OPEN BOOK EXAMINATION

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Assessments Provide Adequate Feedback to the Programme to Identify Strengths and Weaknesses for CQI

F2F assessment

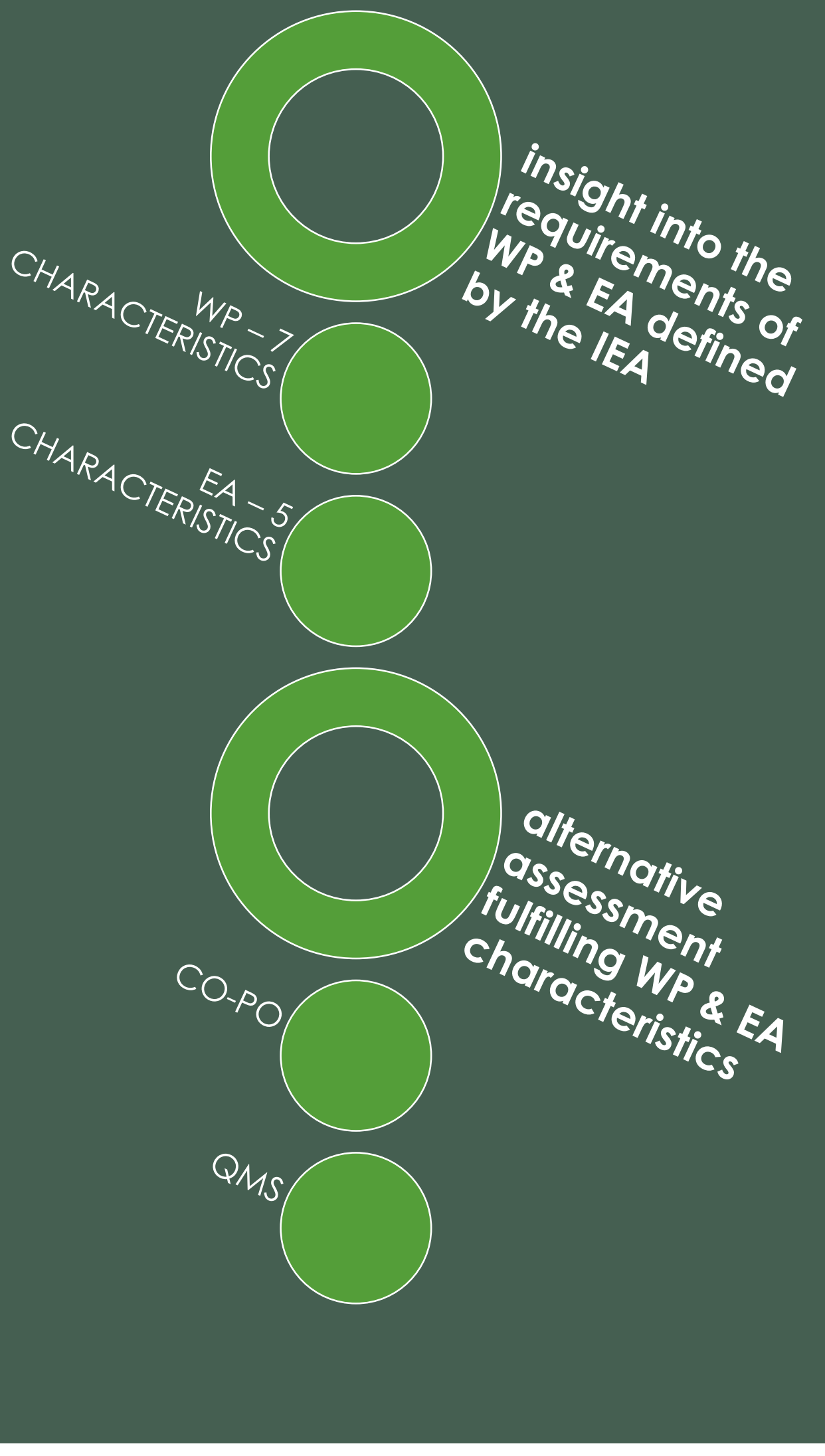
- Exam
- Lab
- PBL
- Presentation

Alternative assessment

- Take home?
- Simulation?
- Teamwork?
- Environment?

