



O.P. Jindal Global University  
*A Private University Promoting Public Service*



# COVID-19 RESPONSE TOOL KIT *for*

**INDIAN HIGHER  
EDUCATION  
INSTITUTIONS:**

**INSTITUTIONAL RESILIENCE  
FOR ACADEMIC PLANNING &  
CONTINUITY**

**AUGUST 2020**

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## **Guiding Principle**

*This Toolkit is meant to serve as a guiding document and is a compilation of plans and recommendations that may be utilised as reference points, while planning the way forward for Indian Higher Education Institutions in times of the COVID-19 global pandemic with a view to contributing to the building of institutional resilience for academic planning and continuity. While this document outlines the points for consideration during the planning of academic continuity based on certain assumptions, it is important to ensure that the WHO advisories, ICMR guidelines, the Central and State Government regulations, the Ministry of Education, Government of India guidelines/regulations, and the guidelines/regulations of the UGC and other regulatory bodies are duly adhered to at all times in full compliance and that they supersede any recommendation made in this document.*

# FOREWORD

Recent figures released by the UNESCO indicate that the COVID-19 pandemic has affected almost 1.37 billion students across the world – this comprises 90% of all enrolled students in around 138 countries. This pandemic could be the biggest crisis faced by mankind over the past century. In Indian higher education institutions (HEIs), the crisis has impacted new admissions, examinations, student internships, placements and student mobility. An effective strategy is necessary to minimise the adverse impact of the pandemic.

Towards this goal, the Association of Indian Universities (AIU) has undertaken several initiatives to support Member Universities to minimise the impact of COVID-19 – these include online faculty development training for online teaching, national and international webinars, leadership talks and online workshops on themes such as assessment and evaluation, and fostering social responsibility among others. An online survey of HEIs is also being conducted to gauge the preparedness of Indian HEIs for online teaching.

A significant initiative has been a collaboration that the AIU has undertaken with the O.P. Jindal Global University (JGU) to produce “COVID-19 Response Tool Kit for Indian Higher Education Institutions”, which has been developed to help build Institutional Resilience for Academic Planning and Continuity. The document can be used as a reference document and checklist by universities, colleges and stand-alone institutions to enable a more effective and planned reopening ensuring that critical institutional aspects are addressed and necessary measures are considered to maintain academic continuity.

We hope that the academic community and higher education leaders will find the document useful in navigating their institutions towards more a more resilient future.

This report was made possible by the efforts of academic and research teams at the AIU, the International Institute of Higher Education Research & Capacity Building (IIHed) at JGU and the Office of the Vice Chancellor at JGU. We are grateful to all our colleagues who contributed to this effort, in particular Professor Deepak Maun, Mr. Abhinav Madan, Professor Sridhar Patnaik, Professor Princy George, Professor Anamika Srivastava, Ms. Nandita Koshal and Mr. Ankit Tyagi.

We hope that this document serves as a starting point for further initiatives and joint efforts that aim to improve our collective performance in uncertain times.



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SECRETARY GENERAL  
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I



# SCOPE OF THIS DOCUMENT

# 1 SCOPE OF THIS DOCUMENT

## 1.1 OVERVIEW

The Higher Education Institution COVID-19 Response Toolkit (HEI-CR Toolkit) has been designed as a standalone document that can be used by Higher Education Institutions (HEIs) to identify potential areas of planning their academic continuity during times of COVID-19 or disruptions of similar nature.

The HEI-CR Toolkit has been created for universities, colleges, and standalone academic institutions. Nothing suggested here may be fully applicable in a specific context. Yet, the scenarios covered are generic and we hope that each HEI will be able to find something suitable to its specific context and needs. This Toolkit is based on the understanding that the HEIs worldwide are structured along similar lines and carry out a similar range of activities (i.e. teaching, research, and community work), though with varying focus and effect.

The goal of this document is to minimize the probability of missing key aspects of academic planning and continuity. There is high uncertainty owing to COVID-19. The continuity of activities at HEIs is critical but any action plan has to take into consideration the context specific factors and may need to be executed in different formats. At a given point, this document hopes to serve as a checklist so that HEIs do not miss taking decisions on crucial aspects of operations and can coordinate effectively and efficiently to carry out their tasks concerning academic affairs during and post COVID-19.

## 1.2 POTENTIAL USERS OF THIS DOCUMENT

The HEI-CR Toolkit is designed to act as a guide for various stakeholders corresponding to the governance of HEIs.

- a) **HEI Leadership** – This includes Vice Chancellors, Rectors, Pro-Vice Chancellors, Registrars, Deans of Schools/Departments, Academic and non-Academic Deans
- b) **Directors** – This includes leadership of various offices and research centres including but not limited to Directors/ Executive Directors/ Presidents of various units such as Alumni Relations Office, Admissions Office, International Affairs Office, etc.
- c) **Faculty Members** – This will help faculty members understand the implications of actions of the institution and the changes in their responsibilities.
- d) **Individual Schools/Departments** – This will help shape the academic response and facilitate coordination among schools/departments across the institution.
- e) **Student Community and Student Council** – This document can be used by students to help them understand the implications of institutional actions and ensure that the institution is taking action on all items concerning their safety, overall well-being and future.

*This document hopes to serve as a checklist so that HEIs do not miss taking decisions on crucial aspects of operations and can coordinate effectively and efficiently to carry out their tasks concerning academic affairs during and post COVID-19.*



- f) **Administrative Leadership and Administration Teams** – This will help leadership and teams corresponding to Information Technology (IT), Human Resources (HR), Facility Management, Student Housing/ Hostel Management and other administrative stakeholders to understand additional infrastructure and protocols required in sync with the choice of format for continuity of classes.
- g) **Higher Education Regulators** – This document will also play a role in helping the regulatory bodies, accreditation units, and government authorities to take policy decisions for maintaining academic continuity and to assess the corresponding support required.

## 1.3 DOCUMENT USAGE GUIDELINES

The HEI-CR Toolkit is meant to serve only as a guiding document based on the general structure of an HEI. Each HEI may have specific requirements besides elements mentioned in this toolkit. Based on its context, location and profile, each HEI will respond to the ongoing pandemic, differently. The Toolkit is by no means exhaustive, but a compilation of recommendations that may be utilized as reference points while planning the way forward for - HEIs in times of COVID-19 to ensure academic planning and continuity.

While this document lists the points for consideration during the planning of academic continuity based on certain assumptions, it is important to ensure that WHO advisories, ICMR guidelines, Central and State Government regulations, Ministry of Education, Government of India regulations/guidelines, and the guidelines/regulations of UGC or any other regulatory body are adhered to at all times and that they supersede any recommendation made in this document.

Additionally, institutions need to consider context-specific parameters while customizing their approach. Ensuring regulatory compliance should be the primary factor taken into consideration.

- Academic discipline of studies
- Pedagogy
- Geographic location of the Institution
- Profile of the students, faculty and staff
- Localized impact of COVID-19
- Financial implications
- Regulatory compliance

It is also recommended that HEIs keep in mind the specific and differentiated needs of graduating batches, penultimate batches, incoming batches and other batches, and the remaining stakeholders and ensure that decisions are not changed frequently during the semester, to ensure consistency and effectiveness of the teaching-learning process.



## 1.4 ABBREVIATIONS USED AND SOURCE DETAILS

### Abbreviations/Acronyms

TERM	FULL FORM
ACP	Academic Continuity Plan/Planning
AI	Artificial Intelligence
AR	Augmented Reality
CCTV	Closed-circuit television
CGPA	Cumulative Grade Point Average
CHO	Chief Health Officer
CR	Class Representative
DG	Diesel Generator
FICCI	Federation of Indian Chambers of Commerce and Industry
FTTH	Fiber to the Home
GER	Gross Enrolment Ratio
HEI	Higher Education Institution
HEI-CRT	Higher Education Institution COVID-19 Response Toolkit
HR	Human Resources
HEI-C19R	Higher Education Institution COVID-19 Response
IRB	Institutional Review Boards
IT	Information Technology
LMS	Learning Management System
MOOC	Massive Open Online Course
OBC	Other Backward Classes
OPM	Online Programme Management
PDF	Portable Document Format
PPE	Personal Protective Equipment
RERB	Research Ethics Review Board
SC	Scheduled Caste
SMS	Short Message Service
ST	Scheduled Tribe
T&L	Teaching and Learning
UGC	University Grants Commission
UPS	Uninterrupted Power Supply
VC	Vice Chancellor
V-con	Video Conferencing
WHO	World Health Organization

## Sources

*The information provided in this document is based on various excerpts available in public domain via news media, social media, or university websites, and these may have been considered in full or part. This document includes examples and references of the current and existing implementation of academic continuity strategies in various other institutions such as University of Notre Dame - USA, Punjab Engineering College - India, Imperial College London, O.P. Jindal Global University (JGU) – India, etc.*

*The HEI-CR Toolkit extensively refers to the 'COVID 19 Campus Readiness Plan for Health, Safety, Security and Well Being' of JGU which is based on the advisories of the Ministry of Health and Family Welfare, Ministry of Home Affairs, Government of India, National Centre for Disease Control, Health Department, Government of Haryana and the Municipal Corporation, Sonapat, National and International Standard-Setting Bodies including the World Health Organization.*

*The HEI-CR Toolkit also refers to the initiatives taken up by Association of Indian Universities (AIU) to promote the online learning capacity.*

*The contribution of several individuals and institutions who have put their ideas in public domain, either through articles in newspapers, other online media or through sharing documents on their websites, although they may not be directly named in the toolkit. The document also includes certain recommendations as per the FICCI (The Federation of Indian Chambers of Commerce and Industry) -WHO (World Health Organization) guidelines. Data on Indian Higher Education landscape has been sourced from various documents including the All India Survey of Higher Education (AISHE) Report 2018-19.*

II



# UNDERSTANDING THE INDIAN HIGHER EDUCATION LANDSCAPE

# UNDERSTANDING THE INDIAN HIGHER EDUCATION LANDSCAPE<sup>1</sup>

## 2.1 IMPACT ON ACADEMIC CONTINUITY

With a large student population in India i.e. an estimated 37.4 million total enrolments in HEIs, the Indian Higher Education System is faced with a challenge to redefine and reinvent itself to overcome barriers in the times of uncertainty posed by the current pandemic (COVID-19) in delivering the education promised to the students. In the last few months, HEIs witnessed uncharted territories as they transitioned to e-classrooms overnight, while dealing with a myriad of other challenges. The biggest of these challenges was concerning the accessibility of education and availability of resources besides issues relating to curriculum, pedagogy, and assessment. While there have been obstacles, COVID-19 has also pushed HEIs to reimagine how to deliver engaging and holistic classroom experience to students and is driving a revolution of sorts in the education sector.

India has over 51,000 HEIs. This, along with the large student population, constrained pupil teacher ratio, diverse demographics, and distinct rural-urban divide make the Indian Higher education landscape unique and complex. The pandemic related challenges add additional layers of complexity. There are approximately 394 universities located in rural areas in India. Several million students hail from remote, rural areas with minimal access to electronic devices, reliable internet connectivity, or stable electricity supply resulting in a digital divide. This means that Indian institutions need to go one step beyond online classrooms to build strong institutional capacity to maximize outreach. And while we respond to this educational transition and ongoing transformation during COVID-19, we also need to start planning for the future of HEIs for a time during and post COVID-19. Given the diversity in our institutions and challenges faced by them, Indian HEIs cannot rely on a one-size-fits-all strategy. Different approaches will need to be applied while planning the re-opening of HEIs and continuing the classes post re-opening until a COVID-19 vaccine has been developed and administered to control the ongoing pandemic.

## 2.2 HEI LANDSCAPE ANALYSIS<sup>2</sup>

The following section will account for the various HEI statistics based on the overall count of HEIs, Open/Dual Programmes, Private Institutions and the impact of these on planning the way forward for the Indian Higher Education.

### 2.2.1 OVERALL INSTITUTIONS

Currently, India has over 51,000 HEIs, the split of which is as follows:

- Universities – 993
- Colleges – 39,931
- Stand Alone Institutions – 10,725

*Given the diversity in our institutions and challenges faced by them, Indian HEIs cannot rely on a one-size-fits-all strategy*

<sup>1</sup>Data used in this section is from the AISHE Report 2018-19

<sup>2</sup>Data used in this section is from the AISHE Report 2018-19

**Inference:** Given the larger number of institutions, we will have to appreciate the associated diversity and acknowledge that we will need to build Academic Continuity Plans (ACPs) to suit the breadth of diversity, and therefore, there may not be a standardized one-size-fits-all approach. However, based on the commonality across the various resources required across institutions, a centralized resource management can help streamline operations and reduce costs associated. Therefore, this will require complex administration to ensure effective planning and implementation.

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### 2.2.2 OPEN/ DUAL PROGRAMMES

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- As per the AISHE Report 2018-2019, of all the institutions, currently the count of Open Universities is as follows - 1 Central Open University, 1 State Private Open University, 14 State Open Universities
- 110 are Dual Mode Universities

**Inference:** Most institutions operate physically and will require a strategy for academic continuity during COVID-19

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### 2.2.3 UNDERSTANDING PRIVATE HEI LANDSCAPE

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- 385/993 (38.8%) Universities are privately managed
- 77.8% of the colleges are privately managed - 64.3 % are private unaided, and 13.5% are private aided

**Inference:** A large proportion of the HEIs are privately managed. The financial implications of the pandemic may be severe for them as they are self-funded and depend on student tuition fees which in turn may be constrained in itself by the financial implications of the pandemic across all households. They will need to identify cost-effective strategies to continue the education programmes, and develop an academic continuity strategy and implementation which does not add to their financial burden, and identify innovative funding tools to ensure continuity. Any negative consequences arising from poor financial health of these private HEIs will have implications for millions of students currently enrolled in these institutions. Therefore, the government and the regulators may consider extending their support to private HEIs as well.

*Given the larger number of institutions,  
we will have to appreciate the  
associated diversity and acknowledge  
that we will need to build Academic  
Continuity Plans (ACPs) to suit the  
breadth of diversity*

## 2.3 STUDENT ENROLMENT LANDSCAPE ANALYSIS

This section aims to review the student demographics and understand its impact on the academic continuity of the Indian Higher Education Landscape.

Currently the total enrolment in higher education is estimated to stand at 37.4 million. Below statistics identify the corresponding diversities of this large student pool.

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### 2.3.1 GROSS ENROLMENT RATIO (GER)

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The GER across Indian HEIs currently stands at 26.3%.

**Inference:** Even while dealing with the consequences of this pandemic on the ongoing education of the current students, HEIs still need to consider the challenges of resources associated with expanding Indian Higher Education to increase the GER in medium to long run.

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### 2.3.2 DISTANCE ENROLMENT

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Distance enrolment is about 10.62% of the total enrolment.

**Inference:** Majority of the students among the total enrolment have enrolled in non-distance format of education and will therefore be majorly impacted by the disruption caused by the closing of physical campuses during the ongoing pandemic. Therefore, continuity of education is critical since it will affect most of the existing student base.

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### 2.3.3 ENROLMENT IN UNDERGRADUATE STUDIES

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79.8% enrolment is for undergraduate studies. Of this, the split across disciplines is as follows -

- Arts/Humanities/Social Sciences – 35.9 %
- Science – 16.5%
- Engineering and Technology – 13.5%
- Commerce – 14.1%
- Less than 0.5% enrolment is for Ph.D. studies.

**Inference:** Based on this we can infer that the majority of the students who are affected in the current crisis are in their undergraduate studies (UG). Therefore, UG studies need to be a critical focus while planning the academic continuity in the Indian HEI context.

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### 2.3.4 DIVERSITY

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- Foreign Students – 47,427
- Other groups (below percentages are with respect to the total enrolment)
  - Scheduled Caste – 14.9% of total enrolment
  - Scheduled Tribe – 5.5%
  - OBC – 36.3%
  - Muslim Minorities – 5.2%
  - Other Minorities – 2.3%

**Inference:** Based on this we can infer that more than 50% of the total students enrolled are from scheduled caste/tribe, OBC and minority communities, and thus a large number of students represented by these communities may potentially be more vulnerable to additional disadvantages in continuing their education during these pressing times. Additionally, for the foreign students, one must keep in mind the need for additional sensitivity of treatment, regulatory requirements, and challenges of differences in time-zone, in case of attending online classes.

*Under Graduate studies need to be a critical focus while planning the academic continuity in the Indian HEI context*



# UNDERSTANDING THE CHALLENGES IN CONTINUITY PLANNING



# UNDERSTANDING THE CHALLENGES IN CONTINUITY PLANNING<sup>3</sup>

## 3.1 ONLINE CLASSROOMS

### 3.1.1 POTENTIAL DIGITAL DIVIDE

Given that 394 Universities and 60.53% of colleges are located in rural areas, there may not be sufficient infrastructure in terms of technology (hardware and software), connectivity, continued power and other resources required to effectively implement online classrooms. Thus, it may not be feasible for every HEI to operate synchronous online classes. Even when the universities or colleges may have reliable internet connectivity and stable electricity supply, the physical campuses may not be accessible to faculty due to health related threats of COVID-19. In addition to this, their homes (especially in non-metro, non-tier-1 cities) may not be well-equipped to conduct synchronous, online classes.

