Universiti Utara Malaysia

GUIDELINES FOR OPEN AND DISTANCE LEARNING (ODL)

DEPARTMENT OF ACADEMIC AFFAIRS, UUM

GUIDELINES FOR UUM OPEN AND DISTANCE LEARNING PROGRAMMES

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PREFACE

As part of the government mandate to funnel talents to the future workforce, Universiti Utara Malaysia (UUM) strives to provide the most relevant and meaningful education to life-long learning to students at national and international level. Nowadays with so many challenges that may and have interrupted traditional ways of teaching and learning in higher education institutions, UUM is doing a big transformation by redesigning teaching and learning activities with the initiatives of Open Distance Learning (ODL) programs.

When Coronavirus hits, over 90% student population of the world affected by the lockdown of schools and universities around the world. The traditional education mode has been drastically switched to an online learning and virtual classroom. Now through ODL, students will enjoy the benefits of flexibility and various types of learning interactions. In addition to face-to-face, the accessibility and connectivity will expose learners to active digital learning as well as self-learning. This new approach will create self-independent study process whereby learners will interact with peers and lecturers via online discussion through synchronous and asynchronous meetings.

Although technology is ready, the pedagogical of teaching should be designed according to the learner's need. Teaching online is not just about moving the offline content into online but to curate the activities and assessment according the overall ecosystems and how to transfer knowledge that will create value to the existing learner's mental model effectively and satisfactorily.

1.0 INTRODUCTION TO ODL PROGRAMMES

1.1 Introduction

This document is a guideline for Higher Education accreditation and auditing. HEPs must proactively acquire the relevant knowledge and skills to plan, develop and implement the ODL programme. Therefore, this document should not be used as a manual to start the ODL programme.

This document is intended to:

- Inform HEPs of good practices that help them shape learning and offer practical guidance in evaluating an ODL programme.
- Provide a platform for HEPs to discuss, update and share ODL practices.
- Provide a quality assurance mechanism for the ODL programme using seven (7) COPPA areas.

1.2 Definition and Terminology

Open and Distance Learning (ODL) refers to the provision of flexible learning opportunities in terms of access and various modes of knowledge acquisition.

- **Flexible -** The option is available for any person to obtain an education anywhere, anytime and in a way that suits the learner.
- **Access -** The opportunity is provided for all learners without any constraints of time and place.
- **Multiple modes -** The use of multiple delivery systems and learning resources (Ahmad, Phillips, Santhi & Wahid, 2010)

Some of the commonly used terms related to ODL include:

★ Postal style learning
★ Home learning
★ Self–learning
★ External learning
★ Continuous learning
★ Distance education
★ Adult education
★ Education based on or through technology
★ Student-centred education
★ Open learning
★ Open access
★ Flexible learning
★ Micro-credential
★ Online assessment
★ Lifelong learning

ODL is increasingly being accepted and is part of the mainstream education that is much needed. It is driven by the need for such learning to be accessible by the larger population for the purposes of continuous skills upgrading, learning new skills and technological advances that enable remote teaching. The government is aware of the ODL potentials in fulfilling the rights of individuals to learn and incorporating the study leave opportunity into the framework of human capital development.

Advances in information and communication technology (ICT) have opened up new possibilities and opportunities for ODL. The increasing number of open university establishments around the world clearly demonstrates this trend. Traditional universities are also slowly changing from a single mode to dual mode.

In line with this development, all seven areas of the Code of Practice for Programme Accreditation (COPPA) have become guidelines for HEPs and the Malaysian Qualifications Agency (MQA) to ensure the quality of ODL programme. These guidelines can be used by many parties, especially ODL institutions, dual mode HEPs offering both face-to-face and distance learning programmes, the faculties / departments / units offering a distance learning course as well as faculty staffs who independently implement distance learning courses recognised by the university.

The Online Distance Learning System or better known as Online Distance Learning (ODL) is a new millennium teaching method for students to interact with others using networks and Internet access. The ODL system makes it easy for students to have access to learning without having to attend class physically, face to face with the instructors or other students on campus as in the conventional class. This kind of learning is also known as **e-learning.**

This online study benefits individuals who have other commitments and find it difficult to pursue full-time studies such as those who are working and international students who want to improve their education quality and advance their career.

The ODL facility is in line with the advancement of technology and it meets the needs of the community's choice to further their studies and at the same time still be able to continue their working life.

Therefore, every individual who intends to opt for distance learning must be prepared and proficient with the rapidity of technology and must learn to understand the ODL system as best as possible according to the guidelines provided by the school/faculty that provides the system. It is vital that students of ODL are provided with wider access and more up-to-date educational resources.

1.3 Characteristics of ODL

The open and distance learning is usually contrasted with 'conventional' or 'face-to-face' education, which may be described as the form of education which takes place in a classroom or lecture halls. However, both 'distance' and 'faceto-face' education are labels covering a wide range of variations and methods. Face-to-face education may vary along a continuum from one-to-one tutorials, group activities, seminars and classroom teaching to lectures for large audiences. In each case, different educational philosophies may be applied and different methods may be used. Face-toface education may be supported by a range of media, and may be combined with periods of independent study. In a similar way, distance education has a variety of forms, according to the underlying educational philosophy, organisational approach and choice of technology, and distance educators may incorporate into their programmes an element of face-toface teaching.

1.3.1 Flexible Learning System

With the existence of an online learning system, students' time will be more flexible. For those working while studying, the working time will not be disrupted. ODL allows these students to study and obtain study materials after work or on weekends. For those who are geographically far from the university, travel time is reduced with ODL. The students only need to meet faceto-face with the lecturers and be self-disciplined to attend classes at least once a month. Such flexibility provides excellent space and wider opportunities for students.

1.3.2 Self-Learning

Students are fully responsible for their studies. Students can access the ODL system anywhere, be it at home, office, classroom or in a public place. Instructors will upload the teaching materials and announcements related to the respective courses using the technology. Students should be proactive in obtaining the latest information and are strongly encouraged to have study groups or study networks with classmates to be more effective in learning using the ODL system.

1.3.3 Self-Instructional Materials

Self-Instructional Materials (SIM) has been defined as an educational or learning material that facilitates selfdirected learning. Learning materials consist of written content either in the form of articles or Internet materials, interactive teaching videos from lecturers. Students can access lecture notes, quizzes, assignments, subject schedules and other readily available items. Students are strongly advised to have a computer or laptop that

has Internet access to facilitate admission to the website or student portal that has been provided by the university.

1.3.4 Learning Support System

Students pursuing distance learning need to understand the ways of accessing the ODL system to ensure that learning is in order and effective learning takes place. Being ignorant of the system will be detrimental and will cause difficulties in learning such as missing lecture notes, quizzes and assignments. Students should keep abreast with the latest technological advancement and be prepared to explore new things that can provide them with positive development and outlook.

1.4 Components of ODL

The *courses and curricula* define the profile of a system or institution which should be related to the mission and the defined needs or markets. Many distance education systems provide courses in preparation for examinations and degrees which are equivalent or similar to those offered by conventional institutions and subject to similar regulations as regards to content, admission and assessment.

The *teaching strategies and techniques* depend partly on the type of programme and the needs they are designed to meet, but they also depend on the educational philosophy and values of the particular system, and the educational characteristics and potential of the technologies used. There may be a connection between teaching strategies, economy and the choice of technology.

The *learning materials and resources* are essential components in all distance learning systems. Comprehensive, well designed materials may stimulate self-directed learning and thus influence the quality of the system as a whole. The design, development and production of materials are often considered as a sub-system in distance teaching organisations. The previous and existing materials, text-books, software and others may be used but in most cases each programme benefits from having specifically designed learning materials.

The *communication* between teachers and learners is a necessary component in distance education, as in all other forms of education. Communication technologies distribute messages in text, still and moving images, and sound. Knowledge-generating messages may be communicated to large numbers of learners, either synchronously or asynchronously, "pushed" by broadcasting or accessed on demand through audio/video players or the Internet. As these devices change, so will the quality and nature of the messages.

Thus, the new Internet devices will make it possible on the one hand for a larger number of people to share a common learning experience, in real time. On the other hand, it enables an individual learner to have a unique personal interaction with a teacher or with another learner, no matter where the person is located. More importantly, these experiences can be of much higher quality than were possible before since they do not depend on physical access. They will increasingly be available on a common platform, as bandwidth limitations become less significant than at present.

Communication serves two purposes. One of the purposes is the distribution of information which may comprise both distribution of pre-packaged material and transmission of synchronous or broadcast programmes, lectures and so on. The other purpose is the crucial component of all education which is the *interaction between teachers and learners*, and, where possible, *between learners* also. In some forms of distance education, this learner-learner interaction is practically non-existent, but in most cases, it is considered important and may be provided in different ways. Often students meet together physically in groups, sometimes connected with other forms of local support. New technologies will allow the organisation of 'virtual groups' and in countries where access to the Internet is common, this is the fastest growing approach to distance teaching.

The support delivered locally is a common component in most single mode institutions. A letter, a telephone call or an e-mail message is usually delivered locally and is more likely to be the means of learner support in dual mode institutions. What is meant here is that learners support in a form that allows some kind of direct (face-to-face) interaction between the learner and a teacher or a mentor/facilitator. This component may be organised completely as face-to-face events, or in combination with communication at a distance (teleconferences etc.). Local support is usually given in a study centre or resource centre. The centre may also offer access to other learning resources, equipment etc.

The *student and staff management* sub-system is often distinguished from the course materials sub-system. From an administrative perspective, the students and staff management sub-system comprises admission, allocation to courses and student services, administering the learning and teaching procedures, assignments and assessment, monitoring drop-out and completion and examinations. Staffs may be contracted to carry out the tasks on a part-time basis or they may be in the core faculty in the case of a dual mode institution. In either case, they have to be recruited, trained and monitored. A range of other experts with different qualifications is also needed, either as full-time staff or as external consultants: planners, instructional designers, developers and producers, researchers, media experts, marketing experts and administrative staff.

Effective *management and administration* needs not only competent staff, but also well designed, efficient administrative systems and routines, good planning and monitoring systems, budgetary and accounting systems as well as others. Many of these will be quite different from the corresponding systems needed in the management of other forms of education.

Finally, the *evaluation* component should be able to provide information relevant to the adjustment of the roles and the operation of the different components in the system that can provide effective contribution and continuous development. The success of any distance education institution, dual or single mode, is highly dependent on the efficiency and effectiveness of the monitoring and evaluation system, without which it may be impossible for administrators to be aware of problems in the system until the system itself breaks down. It is not possible to rely upon the kind of informal, unstructured feedback that may be sufficient in the conventional classroom.

1.5 Policies and Regulations

1.5.1 ODL TERMINOLOGIES

1. ODL - Provides **flexible** educational opportunities in **terms of access and various methods/modes** in acquiring knowledge.

2. ODL Programme - **More than 60 percent of the total courses offered** in the programme are conducted through ODL.

3. ODL Courses - **At least 80 percent of student learning hours (SLT)** must use the ODL mode.

4. Quality Assurance of the ODL programme from **MQACOPPA-ODL.**

Note: Based on the MQA, ODL Code of Practice (https://www.mqa.gov.my/pv4/bm/faqs_ODL.cfm), teaching and learning via face to face is compulsory, however, the HEPs will determine the allocation of hours based on the requirement of the academic programme.

1.5.2 ODL Standard and Policy

Table 1.1
ODL Standard and Policy

NO.	NOTIFICATION LETTER	DESCRIPTION
1.	Notification Letter on Quality Assurance Policy decided in MKSDJK KPT-MQA No.1/2012 to No.3/2013 dated 23 May 2014	Non-open status HEPs are allowed to offer an ODL study programme provided that the **same programme is offered conventionally and is fully accredited.**
2.	MQA Notification Letter No.7/2018 dated 7 November 2018	HEPs that intend to offer the ODL study programme must ensure that the **full accreditation requirements of conventionally conducted programmes comply with** the relevant programme standards.
3.	MQA Notification Letter No. 12/2020 dated 29 December 2020	Conventional HEPs are allowed to offer study programmes with the ODL delivery method **without having the same programme that uses the conventional delivery method.**

1.5.3 General Criteria for Offering Programmes Using ODL Delivery Method

Programme Development and Delivery

a. The programme must have a composition of courses offered by ODL exceeding 60 percent of the total courses offered. These courses should have at least 80 percent student learning hours (SLT) by ODL.

b. The Higher Education Providers (HEPs) need to have their own complete Electronic Learning Platform (Learning Content Management System, LCMS) or Learning Management System (LMS) before submitting a provisional accreditation (PA) application.

c. HEPs need to have a special unit/section that is responsible for and works with the faculty/school to design and develop Self-Instructional Material (SIM).
d. HEPs must have a SIM for all subjects/courses in semester one (1) of the ODL programme when submitting the PA application.

e. HEPs must have a SIM for all subjects/courses in year one (1) of the ODL programme after receiving PA and programme management approval from MOHE.

f. HEPs must have a SIM for all subjects/courses in the ODL programme when submitting for the full accreditation (FA) application.

g. SIM must be fully developed for the subject/course to be taken by students who have obtained the credit transfer.

1.5.3.1 Student Assessment/Evaluation

a. HEPs need to develop structured student assessment mechanisms and policies.

b. HEPs need to monitor student participation in assessment and learning activities through the HEP e-learning platform.

1.5.3.2 Selection and Student Support Services

a. HEPs need to have orientation session modules to expose students to all relevant aspects of ODL.

b. Appropriate learning support services for ODL students should be provided to new students, exchange students and students with special needs.

c. Tutorial sessions can be held virtually or in person (face-to-face).

d. HEPs need to have a sufficient number of administrative and academic support staff for instructional design, editing, graphic design and ICT support staff to assist in the implementation of programmes and learning activities that are mostly conducted online.

1.5.3.3 Academic Staff

a. HEPs need to have a qualified programme coordinator appointed on a full-time basis.

b. Qualified instructors/tutors (full-time/part-time) may be appointed to conduct tutorial sessions.
c. HEPs need to implement a properly structured development training on the understanding of ODL, implementation and management of tutorial sessions and LMS management to the academic staff.

1.5.3.4 Educational Resources

a. HEPs need to have an e-learning policy that covers aspects of the selection and development of electronic devices, internal and external networks, e-content and other related aspects such as the use of information technology for communication and learning.

b. HEPs need to have adequate and appropriate physical and virtual facilities (electronic learning platforms and digital libraries) and educational resources to ensure a smooth and effective ODL delivery, including providing adequate facilities for programmes that need to meet the practical components, for conducting research and for those with special needs.

c. HEPs need to provide support materials and guidance to students and academic staff to support the teaching and learning process by ODL.

d. HEPs that set up regional centres/learning centres outside the area from the main campus need to obtain approval to operate the programme from the Ministry of Higher Education (MOHE).

1.5.4 REQUIREMENT OF ODL PROGRAMMES

The academic planning and implementation of ODL can be successfully carried out if both requirements of the ODL Programmes, that is, the Institution Readiness and Instructor's Readiness are fulfilled.

1.5.4.1 Institution Readiness

The HEPs must establish that it has met all the standards for its ODL programme to be fully accredited, taking into account flexibility and recognition of diversity to facilitate the creative growth of education through ODL.

Transforming the curriculum of a programme requires not only academic expertise in the entire suite of courses that makes up a programme, but also education experts from various disciplines who have been trained or who have considerable experience in effective ODL learning-teaching methodologies including associated technologies that make the learning environment a very rich one. These experts would deal with the challenges of instruction and provide training as well as advice on ODL learning-teaching processes and practices. Such expertise can be provided by an educational technology unit or division at the HEPs or can be acquired from external sources.

