

KURSUS PEMBANGUNAN *SLT* DAN *SELF-INSTRUCTIONAL* *MATERIAL (SIM) MAPPING*

Profesor Madya Zeratul Izzah binti Mohd Yusoh

12-13 Ogos 2026



Trainer's Profile



- Profesor Madya Ts. Dr Zeratul Izzah Mohd Yusoh, FAIX
- Related experiences:
 - ODL - Teaching and Learning:
 - SIM Developer (MAXL 5113: Fundamentals of Data Science)
 - ODL Instructor (MAXL 5113: Fundamentals of Data Science)
 - ODL Panel:
 - MQA Accreditation Panel (ODL, PS Computing, PS Artificial Intelligence)
 - Panel of Assessors, Quality Verification of Standalone Micro-Credentials, Universiti Teknologi Malaysia
 - Panel ODL, Jawatankuasa Pengajian Program Baharu, Sarjana Kejuruteraan Elektronik(Kejuruteraan Komputer), FTKEK, UTeM.
 - ODL Trainings:
 - Workshop on Code Of Practice For Programme Accreditation: Open and Distance Learning (COPPA: ODL), MQA
 - Workshop on Curriculum Design, Delivery, and Assessment for ODL Programmes, CAES UTeM.

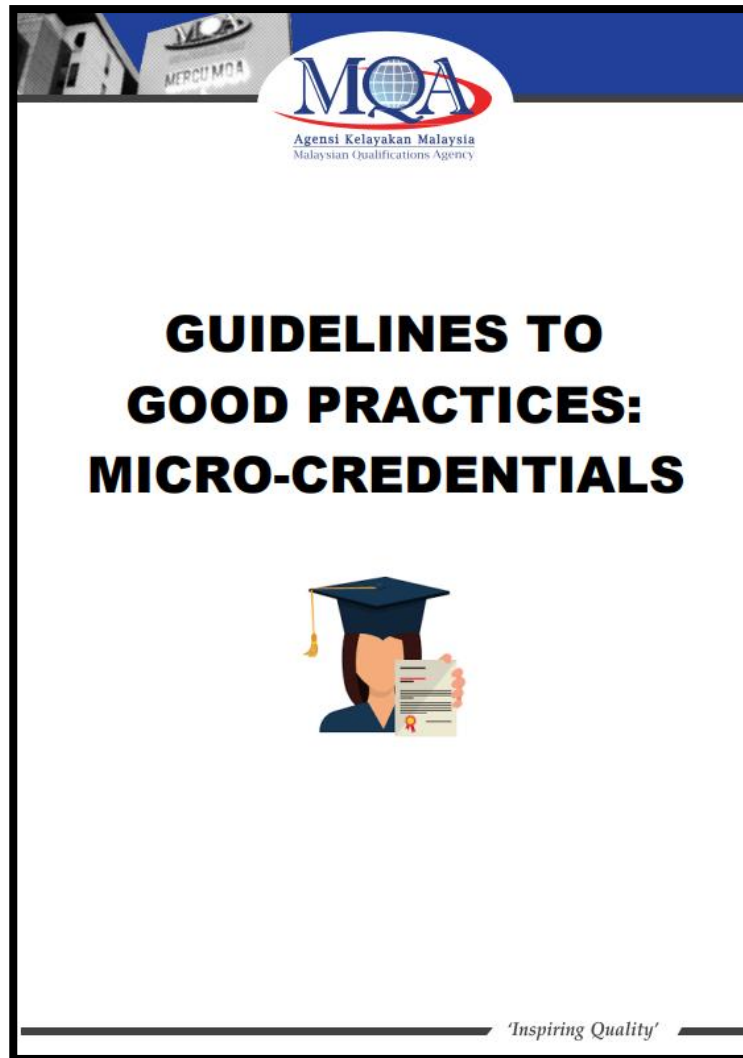
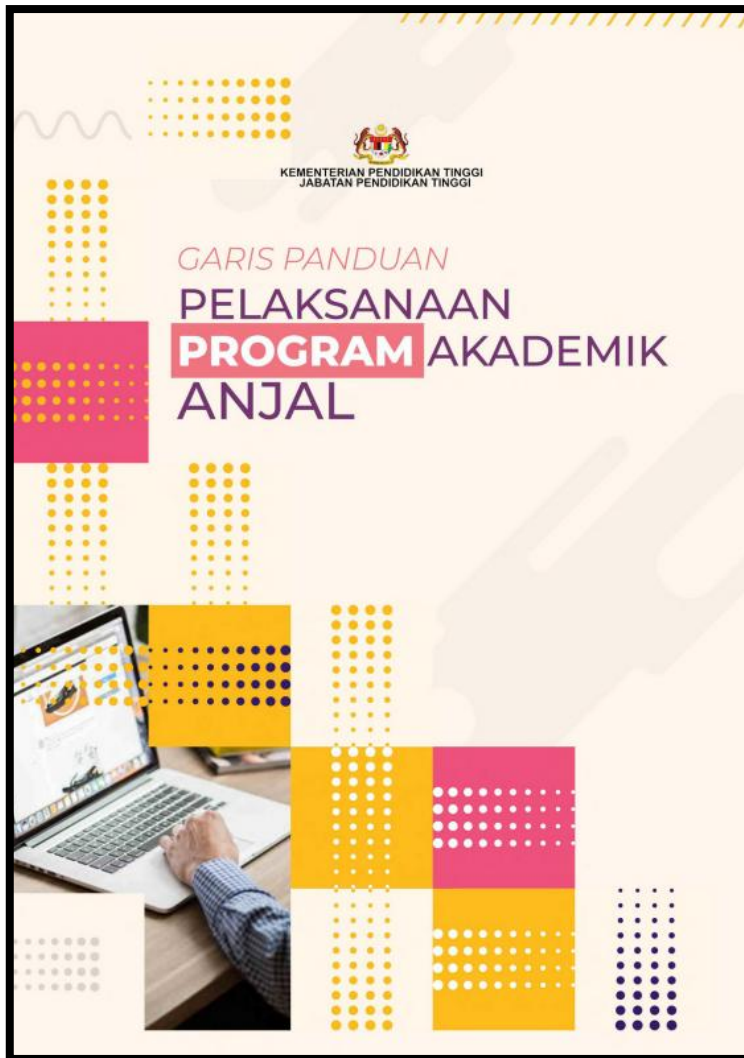
Training Outcome (Day 1)

1. Explain the fundamental concepts and characteristics of ODL
2. Identify key COPPA-ODL requirements and the evidence expected during ODL programme accreditation.
3. Interpret and map Table 4 Student Learning Time (SLT) into a structured SIM plan, including appropriate learning activities, assessments and independent learning.

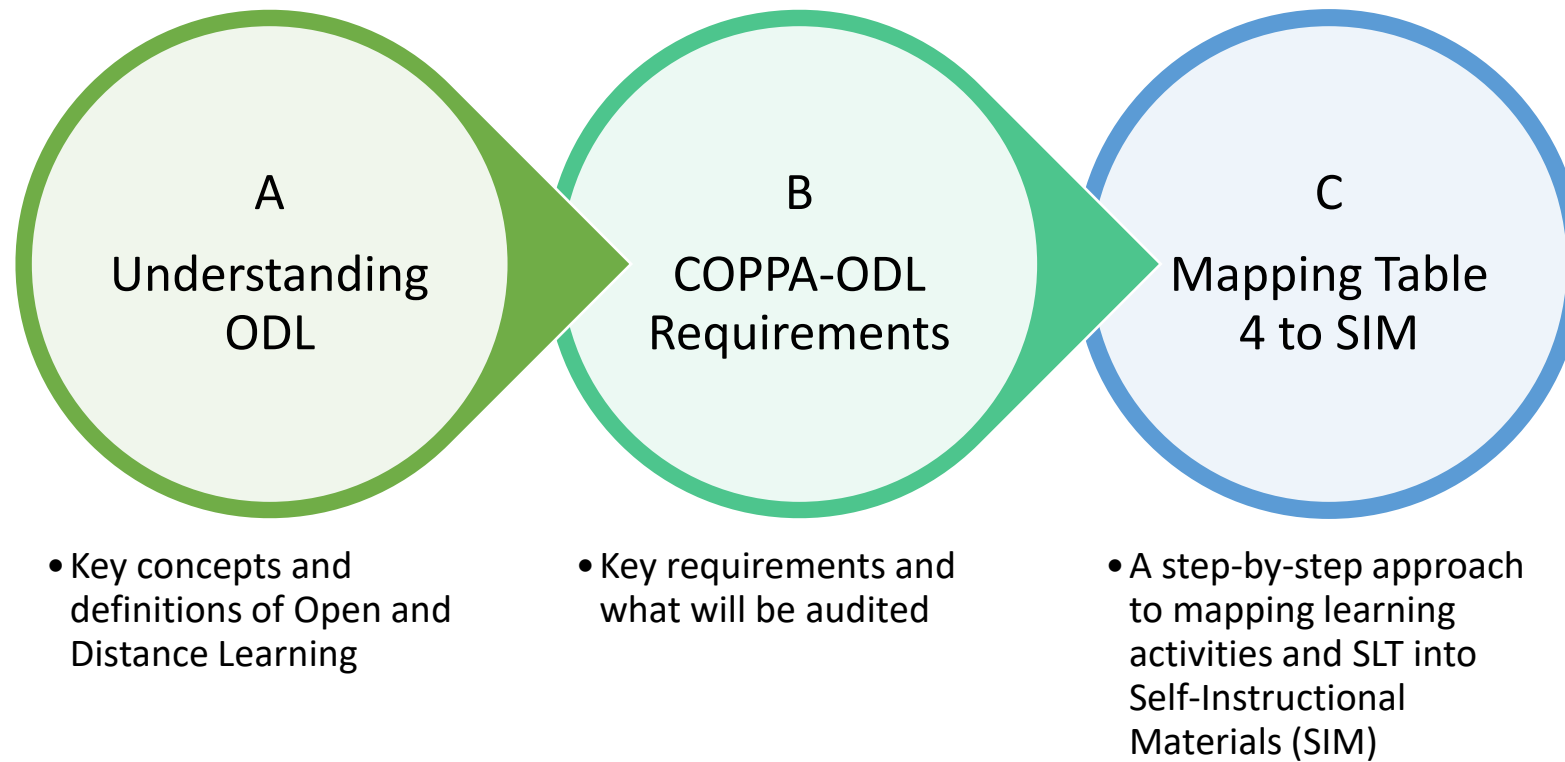
Slides adapted from: Dr Nur Zareen (CODL) and MQA COPPA-ODL, with additional content by Dr Zeratul