Further, more than 50% of the total enrolled students are from Scheduled Caste/Scheduled Tribe/OBC/other minorities., These, along with several others from non-disadvantaged social groups, may not have conducive home conditions for learning, and the financial wherewithal to invest in hardware/connectivity to participate in online classrooms. Even when such financial resources may be available, the students' homes may be located in areas with poor internet connectivity or erratic electricity supply, thus hindering their online learning opportunities.

Even for students from the middle-class spectrum, there may be lack of space, resource and financial limitations to participate in online classrooms effectively. For example, a family with three children may not be able to afford separate devices or separate spaces for all the children to participate in online classes.

### 3.1.2 INFRASTRUCTURAL LIMITATIONS

Given the poor infrastructure in various parts of India including power and internet connectivity, faculty and students may not have the requisite infrastructure to participate in online classrooms.

*It may not be feasible for every HEI to operate synchronous online classes.*

### 3.1.3 PEDAGOGICAL RESTRICTIONS

A lot of the classroom teaching is dependent on various formats and pedagogies such as:

- A lot of the classroom teaching is dependent on various formats and pedagogies such as:
- Laboratories for STEM courses
- Legal clinics and field visits for Law subjects
- Studio based work for Journalism, Arts, Architecture
- Field visits for Social Sciences, Arts and Humanities
- Workshops for Language Studies
- Mathematical tools for quantitative subjects

<sup>3</sup>AISHE Final Report 2018-19

These may not be effectively implemented in online formats and will require innovation in teaching and learning methodologies, as well as, investment in technology based platforms.

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### 3.1.4 STUDENT ENGAGEMENT

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Not having students face-to-face within the confinement of a physical classroom may hinder the interaction between students and teachers. Even within the online format, students usually are required to keep the cameras off due to bandwidth constraints, making it challenging for the faculty to understand the receptiveness of students.

Also, in the absence of the peer-to-peer interactions that are common to physical campus presence, and lack of extracurricular activities, students will not have the required social and emotional development opportunities. These are essential for developing students with well-rounded personalities, helping them build an effective social network, and supporting them in understanding the values of collaboration, team-work, diversity, practical implementation of skills learned, and interpersonal skills, in addition to many other challenges – pedagogical, technological, collaborative, group learning, social, etc.

## 3.2 PHYSICAL CLASSROOMS

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### 3.2.1 GEOGRAPHIC LOCATION OF INSTITUTION

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The top 8 states with respect to the highest number of colleges<sup>4</sup> are Uttar Pradesh, Karnataka, Maharashtra, Rajasthan, Haryana, Tamil Nadu, Madhya Pradesh and Gujarat.

Of these, Uttar Pradesh, Karnataka, Maharashtra, Tamil Nadu, Gujarat are also among the states with most number of COVID-19 cases as on date<sup>5</sup>. This implies that a large number of HEIs, by the virtue of their geography, have high risk of exposure and therefore may not be able to reopen campuses even partially. Additionally, even in other locations, an HEI may be limited by being in a red or containment zone, or may enter that zone after reopening.

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### 3.2.2 HIGH RISK EXPOSURE

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Students/ faculty/ administrative staff coming from areas of high risk exposure, especially containment zones within or outside the city may increase the risk of exposure for all other members of the HEI. Also, the high student population density of institutions, the need to be in close contact and the potential for large numbers of people to be exposed to infection on campuses, make the re-opening of physical campuses extremely risky.

#### **Non-Residential Campuses**

The risk of exposure will be very high given that all members including students will be traveling to-and-fro every day, often using public transport.

*A large number of HEIs, by the virtue of their geography, have high risk of exposure and therefore may not be able to reopen campuses even partially.*

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<sup>4</sup> AISHE Final Report 2018-19

<sup>5</sup> <https://www.statista.com/statistics/1103458/india-novel-coronavirus-covid-19-cases-by-state/> (as on 3rd august)

### **Residential and Semi-Residential campuses**

The risk of exposure will be very high since students will be coming from all parts of the country, via various modes of public transport including flights and trains where they are more vulnerable to catching the virus. Additionally, even when all students and faculty living on-campus get screened thoroughly and only those confirmed Covid-19 negative are allowed on campus, there may be risk of contracting the disease due to a possible exposure of student/faculty to virus it during their travel to the campus. In an ideal case scenario, while students would need to be quarantined off-campus for 2 weeks, and seek entry only based on a negative-test result, in reality, this is logistically not feasible.

Also, under unfortunate circumstances, residential campus students may come in contact with local support staff, local students and faculty members residing outside the institution and catch the virus. In such a scenario, they may not have access to their homes due to certain travel restrictions. Therefore, even with all health services available, this may result in added anxiety for students, staff, and their families.

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### **3.2.3 HIGH RATE OF TRANSMISSION**

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Given the high concentration of students and faculty on campuses, the potential risk of spread of the virus is very high. In particular, there is increased potential for rapid spread of infection in HEIs with high student population density and poor ventilation systems. The additional risk associated with this is that faculty members are often in the higher age bracket and therefore highly vulnerable. Secondly, students/faculty who do not stay on campus could also expose their respective families (especially the vulnerable demographics) in the process of being on a campus and travelling to and fro from their homes.

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### **3.2.4 ADDITIONAL INFRASTRUCTURE, COST, AND ADMINISTRATIVE OVERHEAD**

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Resuming physical operations will require additional setup, infrastructure and protocols for managing the norms of social distancing and sanitization. This would require additional classes to be conducted with lesser students, high-frequency sanitization of all areas, additional staff to manage housekeeping, implementation of hands-free infrastructure such as sanitizer machines etc. It will also need additional protocols to be followed, the monitoring of which may not be feasible at all times. Therefore, at a time when the economy is highly strained, and students and HEIs may be under financial constraints imposed by the pandemic, this implementation could result in an undue cost overhead which may not be feasible to bear for HEIs.

*Given the high concentration of students and faculty on campuses, the potential risk of spread of the virus is very high.*

IV



# ACADEMIC CONTINUITY - CLASSROOMS

**ONLINE MODE**

**PHYSICAL MODE**  
( RESIDENTIAL / SEMI RESIDENTIAL / NON RESIDENTIAL )

**BROADCAST MODE**  
( TELEVISION / RADIO )

**HYBRID MODE**

# ACADEMIC CONTINUITY— CLASSROOMS

*Although this document provides different format options to continue classrooms, however, given the high risk exposure associated with physical classrooms, it is recommended that online learning is considered for academic continuity planning, ensuring compliance to any regulatory requirement at any given point in time.*

## 4.1 ONLINE MODE

Given the physical restrictions posed by COVID-19, especially when lockdown is imposed in various regions, using technology and the internet to ensure continuity of classes has been a widely utilized mode of operation for various HEIs. It not only allows the continuity of classes, but also minimizes risk of exposure given the high rate of transmission of the coronavirus. This section aims to address the various advantages and challenges of online learning, and the various checkpoints that may be considered while planning e-classrooms.

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### 4.1.1 TEACHING & LEARNING (T&L) ACTIVITIES

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#### 4.1.1.1 E-Classroom T&L Strategy

In order to plan effective teaching and learning in an online mode, we would need to adopt a structured approach to planning the course implementation of an HEI. For this, the following steps have been recommended:

- Course Classification
- Course Customization
- Student Analysis
- Delivery Methodology Identification
- Content Customization

##### 4.1.1.1.1 Course Classification

The HEIs could consider COVID-19 related disruptions as an opportunity to review the structure of courses. At a minimum, the courses need detailed classification based on the nature of the course. This can include but not be limited to the following classification categories:

1. Core courses (defined at the department level for each program and year)
2. Elective courses: Single department vs Cross-listed electives
3. Mandatory courses (e.g. Students across all departments/schools in the university need to get at least pass grade in Environmental Science, or English language in several institutions)
4. Course of Independent Studies or Research Courses (full credit, semester long courses where individual students work under the guidance of individual faculty member to define course objective, course study plan, and conduct research on the decided theme)

*Given the high risk exposure associated with physical classrooms, it is recommended that online learning is considered for academic continuity planning*

The courses can also be classified based on pedagogical components involved. Following are the tentative examples (the list is not exhaustive):

1. Theoretical courses (only course readings and classroom lectures with no associated field or lab work)
2. Courses including laboratory experiments (primarily in Sciences, Engineering, Medicine)
3. Courses involving field work
4. Clinical courses (e.g. Legal Aid Clinics)
5. Studio Courses (e.g. in Architecture, Design)
6. Courses run in Seminar mode (mostly in Ph.D.)
7. Practicums, hands-on workshops, and Internships (internal and external)
8. Moot Courts (for Law schools)
9. Others (based on discipline and institution)

Such a classification is necessary for any ACP since the infrastructural and procedural requirements will differ for different types of courses.

#### **4.1.1.1.2 Course Customization**

Given the uncertainty of phases of lockdown, the period of the ongoing pandemic and the duration for which the institution may need to continue online classes, it would be safer to plan a course strategy with an assumption that the entire semester needs to be implemented online. Accordingly, an analysis should be undertaken for every course being offered at the institution. This should include:

##### **A. Feasibility Analysis**

- The feasibility of a course implementation in online mode in entirety.
- A more granular level analysis of the modules within the course to understand the feasibility of online implementation and potential of self-contained experiences within the module.

##### **B. Course Objective Analysis**

- Identification of the course objective and segregation of the course objectives to identify the important, and the peripheral elements
- Pedagogy
- Assessment Methodology

##### **C. Customization Requirement Analysis**

- Understanding the course modules which can be delivered online
- Understanding the course modules which may not be feasible for online implementation due to pedagogical or any other constraints; and then diving deeper to understand the corresponding course objectives of these modules, and customizing the module to feasible online implementation in order to achieve the desired objective, in absence of a specific technology based solution to drive the desired pedagogy.

*It would be safer to plan a course strategy with an assumption that the entire semester needs to be implemented online*

#### D. Alternative Planning

Identify those aspects of a course (or the entire course) which may not be feasible to implement. Planning the way forward could include:

- Procuring the desired technology (subject to a cost-benefit analysis)
- Deferring the course/module to another semester (cannot be implemented for graduating batches)
- Collaborate with other institutions which have been able to deliver the course and seek their resources on paid/unpaid basis (subject to cost-benefit analysis)
- Identify pre-existing MOOCs which can be utilized (subject to cost benefit analysis)
- Collaborate with Online Programme Management (OPM) Vendors to seek consultation on designing the desired online content

*Instead of delivering a lecture, the course instructors need to focus on using flipped classrooms*

#### 4.1.1.1.3 Student Analysis

Within Indian context, the course instructor has always played a central role in traditional classrooms by acting as an authority on the subject-matter. The online format presents an opportunity to come out of this model and engage with students as active learners, while not being physically present within the same space. Instead of delivering a lecture, the course instructors need to focus on using flipped classrooms. In this approach the faculty can assign the theoretical component as pre-reads for the class and utilize the classroom time for practical applications including discussions on real-life case-studies, solving numerical problems, or any other practical component associated with the course. The goal should be to ensure engagement of at least as many students as that in physical classrooms. To plan the methodology, the faculty may want to perform a rough analysis of their class to understand the population of students. The following categorization may be used -

1. **Category 1** - Self-motivated students who can remain highly engaged, and have the desired infrastructure
2. **Category 2** - Self-motivated students who can remain highly engaged, however, do not have the desired infrastructure
3. **Category 3** - Students with average interest in regular classes due to their inhibitions, however motivated to engage in online classes due to lesser social anxiety and more engaging multimedia content
4. **Category 4** – Students with low interest in general

Based on this analysis, the faculty may now choose the way to customize the content, use creative means to engage students, and most importantly decide the delivery methodology required to deliver the class.



The other 2 parameters which the institution can consider based on feasibility are:

- **Class size** – Class size reduction will enable a stronger faculty-student ratio and therefore ensure higher-quality teaching. The online classes may prompt universities to merge sections, thus, increasing the class size. This can be counterproductive unless compensated by other avenues for interaction and doubt clearing by students (synchronous or asynchronous).
- **Class duration** – Shorter classes can help ensure a better attention-span of the students and therefore better engagement. However, given its inversely proportional effect on the number of classes students may have to attend, this should be carefully evaluated before implementation.

#### 4.1.1.1.4 Delivery Methodology Identification

While the following main methodologies can be used to deliver the online classes, the above categorization of students can be used to understand the various proportions in which the following methodologies should be used.

1. **Synchronous** – Teaching live and having student-faculty interactions
2. **Asynchronous** – Sharing content in various formats including audio/video recordings, videos, documentaries, movies, reading material, presentations, e-books etc. with students consuming the content at their own pace and time of choice

**Hybrid** – During live virtual classes, most sessions are happening at present with videos remaining off for students or even course instructors due to internet bandwidth constraints. Even audio remains patchy in most cases making interactions among course participants a difficult task. Thus, the body language related cues remain largely unavailable to the instructors. This makes synchronous discussions challenging. Thus faculty may explore hybrid means to conduct classes and can use the following means to create/ add an element of interaction to the asynchronous means:

- **Social Media** - The faculty can utilize Social Media platforms including WhatsApp or Facebook to create course specific groups and use these for engaging students in asynchronous discussions related to the course.
- **Discussion boards** - The students can also actively share their learnings, resources they find insightful, and ask questions that can be answered by their peers or teachers. Free platforms like Piazza ([www.piazza.com](http://www.piazza.com)) that have been created for academic discussions can also prove very useful for asynchronous discussions, asking and responding to questions (including options for doing so anonymously), and sharing resources. Such spaces can be made accessible to next batches also and can prove useful beyond the COVID-19 crisis. Platforms that allow threaded posts (replies nested under one post) and the possibility to categorize, pin, or tag posts (e.g. Piazza, Slack, or even Facebook) will be more useful than chat apps like WhatsApp.

*Note: The synchronous classrooms (either through virtual platforms like Zoom, Skype, Microsoft Teams, Google Duo) can be better utilized for clearing doubts of students and sharing real life examples to help students assimilate the content.*

*The faculty can utilize Social Media platforms including WhatsApp or Facebook to create course specific groups and use these for engaging students in asynchronous discussions related to the course.*

#### 4.1.1.1.5 Content Customization

Under the conditions of continuing education from home, students will not have access to libraries, reading rooms, or hostel rooms. The studying and reading environment in various households given the presence of multiple family members or space limitations may not be conducive for focused reading of long texts. This could limit the concentration and attention span of students during the off-class studying and thereby pre-reads and post-reads can be highly ineffective. In fact, even the most motivated students in the class may find it tough to navigate the traditional text-heavy content, especially if they do not have access to physical textbooks. Thus, the course content will need to be modified to limit the duration required to read the material, use diverse formats of content delivery and also suit the digital screens.

In order to achieve this, the following techniques may be utilized:

- Use of short length pre-reading material, and more engaging digital content (including videos, podcasts, audio books etc.) that students can consume under constrained conditions will prove useful.
- Faculty can utilize the highlight feature of PDF readers or mobile applications (like Pocket) to highlight the most relevant text to help students with pre-class readings.
- Sections of videos or podcasts can be time stamped for relevance to the course.

*The course content will need to be modified to limit the duration required to read the material, use diverse formats of content delivery and also suit the digital screens*

#### 4.1.1.2 Pedagogy & Experiential Learning

The institutions also need to take a call on the pedagogical elements that will be permitted or restricted. For example, courses requiring travel for field work which are for penultimate batches could be postponed for later semesters. Alternatively, these can be converted into digital ethnographies wherever possible. Certain courses with laboratory or studio components may be modified to utilize virtual tools (labs, design platforms) for the upcoming semester, with short workshops designed to cover these components in later semesters to allow hands on learning. When such virtual lab facilities are not accessible or available, alternative modes of delivery may be considered. Therefore, adapting the pedagogic elements to suit online learning will be warranted.

The present crisis presents an opportunity to reconsider the role of student and teacher in the teaching-learning process and move away from teacher-centric to student-centric pedagogies. The student needs to be considered as an active partner in the process who bears greater responsibility for driving own learning using the diversity of content that is accessible through the internet. The role of the teacher needs to change from active disseminator of content to a facilitator of learning – a person responsible for guiding students to valuable resources, for helping students ask the right questions, clear doubts, and design assessments to help students identify the gaps in their knowledge and understanding.

The classification of courses based on pedagogical components has already been discussed above (see Course Classification section). Given the nature of the pedagogy, some approaches on the way forward have been recommended below.