The HEPs are expected to have sufficient autonomy, especially over academic matters. Such autonomy must be reflected at the departmental level where the programme is being designed and offered.

An ODL programme has to be appropriately delivered and managed to achieve its intended outcomes. This is achievable through the allocation of adequate resources, including technology infrastructure and infostructure within a conducive environment in widening accessibility and guided by an appropriate authority in the planning and monitoring of the ODL programme. Linkages with stakeholders outside of the department, particularly at the operational level, are crucial to identify, clarify and improve key aspects of the ODL programme and their interrelationships in the planning and implementation processes. The linkages should be developed and maintained at local, national, regional and global levels.

The physical facilities to support an ODL programme are slightly different from facilities for face-to-face programmes. The normal facilities and space to house the necessary equipment for administration and classroom sessions would be similar to conventional programmes. There is a need to have an appropriate and reliable technical infrastructure to support the ODL delivery. Other facilities such as libraries, resource centres, lecture halls, auditoriums, tutorial rooms, science and computer laboratories, workshops, studios and in case of clinical learning, hospitals and clinics may be needed to support the delivery of the programme. For institutions offering ODL programme, regional centres (RCs) will be helpful to support learning and teaching activities which encompass courses with practical-based components and the

conduct of the proctored on-site examination. However, if those aspects can be addressed through technology or other means, then the establishment of RC becomes optional. The HEP must have appropriate, safe and adequate physical facilities that comply with relevant laws and regulations, including care for the needs of persons with disabilities.

1.5.4.2 Instructor's Readiness

As the quality of the academic staff is one of the most important components in assuring the quality of higher education, an HEP is expected to search for and appoint the best-suited candidates to serve its programmes in an open, transparent and fair manner. ODL teaching requires specific skill sets that differ from traditional face-to-face teaching, including having appropriate technological and communications skills.

It is important that every programme has an appropriately qualified and sufficient number of academic staff working in a conducive environment that attracts talented individuals. The numbers recruited have to be adequate for, and appropriate to, the needs of the programmes. Processes for periodic student evaluations of the academic staff should be put in place for quality improvement. The role of the academic staff in various activities has to be clarified in order to reflect a fair distribution of responsibilities. It is important for the HEP to provide a formal staff induction and continual staff professional development programme, for them to be current in their knowledge and skills, both in their chosen discipline as well as in their pedagogical, andragogical and technical skills related to ODL.

Teaching, research, consultancy and community engagement are core interrelated academic activities. It is recognised that the degree of engagement of academics in these areas vary from institution to institution. In doing so, it is vital for the HEP to ensure that the distribution of work is fair and equitable. There should also be a robust and open system for proper recognition and reward which acknowledges and appreciates excellence in learning and teaching as well as student engagement in an ODL setting.

There must be policies in the HEP to support the provision of professional services rendered by the academics to share their expertise with the community towards enhancing national economic agenda.

1.6 Summary

The ODL system or alternatively known as e-learning is the most appropriate learning mode in this era which is clearly evidenced from the teaching and learning process during pandemic COVID-19. To accommodate this need, HEPs must proactively acquire the relevant knowledge and skills to plan, develop and implement the ODL programme. The relevant characteristics of ODL (Section 1.3), namely, self-instructional materials, self-learning, flexible learning system and adequate learning support system must be fulfilled to enable the programme to be accredited by the MQA.

To sum up, the requirements of ODL which involve the academic planning and implementation of ODL must be comprehensive and fully satisfied by both the institutions and the experts. Institution Readiness and Instructor's Readiness are the two important components needed to ensure the smooth running of ODL programmes.

2.0 COURSE PLANNING AND DEVELOPMENT

2.1 Programme Blueprint

The ODL programme must be in line with, and supportive of, the vision, mission and goals of the Higher Education Provider (HEP). The mapping of programme learning outcomes (PLOs) with the programme educational objectives (PEOs) must be clear. The HEP needs to ensure that the PEOs align with the PLO based on the Learning of Cluster (LOC) as stated by the Programme Blueprint. The PEOs and PLOs must be similar with the conventional programme offered.

Table 2.1
Mapping of the Programme Learning Outcomes (PLOs) and the Programme Educational Objectives (PEOs)

Programme Learning Outcomes (PLOs)	**Programme Educational Objectives (PEOs).**				
	PEO 1	**PEO 2**	**PEO 3**	**PEO 4**	**PEO5**
PLO 1	/				
PLO 2	/				
PLO 3				/	
PLO 4		/			
PLO 5				/	
PLO 6			/		
PLO 7			/		

Programme Learning Outcomes (PLOs)	Programme Educational Objectives (PEOs).				
	PEO 1	PEO 2	PEO 3	PEO 4	PEO5
PLO 8				/	
PLO 9					/
PLO 10		/			
PLO 11					/

2.1.1 Learning Outcomes

Learning outcomes (LOs) are statements on what students should know, understand and can do upon the successful completion of a period of study, which generally lead to a qualification or part of a qualification.

The LOs must resonate and align with the aspirations of the National Education Philosophy (1961), the Malaysia Education Blueprint 2013 2025 as well as the Malaysia Education Blueprint 2015-2025 (Higher Education). The MQF Second Edition is linked to, and a continuum of, the educational outcomes from the basic education to higher education as set in the national blueprints.

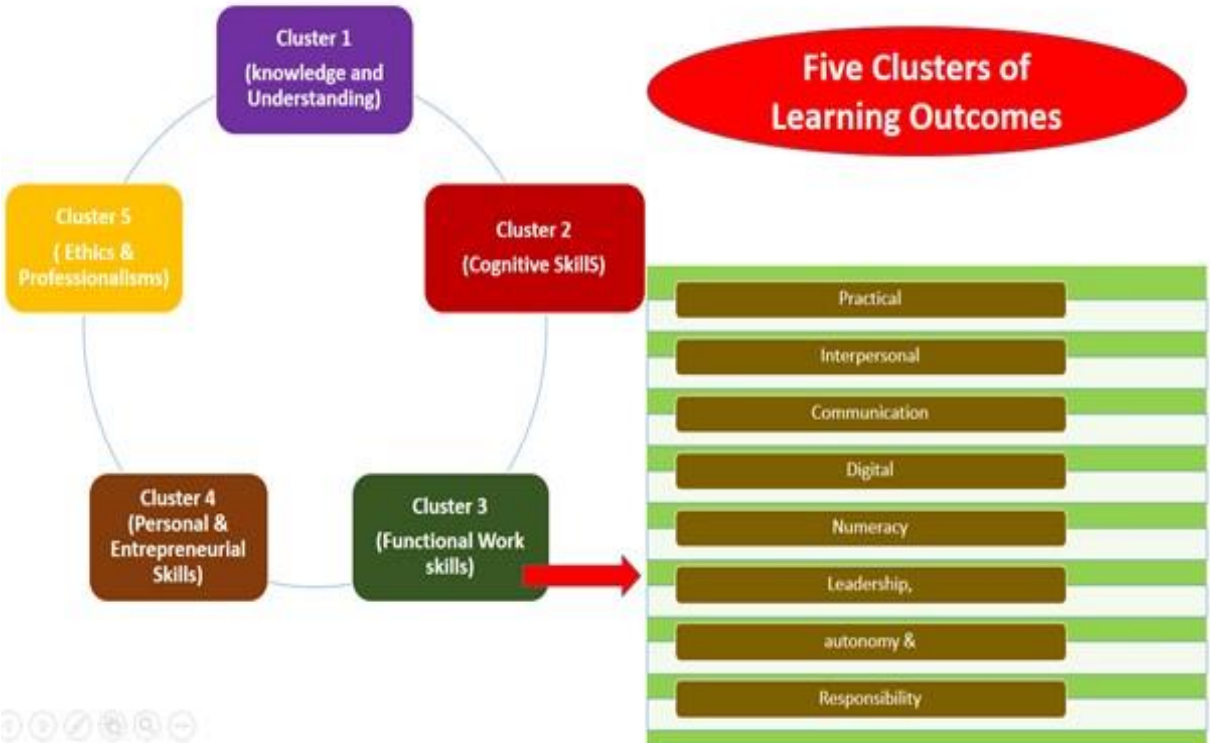


Figure 2.1 Five Clusters of Learning Outcomes Source: Quick Reference: 5 Cluster of Learning Outcomes MQF 2.0, 2021

The application of the learning outcomes for each level is situational-based and depends on the complexity of tasks, study and work to be performed. The level descriptors explain the context of application of the learning outcomes broadly and are often influenced by levels of autonomy and responsibility. The levels build the knowledge, various skills and learners' development progressively and incrementally.

As a general practice, the individual programme design should address the clusters of learning outcomes appropriately. It describes the general and specific content for knowledge and skills of the required subject(s) and related field(s), the level of cognitive skills and the specialised technical skills where relevant. All learners should develop the other generic skills in the course of further study and training, whether these skills are incorporated in the specialised courses or integrated in the teaching and learning strategies including the co-curricular activities.

Table 2.2
Description on Learning Outcomes Clusters and Application Context

Cluster 1: Knowledge and Understanding	Knowledge and understanding refers to a systematic understanding of facts, ideas, information, principles, concepts, theories, technical knowledge, regulations, numeracy, practical skills, tools to use, processes and systems. The scope of knowledge should include the common everyday knowledge within the learners' environment. This may also be acquired through formal, informal and non-formal learning circumstances-experiences. Developing personal values and ethics may derive from knowledge and experiences.
Cluster 2: Cognitive Skills	This relates to thinking or intellectual capabilities and the ability to apply knowledge and skills. The capacity to develop levels of intellectual skills progressively begins from understanding, critical/creative thinking, assessment, and applying, analysing, problem solving as well as synthesising to create new ideas, solutions, strategies or new practices. The intellectual skills enable the learner to search and comprehend new information from different fields of knowledge and practices.

Cluster 3: Functional Work Skills	Ø **Practical skills** These are generally work skills and operational skills applicable in common employment environment such as planning; organisational skills; selection of tools, material, technology methods and procedures, while in study context, it may include study skills and preparations, undertaking procedures, scientific skills, designs, research and so forth. It also includes specialised skills which are set by specific subject, discipline, technical or occupation-related work skills and professional practice which enhance professional competence. It should include safe and sustainable practices. Ø **Interpersonal skills** Interpersonal skills refer to a range of skills which, amongst others, include interactive communication skills, relationship and collaborative skills in managing relationships with others, in teams and within the organisations, interacting and networking with people from different cultures as well as social skills/etiquette. Ø **Communication skills** Communication skills refer generally to the ability to communicate/convey information/ideas/reports cogently and professionally using appropriate language. The communication must be effective and in appropriate forms, in various types, for a wide range of audience and in different situations. The ability to communicate in more than one language is encouraged. Ø **Digital skills** Digital skills generally refer to the ability to use information/digital technologies to support work and studies. The skills include sourcing and storing information, processing data, using applications for problem solving and communication, as well as ethics in applying digital skills.

Ø **Numeracy skills**

These are the quantitative skills that require learners to acquire increasingly higher levels of numerical abilities. It is acknowledged as an important living skill relevant in study, work and daily life. Within the MQF levels, this learning outcome may not be mentioned specifically at every level but it is expected to include the numerical skills as an outcome for every specific programme. It may include understanding of basic mathematics, symbols relating to statistical techniques and etc.

Ø **Leadership, autonomy and responsibility**

This cluster of skills refers to an individual's ability to build relationships and work with teams made up of peers or in managerial capacities with varying degrees of autonomy to make decisions or setting goals at organisational/unit/team levels; to take responsibilities and provide accountability; to be confident, knowledgeable, articulate, honest, professional, concerned, resilient, to be a risk taker and possess other intrapersonal skills including leading and working in teams.

Cluster 4: Personal and Entrepreneurial Skills	Personal skills are life skills that learners are expected to use daily. They are normally portrayed through enthusiasm for independent learning, intellectual and self-development, by demonstrating confidence, self-control; social skills and proper etiquette and commitment to professionalism in the workplace. It also includes capability to plan for career development or further education. The character traits such as honesty, punctuality, time management and meeting deadlines as required in the work environment are also important personal skills. Entrepreneurial skills require relevant knowledge, skills and expertise in key areas of an enterprise. Important personal qualities will include creativity, grit and drive. The learning outcomes describe incremental development of these skills. The drive to be an entrepreneur is set as personal skills but also requires the requisite of relevant knowledge, cognitive and functional skills.
Cluster 5: Ethics and Professionalism	Ethics and values are important at personal, organisational, societal/community and global settings as they guide personal actions, interactions, at work and within the community at large. Having an awareness, understanding and respect of the social and cultural differences and issues are important as part of the professional skills and responsibilities: i.e., integrity, displaying professional conduct (professionalism), and standards of conduct such as upholding regulations, laws and codes of good practices or professional conduct. A sensitive approach in dealings with other cultures adds value to this learning domain.

Source: Malaysian Qualifications Framework (MQF) Version 2.0, Malaysian Qualifications Agency

2.2 Course Materials

ODL refers to the provision of flexible educational opportunities in terms of access and multiple modes of knowledge acquisition. Flexible means the availability of choices for educational endeavours anywhere, anytime and anyhow. Access means opportunity made available to all, freeing them from constraints of time and place. Multiple modes mean the use of various delivery systems and learning resources.

The content of ODL materials is often quite similar to that of textbooks and that ODL materials place much more emphasis on the processes of learning. Below is the structure of ODL materials.

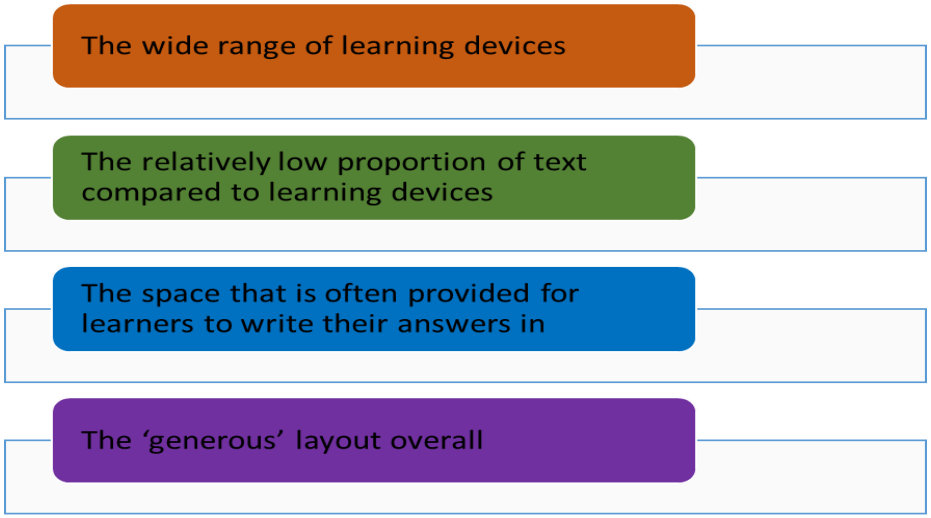


Figure 2.2
Structure of ODL Materials

a. Embedded Support Devices

The term 'embedded support devices' as used by Martens (1998) refers to all the devices that instructional designers include in their materials.

b. Space for Learners' Answers

It is common practice to provide answer spaces in ODL text materials, reflecting the widespread instructor belief that this encourages learners to complete the activities. Learning spaces represent a significant opportunity for higher education to make learners and learning more successful. Learning spaces have the potential to serve the new learning paradigm and at the same time meet the needs and expectations of the most recent generation of students

c. Self Instructional Materials (SIMs)

Self Instructional Materials (SIMs) are teaching materials that specifically meant to enable students to self-learn (or independently learn on their own) about the course (Refer to Chapter 5 in this guideline for more details).

