



OBE, PEO, AND PLO INFORMATION EVERY PROGRAM 2023

FACULTY OF TECHNICAL AND
VOCATIONAL EDUCATION

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IMPLEMENTATION OF OBE

Why OBE? – OBE in MQF



UNDANG-UNDANG MALAYSIA

Akta 679

AKTA AGENSI KELAYAKAN MALAYSIA 2007

PART VI

MALAYSIAN QUALIFICATIONS FRAMEWORK

The Framework

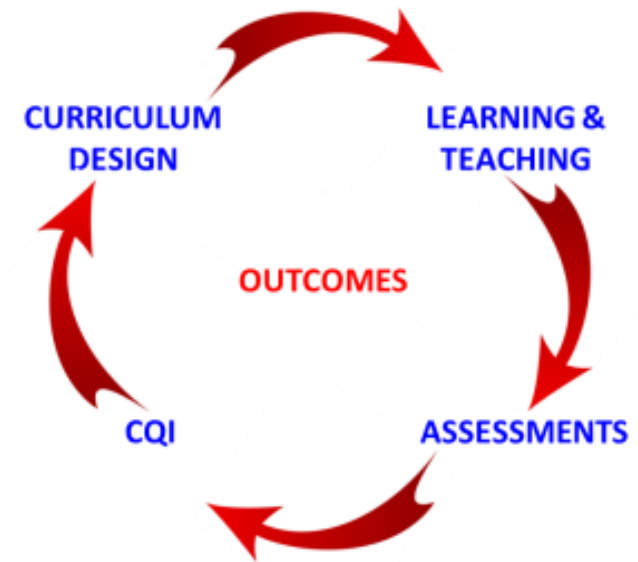
35. (1) The Agency shall be responsible for the implementation of the national framework to be known as the “Malaysian Qualifications Framework”, consisting of qualifications, programmes and higher education providers based on a set of criteria and standards, including learning outcomes achieved and credits based on students’ academic load.

Sumber CAD UTHM

Definitions of OBE

William Spady (1994), a leading proponent of OBE, wrote

“Outcome-Based Education means clearly focusing and organizing everything in an educational system around what is essential for all students to be able to do successfully at the end of their learning experiences. This means starting with a clear picture of what is important for students to be able to do, then organizing the curriculum, instruction, and assessment to make sure this learning ultimately happens”.



Sumber CAD UTHM



What is OBE?

OBE is education based on producing particular educational outcomes that:

- focuses on what students can actually do after they are taught;
- expect **all** learners/students to successfully achieve particular (sometimes minimum) level of knowledge and abilities.

Sumber CAD UTHM

PRINCIPLES OF OBE



01 Clarity of Focus

Defining the skillset

02 Designing Back

Curriculum & syllabus

03 High Expectations

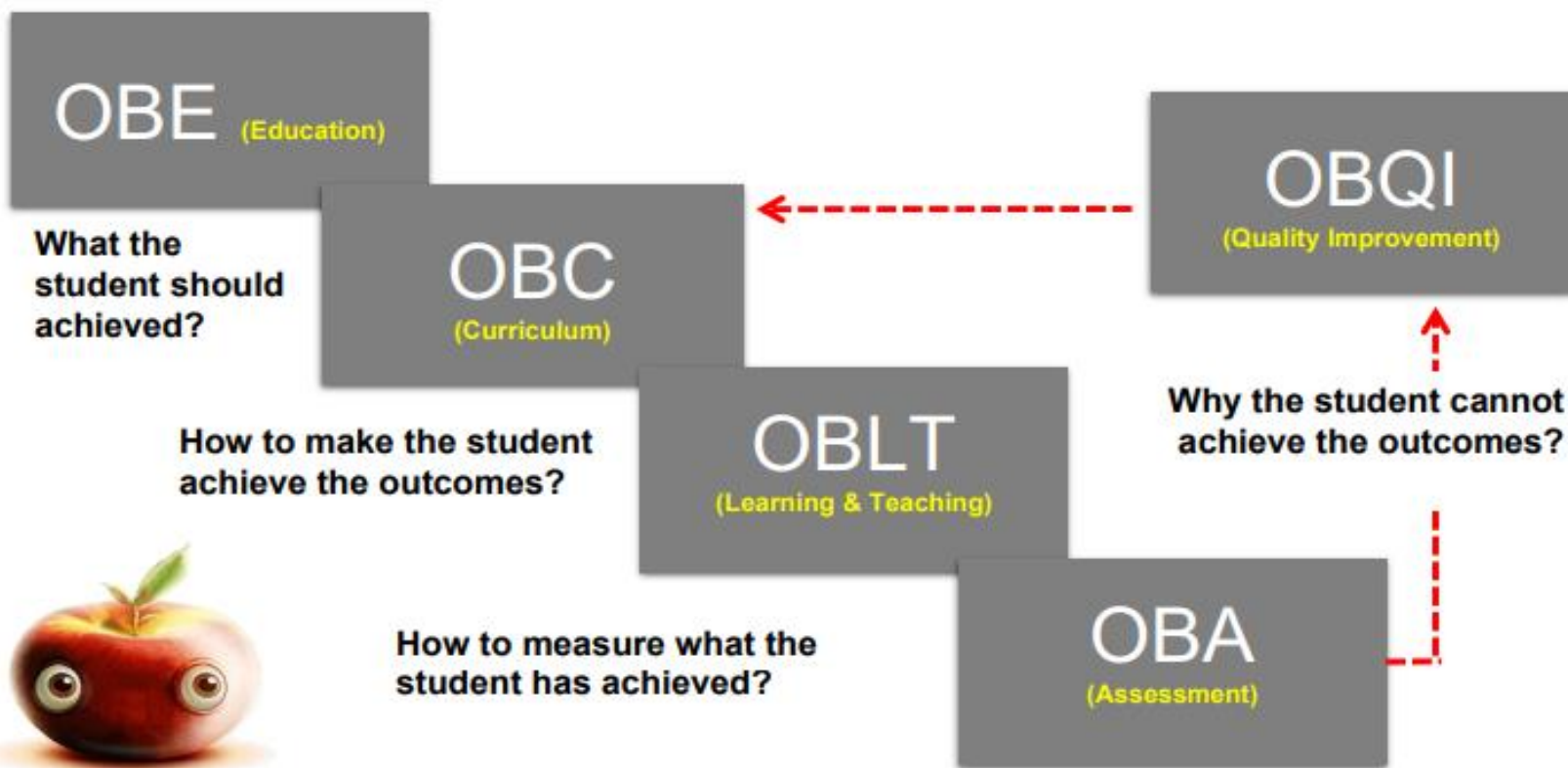
Assessment & Performance criteria

04 Expanded Opportunities

Lesson content & creative/innovative delivery

Sumber CAD UTHM

OBE Flows



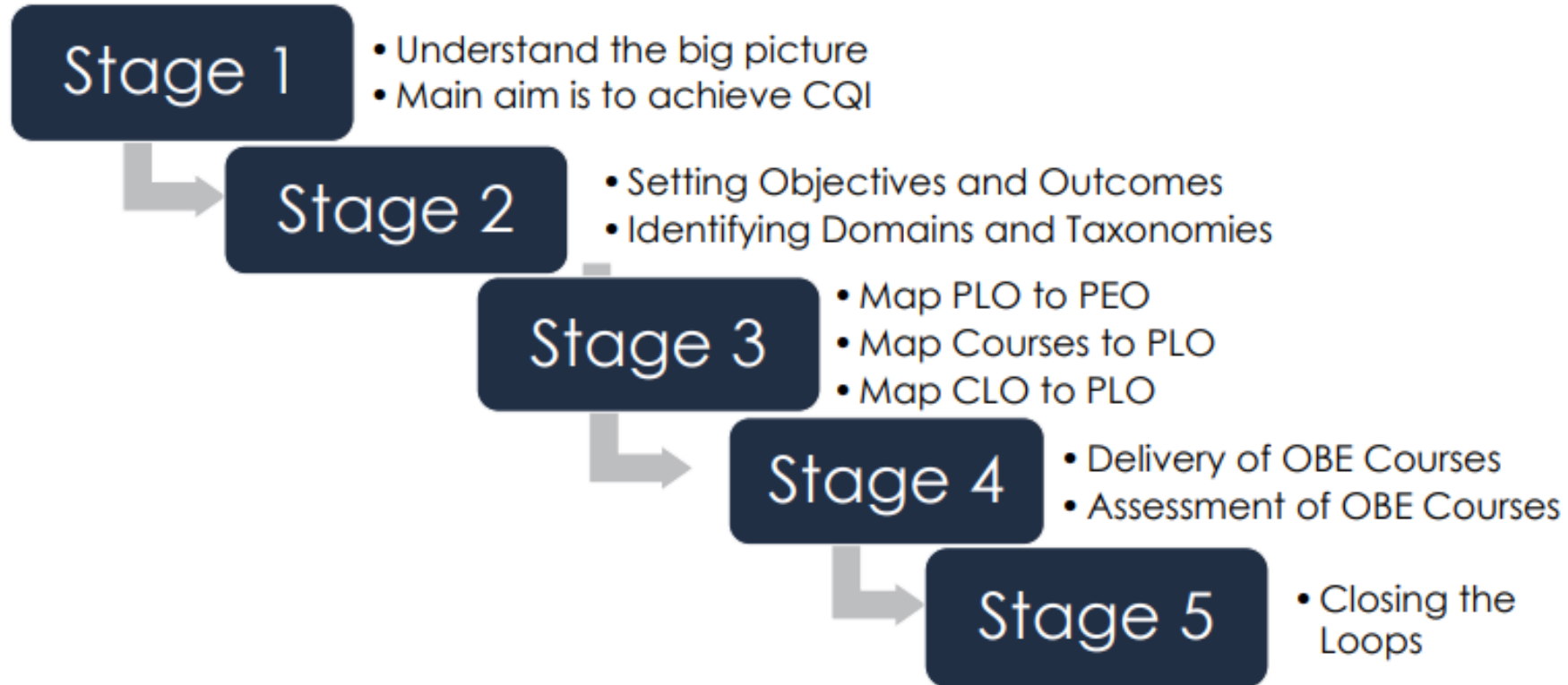
Sumber CAD UTHM

OBE Curriculum

- It has
 - Programme Educational Objectives (PEO)
 - Programme Learning Outcomes (PLO)
 - Course Learning Outcomes (CLO)
 - Continual Quality Improvement (CQI)
- It is **objective- and outcome-driven**, where every stated objective and outcome can be assessed and evaluated.
- It is centered around the needs of the students and the stakeholders.