#### 4.1.1.2.1 Theory Focused Courses

The theory-heavy courses are relatively easy to manage. An upgraded course outline that clearly lays down the objectives for each module and session, maps the readings to each session, and provides guiding questions can act as a self-study unit. A good selection of study material available freely on the internet (open source) or via library website (e-resources) will ease transition to distance learning. Moving beyond textbooks or text heavy readings to visually engaging content (short videos, illustrative guides, podcasts etc.) can improve student engagement. The teachers can also record short videos explaining the concepts, and the classroom timing can be used to discuss the interconnections among concepts and their complex applications, i.e. a flipped classroom model. (Refer previous section on T&L Strategy)

*HEIs across India can identify the technology and bundle the requirements to identify cost-effective procurement with organizations that provide virtual laboratory experience*

#### 4.1.1.2.2 Courses Involving Laboratory or Studio Work

Lab work focused courses are a norm in Science, Engineering, and certain streams in Medicine. Studio work is most common in Design and Architecture. Such courses often have theory sessions integrated with lab or workshop activities. The following options can be explored:

- **Technology** - The HEIs across India can identify the technology and bundle the requirements to identify cost-effective procurement with organizations that provide virtual laboratory experience. While a lot of Studio work involves physical work on materials, institutions can consider providing students access to software to work virtually.
- **Lab Recordings** - The laboratory/workshop staff and faculty members can perform experiments and video record the same. These recordings can be shared with the students.
- **Past Data** - While performance of experiments provides hands-on experience to students, another goal is to utilize the data generated from experiments performed by different groups in the class to generate insights about the phenomenon. Therefore, the faculty can draw upon data from experiments performed by previous batches and assign one set of data to each group. This can then become the basis of online discussions on experimental parts of the course.

#### 4.1.1.2.3 Courses Involving Field Work

Much of the field work will remain suspended due to COVID-19-related restrictions. Even though the curfews have been lifted, the risk of travelling to sites for field work remains high, for researchers, as well as participants, or curfews could be re-imposed in areas with high/rising infection numbers. In such cases, possibilities of accomplishing field work via virtual interactions and site visits can be experimented with. The following options may be considered:

- **Digital Ethnography** - This is a well-established field now and increased usage of the internet over the past few months by different sections of society provide new opportunities to explore novel themes for field work.
- **Collaborations and Past Data** - Institutions can engage social sector organizations with extensive field presence to provide students and faculty members access to past data of the communities.

- **Recreate a Virtual Experience** - Engaging in discussions through audio/video calls with academics who have done a similar field visit could be useful. These researchers can provide the students details of the experiences they had on the field using a storytelling narrative to create a virtual field work experience.

#### 4.1.1.2.4 Clinical Courses and Moot Courts (for Law)

At present, there are a plethora of clinical courses that have been shifted online. While the challenges associated with virtual interactions remain, under current circumstances, this seems to be the only viable model. This process can be facilitated by:

- **Technology aided moot courts** – Utilize technology based moot court solutions. This may in fact aid the training of students for technology driven remote hearing which we can anticipate in a post-corona world.
- **Virtual Clinics**
- **Virtual Moot Courts** - Utilize video conferencing to organize online Moot Courts.

*The institutions may consider utilizing free or reasonably charged MOOCs available on a diversity of platforms (e.g. Swayam, Coursera, NPTEL, EdX, etc.)*

#### 4.1.1.2.5 Practical Courses Requiring Physical Examination (Medicine)

While some medical students may actually engage in COVID-19 Wards as frontline warriors, the others may continue their medical field training through

- **Video Conference** – The faculty utilizes past data and creates a virtual experience for the students.
- **Augmented Reality (AR)** – AR Glasses have been developed to enable virtual experiences. The doctors on ground can wear these, while the students can view the class remotely. However, this will be based on a cost-benefit analysis, and have a major dependence on high quality network infrastructure. Imperial College<sup>6</sup>, London, has already started the use of these for its students.

#### 4.1.1.3 Utilization of MOOCs

Depending upon their individual circumstances<sup>7</sup>, the institutions may consider utilizing free or reasonably charged MOOCs available on a diversity of platforms (e.g. Swayam, Coursera, NPTEL, EdX, etc.) for course delivery. A select committee can invite area faculty and students to suggest high quality courses available online, evaluate the options, and suggest the top course(s) on one or more platforms that can be offered during the semester and are eligible for credits during the semester. While utilizing MOOCs, three areas to be considered will be:

- **Self-study Modules** - Utilize certain short courses as modules within specific core or elective courses that can be completed by students through self-study and an assessment can be associated with this module to ensure everyone completes these courses. In case the courses are paid, the institution may negotiate for a bulk discount on course fees with the MOOC platform and either pay for all eligible students or add the charges to students' next semester fees.

<sup>6</sup> <https://www.theguardian.com/society/2020/jul/04/london-hospital-starts-virtual-ward-rounds-for-medical-students>

<sup>7</sup> This option has been offered by Punjab Engineering College (PEC), Chandigarh, to its students. On his blog, Prof. Dheeraj Sanghi, Director, PEC, has lucidly articulated the options being made available to the institute's students.

- **Credit Conversion-** To ensure academic rigor and equivalence with institution offered courses, a final assessment in the form of an assignment or end-term examination conducted by the institution may be made mandatory for acceptance of credits from such courses. The students may be allowed to take 20% to 40% credits in the form of these shortlisted MOOCs. This will allow students greater flexibility in completing credit requirements. It will also be in line with the UGC policy that allows students to take external credits for completing degree requirements, from Swayam platform.

- **Faculty Intervention-** Even when students are taking such MOOC credits, the faculty should have at least one doubt-clearing session every week, with doubts already collated before the session via Google Forms or on Piazza/Facebook group threads.

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### 4.1.2 ASSESSMENTS

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Teaching presents a major challenge in distance mode for faculty. Course assessment requires an additional layer of consideration. The following pose additional challenges and should be considered while planning the overall assessment strategy of the institution.

- **Technical Limitations** – Even when students can access online content (including classes), it cannot be assumed that they can submit online assignments. While attending classes using a smartphone is feasible, using the same device to type out assignments may not be practical. This requires access to a desktop or laptop.

- **Emotional Distress** – It may be challenging for some students to deal with the pressure of an examination since during these extraordinary times the students may not have an environment at home conducive to studying. They may lack a desirable study space and experience bouts of possible fatigue from involvement in household chores, occurrence of COVID-19 at home, or may even suffer from the anxiety caused by combined stress of pandemic and examinations.

- **Pedagogical Limitations** – Mathematical assessments, or medicine based assessments may be difficult to replicate in an online format. This may require additional investment on technology.

**Various formats which can be explored to conduct assessments:**

- Technology driven, AI-enabled assessment
- Digital submissions (word/excel/email/power point)
- Utilize Learning Management Systems to plan assessments
- Oral assessments/ Audio responses
- Submissions of images of handwritten answers using mobile camera

Given the limitations of certain formats, the faculty should consider the least common denominator while giving the assignments.

*Given the limitations of certain formats,  
the faculty should consider the least  
common denominator while giving the  
assignments*



#### 4.1.2.1 Continuous Assessment

Continuous assessment with a greater focus on learning rather than grading is likely to be more effective. Peer feedback and interaction over asynchronous platforms like Facebook groups or Piazza which provide threaded discussions could support course instructors in such continuous assessment. This can be accomplished with minimal technical support but the change required in the culture of the classroom will be significant. The present hierarchical relationship between teacher and students, and the absence of free interaction in most classrooms could translate to lesser interactions even in online modes. On the other hand, once established in any course successfully, the same tools can be utilized to enrich student learning and engagement even when students return to campus.

Following areas should be considered while planning the continuous assessments:

1. **Type of assessments allowed or restricted:** What can be included and what components need to be excluded for different categories of courses and course components
2. **Mode of conducting assessments** (classroom participation/ online submission)
3. **Protocols regarding submission**
  - a. Mode of submission (via email, Learning Management System, etc.)
  - b. Flexibility allowed in submission deadlines
  - c. Formats of submission (images of handwritten answers, word documents; audio or video responses, etc.)
4. **Protocols regarding evaluation**
  - a. Mechanisms for evaluation and feedback
  - b. Timeframes allowed for evaluation, rechecking, and submission of grades
  - c. Declaration of results
  - d. Any change in policy regarding revaluation or re-sits

*Continuous assessment with a greater focus on learning rather than grading is likely to be more effective*

#### 4.1.2.2 End-term Examination

Mid-term and end-term examinations, the most common modes of assessment, will require synchronization of start and end time which is challenging to achieve in the present circumstances. Also, ensuring the desired examination etiquettes and ethics while operating in an exam-from-home model will require technological intervention. Therefore, based on the feasibility and cost-benefit analysis done by an institution, the following options can be explored for remote-examinations:

- **Artificial Intelligence (AI) enabled Proctored Examination Software**

This will allow replicating a sit-down examination with the required restriction on ensuring ethics. However, this will be subject to a cost-benefit analysis based on the regulatory requirements, the mandatory nature of examinations defined by UGC, the guidelines on physical exams, and corresponding costs and risk exposure.

- **Take-home, open book assignments or examination**

This will need to be designed with greater focus on practical application of theory which tests the students on their ability to apply the concepts learned. The take-home examination or assignments cannot be designed in a similar manner as the routine, in-class examinations. The faculty members will need to create questions or tasks that cannot be copied from the internet and may be difficult for students to copy from each other. For example, based on specific, pre-decided parameters, the students may be asked to pick one or more organizations, equipment, cases, etc. for analysis. Given that the choice cases/institutions they choose for the assignment cannot be duplicated, will make mass customization of assignment possible. As an alternate, the faculty can create a list of cases and assign a unique case to each student. This is easily feasible in quantitative courses/assignments but with a little extra effort, can be done for all kinds of courses. The assignments can be processed through anti-plagiarism software (like Turnitin) to ensure that students maintain high ethical standards.

- **Viva based oral on-call tests or recorded audio responses to questions**

Instead of depending on written submissions, short oral examinations can be scheduled since phone is something most students will have access to.

- **Summation of class assignment outcomes**

Instead of grading at the end of the course, continuous assessments may be a better option under present circumstances. Even in continuous assessments, focus should be on learning instead of grading.

The following areas should be considered to design the examination methodology:

1. **Mode of conducting assessments** (from the above mentioned options)
2. **Protocols regarding submission**
  - a. Mode of submission (via email, Learning Management System, etc.)
  - b. Flexibility allowed in submission deadlines given the various constraints
  - c. Formats of submission (images of handwritten answers, word documents; audio or video responses, etc.)
3. **Protocols regarding evaluation**
  - a. Mechanisms for evaluation and feedback
  - b. Timeframes allowed for evaluation, rechecking, and submission of grades
  - c. Declaration of results
4. **Retake (Resit) examinations from previous semesters**
  - a. Mode of such examinations
  - b. Scheduling of retake examinations
  - c. Declaration of results
  - d. Any changes in syllabus or formats of examination
5. **Examination grading policy**
  - a. Pass/fail
  - b. Cumulative Grade Point Average (CGPA) / Marks
  - c. No-grades-all-pass
  - d. Hybrid
6. **Specific customization**
  - a. Action to be taken for final year students who will be awarded a degree based on the exam outcome

*The take-home examination or assignments cannot be designed in a similar manner as the routine, in-class examinations*



### 4.1.2.3 Thesis/ Dissertation

Even traditionally, for thesis proposals/defence, several institutions have allowed virtual presentations. Either the student is presenting virtually or one or more of Thesis Advisors or Examiners join remotely (especially when they are based outside India). This practice can be made an acceptable and standardized mode of defending thesis proposal or thesis across all institutions.

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## 4.1.3 NON-CLASSROOM ACTIVITIES

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### 4.1.3.1 Extra-Curricular Activities

Students' social and cultural life outside classrooms is a key part of institutional life across the world.

However, given the physical restrictions during a pandemic of this nature (COVID-19) physical formats of extra-curricular activities will not be feasible. Therefore, it is important to identify online activities which can replicate the experience and learnings for the students. Social Media can further facilitate communication within student communities and beyond, making it possible to share new thoughts, perspectives, and ideas. Students can explore the potential of numerous virtual platforms, becoming part of student clubs or councils. Multiple events can be conducted in online format, bringing together students with similar academic and personal interests. The main objective is to remain as proactive as possible, and to maintain a sense of 'normalcy' under extraordinary circumstances. Depending on the objective to be achieved, the following can be considered for implementation:

#### Respite from academic pursuits

- Develop new skills or knowledge through online courses on Coursera or similar platforms. The institutions can facilitate this by partnering with the different organizations providing such options online. For example, a tie up with Coursera, Udacity, EdX, etc. can allow students to take credit courses at no cost or for nominal fees.
- Start learning new foreign languages.

#### Student body bonding

- Student bodies and clubs can organize online networking events.
- Student bodies can collaborate internally, or across institutions to create online festivals which have events and competitions conducive to the online format. This could include cultural elements such as live musicians/performances as well.
- Student clubs can organize online placement events.
- Connecting students for informal discussions coordinated and monitored by the class representative.

*Multiple events can be conducted in online format, bringing together students with similar academic and personal interests*

### **Literary/ Cultural events**

- For cultural activities such as dance/music – online classes can be organized. Students can be encouraged to create online dance-music collaborations.
- For literary events – online elocutions, debates, and other such activities can be organized via video conferencing
- Music Clubs can do online collaboration to create music
- Dance Club members can record dance moves and collaborate to create videos
- Organize webinars with recognized personalities

### **Physical activities**

- E-exercise - virtual platforms can be used to do physical exercises, such as Yoga, Pilates, etc. (This is in case when sports clubs have also been shut down). Cure.fit or other such platforms can provide physical activity support.
- Online sports gaming - The intrinsic values of sports are the spirit of teamwork and leadership. Virtual gaming such as 'FIFA' or other games related to sports can be utilized to create online sports events.

Given the limited activities possible, the focus can be more on building a student network across institutions and engaging in dialogues to plan extra-curricular activity based events and collaborations for a time post the coronavirus disruption.

*Course instructors are a very important and active link between the students and institution and hence, it is necessary that they facilitate interactions with students*

#### **4.1.3.2 Faculty Office Hours and Faculty Student Interaction**

During a course, students often interact with the course instructors outside class hours. Much of this is formalized in the form of designated office hours but exchange of emails and informal chats are also common. The present situation has taken the face-to-face interactions out of the picture. Further, the students now do not have physical access to their friends on campus and may often be struggling in isolation. Some may be restricted by space and family members, as opposed to a hostel room and free access to libraries and reading rooms, while some may be engaged in family responsibilities. Some may be emotionally and financially under duress due to an earning family member rendered jobless by lockdown and economic turmoil, while others may have family members going out to support essential services like hospitals, sanitization, etc. and exposed to higher risk of catching infection.

Course instructors are a very important and active link between the students and institution and hence, it is necessary that they facilitate interactions with students for academic or non-academic support required in the form of discussions (notwithstanding the physical, psychological, and financial challenges they themselves might be facing, for which institutional management needs to step up and create support structures). To facilitate this the following two systems should be put into place:

#### **Office Hours**

The faculty can provide 30-60-minute slots during the day when students can directly call them either individually or in group calls on media such as WhatsApp to discuss their challenges. One can expect the themes to move beyond the subjects being taught and involve mental and emotional challenges being faced

by the students. While most teachers are not trained to help in such situations, they can support by actively listening to their students. Even without suggesting any solutions (in fact, they should refrain from suggesting any solutions and guide the students to the institution counsellors), such outlets that allow students to engage in open discussions should help and also contribute to better learning for students and healthier classroom interactions. The students should also be able to access the faculty for academic challenges being faced given the constraints of online learning. Faculty office hours can take place in the following formats –

- Appointment based discussions at a specified hour
- Ad-hoc WhatsApp calls/ phone calls with the faculty
- Faculty logs in on a pre-set link for a virtual call (zoom/MS Teams/video-conferencing platforms) and students can log in and log out as desired

### Student Mentorship

The institutions can create a formal mentorship program for the students involving faculty members and senior students in case of junior batches under their guidance. Such mentorship should focus on providing students with a social circle, helping them understand institutional academic culture and norms, and supporting them in transition from school to institutional life even when working off campus. This minimal guidance and support will go a long way in ensuring that students can adjust to a new environment with ease.

It is recommended that mentorship assignments are put in place formally, and mentor-mentee discussions are recorded into an action plan and shared with the mentee. These discussions can be tracked using the following template

Mentor-Mentee Discussion Summary	
Mentor Name	
Student Name	
Date	
Follow-up of Previous Discussion	
Topics Discussed	
Open Concern Areas	
Follow-up Plan	

*The institutions can create a formal mentorship program for the students involving faculty members and senior students*

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## 4.1.4 INFRASTRUCTURE

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### 4.1.4.1 Learning Management System

As all interactions move into the online format, the number of e-interactions and emails can get challenging to manage and monitor, and thereby make the entire online learning process overwhelming for the students and faculty. Therefore, to streamline interactions and exchange of information, HEIs should consider use of Learning Management Systems (LMS) for all academic activities including

- Uploading relevant documents (course outlines, course readings for each individual session and module)
- Managing student interactions during and after the class
- Conducting assessments and evaluations
- Integration of the online class platform with the LMS tool/ placing the links on LMS

A consistent, institution-wide usage of such tools can minimize transaction efforts and streamline dissemination of information, as well as, delivery of academic content. The recordings of online or physical sessions should be uploaded on websites like YouTube, Vimeo etc. and links to each video should be updated in the relevant sessions in the course outlines placed on LMS to allow students seamless access to this content.

