OPEN UNIVERSITY MALAYSIA

MAPPING OF OUM OUTCOME BASED EDUCATION (OBE) SYSTEM

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Objectives

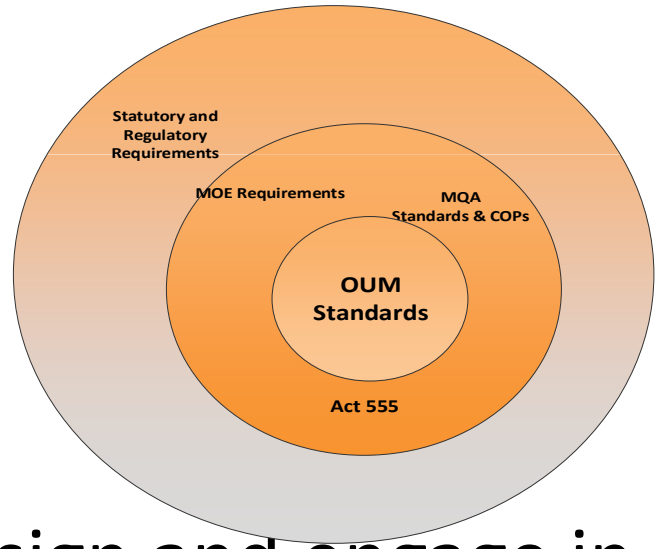
- Identify the relevant information necessary to close the loop in the OBE cycle
- Illustrate the assessment tools required in the development of the OBE System

Outcome based approach to education ….

Clearly specifies what students are expected to learn and arranges the curriculum such that these intended outcomes are achieved - ***Harden, 2007***.

Moving forward with OBE

- Superior on the quality of our learning environment
- Committed to OBE and Quality Assurance



- Continue to design and engage in many innovative initiatives to enhance students' learning experiences

Are we new to Learning Outcomes?

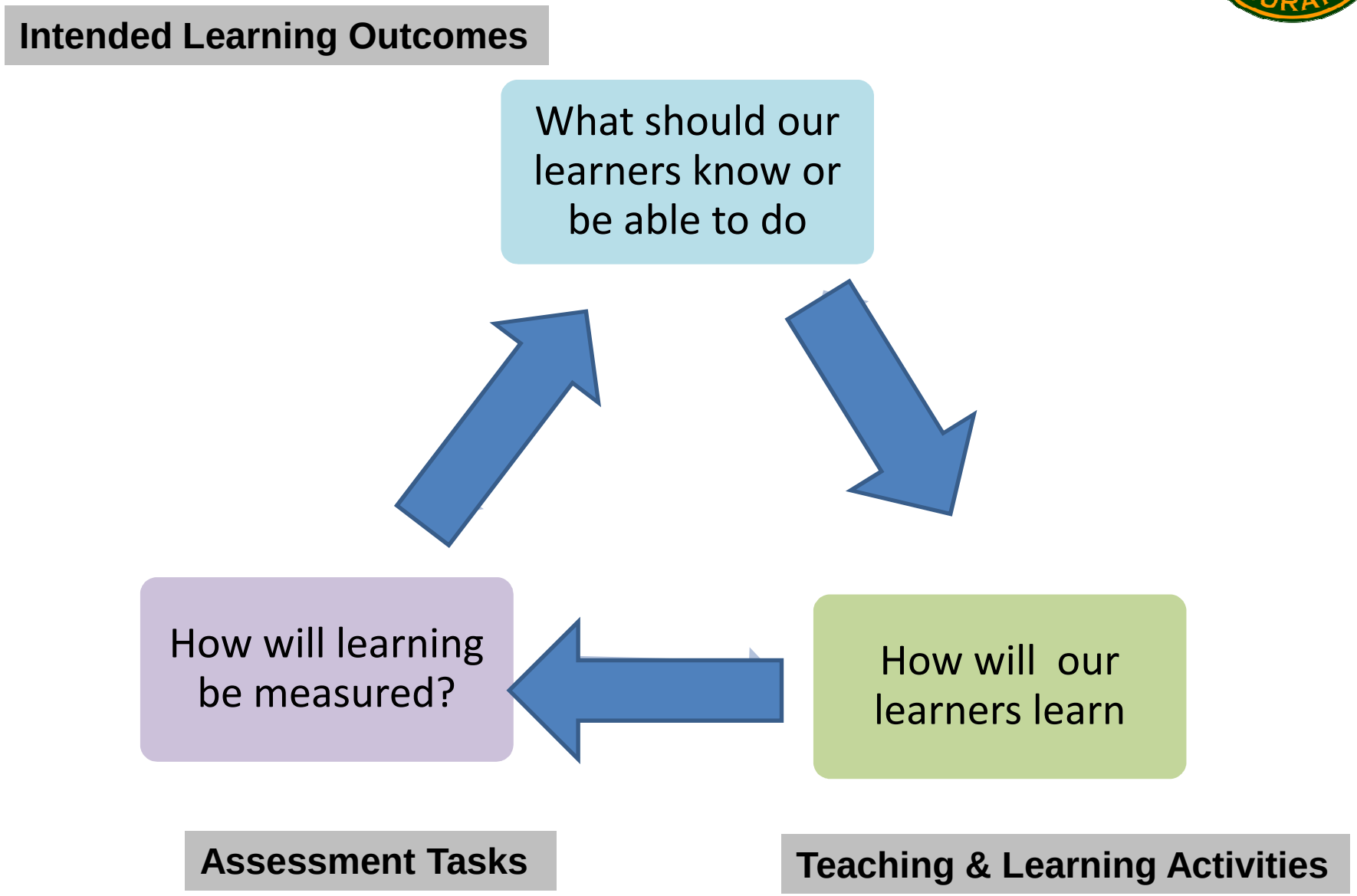
- LOs have long been established and deeply set in as a feature of the delivery and assessment at OUM