References





Course Outline (Day 1)



A - Understanding ODL

1

- **ODL Fundamentals**
Definition, criteria & UTeM context

2

- **Learning in ODL**
From pedagogy to heutagogy

3

- **ODL Learning & Delivery Model**
Synchronous, online & self-managed learning

4

- **Designing for ODL Learners**
Learner journey, learning preferences & SIM

5

- **Supporting Quality ODL**
Staff competency, technology resilience & risk management

ODL Definition

Provision of flexible educational opportunities in terms of access and multiple modes of knowledge acquisition

- **Separation** of teacher and learner
- **Flexible choices:** anywhere/time/how
- **Access:** opportunity available to all - free from constraints of time and place.
- **Multiple modes:** use of various delivery systems & learning resources.

ODL Scenarios?

Scenario 1 — ACCESS

- A lecturer uploads all lecture slides, notes and recorded lectures to ULearn. Students can access them anytime and anywhere.
- Does this make the course ODL?

Scenario 2 — FLEXIBILITY

- You scheduled a 2-hour live online lecture at 8:00 PM. Nobody attend.
- Should you proceed with the class?

Scenario 3 — MULTIPLE MODES

- The CLO requires students to: “Apply data visualization techniques to interpret a dataset.” The lecturer provides only a 40-page PDF module.
- Is one learning mode sufficient for all ODL learners?

ODL Scenarios

Scenario 1 — ACCESS

- A lecturer uploads all lecture slides, notes and recorded lectures to ULearn. Students can access them anytime and anywhere.
- Does this make the course ODL?

Scenario 1 — ACCESS

- Access ≠ simply providing online materials.
- Students must have access to appropriate learning materials, activities, support and assessment that enable them to demonstrate the intended learning outcomes.

ODL Scenarios

Scenario 2 — FLEXIBILITY

- You scheduled a 2-hour live online lecture at 8:00 PM. Nobody attend.
- Should you proceed with the class?

Scenario 2 — FLEXIBILITY

- Flexibility means learning should not depend entirely on being present at a particular time or place.

ODL Scenarios

Scenario 3 — MULTIPLE MODES

- The CLO requires students to: “Apply data visualization techniques to interpret a dataset.” The lecturer provides only a 40-page PDF module.
- Is one learning mode sufficient for all ODL learners?

Scenario 3 — MULTIPLE MODES

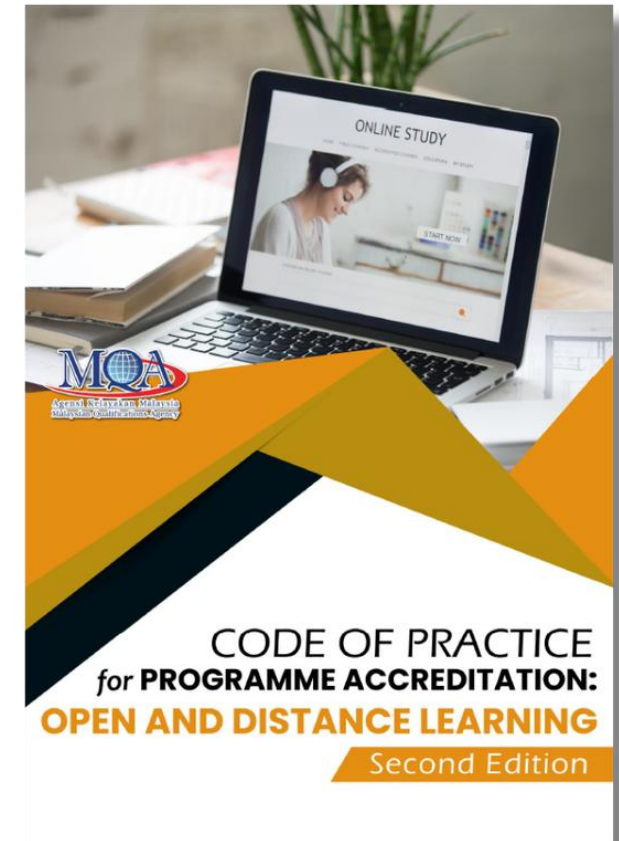
- Different modes should complement each other to support achievement of the learning outcome.
- Multiple modes ≠ repeating the same content in different formats.

ODL and related flexible learning methods

Term	Simple Meaning	Relationship to ODL
ODL	Flexible access and delivery at programme/course level	Main accreditation category
Online Learning	Internet-based learning activities and content	May be part of ODL
Blended Learning	Combination of online and physical learning • PTS (Pembelajaran Teradun Sokongan): Supportive blended learning where online materials (about 30%) supplement face-to-face classroom sessions • PTG (Pembelajaran Teradun Gantian): Replacement blended learning where online learning substitutes a larger portion (30% to 79%) of traditional physical class times.	Can support ODL or conventional delivery
MOOCs	Massive open online courses	Supports lifelong learning or credit transfer
Micro-credentials	Smaller certified units of learning	Can stack into qualifications
APEL	Recognition of prior experiential learning	Supports entry, credit, and progression

ODL Criteria

- **ODL Programme**
 - At least 60% of the courses offered in the program are conducted through ODL
- **ODL Course**
 - At least 80% of student learning time (SLT) should be through ODL mode:
 - Synchronous and asynchronous activities
 - Self Instructional Learning Materials (SIM)
 - Face-to-face sessions through various modalities - physical and virtual
 - Learning support services



ODL Criteria

A Master programme with 12 courses				
Course 1	Course 2	Course 3		12th course
3 credit				
SLT (120 hours)	80% SLT delivered via ODL = 96 hours (this course will be deemed as an ODL course)			
60% of the 12 courses = 7.2 courses TO 60% of the total credits, 40 = 24 credits > 60% of the 12 courses would mean > 7.2 courses or > 24 credits Therefore, if 8 or more courses are conducted via ODL, the programme is deemed as an ODL programme				

ODL

ODL is no longer just “learning at a distance”.
It is a **quality-assured, technology-enabled,
learner-centred ecosystem.**

Compliance is the baseline.
The strategic goal is a credible, engaging
and continuously improved ODL learner
experience.

- **Access** must be matched with demonstrable learning outcomes.
- **Flexibility** must be supported by learner readiness and structured support.
- **Trust** depends on academic integrity, accessibility, data privacy and platform reliability.
- **Quality assurance** should be evidence-based, not only document-based.

ODL IN UTEM

- Main reference in the administration, implementation and monitoring of ODL programs in UTeM
 - Explains the responsibilities of each PTJs in the implementation and offering of ODL programmes
-
- Pekeliling Akademik Bil 4 Tahun 2025



ODL PROGRAM DEVELOPMENT IN UTEM



Source: Peraturan dan Garis Panduan Akademik bagi Program Pembelajaran Terbuka Dan Jarak Jauh di UTeM

ODL Terminologies

- **Face-to-face:** interaction -real time - immediate response.
- **Electronic Platform:** LMS - an online repository (learning materials, tests, assignments & administrative info) - online interaction
- **Online Help Desk:** a computer network that a user contacts to seek information or assistance
- **Subject Matter Expert:** overseeing – delivery of subject /course -preparation of assignments, tests/exams &curriculum review
- **Modules/Content Writers:** academic staff-developing learning materials.
- **Self-instructional materials(SIM):** instructional design principles (learner-friendly, simple language, learning activities & feedback)- various forms (print-based, web-based, multimedia, etc).
- **Moderator:** an academic staff member moderating, refining, & enhancing learning materials, exam questions, and assignments.

