

UNIVERSITI
MALAYSIA
PERLIS

SCHOOL OF ELECTRICAL SYSTEMS ENGINEERING



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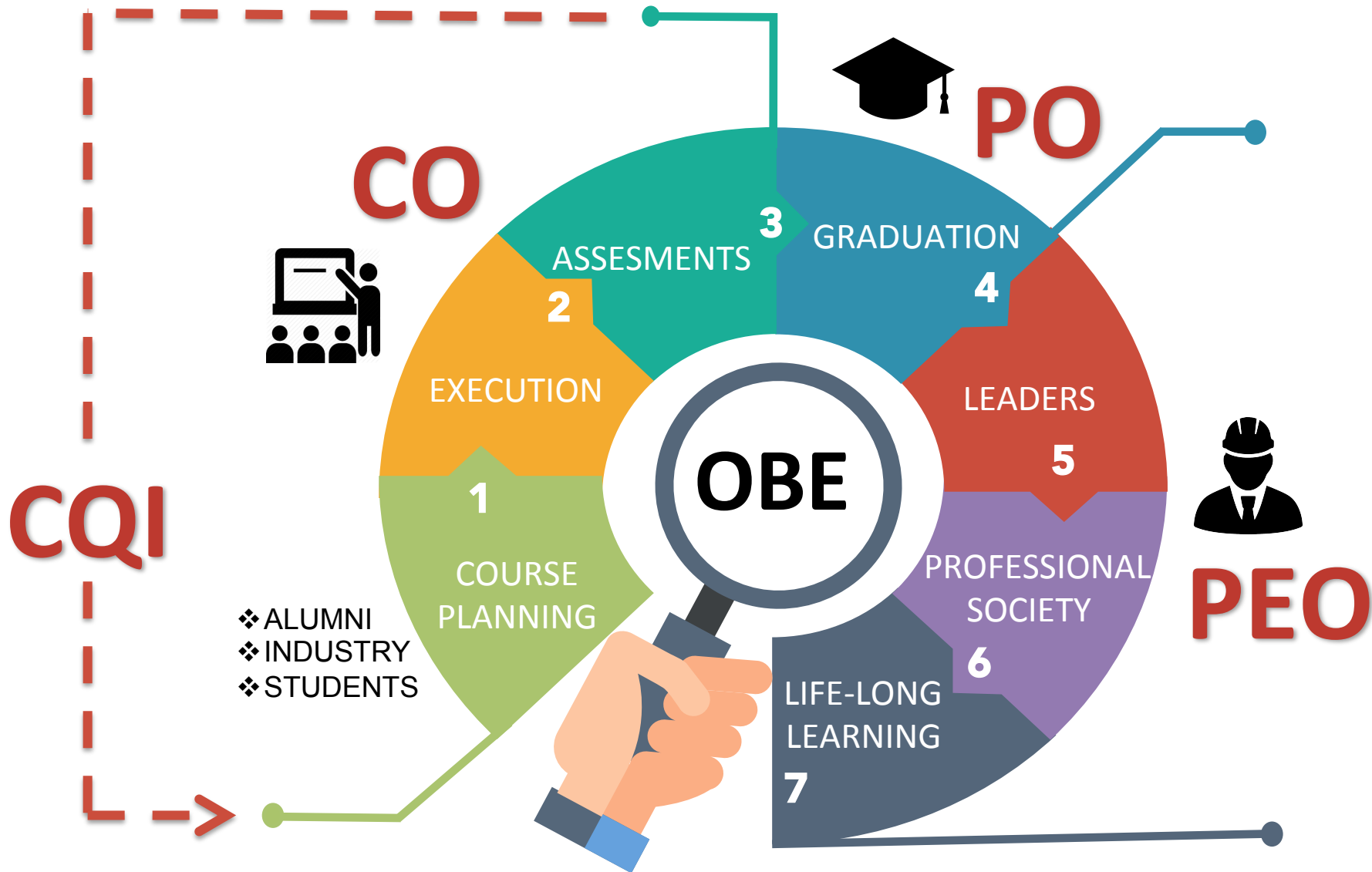
School of Electrical Systems Engineering,
Pauh Putra Campus, 02600 Arau, Perlis,
MALAYSIA.