- Lecturers are engaged in articulating and assessing learning outcomes to account for and ensure quality in our educational programs

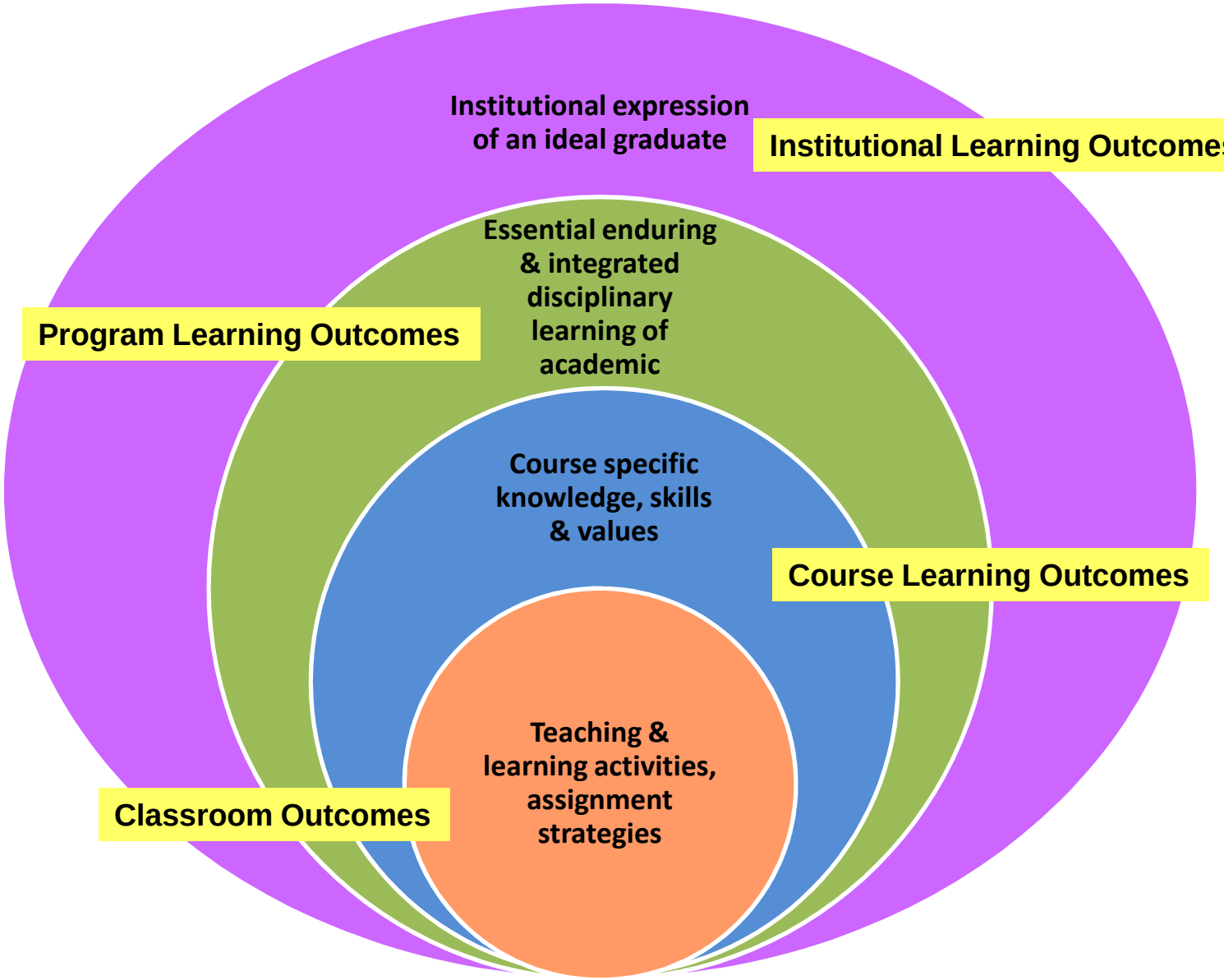
Our focus …

- Each individual in the academic unit express learning outcomes that are appropriate to the discipline
- Consistent with OUM's mission, degree level expectations and academic plans
- Curriculum becomes coherent, aligned and evidenced.