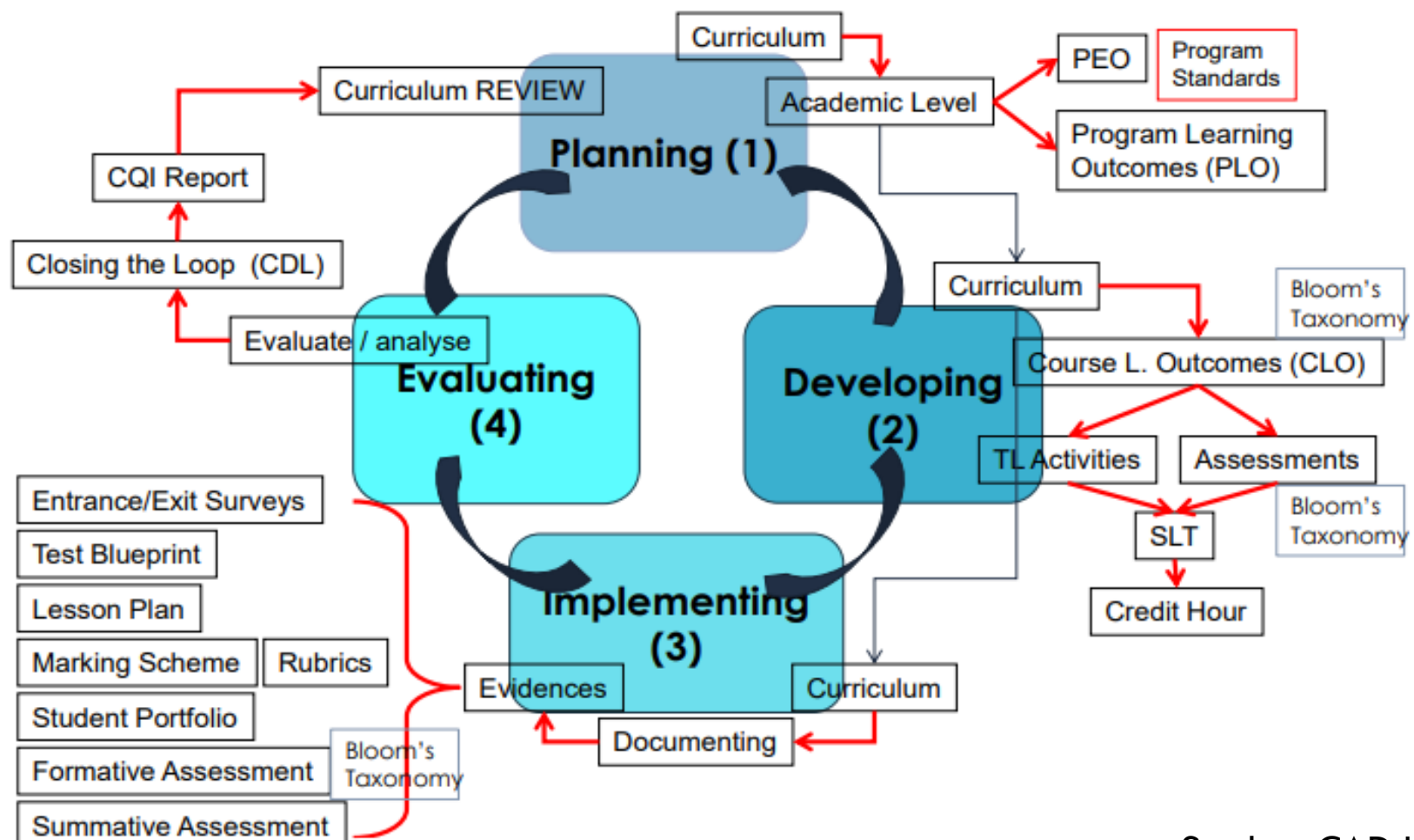
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OBE - 5-STAGE Implementation



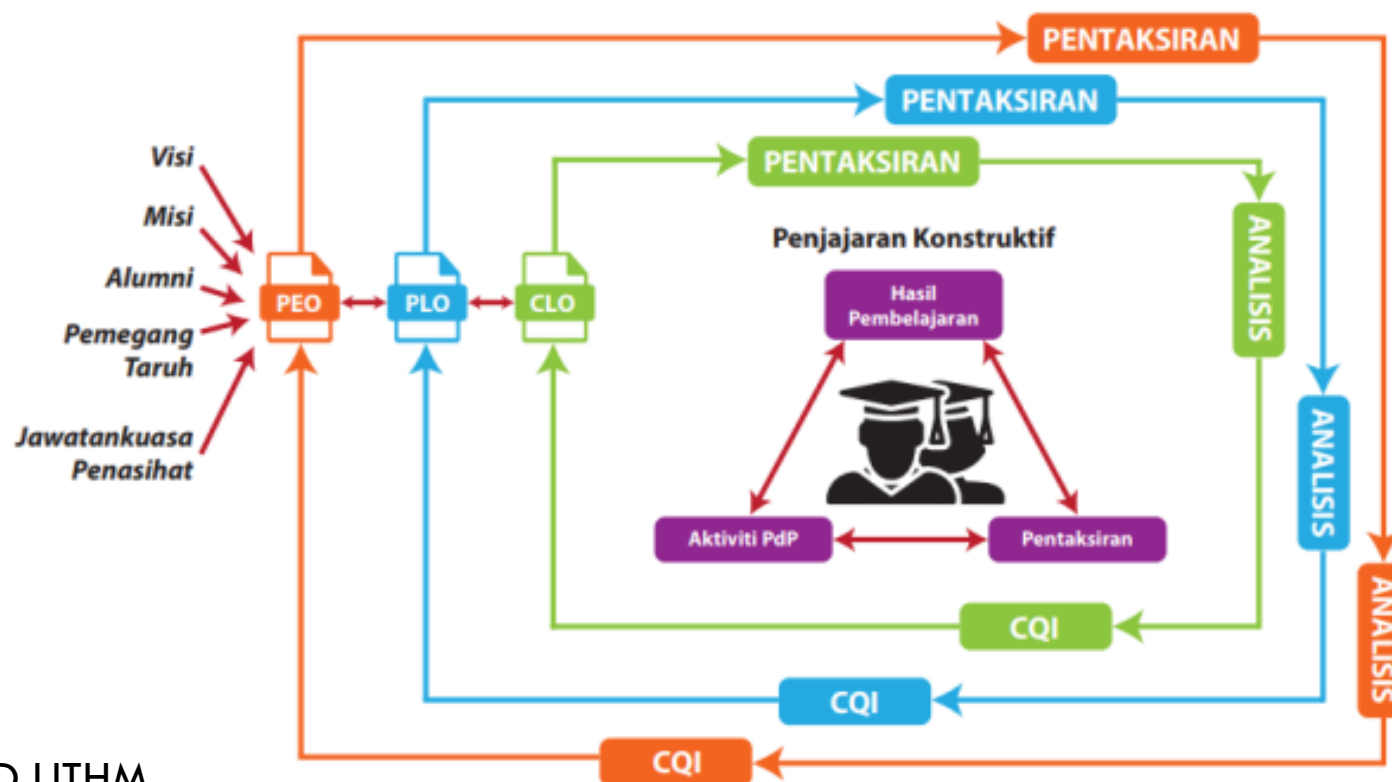
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OBE PROCESS



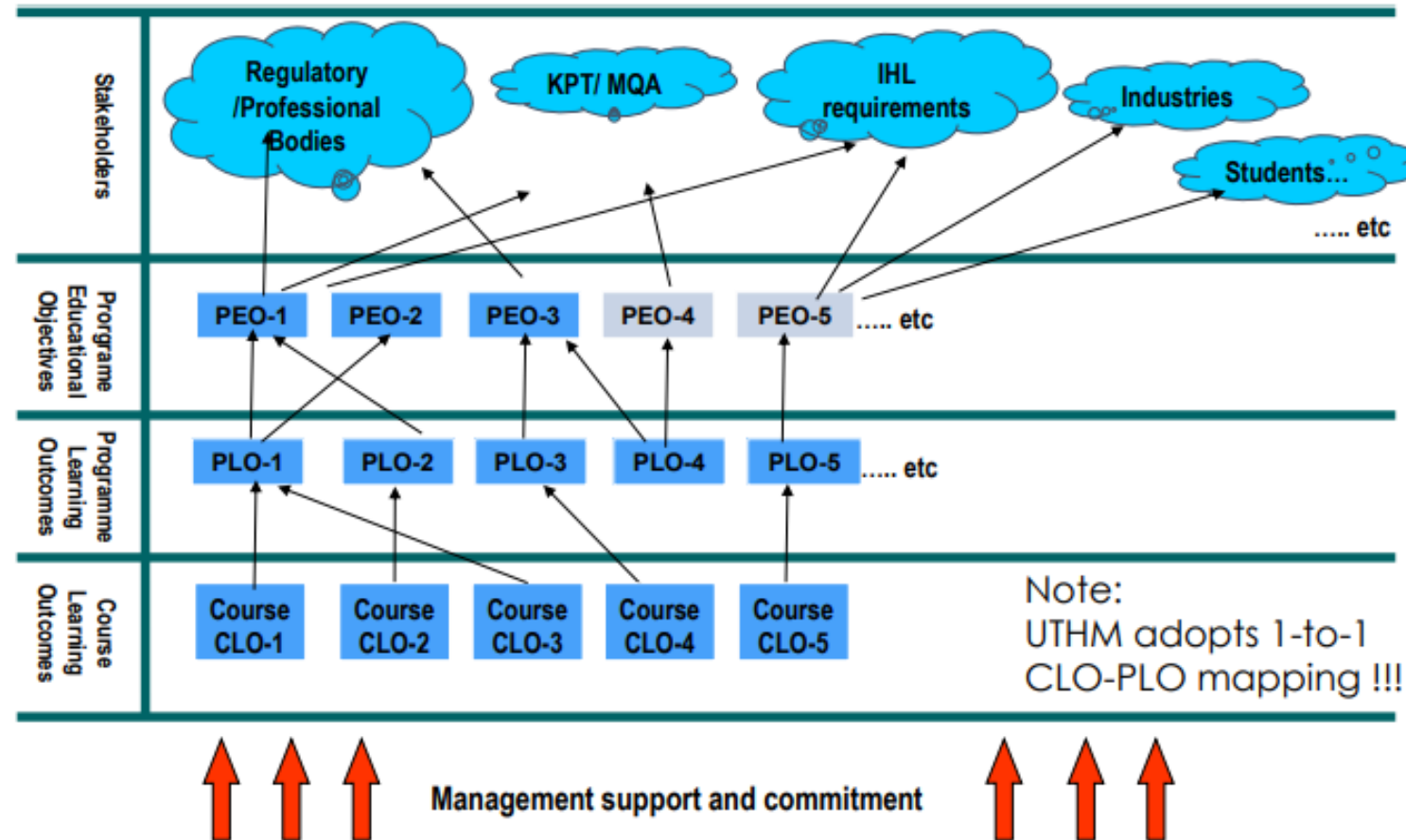
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Outcome Based Education