ODL Terminologies

- **Program Coordinator:** overall management of the program, i.e. planning, implementation, evaluation, and improvement processes
- **Tutor/facilitator/instructor:** academic staff responsible for the teaching and learning process.
- **Regional/Learning Centre:** center/facility –reach out to learners at different regions or even countries, support various teaching and learning activities
- **Synchronous & asynchronous:** synchronous (occurring in real-time)-asynchronous(delayed mode).

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Synchronous, online & self-managed learning

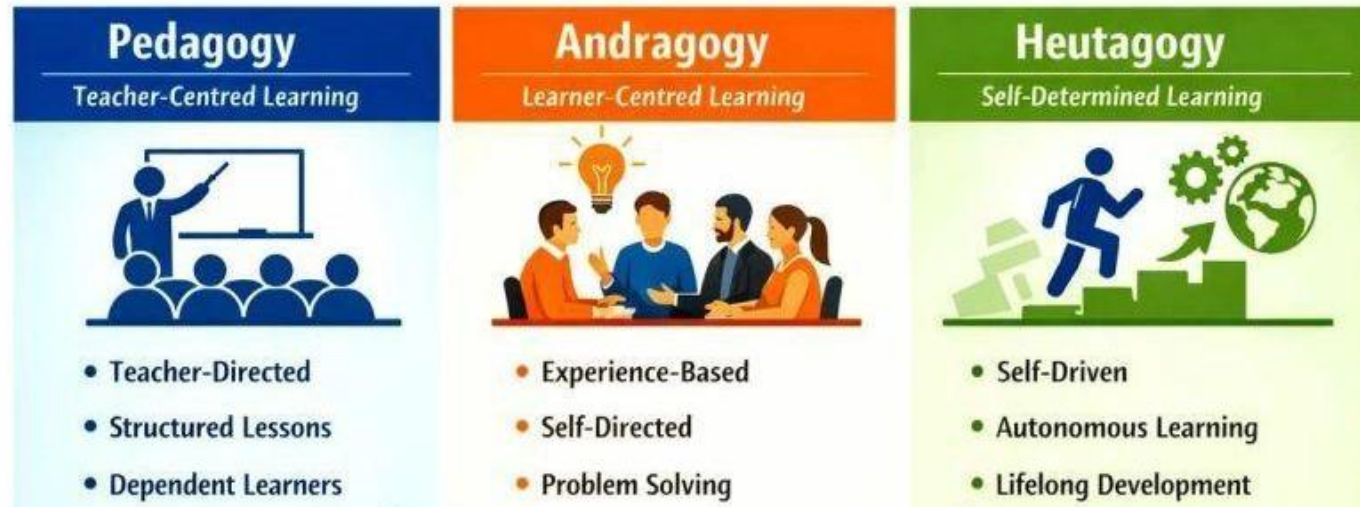
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Learner journey, learning preferences & SIM

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Learning in ODL



Approach	Main idea	Role of learner	Role of teacher
Pedagogy	Teacher-directed learning	Follows instructions	Teacher decides what and how to learn
Andragogy	Self-directed adult learning	Takes greater responsibility	Facilitator guides the learning
Heutagogy	Self-determined learning	Determines their own learning pathway	Facilitator enables and supports

Learning in ODL

- For ODL, andragogy and heutagogy are particularly relevant because learners are expected to have greater independence and responsibility for their learning.
- For example, if the topic is Data Visualization:
 - **Pedagogy:** Watch this video, read Chapter 3, then complete Exercise 1.
 - **Andragogy:** Here is the learning outcome and a set of resources. Choose appropriate resources and complete the task.
 - **Heutagogy:** Identify a real-world data visualization problem, determine what you need to learn, select your own tools/resources, and develop a solution.

Adult Learner

- Adults need to know why they are learning
- Adults see themselves as responsible, self-directed persons
- Adults come to ODL program with a wealth of experience
- Adults are likely to choose to learn when they are ready to learn
- Adults, in their learning, are problem-centered
- Adults tend to be motivated by personal factors

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ODL Learning Model

- ❑ Pre-F2F session : asynchronous learning
- ❑ F2F session : synchronous learning
(Problem Based Learning)
- ❑ Post F2F session : asynchronous learning

Problem based learning
approach

F2F Learning (Synchronous Learning)

- Facilitation online classes
- Discussion with tutors-peers

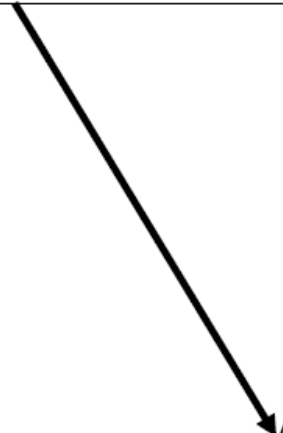
Self- Managed Learning

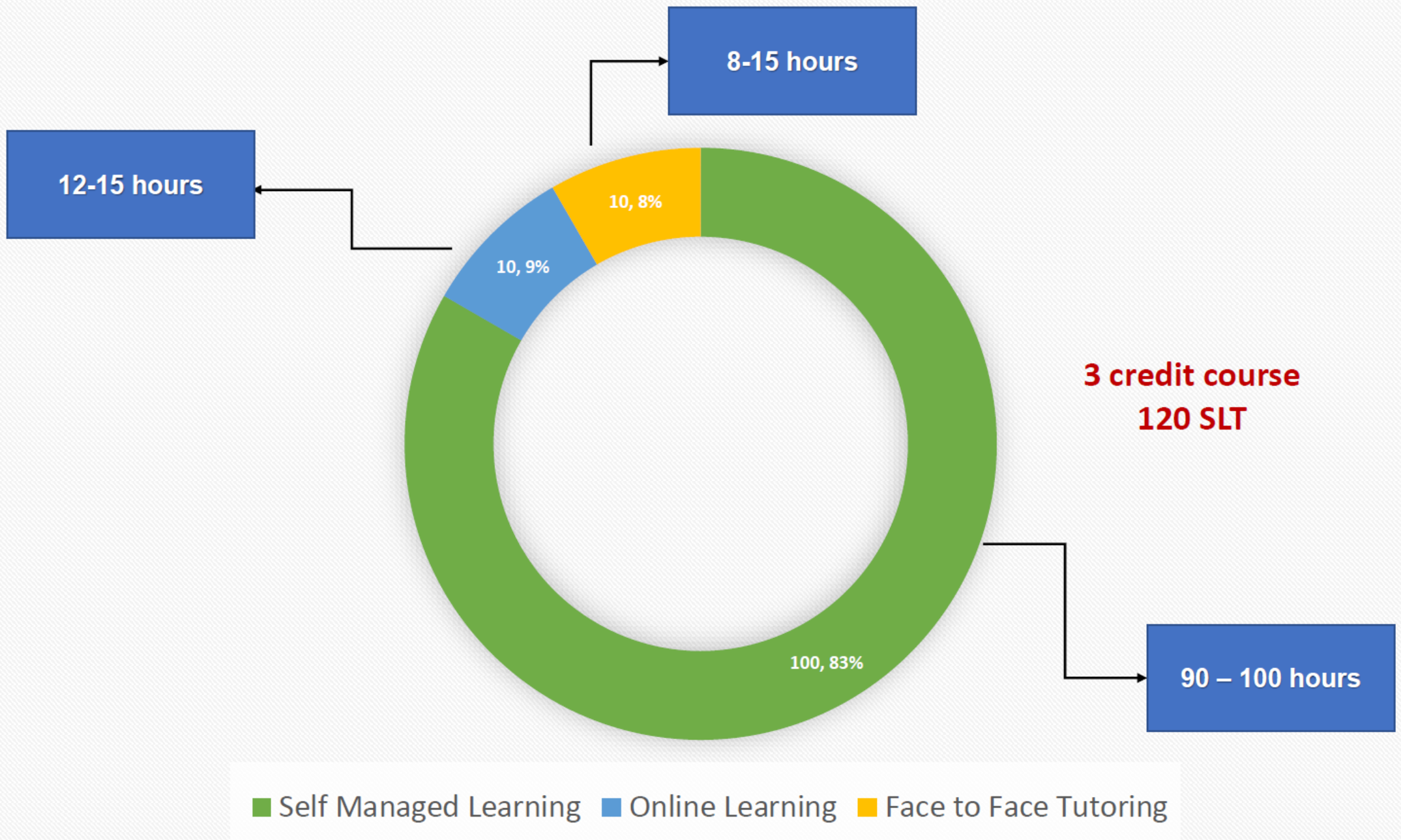
- Digital Library
- Physical Library
- Peers
- Tutors