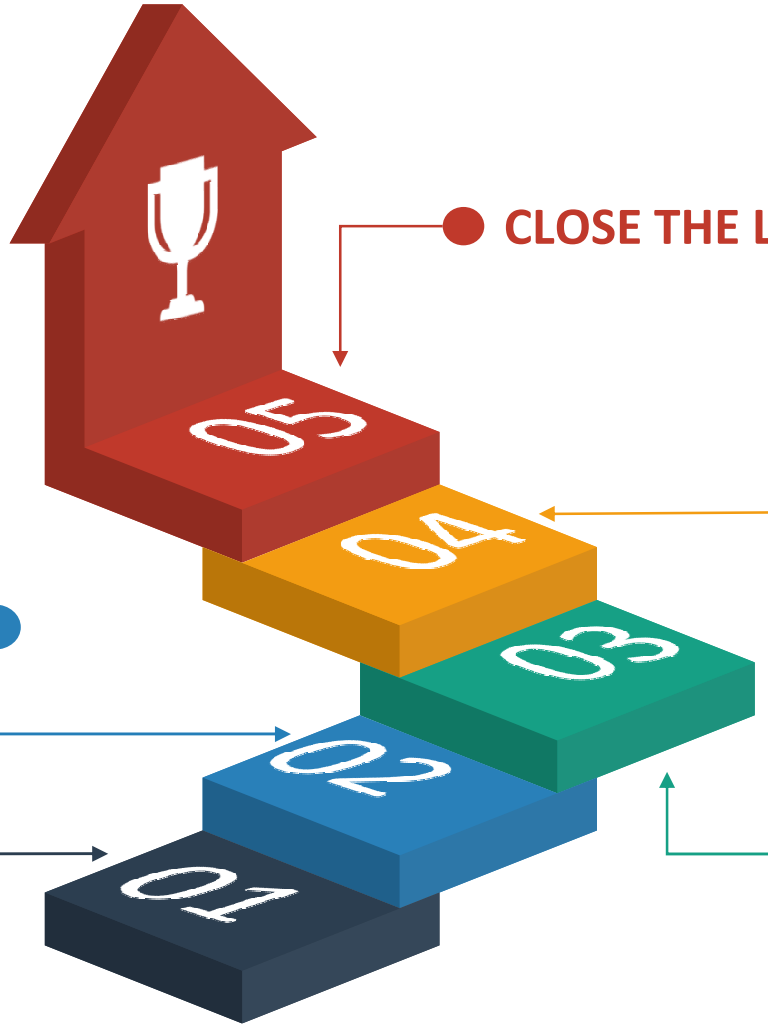
Constructive Alignment



OUTCOME BASED CURRICULUM ALIGNMENT



OBE:CLOSING THE LOOP



CLOSE THE LOOP

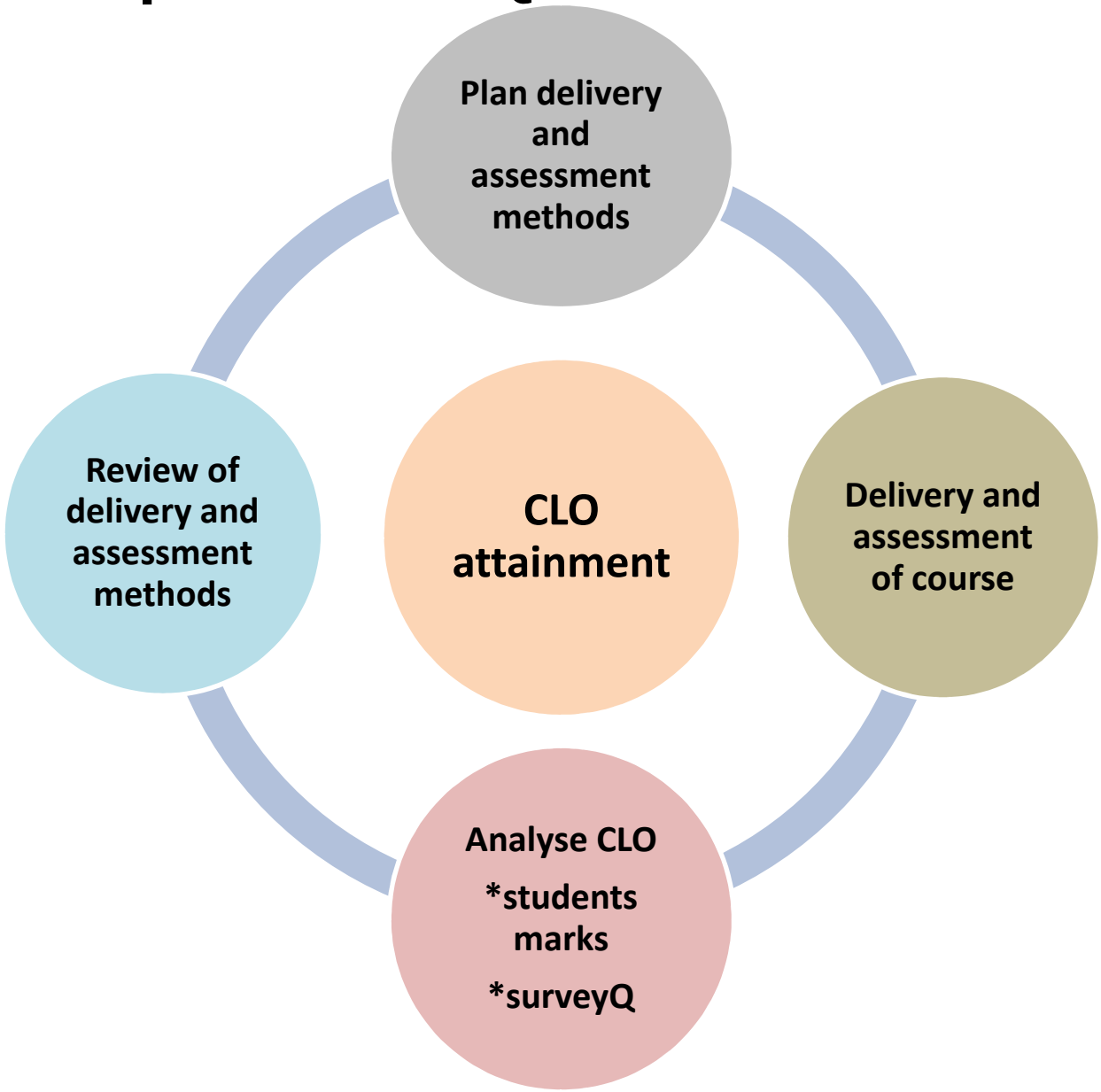
CQI

ALIGNED DELIVERY (LEARNING ACTIVITIES & ENVIRONMENTS) TO THE INTENDED LEARNING OUTCOMES

MAKE THE LEARNING OUTCOMES EXPLICIT AND VISIBLE

ALIGNED ASSESSMENT TO THE INTENDED LEARNING OUTCOMES

What kind of information will be needed to close the loop and for CQI ?



