriented courses (such as UROP, Capstone projects) such as marks allotted for

(i) Submission of Abstract

(ii) Literature survey

(iii) Software or Model building

(iv) Documentation of the project

(v) Final project presentation (Viva voce)

has to be shared with the students by the faculty at the beginning of the semester and same can be documented and uploaded in the LMS.

(f) The HOD has to periodically verify whether the course plan given by the faculty is properly implemented or not. Faculty deviating from the course plan has to discuss the same with the HOD and has to get permission for the deviation. The faculty has to ensure that topics specified in the course plan are completed without much deviation in terms of time and coverage depth.

(g) Students who cannot be part of the online session due to technical problems have to intimate the same to faculty immediately. The faculty may prefer to conduct additional assignments, quizzes to such students so that marks allotted for the session can be provided to the students based on their performance in the same. If all the students are not able to attend the class, the faculty may cancel the online session by informing the same to the HOD.

(h) The faculty compensates the cancelled/postponed class again in some other slot approved and allotted by the concerned authorities (HOD/DoS). The conduct of this make up session has to be informed to the students at least 2 days in advance.

(i) If a faculty wishes to cancel an online session due to some reasons, he/she has

to get permission for the same from the HOD at least one day in advance. The faculty compensates the cancelled class again in some other slot approved and allotted by the concerned authorities (HOD/DoS). The conduct of this make up session has to be informed to the students at least 2 days in advance.

2.2 Attendance in Online Classes

- (a) A student has to be present at least 75% of the time during an online session for him/her to be marked present for the class.
- (b) Once the online class is completed, ITKM section provides the attendance information of the students to the faculty. The faculty has to prepare the attendance report based on this information and has to mark the attendance in the Enterprise Resource Planning (ERP) software within the deadline decided by the concerned authorities (HOD/DoS).
- (c) As a practice, faculty instructs the students to verify their attendance in the ERP portal on a regular basis.

2.3 Assignments, Practical experiments and Projects in Online Classes

- (a) Assignment questions for the courses, details of experiments to be carried out using the computer software (virtual laboratories) have to be uploaded in the LMS software. Video shooting of laboratory experiments has to be uploaded in the LMS if the virtual laboratory is not available for the course. Similarly course project details has to be uploaded in the LMS and students can upload required design, analysis and implementation documents in the LMS for evaluation by the concerned faculty.
- (b) Assignments and Project reports submitted by the students have to be in written format. Faculty has to ensure that students post their copies of assignments and Project reports in the LMS within the deadline given by the faculty.
- (c) For oral presentations from students on assignments, laboratory experiments, project reports, a time table approved by the concerned authorities (HOD/DoS/ Controller of Examinations (CoE)) will be distributed to the students at least two weeks in advance to the presentation day(s).

(d) Students may be permitted to give the presentation on the later dates if any connection, power failure kind of issues faced by them. This revised date and time has to be

approved by the concerned authorities (HOD/DoS/ CoE).

(e) Plagiarism check has to be done for the assignments submitted by the students wherever possible using the software tools like URKUND which shall be integrated with the LMS by the ITKM section.

2.4 Responsibilities and Timeline

- (a) Faculty must upload information related to the quiz at least one week in advance.
- (b) The students need not be given prior intimation on the polls (multiple choice questions) conducted during the lecture. It is expected that students are already made aware of the conduct of polls during the online lecture hours.
- (c) Assignment has to be posted at least two weeks in advance to the specified submission date in the LMS for all students by the faculty.
- (d) Procedure to carry out project works has to be posted by the faculty in the LMS within the first 2 weeks of the commencement of the semester.
- (e) Project Presentation date has to be specified by the faculty and communicated to students at least 2 weeks in advance.

2.5 Laboratory

- (a) The Computer Science and Engineering Department shall use LMS to conduct the practical experiments. Faculty members with the help of the teaching/laboratory assistants can conduct the lab sessions online by using the ZOOM tool. Students can also get their lab experiments evaluated online by sharing their desktop screen and by showing the execution of their programs to the staff who conducts the evaluation process. Students can submit the hand written records in PDF format to the Google drive or Google classroom tool for the verification of the faculty members.
- (b) The Laboratory experiments of courses offered by Mechanical, Civil, Electrical and Electronics, Electronics and communication departments, Physics, Chemistry, Biology and Environmental Science have to be video graphed and communicated to

the students periodically. In addition, the faculty members are encouraged to use any Open Source Virtual Lab Software available for conducting laboratory experiments in virtual mode.