Online Learning

- Digital Library
- Self Instruction Material (S.I.M)
- Lesson Video's
- Online Forum Discussion (Asynchronous)
- Online Chat Discussion (Synchronous)
- Mobile Learning

COLLOBORATIVE
LEARNING





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ODL learner journey: from admission to completion

1. Pre-enrolment

Suitability check, expectation setting, readiness survey

2. Onboarding

Orientation, LMS training, digital library briefing, integrity policy

3. Early semester

First 3-week engagement monitoring, tutor check-ins

4. Mid-semester

Formative feedback, study groups, analytics alerts

5. Assessment stage

Assessment briefing, AI-use declaration, submission support

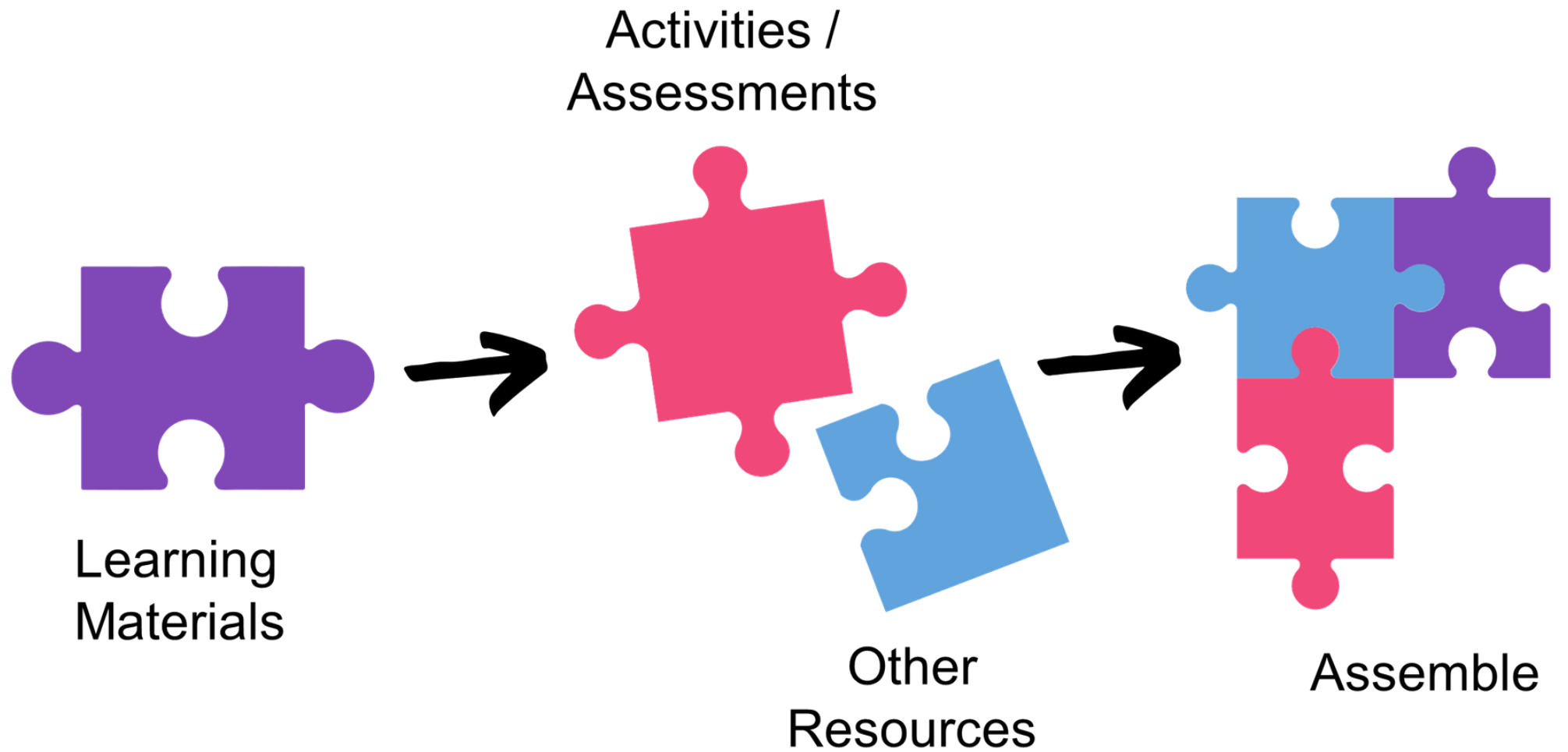
6. Completion

Progression tracking, retention analysis, graduate feedback

Learner support should be mapped across the whole journey, not limited to orientation and tutorials.

WHAT IS SIM?

SIM or Self-Instructional Material is a **self-learning material** that is **systematically** and **comprehensively structured**, encompassing **learning content**, **activities**, and **assessments** that are purposefully designed to enable learners to study **independently** and **achieve** the intended **learning outcomes**.





40%
**Learning
Materials**

Use of learning materials

- Video, audio and screen recordings
- Storytelling-based presentations
- Web 2.0 animations and content
- Simulations or Virtual Reality (VR), Augmented Reality (AR), or Mixed Reality (MR)
- In-class or out-of-class lectures
- Interactive content
- Practical/demo videos
- And other suitable types



40%
**Learning
Activities**

Implementation of activities using Web 2.0 tools

- Kahoot
- Padlet
- LMS (e.g., forums, chatting, discussion boards)
- And other suitable types