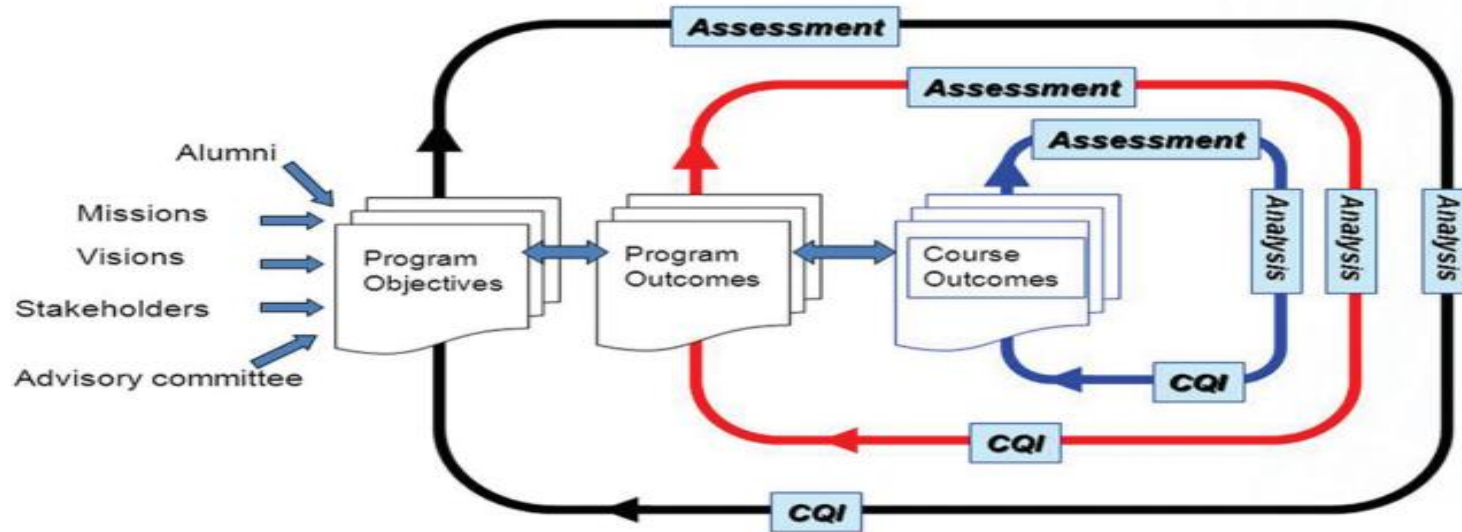
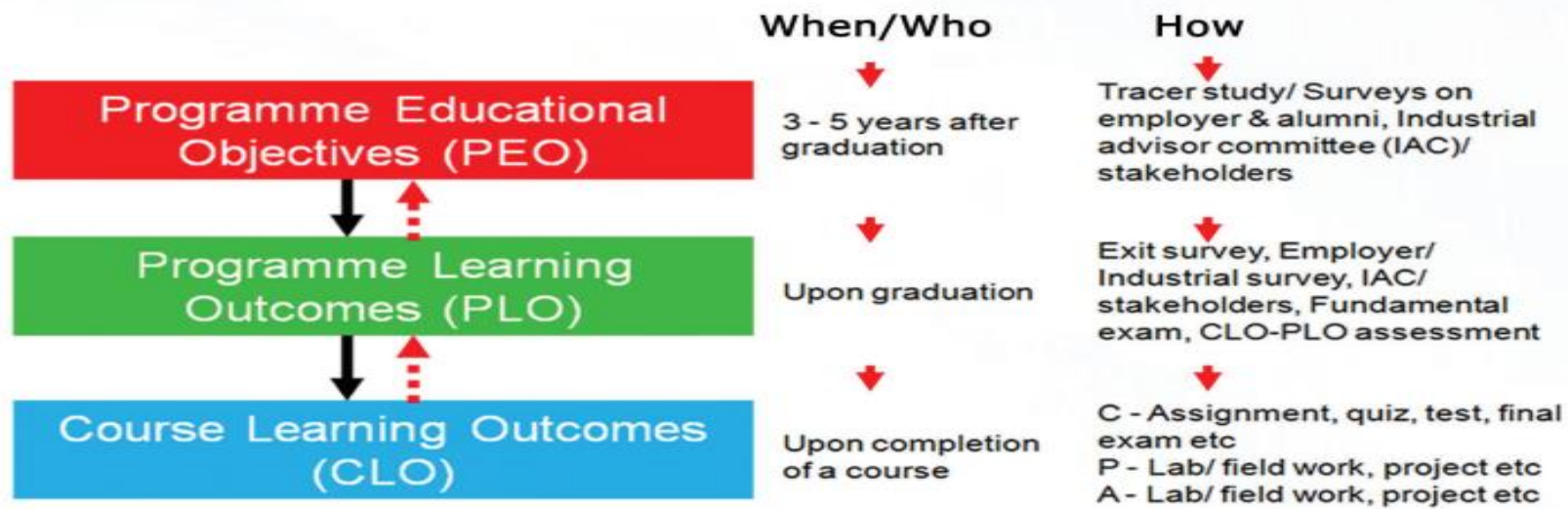
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PEO, PLO and CLO: Overview



Sumber CAD UTHM

OBE ASSESSMENT



Sumber CAD UTHM

OBE in **MQF 2nd edition**: Learning clusters

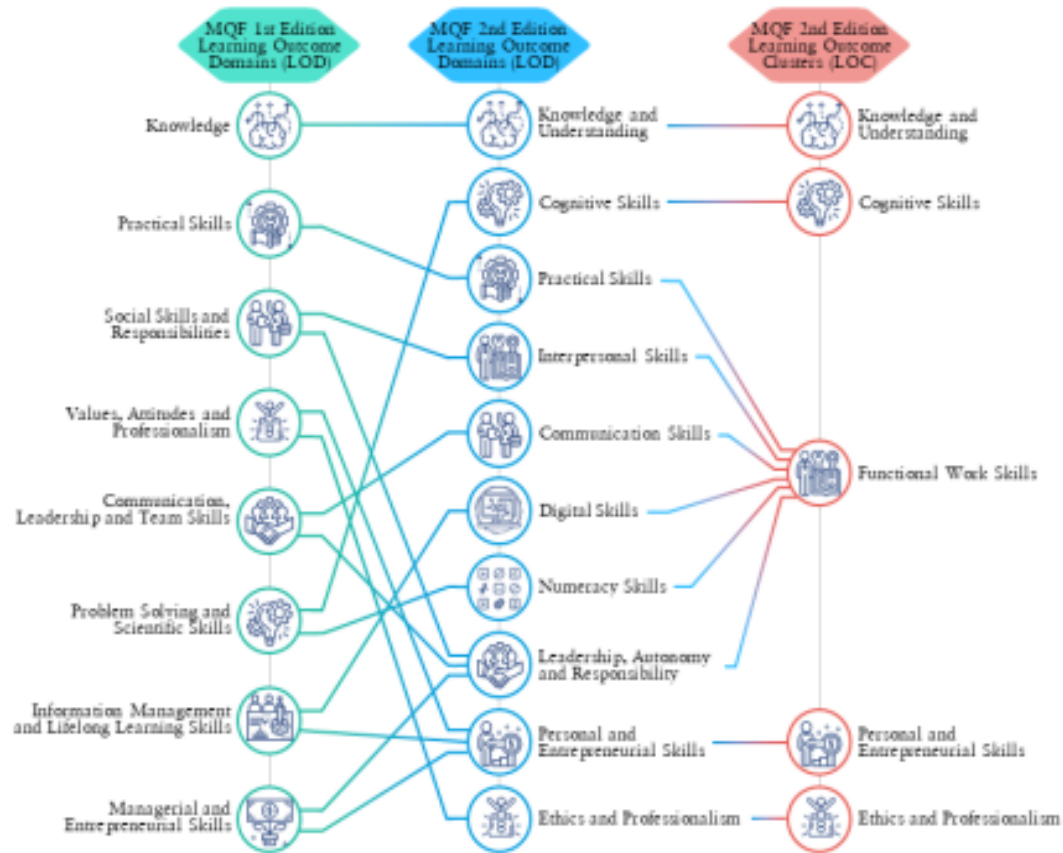
The **five clusters** of learning outcomes