Table 2.3
Comparison of ODL materials and textbooks

ODL materials	Textbooks
Are divided into study units, sometimes representing a week's work	Are divided into chapters, based on topics rather than study time
Include a study guide on how to use the materials and how to study by oneself	Do not include study guides or study guidance
Include study tips (e.g., on note-taking)	Do not include study tips
Include examples	Include examples
Include diagrams and pictures	Include diagrams and pictures
Include numerous activities	Have few or no activities
Provide feedback on answers	Do not provide feedback
Are tightly structured	Are more loosely structured
Address the learner as 'you'	Use passive language (e.g., 'it can be seen that' or 'the reader will note that')
Have a generous layout, often including space for learners to write in	Have pages filled with text, figures, tables, lists and other graphic elements – there is no space for learners to write in
Have as an audience the individual learner	Serve a dual audience: the learner and the teacher
Attempt to meet all the needs of the learner	Assume that the learner has a teacher who will be able to amplify the printed text

2.3 Instructional Design

ODL is becoming an accepted and indispensable part of mainstream education prompted by the need to make learning more flexible and accessible to a wider population, the growing need for continual skills upgrading and reskilling; and advances in technology that have made it possible for teaching to be conducted at a distance. ODL not only has the potentials in fulfilling the fundamental rights of all people to learning but also emphasises the need to incorporate it within the framework of human capital development. To produce good learning outcomes and graduate competencies, student engagement is the key element in designing ODL programmes.

Instructional Design is the systematic development of instructional specifications using learning and instructional theory to ensure the quality of instruction. It is the entire process of analysis of learning needs, goals and developing a delivery system that can meet those needs. It includes developing instructional materials and activities and evaluating all instruction and learner activities.

Instructional design includes the strategies for the attainment of PLOs in terms of constructive alignment of learning and teaching strategies and assessment.

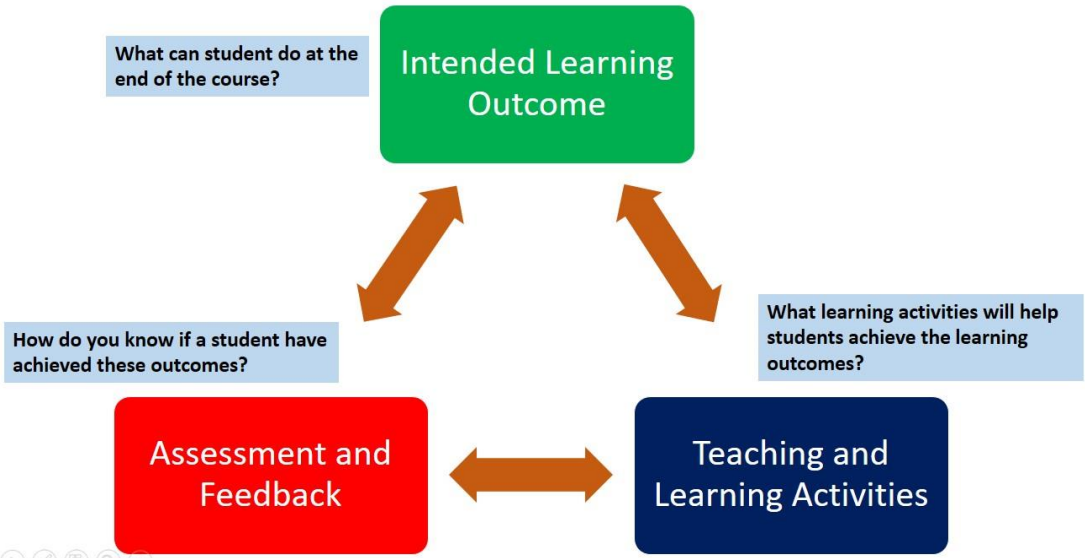


Figure 2.3
Instructional Design Process

2.4 Online Platform

Online platform serves as an online repository for various digital learning materials, tests, assignments and administrative information that is accessible to instructors and learners. It also serves as an avenue for online interaction between the instructors and learners using various web tools. A standard online platform should have tools such as user management, course management, communication and collaborative learning tools and reporting tools. An effective online platform should provide an effective web-based learning system of sharing study materials, making announcements, conducting evaluation and assessments, generating results, communicating interactively in synchronous and asynchronous ways amongst various other academic activities.

HEP should provide a dedicated LMS as a platform for students to access learning materials and other teaching and learning activities. Figure 2.6 is an example of how to use LMS in UUM.

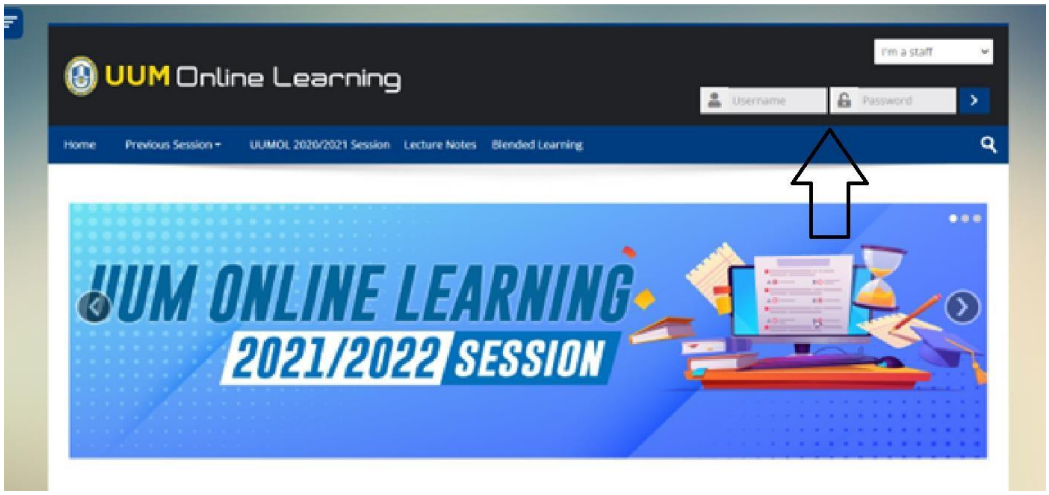
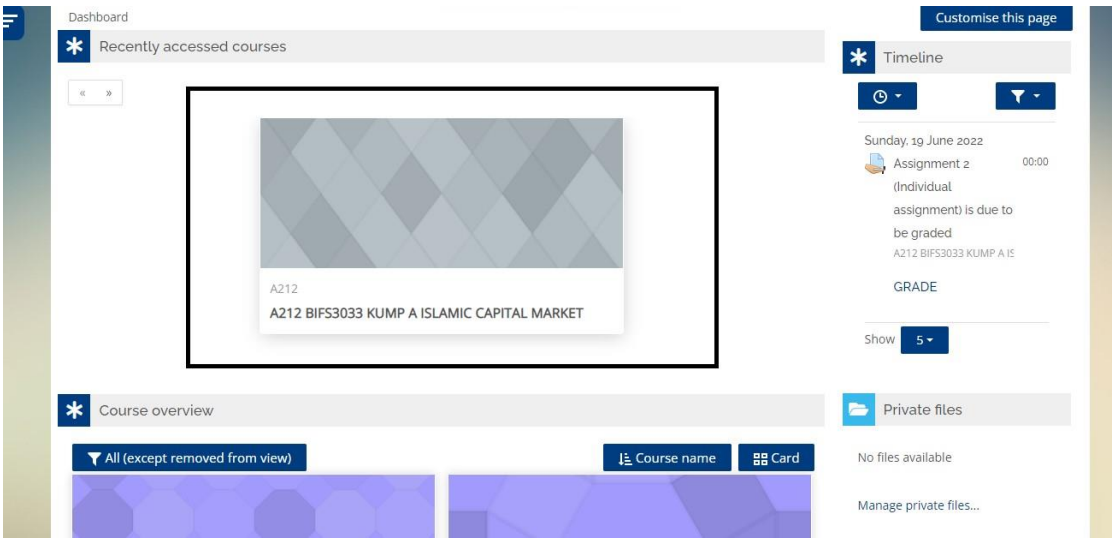


Figure 2.4
Example of LMS

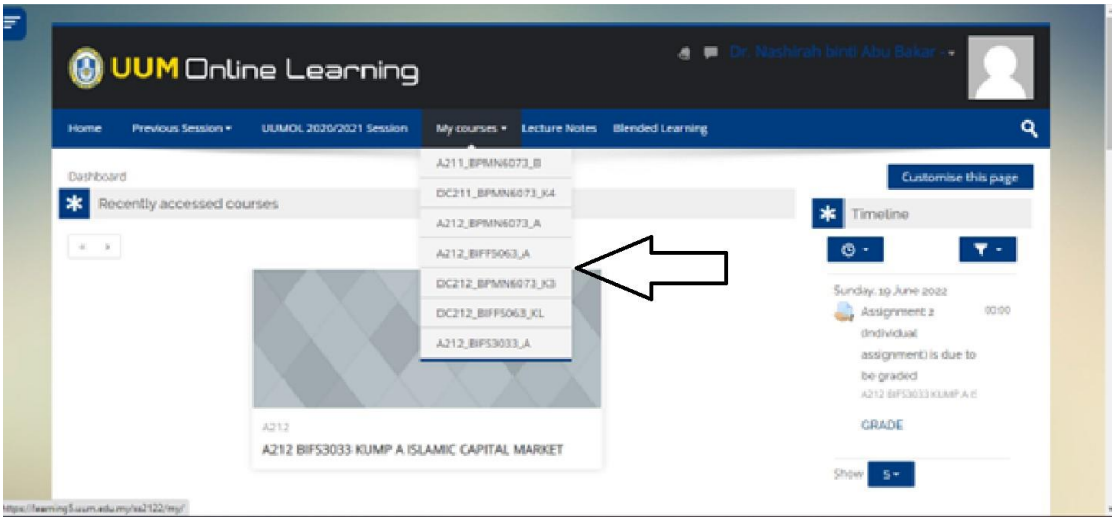
Guideline for using UUM Online Learning:

1. Write the username and password on the UUM Online Learning site.

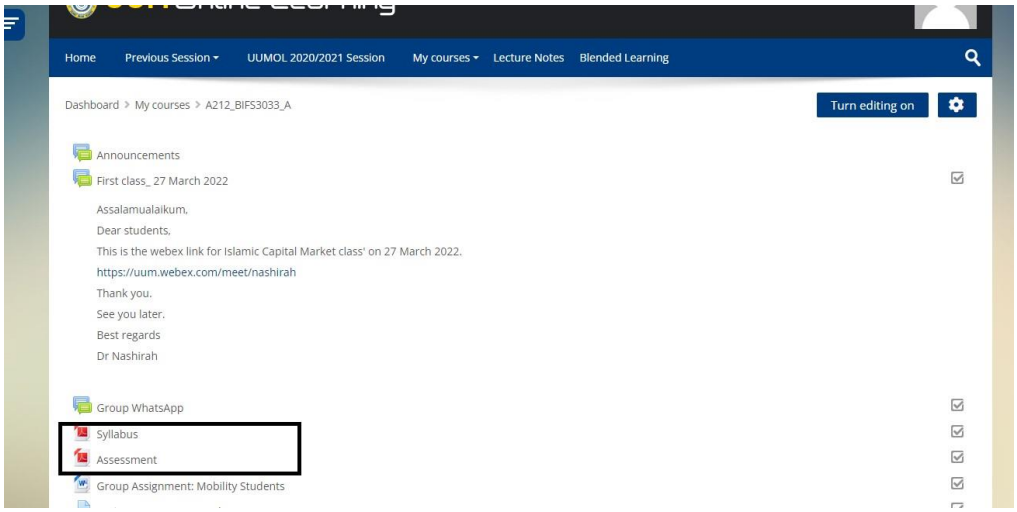
2. The course name will appear on the screen.



3. Click on, ‘My Course’ to review the courses registered for the current semester.



4. Click on the name of the course to download all the materials provided by the instructors.



Various activities and resources of LMS can be uploaded by instructors as shown in Table 2.4.

Table 2.4
Various activities and resources of LMS

Activities/Resources	**Definition**
Assignment	The assignment item enables instructors to communicate tasks, collect work and provide grades and feedback.

Book	The book feature enables instructors to create a multipage resource in a book-like format, with chapters and subchapters.
Chat	The chat space enables instructors and learners to have text-based, real-time synchronous discussions.
Choice	The choice item enables instructors to ask a single question and offer a selection of possible responses.
Database	The database feature enables participants to create, maintain and search a collection of entries (i.e. records). The structure of the entries is defined by the instructors as a number of fields. Field types include checkbox, radio buttons, drop-down menu, text area, URL, picture and uploaded file.
External Tool	The external tool item enables learners to interact with learning resources and activities on other websites. For example, an external tool can provide access to a new activity type or learning materials from a publisher.
Feedback	The feedback item enables instructors to create a custom survey for collecting feedback from learners using a variety of question types including multiple choice, yes/no or text input.
File	The file item enables instructors to provide a file as a course resource. Where possible, the file will be displayed within the course interface; otherwise, learners will be prompted to download it. The file may include supporting files, for example an HTML page may have embedded images.

Folder	The folder item enables instructors to display a number of related files inside a single folder, reducing scrolling on the course page. A zipped folder may be uploaded and unzipped for display, or an empty folder created for files to be uploaded.
Forum	The forum activity feature enables instructors and learners to have asynchronous discussions i.e., discussions that take place over an extended period of time.
Glossary	The glossary item enables participants to create and maintain a list of definitions, like a dictionary or to collect and organise resources or information.
H5P	H5P is an abbreviation for HTML5 Package - interactive content such as presentations, videos and other multimedia, questions, quizzes, games and more. The H5P interactive tools enable H5P to be uploaded and added to a course.
IMS content	An IMS content package is a collection of files which are packaged according to an agreed standard. The IMS content enables such content packages to be uploaded as a zip file and added to a course as a resource.
Label	The label enables text and multimedia to be inserted into the course page in between links to other resources and activities. Labels are very versatile and can help to improve the appearance of a course if used thoughtfully.
Lesson	The lesson feature enables instructors to deliver content and/or practice activities in interesting and flexible ways. Instructors can use the lesson to create a linear set of content pages or instructional activities that offer a variety of paths or options for the learners.

Page	The page item enables instructors to create a web page resource. A page can display text, images, sound, video, web links and embedded code, such as Google maps.
Quiz	The quiz feature enables instructors to create quizzes comprising questions of various types, including multiple choice, matching, short-answer and numerical.
SCORM package	A SCORM package is a collection of files which are packaged according to an agreed standard for learning objects.
Survey	The survey feature provides a number of verified survey instruments that have been found useful in assessing and stimulating learning in online environments. Instructors can use these activities to gather data from their students that will help them learn about their class and reflect on their own teaching.
Turnitin Assignment	The Turnitin Moodle Direct assignment can be created which links an activity in Moodle to an assignment or assignments on Turnitin. Once linked, the activity allows instructors to assess and provide feedback for learners' written work using the assessment tools available within the Turnitin Document Viewer.
URL	The URL feature enables instructors to provide a web link as a course resource.
Wiki	The wiki feature enables participants to add and edit a collection of web pages.
Workshop	The workshop feature enables the collection, review and peer assessment of learners' work.