OUTCOME BASED EDUCATION

Clearly focusing and organizing **education system** around what is essential for all **students** to be **able to do** successfully at the end of their learning experience



OBE IMPLEMENTATION



OBE ROLEPLAY

UP
U – Understand OBE
P – Productively Learn



DPQ
D – Deliver Knowledge
P – Performance Analysis
Q – Quality Improvement

IF
I – Improve Syllabus
F – Feedback on Programmes

EDT
E – Equipment Safety
D – Data/Filling Management
T – Technical Support

PEO AND PO

Program Educational Objectives (PEOs)



LEADERS



PROFESSIONAL SOCIETY

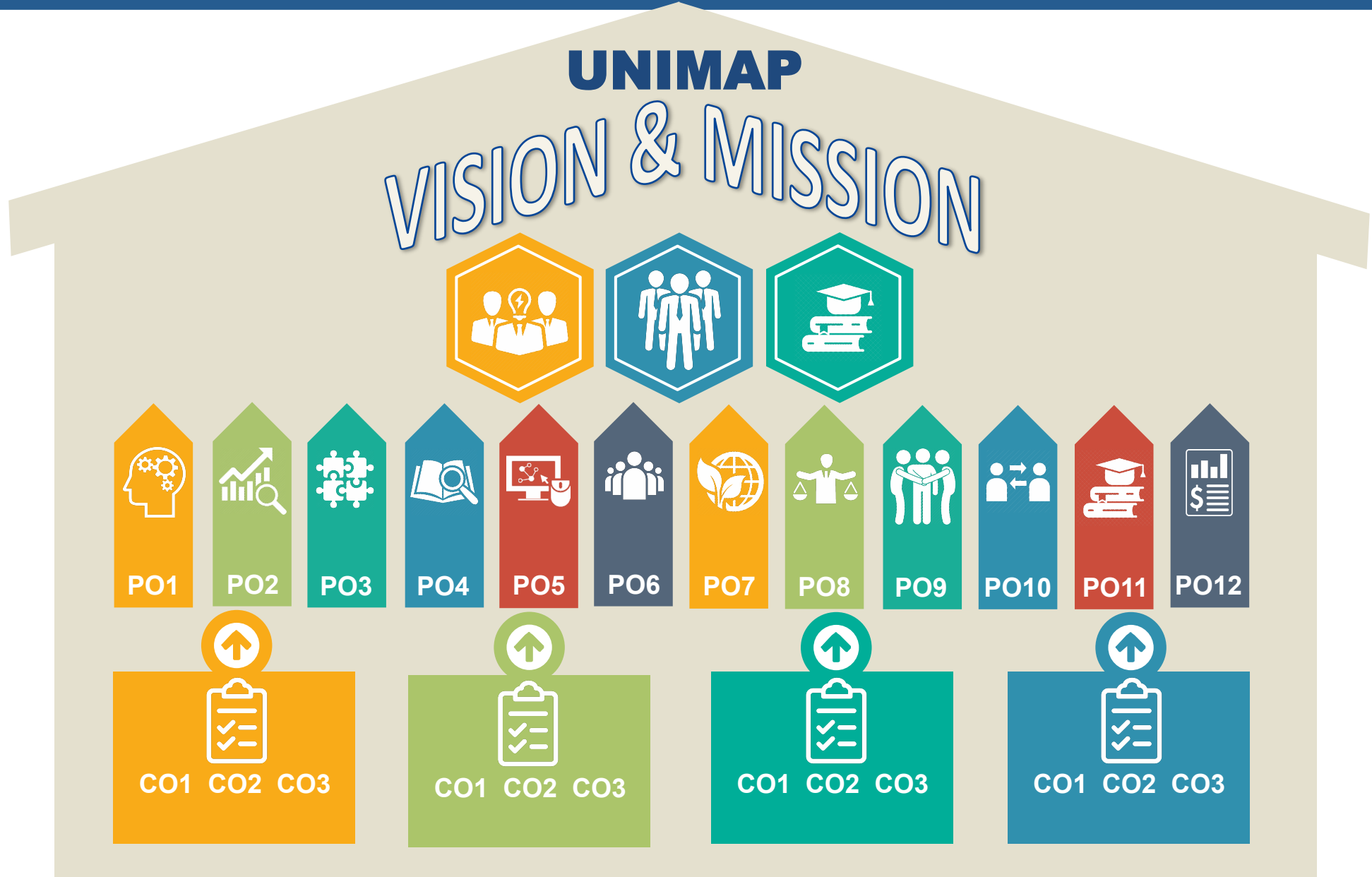


LIFE-LONG LEARNING

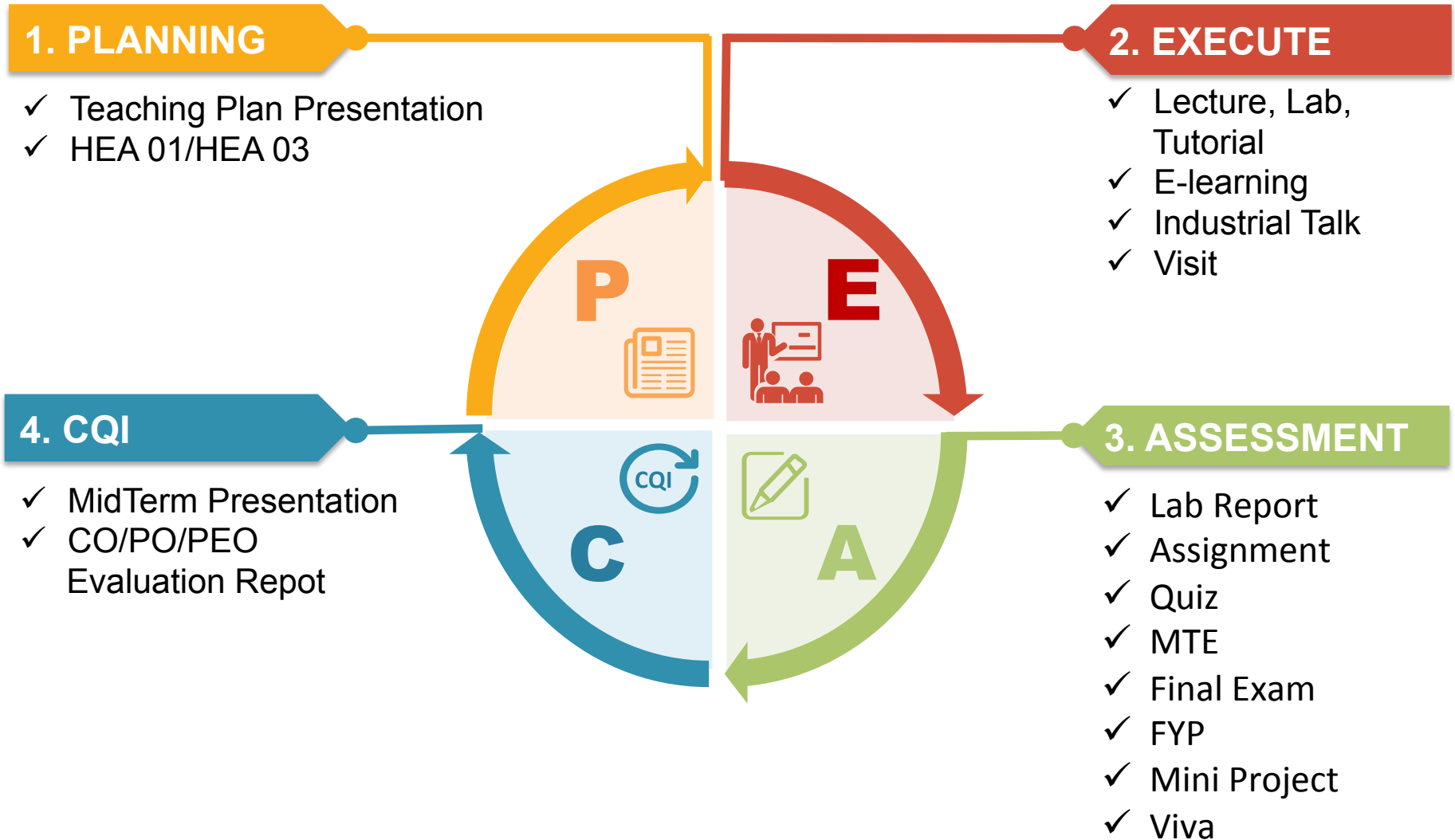
Program Outcomes (POs)