- i. Knowledge and understanding
- ii. Cognitive skills
- iii. Functional work skills with focus on:
 - a. Practical skills
 - b. Interpersonal skills
 - c. Communication skills
 - d. Digital skills
 - e. Numeracy skills
 - f. Leadership, autonomy and respons
- iv. Personal and entrepreneurial skills
- v. Ethis and professionalism



Sumber CAD UTHM

MQA Learning Domain (MQF v2)



MQF v1

Table 1: MQA and MOHE LO domains to be addressed by HEPs

	MQA LO Domains	MOHE LO Domains
1.	Knowledge (C)	Knowledge of the discipline-Content (C)
2.	Practical skills (P)	Practical skills (P)
3.	Social skills and responsibilities (A)	Thinking and scientific skills (C)
4.	Ethics, professionalism and humanities (A)	Communication skills (A)
5.	Communication, leadership and team skills (A)	Social skills, teamwork and responsibility (A)
6.	Scientific methods, critical thinking and problem solving skills (C)	Values, ethics, moral and professionalism (A)
7.	Lifelong learning and information management skills (A)	Information management and lifelong learning skills (A)
8.	Entrepreneurship and managerial skills (A)	Managerial and entrepreneurial skills (A)
9.		Leadership skills (A)

*no one-to-one mapping

One-to-one mapping is proposed for MQF v2 ([NOBLE](#))

Sumber CAD UTHM

Clusters/ Learning Outcome Domains		MQF	UTHM Learning Outcome Domain, LOD	PLO (MQA Programmes)		EAC/ ETAC	MBOT	
				OLD	NEW			
Knowledge & Understanding		MQF 1	LOD 1	PLO 1	PLO 1	PO 1	PLO1	
Cognitive Skills	Problem Analysis/ Critical Thinking	MQF 2	LOD 2	PLO 11	PLO 2	PO 2	PLO3	
	Design / Problem Solving		LOD 3	PLO 10		PO 3		
	Investigation/ Scientific Skills		LOD 4	PLO 4		PO 4		
Functional Work Skills	Practical Skills		MQF 3a	LOD 5	PLO 2	PLO 3	PO 5	PLO2
	Interpersonal Skills	Social Skills	MQF 3b	LOD 6	PLO 5	PLO 4	PO 9	PLO9
		Teamwork Skills		LOD 7				
	Communication Skills		MQF 3c	LOD 8	PLO 3	PLO 5	PO 10	PLO4
	Digital Skills		MQF 3d	LOD 9		PLO 6	PO 5	PLO2
	Numeracy Skills		MQF 3e	LOD 10		PLO 7	PO 1	PLO1
	Leadership		MQF 3f	LOD 11	PLO 9	PLO 8	PO9	PLO9
	Autonomy & Responsibility			LOD 12			PO 11	PLO7
Personal and Entrepreneurial Skills	Personal Skills	MQF 4a	LOD 13	PLO 6	PLO 9	PO 12	PLO6	
	Entrepreneurial Skills	MQF 4b	LOD 14	PLO 7	PLO 10	PO 11	PLO7	
Ethics & Professionalism	Ethics	MQF 5	LOD 15	PLO 8	PLO 11	PO 8	PLO8	
	Professionalism		LOD 16			PO 6		
	Values		LOD 17			PO 8		
	Environment and Sustainability		LOD 18	PLO 12		PO 7	PLO5	
	Social Responsibility		LOD 19	PLO 13		PO 6		

Sumber CAD UTHM

PLO, LOD AND MQF 2.0 MAPPING

PLO EPS	Learning Outcome Domain (LOD)	LOD DOMAIN	CLUSTER MQF 2.0	
PLO 1 <i>Knowledge & Understanding</i>	LOD 1	<i>Knowledge & Understanding</i>	<i>Knowledge & Understanding</i>	MQF 1
PLO 2 <i>Practical Skills</i>	LOD 5	<i>Practical Skills</i>	<i>Functional Work Skills</i>	MQF 3a
PLO 3 <i>Ethics</i>	LOD 15	<i>Ethics</i>	<i>Ethics & Professionalism</i>	MQF 5
PLO 4 <i>Professionalism</i>	LOD 16	<i>Professionalism</i>	<i>Ethics & Professionalism</i>	MQF 5
PLO 5 <i>Interpersonal & Communication Skills</i>	LOD 6	<i>Interpersonal Skill (Social skills)</i>	<i>Functional Work Skills</i>	MQF 3b
	LOD 7	<i>Interpersonal Skill (Teamwork skills)</i>	<i>Functional Work Skills</i>	
	LOD 8	<i>Communication Skills</i>	<i>Functional Work Skills</i>	MQF 3c
PLO 6 <i>Leadership</i>	LOD 11	<i>Leadership</i>	<i>Functional Work Skills</i>	MQF 3f
PLO 7 <i>Cognitive skill</i>	LOD 3	<i>Design/ Problem Solving</i>	<i>Cognitive. Skills</i>	MQF 2
	LOD 4	<i>Investigation/ Scientific Skill</i>	<i>Cognitive. Skills</i>	
PLO 8 <i>Environment & Sustainability</i>	LOD 18	<i>Environment & Sustainability</i>	<i>Ethics & Professionalism</i>	MQF 5
PLO 9 <i>Digital, Entrepreneurial & Autonomy Skill</i>	LOD 9	<i>Digital Skills</i>	<i>Functional Work Skills</i>	MQF 3d
	LOD 12	<i>Autonomy & Responsibility</i>	<i>Functional Work Skills</i>	MQF 3f
	LOD 14	<i>Entrepreneurial Skills</i>	<i>Personal and Entrepreneurial skills</i>	MQF 4b
	LOD 17	<i>Values</i>	<i>Ethics & Professionalism</i>	MQF 5
PLO 10 <i>Personal Skills</i>	LOD 13	<i>Personal Skills</i>	<i>Personal and Entrepreneurial</i>	MQF 4a
PLO 11 <i>Social Responsibility</i>	LOD 19	<i>Social Responsibility</i>	<i>Ethics & Professionalism</i>	MQF 5
PLO 12 <i>Problem Analysis & Numeracy Skills</i>	LOD 2	<i>Problem Analysis and Critical Thinking</i>	<i>Cognitive Skill</i>	MQF 2
	LOD 10	<i>Numeracy skill</i>	<i>Functional Work Skills</i>	MQF 3e

FACULTY LOD AND PLO INFORMATION

Learning Outcome Domain

LOD 1	Knowledge and Understanding
LOD 2	Critical Thinking
LOD 3	Problem Solving
LOD 4	Scientific Skills
LOD 5	Practical Skills
LOD 6	Social Skills
LOD 7	Teamwork Skills
LOD 8	Communication Skills
LOD 9	Digital Skills
LOD 10	Numeracy Skills
LOD 11	Leadership
LOD 12	Autonomy and Responsibility
LOD 13	Personal Skills (LLL)
LOD 14	Entrepreneurial Skills
LOD 15	Ethics
LOD 16	Professionalism
LOD 17	Values
LOD 18	Environment and Sustainability
LOD 19	Social Responsibility

Programme Learning Outcome

PLO 1	Knowledge and Understanding
PLO 2	Cognitive Skills
PLO 3	Practical Skills
PLO 4	Interpersonal Skills
PLO 5	Communication Skills
PLO 6	Digital Skills
PLO 7	Numeracy Skills
PLO 8	Leadership, Autonomy and Responsibility
PLO 9	Personal Skills
PLO 10	Entrepreneurial Skills
PLO 11	Ethics and Professionalism



Course Learning Outcomes

- Specific statements of what the learners are expected to achieve at the end of the course.
 - Verb (V), Condition (C) and Standard (S)
- CLO shall address (mapped) to PLO, i.e. the attainment of CLO will contribute to the attainment of PLO.
- 2 important things to consider
 - Learning Taxonomy
 - Constructive Alignment
- In UTHM, CLOs are mapped to Learning Outcome Domain (LOD) and PLOs are combination of 1 or more LODs.

Sumber CAD UTHM

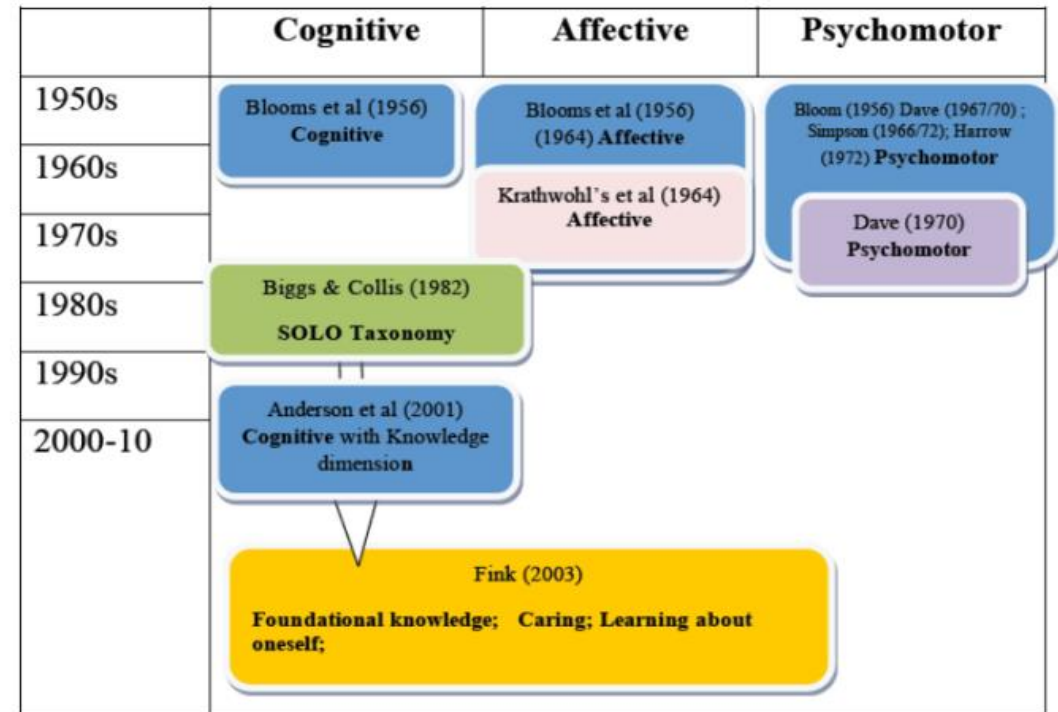


EXAMPLE

Course Learning Outcomes (CLO): At the end of the course, students will be able to: <i>Example: Explain the basic principles of risk management (C2, PLO1)</i>	
CLO 1	Developing a daily lesson plan for theory and practical class/workshop for macro teaching based on vocational pedagogy (LOD1, PLO1, C6).
CLO 2	Implementing macro teaching for theory and practical class/ workshop based on daily lesson planned (LOD4, PLO7, P6).
CLO 3	Proposing a document of teaching portfolio and teaching reflection of macro teaching that has been implemented. (LOD5, PLO2, A5)