Figure 2.4 shows the screen regarding activity and resources that instructors can use during the teaching and learning process. Instructors can choose which activity and resource are suitable for learners.

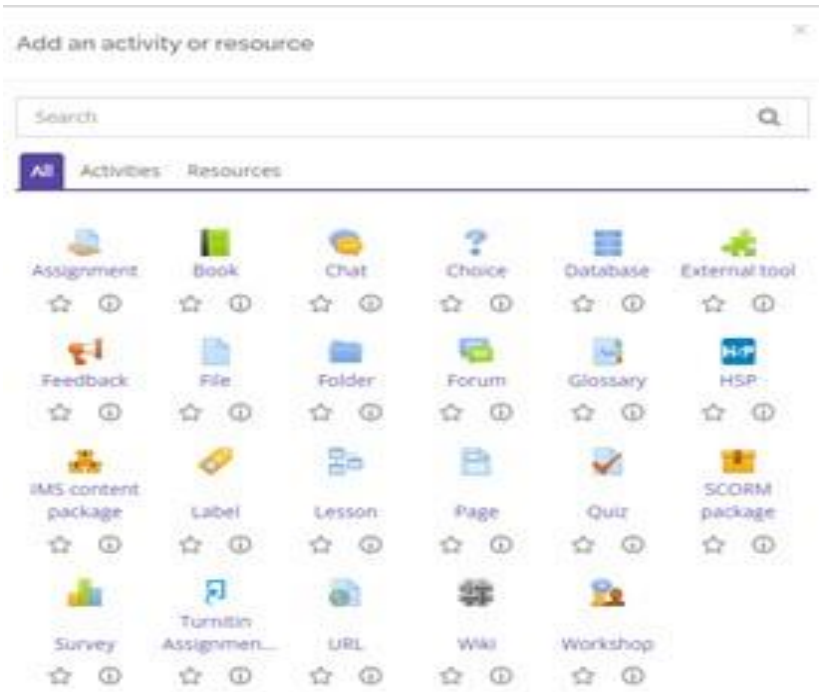


Figure 2.5
List of activities and resources available in LMS

2.5 Mode of Interaction

Mode of interaction plays an important role in the success of ODL programmes. A programme is deemed as an ODL programme if more than 60 percent of the courses offered in the programme are conducted via ODL. Courses that are considered an ODL course should have at least 80 percent of the student learning time (SLT) and must be delivered via ODL mode. This must be supported through regular and substantive interaction between the learners and the instructors synchronously or asynchronously via an electronic learning platform, the provision of self-instructional learning materials and other learning support services. The face-to-face sessions between the learners and instructors can be conducted in various methods which may include physical or virtual sessions. Two types of interaction used in ODL teaching and learning process are known as synchronous and asynchronous as shown in Figure 2.6.

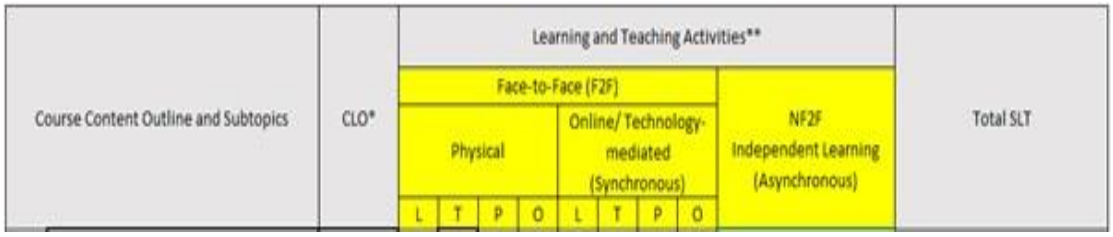


Figure 2.6
Synchronous and Asynchronous Methods

Figure 2.6 shows the synchronous and asynchronous method in the course syllabus. Instructors need to allocate the SLT for synchronous and asynchronous methods. Instructors need to use synchronous and asynchronous methods in the teaching and learning process in order to achieve the standard in MQA accreditation.

Synchronous refers to the types of learning in which learners and instructors are in the same place, at the same time, in order for learning to take place. While asynchronous learning is a student-centred teaching method that is widely used in online learning.

a. Synchronous

Synchronous learning is a type of learning that happens in real-time, where a group of learners are collectively engaged in the learning process. Learning can occur through physical or virtual sessions. This includes in-person classes, live online meetings when the whole class or smaller groups get together. The examples of synchronous learning are as follows:

1. Physical class
2. Live webinars
3. Video conferencing
4. Virtual classrooms
5. Instant messaging

Face-to-face learning and teaching activities including the physical and online/technology mediated (synchronous) is important in the teaching and learning process. Learners can ask instructors directly if they do not understand the subject matter. To fulfil the accreditation by MQA, HEP may provide face-to-face learning (physical class and online class; synchronous) and non-face-to- face (asynchronous) learning style. The HEP can choose any of the following:

1. 100 percent online class (synchronous), or
2. Combine between physical class (20%) and online class (80%):

Below is the example of a course for undergraduate class with 3 credit offers. As implemented by HEP, instructors need to implement one (1) class by online method and three (3) classes by physical method. Thus

instructors need to declare in the syllabus which topic will be delivered using the synchronous method.

As shown in Figure 2.6 below, synchronous learning needs to be included in the syllabus. It can be easy for learners to understand the topic that will be delivered by synchronous methods, the amount of time that classes will be conducted via online and other related information.

	Course Content Outline and Subtopics	CLO*	Learning and Teaching Activities**								
			Face-to-Face (F2F)								NF2F Independent Learning (Asynchronous)
			Physical				Online/ Technology-mediated (Synchronous)				
			L	T	P	O	L	T	P	O	
1	1 Overview of risk and risk management • The concept of risk – conventional vs Islamic perspectives • Risk management – definition and process • Types of risk • Risk vs hazard	1,2		0.5				1	0		6
2	2 Overview of risk and risk management (cont) • Shariah framework relating to risk and risk management • Islamic Financial Services Act and Financial Services Act • Industry Associations • Consumer Protection	1,2		1				0			4
3	3 Overview of risk and risk management (cont) • Takaful practices around the world – focusing on Malaysian insurance and takaful industry • Responsibilities of Takaful Agent	1,2		0.5				1			6

Figure 2.7
Example of Synchronous Activities

The figure also shows the face-to-face (F2F) learning and teaching activities divided into two types that are physical and online/technology mediated (synchronous). For example, the school determines that instructors need to make four classes (16 hours) for ODL class; three classes using physical methods and one class using an online platform. Below is the explanation of the F2F methods:

1. Physical

   Physical activity means that the class is conducted according to the traditional learning methods such as students attending class. The time for teaching and learning in physical class is 12 hours. School is determined that instructors have three times of physical class. Figure 2.8 shows the example of physical class. The total SLT is 12 hours.

	Course Content Outline and Subtopics	CLO*	Learning and Teaching Activities**									Total SLT
			Face-to-Face (F2F)								NF2F Independent Learning (Asynchronous)	
			Physical				Online/ Technology-mediated (Synchronous)					
			L	T	P	O	L	T	P	O		
1	1.0 Islamic Capital Markets: Overview, Growth and Development	1,4		0.5							5	
2	2.0 General Shariah Principles Relating to the Islamic Capital Market	1,2		0.5							5	
3	3.0 Shariah Contracts Relating to the Islamic Capital Market	1,2		1							5	
4	4.0 Shariah Issues Relating to the Islamic Capital Market	1,4		1							5	
5	5.0 Regulatory Framework for the Islamic Capital Market	4		1							6	
6	6.0 Governance Framework for the Islamic Capital Market	1,4		1							5	
7	7.0 Risk Management in the Islamic Capital Market	1,3		1							6	
8	8.0 Sukuk Markets	1,2		1							5	
9	9.0 Shariah-Compliant Stocks	1,4		1							5	
10	10.0 Islamic Fund Management	2,4		1				1			5	
11	11.0 Islamic Private Equity and Venture Capital	2,4		1				1			6	
12	12.0 Islamic Derivatives and Hedging Markets	2,4		1				1			5	
13	13.0 Islamic Structured Investment Products	2,4		1				1			5	

Figure 2.8
SLT for Physical method of teaching and learning

2. Online/technology mediated (synchronous)

Online/technology mediated (Synchronous) activities mean that the class is conducted using online platforms such as Webex, Zoom and other platforms. The time for teaching and learning in synchronous activities is four (4) hours. The school is determined that instructors need to make one (1) class using a synchronous method. Figure 2.9 shows the example of physical class. The total SLT is 4 hours.

	Course Content Outline and Subtopics	CLO*	Learning and Teaching Activities**									Total SLT
			Face-to-Face (F2F)								NF2F Independent Learning (Asynchronous)	
			Physical				Online/ Technology-mediated (Synchronous)					
			L	T	P	O	L	T	P	O		
1	1.0 Islamic Capital Markets: Overview, Growth and Development	1,4		0.5							5	
2	2.0 General Shariah Principles Relating to the Islamic Capital Market	1,2		0.5							5	
3	3.0 Shariah Contracts Relating to the Islamic Capital Market	1,2		1							5	
4	4.0 Shariah Issues Relating to the Islamic Capital Market	1,4		1							5	
5	5.0 Regulatory Framework for the Islamic Capital Market	4		1							6	
6	6.0 Governance Framework for the Islamic Capital Market	1,4		1							5	
7	7.0 Risk Management in the Islamic Capital Market	1,3		1							6	
8	8.0 Sukuk Markets	1,2		1							5	
9	9.0 Shariah-Compliant Stocks	1,4		1							5	
10	10.0 Islamic Fund Management	2,4		1				1			5	
11	11.0 Islamic Private Equity and Venture Capital	2,4		1				1			6	
12	12.0 Islamic Derivatives and Hedging Markets	2,4		1				1			5	
13	13.0 Islamic Structured Investment Products	2,4		1				1			5	

Figure 2.9
Synchronous method for teaching and learning

Therefore, the total students learning time (SLT) for face to face (F2F) activities is 16 hours.

b. <u>Asynchronous</u>

Asynchronous learning is learner-centric which frees the learners from the constraints of time and space. Usually, this form of asynchronous interaction occurs in a delayed electronic mode.

The basic premise is that learning can occur in different times and spaces particular to each learner, as opposed to synchronous learning at a same time and place with groups of learners and their instructors, or one learner and their instructor. The examples of asynchronous learning are as follows:

1. SIM
2. Teaching & learning materials in LMS
3. Email
4. Blogs
5. Pre-recorded video lessons or webinars
6. Online forums and discussion boards
7. Social media platform

For the ODL programme to be accredited by MQA, the programme should provide a sufficient learning time and assessment in an asynchronous learning tool. Due to the lack of face-to-face meetings, instructors need to provide materials to encourage the success of ODL teaching and learning. Asynchronous method is necessary to make sure that learners can obtain enough information regarding the course learning, assessment and evaluation.

Non face-to-face (NF2F) refers to the independent learning (asynchronous) teaching and learning. Figure 2.10 shows the SLT for asynchronous activities. The total student learning time (SLT) for asynchronous activities are 68 hours.

	Course Content Outline and Subtopics	CLO*	Learning and Teaching Activities**									Total SLT
			Face-to-Face (F2F)								NF2F Independent Learning (Asynchronous)	
			Physical				Online/ Technology-mediated (Synchronous)					
			L	T	P	O	L	T	P	O		
1	1.0 Islamic Capital Markets: Overview, Growth and Development	1,4		0.5							5	
2	2.0 General Shariah Principles Relating to the Islamic Capital Market	1,2		0.5							5	
3	3.0 Shariah Contracts Relating to the Islamic Capital Market	1,2		1							5	
4	4.0 Shariah Issues Relating to the Islamic Capital Market	1,4		1							5	
5	5.0 Regulatory Framework for the Islamic Capital Market	4		1							6	
6	6.0 Governance Framework for the Islamic Capital Market	1,4		1							5	
7	7.0 Risk Management in the Islamic Capital Market	1,3		1							6	
8	8.0 Sukuk Markets	1,2		1							5	
9	9.0 Shariah-Compliant Stocks	1,4		1							5	
10	10.0 Islamic Fund Management	2,4		1				1			5	
11	11.0 Islamic Private Equity and Venture Capital	2,4		1				1			6	
12	12.0 Islamic Derivatives and Hedging Markets	2,4		1				1			5	
13	13.0 Islamic Structured Investment Products	2,4		1				1			5	

Figure 2.10
SLT for Asynchronous Activities

Offering a New Programme Procedure for ODL

The procedure for offering a new programme is explained in Appendix 1. The process begins with the first step (Step A). The new programme needs to be approved by JKPA University. The process continues (Step B); the SWA Accreditation Unit needs to submit the MQA-01 document to the Panel Reviewer (APP) for the reviewing process. Next, the endorsement from the University Senate is required (Step C). The SWA Accreditation Unit also needs to inform the MQA regarding the Perakuan Akreditasi Sementara (PAS). HEA needs to submit a document to KPT for approval. After all the documents have already been approved, the university will receive a letter from KPT to offer a new programme.

Surveys

Schools must conduct surveys in order to get feedback from the employees and employers regarding the new programme that will be offered by UUM. The main objective of these surveys is to obtain feedback on whether a new programme is relevant to be offered by PACE. The first survey that should be done is a market survey. This survey needs to be completed by employers. The second survey is a needs assessment survey. This survey needs to be completed by employees. The answers from these surveys are used as evidence that the new programme is important and relevant to offer. This is because the demand from the public regarding the new programme is relevant.

1. Market Survey

   Appendix 2 is an example of a market survey that must be conducted by the school in order to obtain in-depth information from the employers. The feedback from the employers is very important for PACE to know whether the new programme is suitable to offer.

2. Needs Assessment Survey

   The second survey that needs to be done by the school is the needs assessment survey. Appendix 3 shows the example of a needs assessment survey. The employees need to answer this survey.

2.6 Summary

The effectiveness of course planning and development is important in determining the success of the ODL system. Therefore, instructors need to plan a good and clear programme design blueprint. Course material should be provided to learners for clear understanding of the topic that they need to study. The relevant material will help learners to understand the subject matter. The requirements of ODL which is instructional design must be prepared to fulfil the requirement by MQA.

In addition, the online platform is one of the main important platforms in the ODL system. Online platform is a requirement by MQA for any university offering the ODL system. Therefore, an online platform needs to be prepared by the university to get a full accreditation by MQA. The mode of interaction must include the activities for asynchronous and synchronous to ensure that the assessment can be made smoothly and effectively.

3.0 DELIVERY AND SUPPORT SERVICES

3.1 Instructional Support

ODL learners have diverse socio-economic, cultural and educational backgrounds. They must adapt to the independent learning academic rigour and lack of face-to-face guidance from the instructors in this study mode. The learner, therefore, must possess a level of independence and self-regulation to become a successful learner. At the same time, the teaching and learning activities should be designed to cater for the multiple modes of learning involved and tailored to the new online teaching environments. This means that the instructional support provided by the university is vital towards the success of the learners.

Instructional support refers to the strategies that teachers use to enhance student engagement in instructional content. It includes the interactions among the teacher and students that lead to an integrated understanding of facts, skills, concepts and principles. The instructional support applicable for ODL learners is different from the conventional students as they have to study independently with guidance from the lecturers at the minimum. Among the instructional supports that are important in ODL programmes are the academic staff, tutorials, physical and virtual facilities, LMS, SIM and the model of instructional support.