- (c) Laboratory classes will be conducted in-person mode once the students are back to the campus.

2.6 Do's and Don'ts

- a) Always start your online class/meeting at the exact time communicated to the students.
- b) Get proper hands-on experience of using the tools for lecture delivery.
- c) Ensure to take regular online classes as per the defined schedule/timetable.
- d) Always use a quiet room/place for live lectures/meetings to ensure better audio quality. A good quality headset having a mic is recommended.
- e) For better video quality, use a room with appropriate lighting.
- f) Ensure a reliable and fast internet connection for the smooth delivery of lectures.
- g) In case of receiving any emergency call on your phone, make sure to turn off your audio and video of the live lecture.
- h) In your first class, briefly introduce the tools for online classes (e.g., Google Classroom, Google Form, ZOOM) and the SOPs to the students. Ensure that they are connected with working audio/video and registered in the Google Classroom.
- i) Turn off the microphones/camera of each student upon their entry to avoid background noise.
- j) Wait for a while when sharing your presentation slides, images, files or video to ensure they are synchronized with you.
- k) Provide the course material to students on time. In particular, upload your presentation slides (voice recorded slides, if available) in the LMS as per the schedule.
- l) Make sure that all extra applications are closed during your live lecture/meeting to ensure good quality of audio/video.

2.7 Tools for Online Classes

- Following shall be the software tools used by the faculty for conducting online classes.
 - a) ZOOM
 - b) Google Drive
 - c) Google Form
 - d) Google classroom
 - e) Moodle .
- Digital writing pads can be provided to the faculty members to simulate black board kind of a facility for writing during the online classes.

3. SOP for Students

The following SOP for students provides guidance for achieving better Learning Outcomes during online classes.

3.1 Procedure for Active Participation in the Online class

- (a) The students are expected to log-in to Zoom for each online class.
- (b) The students shall use SRM University-AP official email-id to join a Zoom class.
- (c) The students are provided with login details (meeting-id and password) from the faculty-in-charge of the class, a day before the class is scheduled.
- (d) The students shall use their registration number and name as a login name during all online sessions.
- (e) The students shall log in to Zoom a few minutes early (5-10 minutes) to ensure that they would get sufficient time to respond to any potential technical issues.
- (f) The students shall register themselves on to Google classroom software (or respective resources provided by the faculty member) to access course materials and to upload Assignments.
- (g) The students shall have a laptop or a desktop computer with a microphone, webcam, and access to a high-speed Internet connection.
- (h) The students shall come prepared for each class and they are encouraged to study the teaching materials shared by faculty members before the session begins.
- (i) The students shall actively participate during the online class, since each class contains interactive sessions, polls, breakout groups, and assignments.
- (j) The students shall inform their respective faculty by 5 pm, on the same day of the online session, if they are not able to attend the entire or part of the session due to technical issues such as power problems, laptop crashes, and network issues., etc.
- (k) A student has to be present at least 75% of the time during an online session for him/her to be marked present for the class.

3.2. Few important points need to be followed by the students during Online classes

- (a) The students shall keep their answers short and relevant to the topic during online discussions.
- (b) The students can take one of the following measures for clearing their doubt during the online class
 - i) can send text messages;
 - ii) click on the “raised hand” icon to raise a virtual hand;
 - iii) unmute themselves and request the faculty to address their doubts.
- (c) The students shall mute their microphones for the duration of the class. Whenever required they can unmute and interact with the faculty.
- (d) The students shall switch on their video on request by the faculty.
- (e) The students shall locate a room with noise and interruption free environment to avoid the background noise and make the learning more effective.
- (f) The students shall restrain themselves from using other electronic gadgets during the online class
- (g) The students shall wait for their turn to respond to a question or comment.
- (h) The students shall use professional language to address the faculty and other fellow students during the class.
- (i) The students shall not misbehave say, writing about others on the chat box, etc., during online classes.
- (j) The students shall not use the annotation tab without obtaining permission from the faculty.
- (k) The students are recommended to upload their original photograph as a profile photo of ZOOM. Students are recommended not to upload any profile pictures that look inappropriate or depict any violence that disrupt the sanity of the online classroom.
- (l) If a student wishes to attend a non-registered course, he/she must get prior permission from the concerned faculty member. Also the class shouldn't clash with his / hers' registered class.
- (m) The students are requested to read the complete SOP manual of online classes (most importantly SOP for faculty, and students), and are requested to follow the same.