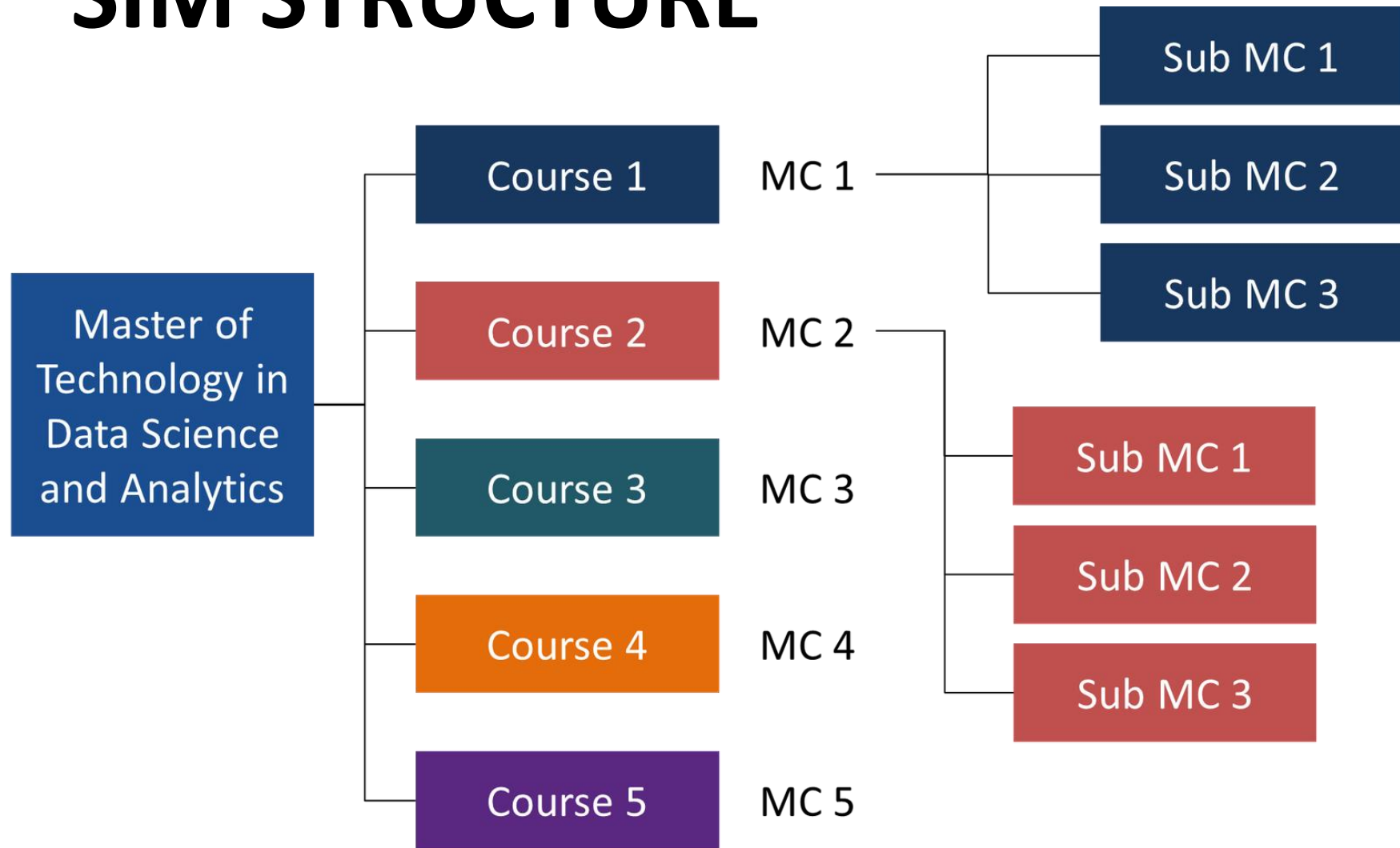


20%
Assessment

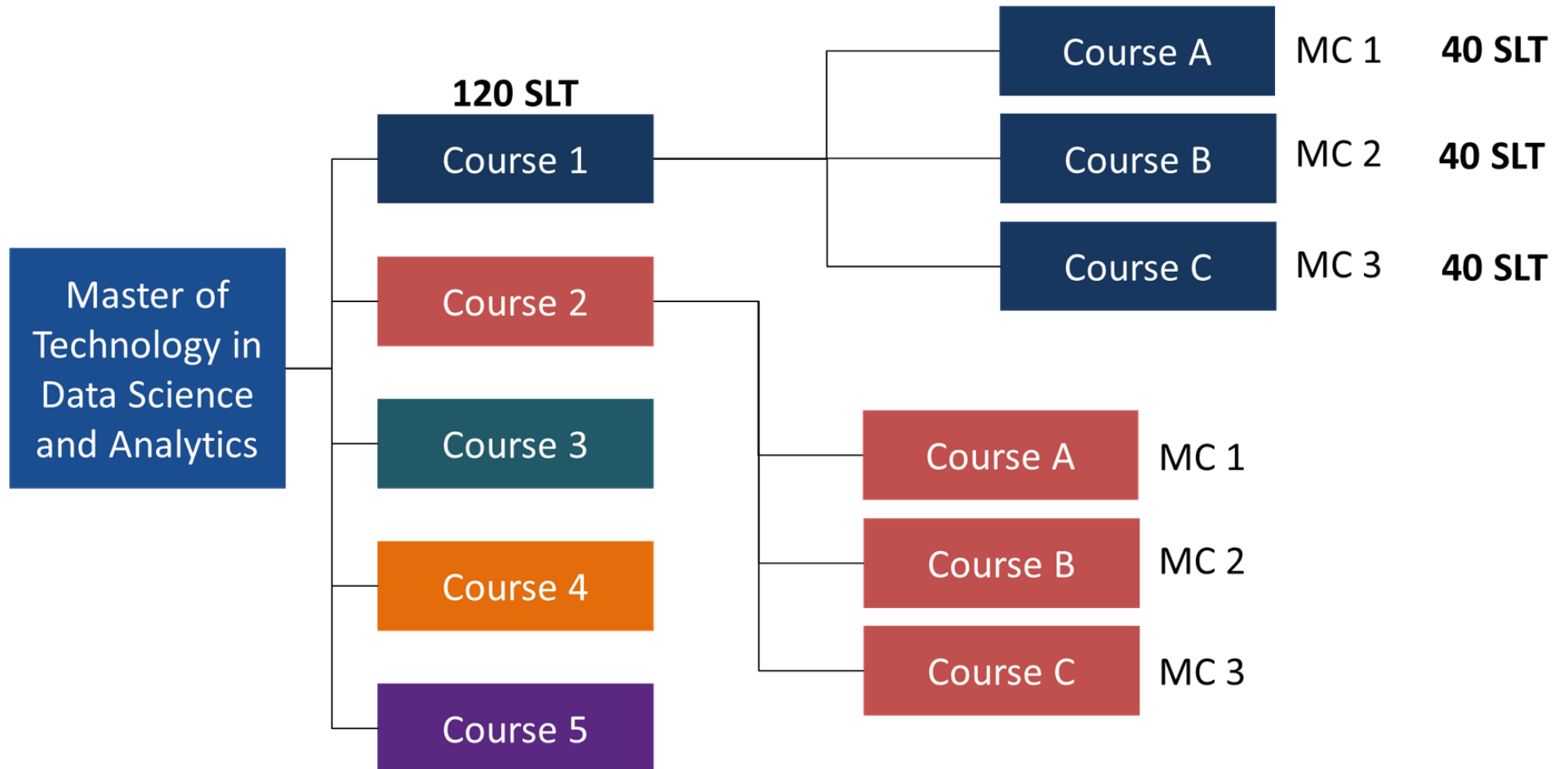
Assessment in the course

- Quizzes
- Evaluations
- Assignments
- Reflections
- And other suitable types

SIM STRUCTURE



STANDALONE MC (SAMC)



VARK Learning Style



Visual



Auditory



Reading



Kinesthetic

Visual

- Learn best by seeing
- Like to see information visually, rather than in writing
- Suitable content: graphics such as charts, diagrams, illustrations and videos

Auditory

- Learn well by listening to information
- Tend to remember what is heard
- Suitable content: lectures, audios, podcasts

Reading

- Likes to write back what he sees and hears
- Prefer reading rather than listening or watching videos
- Suitable content: text-based such as books and notes

Kinesthetics

- Learn best by touching and doing
- Hands-on experience is important for kinesthetic learners
- Suitable content: activity-based, such as tutorials, experiments, and exercises

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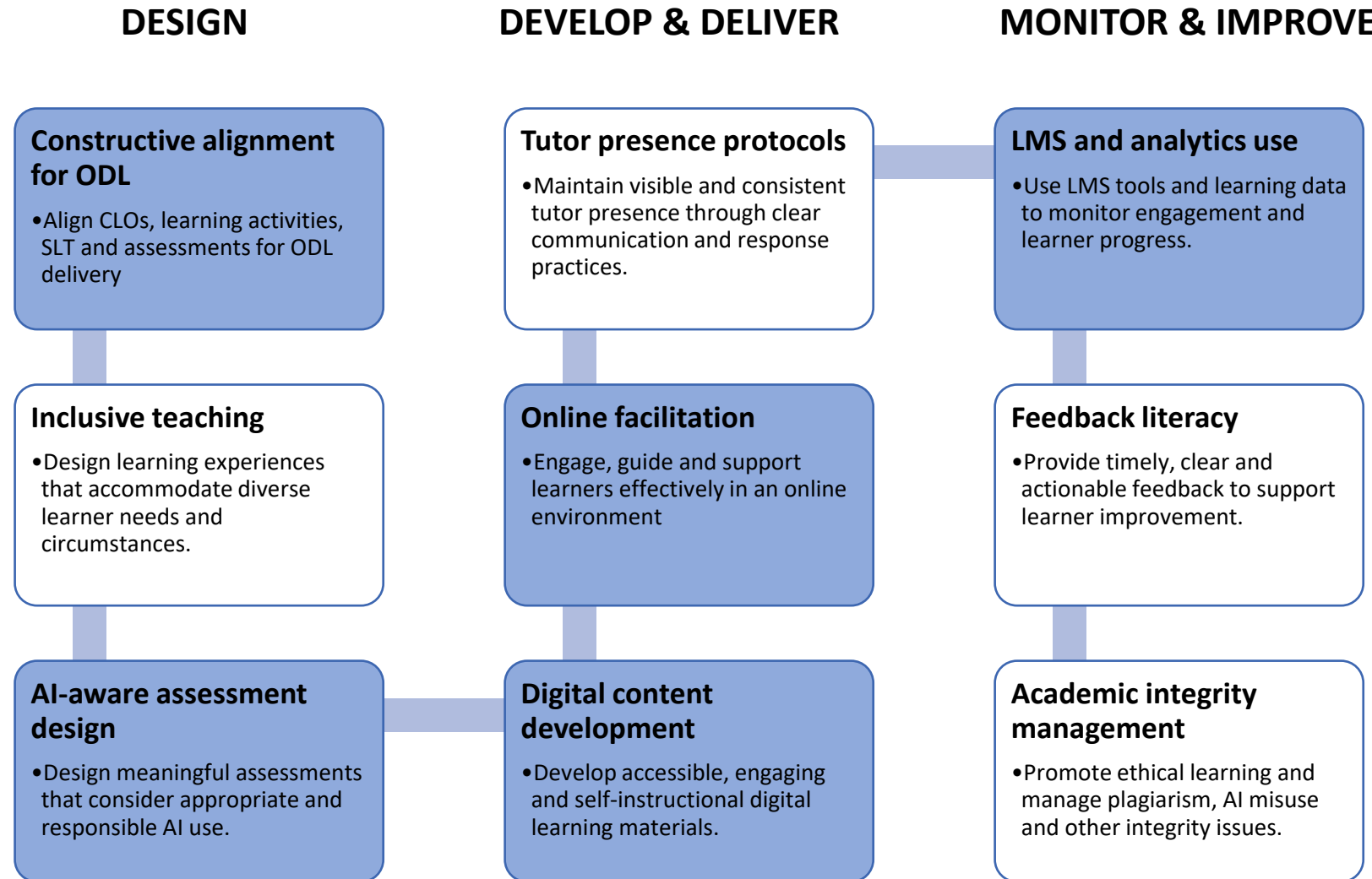
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ODL Academic Staff Competency Framework



Digital Trust and Platform Resilience

Learners and regulators must trust the ODL infrastructure.