Several paid options are available for LMS such as TalentLMS or Adobe Captivate Prime, but some free ones are also available such as Google Classrooms, Piazza. Moodle is one of the popular LMS tools utilized.

### 4.1.4.2 Technology - Software

To facilitate smooth online classroom sessions, it is critical to identify a software which is collaborative in nature, and enables effective online teaching and learning. Some of the commonly used platforms include:

- MS Teams
- TCS ion
- BlackBoard
- Canvass
- Zoom
- Blue Jeans
- Big Blue Button
- Google Classroom

HEIs could consider the following as the criteria for selecting the LMS:

- **Collaboration** – It should not only work as a conferencing software, but it should have features to enable collaboration among the students, and between the students and faculty.
- **Cost** – A cost-benefit analysis should be done. Accordingly, licenced or open source software can be leveraged which best suits the needs of the institution within its budget. Some of these platforms are also providing free of cost access to higher educational institutions in India. These should be taken into consideration.

*To streamline interactions and exchange of information, HEIs should consider use of Learning Management Systems (LMS)*

- **Scalability & Accessibility** – The ability to scale the software for the number of students and faculty in the institution and access it in different formats.
- **Privacy** – Given the nature of discussions, and the display of proprietary research of faculty, the privacy features of the software should be kept in consideration.
- **Flexibility** – Various classes based on individual curriculum and pedagogy will need to complement the existing software with other applications or IT solutions. Therefore, one must account for the flexibility of the software to suit the needs of the disciplines and courses being taught.
- **Discipline** – Apart from the dissemination of knowledge, it is essential that the class decorum is maintained at all times, not just through policies, but through technology driven solutions as well.

Beyond the above mentioned points, HEIs need to take into consideration some additional features which may be essential to operationalize online classrooms. The following parameters may be used to perform a comparative analysis to make their choice of software

Software Parameter Analysis	
Area	Parameter
Scalability & Accessibility	Can this be accessed on a web browser?
	What is the limit on the number of participants?
	Can we dial in from the phone?
Classroom Discipline	Can the faculty mute all the participants?
	Can participants unmute themselves?
	Can a participant remove another participant from the session without consent?
	Can the student participants mute the faculty without consent?
	Can participants scribble on the whiteboard, or erase what has been written by the faculty?
Collaboration	Can participants share their screen?
	Can the online session have breakout sessions with smaller groups of students?
	Can the faculty share their screen?
	Is there a chat feature?
	Are there additional non-verbal features such as - raise hand, go slow, go fast, which can enable participant communication without having to speak?
	Can the faculty enable certain disabled features for the students on a selective basis?
	Does it allow assessment & evaluation of students through quizzes, proctored exams etc.?
	Does the platform give the facility to organize group discussions, activities like project presentations?
	Can multiple participants share their screens simultaneously?
Cost	Does a paid licence need to be procured?
	Are some of the above mentioned features available only at a certain price?
Flexibility	Can the software be integrated with other educational tools such as Polly?
	Are there features to write equations/math symbols on Whiteboard?
	Can we import/draw more sophisticated graphs and illustrations ?
	Can polls be integrated into the software to engage students?
	Does it offer a student programme monitoring facility?
Privacy	Can non-participants start recording without permission?
	Can participants invite non class/non institution members?

#### 4.1.4.3 Technology – Hardware

As faculty and students shift to the online classroom model, the faculty and students should have a minimum requirement of hardware to participate in the online classroom. This would essentially include –

- **Laptops/ Desktops** – These would be required for students to attend classes, and faculty to conduct their classes. Given the nature of online classes, it is important to consider that the system has following:
  - Camera
  - Microphone
  - Software upgrades
  - Operating system upgrades
- **Stylus enabled Smart Tablets** – To bridge the gap between the physical and virtual classrooms, a Stylus enabled Smart Tab can be used as a marker to write on top of presentations and as a complete replacement to a physical White-Board.

Alternatively having a smartphone/ tablet can also ensure access to online classrooms. However, it may be challenging to use for assessments that require typing out long texts

*To ensure smooth and continuous online classes without any interruptions of fluctuations, continuous and uninterrupted power supply is important*

#### 4.1.4.4 Power

To ensure smooth and continuous online classes without any interruptions of fluctuations, continuous and uninterrupted power supply is important. It is important that-

- The supply is available continuously throughout the class to support the class continuity and completion.
- It is available sufficiently during non-class hours so that the faculty has sufficient time for research and preparation.

While this will be a function of the power backup implementation in the residences of students and faculty, some additional ways forward are:

- **Procure and supply Uninterrupted Power Supply Devices (UPS)** – Supply UPS devices to faculty where distribution is feasible. The UPS device can be connected specifically to the Wi-Fi router, and ensures that during temporary power outage, the router continues to function and does not create fluctuation in ongoing classrooms
- **Re-evaluate annual maintenance contracts** – In case the faculty is based out of the institution provided lodging, the institution can work closely with the Power Backup providers to reinstate their Service Level Agreements to have improved output.

#### 4.1.4.5 Connectivity

Connectivity is key to taking classes online. The following should be key considerations:

- Infrastructure & Devices
- Bandwidth
- Continuity

## Infrastructure & Devices

• It is recommended that broadband connections & devices are provided to faculty at their homes. This will require additional router installation and broadband packages. The availability of good connectivity & devices for students shall also be ascertained.

### Bandwidth

- A suggested 10-100 MBPS bandwidth could be enabled to ensure that the faculty is able to disseminate the required learnings, and files, and have at least their camera on for the duration of the classroom.
- High-speed internet connection is important and therefore either high-speed broadband connection should be in place or the institution could provide a one-time allowance to faculty to get the connection and opt for monthly packages sufficient to cover data needs for teaching.

### Continuity

- It is critical to have primary and backup infrastructure in place.
- FTTH (Fibre-to-the-Home) should be considered to ensure high-quality internet connection in the campus residence/ hometowns.
- Institutions may consider providing their faculty additional mobile phone data packages, or some level of reimbursement, to enable quick transfer to mobile internet in case of a Wi-Fi breakdown.

*High-speed internet connection is important and therefore at least high-speed broadband connection should be in place*

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## 4.1.5 Protocols

### 4.1.5.1 Grading Policy

Under present circumstances, the institutions should definitely have an end term examination. However, for the examination and assessments, they may consider changes in grading policies including changing assessment criteria in certain non-core subjects. The options that can be explored are:

- Allow students to opt for a pass/fail grading for individual subjects (and avoid using these subjects in calculation of overall CGPA)
- Reduce pass percentage for each course
- Change the criterion for conversion of percentages to letter grades
- Remove policy of relative grading for one semester
- Use absolute grading instead of relative grading.

Since the outcomes of these changes will be imprinted on grade cards of all students, these may have long term implications. Further, regulatory requirements on exceptions and changes allowed for fulfilling degree requirements should be taken into consideration before finalising the policy. Thus, a coordinated effort from institutions and regulators will be required.



#### 4.1.5.2 Attendance

The institutions need to modify the attendance policies. Given the possibility of asynchronous learning and poor connectivity during synchronous sessions leading to students dropping out of sessions, 70-75% attendance mandated by most regulators and institutions may not be feasible. Therefore, institutions should focus more on ensuring effective learning for the students as a measure of the student's success and not attendance which may not be the right reflection of a student's participation given the possible constraints due to personal reasons, health limitations, or lack of infrastructure. To ensure this, the institutions can implement the following three systems as a replacement for attendance:

- **Continuous Assignments** – Instead of input-based measures like classes attended, a better measure could be submission of assignments on time. The regulators, as well as institutions need to provide modified attendance policies before semester begins. The exceptions granted should not create a hurdle for students in fulfilling the degree requirements.
- **Unique Class Assessment** – Since availability of recordings may deter students from joining live classes, faculty may provide students short 15 minute assignments based on the content of class learning, which ensures that students go through the class content in one way or the other.
- **Periodic interaction with parents** – Additionally, to avoid misuse of the flexibility provided, a system could be put in place to share a weekly attendance report of the students with their parents. However, for this, the institution needs to define what qualifies as attendance (minimum 30 minutes attended/ logged in during the first 5 minutes/ present during multiple roll calls during the class).

#### 4.1.5.3 Student Code of Conduct

Online classrooms are vulnerable to misconduct which may have been controlled under the scope of a physical classroom. This can include

- Pushing students or faculty out of the virtual class
- Muting the faculty
- Scribbling on the whiteboard or deleting what the faculty has written
- Inappropriate chatting and display of audio/video etc.

Two key approaches to ensure e-classroom discipline are-

- Technology enabled restrictions
- Policy enabled discipline

#### Technology driven approach

A large part of this can be controlled by enabling technology. Therefore, while identifying the online classroom software, there can be two types of rights – Presenter and Attendee.

*Institutions should focus more on ensuring effective learning for the students as a measure of the student's success*

### Presenter Rights/Restrictions

- Able to mute any participant
- Able to give entry to participants
- Able to remove any participant
- Able to share screen
- Able to authorize any participant with additional rights such as screen-sharing
- Able to record the session

### Attendee Rights/Restrictions

- Unable to mute/unmute other participants
- Unable to add/remove other participants
- Unable to share screen unless authorized by the faculty
- Unable to record

As per default settings, faculty can be provided Presenter rights, and students can be provided Attendee rights. Over and above this, any other participant such as IT/ Teaching Associates/ Specific Students such as Class Representatives(CR) can be provided additional rights based on faculty authorization only.

### **Policy driven approach**

While technology can be used to place certain restrictions on the participation of students, some level of flexibility will have to be put in place to ensure collaboration. Therefore, it is important to define the following:

- Code of Conduct in the classroom
- Code of Conduct regarding assignments, and non-class work, especially around plagiarism
- Policy on usage and data privacy of class recording
- Disciplinary actions for misconduct

Additional the following exercises can help ingrain the discipline in the very culture of online classrooms:

- Frequent informal emails
- Re-iteration of importance of code of conduct by faculty at the start of a class
- A workshop or webinar at the commencement of a term, and once at the midpoint of the semester stressing the importance of discipline

*While technology can be used to place certain restrictions on the participation of students, some level of flexibility will have to be put in place to ensure collaboration*

#### 4.1.5.4 Faculty Training on E-teaching

In present circumstances, sticking to the predefined course outline and not modifying it to suit online classrooms may prove problematic since a uniform course delivery may not be possible across all constituent colleges. It may be useful to allow individual faculty members certain flexibility in curriculum delivery and even assessment based on the recommendation in the previous sections. However, this will require training all faculty members in curriculum planning and development and involving them in curriculum revision. The Professional Learning Committees can act as a good platform to take such initiative. Also, given the need to move from blackboards to online screen sharing, the faculty across institutions will need to be provided with the right support to enable a smooth transition.

To retain the pedagogy and the curriculum in an online mode, technology will need to be utilized creatively. However, for that the faculty will need some forms of training:

- **Technology Training** – To understand the software and how to use various subordinate applications to enhance their classrooms.
- **Best Practices Training** – To understand creative ways of engaging students online through surveys or polls. Therefore, it would help to document the best practices used by the faculty or experts from the industry and circulate it among the faculty.
- **Virtual Teacher Training** – To make faculty aware of MOOCs which can be used (Coursera/ Swayam) to enhance their curriculum. Institutions that have experience of using online platforms for delivering courses in the past can also conduct webinars and virtual workshops that can be attended by faculty members from any institution.
- **Faculty Network** – Create a discussion board which connects faculty with each other to discuss the various ways of better utilization of technology to facilitate learning and discipline.
- **Engage Student Support** – The current generation of students being more tech-savvy can be engaged to support the older faculty who may have inertia in using technology. Therefore, assigning one student to each faculty during the classroom may provide them the required support.

In addition to this, the following resources or actions may further enable, streamline, and standardize the online teaching methodology of faculty:

- **Central training repository** – Engage with central educational authorities to create a central training repository which can then ensure standardization of e-content preparation across HEIs.
- **Provide free access to relevant MOOCs** – There are online MOOCs on online education which can be purchased in bulk for the faculty to train them.
- **AIU sponsored free online self-paced capacity building programme** – This is developed by QASPIR to train teachers in online teaching. The overview is available at - [https://aiu.ac.in/documents/index/announcement/AIU\\_QASPIR\\_Online\\_Course.pdf](https://aiu.ac.in/documents/index/announcement/AIU_QASPIR_Online_Course.pdf)
- **Online Programme Management (OPM)** – Based on a budget analysis, institutions may also tie up with OPMs who provide professional consulting on how to adapt the curriculum to the online environment.
- **Cross-training** – Develop a cross-training programme during the break periods among the faculty to understand best practices from each other.

*The current generation of students being more tech-savvy can be engaged to support the older faculty*

#### 4.1.5.5 Mental Health and Well Being

The current pandemic has caused a lot of emotional duress to people across the nation. This has only further aggravated the state of mental stress caused by everyday life in the current century. Additionally, while families have to deal with pay cuts and job losses, they have to engage in work from home, while the children also need access to the resources to study from home. Also, given that students do not have access to the emotional and social network of being on campus, and everyday contact with peers is limited, this may have a negative impact on mental wellness. Under such circumstances, it is important we explore the following mental wellness options:

##### Access to Counselling

- On-board a team of counsellors who are available on call/ email
- Tie up with online counselling platforms such as 'YourDost' which provide 24X7 online counselling services and various discussion boards
- Peer-to-peer sharing via anonymous written pieces or virtual hearing sessions can be organized.
- Consider organizing weeks/days dedicated to Mental Health awareness
- Create campaigns online and virtual Talk Circles to create awareness
- Organise virtual creative workshops to engage students such as workshops in art therapy
- Ensure regular emails to maintain constant communication with students and faculty through periodic video emailers containing useful tips and resources on Mental Health and Well-being.

##### Webinars to create awareness

- Plan webinars where esteemed speakers address audiences on ways to preserve their mental wellness

##### Informal student interactions

- Plan inter-student online activities which facilitate student connections which are not academic in nature. This will allow students to engage with each other, and have an opportunity to create bonds which can support them in times of distress.
- Monitored student discussion boards and blogs

##### Faculty-Student sharing sessions

- Create more opportunities for faculty and students to connect in a one-on-one or many-to-one format so that the students get a chance to be mentored by their faculty.

##### Youth affairs virtual programs for Students

- As students are missing the Campus ambience, the universities may arrange online cultural program, like 'Kuch Artistic Karo-Na' by AIU<sup>8</sup> to keep their spirits alive.

##### Mitigate 'V-con fatigue'

- Video-Conferencing has resulted in fatigue and therefore it is important to give students periodic days off to ensure they can recover from the fatigue.

*Video-Conferencing has resulted in fatigue and therefore it is important to give students periodic days off to ensure they can recover from the fatigue*

<sup>8</sup><https://www.aiu.ac.in/documents/youthaffairs/Letter%20reg%20Kuch%20Artistic%20Karonna.pdf>

#### 4.1.5.6 Policy on Classes Commencement

Institutions should plan to open their academic year a week earlier than usual. This extra week can be utilized to test the software and hardware, and help students and faculty members navigate the new digital protocols, SOPs, and spaces (e.g. Moodle, OneDrive, Piazza etc.). The extra week will also help faculty members take demo classes and students to attend lectures, submit and resolve doubts, upload assignments and receive mock feedback and grades. This will likely reduce the time wasted during the actual semester. The IT department and the library staff can be engaged to take the lead in conducting sessions for students and faculty to help them become familiar with the IT tools being used by the university.

#### 4.1.5.7 Policy on Data Privacy

In the context of the online classroom, an **Information Security and Data Privacy Policy** should be defined. Following areas should be considered while defining the policy:

- Intellectual Property for research work of the faculty
- Intellectual Property for external work such as videos or documentaries being used during online classrooms which are recorded)
- Discussion of views of students and faculty in an e-classroom setting, which may be recorded
- Recording usage
- Recording restrictions, if any
- Legal and regulatory compliance

Additionally, based on the finalized policy

- Non-Disclosure Agreement should be created and signed off by all students
- Policy Awareness emails should be circulated

Also, it is important to work on the technology infrastructure to ensure

- Restricted access to classrooms to avoid external intrusion
- Restricted access to viewing and editing of class room recordings
- Limitation of access on who can record the sessions on the application

*In the context of the online classroom, an Information Security and Data Privacy Policy should be defined*

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## 4.2 PHYSICAL MODE (RESIDENTIAL/SEMI RESIDENTIAL/NON RESIDENTIAL)

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### 4.2.1 Teaching & Learning Activities

Given that the physical mode is the usual mode utilized for classes, the teaching and learning activities can be conducted as per the usual methodologies. Therefore, the curriculum, course outline, pedagogical implementation, experiential learning will not be affected since the faculty and students will be face-to-face in a classroom which is 'business as usual'. If any adjustments are required, the guidelines for online mode could be utilized.