3.3 Disciplinary Points

- (a) The students shall keep their login/password credentials of University email facility safe. They are responsible for any untoward activity from their user-id such as messages sent from cell phones including WhatsApp/text messages, and phone calls; any activity from the University or personal email /social media accounts.
- (b) Disciplinary action shall be recommended, if students indulge in any degree of indiscipline during the online session as per University Rules. The indiscipline activities include
 - (i). Challenging authority and demanding special treatment.
 - (ii). Challenging faculty credibility.
 - (iii) Making offensive remarks.
 - (iv) Reluctance in answering questions or participating in online discussions.
 - (v) Mocking or belittling others.
 - (vi) Engaging in academic dishonesty (cheating and-or plagiarism).
 - (vii) Sharing personal information and materials in a public forum or sharing real or fabricated information about other students.
 - (viii) Sharing user credentials (login -id and password) of the scheduled online session class to outsiders.
 - (ix) Following someone electronically and sending targeted messages (in the chat box of the Zoom tool used by the faculty for conducting online classes) with the intention of scaring, harming, or intimidating others present in the online class.
 - (x) Sending the faculty inappropriate emails.
 - (xi) Inappropriate use of social media for sharing or promotion of academic work.

3.4 Frequently Asked Questions

1. Is an online class the same as a traditional classroom?

Answer: No.

2. How much time do I have to spend online per day?

Answer: 250 minutes per day and time needed for preparation of courses is not included in this.

3. Do I have to log on to class at a particular time?

Answer: Yes. The time table will be shared with you.

4. Is taking a class online more interactive?

Answer: Yes. Live online classes are more interactive and students can also get recorded links of the classes, which help them during revision.

5. What Internet skills would be helpful in an online class?

Answer: Basic knowledge of the online class platform will help the students to interact with the faculty members and other students present in the class.

6. How is online teaching different from traditional classroom teaching?

Answer: The online model emphasizes an interactive learning environment, designed to stimulate dialogue between faculty and students and among students themselves. The online process requires both the faculty and students to take active roles. The faculty will often act as a facilitator, organizing activities that engage students directly rather than relying too heavily on lectures and memorization.

7. When and where do classes take place?

Answer: We don't really "meet" in a real-time or physical face-to-face sense. Instead, we interact regularly through the ZOOM, Google Classrooms and via email.

8. How will I be able to communicate with my teacher?

Answer: You can send email or contact through Whatsapp for any queries you forgot to ask during online class.

9. If I have technical issues whom I have to contact?

Answer: If it is a login issue then please contact the ITKM help desk (itkm.helpdesk@srmmap.edu.in). If it is a technical issue during the online class, then please contact the respective faculty.

10. Whom I have to contact for specifications of computer and bandwidth for these online classes?

Answer: Please contact the ITKM help desk (itkm.helpdesk@srmmap.edu.in).

11. The faculty didn't turn up during online class, so whom do we have to contact?

Answer: If due to technical issues, a faculty member is unable to take a class, then students can send an email to the respective faculty and the HOD to know about the rescheduling details of the class.

4. SOP for ITKM section

4.1. Objective

Our University has facilitated the virtual class platform with an objective to provide the online education for an effective learning, communication and collaboration between the student and faculty community. The ITKM section at the University has a mandate to provide the seamless support to online classes across all schools - SEAS / SLABS / SMGMT ensuring certain SOP guidelines for the smooth conduct of online classes and webinar sessions.

4.2 Scope

Online classes at the University are facilitated through Zoom Platform, with a facility to connect up with each other through enterprise video communications, with an add-on facility to chat, conduct polls, screen sharing, annotate, automated video/audio recording of the lectures. The ITKM section obtained an authorized license from ZOOM to host all the online classes in which at the maximum 300 students can participate. The ITKM section also obtained license to conduct common sessions / webinars with a capacity of 1000 students.

4.3. Guidelines for Supporting online classes

4.3.1 Timeliness for online support

ITKM section supports various schools (SEAS / SLABS / SMGMT) with the following activities for the smooth conduct of online classes and webinar sessions.