FOUR PRINCIPLES OF OBE

MOHE LO DOMAINS

	MOHE Learning Outcome (MOHE LO)	Teaching and Learning Strategies	Assessment Strategies	MQF LO DOMAINS
LO1	know			
LO2	practic			
LO3	problem s scientif			
LO4	communic			
LO5	social sk skill respons			
LO6	values, at professi			
LO7	infor manage lifelong sk			
LO8	manage entreprene			
LO9	leade			

MQA LO DOMAINS

1 Knowledge

Formulating Learning Outcomes

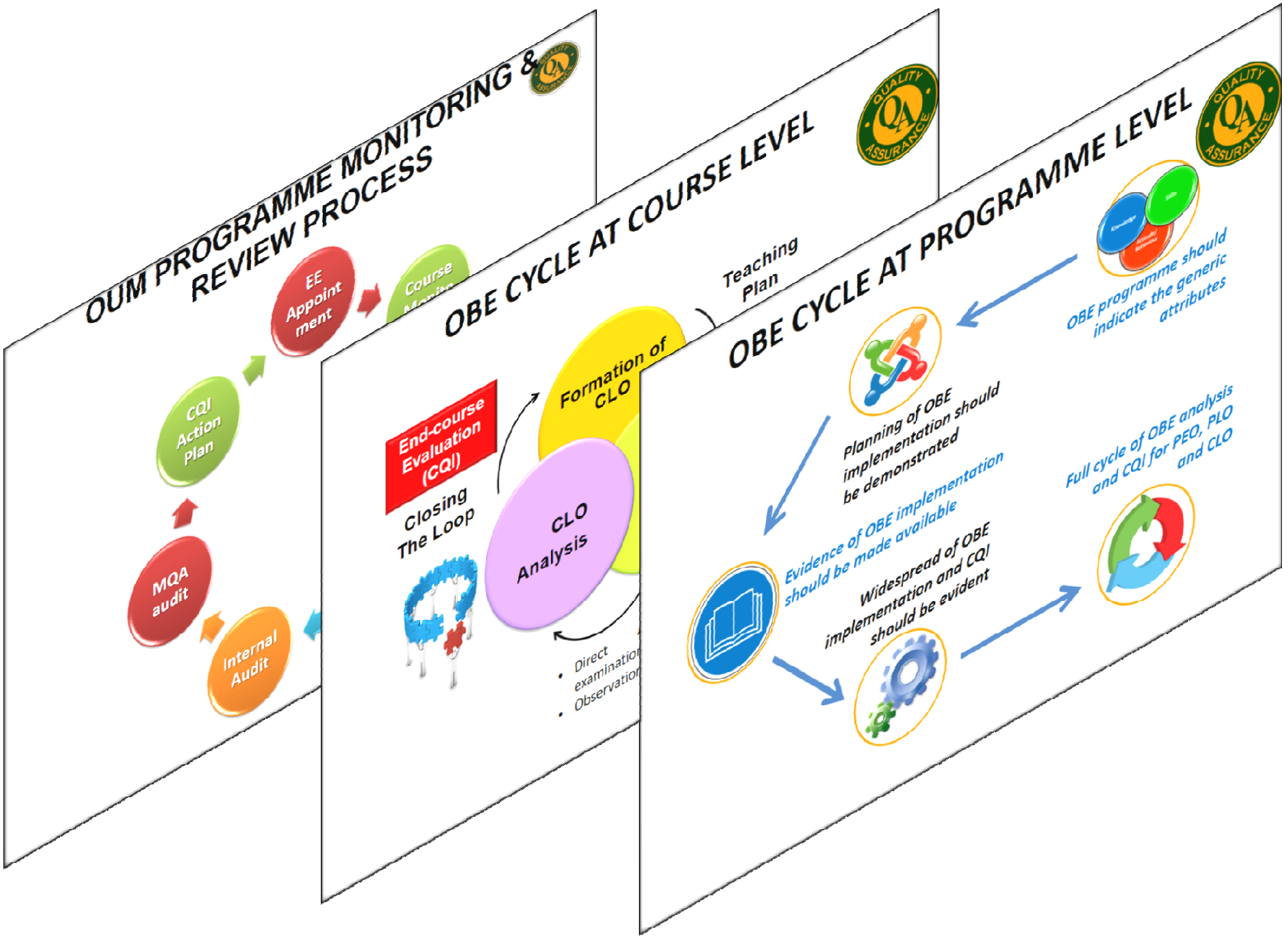
Learning Outcomes (LO)

Communication Skill LO4 | Teamwork LO5 | Ethics, Values LO6 | Lifelong Learning & Info.Mgt LO7

Critical Thinking Problem Solving LO3 | Entrepreneurial & Managerial Skill LO8 | Leadership Skill LO9

Knowledge LO1 | Practical Skills LO2

LEARNING DOMAINS	Cognitive	Affective	Psychomotor / Skills
Higher Order	Evaluation	Internalising Values	Origination
	Synthesis	Organisation	Adaptation
	Analysis	Valuing	Complex Overt Response
	Application	Responding	Mechanism
Lower Order	Comprehension	Receiving	Guided Response
	Knowledge		Set
			Perception
	(Bloom,1956)	(Krathwohl,1964)	(Simpson,1972)


OUM PROGRAMME MONITORING & REVIEW PROCESS
EE Appoint ment
CQI Action Plan
MQA audit
Internal Audit
OBE CYCLE AT COURSE LEVEL
Teaching Plan
Formation of CLO
CLO Analysis
End-course Evaluation (CQI)
Closing The Loop
OBE CYCLE AT PROGRAMME LEVEL
OBE programme should indicate the generic attributes
Planning of OBE implementation should be demonstrated
Evidence of OBE implementation should be made available
Widespread of OBE implementation and CQI should be evident
Full cycle of OBE analysis and CQI for PEO, PLO and CLO

Cognitive Domain

INVOLVES KNOWLEDGE AND THE DEVELOPMENT OF

(think

Lowe

Know

Definition

Remembe
previously
material.