However, there will have to be norms of social distancing and other health-and-safety precautions which will need to be practised. This may require:

- **Re-structuring the class size** – This needs to be done to ensure social distancing.
- **Re-planning the time** – Since the class size will be smaller, the faculty may have to take extra classes. Therefore, academic planning in terms of class allocations to faculty and time academic calendar will need to be re-evaluated.
- **Additional infrastructural requirement** – This can be put in place as stated further in the document.

Further, the possibility of disruption of classes due to COVID-19 cases that may emerge on campus cannot be ruled out. Even when classes may continue, some students may show symptoms of COVID-19(similar to common flu during winter) or be tested positive, thus making it impossible for them to attend classes. Hence, the institutions need to ensure that all physical classes are video recorded and the videos are uploaded on LMS. As a result, all suggestions made for online mode will still remain relevant in physical mode of operations.

*Paper based submissions could be avoided whenever feasible*

### 4.2.2 Assessments

In the physical mode, the assessment activities can be conducted as usual. In place of only mid and end-term examinations, a system for continuous assignments and examinations could prove useful. However, paper based submissions could be avoided whenever feasible.

#### Safe Collection of Submission

- Students need to wear gloves while submitting
- The submission centre needs to be managed to ensure social distancing
- Safe disposal of student gloves

#### Safe Storage of the submitted documents

- Ensuring that the documents are quarantined for several hours before sending for evaluation
- Sanitization of documents

#### Safe deployment to the faculty and back

- Post the storage time completion, there has to be a predefined safe supply of the answer sheets from the storage area to the faculty and back for retention in archives
- Along with answer sheets, pairs of disposable gloves should also be provided to the faculty

### **Physical Infrastructure** (*for sit-down examinations*)

- Physical infrastructure to ensure social distancing of seating
- Placement of transparent shields between students and ensuring that students wear masks all the time
- The handing out of papers and exam sheets to students, and back to the faculty, will need to have a defined process
- Policy of using restrooms to avoid crowd-gathering will need to be identified
- Sanitization of the centre between examinations

### **4.2.3 Non-Classroom Activities**

Any non-contact based activities can be resumed but with policies around social distancing and sanitization processes.

- **Cultural and Non-Physical Activities** - These can continue as status quo, however with social distancing norms.
- **Sports Activities** – Those that involve contact will need to be suspended (gym, football, cricket, rugby, kabaddi, boxing).
- **Additional Activities** – Activities such as Pilates and Yoga can continue while observing social distancing and sanitization norms.

*The high population density of campuses also make them vulnerable to outbreaks and quick transmission*

### **4.2.4 Infrastructure**

#### **4.2.4.1 COVID-19 Testing Infrastructure**

With students, staff and faculty coming to the campus, there is a high risk-exposure given that they could be carriers of the coronavirus, especially those who are asymptomatic. The high population density of campuses also make them vulnerable to outbreaks and quick transmission. Institutions should be cognizant of the fact that residential campuses may have students making one time entry; however, given that they may be coming from other cities via flight/train/other public transport, the risk for residential institutions will also be high. In the case of non-residential campuses, the fact that students may travel to and from the campus on a daily basis using public transport, increases the risk exposure by the virtue of frequency of access to areas of high risk exposure.

In all cases, faculty and administrative staff will enter and exit the campus on a daily basis therefore increasing the overall risk exposure. Hence, it is critical to take preventive measures which will try to allow entry on campus only if the students/staff/faculty are COVID-19 negative. Consequently, testing is crucial and needs to be conducted at multiple stages.

#### **Ideal Situation**

##### ***Stage 1 Testing: Campus entry***

No entrant should be allowed on campus until they have taken a COVID-19 test and the report is negative. This implies that the entrant needs to take a test, be completely quarantined, and wait till the results are available. One will have to take the risk of assuming that in the period between the test and outcome, the entrant was not exposed to the virus.



### ***Stage 2 Testing: Post campus quarantine (Non-Residential)***

After entering the campus, the students will need to be quarantined for 2 weeks, following which they will need to be tested again before entering the campus based on the test results.

### ***Stage 3 Testing: Periodic Tests***

A periodic test should be taken proactively based on testing kit availability, especially for asymptomatic students.

### ***Stage 4 Testing: Symptoms check***

For students/ faculty/staff moving in and out of campus, daily self declaration, symptom check, and testing may need to be done.

### **Additional Steps: Ideal Case Scenario**

- Students should be quarantined for 2 weeks off campus before entering the campus.
- Given that the staff and faculty may move in and out of the campus, daily testing should be conducted
- For non-residential campuses, daily testing of students should take place

However, the lack of feasibility of the above ideal-case scenarios shows that the physical campus will always be exposed to the risk of transmission.

### **Additional Infrastructure**

In order to having a robust testing mechanism, the following infrastructural implementation will need to be in place:

#### **• Self-Declaration Forms**

- Online self declaration forms to be completed prior to entering the campus by students, staff, and faculty
- For daily entrants, an online submission of daily declaration

#### **• Online Symptom-Check Portal**

- Create an online web portal where entrants need to submit a status of their symptoms and identify them in low/medium/high risk categories

#### **• Testing Kits**

- To ensure the required testing, COVID-19 Testing kits will need to be procured
- Supply chain of testing kits will need to follow all safety standards

#### **• Testing Centre**

- To facilitate the testing a designated area will need to be assigned
- Sanitization will need to be conducted post every round of testing

#### **• Testing Disposal**

- Safe disposal system will need to be in place
- Additional gloves, masks for the testing team

*Online self declaration forms to be completed prior to entering the campus by students, staff, and faculty*

- **Symptom Infrastructure**

- Additional infrared thermometers for checking temperature

- **Campus Security & Testing Team**

- Entry security check to be conducted keeping in mind social distancing and other safety norms

- Frisking should not be allowed

- Baggage sanitization infrastructure needs to be put in place

#### 4.2.4.2 Classroom Capacity Upgradation

Students will need to be seated in a class based on the social distancing norms ensuring the required safety norms. Therefore, the classes will need to be planned in order to comply with these requirements. As a part of this, the following steps will need to be carried to ensure safety in academic planning:

- Assess the seating capacity of classrooms based on the social distancing norms (front, back, diagonally)
- Based on that, re-assess the class sizes for the upcoming semester
- Identify the additional classes that will need to be conducted
- Plan the academic time table and the additional faculty allocation

There will also have to be procedures defined to enter the class, occupy the seats, and exit the class to ensure that the social distancing norms are maintained at all times. Similarly, the timing of closure of all classes will need to be planned in a way that overcrowding of corridors is avoided at the start and the end of the class.

*Students will need to be seated in a class based on the social distancing norms ensuring the required safety norms.*

#### 4.2.4.3 Common Infrastructure Upgradation

Classrooms are utilized based on defined timelines. Therefore, controlling classroom utilization is more manageable. However, common areas which are not time-bound will need to have controls in place to ensure that even when the students/staff/faculty members use it in absence of any vigilance, they follow strict rules of social distancing. Additionally, given the common use of the infrastructure in these areas, there will need to be additional infrastructure in place to mitigate the risk of transmission. Some of the key areas which will be in the scope of the required infrastructure upgradation include, but are not limited to:

- Washrooms
- Cafeterias
- Library/ Reading Rooms
- Laboratories/ Studios/ Communal areas

Based on the type of usage of the above mentioned areas, some of the infrastructure and processes that may be considered for implementation have been stated below.

##### **Library / Reading Rooms**

- Make the visit to the library/reading room based on appointments, so that the count of people accessing the library can be controlled at any given point in time
- No-touch system for issuing books and registrations

- Exclusive book handlers for selection, placement and handling of books – They will require masks, gloves, and constant changes for the same.
- Plexiglass barriers at counters, and on tables
- The seating on tables will need to be earmarked based on norms of social distancing
- Periodic sanitization
- Dedicated quarantine space for books returned
- Additional process to be defined on the entire supply chain of books from shelves, to handlers, to student, back to handlers, to quarantine and back to the shelves
- Ideal case scenario – Build a digital collection to minimize vulnerability arising out of using physical libraries

### **Washrooms**

- Limit the count of users who are allowed at any given point in time
- Utilize foot knobs/pedals to avoid using hands to open doors
- Use automated taps, soap dispensers, hand dryers which have no contact with the devices
- Toilet seats to be sanitized with each use
- Periodic sanitization

### **Cafeteria**

- Seating arrangement keeping in mind the social distancing norms
- Plexiglass on tables
- Ideal case scenario – Provide packed food which is to be distributed by delivery only and directly to the hostel rooms

### **Laboratories / Studios**

- The capacity will need to be replanned based on social distancing norms
- Correspondingly additional lab/studio classes will need to be planned for
- Devices will need to be cleaned after each individual usage
- Strict protocols on using gloves while handling devices
- Ideal case scenario – Limit contact with common devices to only what is absolutely essential to the learning process. Otherwise limit it to the faculty for displaying purposes only.

**Common Rooms such as Clubs and Sports Complexes** – It will be advisable to keep these facilities out of bound till the pandemic subsides unless absolutely necessary. If essential for academic purposes, the HEI should follow the customization of infrastructure and sanitization. Guidelines mentioned above may be taken into consideration.

*Limit contact with common devices to only what is absolutely essential to the learning process*

#### 4.2.4.4 Radius Based Facilities

Given the sensitivity of the current pandemic and the health risks associated, it is critical that certain facilities are available within the proximity of the campus of the institution to allow for timely access to medical services. This will be particularly critical for residential/semi-residential campuses where students are completely dependent on the institution to provide them support in accessing medical services.

#### Hospitals / Dental Services/ General Physician Clinics / COVID-19 specific Hospitals

For any medical care or attention which cannot be provided on campus, there should be a tie-up/referral service with a hospital which attends to cases of medical emergencies including but not limited to COVID-19. There should be an ambulance service available from the campus to enable the mobility of potential patients to the medical centre.

#### Pharmacy

For medication required to treat medical conditions there should be a pharmacy available on campus, or there should be a tie up with a local pharmacy. Preferably a delivery service should be put in place for delivery of medication to students since this will avoid back and forth of students/faculty/administration staff and in turn reduce the overall risk exposure of everyone on the campus.

#### 4.2.4.5 On Campus Quarantine Centre

Given that students, staff or faculty on campus may test positive for COVID-19 during the various stages of testing, or may show symptoms, there should be a predefined quarantine centre on campus for immediate use. For residential campuses the capacity of the quarantine centre will need to be higher given that students stay on campus and may need quarantining a lot more frequently, and with no option to self-quarantine at home.

Some points to be taken into consideration while planning the quarantine facilities:

#### Design Guidelines

- Locate it so that it has maximum isolation potential on the campus.
- Segregate the quarantine facility into three independent sections - distinctly COVID-19 positive, strong symptoms, and mild symptoms to avoid potential transmission within the quarantine centre.
- The bedding within the quarantine centres should ensure norms of social distancing.
- There should be constant sanitization of the centres. The housekeeping staff designated to these should be given PPE since these will be high risk exposure areas.

#### Security Guidelines

- Special signage indicating restricted access to avoid students, faculty and staff from accidentally entering the quarantine centres.
- Additional security should be put in place to restrict access to these facilities.
- Access-List should be created which documents the list of people with authorized access to these centres, and a list of people authorized to bring in students/staff/faculty for quarantining.

*There should be a tie-up/referral service with a hospital which attends to cases of medical emergencies including but not limited to COVID-19*

#### 4.2.4.6 On Campus Healthcare Services

To provide immediate treatment of COVID-19 cases, it is recommended to have on campus healthcare infrastructure. Also for residential campuses, it is important to have a holistic healthcare centre to address the medical needs of students, staff and faculty. In order to ensure this the institutions should establish leadership such as a Chief Health Officer (CHO) to develop teams and systems. The facilities to be provided can be structured as per the following compartments in order to ensure maximum coverage.

- **Compartment 1:** Primary Healthcare
- **Compartment 2:** Emergency First-Aid
- **Compartment 3:** Well equipped Ambulance
- **Compartment 4:** Tie-ups with Multispecialty hospitals
- **Compartment 5:** Healthcare Awareness
- **Compartment 6:** Lifestyle Modification Awareness to promote healthy living
- **Compartment 7:** Qualified and well-trained Healthcare Team

In addition to this, the institution should enable their Health Centres with the following for ensuring holistic services to the students, faculty and staff who need on-campus emergency treatment, and show a positive result on the COVID-19 test.

#### Medical Mobility

- Ambulance with PPE and air purifying respirators

#### Preventive Infrastructure

- PPE for healthcare staff
- Masks (N-95 for healthcare staff)
- High frequency sanitization of the medical centre
- Oximeters
- Infrared Thermometers

#### Medical Devices and Spaces

- Emergency room fully equipped with Ventilators, Defibrillator, Multipara Monitors, 12 Channel ECG Machines, Suction Machines, Autoclaves and emergency medicines. This is to provide urgent medical attention for emergency patients
- Fully equipped Flu Wards
- Physiotherapy unit

#### Healthcare Team

- Clearly defined organization structure including a CHO/ Director of the Centre and a team of doctors and nurses
- Additional doctors and nurses trained for emergency COVID-19 cases
- This team should also be able to handle the anxiety of the incoming patients. Additionally, an in-person counsellor being present will help alleviate the stress generated amongst students, faculty and staff.

*The institution should enable their Health Centres with the following for ensuring holistic services to the students, faculty and staff who need on-campus emergency treatment*

#### 4.2.4.7 Ancillary Infrastructure

Given the backend operations of the Building Management of any campus, it is crucial to ensure that there is relevant upgrade made to the ancillary infrastructure to ensure minimization of risk exposure. With the given risk associated with transmission through air and surface, the equipment associated with air ventilation and water supply should be specifically considered by the institution. There should also be sufficient, upgraded infrastructure for fire safety and procedures around it need to be revised to align with the social distancing norms.

##### **Air Contitioning**

- Conduct a ventilation and hazard assessment of centralized air conditioners
- High Efficiency Particulate Air Filters to be used (HEPA) wherever feasible
- Monitoring process of air quality
- Regular servicing, sanitation and maintenance of HVAC
- Air Purifier installation

##### **Water Supply**

- Advance maintenance to sanitize the water supply system from the bacteria that may have resulted from the long period of lack of usage of the system - Draining, purging, cleaning treatment, disinfecting the water system.
- Cleaning and sanitation of water tanks
- Maintenance and sanitation of geysers
- Safe management of water supply and distribution
- Sanitation and maintenance of drinking-water fountain stations (if applicable)
- Higher frequency of water testing to be conducted by National Accreditation Board for Testing and Laboratories (NABL)

##### **Fire Safety**

- This is particularly important given the increase in use of hand sanitizers which have alcohol as an ingredient, making it flammable.
- Pre-defined storage area for hand sanitizers procured by the institution. Fire Safe doors for such an area.
- Identify protocol of use of sanitizers, and create awareness displays in multiple locations, especially frequently used locations, and ones vulnerable such as kitchens
- Preventive maintenance of all fire extinguishers placed on campus
- Fire safety training for all students, faculty, and staff
- Identify the new set of fire evacuation spots to ensure maximum possible social distancing under these circumstances
- Provision of masks in evacuation areas to be used during an emergency evacuation

*It is crucial to ensure that there is relevant upgrade made to the ancillary infrastructure to ensure minimization of risk exposure*

#### 4.2.4.8 Specialized Infrastructure for Residential/Semi Residential Institutions

Given that students in residential/ semi residential programmes live on the campus, it is important to make the campus living safe and self-sufficient. Therefore, the student housing provided, as well as the facilities on campus over and above the healthcare services, will need to be accounted for. This is particularly important since the students are living away from their families, without their emotional support, and are not within the safety of their homes. Provision of such safe space will also ensure restriction of the movement of students outside the campus and therefore, minimize their exposure to the risk of catching the coronavirus. The sanitizers shall be available at many designated places.

##### 4.2.4.8.1 Hostel Infrastructure Upgradation

Given that students in residential/ semi residential programmes live on the campus, it is important that the student housing/ hostels are planned in a way that minimizes the exposure to risk for students living on the campus. The student housing accommodation would need to account for the following parameters:

- **Revisiting the Assignment of Accommodation**

The students staying in the hostel/ accommodation will need to be planned based on the minimum social distancing to be maintained

- **Usage of Common Areas**

Common areas such as washrooms will need to follow the washroom sanitization guidelines stated above. Other common areas within the student housing used for communal gathering will need to be suspended, and used on a need-only basis based on authorization of hostel warden

- **Sanitization Procedure**

Room provisions such as bed linen, and overall sanitization will need to have additional housekeeping services in place. The rooms will have to be sanitized more periodically. However, it will need to be planned in a way to ensure no contact with the housekeeping services.

- **Emergency Protocol**

An emergency protocol will need to be defined in case a student is found symptomatic or has tested positive for COVID-19 to ensure calm is maintained, and necessary actions are taken to quarantine and test peers living in the same accommodation

*An emergency protocol will need to be defined in case a student is found symptomatic or has tested positive for COVID-19*

##### 4.2.4.8.2 On Campus Utilities

Given that students will be on campus at all times, daily utilities will need to be accounted for. This will ensure that the students need not leave the campus for any requirement and ensure minimization of risk exposure for themselves and for the entire community on the campus.