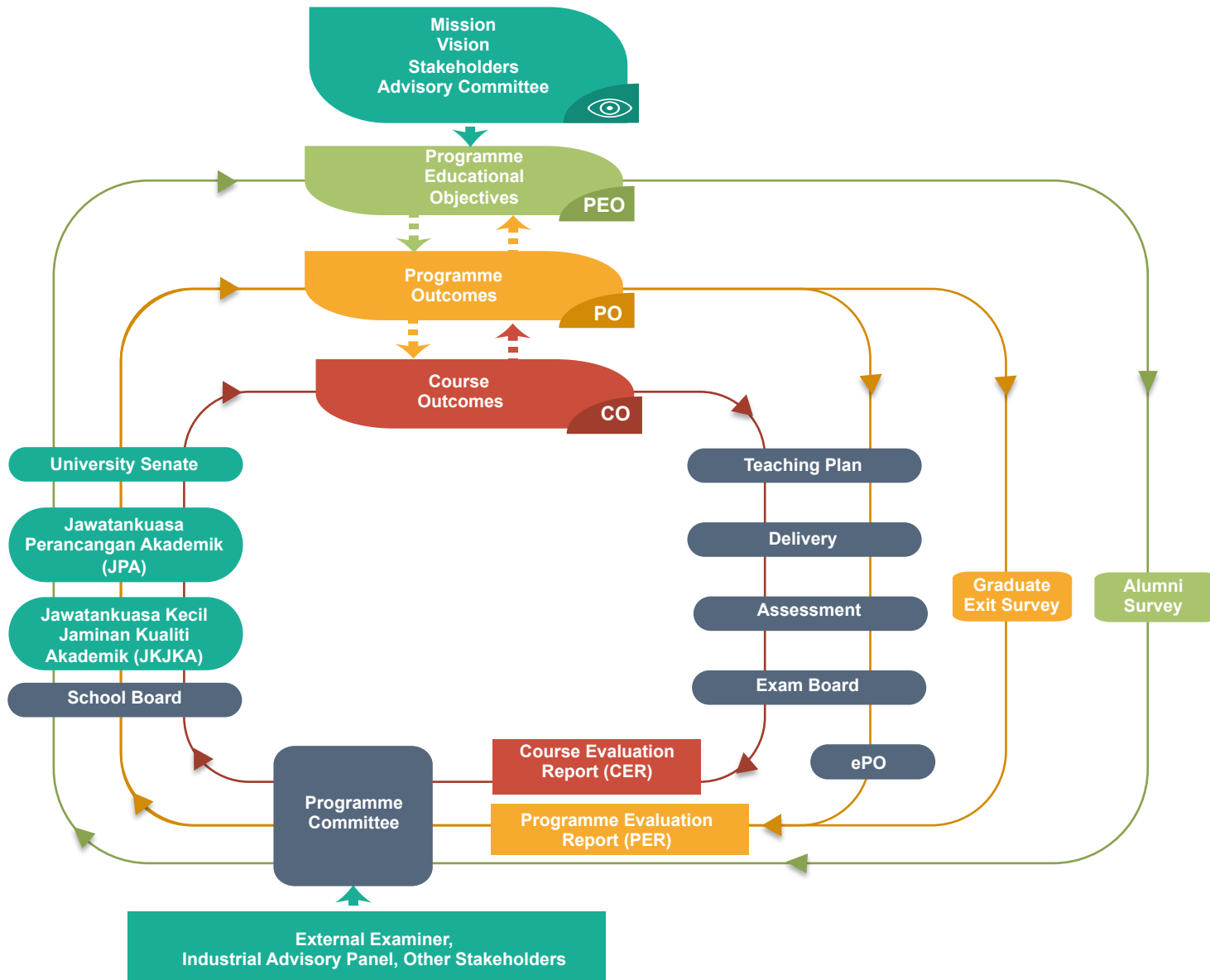
KEY CONSTITUENT OF OBE



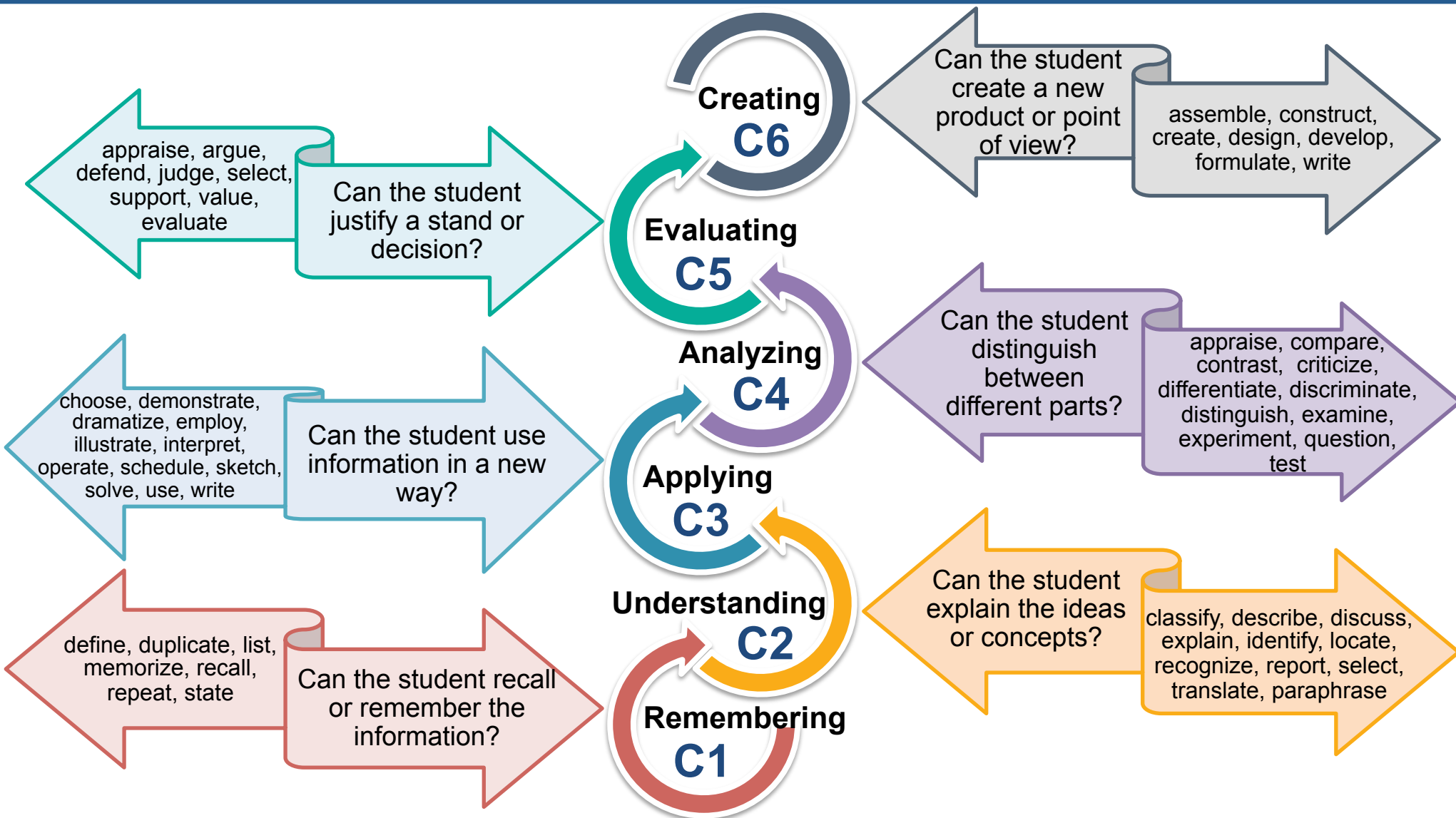
OBE PROCESS



OBE MECHANISM FOR CQI



BLOOM'S TAXONOMY LEVEL (COGNITIVE)



KNOWLEDGE PROFILE (WK)



	WK 1 Natural Science
	WK 2 Mathematic / Computer
	WK 3 Engineering Fundamental
	WK 4 Specialist Knowledge
	WK 5 Engineering Design
	WK 6 Engineering Practice
	WK 7 Engineering in Society
	WK 8 Research Literature

COMPLEX PROBLEM SOLVING (WP)

WP1 Depth of knowledge required

Cannot be resolved without in-depth engineering knowledge.



WP2 Range of conflicting requirements

Involve wide-ranging or conflicting technical, engineering and other issues.



WP3 Depth of analysis required

Have no obvious solution and require abstract thinking, originality in analysis to formulate suitable models.



WP4 Familiarity of issues

Involve infrequently encountered issues.