Suggested evidence pack

1. LMS uptime report
2. DR/backup procedure
3. Privacy and consent notices
4. Tool approval checklist
5. Incident log and response workflow

1. Data privacy compliance
2. Secure LMS access and authentication
3. Backup and disaster recovery plan
4. Server uptime target
5. Incident response process
6. Third-party tool guidelines
7. Protection of assessment data
8. Cybersecurity awareness for staff and learners

Universal Design for ODL

Accessibility is a quality requirement, not only a technical feature.



Perceivable



Operable



Understandable



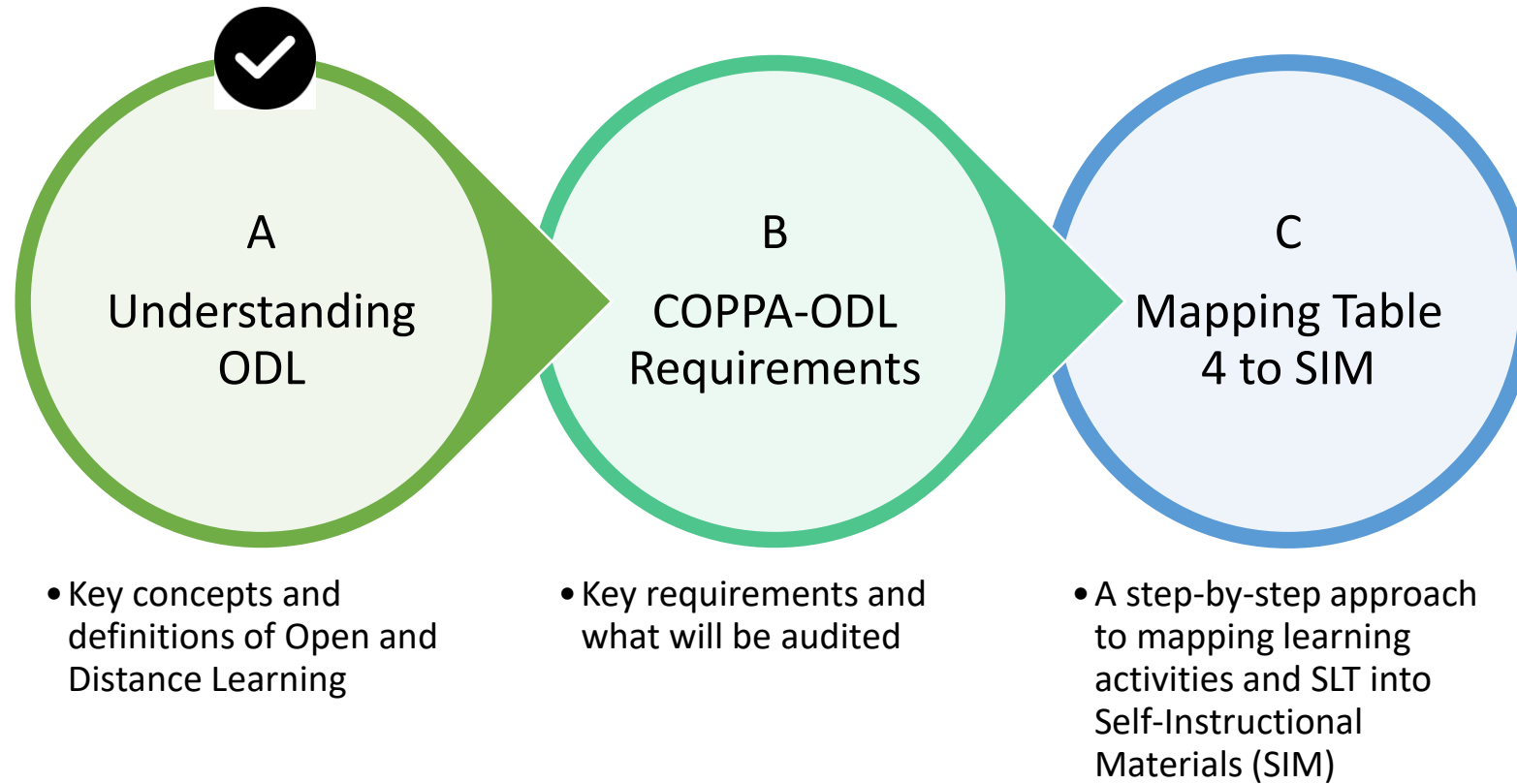
Robust

Principle	Meaning for ODL
Perceivable	Students can see, hear, or otherwise access the content. Example: captions, transcripts, alt text.
Operable	Students can navigate the LMS and materials using keyboard, mouse, touchscreen, or assistive tools.
Understandable	Instructions, forms, navigation and learning materials are clear and predictable.
Robust	Content works reliably across devices, browsers, screen readers and assistive technologies.

ODL Risk Register and Mitigation

Risk	Possible Impact	Mitigation
Low learner engagement	Attrition, weak outcomes	Early alerts, tutor check-ins
Weak SIM quality	Poor self-managed learning	Instructional design review
AI misuse	Academic integrity risk	Authentic assessment, AI declaration
Poor internet access	Inequitable participation	Low-bandwidth content, recordings
Tutor inconsistency	Uneven learner experience	Tutor guide, observation, calibration
LMS downtime	Learning disruption	Backup platform, support protocol
Outdated content	Weak relevance	Annual content review cycle

Course Outline (Day 1)



Purpose of COPPA-ODL

Serves many parties namely

- dedicated **ODL** HEPs
- **dual mode** HEPs (Genovasi UC, Al Madinah etc)
- **conventional HEPs** offering individual ODL programmes
- conventional programmes with **courses** delivered through ODL

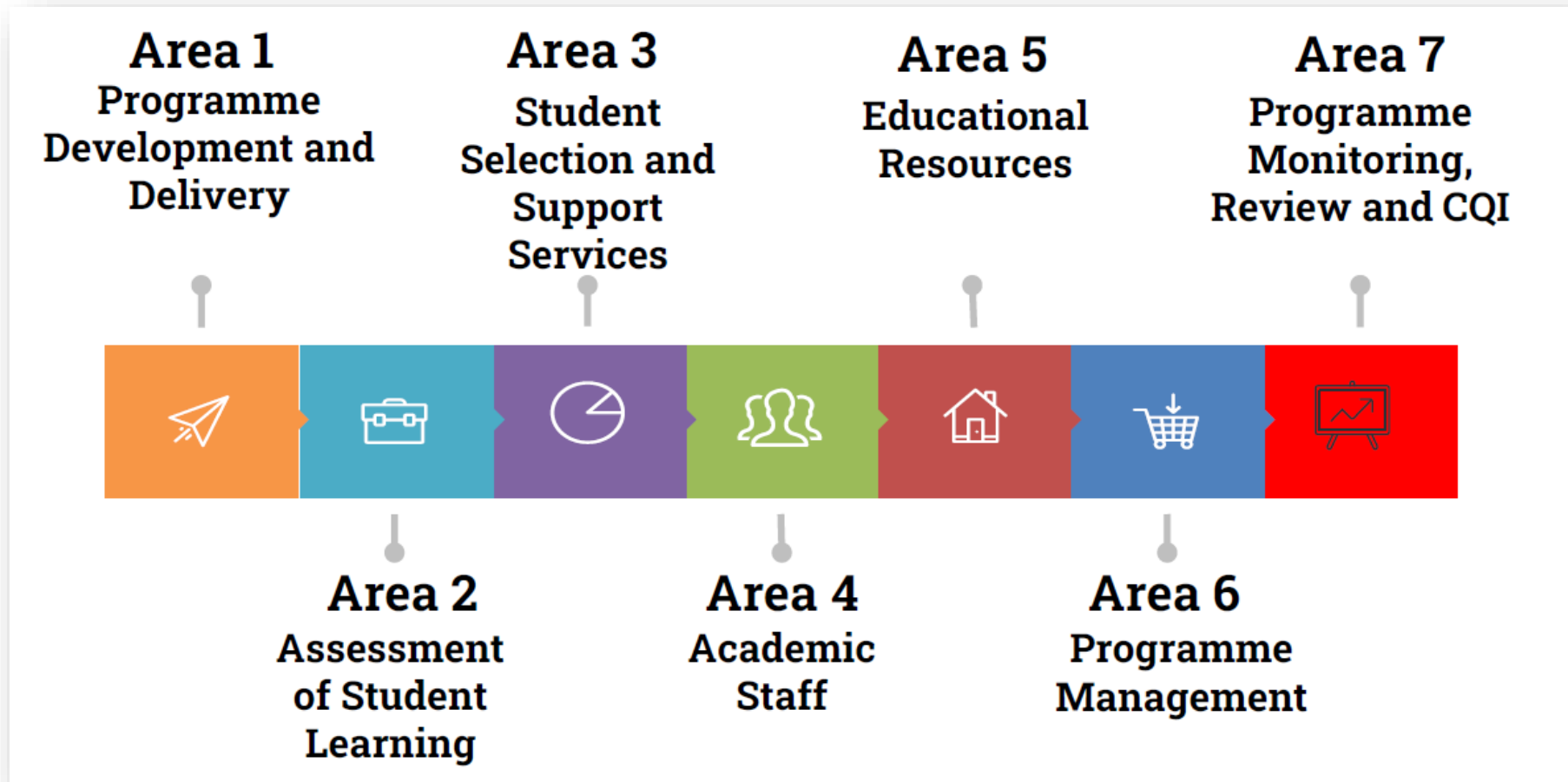
Assist HEP:

- Provisional Accreditation
- Full Accreditation
- Compliance/Maintenance Audit
- Continual Quality Improvement of programmes

COPPA-ODL PA vs FA

- **MQA-01: Provisional Accreditation**
 - as a candidacy assessment of the curriculum and the readiness of the programme's delivery support system before the programme is offered.
 - Program readiness: *“Show me you are READY.”*
- **MQA-02: Full Accreditation**
 - Evaluates whether an ODL programme is actually implemented and delivered effectively in accordance with the required quality standards.
 - *“Are you delivering ODL according to the required standards?”*
- **MQA-04: Compliance Audit**
 - *“Are you maintaining the quality?”*

COPPA-ODL



COPPA-ODL

Area 1

- Dedicated ODL Unit / Centre
- Self-Instructional Materials (SIM)
 - Required components
 - Consistency with Table 4
 - Multi-modes
 - Consistency across courses
- Learning Management System (LMS)
- External Advisor (Subject Matter Expert)
- External Advisor ODL

Area 2

- Online assessment

Area 4

- Academic Staff & Tutors

Area 5

- Student Support & Orientation
- IT Infrastructure & Facilities
- Digital Library & Learning Resources

Area 6

- Programme Coordinator
- ODL Coordinator

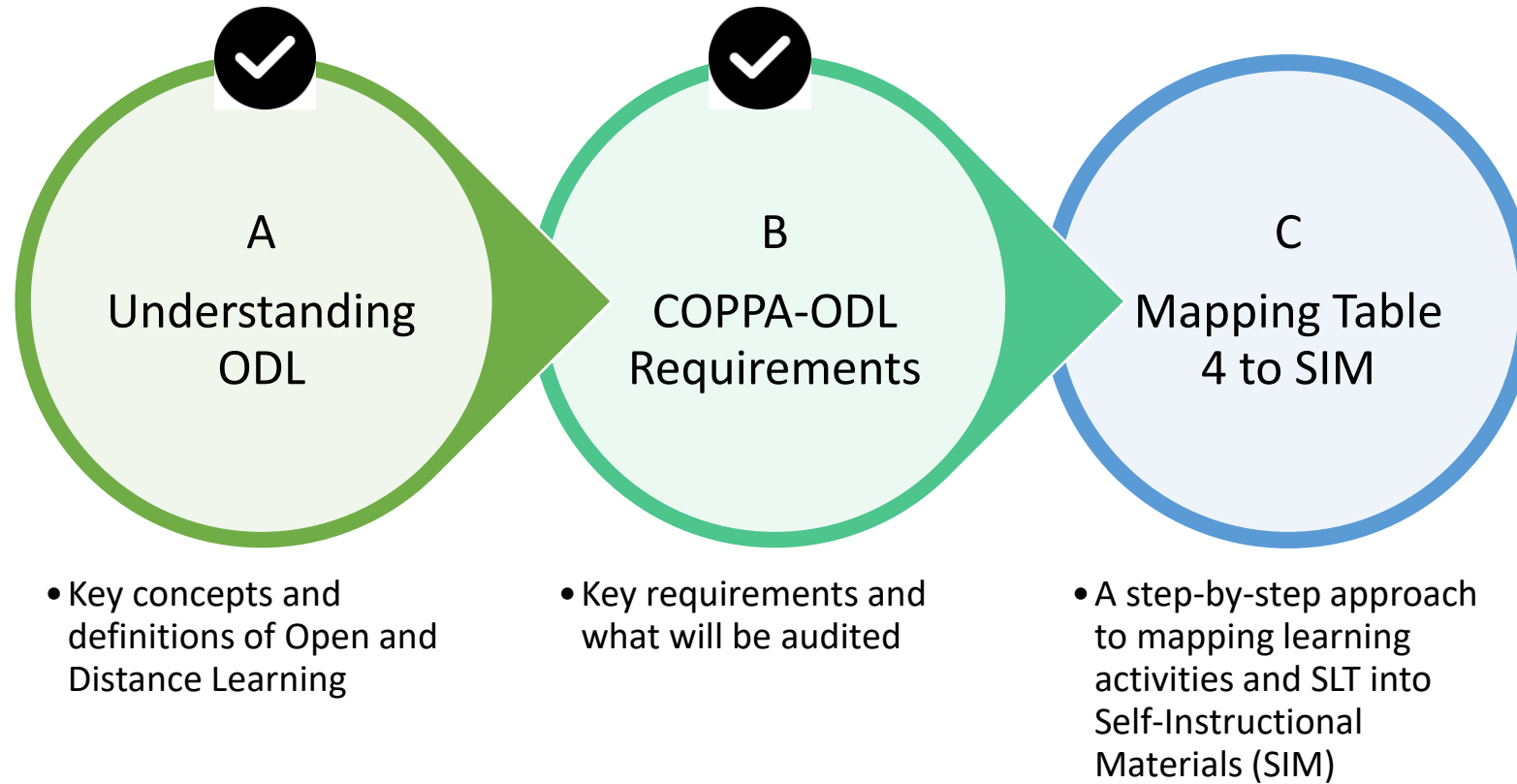
Conditions

- **Unit/Department “ODL”**
- **SIM:**
 - 1st semester courses – Provisional Accreditation
 - SIM: 1st year courses - after 1 semester
 - SIM: all courses – FA application
- **Assessment**
- **Learning support services:** orientation, f2f etc
- **Academic staff:** programme-course coordinator, training
- **Educational resources:** electronic learning platform, digital library etc.

MQAVA

- MQAVA: *Malaysian Qualifications Agency Virtual Accreditation*
- Conducting the accreditation evaluation/visit virtually rather than relying entirely on a physical site visit.

Course Outline (Day 1)



ODL PROGRAM ON UCEDS

Sort by ▾

Search.. 

Showing 1 - 2 of 2



Master of Business Administration

MYR 18,210.00

5 Enrollment

Program | Master

DF

RV

AP

RV



Master of Technology in Data Science and Analytics

MYR 25,110.00

9 Enrollment

Program | Master

DF

RV

AP

RV

Previous

1

Next

ODL PROGRAM: MAXL

 ucreds

ODL Program ▾ Course Learning Path ▾ Micro Courses ▾ Technical Support ▾

ZERATUL IZZAH BINTI MOHD YUSOF ▾

Master of Technology in Data Science and Analytics

By: Universiti Teknikal Malaysia Melaka | Program | Master

RESUME EDIT

Description

🕒 Duration: 1600 Hours 00 Minutes 📅 Date published: 11/30/2021

Accreditation Ref. Number: MQA/PA17473

The Master of Technology in Data Science and Analytics with ODL mode is aimed at recent graduates and industry practitioners from various academic disciplines with strong analytic and computing skills or experience. The programme is designed to equip the students with fundamental and applied knowledge, technical skills, and current technologies in the data science and analytics area. These include the fundamental principles of data science, the capability to analyse a diversity of big data, the skills of using data science tools and applying the data analytics techniques to various domain, as well as the capability to present the analytics results to the intended audience. The materials emphasise state-of-the-practice techniques, tools, and technology, and recognised methodology through university-industry collaborations. Graduates from this programme will have career opportunities as data scientists, data analysts and many more.

Recognition

Master of Technology in Data Science and Analytics

Program Coordinator



NORFADZLIA BINTI MOHD YUSOF

norfadzlia@utem.edu.my

Learning Outcomes

<https://ucreds.utem.edu.my>

Program Structure

PEO & PLO

The program is offered in 1 year with a total of 40 credits and 12 structured courses. The assessment comprises both continuous evaluation and a final test. Project implementations are based on progress and a final presentation with a report.

