Envisioning future MOOC: the Pride, the Promise, the New Norm of Reality, and the Future

ASEM : MOOC’s Stakeholder Forum 2020
17 December 2020

AP. Ts. Dr. Aishah Abu Bakar
Universiti Malaysia Pahang
Have We Been Prepared for the New Normal

What is Expected and When

10 SHIFTS

Malaysia Education Blueprint 2015-2025 (Higher Education)

5-STAR WORLD CLASS TECHNOLOGICAL UNIVERSITY
MOOC MALAYSIA

Initiative A1
Upgrading cyber infrastructure

The Ministry will collaborate with the relevant agencies and institutions to improve the following elements:
- Infrastructure: improve bandwidth capacity and Wi-Fi coverage to enable video streaming and biodiversity.
- Info structure: provide hardware and software for e-content development.
- Platform: work with a range of platforms that are established in Malaysia and international 'Open education' platforms to global recognized platforms such as Coursera and edX.
- Device and equipment: increase availability of learning devices.

Initiative A2
Enhancing awareness and recognition

Malaysian HEIs will collaborate to develop common courses leveraging the expertise available in the respective institutions and establish national recognition of courses. HEIs will also expand the role of MOOCs in blended learning. To build awareness and interest, the Ministry will introduce mechanisms for the development of quality courses and international standard MOOCs, especially in niche areas where HEIs will be able to achieve global recognition.

Initiative A3
Strengthening content development and delivery

Lecturers will be required to innovate their teaching and learning practices in order to create constructive blended learning environments. To assist them in doing so, the Higher Education Leadership Academy (HELA) will identify pedagogical and professional development programmes for academic staff. In addition, the HEIs will need to enhance their capacity to support blended learning content development and delivery by sourcing for relevant expertise in subject matter, pedagogy, graphics and IT.

Initiative B1
Strengthening coordination for implementation

Appropriate mechanisms will be put in place in the effective management and implementation of MOOC initiatives. The establishment of National e-Learning Centre (NeLC) will be considered and evaluated. A regime such as this could enhance policies, guidelines and processes to ensure coordinated efforts in planning, developing and delivering all aspects of online learning including MOOCs. Such coordination is not limited to Malaysian institutions alone, but will also encompass partnerships with international universities and HEIs.

Initiative B2
Updating the national e-Learning policy

The successful deployment of MOOCs will be dependent on an implementation framework enabled by international best practices. This framework, the NeLC will facilitate the updating of the National e-Learning Policy (DeRAN) to incorporate a new MOOC strategy. HEIs will also be encouraged to keep up with current best practices and technologies for the deployment of MOOCs.

Initiative C1
Enabling credit transfer framework recognition

The course curriculum at every Malaysian HEIs needs to be revised to allow for the recognition of courses completed by students via MOOCs. This should be done in coordination with the Malaysian Qualifications Agency (MQA). MOOCs will be also be encouraged to undertake international benchmarking with the target of having Malaysian MOOCs become part of international MOOC consortia.

Initiative C2
Supporting lifelong learning

The Ministry will develop a learning platform for the use of MOOCs for lifelong learning. The Malaysian public can then enrol in free and low-cost courses, which will provide them the opportunity to access high quality credit-bearing courses. These credits can, in turn, be recognised towards a diploma or even a degree programme. The MOOC initiatives of Malaysian HEIs can also be used to support the continuous professional development of Malaysian students and academic staff in collaboration with other training agencies. In this way, the MOOCs initiatives can become the catalyst for the enhancement of lifelong learning among Malaysians.
## MOOC MALAYSIA

<table>
<thead>
<tr>
<th>Domain</th>
<th>Focus area</th>
<th>Phase 2015</th>
<th>Phase 2016-2020</th>
<th>Phase 2021-2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online Pedagogy</td>
<td>Blended Learning</td>
<td>30% courses offered by IHL are in the form of Blended Learning</td>
<td>50% courses offered by IHL are in the form of Blended Learning</td>
<td>70% courses offered by IHL are in the form of Blended Learning</td>
</tr>
<tr>
<td></td>
<td>Open Courses</td>
<td>Each IHL offers at least 3 MOOC Courses</td>
<td>Each IHL offers at least 15 MOOC Courses</td>
<td>Each IHL offers at least 30 MOOC courses</td>
</tr>
<tr>
<td></td>
<td>E-Assessment</td>
<td>5% of e-Assessment in Blended Learning</td>
<td>10% e-Assessment in Blended Learning</td>
<td>15% e-Assessment in Blended Learning</td>
</tr>
</tbody>
</table>