3.1.1 Academic Staff

The schools are responsible for the appointment of instructors to teach specific ODL courses. Since teaching ODL learners is totally different from teaching students in conventional mode, the instructors must have appropriate qualification in the field of the study, and specific skills to teach in these ODL programmes. The HEP may coordinate training for instructors who will teach the ODL programmes. This includes training on:

i. Designing the ODL lessons.
ii. Delivery of ODL lessons.
iii. Assessing the ODL students' achievement.

The above three types of training are compulsory for all instructors before they are appointed as the ODL classes instructors. In addition, lecturers may also attend training on the latest technology in teaching and learning to enhance the teaching and learning environment to enable the instructors to empower students with relevant skills and also experience during the class. Before the start of the semester, instructors appointed should make the necessary arrangement including uploading teaching materials into the LMS, preparing the activities, quizzes or tests and setting up means of communication with the students such as through WhatsApp, Telegram, or other social media. During the semester, instructors are responsible for conducting the classes, activities and

assessments either synchronous or asynchronous. Instructors who are efficient in adopting the latest technology in teaching will make the ODL lessons more enjoyable, conducive, motivating hence creating a more dynamic environment for the ODL students.

3.1.2 Tutorials

Tutorials in ODL classes are completely different from the tutorial conducted for conventional mode of studies where the instructor dictates everything. Due to technology, these tutorials may be conducted through different methods and platforms. In ODL, the objective of the tutorials is to help and facilitate the independent learning process among the learners. It should allow learners and instructors to interact and cannot be a one-way communication. Interaction must occur between both parties either through synchronous or asynchronous methods. Learners and instructors may interact on a real time basis and also have the response be delayed. It means that the programme may rely on virtual tutorial and also leveraging the SIM and LMS to promote self-learning, so that the learners get the advantage both from the instructors and from the SIMs. The instructors should also encourage active communication, engagement and interaction among learners. As such, the teaching and learning activities should involve more project based, more collaborative learning strategies, critical thinking, reflections, evaluations as well as use of more technology in the classrooms.

Another important element of tutorials in ODL is that learners should be able to access the tutorial videos at anytime and anywhere, at their own convenience. Therefore, instructors are recommended to record the tutorials or other meeting videos and have these items available inside the LMS so that the learners may access the video(s) at their own convenience time. In addition, instructors should also update the teaching and learning activities, main and supporting materials and assessments inside the LMS from time to time, throughout the semester. If there are international students enrolled in the ODL programme, instructors should consider the difference in time zone when implementing synchronous activities. Furthermore, instructors should also discuss with the international students to accommodate consultation, test and discussions time that best suit them.

3.1.3 Physical and virtual facilities

Sufficient and appropriate physical and virtual facilities are crucial for the ODL programme implementation. It includes e-learning platforms such as proper information and communication technology (ICT) facilities, e-learning platform,

portal system, digital library and others. HEPs that will offer ODL programmes must make sure that these capabilities are available. If the programme requires support from a regional learning centre, the physical and virtual facilities should be available and accessible to the learners at this centre.

3.1.4 Learning Management System (LMS) and Self-Instructional Material (SIM)

LMS and SIM are the backbone of the academic content for ODL programmes where both perform the function of an effective classroom. Preparing these components is the substantial portion of ODL programmes. Thus, proper planning, organisation and implementation is needed in this area as it consumes most of the time, effort and budget in order to ensure the teaching and learning process takes place efficiently and effectively. LMS is a platform that is designed specifically to create, distribute, and manage the delivery of educational content. LMS is where the SIM, learning videos, forums, lecture videos, graphic and cloud storage function are available for the learners to access. It should create an enjoyable learning platform and virtual classroom environment where the students can review the course materials repeatedly and effectively.

In ODL programmes, the "invisible instructor" is built into the SIM which means that the SIM itself should be able to replicate the teaching and learning activities as in face-to-face classes. SIMs are materials specifically designed to enable learners to study partly or wholly by themselves. The physical onsite or virtual tutorial will be at the minimum level over a semester and therefore, most of the time the learners will study on their own. That is why the concept of an invisible instructor should be built into the SIM. SIM developers must facilitate the interaction between the learners and the teaching materials, activities, quizzes or tests in a similar fashion to what happens during conventional face-to-face tutorials. Hence, the quality of the SIM will determine the access and success of ODL learning. SIM play a critical role in the life of the learners, impact the learning style of learners, keep them connected with the overall contents, help the learners to know their learning deficiencies and fill in the information gap. Since SIM is the critical component in teaching and learning of ODL programmes, it is important for the developer to infuse the SIM into the LMS. Thus when designing the SIM, it should be based on the units of the study and how the LMS framework is constructed and structured. The SIM may be divided into different units where it can be assessed at different points of time or study period of the learners.

In conclusion, LMS and SIM are crucial elements in ODL programmes. It supports the teaching and learning activities which include sharing of course content, lecture videos, tests, quizzes, forums, assignment submissions etc. Both should be designed to support independent learning among the ODL students.

3.1.5 The models of instructional support

The models to support the ODL programmes implementation may consist of these three types:

3.1.5.1 *Learning Centres*

ODL providers may establish a number of learning centres to provide full-fledged services or function as regional centres throughout the country where the primary purpose is for face-to-face tutorials, the learners to congregate, to meet with the tutors and to meet with the university's representative for any support services. It may also be operated as a collaboration with other organisations or other higher education providers. Among the services provided at the learning centres includes registration, counselling, assessment, supervision, access to computers or labs and other support services. If the learning centres are located outside of the main campus, HEP needs to obtain approval to operate the programme from the Ministry of Higher Education (MOHE), which involves a locational audit.

3.1.5.2 *Virtual Classrooms*

Virtual classroom model is made possible these days due to the advancement in technology. It became more popular after the Covid-19 pandemic that caused disruptions in conventional face-to-face classrooms which forced universities to opt-in for synchronous online class. Under this model, a synchronous contact between learners and lecturers is possible by using the video conferencing tools such as Webex, Zoom, Google Meet and others. All learners may attend the tutorial virtually or HEP may implement a hybrid model classroom, which refers to a tutorial session that includes a mix of learners who are present in the physical classroom and also those joining the class virtually. This model allows learners who live far from the learning centres or foreign learners to attend the tutorials without having to physically present at the centres. The implementation of this hybrid model

requires a smart classroom with the latest information technology that enables the teaching and learning process to be carried out efficiently.

Although face-to-face interactions are possible using virtual classrooms, it does not reduce the importance of SIMs and LMS in ODL learning. Instructors still need to provide all the learning resources, and all the other supplementary materials in the SIMs and LMS as most learning activities will happen in an asynchronous manner under this model.

3.1.5.3 *Distance Learning Model*

Distance learning model is the combination of the learning centres and virtual classroom models. Some students may need to come to the learning centre to access the equipment, computers and internet provided to take part in virtual classroom activities. On the contrary, some may have their own devices where they will be able to access the Internet at their homes or workplaces and therefore, there is no need for them to be at the learning centre. Under this model, some tutorials may be conducted face-to-face at the learning centre while the other meetings will be conducted using the video conferencing tools (Webex, Zoom). However, other models may also be considered for future programmes depending on the university's policy with regards to ODL programme implementation.

3.2 Non-Instructional Support

Non-instructional support in the context of ODL programmes refers to administrative, advisory or professional services provided by relevant parties to the ODL learners. Non-instructional support is less visible than instructional support in ODL programmes offering but that does not mean that it is not important. Non-instructional support is equally vital to the smooth operations of ODL delivery. It will help promote student engagement and develop self-belonging to the university. Three main components of non-instructional support include administrative support, financial management support and counselling support.

3.2.1 Administrative support

3.2.1.1 Undergraduate Programmes

PACE UUM and the respective schools which offer ODL programmes are responsible for the design, implementation and to provide the administrative support for the ODL programmes. PACE is responsible

for providing proper orientation/induction programmes for ODL learners. These includes training for the new students on how to access and use SIMs/LMS, student portal, digital library services, informing the learners on who the tutors are, how they can contact the tutors, deadline for assignment submissions, updates in the curriculum or procedure, how to access SIMs/LMS, when the examination is and how to access the results. PACE UUM is also responsible for managing and coordinating the SIMs and LMS. Thus, only students who have registered for a certain course in a particular semester can access the content in the LMS and SIMs.

PACE will also be in charge of all the admission and registration aspects including programme marketing, student selection, new students' registration, enrolment of the learners into a specific course or withdrawal from a course and graduation of the student. PACE should work closely with the Academic Affairs Department for the admission and registration of ODL programme students. Finally, PACE is responsible for the record management activities. It is important especially for audit and accreditation purposes. This includes management of various important files such as student files, admission, performance, students' progress, examination and result, attrition, CLO/PLO achievement measurement and graduation files.

The schools which have programmes offered through ODL mode will be responsible for nominating the lecturer for courses offered during the semester. In addition, they should also work closely with PACE to ensure effective delivery of the programmes by the appointed lecturers. This includes appointment of programme coordinators who will administer the programme and work hand-in-hand with PACE to ensure the successful implementation of their ODL programmes. In addition, ODL programme design and implementation may require a cross faculties support and effort as the course in the curriculum might be offered by another school that has no ODL programme at all. Therefore, all departments and schools involved must provide the necessary assistance to support the implementation of ODL programmes. The school and departments involved in ODL programmes also should work hand in hand with University Teaching and Learning Centre (UTLC) to plan, organise and conduct trainings and workshops for faculty members who will be involved in teaching ODL students.

Programme coordinator is the person-in-charge for the ODL programmes and the nomination is made by the dean of the school to the vice chancellor. The coordinator must be a full time academic staff with similar qualification and experience as required by the MQA as stated in Area 1 and 4 of the Code of Practice for Programme Accreditation: Open and Distance Learning (COPPA: ODL). Besides that, the coordinator must be someone who is well versed in the curriculum, knows the difference between conventional and ODL programmes, well aware of the MQA and COPPA ODL requirements, the learning system and also the support system used in ODL programmes.

3.2.1.2 Postgraduate Programmes

For postgraduate programmes, the Graduate School and the respective schools which offer ODL programmes are responsible for the design, implementation and to provide the administrative support for the ODL programmes. The schools are responsible for providing proper orientation/induction programmes for ODL learners, training on how to access and use SIMs/LMS, student portal, digital library services, informing the learners about the tutors' details, how they can contact the tutors, deadline for assignment submissions, updates in the curriculum or procedure, how to access SIMs/LMS, when the examination is and how to access the results. Schools are also responsible for managing and coordinating the SIMs and LMS. Thus, only students who have registered for a certain course in a particular semester can access the content in the LMS and SIMs.

On the other hand, graduate schools will be in charge of all the admission and registration aspects including programme marketing, student selection, new students' registration, enrolment of the learners into a specific course or withdrawal from a course and graduation of the student. Graduate schools are also responsible for record management activities. It is important especially for audit and accreditation purposes. This includes management of various important files such as student files, admission, performance, students' progress, examination and result, attrition, CLO/PLO achievement measurement and graduation files.

3.2.2 Financial management support

The respective school, PACE/Graduate School and UUM Bursar should play an effective role in determining the financial aspects of ODL programmes offerings. This includes determining the right amount of fee to be charged, structured the payment plans for students and determine the methods of fees collections. When determining the fees, relevant parties should determine the cost and profit, benchmark and refer to other universities that offer the similar ODL programmes and ensure that the fee is affordable and fair for the students. Discounts and rebates for alumni, senior citizens, and persons with disabilities may be considered when determining the fees for ODL programmes. As required in COPPA ODL area 5, the university must demonstrate the commitments towards this programme by demonstrating the financial viability, budgeting authority and autonomy in budget allocations for this programme. In addition, commitments, need analysis conducted, programme development committee, and willingness to invest in infrastructure and resources for ODL programmes must be present so the continuity and the quality of the programme can be assured. PACE or graduate schools are responsible for fee collections and should assist the students, especially those who will pay the fees using PTPTN, KWSP or other funds.

3.2.3 Counselling support

Students may face various challenges during the course of their study and therefore, counselling services are vital to support the students and help them through their difficulties. Among the usual problems faced by students include financial problems, academic hardship, family problems and it requires some interventions from the counsellors or even the tutors to provide the necessary assistance. Counselling support services will be provided by UUM counsellors. At the moment, UUM Counselling Centre is developing an e-counselling system to improve the counselling services and it will be applied to ODL students as well.

3.3 Monitoring and Reviewing

The owner of the program needs to carry out continuous evaluation and make necessary adjustments to the curriculum by getting feedback from various assessors such as the internal and external assessors. Program's curriculum needs to be reviewed every 5 years through the curriculum review process. If there are amendments to the curriculum, the school needs to prepare working papers, discuss and finalise them at four (4) levels namely the School JKPA, College JIL (for postgraduate program only), *Saringan* JKPA, University JKPA and Senate. The overall curriculum evaluation is the prerogative of the University Senate. Once

the Senate has endorsed the amendments, the documents will be forwarded to MoE for approval.

At the School level, the programme monitoring and review committee will be the JKPA which comprises the Dean, Deputy Dean (Academic and Internationalisation), Programme Chairs and the appointed academic staff. For the taught courses, academic staff will be appointed to review and prepare related documentations. Meetings will be held periodically to discuss the feedback and incorporated into the existing programme structure. The suggested improvements will be presented to the College JKPA/JIL, Saringan JKPA, University JKPA and then to the Senate for endorsement. Online learning support services, content for the courses will be provided by the department. System or portal will be supported by UUMIT.

There are FIVE (5) assessors playing roles for monitoring and reviewing.

3.3.1 Learners

Learners need to assess the teaching quality of taught courses, which contribute to the improvement of the programme. It is conducted at the end of every semester through supervisory electronic evaluation form monitored by a specific PTJ. Learners will provide feedback through rating and written insight on their perception about the courses and facilities to guide the academic staff in improving their teaching and updating the syllabus contents. The data will be submitted to the PACE Director for monitoring.

3.3.2 Course Coordinator and Instructors

In terms of monitoring, instructors need to play a major role in improving the quality of the academic programmes. They are responsible to submit three excellent, modest and weak assignments to the subject coordinator for monitoring purposes every semester. They are also responsible for providing quality teaching and supervision according to the new development of knowledge in the respective areas, industrial needs and requirements from the relevant authorities and stakeholders. In addition, their involvement and achievement in research and publications in their area of expertise will contribute in enhancing the quality of the programme.

In terms of the final exam or final assessment question moderation, the ODL coordinator must assist and ensure that the final examination questions or final assessment is done at the school level to ensure that the questions given are relevant with the course learning outcome and achieve the desired standard, and the taxonomy level. The subject coordinator must send the

final examination questions or final assessment questions to two lecturers. Corrections need to be made if there are any improvements related to the question before the question is displayed in the LMS or given to learners during the final examination. All documents related to the moderation will be kept by the ODL program coordinator.

At the end of the semester, there should also be a marks moderation process to ensure the accuracy of the marks given by the instructors. The ODL coordinator must ensure that the marks moderation process is done at the school level before the marks are transmitted by the subject coordinator. The marks must be moderate by at least two lecturers and verified by the course coordinator before the moderation process at the school level. During moderation meetings at the school level, schools must provide a justification form and give it to the subject coordinator to be filled if 50% of students get A or/and A+ results and/or 20% of students fail (C-, D+, D, F) for the courses offered in the semester. The justification form should be kept by the ODL coordinator. If a student does not take the exam or final assessment online, PACE should provide a final assessment form to the course coordinator. The form needs to be filled in by the course coordinator and verified by the dean of the school so that a certain status can be placed in the portal and the course coordinator can transmit marks for the semester.