S.No.	Activities	Responsibility	Target Days/Dates
1	Based on the approved timetable received from respective HOD/DoS/Online class coordinator, ITKM section would schedule the online class with required mandatory setting being enabled in the ZOOM platform.	ITKM	Within 8 hours
2	ITKM section would consolidate the day schedule with Host ID, Meeting ID credentials against each online class and announce the same to all faculty members, one day prior to the scheduled online classes. The schedule would be made available in the common drive for anytime access.	ITKM	Within 8 Hours
3	ITKM section would generate the Participant / Poll reports and would be made available day wise in the respective Schools folders in the common drive.	ITKM	One working day
4	Post online class sessions, ITKM section would provide the video recording of the online classes for sharing with students.	ITKM	Two working days

5	ITKM section would provision the day wise datasheets with pre-populated data from ERP, in the common drive for faculty members to update the details – Attendance, Interactive tools used in their respective online classes.	Faculty members	One working day
6	ITKM section would consolidate the required dashboard reports.	ITKM	One working day
7	Any last minute class scheduling, would require a minimum of 6 hrs to depute the resource and plan the support for online class/meeting.	ITKM	6 hours' time
8	Rescheduling the online classes are done if there are any technical issues. After getting approval from the concerned authorities (HOD/DoS/ Online classes coordinator) , ITKM section immediately informs the students about technical issues and rescheduling details.	ITKM, respective faculty member, DoS, HOD, Online classes Coordinator	Two working days
9	ITKM would assign one technical support staff for online class to coordinate with respective host faculty to perform predefined checklists for the smooth conduct of the online classes.	ITKM	30 minutes prior to online class session

10	<p>The technical support staff would perform the system health check and maintenance on a weekly basis to all the stakeholder systems upon the convenience of respective faculty members.</p> <p>System health checking operations are done (listed below) at regular intervals to improvise the system performance</p> <ol style="list-style-type: none"> 1. Clear Cache and history in browsers like IE / Chrome / Firefox etc. 2. Clear temp files in the system. 3. Clear recent files in the system. 4. Clear prefetch files in the system. 5. Clear the Recycle bin. 6. RAM utilization. 	ITKM	Once in a week
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4.3.2 Best Practices for Hosts in online classes

- a) Allow the participants to login only through the official SRM AP Email Id
- b) Enable the sign in to accounts for the users to log in securely to participate in a meeting hosted, ensuring that each participant of the meeting is identified and monitored.
- c) Enable meeting registration procedure to ensure only the registered and approved participants can attend a meeting.
- d) Enable the waiting room facility which allows the host to control when can the participant join a meeting.
- e) Create a meeting with password and the password shall be embedded into the meeting links. When manually entering a meeting using meeting-id, the user will always be prompted to enter the password.
- f) Prevent the participants from screen sharing to avoid disruptions.

- g) Enable the Lock Meeting option in the participant’s pop-up box, so that no new participants can join, even if they have the meeting-id and password.
- h) Enable the attendee On-Hold facility so that if the host needs a private moment and can put the participants on-hold. The participants’ video and audio connections shall be disabled.
- i) Enable video to start participant’s video or Disable participant’s video to block unwanted, distracting or inappropriate gestures on video.
- j) Mute participants or Mute All: Instructors can turn mute / unmute participants or all. This facility will allow instructors to block unwanted, distracting or inappropriate noise from the meeting.
- k) Turning on the virtual background if required, or ensuring a neat background, such as a solid wall behind.

4.3.3 Best Practices for Students in Online class (ITKM Perspective)

- a) Sign in to the ZOOM desktop client and stay signed in through the official email-id (srmap.edu.in).
- b) Internet speed shall be checked and camera may be put off to improve quality depending on the Internet Bandwidth.
- c) Turn the camera on and have camera view at eye level.
- d) Stay muted unless required to reduce background noise.
- e) Be mindful of what is going on behind you. Think about having a solid wall behind or turning on the virtual background.