#### Frequently Used Utility Services

- **Groceries** – It is recommended that the grocery stores do not allow buyers but instead take online orders and deliver it to the students.
- **Stationery** – It is recommended that the stationery stores do not allow buyers but instead take online orders and deliver it to the students.



- **Laundry service** – It is recommended that students resort to self service. However, for those who choose to opt for the external laundry service, the following should be considered -
  - The service providers should use gloves, which need to be changed with each student's apparel
  - Room pick up/ delivery only
  - Face shields, masks, gloves for delivery staff
  - Frequent sanitization of the laundry centre

#### **Additional Steps for On-campus Services**

- Entry sanitization and quarantine of goods on receipt
- Frequent sanitization of the centre
- Digital payments
- Physical protections (masks, gloves, face shields) of the delivery staff
- Follow a predefined procedure for entry, exit and the entire supply chain of the materials
- Delivery protocol to minimize the contact between the delivery staff and students, and sufficient masks/gloves for the delivery staff members

*In order to create awareness, discipline and a sense of responsibility and ownership, a self declaration form should be designed to be completed*

## **4.2.5 PROTOCOLS**

### **4.2.5.1 Self Declaration Forms**

In order to create awareness, discipline and a sense of responsibility and ownership, a self declaration form should be designed to be completed.

#### **Parents / Student**

- They will ensure that students commit to follow all guidelines of the institution.
- They will ensure the students commit to follow all government mandates.
- They will confirm that the student has had no prior symptoms.
- They will declare if the student has been tested positive for COVID-19.
- They will agree to usage of contract tracing to minimize risk exposure of fellow members of the Institution.
- They will declare in case any symptoms have been reported for the students
- They will declare the student's travel history.
- They will declare the status of the zoning of their residential area where the student resides
- They will highlight any other risks observed in entering the campus.

#### **Faculty/ Administration**

It is advised that faculty/administration staff entering the campus also do a daily self declaration to confirm no cases, or symptoms. Entry should be permitted based on this along with the entry level testing and checks.

## Additionally

- This process should preferably be online to make the process paperless. This will avoid paper based contact and also make the tracking process more efficient.
- Ownership of any health mishap will need to be identified and included in the scope of this declaration. Also, identify the stakeholders such as the government (central/state), WHO, and on campus health services which need to be notified for any specific conditions that are observed.

### 4.2.5.2 Mental Wellness Counselling

While the counselling centres (if applicable) can continue to be operational, social distancing and sanitization of the centre will need to be followed post each visit. Also, under such circumstances it is important to explore the following mental wellness options:

#### • Counsellors

On-board a team of counsellors who are available for counselling online or offline. It should be ensured that there is enough capacity of counsellors to meet the demands of one-to-one counselling sessions. Collaborate with online platforms such as 'Your Dost' which provide discussion boards, professional guides, and awareness material remotely for students, staff, and faculty even during non-campus hours.

#### • Awareness

Plan discussions where experts address audiences on ways to preserve their mental wellness. Also create awareness via emails, posters and webinars to create a sense of inclusivity around mental wellness.

#### • Student activities

Plan student connects and online events which are not academic in nature, and allow students to release their anxiety and develop an emotional outlet.

### 4.2.5.3 International Students Support

Given the rise in xenophobia since the start of COVID-19, it is very important to create a physical environment which is conducive for international students and free from any xenophobic acts or racism. Institutions will need to be cognizant of the same in case of international students on campus. In view of this the following steps can be considered for implementation.

#### • Create Sensitization

- Conduct additional training on sensitivity to international diversity.
- Discussions to sensitize the students, faculty and administrative staff.

#### • Create a support system

- Create a buddy network, where a group of international students are assigned one student buddy to help them in case of any day-to-day transactions and challenges.
- Create a mentor network, where a group of international students are assigned a faculty to help them in case of any high level issues.
- Create a special helpline for international students to address issues of any misconduct. This unit can also be trained in additional support services including visa support which the international students may need help with.

*It is very important to create a physical environment which is conducive for international students and free from any xenophobic acts or racism*

#### 4.2.5.4 Contact Tracing

Institutions will need to have a process in place to trace students who may have been in contact with anyone on campus who has been identified as COVID-19 positive. Therefore, an IT Solution will need to be put in place to ensure that there is a robust system for contract tracing. This will require all students, faculty and staff to register on the application, and have it regularly updated by all the members.

In order to achieve this, the institution will have to either collaborate with their internal IT departments to build an in-house application or procure services of an external IT organization which can build a contract tracing application, or provide a ready-made application. To ensure a smooth implementation of setting up a system for contact tracing the following stages should be followed :

- **IT Solution Implementation for Contact Tracing:**

- Stage 1 :** Design, Build and Test the application

- Stage 2:** Upload the details of all the students, faculty and staff

- Stage 3:** Deployment to all the students, staff, faculty

As a part of this, strict data privacy controls will also have to be put in place since it is important to safeguard the sensitive health information which the members registered on the application will provide.

- **Technology**

- Controls should be in place to restrict access of all information to designated staff only

- Controls should be put in place to ensure that members cannot view each other's data

- Controls should be put in place to ensure that only the members of the institution can login and register on the application.

- **Policy**

- Create and circulate a policy on the use of the application.

- Non Disclosure Agreement to be signed on not revealing identity of affected parties.

- Actions will need to be defined for any breaches.

- Terms and Conditions should be clearly documented and shared with members before they register.

In addition to these controls, a compliance assessment should be done with regulatory requirements of information security and data privacy associated with this, and corresponding policy and technology implementation should be customized.

*An IT Solution will need to be put in place to ensure that there is a robust system for contract tracing*

#### 4.2.5.5 Sanitization & Housekeeping

Given that the entire population of students, faculty and staff will often come in contact with the same surfaces and areas, the need for frequent sanitization is very high. These include communal areas, lunch rooms, library, classroom seats, and washrooms. Therefore, processes will need to be put in place for more frequent sanitization. This will require additional capacity of housekeeping. Thus, the institution may consider the following steps to structure their needs, and plan their housekeeping services in synchronization with the needs of COVID-19.

- **Step 1** – Review and assess any guidelines, mandates of the government, WHO or any regulatory body regarding the subject of sanitization and incorporate the same in the final implementation.
- **Step 2** – Categorize locations as high crowd, medium crowd, low crowd.
- **Step 3** – Irrespective of location, identify parts of a location based on contact frequency – high touch, medium touch and low touch areas.
- **Step 4** – Identify the sanitization frequency matrix based on location and contact frequency.
- **Step 5** – Document roles and responsibilities matrix to identify the staff assigned for different locations and the frequency of sanitization. Daily/weekly roster will need to be created and refreshed. Potential fatigue of the staff should be taken into consideration while planning.
- **Step 6** – Document a sanitization procedure, including the materials to be used, and the housekeeping mandates of usage and disposal of gloves, face masks, PPEs.
- **Step 7** – Logs of sanitization to be maintained and monitored on a predefined frequency (hourly, weekly, fortnightly, monthly).
- **Step 8** – Housekeeping protocol to be defined on the usage and disposal of gloves, masks, sanitization material after every use to avoid becoming carriers of the virus. Safety of housekeeping should be considered while planning this

*Irrespective of location, identify parts of a location based on contact frequency – high touch, medium touch and low touch areas.*

#### 4.2.5.6 COVID-19 Testing Procedure

##### 4.2.5.6.1 Residential/ Semi Residential

For residential/semi-residential programmes, it is recommended to have at least the following stages of testing in place.

- **Pre-entry testing**

To be conducted before the students, faculty and staff arrive on campus and submit their results a part of the self declaration attestation (one time)

- **On-arrival testing**

To be done when the students, faculty and staff arrive on campus. (Ideally they should be quarantined off-campus for 2 weeks prior to this).

- **Post-arrival testing**

Ideally, to be done 2 weeks after arrival (students) (not applicable if they have been quarantined off-campus for two weeks before the on-arrival testing).

- **Surveillance testing**

To be conducted on a random sampling basis to capture any asymptomatic cases.

- **Need-basis testing**

To be conducted when anyone reports symptoms.

- **Self-declaration**

A self-declaration form will need to be completed before the first entry on the campus.

#### 4.2.5.6.2 Non-Residential

For a non-residential programme it is recommended to have at least the following stages of testing in place.

- **Pre-entry testing**

To be conducted before the students, faculty and staff arrive on campus and submit their results as part of the self declaration attestation (one time).

- **On-arrival testing**

Ideally, this should be done on a daily basis. However, given the lack of feasibility, symptom checks will need to be done at the least.

- **Surveillance testing**

To be conducted on a random sampling basis to capture any asymptomatic cases.

- **Need-basis testing**

To be conducted when anyone reports symptoms.

- **Self-declaration**

This will need to be completed on a daily basis.

*Frequent entry/exits should be restricted. For emergencies a protocol of authorization should be defined*

#### 4.2.5.7 Campus Entry Procedure

While there is a process for one time entry of students/faculty/staff, there also needs to be a process defined for entering the campus and for frequent entry/exit in the middle of a day to run personal errands or for any other personal commitments. Any member leaving and entering the campus will need to ensure that safety standards are adhered to at all times, to not endanger the remaining community. However, this should be allowed only in case of an emergency and with the permission of parents/ guardians. The HEI should take into account the following at the least while admitting the students and daily entry/exit protocol.

##### 4.2.5.7.1 Entry Protocol

The following should be considered for the students, faculty and administration

- Confirmation of travel history, any history of occurrence of COVID-19(positive test results), or symptoms especially in the last 2 weeks in the form of a self declaration form which is attested and approved for entry prior to the visit. The security team should be provided the authorized list of entrants.
- Check for symptoms.
- COVID-19 testing.
- Sanitization of luggage.
- Non-contact security test mechanisms which do not involve contact such as frisking.
- Social distancing while entering – To ensure this, there should be time slots provided to entrants.
- Staggered entry to ensure social distancing.
- Frequent entry/exits should be restricted. For emergencies a protocol of authorization should be defined.

- Use of gloves, masks and safe disposal.
- Use of PPE for security guards, particularly those involved in any form of close distance with entrants to evaluate security risks of baggage or the entrant.

#### 4.2.5.7.2. Additional protocol for Residential/Semi Residential Campuses

- Stagger the entry of the entire student population to ensure social distancing.
- Spread the entry across multiple dates.
- Entry to take place by a pre-fixed time slot only.
- Time slots to be planned to buffer for flight delays/ road traffic.

#### 4.2.5.7.3. Additional protocol for Non-Residential campuses

- Stagger the entry of the entire student population to ensure social distancing.
- Provide sanitized and COVID-19 compliant private transportation if feasible to the students, which are compliant with social distancing norms.

#### 4.2.5.8 Campus Supply Chain

As a residential campus, the campus will need to have all provisions for the on-campus population. This will include essential items such as groceries, food/ raw materials, medication, and stationery.

Therefore, a supply chain mechanism to suit the needs of the pandemic must be built in to ensure safety. While planning the supply chain it is recommended to take the following into consideration.

- **Vendor Assessment** – Ensure that the vendor follows the guidelines and mandates of the regulatory bodies to provide goods.
- **Transport Rules** – To ensure hygiene is maintained when the goods are being transported to the campus.
- **Sanitization**– Cleaning and sanitization of the products entering the campus.
- **Quarantine** – There should be safe storage areas of the products to quarantine them before they enter the campus.
- **Distribution** – There should be a process defined to safely transfer the goods from the transport to the storage to the sanitization department to the final point of delivery on campus.
- **Staff Management** – Symptom check and testing of service delivery staff should be done regularly since they are going to come in contact with the members of the community via the transfer of goods.

A smooth procurement process also needs to be ensured. Therefore, the following stages should be considered while evaluating and managing the vendors during times of COVID-19.

- Identify key suppliers.
- Revisit the contracts to ensure timely deliveries.
- Monitor any interruptions in supply of goods.
- Migrate to digital payments only.
- Identify and execute fast track supply of critical goods.

#### 4.2.5.9 Monitoring Activity on Campus

While infrastructure and guidelines are laid down, it is critical to ensure that everyone on campus follows the rules strictly. For this the monitoring can be done in two ways:

- **Physical monitoring**

- High risk areas can be guarded
- Based on feasibility certain areas can be monitored via CCTV
- Faculty can monitor the classrooms

- **Create a Culture**

Given the challenges in monitoring all locations at all times, awareness and policies will need to be put in place to ensure discipline.

- Physical posters and signages.
- Friendly reminders over emails and Whatsapp.
- Use more friendly creatives (such as caricatures) to have a more visual impact and better memory retention.
- Disciplinary action guidelines for breach of rules.
- Self declaration form to have a point on students/ faculty/ staff agreeing to have read all guidelines, and taking complete ownership of implementing the same.

Also while managing the physical activity on campus the following should be taken into consideration -

- All common areas such as lunch areas, reading rooms, and libraries should be visited based on a designated appointment. Lunch rooms should be restricted and if feasible food should be delivered or picked-up only.
- Given that visit to the restrooms during and between classes will have to be staggered, faculty will need to account for the same and adopt the required flexibility.

*For Institutions which may not be able to continue physical classrooms, or utilize online learning, broadcasting of classes could be an alternative*

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### 4.3 BROADCAST MODE (TELEVISION/RADIO)

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#### 4.3.1 Teaching & Learning Activities

For Institutions which may not be able to continue physical classrooms, or utilize online learning, broadcasting of classes could be an alternative. This mode would specifically be applicable in case of the following situations -

- Students of the HEI are in rural areas with no infrastructure for e-classrooms.
- Students of the HEI are from economically backward backgrounds with no capacity to afford the infrastructure required for e-classrooms.

Therefore, the teaching and learning activities can be planned with an underlying assumption that these students would have one of the following:

- **Radio**
- **Television**
- **Mobile phone with basic internet**



In order to plan the teaching and learning activities in a broadcast mode, the following stages can be considered to structure the HEI's way forward:

• **Stage One – Curriculum and Content Conceptualization**

The curriculum needs to be standardized for different courses for centralized broadcasting. Therefore, it is recommended that the curriculum setting and content creation for broadcast is managed centrally and can be disseminated across HEIs as a one-time effort.

**Stage Two – Content Customization**

The content will need to be moulded to suit three formats – audio for radios, video for television, and audio for recordings to be heard on phone. Additionally, the content will need to be translated in various local languages to localize it to the students across different regions.

**Stage Three – Broadcast Partners**

There should be a centralized partnership established with television channels and radio channels which can support the initiative of broadcasting the content. A coalition of HEIs should collaborate with central government authorities to establish such channels of transmission.

**Stage Four – Broadcast Plan**

Once the content has been created and the channels of transmission have been established, a schedule will need to be created to decide the class transmission dates and timings. This broadcast plan should then be circulated to all students. There should be a weekly schedule for different program-year-course combinations and all sessions should be broadcast more than once.

**Stage Five – Helpline**

A Central helpline should be set up where students who are unable to receive the class content can raise their grievances. The university faculty should provide specific time slots for all their course students to call them to clarify their doubts.

*A Central helpline should be set up where students who are unable to receive the class content can raise their grievances.*

### 4.3.2 Assessments

Given the limitations of infrastructure, conducting full-fledged assessments, particularly submission and evaluation of examinations may be challenging. Therefore, it is important that students are provided alternate exercises in sync with the course objectives. Given the home-settings, it will help to keep these exercises and activities low on the duration of time required to complete them; this can be compensated with higher frequency of activities.

Short assessments can be sent out over SMS/ WhatsApp in a few short lines so that students can complete the exercise within the scope of their household. Students can then respond in short paragraphs, audio recordings or photographs of hand written responses to the faculty. For the final examination stage, the following may be considered:

- A set of tutorials should be planned to make up for the limited learning in a broadcast mode.
- Cumulative outcome of the short exercises, followed by an oral viva can be considered for the assessment.

Regulatory guidelines need to be followed at all times.

### 4.3.3 Non Classroom Activities

Given the limitation of infrastructure and mode of communication between the institution and students, non-classroom activities may be executed keeping in mind the same. It will be challenging to engage in virtual group activities, therefore keeping in mind the outlet of stress required for students, and learning of some soft-skills the following activities can be considered.

- **Physical Activities**

- Dance content/ lessons broadcasted on radio/TV/WhatsApp
- Fitness videos on television

- **Other Activities**

- Music content/ lessons broadcasted on radio/TV/WhatsApp
- Short exercises at home (scavenger hunt/ quiz)

- **Additional Learning**

- Educational videos on television
- Motivational speeches on television/ radio/ WhatsApp/ SMS

- **Mental Wellness**

- Setup a central helpline for any wellness grievances for the students/faculty/staff
- Mental wellness discussions for broadcast on television/ radio
- Mental wellness short reads sent over sms / WhatsApp

*Institutions should consider working with government authorities to liaise with television/ radio / telecom channels to broadcast the formulated content on channels as per a pre-designed schedule.*

### 4.3.4 Infrastructure

It is recommended that the Institutions are centrally managed. There can be two approaches:

- **Approach 1** – Formulate your own Content and Infrastructure

HEIs which need to utilize broadcast channels and need the additional support should liaison to form a collaboration. While the content and curriculum can be developed within this coalition, the institutions should consider working with government authorities to liaise with television/ radio / telecom channels to broadcast the formulated content on channels as per a pre-designed schedule.