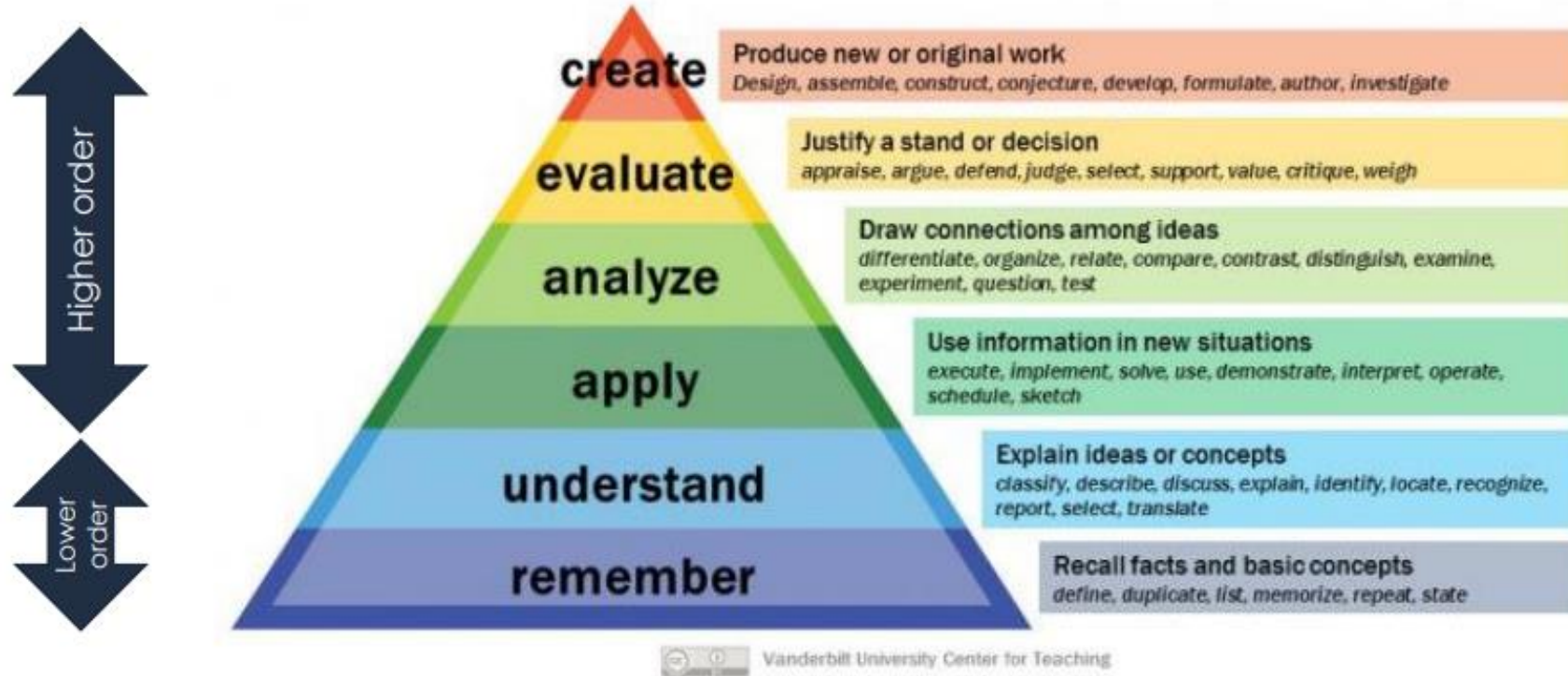
Learning taxonomies

- Three domains
 - a. Cognitive domain – intellectual domain (i.e. knowledge)
 - b. Psychomotor domain – manual and physical skills (i.e. practical skills)
 - c. Affective domain – feeling, emotions and behaviour (i.e. attitude)



Sumber CAD UTHM

Bloom's taxonomy



Sumber CAD UTHM

ASSESSMENT vs PSYCHOMOTOR DOMAIN

Course Learning Outcome(s) : At the end of this course the student will be able to:	
CLO 1	Analyse the device physics that lead to distinct properties of modern semiconductor devices; (PLO4-CTPS-C4);
CLO 2	Analyse the practical device operation that deviates from ideal circumstances; (PLO11-PA-C4);
CLO 3	Construct the design of modern semiconductor device structures using simulation tools; and (PLO2-PS-P4);
CLO 4	Demonstrate the ability to lead in gathering collective solution of semiconductor devices issues using a proper management approach effectively. (PLO9-LS-A3).

Psychomotor

The psychomotor domain (Simpson, 1972) includes physical movement, coordination, and use of the motor-skill areas. Development of these skills requires practice and is measured in terms of speed, precision, distance, procedures, or techniques in execution. Thus, psychomotor skills range from manual tasks, such as digging a ditch or washing a car, to more complex tasks, such as operating a complex piece of machinery or dancing.

LEVEL	DESCRIPTION	BEHAVIOUR
1	PERCEPTION	AWARENESS
2	SET	READINESS
3	GUIDED RESPONSE	ATTEMPT
4	MECHANISM	BASIC PROFICIENCY
5	COMPLEX OVERT RESPONSE	EXPERT PROFICIENCY
6	ADAPTATION	ADAPTABLE PROFICIENCY
7	ORINATION	CREATIVE PROFICIENCY

(Sumber : Yahya Samian, 2014)

ASSESSMENT vs PSYCHOMOTOR DOMAIN

Level	Description	Meaning
P1	Perception	The use of the senses to be a guide in shaping behavior.
P2	Set	Physical, mental and emotional preparation to perform a behavior.
P3	Guided Response	Early stage in learning complex skills.
P4	Mechanism	Get used to the movements that have been learned until they exist with full confidence and efficiency.
P5	Complex Apparent Response	A movement consisting of complex movements.
P6	Adaptation	Skills that have developed so that they can be adapted to various situations.
P7	Creation	Create a new movement style.

(Sumber : Yahya Samian, 2014)

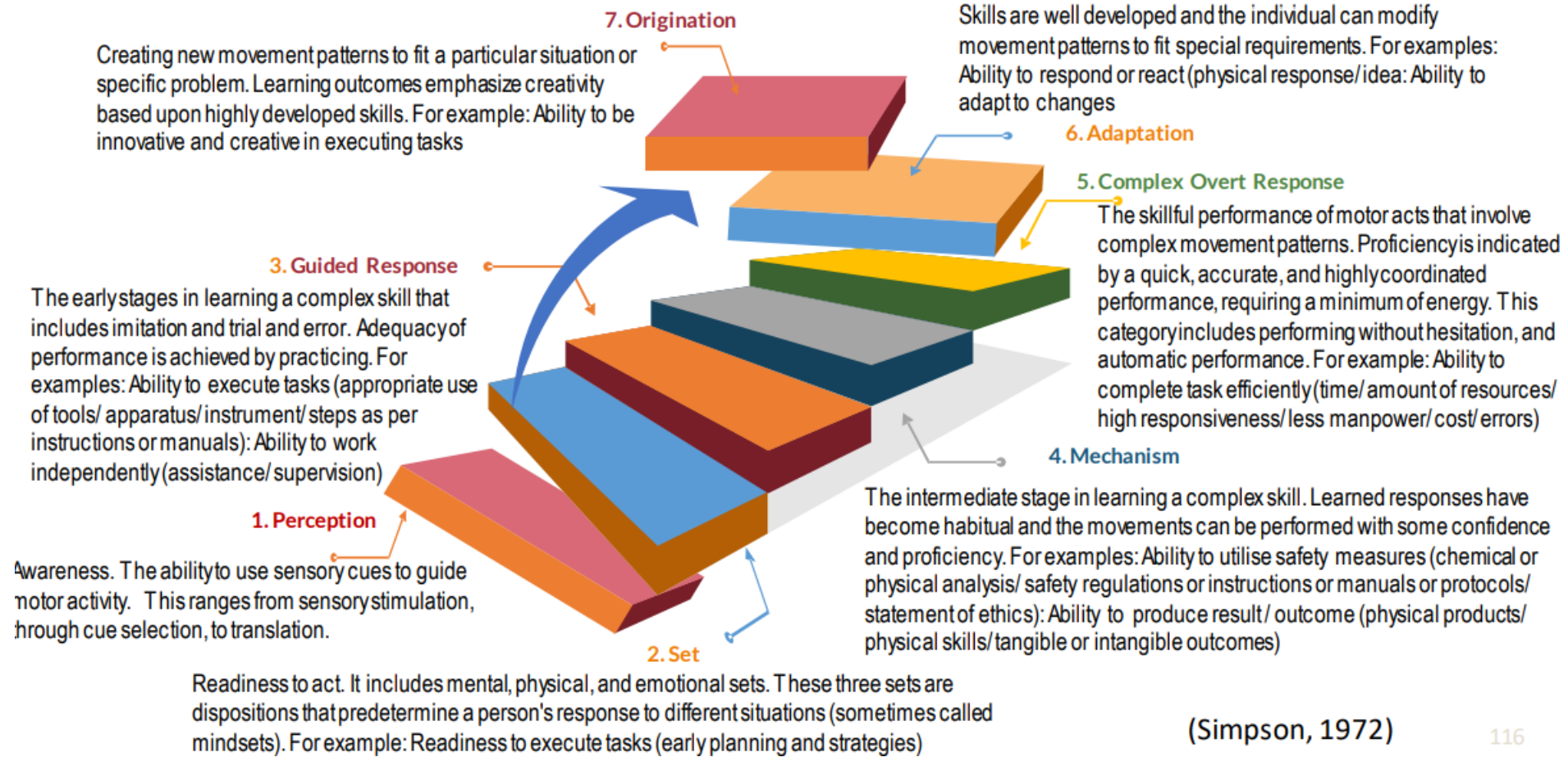
CONTINUOUS ASSESSMENT: PRACTICAL

LEVEL	BLOOM	EXTENDED OF BLOOM FOR ENGINEERING EDUCATION
1	PERCEPTION	Recognition of tools and material
2	SET	Handling of tools and materials
3	GUIDED RESPONSE	Basic operation of tools
4	MECHANISM	Competent operation of tools
5	COMPLEX OVERT RESPONSE	Expert operation of tools
6	ADAPTATION	Planning of work operations
7	ORINATION	Evaluation of outputs and planning for improvement