3.3.3 Ministry of Higher Education (MoHE) and Malaysian Qualifications Agency (MQA).

The quality of the programmes at university is monitored by the Higher Education Department *(Jabatan Pengajian Tinggi*) at MoHE in terms of curriculum design, and by the Malaysian Qualifications Agency (MQA) to ensure that the programmes offered are always current and relevant to the needs of the industry. School, Graduate School and PACE should work together to ensure that the monitoring and review process for the ODL programmes will be conducted based on the MoHE and MQA requirement.

3.3.4 Adjunct Professors

Adjunct professors are appointed by the school and may be invited to discuss with the academic staff on the current development in the industries from the practitioners' point of view. Through such discussions, Deans and academic staff will reflect on areas that need to have further improvements in their programme curriculum. Revisions to the programme's learning outcomes, teaching methods, syllabus contents or structure should be considered as recommended by the adjunct professors.

3.3.5 External Assessors

One of the elements of continuous quality improvement in COPPA ODL is regarding the appointment of external assessors. For each program, at least one external assessor who is an academician from other universities need to be appointed to assist in the curriculum review process.
In addition, schools may appoint one ODL expert to assist the program review if needed.

3.4 Support System and Services

Universities need to provide institutional and course support systems and services to learners and instructors if they face certain problems or obstacles in their teaching and learning. The requirements for support systems services in the curriculum and program levels in university includes three stages:

3.4.1 ODL Learners' Orientation

ODL learners' orientation differs from the conventional students as the objective of the orientation should focus on the explanation and expectation for ODL learners. The orientation session should inform the learners that the process of learning for ODL learners is independent or self-directed. Under the ODL program there will be only 20 percent of tutorials (synchronous or asynchronous) from the whole process of learning. Whilst, the rest of 80 percent of the learning process will be independent and supported by LMS and SIM. Learners should also be informed that all the assessment will be conducted via online. The HEP should provide a list of equipment needed by learners during the process of learning such as a good internet connection, and laptop or desktop with necessary operation systems and specifications. In addition, learners should be reminded about the importance of polishing some skills including technical and basic management such as exploring learning using various modalities and building an effective time management for their own self. The University will inform learners about the support system that is available for learners to ensure the learning environment is conducive.

HEP must organise briefing on ODL programmes for each semester every year to new learners regarding the overall process through that semester. The content of the briefing must include the introduction of the ODL programme (vision, mission and etc), course schedule, explaining the details on how to use LMS and what the support systems services offered by university.

Apart from that, the University also needs to provide an online Service Desk System where learners, administrative staff and

instructors could provide feedback or complaints on all matters pertaining to ODL academic programmes.

3.4.2 During the semesters

These are among the support and services that should be provided to the learners when the semester is commencing.

3.4.2.1 Synchronous Tools for Teaching

The HEP must provide a platform for online teaching and learning such as WebEx, Google Meet, Zoom etc. PACE and UUMIT must control and ensure that the facilities provided can practically be used for teaching and learning. If problems occur, the department in-charge must play a role in solving the problem.

3.4.2.2 LMS

HEP has to provide a Learning Management System (LMS) for teaching and learning process. Instructors are encouraged to use technology in their class instructions especially the LMS to conduct classes and tutorials through Blended Learning method. Schools need to facilitate workshops to encourage instructors to use new methods (SCL approach) in learning and teaching. Briefing on teaching and learning must be provided by the HEP. Other than interactive activities in lectures and presentations, colloquiums, workshops and seminars are conducted for both learners and instructors to participate and thereby create a more conducive e-environment for scholarly and creative achievements.

3.4.2.3 e-Resources

In terms of teaching and learning resources, the university needs to provide a sufficient number of facilities such as e-library, computer labs, WIFI and classrooms available for learner utilisation. E-library must include:

i. Material Borrowing and Reservation
ii. Material Searching
iii. Library Membership
iv. e-books/books Inter Library Loan
v. Research Repository
vi. Plagiarism Verification
vii. Rare Reference (Red Spot) Material

3.4.2.4 Carry Marks

Instructors are required to provide the coursework marks to learners according to the academic week as announced by the Academic Affairs Department. The proportion of marks that should be announced are subjected to the Academic Affairs Department announcement for the particular semester.

3.4.3 Post-semesters

HEP is responsible for announcing the results of the assessment. If there is an application to review the examination paper or final assessment by the learner, the form must be sent by the learner to the respective school. A review committee will be formed headed by the dean of the school. The review committee should review the answer sheets according to the answer scheme to ensure that there are no errors in giving marks for the final examination. Review of examination results for courses that do not have a final examination will only involve marks that have not been announced to the students yet.

Upon graduation, learners are required to complete the tracer study, download graduation letter and transcript. In the same portal, universities must provide convocation scheduling.

3.5 Summary

The success of ODL programmes depends a great deal on the extent to which the university can provide good instructional and non-instructional support to ODL learners. Instructional support covers aspects of academic readiness, physical and virtual facilities, the LMS and SIMS and the instructional model applied. Non-instructional support provides administrative assistance to the learners, financial management support and counselling support. All the support systems and services must be well established and strengthened to provide the best service to the learners, before, during and after the semester. In addition, continuous monitoring and reviewing needs to be implemented from time to time, including the processes such as moderation of final examination questions, refinement of marks, curriculum review, as well as the appointment of adjunct professors and external assessors. In that way, the HEPs can ensure that not only will the ODL programmes remain to be relevant but also of good quality.

4.0 ASSESSMENT AND QUALITY CONTROL IN ODL PROGRAMME

4.1 Programme Assessment

Assessment is a key aspect of quality assurance and it is one of the most important measures to show the achievement of learning outcomes. Stassen et al. (2001) defined assessment as "the systematic collection and analysis of information to improve student learning" (p. 5). Assessment plays a critical role in teaching and learning as it provides useful feedback for instructors about students' knowledge and understanding and the extent to which students are meeting learning objectives. Therefore, it is crucial to ensure appropriate assessment methods are in place.

Nowadays, programme learning assessment including ODL emphasises on Outcome-Based Education (OBE) which requires instructors to align assessment principles, methods and practices with the programme learning outcomes and is consistent with the MQF framework 2.0. The alignment between assessment and the learning outcomes in the programme must be systematically and regularly reviewed to ensure the attainment of the intended learning outcomes.

4.1.1 Student Learning Time (SLT)

A programme of study is deemed as an ODL programme if more than 60 percent of the courses offered in the programme are conducted via open and distance learning. In order for a course to be considered as an ODL course, at least 80 percent of the student learning time (SLT) must be delivered via open and distance learning mode.

SLT must be supported through regular and substantive interaction between the learner and the instructor synchronously or asynchronously via an electronic learning platform, the provision of self-instructional learning materials (SIMs) and other learning support services. The face-to-face contact sessions between the learners and instructor can be conducted in various modalities which may include physical or virtual sessions.

Total SLT allocated for assessment for 3 credit courses is 36 hours, whilst for 4 credit courses, total SLT for assessment is 48 hours. The instructor should design all the assessments both formative and summative within the hours allocated based on the total credit hours.

4.1.2 Assessment Readiness

ODL learning assessment has the same objective as the traditional method. However, ODL learning assessment requires

specific skills sets including appropriate technological and communication skills. Therefore, it is important for a programme to have an appropriately qualified and sufficient number of academic staff to support the implementation of ODL. The academic staff or instructors are not only experts in ODL teaching and learning but they also have the ability to design a clear assessment plan which include forms of assessment and the taxonomies used and align it with the nature of ODL. They must also be able to use a variety of virtual learning assessments for example e-assessment, quizzes, etc., to ensure the assessment process is effective, interesting and able to achieve its intended objectives.

To support the implementation of ODL assessment, the HEP can provide a formal staff induction and continual staff professional development programme for them to be current in their knowledge and skills related to ODL teaching and learning as well as ODL assessment. Assessment can be implemented via online or offline.

4.1.3 Virtual and Physical Sessions

All assessments whether in ODL or face-to-face teaching should use a variety of assessment methods and tools including innovative techniques to assess the learning outcomes and competencies. Hence, instructors are responsible for ensuring that the methods of students' assessment are clear, consistent, effective, reliable and in line with current practices (MQA, 2021)

Instructors are encouraged to use a wider range of assessment to enhance student learning and ensure that students are assessed across a range of abilities. There are two types of learning assessment, namely formative assessment and summative assessment.

i. Formative Assessment

Formative assessment is an ongoing process and has the purpose of making students' learning. It is also known as "assessment FOR learning". The aim of formative assessment is to monitor students' learning to provide ongoing feedback for instructors to improve their teaching and students to improve their learning. In UUM, formative assessment allocates marks between 50 and 60 percent from the overall students' grades. Instructors are encouraged to adopt a variant of formative assessment that aligns with learning outcomes and learning clusters.

Table 1 shows a list of formative assessments which can be used by educators in designing their learning assessment.

Table 4.1
Variation of formative assessment

DIMENSION OF FORMATIVE LEARNING	
1.	Informal vs formal
2.	Immediate feedback vs delayed feedback
3.	Curriculum embedded vs stand-alone
4.	Spontaneous vs planned
5.	Individual vs group
6.	Verbal vs nonverbal
7.	Oral vs written
8.	Graded/scored vs ungraded/unscored
9.	Open-ended response vs closed/constrained response
10.	Teacher initiated/control vs student initiated/control
11.	Teacher and student vs peers
12.	Process oriented vs task/product oriented
13.	Brief vs extended

14.	Scaffolded (teacher-supported) vs independently performed

All the formative assessments can be implemented via online using appropriate platforms.

ii. Summative Assessment

Summative assessment refers to "assessment OF learning". Summative assessment is given at the end of the learning session. Summative assessment is considered an outcome or product of learning to measure learners' performance by comparing it against some standard or benchmark. Mid semester and final exam are examples for summative assessment. Instructors can choose between online and offline (traditional face-to-face exam format) assessments for ODL students.

To support instructors in designing their assessments, UUM has released several assessment guidelines which cover both types of learning assessment. The following are the list of guidelines for educators which can be utilised for the ODL programme.

GUIDELINE FOR UUM REMOTE LEARNING ASSESSMENT

UUM-EXAM ASSESSMENT-ONLINE GL2.1 ONLINE FINAL EXAM

UUM-EXAM ASSESSMENT-ONLINE GL2.2 CLOSED-BOOK TAKE HOME

UUM-EXAM ASSESSMENT-ONLINE GL2.3 OPEN-BOOK TAKE HOME

Assessment should be designed based on two fundamental principles, namely, validity and reliability.

Validity refers to **TWO (2)** main abilities of assessment. Firstly, the ability of assessment to measure what it intends to measure. Secondly, the ability of the assessment to provide information which is both valuable and appropriate for the intended purpose. Meanwhile, assessment reliability concerns the extent to which a method or instrument of assessment measures consistently the performance of the students. To ensure the reliability of instruments or methods, assessments are always expected to produce comparable outcomes, with constant standards over time and between different learners and examiners.

Therefore, specific policies or procedures to cater for the assessment of ODL has been prepared by the HEP to ensure the security, credibility, validity, reliability, consistency, currency and fairness of the assessment methods as well as managing issues of distant locations and simultaneously process in many locations.

4.2 Procedures of Quality in ODL Assessment

The format of the ODL assessment mirrors that of a conventional final examination, although it will be administered synchronously online. Therefore, the procedures for quality in ODL assessments may be referred to the following guidelines:

GUIDELINES FOR ONLINE AND TAKE HOME ASSESSMENTS

UUM-EXAM ASSESSMENT-ONLINE GL2.1 ONLINE FINAL EXAM

UUM-EXAM ASSESSMENT-ONLINE GL2.2 CLOSED-BOOK TAKE HOME

UUM-EXAM ASSESSMENT-ONLINE GL2.3 OPEN-BOOK TAKE HOME

It is important to note that the latest version of the procedures must be referred to which is subject to the announcement by HEA.

Among the important aspects that must be considered to ensure effective ODL assessments are as follows:

1. **Students Internet Accessibility** – Instructors must ensure that students have medium to high Internet accessibility.

2. **Duration of Exam Time** – The ODL online exams follow the same duration as the face-to-face conventional exams. Each student will submit an individual answer script through the online platform.

3. **Preparation of Exam Papers** – The ODL exam scripts preparation will follow the existing procedure of the school exam vetting. The ODL exam questions are developed through Test Specification Table (TST; *Jadual Spesifikasi Ujian*, JSU) to ensure dedicated CLOs are assessed. The higher-order thinking skills' (HOTS) questions are applied wherever necessary.

   The final exam script format is similar to the conventional format, that is, each question must be accompanied by marks, the recommended time to answer the question and the recommended length (number of words or number of pages).

4. **Exam Submission** – The ODL exam answer scripts must be made available in the electronic copy and must strictly adhere to the deadline given.

5. **Academic Integrity** – All ODL exam answer scripts must be strictly monitored. Students are not allowed to collaborate/discuss/share answers. Every student must sign an honour pledge form prior to sitting for an exam online. All submissions of answers will be checked using TurnitIn.

   Every instructor in the department and school must be clear with issues and policies pertaining to academic integrity, particularly when it comes to guaranteeing the safety and integrity of questions.

6. **Grading** – In order to guarantee the consistency in the ODL assessment, the exam scripts are moderated in accordance to the school practice where answers will be marked based on the guidelines recommended in the instructor's answer scripts. The final exam marks for ODL and final grading will adhere to the existing procedure of the conventional final exams' vetting.

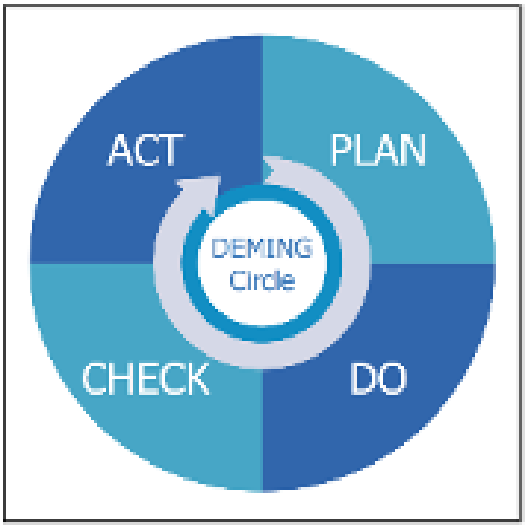
4.3 Continuous Quality Improvement (CQI)

Continuous quality improvement (CQI) is a management philosophy which describes the process of developing and improving the quality of organisations' efficiency and effectiveness in their product and services. From the education institutional context, CQI enables the accurate actions to be planned and conducted within the education bodies to improve the quality of programmes offered, which includes the attainment of Course Learning Outcome (CLO) and the Programme Learning Outcome (PLO). Within ODL, quality is best characterised as fitness for purpose in conjunction with exceptionally high standards, perfection and consistency, value for money and the ability to transform products and service (Pitsoe & Maila, 2014).

The CQI process is an integral aspect contained in the Malaysian Qualifications Framework of the Malaysian Higher Education (MoHE) which provides critical information to the university on the compatible and sustainable design of the programme, assessment, direction and delivery of the curriculum (Hamsan, Mei, Mohammad, & Zaidi, 2021).

The philosophy of CQI follows several stages based on the commonly used and accepted model of Plan-Do-Check-Act (PDCA Cycle) which was introduced as Deming Cycle (1950). This model is shown in the Figure XX below:

Figure 4.1
Deming Cycle



Source: UUM CQI Guideline for Academic Programmes, 2021

The model explains FOUR (4) steps involved in the CQI process, which can be explained as follows:

STEP 1-**PLAN:** This step develops or reviews strategies and/or improvement plans in line with the desired improvements.