Source: DePAN 2.0, JPT
MOOC MALAYSIA

2014 – 4 MOOC courses by 4 pilot public universities (UPM, UKM, UiTM, UniMAS)
Enrolment 54,625

2015 – 65 MOOC courses by 20 (all) public universities
Enrolment 119,287
MOOC MALAYSIA

2016 – 219 MOOC courses by 20 public universities

Enrolment 218,806

2016 – 18 MOOC courses by Polytechnics

Enrolment 34,017
MOOC MALAYSIA

250 MOOCs
220,000 Students from
170 Countries

Source: 2017 Minister of Higher Education Ministry Mandate
In 2018, every public university need to increase MOOC course to at least 20% from the overall courses offered.

The ministry will assign 2 KPIs where 2 Liberal Education subjects must be taken and completed by students via MOOC.

For Polytechnics, the ministry is targeting 40% of overall students will use MOOC through 70 courses offered beginning 2018.

Source: 2018 Minister of Higher Education Ministry Mandate
2018 - 884 MOOC courses by public universities and Polytechnics
Enrolment – 559,751
MOOC MALAYSIA MICRO-CREDENTIALS

2019 to 2020 and BEYOND

FLEXIBLE EDUCATION

ANYTIME ANYWHERE ANYONE

SCENARIO IN 2021 & BEYOND

ACREDITED ACADEMIC PROGRAM (CONVENTIONAL)

ACREDITED ACADEMIC PROGRAM (MICROCREDENTIAL)

UPSKILLING, RESKILLING, LIFELONG (MICROCREDENTIAL)

Credit transfer

University Industry

GUIDELINES TO GOOD PRACTICES: MICRO-CREDENTIALS

Launched July 2020
MOOC MALAYSIA
MICRO-CREDENTIALS
2019 to 2020 and BEYOND

Designing Micro-Credential Programme

Prof. Dr. Abd Karim Alias
Director
Centre for Development of Academic Excellence (CDAE)
Universiti Sains Malaysia (USM)

Moderator: Assoc. Prof. Dr. Wan Zuhainis Saad
Director
Division of Academic Excellence, JPT

17 December 2020 (Thursday) 2.30 – 4.30 p.m

PARTNER WORKSHOP 2 - 4:30-5:30PM MYT
Unbundling Hours: Turning Your University Courses Into Micro-credentials
Led by Assoc Prof Dr Ashah Abu Bakar
Facilitated by Dr Udan Indrayani Jambari

“Micro-credentials can’t be just like every other university course. They should still contain relevant topics and theories, but on top of that, micro-credential courses should be created with job-embedded characteristics.”
Assoc Prof Dr Ashah Abu Bakar
Director | Centre of Instructional Resources & e-Learning
UNIVERSITI MALAYSIA PAHANG MOOC

YEAR 2020 TARGET
UMP STRATEGIC PLAN

20,000 STUDENTS ENROLMENT

24 COURSES : FULL MOOC
50 COURSES : Micro-credential

*Enrolment up to September 2020
Expected to launch officially in APRIL 2021.
**UMP Micro-credentials Development**

**STEP 1 – MODULARISATION OF COURSES**

Semester 2 session 2019/2020
12 Courses per faculty COURSES
### STEP 2 – MICRO-CREDENTIALING THE MODULAR COURSE