4.3.4 Online Class Meeting: Roles and Functionality

Role	Functionality
Host	Can share screen with the participants
	Mute and Unmute all participants
	Mute participants upon entry and can allow participants to unmute themselves

	Admit/Drop the participants from/in waiting room
	Remove the participants
	Can make others as host to share the screen and reclaim as host
	Can rename the participants and allow the participants to rename themselves
	Can show thumbs up and clap reactions
	Can start and stop recording
	Can invite the participants
	Can lock the meeting
	Can play sound when participants joins or leaves
	Can end the meeting
	Annotation facility has to be disabled for everyone except the host
Co-host	Host may provide, Co-host rights to other faculty members depending on the need to monitor the session
Participant	No screen sharing
	Can Mute / Unmute for themselves
	Can't unmute if host mutes all
	Can post chat with everyone and host
	Can invite others to the meeting
	Can show thumbs up and clap reactions

	Can raise hand for any query to the host
	Can't record the meeting and need permission from host for recording
	Can leave the meeting and can't end the meeting

4.3.5 Zoom Online Meeting: Do's and Don'ts

Do's	Don'ts
Require a meeting-id and password for joining the class	Do not allow the participants to join without sign in option
Enable waiting room' setting to review by the host and admit the participants	Do not allow participants to join before host
Can mute/unmute the participants on entry into the meeting	Do not unmute participants while the speakers are delivering the talk
Only host to do the screen sharing, if required for any PPT presentation	Do not allow the participants to share the screen to prevent disruptions
Only the host can make the public chat and monitor the chat	Do not enable the public chat
Only the host can enable the recording	Do not allow the participants to start the recording which may lead to multiple files with increased file size

4.3.6 Online Class Support - Recommended System requirements

a. System requirements

- An internet connection – broadband wired or wireless (3G or 4G/LTE)
- Speakers and a microphone – built-in or USB plug-in or wireless Bluetooth
- A webcam or HD webcam - built-in or USB plug-in
- Or, a HD cam or HD camcorder with video capture card

Note: See the list of supported devices.

b. Supported operating systems

- Windows 10*

Note: For devices running Windows 10, they must run Windows 10 Home, Pro, or Enterprise. S Mode is not supported.

- Windows 8 or 8.1
- Windows 7
- Ubuntu 12.04 or higher
- macOS X with macOS 10.9 or later
- ArchLinux (64-bit only)

Supported tablet and mobile devices

- Surface PRO 2 or higher running Win 8.1 or higher

Note: For tablets running Windows 10, they must run Windows 10 Home, Pro, or Enterprise. S Mode is not supported.

- iOS and Android devices
- Blackberry devices

c. Supported browsers

- Windows: IE 11+, Edge 12+, Firefox 27+, Chrome 30+
- Mac: Safari 7+, Firefox 27+, Chrome 30+
- Linux: Firefox 27+, Chrome 30+

Note: Some features in the web client are not supported on IE.

d. Processor and RAM requirements

- Processor: Dual Core 2Ghz or Higher (i3/i5/i7 or AMD equivalent)
- RAM 4Gb

Notes:

- Dual and single core laptops have a reduced frame rate when screen sharing (around 5 frames per second). For optimum screen sharing performance on laptops we recommend a quad core processor or higher.
- Linux requires a processor or graphics card that can support OpenGL 2.0 or higher.

e. Bandwidth requirements

A reliable Internet connection is required with alternate arrangement for smooth conduct of online classes.

Recommended bandwidth for meetings and webinar panellists:

For 1:1 video calling:

- 600kbps (up/down) for high quality video
- 1.2 Mbps (up/down) for 720p HD video

- Receiving 1080p HD video requires 1.8 Mbps (up/down)
- Sending 1080p HD video requires 1.8 Mbps (up/down)
- For group video calling:
 - 800kbps/1.0Mbps (up/down) for high quality video
 - For gallery view and/or 720p HD video: 1.5Mbps/1.5Mbps (up/down)
- Receiving 1080p HD video requires 2.5Mbps (up/down)
- Sending 1080p HD video requires 3.0 Mbps (up/down)
- For screen sharing only (no video thumbnail): 50-75kbps
- For screen sharing with video thumbnail: 50-150kbps
- For audio VoiP: 60-80kbps
- For Zoom Phone: 60-100kbps

Recommended bandwidth for webinar attendees:

- For 1:1 video calling: 600kbps (down) for high quality video and 1.2 Mbps (down) for HD video
- For screen sharing only (no video thumbnail): 50-75kbps (down)
- For screen sharing with video thumbnail: 50-150kbps (down)
- For audio VoiP: 60-80kbps (down)