Sumber : Ferris and Aziz, 2005

Bloom's Taxonomy for Psychomotor

Appendix F



(Simpson, 1972)

ASSESSMENT vs AFFECTIVE DOMAIN

Course Learning Outcome(s) : At the end of this course the student will be able to:	
CLO 1	Analyse the device physics that lead to distinct properties of modern semiconductor devices; (PLO4-CTPS-C4);
CLO 2	Analyse the practical device operation that deviates from ideal circumstances; (PLO11-PA-C4);
CLO 3	Construct the design of modern semiconductor device structures using simulation tools; and (PLO2-PS-P4);
CLO 4	Demonstrate the ability to lead in gathering collective solution of semiconductor devices issues using a proper management approach effectively. (PLO9-LS-A3).

Affective :

The affective domain (Krathwohl, Bloom, Masia, 1973) includes the manner in which we deal with things emotionally, such as feelings, [values](#), appreciation, enthusiasms, [motivations](#), and [attitudes](#).


LEVEL	DESCRIPTION	BEHAVIOUR
1	RECEIVE	AWARENESS
2	RESPOND	REACT
3	VALUE	UNDERSTAND & ACT
4	ORGANIZE	DEVELOP VALUE SYSTEM
5	INTERNALIZE	BEHAVE CONSISTENTLY

(Sumber : Yahya Samian, 2014)

ASSESSMENT vs AFFECTIVE DOMAIN

Level	Description	Meaning
A1	Receive	There is a desire to know something or have something or do something.
A2	Show a Response	Showing interest in a stimulus such as starting to search for information, answering questions given, responding to stimuli given.
A3	Oppreciate	Individuals want to consistently display actions in similar situations. Desire to be more involved.
A4	Organizing	Individuals who have been consistent and successfully present a value.
A5	Act consistently	Act consistently.

(Sumber : Yahya Samian, 2014)



**PROGRAMME EDUCATIONAL OBJECTIVES
(PEO)
&
PROGRAMME LEARNING OUTCOMES (PLO)**

UNDERGRADUATE (ISMPV)

1 Bachelor Degree in Vocational Education (General Machining) with Honours

Programme Educational Objectives (PEO)

These are the PEOs for Bachelor Degree in Vocational Education (General Machining) with Honours:

PEO 1 : Knowledgeable and skilled in the field of vocational education (General Machining) in line with the needs of the national education industry.

PEO 2 : Able to communicate effectively and have a high quality of professional leadership in line with the responsibilities given across the diversity of community background, personality, complexity of the educational process in the field of vocational education from primary to tertiary level.

PEO 3 : Able to solve problems creatively and innovatively in the field of vocational education (General Machining) and subsequently constantly display, strengthen, appreciate the ethics and professional code of practice as well as the values of the teaching profession in educational practice.

PEO 4 : Able and wise in strengthening positive and productive relationships with family and community as well as engaging in lifelong learning and contributing to life.

PEO 5 : Competent in applying technology to improve efficiency and training skills according to the needs of the country's vocational education

PEO 6 : Demonstrate high competencies in entrepreneurial skills, the ability to enhance personal knowledge, talents and personalities gradually and continuously in the field of General Machining.

1 Bachelor Degree in Vocational Education (General Machining) with Honours

Programme Learning Outcomes (PLO)

These are the PLOs for Bachelor Degree in Vocational Education (General Machining) with Honours:

PL0 1 : Analyze and develop students' knowledge and understanding of (student learning) in certain subjects, across curriculum activities and programmes to achieve the entire curriculum of educational institutions that will be provided services.

PL0 2 : Apply various philosophies and effective practical skills to educational situations both in terms of different levels of education and educational settings.

PL0 3 : Creative and innovative to promote the use of the corpus of knowledge of the teaching profession and quality practice protocols in the educational environment as well as address the context of students' cultural diversity in a sensitive, effective and prudent manner to foster learning, and competent student talents and potential.

PL0 4 : Meet the requirements of professional teaching standards embedded at all levels (schools, colleges, universities and other learning organizations).

PL0 5 : Apply knowledge of interpersonal skills, communication skills and be able to work collaboratively and independently to solve problems in different educational environments.

PL0 6 : Exhibit and demonstrate professional leadership characteristics that are appropriate to the given responsibilities.

PL0 7 : Prudently apply problem-solving skills and scientific skills as well as awareness of the role of research through mastery of knowledge and understanding in their ever-evolving professional practice.

1 Bachelor Degree in Vocational Education (General Machining) with Honours

Cont.

Programme Learning Outcomes (PLO)

PLO 9 : Practicing and demonstrating management, entrepreneurship and ICT skills as well as being responsive to changes in education as an academic and professional discipline.

PLO 10: Develop encyclopedic general knowledge and diverse individual talents and potential to the highest level continuously and incrementally.

PLO 11: Contribute to community development through professional organizations or voluntary organizations through active involvement in social responsibility.

PLO 12: Exhibit and demonstrate research, creativity, innovation and design capabilities.

2 Bachelor Degree in Vocational Education (Building Constructions) with Honours

Programme Educational Objectives (PEO)

These are the PEOs for Bachelor Degree in Vocational Education (Building Constructions) with Honours:

PEO 1 : Knowledgeable and skilled in the field of vocational education (Building Construction) in line with the needs of the national education industry.

PEO 2 : Able to communicate effectively and have a high quality of professional leadership in line with the responsibilities given across the diversity of community background, personality, complexity of the educational process in the field of vocational education from primary to tertiary level.

PEO 3 : Able to solve problems creatively and innovatively in the field of vocational education (Building Construction) and subsequently constantly display, strengthen, appreciate the ethics and professional code of practice as well as the values of the teaching profession in educational practice.

PEO 4 : Able and wise in strengthening positive and productive relationships with family and community as well as engaging in lifelong learning and contributing to life.

PEO 5 : Competent in applying technology to improve efficiency and training skills according to the needs of the country's vocational education.

PEO 6 : Demonstrate high competencies in entrepreneurial skills, the ability to enhance personal knowledge, talents and personalities gradually and continuously in the field of Building Construction.

2 Bachelor Degree in Vocational Education (Building Constructions) with Honours

Programme Learning Outcomes (PLO)

These are the PLOs for Bachelor Degree in Vocational Education (Building and Constructions) with Honours:

PLO 1 : Analyze and develop students' knowledge and understanding of (student learning) in certain subjects, across curriculum activities and programmes to achieve the entire curriculum of educational institutions that will be provided services.

PLO 2 : Apply various philosophies and effective practical skills to educational situations both in terms of different levels of education and educational settings.

PLO 3 : Creative and innovative to promote the use of the corpus of knowledge of the teaching profession and quality practice protocols in the educational environment as well as address the context of students' cultural diversity in a sensitive, effective and prudent manner to foster learning, and competent student talents and potential.

PLO 4 : Meet the requirements of professional teaching standards embedded at all levels (schools, colleges, universities and other learning organizations).

PLO 5 : Apply knowledge of interpersonal skills, communication skills and be able to work collaboratively and independently to solve problems in different educational environments.

PLO 6 : Exhibit and demonstrate professional leadership characteristics that are appropriate to the given responsibilities.

PLO 7 : Prudently apply problem-solving skills and scientific skills as well as awareness of the role of research through mastery of knowledge and understanding in their ever-evolving professional practice.

2 Bachelor Degree in Vocational Education (Building Constructions) with Honours

Cont.

Programme Learning Outcomes (PLO)

PLO 8 : Reflect and learn from their own experiences in order to advance and drive their learning forward, for example, by using the theory of constructivism for universal benefit.

PLO 9 : Practicing and demonstrating management, entrepreneurship and ICT skills as well as being responsive to changes in education as an academic and professional discipline.

PLO 10: Develops encyclopedic general knowledge and diverse individual talents and potential to the highest level continuously and incrementally.

PLO 11: Contribute to community development through professional organizations or voluntary organizations through active involvement in social responsibility.

PLO 12: Exhibit and demonstrate research, creativity, innovation and design capabilities.

3 Bachelor Degree in Vocational Education (Catering) with Honours

Programme Educational Objectives (PEO)

These are the PEOs for Bachelor Degree in Vocational Education (Catering) with Honours:

PEO 1 : Knowledgeable and skilled in the field of vocational education (Catering) in line with the needs of the national education industry.

PEO 2 : Able to communicate effectively and have a high quality of professional leadership in line with the responsibilities given across the diversity of community background, personality, complexity of the educational process in the field of vocational education from primary to tertiary level.

PEO 3 : Able to solve problems creatively and innovatively in the field of vocational education (Catering) and subsequently constantly display, strengthen, appreciate the ethics and professional code of practice as well as the values of the teaching profession in educational practice.

PEO 4 : Able and wise in strengthening positive and productive relationships with family and community as well as engaging in lifelong learning and contributing to life.