24 Pilot Micro-credentials

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic No</th>
<th>CC</th>
<th>Topic</th>
<th>Sub Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>COO1</td>
<td>Introduction to Engineering Geology</td>
<td>- Stress-strain relationship and state stress-strain relation of soils - Geotechnical rock mechanics and cycle</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>COO1</td>
<td>Soil Formation and Its Characteristics</td>
<td>- Formation of various types of soil and its characteristics - Weathering soil, residual and transported soil</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>COO1</td>
<td>Soil Testing and Classification</td>
<td>- Soil Testing for identification purposes - Engineering Soil Classification - British and United States Classification System - Soil Classification</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>COO1</td>
<td>Phase Diagram and Phase Relationship</td>
<td>- Phase diagrams and relationship - 3-Phase relationship problem solving</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>COO2</td>
<td>Soil Composition</td>
<td>- Soil composition and related phenomena - Test methods and methodologies - Principles and techniques of soil classification and control on site</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>COO2</td>
<td>Soil Testing</td>
<td>- Field testing - field testing and soil testing - Testing of soils and soil testing - Testing of soils and soil testing</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>COO2</td>
<td>Effective Stress</td>
<td>- Effect of voidratio on soil under stress - Effective stress</td>
</tr>
<tr>
<td>8</td>
<td>8</td>
<td>COO2</td>
<td>Consolidation and Settlement</td>
<td>- One-dimensional consolidation - Computation of coefficient of consolidation - Computation of consolidation period</td>
</tr>
<tr>
<td>9</td>
<td>9</td>
<td>COO2</td>
<td>Compaction and Settlement of Soil</td>
<td>- Static settlement and static settlement foundation</td>
</tr>
<tr>
<td>10</td>
<td>10</td>
<td>COO2</td>
<td>Slope Stability</td>
<td>- Stability of soil and bearing capacity - Static load analysis on shallow foundations</td>
</tr>
<tr>
<td>11</td>
<td>11</td>
<td>COO2</td>
<td>Slope Stability</td>
<td>- Static load analysis on shallow foundations - Static load analysis on shallow foundations</td>
</tr>
<tr>
<td>12</td>
<td>12</td>
<td>COO2</td>
<td>Slope Stability</td>
<td>- Static load analysis on shallow foundations - Static load analysis on shallow foundations</td>
</tr>
</tbody>
</table>

### 1 Basic characteristics of soils

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>The nature of soils</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>1.2</td>
<td>Particle size analysis</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>1.3</td>
<td>Plasticity of fine soils</td>
<td>1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>1.4</td>
<td>Soil description and classification</td>
<td>1</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>1.5</td>
<td>Phase relationships</td>
<td>1</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.6</td>
<td>Soil composition</td>
<td>1</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>1.7</td>
<td>Problems</td>
<td>1</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>1.8</td>
<td>References</td>
<td>1</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

### 2 Seepage

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Seepage</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2.2</td>
<td>Permeability</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>2.3</td>
<td>Seepage theory</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>2.4</td>
<td>Flow nets</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5</td>
<td>Anisotropic soil conditions</td>
<td>2</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>2.6</td>
<td>Non-homogeneous soil conditions</td>
<td>2</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>2.7</td>
<td>Transfer condition</td>
<td>2</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>2.8</td>
<td>Seepage through embankment dams</td>
<td>2</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>2.9</td>
<td>Grouting</td>
<td>2</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>2.10</td>
<td>Frost heave</td>
<td>2</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Problems</td>
<td>2</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>References</td>
<td>2</td>
<td>12</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Identifying theme or category
Apart from being part of the subject Identify purpose - job scope / company Who else has been offering such module? In what way your module will be different?
UMP Micro-credentials Development

STEP 3 – CONTENT DEVELOPMENT

24 Pilot Micro-credentials courses
MICRO-CREDENTIALS TVET ONLINE (MCTO)

Collaborative Action Research – MCTO Pilot Group

Guidelines for Quality Digital Content UMP

Technical and infrastructure support
UMP Micro-credentials Development

STEP 4 – TEST AND DATA COLLECTION

24 Pilot Micro-credentials courses
MICRO-CREDENTIALS TVET ONLINE (MCTO)

April 2021
Opportunities for future collaboration

MICRO-CREDENTIAL GLOBAL CLASSROOM (MCGC)

GLOBAL CLASSROOM
(ACTIVELY ENGAGED AND IMMERSED)

- Collaborative lecture
- Virtual face-to-face teaching
- Virtual forum
- Collaborative presentation
- Link with
- Integrate
- Distance assessment
- Peer-to-peer activities
- Topic exchange
- International project

Learning Engagement 30% + 10% Assessment

STANDARD GLOBAL CLASSROOM

COMANILTY AND COLLEGIALITY

Shared courses
Shared expertise
Shared facilities
Shared cultures

Miro-credential common courses amongst ASEM member countries

Mutual Recognition – credit transfer
UMPMOOC
Universiti Malaysia Pahang

MOOC 9th Shift (Global Online Learning)

2015
Launching of Malaysian Education Blueprint (MEB)

2016-2020
Universiti Malaysia Pahang (UMP) Strategic Plan 2016-2020
(5th Shift - Excellent Branding)

UMP MOOC

ASEM network KMOOC, JMOOC, ThaiMOOC, Philippines MOOC.
TERIMA KASIH

THANK YOU

KOP KHN