Quality Assurance ?

outcomes


insight into the requirements of WP & EA defined by the IEA
WP – 7 CHARACTERISTICS
EA – 5 CHARACTERISTICS
alternative assessment fulfilling WP & EA characteristics
CO-PO
QMS

Intended outcomes must clearly be indicated

CONSTRUCTIVE ALIGNMENT

ELEMENTS OF COURSE DESIGN

WHAT

learning outcomes

WP&EA

CLOSE LOOP

STUDENT

SCL	TCL
PBL	Lecture
POPBL	E-Learning
CBL	
Blended	
Laboratory	

instruction ⟷ assessment

HOW TO HELP

HOW TO KNOW

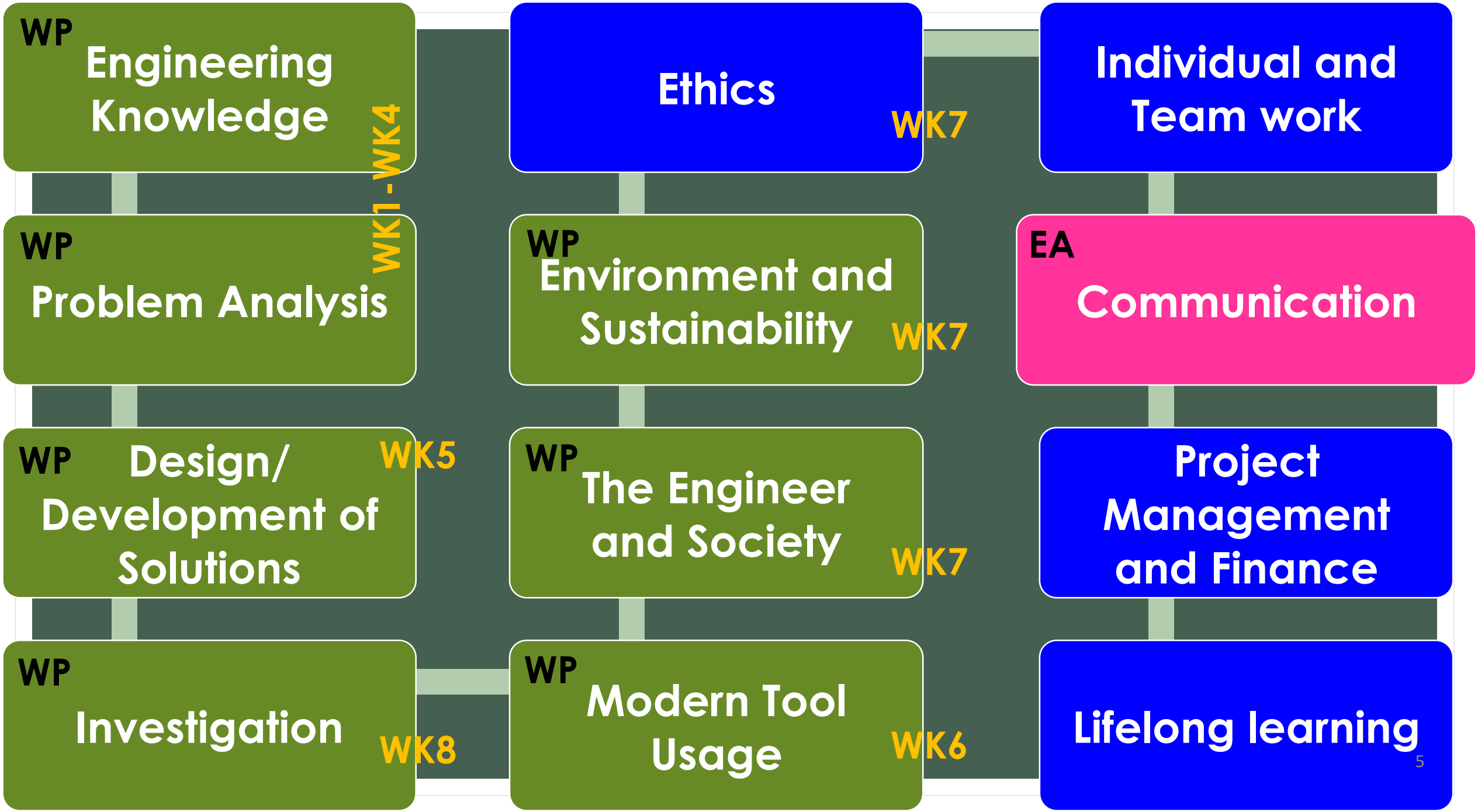
Activity will match outcomes

OBE requires T&L activities to be CONSTRUCTIVELY ALIGNED to intended learning outcomes