Sample V

- define
- identify
- label
- list
- name
- recall
- state

Based on "T

Affective Domain

AFFECTIVE DOMAIN – INCLUDES MANNER WE DEAL WITH THINGS EMOTIONALLY (e.g. FEELINGS, INTERESTS, ATTITUDES, APPRECIATION,

(feeling, a

Lower Or

Receiving

Definition

Selectively attends
to stimuli.

Sample Verbs:

- accept
- acknowledge
- be aware
- listen
- notice
- pay attention
- tolerate

Based on "Taxonom

Psychomotor Domain

PSYCHOMOTOR DOMAIN INCLUDES PHYSICAL MOVEMENT, COORDINATION & USE OF THE MOTOR SKILLS

(doing, s

Lower Or

Perception

Definition:

Senses cues that
guide motor activity

Sample Verbs:

- detect
- hear
- listen
- observe
- perceive
- recognize
- see
- sense
- smell
- taste
- view
- watch

Based on "Taxono

To be done at the beginning of every semester

Develop TOS

Moderate the Final Examination Question

Design the Assessment Rubrics

Current Practices

- Analysis of CLOs, PLOs and CQI have been conducted manually by the PDs and CLs at the various clusters
- Each programme is offered three times per year.
- Practices are tedious and time consuming.

The need to have the OBE System

- OBE System is proposed to automate the task of CLs and PDs.
- Ease the documentation work for the programme.
- Allow proper and systematic CQI of the programme at PEO, PLO and CLO levels

Two types of measurement

- Direct measures- measuring level of achievement of student learning on specific outcomes
- Usually through exam/tests, projects, presentations, portfolios
- Indirect measures include self reports, surveys, interviews, reports on retention, graduation and placement.

COURSE LEARNING OUTCOME TOOLS

CLOs are designed to specify skills or domains required to be achieved by students at the end of the course

- Table of Test Specification
- CLO-PLO Matrix
- CLO Analysis Matrix
- CQI Analysis tools

Table of Test Specifications

Cluster:
Programme:
Course Code:
Course Name:
Semester:
SME's Name:

Assessment Type	Part #	Q#	Topic	CLO#	Learning Domain	Taxanomy Level	SLT(%)	Raw Marks (%)	Weightage (%)
Assignment	-	1							
		2							
TOTAL									
SEQ / Refelctive Report	week #	1							
		2							
		3							
		4							
TOTAL									
Final Exam (MCQ)	A	1							
		2							
		…							
		40							
TOTAL									
Final Exam (Subjective)	A	1							
		2							
		3							
		4							
		5							
	B	1							
		2							
		3							
	C	1							
		2							
TOTAL									
GRAND TOTAL									

Course Learning Outcome & Programme Learning Outcome Matrix

Cluster:
Programme:
Course with Code :
Semester:
Cohort of Student:
Course Leader:

		PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8				
	Taxonomy Level	C	P	C	A	A	C	A	A				
	Course Learning Outcome (CLO)	Please (X) once only for each CLO								T& L Methods	Assessment Type	Weightage (%)	KPI
CLO 1													
CLO 2													
CLO 3													

Course Learning Outcome Analysis Matrix

Cluster:
Programme:
Course with Code :
Semester:
Cohort of Student:
Course Leader:

					CLO 1		CLO 2		CLO 3	
					*Assessment tool		*Assessment tool		*Assessment tool	
					%		%		%	
No	sem	Matric No.	TOTAL MARKS	TOTAL GRADE		%		%		%
No of Student achieved #% of each CLO										
Average CLO										
Achievement										

			CLO 1 (C)		CLO 2 (C)		CLO 3 (A)
	Assessment tool		FE		Essay		Essay
	Assessment value		60%		40%		3Q
No	sem	Matric No.	60	%	40		
1	143	5082	40.13	66.8833333	35	87.5	
2	143	5259	48	80	30	75	
3	143	5261	39.75	66.25	31	77.5	
4	143	5265	35.25	58.75	27	67.5	
5	143	5385	36	60	28	70	
6	143	5564	24	40	26	65	
7	143	5619	20.25	33.75	31	77.5	
8	143	5840	34.5	57.5	35	87.5	
9	143	5849	18	30	18	45	
10	143	6057	16.5	27.5	33	82.5	
11	143	6268	40.5	67.5	30	75	
No of Student achieved 55% of each CLO			7		10		
Average CLO			29.42	49.03	29.45	73.64	
Achievement			FAIL		PASS		

			CLO 1		CLO 2	CLO 3
	Assessment tool		FE		Essay	Essay
	Assessment value		60%		40%	
No	sem	Matric No.	60	%	40	
1	153	5104	32.25	53.75	31.75	79.375
2	153	5239	19.5	32.5	32.38	80.95
3	153	5273	26.25	43.75	31.588	78.97
4	153	5297	18.75	31.25	16	40
5	153	5355	15.75	26.25	32.88	82.2
6	153	5555	25.5	42.5	26.12	65.3
7	153	6263	28.5	47.5	40	100
8	153	6281	27.75	46.25	29.62	74.05
9	153	6291	27	45	29.75	74.375
10	153	7389	18	30	25.75	64.375
No of Student achieved 55% of each CLO			0		9	
Average CLO			23.93	39.88	29.58	73.96
Achievement			FAIL		PASS	