- **Approach 2** – Utilize existing Content and Infrastructure

Customize the curriculum to the content available on the 'Swayam Prabha' channels and plan the courses for the students. Circulate the details with the students via messages/local panchayats and manage the exercises and non-classroom activities as recommended above.

### 4.3.5 Protocols

The broadcast mode of continuing education can be effective with the right content, customization and broadcast planning. However, it is set by certain limitations, key ones being as follows -

- Transmission of communication and knowledge in one way
- Limited faculty-student interaction
- Limited infrastructure
- Lack of robust assessment of teaching and learning

Therefore, it would be important to identify additional protocols to address the below mentioned areas to make the broadcast learning as effective as possible –

- **Monitoring Procedure**

Given that physical classrooms are not in session, and online technology cannot be used to trace outreach of classes, a plan should be made in liaison with staff, faculty and local panchayats to monitor the outreach of the programme.

- **Training Procedure**

It is important that ways to remotely train the faculty and share best practices with them in a broadcast model is done to educate them on creative ways to engage students to respond to assessments. Planning these centrally will allow minimization of effort and standardization of education.

- **Faculty-Student Interaction Procedure**

Share faculty mobile numbers so students can reach out to them for any concerns. Also, incorporate training for the faculty to support students over phone calls for any grievance.

- **Student Wellness Procedure**

Set-up a centralized mental wellness helpline for students, staff and faculty. Also find means to educate the parents on how to support their children through broadcast channels/ letters/ messages. Local panchayats can be given the responsibility to provide local mentoring and support to the students in villages.

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## 4.4 HYBRID MODE

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Based on the situation and requirements, an HEI may not be able to adopt a pure online/physical/broadcast model. Therefore, based on the feasibility of implementation, mitigation of health risks, compliance to regulatory requirements and effectiveness of teaching and learning, the institution can operate in a hybrid mode.

To better understand the suitability and effectiveness of an approach, and proportion of blending various modes, it is recommended that the HEI runs a survey amongst the students and the faculty prior to commencement of the semester to conclude on the approach (pure models/ hybrid models).

The following case scenarios have been identified which may require an HEI to adopt the hybrid model.

### 4.4.1 Case Scenario 1 - Experiential Learning

For students of most batches, the experiential learning course work, if not feasible online, can be additionally covered in the next year. However, this may not be feasible for final year students. Therefore, in all such situations, a limited physical approach may be required. However, given the human interaction involved in this, it is best if this is avoided given the risk exposure.

- **Studios/Labs/Clinics** – While virtual labs/studios may prove useful for certain basic experiments, hands-on experience with instruments and tools may be necessary for more complex themes. Although the institutions

cannot become accessible for all the students round the semester, they may be opened for limited time to allow students to work on specific experiments in labs and workshops. Instead of bringing all students simultaneously to campus, students can be brought to campus in a staggered manner to ensure social distancing norms are always followed. For example, different batches can come to campus for 15-20 days and use lab/workshop resources exclusively to finish all key experiments/projects during that period. Associated travel arrangements for students from across the country and boarding and lodging arrangements etc. need to be planned accordingly.

Exercising this option will require extensive planning to map experiments within specific courses to lab and workshop resources. Further, the faculty also needs to ensure that the theory work for these specific experiments or activities is finished before lab/workshop/studio work, or immediately afterwards. Since the former is the norm at present, if the latter model of frontloading experiments/activities is followed, the design of experiments/activities, as well as instructions need to be revised to suit the new model. Video recording of the work done in the lab/workshop will prove useful to refer back to the experiments when covering theory after the lab work.

- **Field Visits**– Much of the field work will remain restricted due to COVID-19-related restrictions. Even though the curfews have been lifted, the risk of travelling to sites for field work remains high (for researchers, as well as participants) or curfews could be re-imposed in areas with high/rising infection numbers. In such cases, possibilities of accomplishing field work via virtual interactions and site visits can be experimented with.

Instead of visiting sites in groups, students can choose sites in their hometowns and villages and make visits when possible. Inspiration can be taken from works of ‘Childhood Geographers’ who have traditionally provided cameras to young children to photograph or videograph the places they visit or activities they do during the day. With significant access to camera phones, the participants can be requested to video record the sites that the researchers would have otherwise visited in person. They can also be requested to share their experiences about these spaces and interviews can later be conducted with these participants. Clearances should be taken to ensure legal compliance. Also, there are ethical challenges involved in such projects involving human participants and the Institutional Ethics Review Board (IERB/IRB) can play a key role by creating training modules to sensitize faculty and students and monitor all such projects. Interaction with the vulnerable demographics (older people, people with health challenges, and children) should be restricted completely. This should be planned in advance.

Norms of social distancing, regulatory requirements and all safety measures should be complied with during this physical format of continuing learning, especially in field visits where the need to interact with people will highly increase the risk.

#### 4.4.2 Case Scenario 2 - Resit Examinations

*Norms of social distancing, regulatory requirements and all safety measures should be complied with during this physical format of continuing learning*

An exercise will need to be carried out for scheduling repeat examinations from previous semesters, with priority accorded to graduating batches. If the institution thinks that online examinations are not feasible for these cases, a dedicated 1-2 week window can be provided during mid-semester or end-semester break to conduct these examinations on campus. Since such examinations involve a relatively small number of students, conducting these examinations physically while following social distancing norms should be possible. The key challenge will be to ensure that outstation students who come to campus for these examinations are provided accommodation either in on-campus hostels, or in an alternative place (e.g. an accommodation rented by the institution for two weeks) and proper arrangements are made for food and hygiene. However, for this, all the safety regulations for physical sessions must be complied with at all times.

#### 4.4.3 Case Scenario 3 – Physical Classroom Capacity Limitations

Institutions that begin to resume physical classrooms may face certain limitations to conduct all sessions in the classroom for all students. Given that the capacity addition required to accommodate students (student accommodation/ classroom/ overall campus population density) with the new norms of social distancing may not be feasible, or some students may not be able to come to the campus due to personal commitments/ travel constraints/ health restrictions/ COVID-19 affected, the following blended model can be considered:

- **Option 1 – Split and Rotate the Batches**

- A class can be split into smaller batches.
- The ongoing class can be recorded/ streamed live.
- One batch of students can sit in the class while the rest participate through telepresence.
- The batches keep rotating to ensure all students get an equal opportunity to attend the classes in person.

- **Option 2 – Record/Stream and Disseminate Classes**

- Institutions procure microphones and faculty records the ongoing class on their mobile phones fixed on tripods.
- Recordings are created and put on DVDs/ CDs/ Whatsapp recordings/ Youtube links and shared with students who are unable to attend the campus classroom in the format suitable to be used.
- Stream class videos

#### 4.4.4 Case Scenario 4 – Online Classroom Limitations

Given that some students may not have the required technology, or connectivity to attend online classes, or they do not have laptops/desktops to access the recordings of the online classes, then specifically for these students a broadcast approach may be utilized. The following steps can be followed to implement the same -

- **Step 1** - Institutions procure audio recorders usually used by researchers to conduct interviews and provide them to their faculty.
- **Step 2** - Faculty records the ongoing class video on their mobile phone (placed on a tripod) and high quality audio on the audio recorders.
- **Step 3** - Video from mobile and audio from recorders are merged and recordings are shared with students who are unable to attend the campus classroom.
- **Step 4** - For these students, the submission of assignments can be done via viva mode, or pictures of handwritten assignments.

Alternatively physical classrooms can be provided to these students:

**Option 1-** The institution could plan to bring in such students from remote corners of India who do not have access to internet at home, or can not study at home due to their family-specific circumstances. These students can stay in hostels and attend hybrid or online classes while maintaining social distancing.

**Option 2 –** Campuses could accept enrolment to access their campus for local students. The number of students

*Recordings are created and put on DVDs/ CDs/  
Whatsapp recordings/ Youtube links and  
shared with students who are unable to attend  
the campus classroom*

allowed to access the local campus can be limited. They can use the infrastructure on the campus to access online classrooms. The HEIs which will agree to provide their campus for this will need to ensure that all the regulatory requirements, health safety controls, and norms of social distancing are maintained, including the recommendations made in previous sections.

#### **4.4.5 Case Scenario 5 – Technology and Infrastructure Limitations for Faculty**

Given that some faculty may not have the required technology, or connectivity to take online classes at their homes, the following physical setup can be planned to provide the required infrastructure for them to conduct classes.

- Identify other HEIs that can provide their campuses for use by academics who live in their radius. Also they will need to identify the capacity available in terms of number of faculty who may access it.
- Then faculty with limited infrastructure can coordinate with the university/college campus close to their residence and can use their campus to utilize the power/internet infrastructure to take online classes.

The HEIs which will agree to provide their campus for this will need to ensure that all the regulatory requirements, health safety controls, and norms of social distancing are maintained, including the recommendations made in previous sections.



# **ACADEMIC CONTINUITY - RESEARCH**



## 5.1 IMPACT OF COVID-19-RELATED DISRUPTION ON RESEARCH

Research is one of the key activities of HEIs along with teaching and learning, and community engagement. Teaching, research, and administrative tasks form the core of faculty's life within the institution. During the COVID-19 crisis, research work has been challenged due to the following constraints:

- Constraint 1 – Research requiring access to the field (in case of Social Sciences) or laboratories and workshops (in Sciences) has faced severe disruption.
- Constraint 2 - Those doing research using secondary data, especially those dependent upon large datasets have been impacted either by severed access to databases where access is limited to 'campus only' or on library terminals, or due to lack of computing power on personal laptops.
- Constraint 3 - For several, homes may not provide a conducive environment to do focused reading and writing thus impeding research work.

Besides the challenges, the current pandemic has also presented a new opportunity to conduct novel research on the impact of COVID-19 on various facets of life for researchers from diverse fields, and given institutions the opportunity to reinvent their research to build innovations which will not only support the world in getting through these times, but also allow for a more productive time post COVID-19. This includes medical, operations, policy reforms, and economic research which has allowed us to think out of the box to reinvent the way in which the world operates. Much of this research is ongoing or even published.

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### 5.1.1 ONGOING AND NEW PROJECTS

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Several institutions have placed a moratorium on funding for research projects. While the planned research projects are definitely impacted by such decisions, the ongoing projects may also face disruption due to reduced funding or complete halt. In addition, 3-4 months have already been unproductive from research projects perspective if field or lab work was not yet finished, and will continue since the disruption may continue with no certainty on timelines. Consequently, the faculty may find it difficult to meet project deadlines. The institutions and funding agencies (both public and private) need to identify a way forward for ongoing projects and redraft the timelines and expected outcomes after consultation with concerned faculty members. Therefore, it is recommended that

- Institutions identify their ongoing research projects and commitments.
- Work with their partners to redefine the timelines.
- Identify additional resources that can be organized remotely to enable progress in the research-work.
- Create a central documentation of the above mentioned activities to track it on an ongoing basis.

*Besides the challenges, the current pandemic has also presented a new opportunity to conduct novel research on the impact of COVID-19*

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### 5.1.2 INSTITUTIONAL REVIEW BOARD (IRB)

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Getting clearance for any project involving human participants is mandatory now and several institutions have already created IRB (also called Research Ethics Review Board-RERB) to manage all such research applications. Usually, IRBs meet at regular frequency, but the research landscape is evolving fast in the present situation. COVID-19 crisis has presented several research opportunities that may be available for a limited time. Consequently, IRBs need to move beyond routine meetings to ensure that all research proposals are scrutinized for ethical issues promptly and feedback gets communicated without any time lags. Once the IRB is satisfied with the safeguards put by researchers to protect any harm to research participants, the formal decision should be conveyed without any delay. Expeditious action on part of IRBs will ensure that faculty do not lose good research opportunities. IRB meetings can be conducted remotely to ensure compliance with timelines.

## 5.2 FACULTY RESEARCH OUTPUT ASSESSMENT

The institutions usually include 'research output' in the form of journal article or book/book chapter publications as a key metric in annual review. Due to factors cited above, several faculty members may find it difficult to meet the goals. Another factor that might delay research output could be non-availability of peer reviewers or delay from assigned reviewers owing to the impact of the pandemic in their countries which could result in delayed decisions on already submitted manuscripts. Given the uncertainty regarding the end of the current crisis and due to factors beyond control of individual faculty members, research output may suffer. Consequently, management needs to make decisions about possible changes in the research output parameters for the next one year. Necessary flexibility should be taken into consideration and goals should be revised for the period of the pandemic.

*Expeditious action on part of IRBs will ensure that faculty do not lose good research opportunities.*

VI



# NON-ACADEMIC CONTINUITY

# 6 NON-ACADEMIC CONTINUITY

## 6.1 PLACEMENTS AND INTERNSHIPS

The ongoing pandemic has had an adverse impact on the overall global economy. In addition, due to restrictions on mobility, organizations have witnessed loss of business resulting in salary reductions and unemployment. Therefore, a lot of organizations are going through recruitment freeze and hence, placements may be more challenging in times of COVID-19. However, some strategies that may be built to ensure a strong future for the students are as follows:

- Institution based opportunities
  - Identify in-house research opportunities for research positions.
  - Identify in-house administrative job opportunities.
- Cross skilling to meet existing demands of jobs
  - Create additional online cross-training courses in fields which have job requirements such as technology, healthcare administration to meet the job demands of those sectors.
- Management trainee programmes/ Pro bono work
  - Build partnerships with organizations to create a job opportunity, which identifies shorter and more flexible working hours for the students with lower pay. This can be similar to management trainee programmes or extended internships. The pay package can be pre-set to a standardized hike for a time post COVID-19. Terms and conditions for this will need to be pre-defined.
  - Work with organizations to identify pro-bono jobs which can engage the students effectively.
- International job opportunities
  - Utilize this time to build partnerships with international organizations who will allow work from home. This way a payment in a higher power currency can meet the budget of the international company, as well as, the requirements of the student. However, the HEIs must work based on the legal compliance of this structure with the legal authorities and government bodies.
- Tertiary Education Scholarships/ Fellowships
  - Create opportunities of tertiary education and identify ways to provide scholarships, the cost of which can be adjusted with increase in admission of students who may want to take up online postgraduate degree programmes.

## 6.2 INTERNATIONALIZATION

The transition of educational institutions to online learning across the world has provided an opportunity for students to be a part of foreign education programmes without having to travel, and therefore, brings no major cost investment. HEIs could utilize this opportunity to increase international opportunities through:

### 6.2.1 INTERNATIONAL COLLABORATIONS

- **Friendly Agreements**

Develop friendly agreements and MoUs with international institutions which allow their students to participate in e-classrooms and vice versa. The clauses of the MoU can allow participation in physical exchange programmes post the pandemic. Also, organize lectures by international experts. The HEIs can do online collaboration with national and international HEIs and arrange online lectures by international experts of repute.

*The transition of educational institutions to online learning across the world has provided an opportunity for students to be a part of foreign education programmes without having to travel*

- **Cross-Access of Resources**

Collaborate with international institutions to develop partnerships via which we can have restricted and low-paid access to their classroom recordings, or a mutually beneficial partnership with exchange of recordings

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## 6.2.2 EXCHANGE PROGRAMMES

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An additional layer of complexity will be added in case of dual degree programs conducted in collaboration with a foreign institution, or students pursuing semester exchange. The physical movement to and from India for these programs may not be feasible for the upcoming semester at least and it may be best to suspend any dual degree or semester exchange program temporarily. If the institutions continue with these programs, they will need to engage closely with partner institutions individually. Decisions also need to be taken regarding students whose dual degree or semester exchange programs were curtailed midway due to pandemic related restrictions in home country.

The purpose should be to ensure that the credits earned by Indian students abroad and foreign students at Indian institutions are valid and equivalent for earning their degree even after making the changes to curriculum, pedagogy, assessment, and policies as suggested above.

Dual degree programmes can be updated to allow students to access resources of the other institution, attend online classes, and participate in virtual events. This will enable continuity in the exchange process virtually.

## 6.3 HOLIDAYS AND SEMESTER BREAKS

The institutions need to decide on the following three aspects:

- Length of the work week (5 or 6 day)
- Status of routine holidays during the semester (religious festivals and national holidays)
- Duration and scheduling of the semester breaks (mid and end term)

The institutions may find it reasonable to significantly reduce the number of holidays and increase the work week since everyone is working from home. However, all such decisions need to move beyond utilitarian efficiency arguments and explicitly consider the likely impact of the changes on physical and mental health of students and faculty members. The following should be taken into consideration while planning the holidays and semester breaks:

- **Mental Wellness** - The emerging evidence of work from home, especially during a pandemic, overwhelmingly confirms that such arrangements are more taxing for the individual and have a negative impact on mental health.
- **Study-from-home Fatigue** - The work of teaching, learning, and research requires long stretches of concentrated work. The physical institution campus spaces act as great equalizers providing similar access to resources (including time) to everyone. With these spaces inaccessible now, institutions also need to consider the diversity in the living conditions of the students and faculty members while considering workload during the semester. The long stretches of concentrated work may not be feasible for several students or faculty members staying within joint or big family setups, with very young children or elderly parents, or those staying in cramped houses.