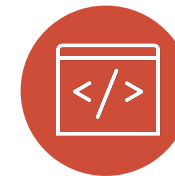
WP7 Inter-dependence

Are high level problems including many component parts or sub-problems.



WP6 Extent of stakeholder involvement and level of conflicting requirements

Involve diverse groups of stakeholders with widely varying needs.



WP5 Extent of applicable codes

Outside problems encompassed by standards and codes of practice for professional engineering.



COMPLEX PROBLEM ACTIVITY (EA)

EA2 Level of interactions

Require resolution of significant problems arising from interactions between wide ranging or conflicting technical, engineering or other issues.

EA4 Consequence to society and the environment

Have significant consequences in a range of contexts, characterised by difficulty of prediction and mitigation.



EA1 Range of resources

Involve the use of diverse resources (and for this purpose resources includes people, money, equipment, materials, information and technologies).



EA3 Innovation

Involve creative use of engineering principles and research-based knowledge in novel.



EA5 Familiarity

Can extend beyond previous experiences by applying principles-based approaches.

WA-WK-WP/EA RELATIONSHIP

WASHINGTON ACCORD GRADUATE ATTRIBUTES (WA)	WASHINGTON ACCORD KNOWLEDGE PROFILE (WK)	COMPLEX ENGINEERING PROBLEM (WP/EA)
WA1 ENGINEERING KNOWLEDGE	WK1, WK2, WK3, WK4	WP
WA2 PROBLEM ANALYSIS	WK1, WK2, WK3, WK4	WP
WA3 DESIGN/DEVELOPMENT OF SOLUTIONS	WK5	WP
WA4 INVESTIGATION	WK8	WP
WA5 MODERN TOOL USAGE	WK6	WP
WA6 THE ENGINEER AND SOCIETY	WK7	
WA7 ENVIRONMENT AND SUSTAINABILITY	WK7	
WA8 ETHICS	WK7	
WA9 INDIVIDUAL AND TEAM WORK	<div>Can be mapped to any WK</div>	
WA10 COMMUNICATION		
WA11 PROJECT MANAGEMENT AND FINANCE		
WA12 LIFE-LONG LEARNING		