			CLO 1		CLO 2	CLO 3
	Assessment tool		FE		Essay	Essay
	Assessment value		50%		50%	
No	sem	Matric No.	50	%	50	
1	163	5529	31.25	62.5	37.13	74.26
2	163	5949	28.75	57.5	37.58	75.16
No of Student achieved 55% of each CLO			2		2	
Average CLO			30	60	37.36	74.71
Achievement			PASS		PASS	

Overall Achievement of CLO

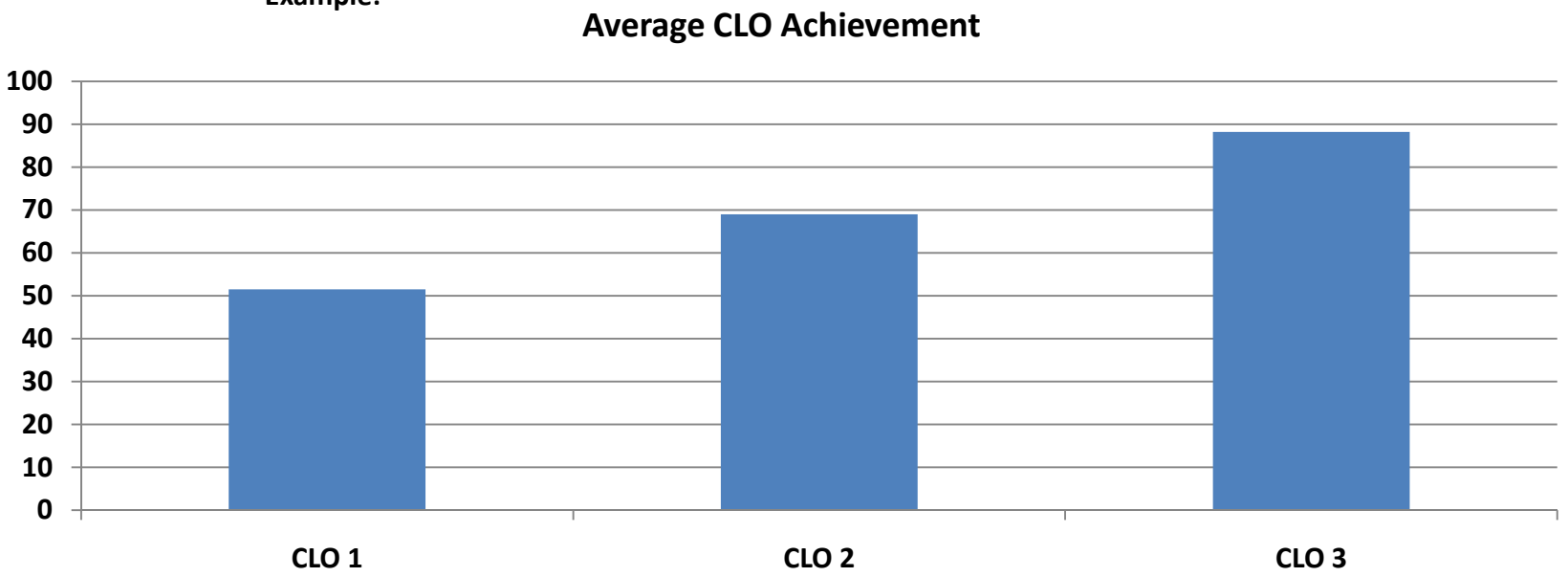
	CLO Achievement		
Semester	CLO 1	CLO 2	CLO 3
143	49.03	73.64	
153	39.88	73.96	
163	60.00	74.71	
Average CLO Achievement	49.63	74.10	
	FAIL	PASS	

Average score of CLO

Average of CLO

	CLO Achievement		
	CLO 1	CLO 2	CLO 3
Average CLO Achievement			

Example:



CQI in CLO Analysis

Cluster:
Programme:
Programme Director's Name:

CLO1	Final Examination teaching style need to be improved; some of the course material need to be revised.	**CLO2**	Laboratory Marks- Rubrics to be developed to assess the psychomotor domain.
CLO3	Improve assessment method; rubrics to assess affective domain		

PROGRAMME LEARNING OUTCOME TOOLS

- PLOs are statements that describe what students are expected to know and able to perform or attain by the time they graduate (Cognitive, Psychomotor and Affective Domains).

- Courses –PLO Analysis Matrix

- CQI

Courses- PLO Analysis Matrix

PLO Analysis Tool

Cluster:
Programme:
Programme Director's Name:

			Knowledge	Knowledge & Practical Skills	Social Skills and Responsibility	Ethics, professionalism & humanities	Communication, teamwork & leadership	Scientific methods, critical thinking & problem solving skills	Lifelong learning and information management skills	Entrepreneurial and managerial skills
NO	**CODE**	**COURSE NAME**	**PLO1**	**PLO2**	**PLO3**	**PLO4**	**PLO5**	**PLO6**	**PLO7**	**PLO8**
		Number of courses								
			PLO1	**PLO2**	**PLO3**	**PLO4**	**PLO5**	**PLO6**	**PLO7**	**PLO8**
		Average PLO Achievement								
		KPI Status								

CQI in PLO Analysis

Cluster:
Programme:
Programme Director's Name:

PLO1	Final Examination paper- lesson plans to be given to all tutors to ensure all topics are discussed before the exam	**PLO2**	Laboratory Marks- Rubrics to be developed to assess the psychomotor domain.
PLO4	Improve assessment method; rubrics to assess affective domain		

Courses –PLO Analysis Matrix

COURSE	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9
COURSE1	√	√	√						
COURSE2	√	√		√					
COURSE3	√		√						
COURSE4	√	√							
.....									
COURSE40									
COURSE41		√						√	√
COURSE42		√				√			√
COURSE43							√	√	√
COURSE44							√	√	√
	15	14	11	5	4	4	5	5	5