STEP 2-**IMPLEMENT:** This is the step that organises strategic plans and/or improvement plans;

STEP 3-**MONITOR AND REVIEW:** This step measures and analyses the achievement of set targets, reflect on the achievement gap and the appropriateness of the strategic plans and/or improvement plans;

STEP 4-**IMPROVE:** Implement improvements or develop performance-based improvement plans related to the targets and suitability of the strategic plans and/or enhancement plans.

4.3.1 CQI for ODL

The CQI for ODL programmes will be the same as all other conventional academic programmes in UUM to ensure that ODL learners receive the same high-quality education as other students.

The CQI process for ODL programmes must be properly implemented by HEP to maintain a higher standard of quality in education. In order for quality improvement to take place, the monitoring, reviewing and evaluating of the curriculum components as well as student progress, employability and performance of the ODL programmes must be conducted on a regular basis. According to the Code of Practice for Programme

Accreditation: ODL (2019), the process must also encompass elements such as the ODL system/structure, self-instructional learning materials, delivery system, communication system, student support services, financial strength, assessment system, teaching strategies and physical facilities.

In UUM, the responsibility for managing the quality of education is led by the Institute of Quality Management (IPQ). IPQ focuses on the quality assurance to enable successful implementation of the strategic plan in achieving the UUM vision and mission which is to be an eminent university. Thus, IPQ must ensure that the academic programmes are aligned with the goals of UUM.

As stated in the UUM Continuous Improvement Guidelines (CQI) for Academic Programmes (2021), the goal for internal quality assurance system (IQA) at IPQ is to implement a systematic and effective quality assurance process where each process is supported by the following:

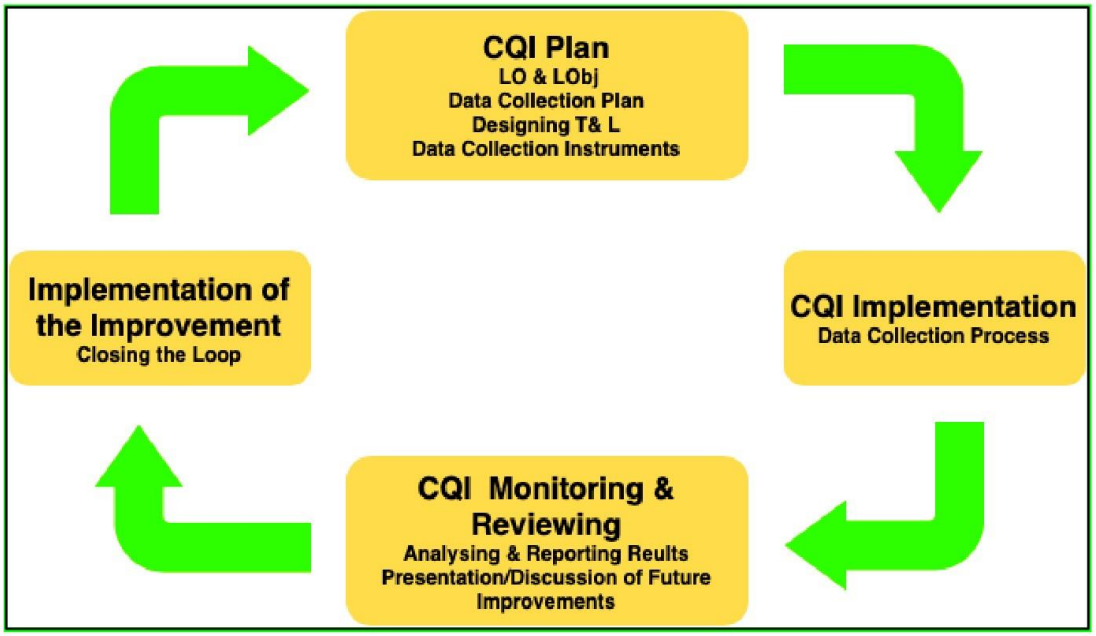
1. The information systems that provide a database of related process operations and feedback systems that collect customers' and stakeholders' feedback;

2. The evaluation and benchmarking process to measure the results obtained and ensure that the process meets the set objectives and targets; and

3. The continuous improvement detailing further actions that need to be taken in strengthening the process, removing and preventing any weaknesses and non-compliance.

In order to ensure a successful CQI process, UUM has further explained the CQI cycle in line with the MQA ‘higher educational institutions' CQI process (2014) as illustrated in Figure XX below:

Figure 4.2
UUM CQI Cycle



Source: UUM CQI Guidelines for Academic Programmes, 2021

Phase I: The CQI Plan

In this phase, a comprehensive CQI planning is required and throughout this phase, a number of crucial aspects are being put into place. This includes the mapping of the learning outcomes/objectives, aligning learning activities and assessment with learning outcomes/objectives, planning for data collection and designing data collection instruments.

The CQI planning begins with the mapping of the learning outcomes/objectives which requires the development of the PEOs, PLOs and CLOs. To understand the difference between the three levels of the CQI plan, please refer to Table XX.

The next step in the CQI Planning phase is to plan for the data collection. This step begins when the school designs and maps the learning outcomes at the programme levels and course levels and followed by the planning of teaching and learning (T&L) activities as well as the assessments which are in line with achievement targets. The planning to assess the achievement of CQI will need to be done in the relevant academic cycle. The following table should be referred to understand the differences between the assessments of PLOs and CLOs:

Table 4.2
The C-CQI versus P-CQI

	Programme assessment (P-CQI)	**Course assessment (C-CQI)**
Scope of assessment	Selected courses for each PLO.	All courses for all CLOs
Sample size	Selected sample of students in the programme.	All students in the class.
School input	Selected group of programme members/faculty	Individual instructor(s) of the course.
Improvement	For the students' performance in the programme by the department.	For students' performance in the class by the individual instructor.
Assessment Cycle	Every academic cycle.	Every semester

Source: UUM CQI Guidelines for Academic Programmes, 2021

The designing of teaching and learning (T&L) activities and assessments for CQI requires a thorough planning to ensure that the correct assignments are given to students that will be able to help them to demonstrate their knowledge, skills and abilities, as well as to ensure meaningful learning experience through the targeted learning outcomes.

And finally, the CQI planning phase must plan for the data collection tools/methods. This is to measure the achievement of the learning outcomes. The tools which are designated to measure the knowledge, skills and abilities must represent the TWO (2) types of measures as below:

1. **Direct measures** refer to the evidence from students' work such as examinations, quizzes, assignments and internship or externship feedback that is based on direct observation of specific performance behaviours or outcomes.

2. **Indirect measures** of learning refer to the evidence obtained from the third-party input. Examples of indirect assessments include exit surveys, alumni surveys, advisory council feedback, employer input, career fair feedback,

inspection of course documentation, external outcome measures, focus groups and interviews

This step also requires instructors to plan and design for necessary rubrics to measure the achievement of each learning outcome.

Phase 2: The CQI Implementation

The CQI implementation involves a data collection process which is based on the CQI plan. The data (students' mark) should be collected using appropriate rubric or assessment instruments tools to measure the learning objective. As mentioned, CQI has to be implemented at both levels; the course (C-CQI) level and the programme (P-CQI) level. The steps involved are the data collection process and the use of the designated rubrics.

Every instructor is required to have clear directions as to how the data collection process is conducted. In the data collection process, the department members have to make sure that the data collection tools or rubrics used are correct and recent. There are FOUR (4) steps to be followed:

1. Deliver the task to students. This is done by sharing the instrument task and instruments.
2. Assess the students' performance by using the designated assessment rubrics.
3. Key-in or record the data.
4. Prepare the statistical summary of the data according to the traits developed in the rubrics.

Phase 3: The CQI Monitoring and Reviewing

Throughout this phase, schools are expected to monitor and review the programme quality. The information that is obtained during this phase will be used as crucial indicators of performance, which will then need to be compared with the performance target.

The first step involved in this phase is to do the analysing and reporting of the students' marks. The data which is obtained from the students' marks will be analysed to identify comparative strengths and opportunities for improvement. This step will then be followed by the preparation of a report that outlines the findings and recommendations for further improvements. This report needs to be shared and discussed among the instructors and programme chair at the department levels

Phase 4: The Implementation of the Improvements

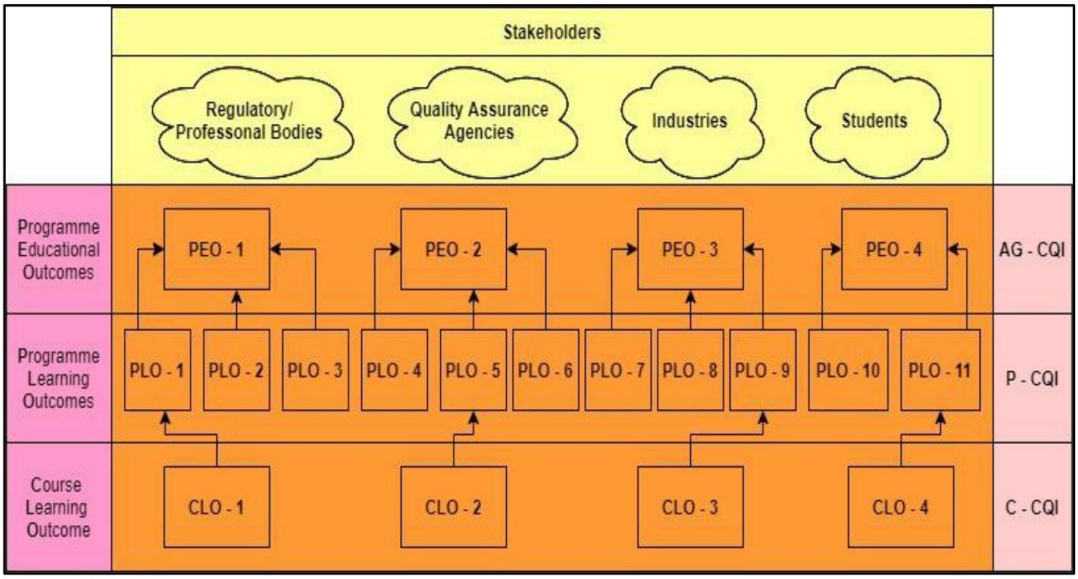
This phase calls for the programme to implement the recommended improvements and recommendations that have been presented at the department level using the information gathered from the CQI monitoring and reviewing phase. The outcome may become the input of the next CQI cycle. This phase is to close the gaps (closing the loop) or to address the opportunities for improvement and to enhance the strengths of the students.

Closing the loop is an activity that marks the end of a CQI cycle, which also indicates the beginning of a new CQI cycle. The Programme Chair and the other instructors of the department need to come up with a plan for improvement.

The implementation of CQI process involves THREE (3) CQI levels as listed below:

1. **Course CQI (C-CQI):** is implemented after students complete a course, which requires a measure of CLO achievement;
2. **Programme CQI (P-CQI):** is also known as the curriculum review process which is implemented after the students complete the entire course in a programme, which requires a measure of the achievement of the PLOs;
3. **'After-graduation' CQI (AG-CQI):** is implemented within three to five years after the students graduate, which requires the PEO achievement to be measured.

Figure 4.3:
The Three Levels of CQI Process



Source: UUM CQI Guidelines for Academic Programmes, 2021

Example of the THREE (3) levels of CQI plan are shown in Table XX below:

Table 4.3:
Different Levels of CQI and Samples of LOs

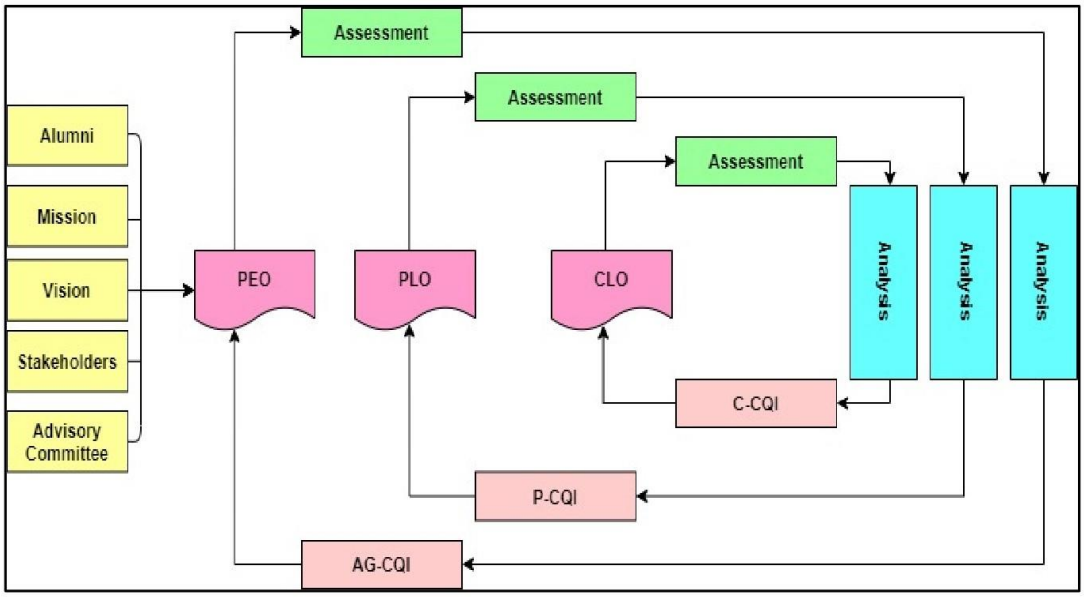
Level	**What | When | How**	**Examples of LO**
After-graduation CQI	Objective: Measures the achievement of the PEO. When: Few years after graduation (3-5 Years). How: Through Employer Survey and the Alumni Survey.	PEO 1: Apply in-depth business knowledge and skills in a business environment. PEO 2: Ability to demonstrate managerial and entrepreneurial skills in a business context.
Programme CQI	Objective: Measures the achievement of PLO. When: • Throughout the academic cycle. • Upon graduation. How: • By referring to the achievement of course performance target, • Exit Survey, and • Programme Survey.	PLO1: To assess in-depth theories and concepts in business administration. PLO2: To apply in-depth and comprehensive business knowledge in addressing key issues in business administration context.

Course CQI	Objective: Measures the achievement of CLO. When: • Upon course completion. How: • Using summative and formative assessments to measure the achievement of CLO.	CLO 1: To explain the basic concepts in strategic management and various type of strategies. CLO 2: To demonstrate strategic decision making solutions from issues or problems of business and management in a given situation.

Source: UUM CQI Guidelines for Academic Programmes, 2021

The learning outcomes must be determined, assessed, and analysed for further improvements at each level of the UUM CQI process, as shown in Figure 4.4 below. The diagram also explains the important role played by alumni, stakeholders and other advisory groups which play a vital role in the CQI processes.

Figure 4.3
Level of the UUM CQI process



It is necessary to have several critical components in a CQI system to be considered effective. The similar CQI elements are applicable for ODL programmes although there are differences in the methods used in the delivery of the programmes. These elements are underlined below:

a) How to implement the Outcome-Based Education (OBE);
b) Methods of measurement, results and evaluation;
c) Approaches taken in the implementation of CQI after evaluation results are analysed;
d) Achievement analysis versus objectives or targets;
e) Evaluate the results achieved.
f) Recording system.

