

## **A Year of COVID-19 Pandemic: Universiti Sains Malaysia (USM)' Mitigation Strategies in Teaching and Learning**

Coronavirus disease 2019 (COVID-19) is a global crisis that has yet to see an end. This pandemic disruption has revealed diverse challenges and gaps in delivery in the higher education ecosystem, particularly with teaching and learning (T&L). Most higher education institutions (HEIs) have been confronted with an unprecedented and unprepared shift to the fully online approach in responding to the need to continue T&L activities as well as engage and motivate students when remote teaching and learning has to take place. The implications include educators and students adapting to online education, access to information and communication technology (ICT) and education facilities especially in rural areas, and ensuring equal access to the underprivileged students. Strengthening HEI's capacities and resources in T&L activities for disaster risk mitigation has become an urgent global sustainability goal to minimise the current situation's domino effect and an unprecedented future.

The Malaysian government has issued the order to close the HEIs since March 2020 as an emergency plan to mitigate the virus's spread. With the closing of all HEI's campuses which was imposed under the national Movement Control Order 1.0 (MCO 1.0) and now morphed into the MCO 2.0, Universiti Sains Malaysia (USM) is closely observing the situations and responding to the measures taken in mitigating COVID-19 impacts as quickly and responsibly as possible. This involves USM Main Campus, Engineering Campus, Kubang Kerian Campus and the Advanced Medical and Dental Institute (IPPT). As the problem continues to progress rapidly, USM reaffirms its top priorities in ensuring students and staff safety and resilience and not compromising performance and compliance to T&L quality expectations. USM continuously enhances a wide range of initiatives and resources to meet their support needs for T&L activities.

### **i. USM COVID-19 Nerve Centre**

To establish a strong governance and risk management, HEI requires a central body or taskforce for the institutional arrangement to oversee and manage disaster mitigation, preparation, recovery and response process. The USM COVID-19 Nerve Centre is established to serve as a control centre in monitoring, responding, and coordinating all related stakeholders on the matters of COVID-19 and institutions. The centre plays a significant role in ensuring all USM campuses' ecosystem remain as "Green Bubble" and safe from the cases. All matters requiring decision at the university

level including T&L activities are made at the Nerve Centre. The Nerve Centre's establishment ensures enabling governance that focuses on expert opinion and resource-dependent, autocratic decisions and effective communications. The centre provides innovative tools and best practices for USM in reducing risk and building institutional resilience. This effort is aligned with the second target of the Sendai Framework for Disaster Risk Reduction 2015-2030: Strengthening Disaster Risk Governance to Manage Disaster Risk.

### **ii. Guidelines**

USM prompts issuance of and keeps up to date with T&L guidelines to facilitate T&L activities as well as ensure effective teaching and quality learning. The specific guidelines that have been put in place on T&L activities are as follow:

- a. COVID Teaching and Learning Guideline
- b. Guidelines For Laboratory Operations Post COVID-19
- c. USM Online Assessment Guidelines for Remote Teaching
- d. Guidelines on Attendance Recording for Remote Teaching and Learning
- e. FAQ on Learning & Teaching matters during COVID 19:
- f. USM Semester 2 2019/2020 Guide 101: Remote Learning
- g. USM Semester 2 2019/2020 Guide 101: Postgraduates
- h. USM Semester 2 2019/2020 Guide 101: Internship and Teaching Practicum

### **iii. Academic Ed Tech Competencies**

For academic staff, the pandemic requires them to quickly adapt to technology pedagogical tools and transform delivery approach to better engage with students. They need to transition the online instruction for all students (undergraduate and postgraduate), rearrange online session and timetable, ensure that students are able to access course materials and assignments in the digital platform as well as attend classes according to the regular schedule. USM is committed in supporting its staff's technology competencies to continue T&L during the pandemic and MCO. With support from the Centre for Development of Academic Excellence (CDAE), the university implements a large-scale shift in T&L to an online mechanism that minimises social interaction for all academic programmes.

To date, more than 100 videos have been published on CDAE YouTube channel in enriching education technology competencies among academic staff. This platform serves as a resource to support academics to improve and further refine content quality, enhance their skills on online T&L and learn activities to accommodate to the pandemic's impact and instil values of compassion and professional responsibility in students. CDAE continues to organise webinar sessions on teaching and learning in the midst of new normal.

#### iv. Remote Learning

USM has implemented emergency remote learning which encompassed online and long-distance learning practices for all of its academic programmes. The elearn@USM and Webex(via elearn@USM) are the tools supported by USM to replace face to face lectures/tutorials/activities.

- a. elearn@USM: USM Learning Management System where course materials are stored and accessed online.
- b. WEBEX: Online meeting software with video and audio simulating a classroom environment including the ability to show slides and do group work

As a result, USM has conducted 1421 online sessions – more than 16,000 students involved – with 89.24% participation in the second week of MCO (April 12 until April 17 2020). Remote learning has become the new norm – more flexible teaching and learning processes. This continues for the duration of Conditional Movement Control Order (CMCO), Recovery Movement Control Order (RMCO), and MCO 2.0 to ensure that meaningful learning is achieved in the best possible way.

#### Final examination

USM has changed to more flexible approaches for final examination (semester 1 2020/21) through a. adjusting the Coursework (CW) and Exam Work (EW) components; b. introducing "Asynchronous - online" final exams: liberalising the final exams in terms of ownership of exams operation, design of exam questions, and duration of exams – decentralised mode; and c. conducting online "Synchronous" final exams – centralised and with elements of proctoring. As of January 6 2021, of 1441 courses, about 12.9% asynchronous, 27.90% synchronous and 59.20% coursework mode have been implemented for the final exam assessment.

#### Students' Reflections

Students' feedback provides essential information for the evaluation of online distance learning to improve future learning strategies. A survey has been conducted on USM students, which involved 7176 respondents (79% response rate) in providing an initial evaluation of the remote learning experiences during MCO. The survey revealed that most of the problems were categorised as facility factors such as unstable and no internet connection in suburban and rural areas, financial burden for internet quota, and lack of facility at home. Other challenges are related to individual factors such as students' adaptation to a less suitable home environment and difficulties in online communication (e.g., too many communication groups and missed out on task and instruction). Survey also showed that these challenges contributed to the stress experienced by students during online distance learning. Based on students' feedback, the

suggestions for enriching online or remote T&L comprise webinar for students related to well-being, student online learning skills, motivation, and time management.

COVID-19 and MCO have seriously stricken the Malaysian higher education landscape, and USM is quick to deploy disaster mitigation strategies for safeguarding their students and staff. For the continuation of the academic session, online distance learning has been implemented to ensure the smoothness of the T&L process. The transition process is by no means without challenges, and more crucially, it requires a shift of students' and academic staff's mindset as well as adaptive technology in securing sustainability, effective and meaningful new norm T&L experience. A new semester (Semester 2, 2020/2021) is just around the corner, and the university keeps on reviewing the best practices for the T&L process which could be implemented while complying with the new norm. Each T&L programme needs to set a clear goal and expected outcomes, learning methods and activities, appropriate assessment approach and requirements related to resources and infrastructure. Indeed a very challenging time, but at the same time promises new opportunities for the new normal.

#### Acknowledgement

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