Course- Method of Assessment Matrix

		Level-PLO
CLO1	Propose the suggestion of stormwater management facilities as required in the MASMA	C5-PLO1
CLO2	Produce an ideas and alternative design solution in urban stormwater management guided by the MASMA	P4-PLO2
CLO3	Implement management skills in handling of urban stormwater issues in line with MASMA	A3-PLO5

Method of Assessment	Cognitive (C) (%)						Psychomotor (P) (%)							Affective (A) (%)					Total (%)
	C1	C2	C3	C4	C5	C6	P1	P2	P3	P4	P5	P6	P7	A1	A2	A3	A4	A5	
Quiz	1	2	2	0	0	0													5
Assignment			1	2	2														5
Test 1	0.4	1.2	2.4	2.4	3.6	0													10
Test 2	0	1	1	2	4	2													10
Project		0	0.5	1	2.5	1	0.5	1	1	1.5	2.5	1		0.5	1	1.5	2	2.5	20
Final Examination	3	7	8	12	14	6													50
Total (%)	4.4	11.2	14.9	19.4	26.1	9	0.5	1	1	1.5	2.5	1	0	0.5	1	1.5	2	2.5	Equal
(Domain) (%)	85						7.5							7.5					
Overall (%)	100																		

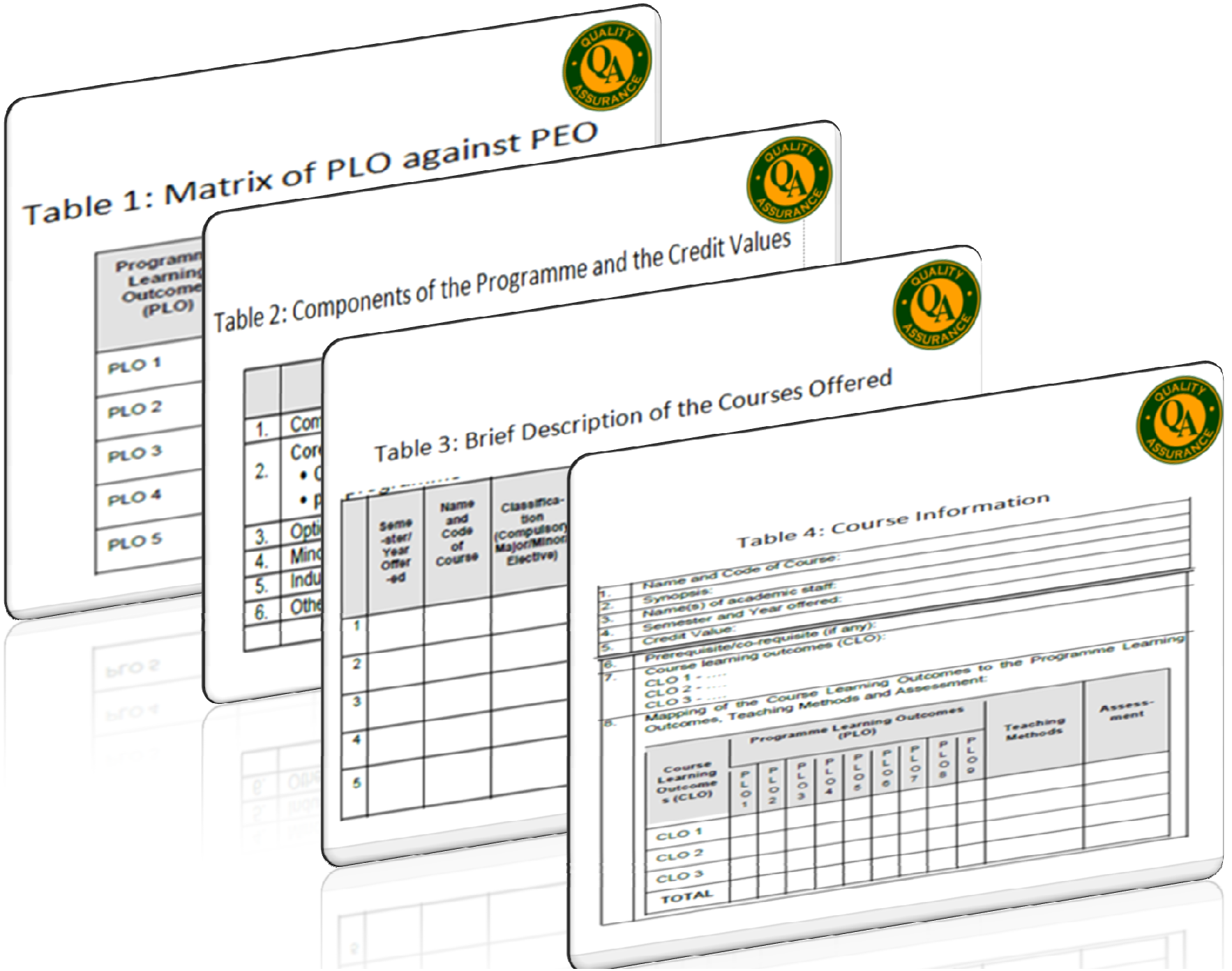
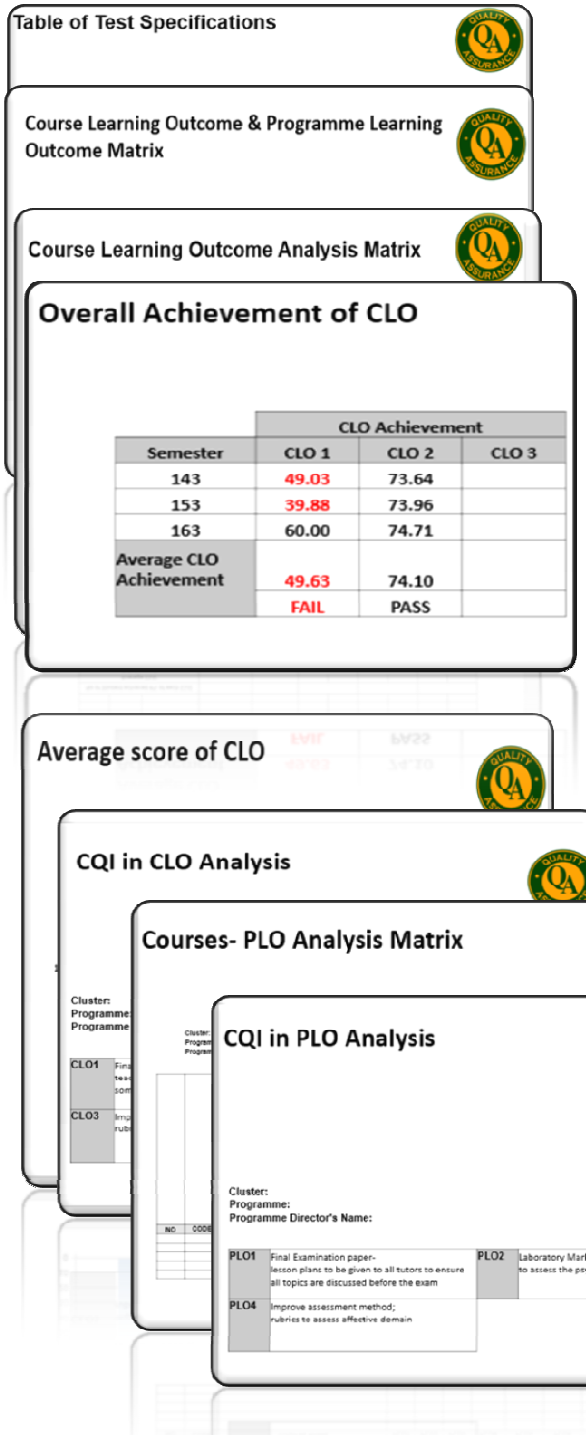