PEO 5 : Competent in applying technology to improve efficiency and training skills according to the needs of the country's vocational education.

PEO 6 : Demonstrate high competencies in entrepreneurial skills, the ability to enhance personal knowledge, talents and personalities gradually and continuously in the field of Catering.

3 Bachelor Degree in Vocational Education (Catering) with Honours

Programme Learning Outcomes (PLO)

These are the PLOs for Bachelor Degree in Vocational Education (Catering) with Honours:

PL0 1 : Analyze and develop students' knowledge and understanding of (student learning) in certain subjects, across curriculum activities and programmes to achieve the entire curriculum of educational institutions that will be provided services.

PL0 2 : Apply various philosophies and effective practical skills to educational situations both in terms of different levels of education and educational settings.

PL0 3 : Creative and innovative to promote the use of the corpus of knowledge of the teaching profession and quality practice protocols in the educational environment as well as address the context of students' cultural diversity in a sensitive, effective and prudent manner to foster learning, and competent student talents and potential.

PL0 4 : Meet the requirements of professional teaching standards embedded at all levels (schools, colleges, universities and other learning organizations).

PL0 5 : Apply knowledge of interpersonal skills, communication skills and be able to work collaboratively and independently to solve problems in different educational environments.

PL0 6 : Exhibit and demonstrate professional leadership characteristics that are appropriate to the given responsibilities.

PL0 7 : Prudently apply problem-solving skills and scientific skills as well as awareness of the role of research through mastery of knowledge and understanding in their ever-evolving professional practice.

3 Bachelor Degree in Vocational Education (Catering) with Honours

Cont.

Programme Learning Outcomes (PLO)

PLO 8 : Reflect and learn from their own experiences in order to advance and drive their learning forward, for example, by using the theory of constructivism for universal benefit.

PLO 9 : Practicing and demonstrating management, entrepreneurship and ICT skills as well as being responsive to changes in education as an academic and professional discipline.

PLO 10: Develop encyclopedic general knowledge and diverse individual talents and potential to the highest level continuously and incrementally.

PLO 11: Contribute to community development through professional organizations or voluntary organizations through active involvement in social responsibility.

PLO 12: Exhibit and demonstrate research, creativity, innovation and design capabilities.

Programme Educational Objectives (PEO)

These are the PEOs for Bachelor Degree in Vocational Education (Welding and Metal Fabrication) with Honours:

PEO 1 : Knowledgeable and skilled in the field of vocational education (Welding and Metal Fabrication) in line with the needs of the national education industry.

PEO 2 : Able to communicate effectively and have a high quality of professional leadership in line with the responsibilities given across the diversity of community background, personality, complexity of the educational process in the field of vocational education from primary to tertiary level.

PEO 3 : Able to solve problems creatively and innovatively in the field of vocational education (Welding and Metal Fabrication) and subsequently constantly display, strengthen, appreciate the ethics and professional code of practice as well as the values of the teaching profession in educational practice.

PEO 4 : Able and wise in strengthening positive and productive relationships with family and community as well as engaging in lifelong learning and contributing to life.

PEO 5 : Competent in applying technology to improve efficiency and training skills according to the needs of the country's vocational education.

PEO 6 : Demonstrate high competencies in entrepreneurial skills, the ability to enhance personal knowledge, talents and personalities gradually and continuously in the field of Welding and Metal Fabrication.

4 Bachelor Degree in Vocational Education (Welding and Metal Fabrication) with Honours

Programme Learning Outcomes (PLO)

These are the PLOs for Bachelor Degree in Vocational Education (Welding and Metal Fabrication) with Honours:

PLO 1 : Analyze and develop students' knowledge and understanding of (student learning) in certain subjects, across curriculum activities and programmes to achieve the entire curriculum of educational institutions that will be provided services.

PLO 2 : Apply various philosophies and effective practical skills to educational situations both in terms of different levels of education and educational settings.

PLO 3 : Creative and innovative to promote the use of the corpus of knowledge of the teaching profession and quality practice protocols in the educational environment as well as address the context of students' cultural diversity in a sensitive, effective and prudent manner to foster learning, and competent student talents and potential.

PLO 4 : Meet the requirements of professional teaching standards embedded at all levels (schools, colleges, universities and other learning organizations).

PLO 5 : Apply knowledge of interpersonal skills, communication skills and be able to work collaboratively and independently to solve problems in different educational environments.

PLO 6 : Exhibit and demonstrate professional leadership characteristics that are appropriate to the given responsibilities.

PLO 7 : Prudently apply problem-solving skills and scientific skills as well as awareness of the role of research through mastery of knowledge and understanding in their ever-evolving professional practice.

Cont.

Programme Learning Outcomes (PLO)

PLO 8 : Reflect and learn from their own experiences in order to advance and drive their learning forward, for example, by using the theory of constructivism for universal benefit.

PLO 9 : Practicing and demonstrating management, entrepreneurship and ICT skills as well as being responsive to changes in education as an academic and professional discipline.

PLO 10: Develop encyclopedic general knowledge and diverse individual talents and potential to the highest level continuously and incrementally.

PLO 11: Contribute to community development through professional organizations or voluntary organizations through active involvement in social responsibility.

PLO 12: Exhibit and demonstrate research, creativity, innovation and design capabilities.

Programme Educational Objectives (PEO)

These are the PEOs for Bachelor Degree in Vocational Education (Electrical and Electronics) with Honours:

PEO 1 : Knowledgeable and skilled in the field of vocational education (Electrical and Electronic) in line with the needs of the national education industry.

PEO 2 : Able to communicate effectively and have a high quality of professional leadership in line with the responsibilities given across the diversity of community background, personality, complexity of the educational process in the field of vocational education from primary to tertiary level.

PEO 3 : Able to solve problems creatively and innovatively in the field of vocational education (Electrical and Electronic) and subsequently constantly display, strengthen, appreciate the ethics and professional code of practice as well as the values of the teaching profession in educational practice.

PEO 4 : Able and wise in strengthening positive and productive relationships with family and community as well as engaging in lifelong learning and contributing to life.

PEO 5 : Competent in applying technology to improve efficiency and training skills according to the needs of the country's vocational education.

PEO 6 : Demonstrate high competencies in entrepreneurial skills, the ability to enhance personal knowledge, talents and personalities gradually and continuously in the field of Electrical and Electronic.

5 Bachelor Degree in Vocational Education (Electrical and Electronics) with Honours

Programme Learning Outcomes (PLO)

These are the PLOs for Bachelor Degree in Vocational Education (Electrical and Electronics) with Honours:

PLO 1 : Analyze and develop students' knowledge and understanding of (student learning) in certain subjects, across curriculum activities and programmes to achieve the entire curriculum of educational institutions that will be provided services.

PLO 2 : Apply various philosophies and effective practical skills to educational situations both in terms of different levels of education and educational settings.

PLO 3 : Creative and innovative to promote the use of the corpus of knowledge of the teaching profession and quality practice protocols in the educational environment as well as address the context of students' cultural diversity in a sensitive, effective and prudent manner to foster learning, and competent student talents and potential.

PLO 4 : Meet the requirements of professional teaching standards embedded at all levels (schools, colleges, universities and other learning organizations).

PLO 5 : Apply knowledge of interpersonal skills, communication skills and be able to work collaboratively and independently to solve problems in different educational environments.

PLO 6 : Exhibit and demonstrate professional leadership characteristics that are appropriate to the given responsibilities.

PLO 7 : Prudently apply problem-solving skills and scientific skills as well as awareness of the role of research through mastery of knowledge and understanding in their ever-evolving professional practice.

5 Bachelor Degree in Vocational Education (Electrical and Electronics) with Honours

Cont.

Programme Learning Outcomes (PLO)

PLO 8 : Reflect and learn from their own experiences in order to advance and drive their learning forward, for example, by using the theory of constructivism for universal benefit.

PLO 9 : Practicing and demonstrating management, entrepreneurship and ICT skills as well as being responsive to changes in education as an academic and professional discipline.

PLO 10: Develop encyclopedic general knowledge and diverse individual talents and potential to the highest level continuously and incrementally.

PLO 11: Contribute to community development through professional organizations or voluntary organizations through active involvement in social responsibility.

PLO 12: Exhibit and demonstrate research, creativity, innovation and design capabilities.

6

Bachelor Degree in Vocational Education (Creative Multimedia) with Honours

Programme Educational Objectives (PEO)

These are the PEOs for Bachelor Degree in Vocational Education (Creative Multimedia) with Honours:

PEO 1 : Knowledgeable and skilled in the field of vocational education (Creative Multimedia) in line with the needs of the national education industry.

PEO 2 : Able to communicate effectively and have a high quality of professional leadership in line with the responsibilities given across the diversity of community background, personality, complexity of the educational process in the field of vocational education from primary to tertiary level.

PEO 3 : Able to solve problems creatively and innovatively in the field of vocational education (Creative Multimedia) and always display, strengthen, appreciate the ethics and professional code of practice as well as the values of the teaching profession in educational practice.

PEO 4 : Able and wise in strengthening positive and productive relationships with family and community as well as engaging in lifelong learning and contributing to life.

PEO 5 : Skilled in applying technology to improve efficiency and training skills according to the needs of the country's vocational education.

PEO 6 : Demonstrate high skills in entrepreneurial skills, the ability to enhance knowledge, talents and personalities gradually and continuously in the field of Creative Multimedia.

Programme Learning Outcomes (PLO)

These are the PLOs for Bachelor Degree in Vocational Education (Creative Multimedia) with Honours:

PLO 1 : Analyze and develop students' knowledge and understanding of (student learning) in certain subjects, across curriculum activities and programmes to achieve the entire curriculum of educational institutions that will be provided services.

PLO 2 : Apply various philosophies and effective practical skills to educational situations both in terms of different levels of education and educational settings.

PLO 3 : Creative and innovative to promote the use of the knowledge corpus in teaching profession and quality practice protocols in the educational environment as well as address the context of students' cultural diversity in a sensitive, effective and prudent manner to foster learning, and competent student talents and potential.