Formative/ Summative

Direct/ Indirect

Course/ Programme Level


WP
Engineering Knowledge
WK1 - WK4
Ethics
WK7
Individual and Team work
WP
Problem Analysis
WP
Environment and Sustainability
WK7
EA
Communication
WP
Design/ Development of Solutions
WK5
WP
The Engineer and Society
WK7
Project Management and Finance
WP
Investigation
WK8
WP
Modern Tool Usage
WK6
Lifelong learning

WA = Requires in-depth knowledge that allows a fundamentals-based first principles analytical approach

- WK1 - natural sciences
- WK2 – mathematics
- WK3 – engineering fundamentals
- WK4 – specialist knowledge
- WK5 – engineering design
- WK6 – engineering practice
- WK7 – comprehension
- WK8 – research literature

WP = must have characteristic of WP1 and some or all of WP2 to WP7

- WP1 (KNOWLEDGE) - **in-depth engineering knowledge** at the level of one or more of WK3, WK4, WK5, WK6 or WK8 which allows a fundamental based, first principles analytical approach
- WP2 (CONFLICTING)- **wide-ranging or conflicting** technical, engineering and other issues
- WP3 (ANALYSIS) - **no obvious solution** and require abstract thinking, originality in analysis to formulate suitable models
- WP4 (FAMILIARITY) - **infrequently** encountered issues
- WP5 (CODES) - **outside problems** encompassed by **standards and codes of practice** for professional engineering
- WP6 (STAKEHOLDER) - **diverse** groups of stakeholders with **widely varying needs**
- WP7 (INTERDEPENDENCE) - **high level problems** including many component parts or **sub-problems**

EA = some or all of EA1 to EA5

- EA1 (RESOURCES) - involve the use of **diverse resources** (and for this purpose resources includes people, money, equipment, materials, information and technologies)
- EA2 (INTERACTION) - require resolution of **significant problems** arising from **interactions** between **wide-ranging or conflicting technical, engineering or other issues**
- EA3 (INNOVATION) - involve **creative use** of engineering principles and research-based knowledge in novel ways
- EA4 **(SOCIETY & ENV) -** have **significant consequences** in a range of contexts, characterized by difficulty of prediction and mitigation
- EA5 (FAMILIARITY) - can extend **beyond previous experiences** by applying principles-based approaches.

ANALYSIS OF PROBLEMS & SYNTHESIS OF SOLUTIONS

PO1 - ENGINEERING KNOWLEDGE

PO2 - PROBLEM ANALYSIS

PO3 - DESIGN

PO4 - INVESTIGATION

PO5 - MODERN TOOLS

RESPONSIBILITIES

PO6 - ENGINEERS & SOCIETY

PO7 - ENVIRONMENT & SUSTAINABILITY

PO8 - ETHICS

REQUIRED IN WORKPLACE

PO9 - TEAMWORK

PO10 - COMMUNICATION

PO11 - PROJECT MANAGEMENT & FINANCE

PO12 - LIFELONG LEARNING

Alternative assessment

- Take home/Open book?
- Simulation?
- Teamwork?
- Environment?