Table 1: Matrix of PLO against PEO
Programme Learning Outcome (PLO)
PLO 1
PLO 2
PLO 3
PLO 4
PLO 5
Table 2: Components of the Programme and the Credit Values
Table 3: Brief Description of the Courses Offered
Semester/ Year Offered
Name and Code of Course
Classification (Compulsory/ Major/Minor/ Elective)
Table 4: Course Information
1. Name and Code of Course:
2. Synopsis:
3. Name(s) of academic staff:
4. Semester and Year offered:
5. Credit Value:
6. Prerequisite/co-requisite (if any):
7. Course learning outcomes (CLO):
CLO 1 - .....
CLO 2 - .....
CLO 3 - .....
8. Mapping of the Course Learning Outcomes to the Programme Learning Outcomes, Teaching Methods and Assessment:
Course Learning Outcomes (CLO)
Programme Learning Outcomes (PLO)
PLO 1
PLO 2
PLO 3
PLO 4
PLO 5
PLO 6
PLO 7
PLO 8
PLO 9
Teaching Methods
Assessment
CLO 1
CLO 2
CLO 3
TOTAL

THE OBE SYSTEM



INPUT

Programme Education Outcome (PEO)

Programme Learning Outcome (PLO)

Course Learning Outcome (CLO)

OTHER INPUT
E.g. Types of Assessment for which Outcome Domains

OBE SYSTEM

ASSESSMENT AND EXAMINATION DATABASE

Marks Distribution Setting

Continuous Assessment Results

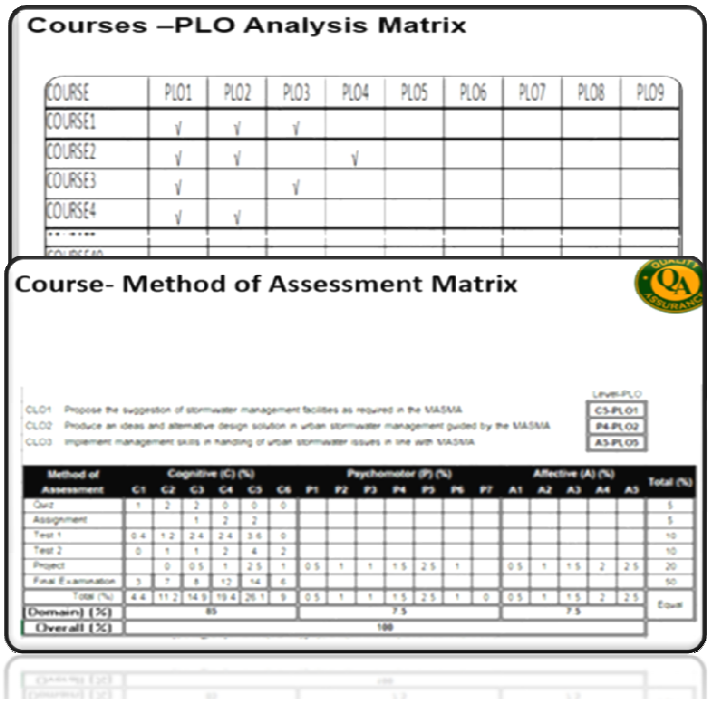
Final Exam Results

OUTPUT

TOS: Cognitive Domain

TOS: Psychomotor Domain

TOS: Affective Domain



Work in progress; first things first …

- Identification and communication of clearly defined learning outcomes
- Articulation of meaningful and measurable learning outcomes that are contextualised within the discipline of the program
- Constantly plan for feedback strategies for the purpose of CQI of the programme (CLOs, PLOs & PEOs)

thank
you