[More curriculum structure for full-time and part-time modes](#)

Sem 1

Done	Courses	Credits	-	Status
☐	MPSW5013 Research Methodology	3		Take course
☐	MPSW5063 Entrepreneurship	3		Take course
☐	MTDL5113 Fundamental of Data Science	3		Take course
☐	MTDL5123 Big Data Management	3		Take course
☐	MTDL5133 Applied Statistical Methods	3		Take course
☐	MTDL5143 Applied Machine Learning	3		Take course
Total Credits		18		

ODL Program ▾ Course Learning Path Micro Courses

You are not logged in. [Log in](#)

MTDL5113 Fundamental of Data Science

By: Universiti Teknikal Malaysia Melaka | Learning Path | Intermediate

START

Description

Duration: 120 Hours 00 Minutes Date published: 04/02/2022

The course provides an introduction to data science, which is the study of the generalizable extraction of knowledge from data. Being a data scientist requires an integrated skill set spanning mathematics, statistics, machine learning, databases and other branches of computer science along with a good understanding of the craft of problem formulation to engineer effective solutions. This course provides an overview of today's data environment, the rationale and opportunity for a new approach to analytics, the roles required, including the Data Scientist, and representative examples of big data analytics in industry. This course introduces students to the fundamental principles of data science that underlie the algorithms, processes, methods, and data-analytic thinking. It also introduces students to algorithms and tools based on these principles, and frameworks to support problem-focused data-analytic thinking. The course ends by examining students understanding on integration and synthesis of concepts and their application to solving problems.

Recognition

MTDL5113 Fundamental of Data Science

Learning Outcomes

Upon completing this course

1. Explain the concept of Data Science and the skill sets needed to be a data scientist. (C2, PLO1, LODC1)
2. Identify the Data Analytic Lifecycle and how its components interact. (A4, PLO4, LODC3B)
3. Construct computer program to carry out basic statistical modeling and analysis. (P4, PLO3, LODC3A)

References

[1] Kelleher, John D., et al. Fundamentals of Machine Learning for Predictive Data Analytics : Algorithms, Worked Examples, and Case Studies, MIT Press, 2020. ProQuest Ebook Central, <https://ebookcentral.proquest.com/lib/kutkm-ebooks/detail.action?docID=6383434>.

Course Learning Path Micro Courses	Duration	Badge	Status
☐ 1.[MTDL5113] Introduction to Big Data	7 hours 0 mins		Take course
☐ 2.[MTDL5113] State of the Practice in Analytics	14 hours 0 mins		Take course
☐ 3.[MTDL5113] Data Science Lifecycle	15 hours 0 mins		Take course
☐ 4.[MTDL5113] Data Understanding	16 hours 0 mins		Take course
☐ 5.[MTDL5113] Data Preparation	15 hours 0 mins		Take course
☐ 6.[MTDL5113] Overview of Analytics Models	6 hours 0 mins		Take course
☐ 7.[MTDL5113] Analytics Model: How it Works	6 hours 0 mins		Take course
☐ 8.[MTDL5113] Analytics Model: Development & Deployment	6 hours 0 mins		Take course
☐ 9.[MTDL5113] Analytics Model: Evaluation and Management	14 hours 0 mins		Take course
☐ 10.[MTDL5113] Case Study of Analytics Project	6 hours 0 mins		Take course
☐ 11.[MTDL5113] Final Test	15 hours 0 mins		Take course



PLANNING YOUR COURSE

TABLE 4

ODL mapping is not about removing learning hours — it is about redesigning how those learning hours take place.

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			

Element	Description
Face-to-Face (F2F) – Physical	Learning that requires the lecturer and students to be physically present at the same place and time.
Face-to-Face (F2F) – Online/Technology-Mediated (Synchronous)	Real-time learning where lecturer and students interact online at the same time.
NF2F – Independent Learning (Asynchronous)	Learning undertaken independently by students at their own time and pace , guided by SIM and learning activities.



Co	Co
1	

NF2F Independent Learning (Asynchronous)	
	8
	9



Co	Co
1	

Online/ Technology-mediated (Synchronous)			
L	T	P	O
			2

TABLE 4

Continuous Assessment		%	Face-to-Face (F2F)		NF2F Independent Learning for Assessment (Asynchronous)	
			Physical	Online/ Technology- mediated (Synchronous)		
1	Assignment (CLO2)	20			8	
2	Project (CLO 3)	30		0.5	11.5	
3	Test (CLO1)	20		1.5	6.5	
4						
5						
SUB-TOTAL SLT:						28

Time taken for students to
complete the assessment

Time taken for the students to
prepare for the assessment
independently

SIM MAPPING



CLO1: Analyze the fundamentals and concepts of social media data mining. (C4, PLO3, LODC2)
 CLO2: Prepare appropriate solution steps for social media data analysis based on text mining methods. (A5, PLO5, LODC4A)
 CLO3: Build computer program based on appropriate methods for practical uses in social media analytics. (P5, PLO2, LODC3A)

Insert course learning outcomes

MC	CLO	MLO	TOPICS	ASSESSMENT	DELIVERY	SLT DELIVERY				SLT ASSESSMENT		Total SLT			
						F2F				NF2F	F2F		NF2F		
						L	T	P	O	IL					
MC1	CLO1	1. Understand the overview of social media data mining 2. Analyse the different opinions regarding social media Micro Learning Outcomes (MLO) for each MC	OVERVIEW OF SOCIAL MEDIA DATA MINING - Introduction to Social Media - What Is Social Media Data Mining? - What Types of Problems Can Be Solved? - Social Media Mining Challenges - Social Media Text Mining	Mid-Term (20%) [40 MCQ Questions]	Narrated slides on Introduction to Social Media (15 slides): 1.5 hours Video on What is Social Media Data Mining (5 min): 0.5 hour Video on What Types of Problems Can Be Solved? (10 min): 1 hour Video on Social Media Mining Challenges and Text Mining (5 min): 0.5 hour Revision slides (30 slides): 2.5 hours Interactive Activity on Types of Social Media: 1 hour Reflection on Social Media: Good or Bad?: 1 hour Applying for Twitter API Access: 2 hours (F2F) SLT Delivery: 1.5 + 0.5 + 1 + 0.5 + 2.5 = 6 hours SLT Activities: 1 + 1 = 2 hours F2F: 2 hours				2	8	1.5	6.5	18	Total SLT per MC	

SLT for delivery only (Video, slide etc.)

SLT for non-assesed / self-review activities

SLT for face-to-face if any

SLT for assessment (both F2F and non F2F preparation)

Total SLT per MC



SLT ESTIMATION

Source: Pekeliling Akademik Bil. 7 Tahun 2020
LAMPIRAN 1

Table 2: SLT for Teaching and Learning Activity

Activity	SLT
a) Synchronous (Real Time) based Online Teaching Examples: Lectures, tutorials, discussions, group discussions, activities cooperation and presentation (the everything is done online Synchronously)	The duration of the meeting is similar to face to face Example: 60 minutes synchronous online lecture equal to 60 minutes face-to-face lecture.
Platform/Apps: Microsoft Teams, Webex, Zoom etc.	
b) Asynchronous (Non-Real Time) based Online Teaching Examples: Lecture Recoding, Informatic video, Lecture note/slide with audio podcast Platform/Apps: uLearn, Google Form, Google Doc, Email, Blogs, Wiki, Padlet, YouTube	15%-20% of the implementation online SLT is equivalent to SLT face-to-face meetings. Examples: 10 minute pre-recorded video lecture is equal to 1 hour lecture face to face. 10 slides with audio podcast is equal to 1 hour
c) Class Preparation/Revision Examples: Review of online lecture materials digital notes, URL link etc.	The SLT is calculated at approximately 5 minutes for a single screen or one page Example: 24 slide lecture note consumes 2 hours SLT



SLT ESTIMATION

Source: Pekeliling Akademik Bil. 7 Tahun 2020
LAMPIRAN 1

Table 3: Example of SLT Calculation for Assessment Activity

	Assessment Activities	Assessment Duration (a)	Category	Preparation Duration (b)	Total SLT $c=a+b$
1	Online Quiz/Test	1 hour	Sync	1 hours	2 hours
2	Online Oral Presentation Session e.g., interview, oral presentation, viva voice, final year project presentation, progress presentation (if 0.5 hours, SLT is 3 hours)	1 hour	Sync	5 hours	6 hours
3	Multiple Choice Question Example: Quiz using uLearn	1 hour	Async	3 hours	4 hours
4	Written Assignment (Group/Individual) -1000 words e.g., lab report, case report, etc - if written assignment is about 500 words, SLT is 2.5 hours ($500/1000 \times 5$ hours) - if written assignment is about 1200 words, SLT is 6 hours ($1200/1000 \times 5$ hours)	-	Async	5 hours	5 hours
5	Project assignment (media-based assignment) Example: Video, podcast submission	10 minutes	Async	1 hour	1 hour 10 minutes



For each sub-MC

- Overview
- At least 1 activity
- At least 1 self-review activity
- Summary
- References
- Forum and Discussion

RECOMMENDED ELEMENTS



End of Slide