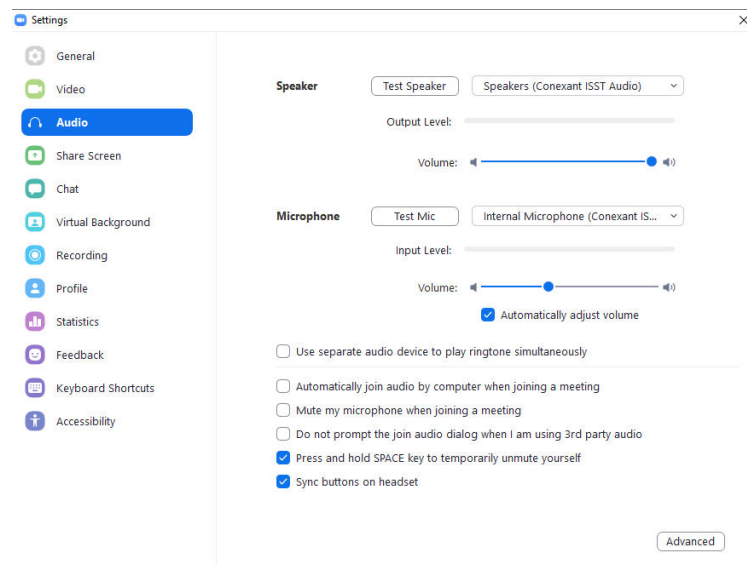
f. Audio & Video Guidelines:

Audio & Video are most important aspect. The following are all factors to be considered:

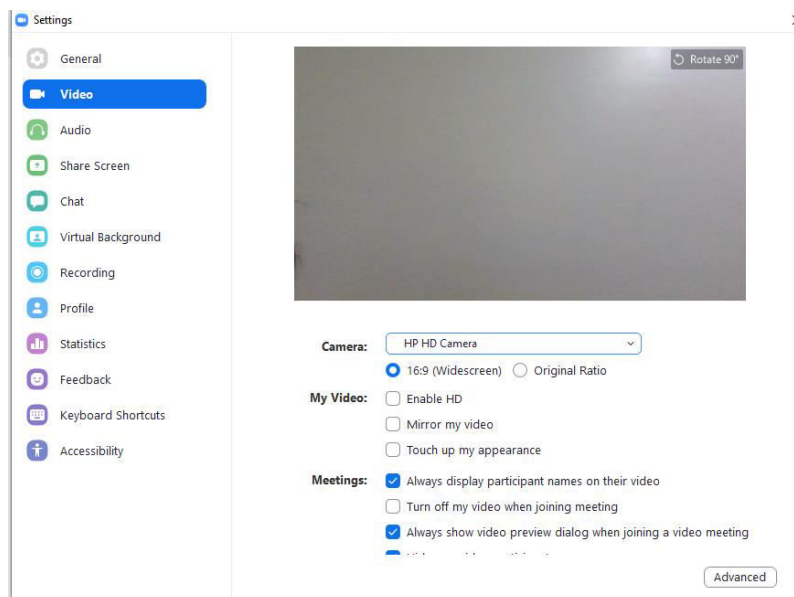
1. Good Sounding Room (Talker)
 - Reduced Reverberance
 - Reduced Environmental Noise
2. Microphone Quality & Proximity to Source
3. Input Processing Quality
4. Network Connectivity - Encode
5. Network Connectivity - Decode
6. Output Processing Quality
7. Speaker Quality
8. Good Sounding Room (Listener)
9. Having solid wall behind or turning on the virtual background, while on Video mode

Audio Testing

- Test the Speakers
- Test the Microphone
- Audio Echo Test



Video Testing



Note: For any further support, please reach out to itkm.helpdesk@srmmap.edu.in

4.3.7 Disclaimer

The online classroom support is limited to the Zoom platform and any other online classroom platform being used by any of the stakeholder will not come under the above-mentioned SOP procedure and guideline. It is the responsibility of the individuals to ensure that online class room is being handled smoothly and to update mandate details if any, as recommended by the University management.

5. SOP for Online Examinations

Online Examinations related guidelines are given below.