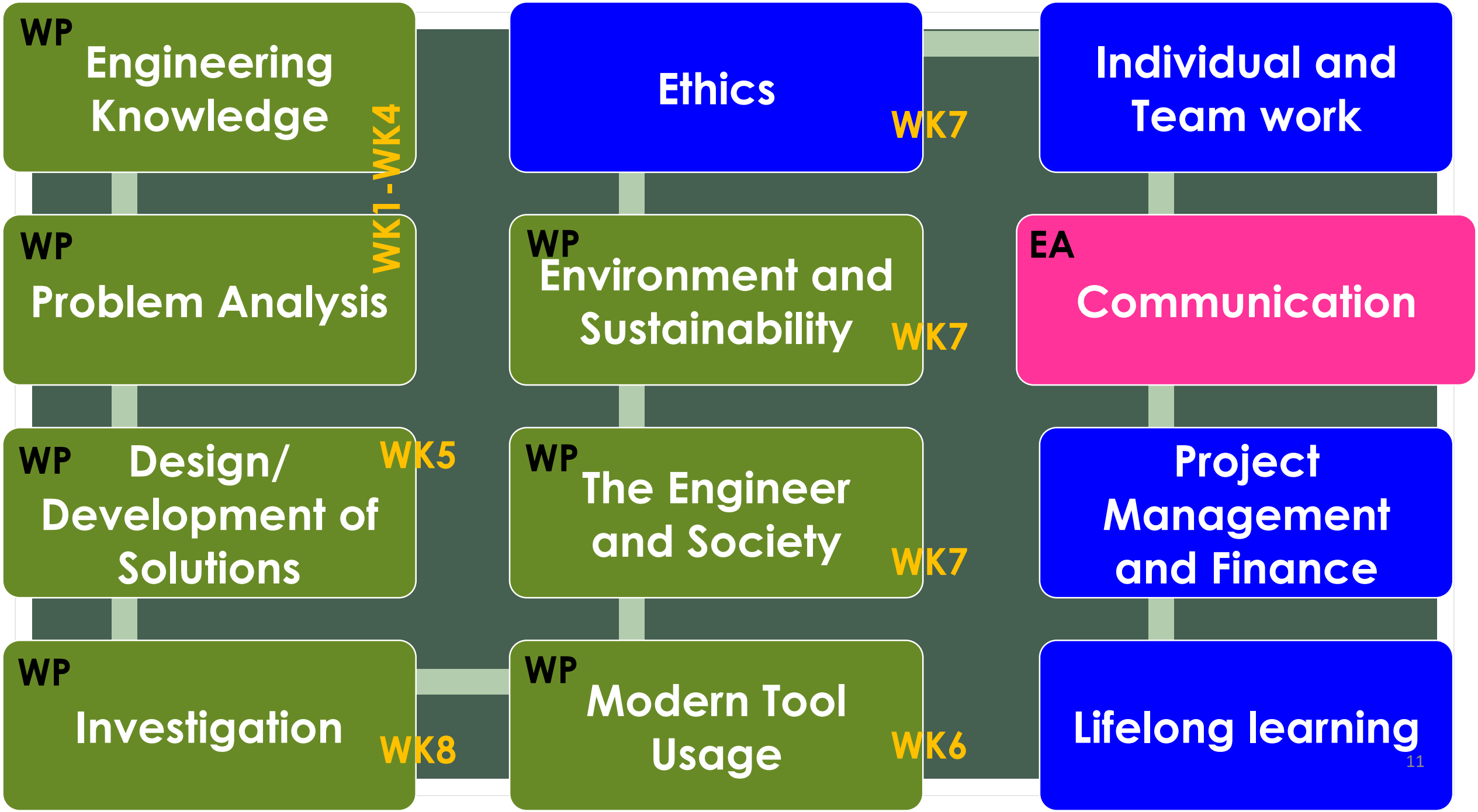
Quality Assurance ?

TAKE HOME EXAM/OPEN BOOK EXAM

	WP1						WP2	WP3	WP4	WP5	WP6	WP7
	WK3	WK4	WK5	WK6	WK7	WK8						
PO1	X		X					X		X		
PO2	X	X					X	X				
PO3			X				X			X		
PO4		X				X		X				X
PO5		X		X					X	X		
PO6					X						X	X
PO7					X				X		X	
PO8					X							

COMPUTER SIMULATION

	WP1						WP2	WP3	WP4	WP5	WP6	WP7
	WK3	WK4	WK5	WK6	WK7	WK8						
PO1	X		X					X		X		
PO2	X	X					X	X				
PO3			X				X			X		
PO4		X				X		X				X
PO5		X		X			X	X	X	X	X	X
PO6					X						X	X
PO7					X				X		X	
PO8					X							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Lifelong learning

THE OBE PLANTING CYCLE

ACCULTURATION (2020-2030)

PLANTING (AWARENESS) (1999-2005)

FEEDING (IMPLEMENTATION) (2006-2015)

WATERING (OTUCOME EVIDENT) (2016-2017)

HARVESTING (2018-2019)

CONTACT US

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