*Institutions also need to consider the diversity in the living conditions of the students and faculty members while considering workload during the semester.*

## 6.4 SEMESTER COMMENCEMENT

### • Existing Batches

For the existing batches, the institutions can plan to open a week earlier than usual. This will be specifically useful for the following two situations:

- For those institutions resuming classes in online mode, this extra week can be utilized to test the software and hardware in case of online classrooms, and help students and faculty members navigate the new digital protocols, SOPs, and spaces (e.g. Moodle, OneDrive, Piazza etc.). The extra week will also help faculty members take demonstrations of classes and help students to attend lectures, submit and resolve doubts, upload assignments and receive mock feedback and grades. This will likely reduce the time wasted during the actual semester.
- For residential institutions which plan to resume physical classrooms, this extra week will be required to ensure staggered entry into the campus.

### • Incoming Batches

For incoming batches, the semester schedule (including start of classes) will depend on the admission process. The institutions that conduct their own entrance examination for specific programs will have a better control over the admission process and semester start dates. In several cases, institutions depend on centralized admission tests (e.g. Common Admission Test for MBA) or process (e.g. IITs or Medical Colleges). The semester start dates need to be synchronized with the respective authority administering the test or process, and there may be greater uncertainty about the semester. All institutions should plan with a routine start, one-month delay, and two-month delay scenarios. Accordingly, they should modify the credit structure, the course requirements (courses offered, curriculum, assessments, and pedagogy), and the semester duration for each of the three scenarios.

## 6.5 ORIENTATION OF NEW BATCHES

Besides credit and course requirements, the institutions need to think about socialization of incoming batches separately, especially if the institutions resume in an online mode.

The Undergraduate students entering institutions will be constrained in their interactions and will have limited knowledge of the institution; not being on campus can further widen this gap for them. Most of the students join institutions from State Boards or CBSE where the focus is on textbook based learning. As opposed to this, institution students are expected to conduct independent research by consulting different books and resources from the library and internet. Further, group assignments are a part of institution culture and most students in incoming batches may not have any exposure to such work. Located remotely, they may not get an opportunity to build a rapport with their group mates, a key ingredient of successful group work. Therefore, institutions need to make extra efforts to socialize students and induct them into institution culture and norms.

- The departments can consider introducing specific courses to expose students to independent reading, writing, and research skills.
- Informal mentoring by faculty members and students from senior batches in the department for small groups can also be considered.
- The institutions can organize district or state level meet-ups for incoming batch students. Students from senior batches can also be invited. Faculty members from these states can take the responsibility of organizing the meetups and ensuring that social distancing norms are followed. If the risk exposure is high, these meetups can be organized online with a special agenda for the incoming batches.
- Additional online meet-ups of incoming batches with senior students and faculty.

The institutions should take this as a serious endeavour to ensure the transition of students from schools to institutions is as smooth as possible under given circumstances.



VII



# THE WAY FORWARD



# 7 THE WAY FORWARD

## 7.1 HIGHER EDUCATION – CENTRALIZED ADMINISTRATION

To ensure the desired academic continuity in Indian HEIs, it is recommended that some of the actions are taken centrally to address common issues across the board including the governance of the planning, regulatory flexibility, quality assurance, funding mechanisms, and centralized academic content management.

### 7.1.1 GOVERNANCE

At a centralized level it is recommended to understand and plan the course of action. For this a central task force should be created to work on creating a repository of HEIs across the country with following details –

- Student Count
- Faculty Count
- Percentage of students via reservation
- Percentage of students with special needs
- Location
- Location COVID Status (Containment / Red / Amber / Green)
- Location type (Urban/ Rural)

It would then be useful to coordinate with all institutions to classify them based on the ideal type of continuity – Online/ Physical / Broadcast/ Hybrid. Based on the type, a readiness checklist should be provided to the institution, which can be self-attested and audited by the HEI. The results of these should be shared with the central task force, to evaluate the current readiness status of HEIs to resume operations.

Based on this, further policy and infrastructure planning will need to be done to support the institutions which have the desired readiness to resume classes.

### 7.1.2 REGULATORY FLEXIBILITY

Based on the various challenges faced in taking forward the semesters in times of COVID-19, physical campuses may not resume for a while. Therefore, if institutions resume classes in online and broadcast mode, they may not be able to accomplish all requirements of an academic year given the various infrastructural and resource limitations. Also, if physical classrooms do resume, they will operate under the new guidelines of the pandemic, thereby, requiring certain flexibilities. Thus, it is recommended that certain essential areas documented below should be considered for certain regulatory relaxation, further to what may have been provided, and that these are regularly revised based on the progress of the current crisis.

- Minimum credits required
- Awarding of degrees
- The required hours of lab and other such activities required per week
- Examinations
- Faculty research

*It would then be useful to coordinate with all institutions to classify them based on the ideal type of continuity – Online/ Physical / Broadcast/ Hybrid*

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### 7.1.3 QUALITY ASSURANCE

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Given the new norms under which classes may operate in the physical, online, hybrid or broadcast mode the quality assurance mechanisms will need to be revised keeping in mind the new normal. It would help institutions, if the central bodies could create a central self-audit quality checklist which can ensure uniform and standardized implementation across all HEIs. This should be different based on the mode of academic continuity and also take into consideration the health-safety of all stakeholders.

*Given the new norms under which classes may operate in the physical, online, hybrid or broadcast mode the quality assurance mechanisms will need to be revised keeping in mind the new normal.*

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### 7.1.4 ESTABLISH FUNDING TOOLS OR BUDGET RELIEF MEASURES

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Based on the initial classification of HEIs, the requirements of HEIs should be gathered as well. This will allow centralizing the procurement of goods and therefore be more cost effective.

The key infrastructure requirements could be

- Online Mode
  - Technology – Software
  - Technology – Hardware
  - Connectivity
  - Power Infrastructure
  - Transportation/Travel
- Physical Mode
  - Testing kits/PPE
  - Sanitization material
- Miscellaneous
  - Microphones
  - Recording Devices

Based on this, the requirements could be aggregated and then based on large numbered requirements, a central agency could collaborate with private sector organizations to provide relief of cost overhead to HEIs in the following ways:

- Subsidized rates for laptops/ microphones/ recording devices and other hardware
- Subsidized rates for internet packages
- Upgradation of Power backup systems and provision of UPS devices at lower rates
- Transport systems dedicated to HEI for travelling to and fro from campus which are compliant with the requirements of health safety

- Subsidized rates for software including recording applications, e-classroom technology, and virtual labs/other experiential learning software
- Subsidized rates for e-resources and digital books
- Subsidized rates for sanitization material

The GOI may also identify funding tools and opportunities to provide some financial respite to HEIs which may be limited by the impact of the admissions. This support may need to be extended to private institutions as well.

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### 7.1.5 CREATION OF CENTRALIZED ACADEMIC CONTENT

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Special teams of Academics can be deployed to create one-time content for online classrooms/ MOOCs for the most common subjects which can then be utilized across all HEIs, similar to Swayam. Additional budget can be assigned for engaging with Online Program Management (OPM) to have a special curriculum built. This way the expenditure can be minimized, the quality can be standardized, and the effort can be streamlined to create class content which gets deployed to all HEIs especially ones which do not have the capacity to create content or conduct online classrooms.

*Special teams of Academics can be deployed to create one-time content for online classrooms/ MOOCs for the most common subjects which can then be utilized across all HEIs*

## 7.2 HEI ACADEMIC CONTINUITY PLANNING

Apart from the centralized governance, HEIs will need to ensure that they plan the commencement of their classes, and create a well-documented and exhaustive Academic Continuity Plan which should also include a Campus-Physical-Readiness Plan in case there is an opportunity to resume physical classes.

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### 7.2.1 MOBILIZATION

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As a part of ensuring smooth continuity of educations across HEIs, each institution should first establish the following to mobilize their academic continuity

- Central COVID-19 Taskforce
- Risk Assessment
- Readiness Assessment
- Infrastructure Planning
- Budget Planning
- HEI Health Services
- Academic Continuity Plan
- Health Safety Plan and Protocols
- Partnerships for Infrastructure

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## 7.2.2 ACADEMIC CONTINUITY PLANNING (ACP)

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As a part of the Academic Continuity Planning, the following steps can be followed:

1. Define Scope
2. Devise Plan
3. Document an ACP
4. Implementation
5. Monitoring and Evaluation
6. Closure of emergency response

### 7.2.2.1 Define Scope

Define scope of actions based on the nature of emergency and tentative timeline after which institution is likely to return to normal. The institution will do well by considering different scenarios, i.e. optimistic, pessimistic, and most-probable, and create frameworks to switch between all three scenarios as the emergent situation becomes clear.

### 7.2.2.2 Devise Plan

In this stage, the institution management needs to identify the following.

- a) Key Stakeholders: Clearly identify the individuals, departments, and committees that need to be engaged in planning and execution of the action plan.
- b) Tasks Impacted: Identify the activities, policies, or processes that will be impacted and require attention.
  - Ongoing activities: Check and document the existing status of the activities (e.g. how much completed, and the specific portions of the task that will be impacted)
  - Future activities: Assess the impact of the situation on next year/semester plans (e.g. placements, new faculty recruitments & onboarding, academic and extra-curricular events etc.).
- c) Policies Impacted and Protocols Required: Of the existing policies (e.g. related to student attendance, academic performance requirements, faculty teaching and administrative workload and performance, etc.), the HEI should identify the policies that will require modifications and the areas which need new policies or clauses within existing policies to manage emergent situation, as per the recommendations made in the previous section.
- d) Need for New Infrastructure: An evaluation should be done of the existing physical/technology infrastructure in place to assess the need for creation of new structures (including facilities, hardware/software, committees etc.) to manage the situation. For example, when COVID-19 forced all teaching activities to move online, additional technology infrastructure and financial resources may be required to facilitate online teaching.

*The HEI should identify the policies that will require modifications and the areas which need new policies or clauses within existing policies*

- e) Coordination Mechanisms: The institution may need to consider mechanisms to coordinate actions across different departments/schools/specializations. While some of the changes will apply across the institution (e.g. semester end dates), others may apply for specific departments or course types (e.g. theoretical courses vs lab/field-work oriented courses). Further, some actions may provide leeway to individual course instructors. Thus, new coordination mechanisms may be required to ensure rationalization of action and smooth implementation of action plans. Further, escalation matrices need to be created to ensure quick decision on the gaps in action plans or resolve any queries from impacted parties. The powers and responsibilities of the existing and new committees or positions need to be defined, along with defining final dispute resolution authorities for specific actions. Therefore, it is recommended that a new task-force/office should be set-up to focus on academic continuity.

Based on the inputs from this stage, each stakeholder will consider in detail the tasks that fall under their purview, define the possible impact on each of the tasks, and devise action plans to address the concerns.

### 7.2.2.3 Document an ACP

Based on the analysis done, create an ACP to include the following -

- Classroom Continuity Plan
  - Teaching & Learning
  - Assessments & examinations
  - Non-classroom based activities
  - Infrastructure
  - Protocols
- Research Continuity Plan
- Non-Academic Plan (Admissions, Placements, Internships, Internationalization, Academic Calendar)

This should also comprise the following -

- Roles and responsibilities
- Task force team details
- Support functions' responsibilities

*It is recommended that a new task-force/office should be set-up to focus on academic continuity*

#### **7.2.2.4 Implement**

Along with creating action plans, create the following as well:

- A responsibility matrix for implementation of all action steps.
- A Coordination Committee that is empowered to ensure all emergency response plans are implemented smoothly.
- A repository of emergency response documents.
- A dedicated web page to inform all stakeholders about the actions taken by the institution as a response to the emergency.
- A folder on Cloud that contains all policy/process documents that were applicable before the emergency situation. A second folder must contain all these documents with relevant changes incorporated. A spreadsheet or web page may be created containing a list of all the relevant policies with their status during emergency, i.e. suspended till further notice, modified partially, new policy, etc. with hyperlinks to the relevant documents in the folder.

Based on the plans, and creation of the above, create a project management plan which will have clear-cut milestones, timelines, and assessment criteria for the progress tracking.

#### **7.2.2.5 Monitoring and Evaluation**

Keep collecting, collating, and sharing feedback with all relevant stakeholders (including the coordination committee). Based on continuous feedback, as well as an assessment of a situation that forced emergency action, revise the specific action as well as the steps as required. While one may start with the most-probable scenario, there is a need to periodically revisit the assumptions to decide whether optimistic or pessimistic scenarios may need to kick in at some stage.

#### **7.2.2.6 Closure of Emergency Response**

After periodic assessment of the situation, once it is decided that the situation is back to normal, declare a date for ending the emergency response. Update all relevant documents with applicable changes when things get back to normal, i.e. previous status fully restored, specific clauses modified for limited period (e.g. mandatory internships can be done in 3rd year instead of 2nd year for one batch), clauses or policies modified permanently, etc. Dissolve the committees created specifically to tackle the emergency situation.

# ANNEXURE 1

## ABOUT O.P. JINDAL GLOBAL UNIVERSITY

O.P. Jindal Global University (JGU) is a non-profit global university established by the Government of Haryana and recognised by the University Grants Commission (UGC). JGU was established as a philanthropic initiative of its Founding Chancellor, Mr. Naveen Jindal in memory of his father, Mr. O.P. Jindal. JGU is one of the few universities in Asia that maintains a 1:9 faculty-student ratio and appoints faculty members from India and different parts of the world with outstanding academic qualifications and experience. JGU is a research intensive university, which is deeply committed to its core institutional values of interdisciplinary and innovative pedagogy; pluralism and rigorous scholarship; and globalism and international engagement.

JGU has established nine schools: Jindal Global Law School (JGLS), Jindal Global Business School (JGBS); Jindal School of International Affairs (JSIA); Jindal School of Government and Public Policy (JSGP); Jindal School of Liberal Arts & Humanities (JSLH); Jindal School of Journalism & Communication (JSJC); Jindal School of Art & Architecture (JSAA); Jindal School of Banking & Finance (JSBF); and Jindal School of Environment & Sustainability (JSES). JGU has been granted with “Autonomy” by the University Grants Commission and the Ministry of Human Resource Development, Government of India, for receiving the highest “A” Grade from the National Assessment and Accreditation Council (NAAC). This makes JGU the only private university in the state of Haryana and one of the only two private universities in India to be given the status of autonomy.

JGU has been ranked the number one private university in India in the QS World University Rankings 2021. JGU is also the highest-ranked Indian university, which focuses solely on Social Sciences, Arts and Humanities, and the youngest Indian University to be ranked this year. JGU is also the only Indian private university in the top 150 ‘young’ universities in the world (under 50 years of age) in the QS Young University Rankings 2021.





## ANNEXURE 2

# ABOUT ASSOCIATION OF INDIAN UNIVERSITIES

The formation of the Inter-University Board (IUB) of India as an Apex Inter-University Organization on March 23, 1925, in a meeting of Vice Chancellors/their representatives at Bombay University was the culmination of the need to bring together all the universities in India on a common platform through a coordinating body, to protect the interest of the students as well as the universities. The objective was to promote university activities, especially by way of sharing information and increasing co-operation in the field of education, culture, sports and allied areas. Prior to this, having such an organization in India was recommended by the Sadler Commission in 1919 followed by a resolution, made in the Conference of Vice Chancellors of the Indian Universities convened at Shimla in 1924.

The Inter-University Board acquired a legal status with its registration as a Society under the Societies Registration Act, 1860, on September 29, 1967 and was renamed as Association of Indian Universities (AIU) in 1973. Since its inception AIU is actively engaged in the growth and development of Higher Education. The membership of AIU includes all types of universities e.g. Conventional Universities, Open Universities, Deemed to be Universities, State Universities, Central Universities, Private Universities and Institutes of National Importance. In addition to Indian Universities, 13 Universities/Institutes from Bangladesh, Bhutan, Republic of Kazakhstan, Malaysia, Mauritius, Nepal, Thailand, United Arab Emirates and United Kingdom are its Associate Members.

The Vision of AIU is to emerge as a dynamic service and advisory apex organization in India by undertaking such initiatives and programmes which could strengthen and popularize Indian higher education as leading edge system in the world and promote greater national and international collaboration in Higher Education, Research and Extension, Sports, Youth and Cultural Activities.

The Mission of AIU is to promote and represent the higher education system and Indian Universities through strong liaison with the government and National/International organizations of higher education, sister associations world over and establish liaison between/among universities through active support, cooperation and coordination among the member universities and all its stakeholders for quality education, research and other academics and extension activities.



**O.P. Jindal Global University**  
*A Private University Promoting Public Service*



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*Institution Building for Nation Building*  
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