Therefore, it is necessary to understand the guidelines of the CQI systems for the conventional programmes in UUM that can be adopted for ODL programmes. Therefore, the procedures for the UUM CQI Guideline can be further referred to using the UUM CQI GUIDELINES FOR ACADEMIC PROGRAMMES (2021).

4.4 Summary

Assessment is a key component of learning because it facilitates the process of learning to achieve its objectives and helps to motivate students to be active learners. Thus, it is important to have a clear policy to support the implementation of assessment process from the beginning until the end. By understanding clearly, the Student Learning Time (SLT) and assessment readiness, instructors and learners will be able to create better interactions using various digital and electronic learning platform. With the different formative and summative assessment options, instructors will be able to see if ODL students are learning the courses in the way that the syllabus is designed for and if they have reached the goals that have been set. The ODL assessment will follow the format of the conventional final examination, but will be conducted synchronously online and can be referred by a number of UUM Assessment Guidelines provided by HEA. Additionally, Continuous Quality Improvement (CQI), enables the accurate actions to be taken for improvements in the quality of ODL programmes offered. CQI must be executed meticulously through predetermined phases to ensure that all stakeholders comprehend the significance of reaching the desired quality.

5.0 SELF-INSTRUCTIONAL MATERIALS (SIM)

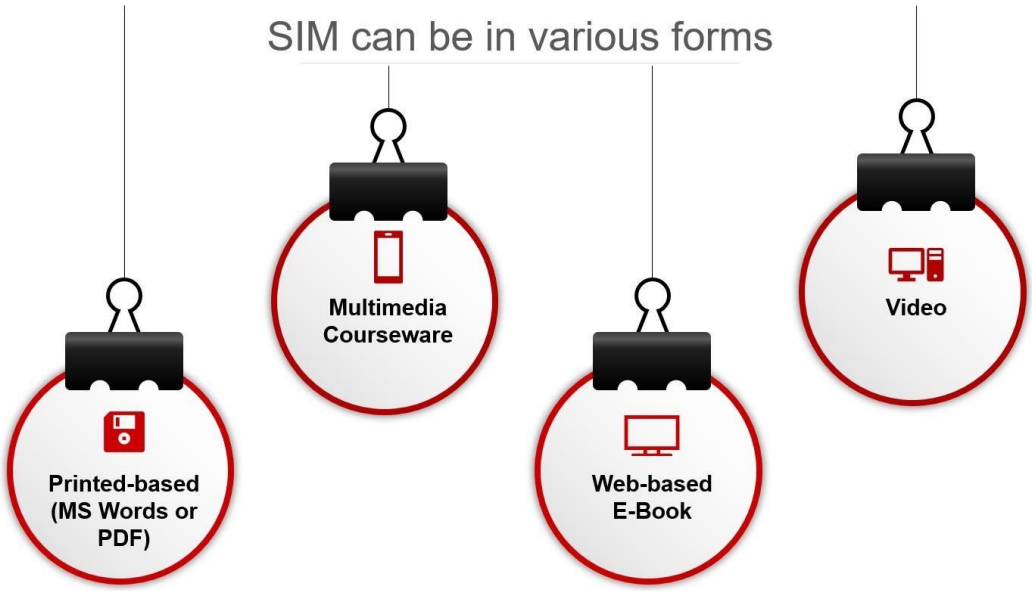
5.1 Introduction

5.1.1 Definition and Purpose

The term Self-Instructional Materials (SIM) has been defined as an educational or learning material that facilitates self-directed learning. SIM is a learning material that 'teaches' students by customising the students' needs. Hence, SIM should be developed to support 'self-study', 'independent learning', 'individualised learning' and others.

SIM is intended to facilitate and assist students by providing the invisible teacher which should be built into the SIM. Students shall use the SIM to learn the course contents and prepare the assignments and examinations. SIM assists students to grow as independent learners with minimal or less support from lecturers or tutors. Therefore, SIM is developed based on sound instructional design principles which are written in learner-friendly, conversational writing style and simple language. The SIM can be in various types:

Figure 5.1
Various Types of SIM



The SIM can be developed and delivered in mixed mode by integrating the above forms. Therefore, a proper mechanism is required to ensure these forms of interaction and delivery are integrated.

5.1.2 Characteristics

SIM should be developed by considering the following characteristics:

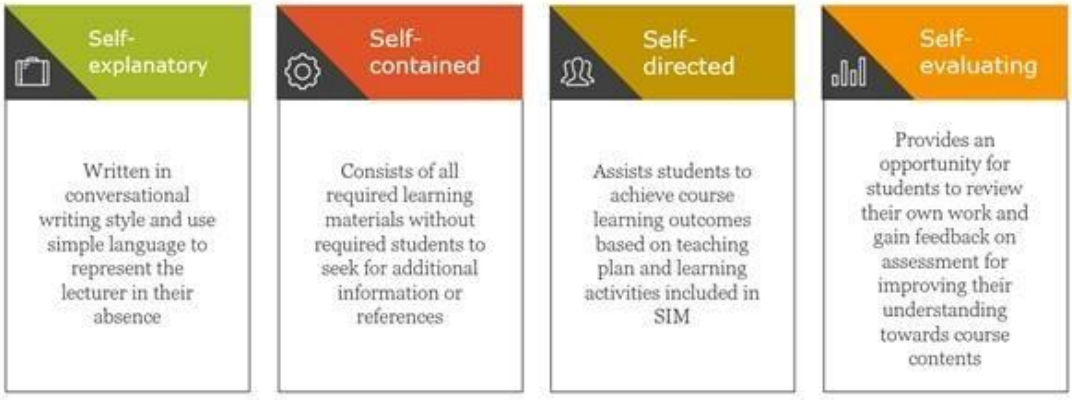


Figure 5.2: Characteristics of SIM

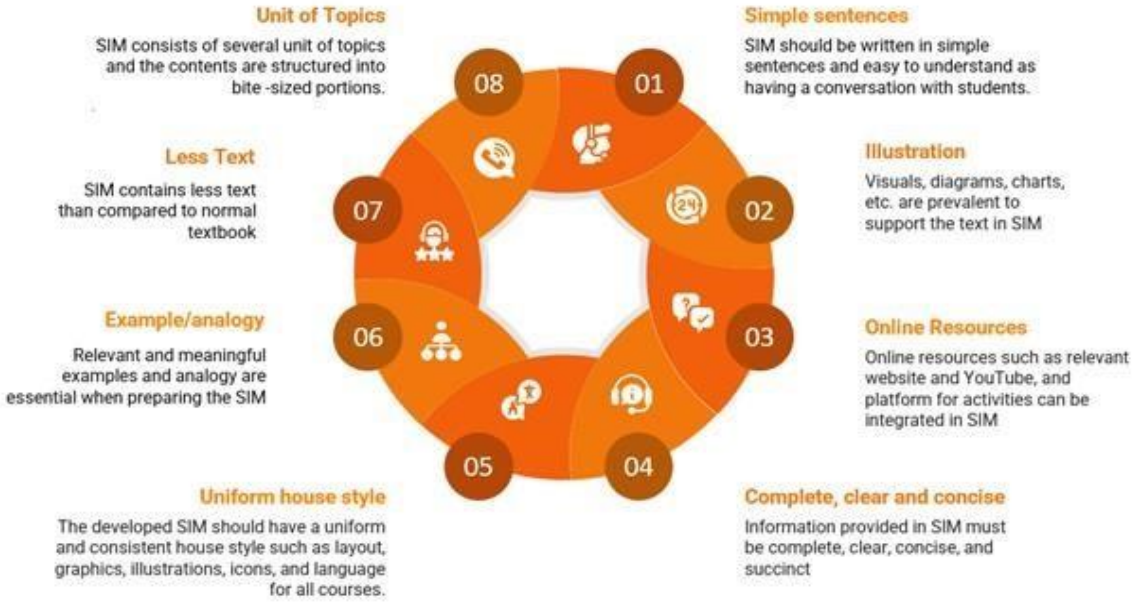
Therefore, the SIM developer must ensure that students can easily understand the contents of the SIM without requiring a detailed explanation by their tutor. The SIM contains everything that is related to the subject matter without requiring students to seek more knowledge and references which are not provided in the SIM. The SIM should properly guide the students in their self-directed learning. The SIM also should contain exercises, quizzes, tests together with answers which allow the students to assess their level of understanding in the particular course.

HEP is required to ensure SIM sets realistic goals for students to achieve course learning outcomes. SIM gives students a sense of freedom to decide what and how they should study based on their learning ability and capacity. They can determine what works for them at their own pace. They also can review SIM as teaching and learning materials during or after tutorial classes. They can plan their schedule and study in short with frequent sessions. Therefore, SIM should be able to motivate students to prepare and maintain their study environment effectively.

5.2 Structure of SIM

SIM should be developed by considering the following aspects:

Figure 5.3
Structure of SIM



Each SIM should consist of the following uniform structure:

Table 5.1
Structure of SIM

Part	Item
Part 1	Welcome Note
	Course Synopsis
	Course Learning Outcomes
	Study Schedule
	Student Learning Time
	Assessment Methods
Part 2	Table of Contents
	Topics/Units
	• Learning Outcomes • Introduction • Sections/Subsections - Learning Content - Activities/Self-Checks • Summary • Key Terms • References • Answer Key

- SIM contents, learning activities and assessment are constructively aligned with the Course Learning Outcomes (CLO).
- The given assessment and self-checks in SIM are appropriate to help students understand and reinforce their engagement in the learning process.
- Keywords and summary are vital to ensure students know what they should have 'mastered'.
- The references used are cited properly and technically correct.

5.3 SIM Development

According to the MQA circular regarding application for ODL programmes (Date: 29 December 2020 [Ref: MQA.100-1/7/2Jld.3(19)], there must be a unit or section devoted to design and development of SIM. This unit is responsible for ensuring that the development of SIM is managed properly and effectively. There are five (5) stages involved in the development of SIM:

a) Course Planning or Structure

1. An appointed course coordinator is responsible for making sure that the SIM are written and prepared according to the course planning and structure.

2. SIM is prepared by adopting existing materials; adapting existing materials; creating original materials; or any other appropriate approaches.
3. SIM should be completed and ready to be used as follows:

    i) SIM for first semester courses when applying Provisional Accreditation (PA).
    ii) SIM for the first-year courses after certified Provisional Accreditation (PA) and approved by KPT.
    iii) SIM for all courses before applying Full Accreditation (FA).

b) Media Choice

The media choice for SIM depends on the material of SIM; print-based, web-based, multimedia, and others. A proper mechanism is required to ensure these forms of interaction and delivery are integrated. Therefore, HEP must provide an electronic or online learning platform to place SIM for supporting learning and teaching activities.

c) Development

The team for SIM development normally consists of the following roles:

Figure 5.4
SIM Development of Team

There are four principal ways to produce SIM:

i) by an instructional designer who is the content-provider and the writer; or
ii) by an instructional designer who commissions freelance content-providers to write the materials; or
iii) by an instructional designer who converts text provided by a teacher; or
iv) by a team of people, including content-providers (subject matter experts), instructional designers and specialists such as audio and video producers.

- These options, however, rely on the ability and capacity of HEP in terms of finance resources, expertise and duration of time.
- The final SIM should be verified and approved by the Dean or Director of HEP before disseminating to the students.

d) Implementation
   - The released SIM is ready to be used by students for each semester.
   - HEP should apply for intellectual property rights and licensing policies for developing SIM and platform used to place the SIM.
e) Improvement
   - SIM should be updated based on the revision of course syllabus (curriculum review).
   - HEP should collect feedback from students and lecturers for the purpose of improving the contents, structures and layout of SIM. This is vital to ensure that the SIM fulfils the students' needs, reinforces the learning process and achieves the Course Learning Outcomes.

5.4 Summary

SIM is a prevalent element in offering ODL programmes which tends to support and assist students by providing the invisible teacher. SIM supports self-learning in various forms; printed form, website, E-Book, courseware, multimedia, and video. SIM development should consider the characteristics of SIM; self-explanatory, self-contained, self-directed and self-evaluated. SIM should have the right structure starting from the welcome note to answer keys. Neglecting the characteristics and the right structure of SIM when developing the SIM will cause poor quality of SIM development. Therefore, SIM developers should clearly understand the definition, purpose, characteristics and structure of the SIM before embarking in developing SIM.

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FREQUENTLY ASKED QUESTIONS (FAQs)

Q. What is ODL programme?

A: The programme is deemed as an ODL programme if more than 60% of the courses offered in the programme are conducted via ODL.

Q: Is the teaching and learning via face-to-face (F2F) compulsory and how long is the time allocation for this F2F?

A: Based on COPPA-ODL, the definition of face-to-face (F2F) refers to actual physical interaction or other communication through technological media that enable students/tutors/facilitators/coaches interact in real time and direct response. F2F learning and teaching is mandatory but the allocation of face-toface contact hours can be set by the HEP itself.

Q: Can new programme be offered via ODL?

A: Yes. The new programme can be offered directly via ODL. Conventional HEP can offer academic programmes via ODL delivery subject to fulfilment of general criteria set based on Surat Makluman MQA Bil. 12/2020.

Q: Is the ODL programme required to apply for accreditation separately from the same programme that is conducted conventionally?

A: Yes, HEP that wants to offer an ODL programme is required to apply for accreditation separately from its conventional programme.

Q: Can the industrial training be replaced by other courses for ODL programmes?

A: This issue is subject to decision stated in the MQA circular: *Surat Makluman MQA Bil.2/2018: Penggantian Latihan Industri dengan Komponen Lain Kurikulum bagi Pelajar Separuh Masa.*

Q: Is the programme curriculum review mandatory for each ODL programme?

A: Yes. it is mandatory. The Programme curriculum needs to be reviewed every 5 years through the curriculum review process.

Q: Do instructors and programme coordinators need to follow the student orientation?

A: No. Student orientation is reserved only for new students. Instructors and course coordinators will be given different briefings by PACE/respective school each new semester.

Q: Is the recorded teaching video considered a SIM?

A: No. The recorded teaching video is not considered a SIM since it does not fulfil the characteristics of SIM.

Q: Is it compulsory to include exercises or activities in SIM to test the learner's understanding?

A: Yes. The SIM is incomplete when no quiz or exercise is provided in the SIM.

The exercises and quizzes are conducted to test the level of learner's understanding.

Q: Should the completed answers be provided in SIM?

A: Yes. The answer for exercises can be uploaded as guidelines for learners to answer the questions.

Q: What are the instructional support components in ODL programmes?

A: The instructional supports that are important in ODL programmes include the academic staff, tutorials, physical and virtual facilities, LMS, SIM and the model of instructional support which includes learning centres, virtual classrooms or distance learning model.

Q: What are the non-instructional support components in ODL programmes?

A: Non-instructional support in the context of ODL programmes refers to administrative, advisory or professional services provided by relevant parties to the ODL learners. It is equally vital for the smooth operations of ODL delivery. It will help promote student engagement and develop self-belonging to the university. Three main components of non-instructional support include administrative support, financial management support and counselling support.

Q: What specific documents can be referred to implement the ODL programmes?

A: The following documents can be referred to:

- Code of Practices for Open and Distance Learning (MQA, 2013) / *(Kod Amalan Pembelajaran Terbuka dan Jarak Jauh* (MQA, 2013)
- *Garis Panduan dan Piawaian Pengendalian Pembelajaran Terbuka dan Jarak Jauh (JPT)*
- e-Learning Guidelines for Malaysian HEIs (KPM, 2014).

APPENDICES

Appendix 1: Procedure for offering a New ODL Programme

Appendix 2: Market Survey

Appendix 3: Needs Assessment Survey