- 1) The Mid Term 1, Mid Term 2, and the End Semester examinations shall be conducted online through a suitable commercial software application (Exam tool).
- 2) Proper training shall be provided to all the stakeholders on the Exam tool for conducting the online examination effectively and error-free.
- 3) In general, maximum marks of Mid Term examinations shall be 25 marks with one hour as the duration of the examination. Mid-Term exams shall encompass both objective and descriptive type questions.
- 4) The maximum marks of the End Semester examination shall be 100 marks with 2 hours as duration. The question paper shall encompass both multiple-choice and descriptive type questions. The existing format of the Question Paper with three hours' duration shall be modified to fit the two-hour duration.
- 5) The students can use either Laptop or Mobile device for writing the Online Examinations. They are given a choice to write the descriptive answer on a paper and scan the paper for uploading it into the online software tool within the specified duration of the examination.
- 6) The formats of Assignments, quiz, polls are left to the choice of faculty member and shall be informed to the students well in advance. All the assignments, quizzes and study material shall be uploaded in the LMS well in advance for the students.
- 7) For practical examinations the faculty members shall conduct quiz/assignments regularly over the semester as part of the internal marks and for the external examinations, viva-voce will be conducted in online mode at the end of the semester. All examinations shall be based on the understanding developed by the students on the virtual labs/videos/supporting materials taught/shared throughout the semester.
- 8) For project-based courses, online viva shall be conducted at the end of the semester. The examination shall evaluate the knowledge gained by the students while working on that particular project.
- 9) UROP/MDDP type of projects shall be based on the design calculations/simulations etc, type of tasks. The evaluation shall be of online viva type and it shall be conducted twice or thrice throughout the semester and shall be based on the knowledge gained

while working on these projects. Internal and external marks shall be awarded based on these evaluations.

- 10) Depending upon the improvement in the prevailing Covid-19 situation, End semester examinations (theory and practical examinations) shall be conducted on-campus if the situation permits.
- 11) There shall be an examination fee for all credit courses for which the examinations are conducted in the semester using the Exam software tool.
- 12) If any student is found to be involved in any sort of malpractice such as plagiarism, copying, that student will be penalized as per the rules and regulations, prescribed in the disciplinary policy of the University.
- 13) The online examinations shall be conducted using proctoring, which means that the faculty members shall be performing online invigilation duty in the virtual halls to which the students are assigned. Faculty members shall be watching students writing their examination through the laptop or mobile cams for the whole duration of the examination.
- 14) While writing the examinations, the students have to switch on their laptop or mobile cameras and the entire examination session will be recorded. It is absolutely mandatory for students to switch on their cameras at all times during the examination and if any deviations/malpractice are recorded, then the student will be penalized as per the rules and regulations, prescribed in the disciplinary policy of the University.
- 15) Pending arrear examinations shall be conducted using online format through a commercial software tool at the end of August or September 2020-time frame. It is proposed to conduct the arrear examinations in the evenings in order to allow no disturbance for regular classes. Arrear examinations shall also be conducted for 100 marks and 2-hour duration.

6. SOP for Time table

6.1 Purpose

The purpose of the online Timetable policy is to specify the rules and requirements for an effective and efficient timetabling service to the University.

6.2 Policy

The following policies apply to all University students, faculty members, and academic staff.

- a) The timetable must be published at least one week before the commencement of the semester at the university website.
- b) Timetable for online classes must be prepared in such a way that it meets the needs of the majority of students by balancing facilities, constraints such as availability of laptops, desktop computers, and the availability of internet access.
- c) The timetable must be prepared according to the academic requirements, optimum utilization of resources, University holidays and other curricular and extra-curricular events in view, besides UGC Regulations with respect to mandatory working days (contact days) in each semester.
- d) Any approved changes to the online timetable must be reflected and published on the university website immediately. The same will be intimated to the students through text message or email.

6.3 Preparation of Timetable

- a) For every department, a department timetable coordinator will be assigned by the concerned HOD/Faculty coordinator (FC).
- b) Department timetable coordinator will schedule the timetable for all the sections in the Department in a stipulated time after receiving the academic schedule, student's choices on elective courses, course allocation to faculty members and any other scheduling constraints requested by the faculty members and the concerned HOD/FC.
- c) All draft timetables will be distributed to all HODs/DoSs/FCs to ensure the timetable matches all the requested academic requirements.

- d) All draft timetables should be checked and if any errors or omissions have to be intimated to the head of the timetable committee by the published deadline.
- e) Any changes in the approved timetable will not be entertained. However, the changes can be accepted if they arise due to the following reasons
 - i) Clash in faculty schedule
 - ii) New faculty appointments
 - iii) Clash in the Student schedule
 - iv) Unexpected absence or illness affecting faculty availability
 - v) Health and safety reasons affecting the safety of both faculty and students

6.4 Credits and Class Durations

- a) Online classes are scheduled from Monday to Saturday between 09.00 to 18.20 hrs, with the exception of Wednesday and Saturday. During Wednesdays and Saturdays, online classes will be scheduled from 09.00 to 14.50 hours except for Open Electives, which shall be scheduled after 14.50 hours based on the requirement. Any extracurricular activities such as e-sports, e-music class and other competitions may be conducted during the afternoon session of these days. Some exceptions may be permitted subject to the approval by the concerned authorities (HOD/DoS).
- b) Number of online theory classes for each course are scheduled based on the following criteria:
 - i. Two online classes for 50 minutes' duration will be conducted for 2 credit courses.
 - ii. One online class with 90 minutes' duration and another one with 50 minutes' duration will be conducted for all 3 credit courses.
 - iii. One online class with 90 minutes and 2 online classes with 50 minutes' duration will be conducted for 4 credit courses. However, some exceptions may be permitted

based on the nature of the course by the concerned authorities (HOD/DoS).

- c) For every 50 minutes' class, a 20 minutes' break is given for the students and the faculty member to get ready for the next online class.
- d) An average of 4 to 5 online theory classes is scheduled per day by considering the constraints on limited internet access facilities hired by the students in rural areas. However, one extra theory class per week is allowed subject to the needs and subsequent approval by the concerned authorities (HOD/DoS).
- e) It is not recommended to shorten the teaching hours for any course. However, the concerned authorities (HOD/DoS) may approve any changes in the duration of the online class requested by the faculty.
- f) Scheduling the online classes outside the regular duration (e.g. early starts, evening teaching) maybe permitted by the concerned authorities (HOD/DoS) upon the request received from the concerned faculty. This scheduling information will be communicated to the students well in advance.

6.4 General Rules

- a) Students are expected to be available during the online class hours for the entire week.
- b) Faculty members are expected to be available to deliver classes as per their schedule.

6.5 Deadline for various activities pertaining to Timetable preparation work

Sl. No	Activities	Responsibilities	Target Days
1	Collecting the course allocation details from the concerned HODs/FCs	Department Timetable coordinators	1 st week

2	Call for a first common meeting of all department timetable coordinators	Head of the University, Timetable coordinator	2 nd week
3	Detailed timetable preparation (both class-wise and individual) and circulation to all faculty and non-teaching members	Department Timetable coordinators	3 rd week
4	Call for a second common meeting of all department timetable coordinators for finalization	Head of the University, Timetable coordinator	4 th week
5	Preparation of Master timetable of the Department	Department Timetable coordinators	5 th week
6	Approval of Department Master timetable		
7	Preparation of University Master timetable	Head of the University Timetable coordinator	6 th week
8	Master timetable approval	Head of the University	7 th week

7. Conclusion

We conducted online classes at SRM University AP, Andhra Pradesh from 16th March to 30th May 2020. This experience gave us a lot of insights into the online mode of teaching and learning process. In this document, we have proposed SOPs for conducting effective online classes based on (i) Active learning (ii) Flipped classroom techniques and (iii) Latest information and communication technology (ICT) tools. We have described how effectively these ICT tools can be used for efficient online lecture delivery and for the effective student learning. We believe that the online mode of education is going to rule the world during the post Covid-19 scenario and our document will really be helpful to implement a quality teaching and learning process by involving all stakeholders.

8. Members of the SOP Development Committee

- 1. Prof. T. Ragunathan (Chairperson)**
- 2. Prof. S. Sivasankar**
- 3. Prof. Ranjith**
- 4. Dr. A. Vadivel**
- 5. Dr. Prakash Jadhav**
- 6. Dr. Srabani**
- 7. Dr. S. Mannathan**
- 8. Dr. Muralikrishna**
- 9. Dr. Atik**
- 10. Dr. Prateek**
- 11. Dr. Ajitha**
- 12. Dr. Sobin**
- 13. Dr. Mohan**
- 14. Ms. Arundhathi**
- 15. Ms. Suhasini**