PLO 4 : Meet the requirements of a professional teaching standard documented at all levels (schools, colleges, universities and other learning organizations).

PLO 5 : Apply knowledge of interpersonal skills, communication skills and able to work collaboratively and independently to solve problems in different educational environments.

PLO 6 : Exhibit and appropriately demonstrate professional leadership characteristics to the given responsibilities.

PLO 7 : Prudently apply problem-solving skills and scientific skills as well as awareness of the role of research through mastery of knowledge and understanding in their evolving professional practice.

Cont..

Programme Learning Outcomes (PLO)

PLO 8 : Reflect and learn from their own experiences in order to advance and drive their learning forward, for example, by using the theory of constructivism for universal benefit.

PLO 9 : Practicing and demonstrating management, entrepreneurship and ICT skills as well as being responsive to changes in education as an academic and professional discipline.

PLO 10 : Develop encyclopedic general knowledge and diverse individual talents and potential to the highest level consistently and incrementally.

PLO 11 : Contribute to community development through professionals or voluntary organizations through active involvement in social responsibility

PLO 12 : Exhibit and demonstrate research, creativity, innovation and design capabilities.

Programme Educational Objectives (PEO)

These are the PEOs for Bachelor Degree in Vocational Education (Refrigeration and Air Conditioning) with Honours:

PEO 1 : Knowledgeable and skilled in the field of vocational education (Refrigeration and Air Conditioning) in line with the needs of the national education industry.

PEO 2 : Able to communicate effectively and have a high quality of professional leadership in line with the responsibilities given across the diversity of community background, personality, complexity of the educational process in the field of vocational education from primary to tertiary level.

PEO 3 : Able to solve problems creatively and innovatively in the field of vocational education (Refrigeration and Air Conditioning) and subsequently constantly display, strengthen, appreciate the ethics and professional code of practice as well as the values of the teaching profession in educational practice.

PEO 4 : Able and wise in strengthening positive and productive relationships with family and community as well as engaging in lifelong learning and contributing to life.

PEO 5 : Competent in applying technology to improve efficiency and training skills according to the needs of the country's vocational education.

PEO 6 : Demonstrate high competencies in entrepreneurial skills, the ability to enhance personal knowledge, talents and personalities gradually and continuously in the field of Refrigeration and Air Conditioning.

Bachelor Degree in Vocational Education (Air Conditioning and Refrigeration) with Honours

Programme Learning Outcomes (PLO)

These are the PLOs for Bachelor Degree in Vocational Education (Refrigeration and Air Conditioning) with Honours:

PLO 1 : Analyze and develop students' knowledge and understanding of (student learning) in certain subjects, across curriculum activities and programmes to achieve the entire curriculum of educational institutions that will be provided services.

PLO 2 : Apply various philosophies and effective practical skills to educational situations both in terms of different levels of education and educational settings.

PLO 3 : Creative and innovative to promote the use of the corpus of knowledge of the teaching profession and quality practice protocols in the educational environment as well as address the context of students' cultural diversity in a sensitive, effective and prudent manner to foster learning, and competent student talents and potential.

PLO 4 : Meet the requirements of professional teaching standards embedded at all levels (schools, colleges, universities and other learning organizations).

PLO 5 : Apply knowledge of interpersonal skills, communication skills and be able to work collaboratively and independently to solve problems in different educational environments.

PLO 6 : Exhibit and demonstrate professional leadership characteristics appropriate to the given responsibilities.

PLO 7 : Prudently apply problem-solving skills and scientific skills as well as awareness of the role of research through mastery of knowledge and understanding in their ever-evolving professional practice.

Cont.

Programme Learning Outcomes (PLO)


PLO 8 : Reflect and learn from their own experiences in order to advance and drive their learning forward, for example, by using the theory of constructivism for universal benefit.

PLO 9 : Practicing and demonstrating management, entrepreneurship and ICT skills as well as being responsive to changes in education as an academic and professional discipline.

PLO 10: Develops encyclopedic general knowledge and diverse individual talents and potential to the highest level continuously and incrementally.

PLO 11: Contribute to community development through professional organizations or voluntary organizations through active involvement in social responsibility.

PLO 12: Exhibit and demonstrate research, creativity, innovation and design capabilities.



**PROGRAMME EDUCATIONAL OBJECTIVES
(PEO)
&
PROGRAMME LEARNING OUTCOMES (PLO)**

UNDERGRADUATE (BTech)



1

Bachelor in Food Service Technology with Honours

Programme Educational Objectives (PEO)

These are the PEOs for Bachelor in Food Service Technology with Honours:

PEO 1 : To produce food service technologists who can apply knowledge, skills, competencies and innovations related to food service tasks and problems and challenges.

PEO 2 : To produce technopreneurs in food service related technology.

PEO 3 : To produce relevant, respected and referred professionals in food service technology.

1

Bachelor in Food Service Technology with Honours

Programme Learning Outcomes (PLO)

These are the PLOs for Bachelor in Food Service Technology with Honours:

PLO 1 : Apply knowledge of technology fundamentals to define and apply commercial food service technology system procedures, processes, systems and methodologies.

PLO 2 : Able to suggest and apply latest tools and techniques to solve and upgrading of commercial food service technology system faults and problems.

PLO 3 : Demonstrate strong analytical and critical thinking skills to solve common commercial food service problems and solutions in the field of study.

PLO 4 : Able to communicate and articulate effectively in both verbal and written among technologist communities and society at large.

PLO 5 : Demonstrate understanding of the societal related issues and the consequent responsibilities relevant food service technology practices.

PLO 6 : Recognize the needs for professional development and to engage independent lifelong learning in food service specialist technologists.

PLO 7 : Demonstrate an awareness of management and technopreneurship practices in real perspective.

PLO 8 : Demonstrate professionalism and social and ethical consideration.

PLO 9 : Demonstrate leadership quality, mentoring and work effectively in diverse teams.

Programme Educational Objectives (PEO)

These are the PEOs for Bachelor of Technology in Building Construction with Honours:

PEO 1 : To produce Building Construction Technologists that perform the knowledge, skills, attitude and innovation in solving tasks and problems related to Building Construction Technology.

PEO 2 : To produce technopreneurs in Building Construction related technology.

PEO 3 : To produce relevant, respected and referred professionals in Building Construction Technology.

Bachelor of Technology in Building Construction with Honours

Programme Learning Outcomes (PLO)

These are the PLOs for Bachelor of Technology in Refrigeration and Air Conditioning with Honours:

PLO 1 : Able to apply knowledge of technology fundamentals to broadly-defined procedures processes, systems and methodologies in Building Construction.

PLO 2 : Capable in suggesting and applying current tools and techniques to resolve broadly-defined problems in building construction.

PLO 3 : Demonstrate strong analytical and critical thinking skills to solve broadly-defined problems in Building Construction.

PLO 4 : Able to communicate and articulate effectively in both verbal and written among technologist communities and society at large.

PLO 5 : Demonstrate understanding of the societal related issues and the consequent responsibilities relevant to broadly-defined technology practices.

PLO 6 : Recognize the needs for professional development and to engage independent lifelong learning in specialist technologists.

PLO 7 : Demonstrate an awareness of management and technopreneurship practices in real perspective.

PLO 8 : Demonstrate professionalism and social and ethical consideration.

PLO 9 : Demonstrate leadership quality, mentoring and work effectively in diverse teams.

Programme Educational Objectives (PEO)

These are the PEOs for Bachelor of Technology in Refrigeration and Air Conditioning with Honours:

PEO 1 : To produce Air Conditioning and Refrigeration system maintenance technologists that perform maintenance related work including Air Conditioning and Refrigeration maintenance, facility manager, commissioning manager, project manager, service manager and contractor.

PEO 2 : To produce technopreneurs in Air Conditioning and Refrigeration related technology.

PEO 3 : To produce relevant, respected and referred professionals in Air Conditioning and Refrigeration maintenance technology.

Programme Learning Outcomes (PLO)

These are the PLOs for Bachelor of Technology in Refrigeration and Air Conditioning with Honours:

PL0 1 : Apply knowledge of technology fundamentals to broadly-defined procedures processes, systems and methodologies in Air Conditioning and Refrigeration.

PL0 2 : Able to suggest and apply latest tools and techniques to solve broadly-defined problems.

PL0 3 : Demonstrate strong analytical and critical thinking skills to solve broadly-defined problems in Air Conditioning and Refrigeration maintenance.

PL0 4 : Able to communicate and articulate effectively in both verbal and written among technologist communities and society at large.

PL0 5 : Demonstrate understanding of the societal related issues and the consequent responsibilities relevant to broadly-defined technology practices.

PL0 6 : Recognize the needs for professional development and to engage independent lifelong learning in specialist technologists.

PL0 7 : Demonstrate an awareness of management and technopreneurship practices in real perspective.

PL0 8 : Demonstrate professionalism and social and ethical consideration.

PL0 9 : Demonstrate leadership quality, mentoring and work effectively in diverse teams.

Programme Educational Objectives (PEO)

These are the PEOs for Bachelor of Technology in Industrial Electronics Automation with Honours:

PEO 1 : To produce industrial electronic automation technologists that perform maintenance related work including automation maintenance, facility manager, and energy manager.

PEO 2 : To produce technopreneurs in electronic related technology.

PEO 3 : To produce relevant, respected and referred professionals in industrial electronic automation technology.

Bachelor of Technology in Industrial Electronics Automation with Honours

Programme Learning Outcomes (PLO)

These are the PLOs for Bachelor of Technology in Industrial Electronics Automation with Honours:

PLO 1 : Apply knowledge of technology fundamentals to broadly-defined procedures processes, systems and methodologies in industrial electronic automation.

PLO 2 : Able to suggest and apply latest tools and techniques to solve broadly-defined problems.

PLO 3 : Demonstrate strong analytical and critical thinking skills to solve broadly-defined problems in industrial electronic automation..

PLO 4 : Able to communicate and articulate effectively in both verbal and written among technologist communities and society at large.

PLO 5 : Demonstrate understanding of the societal related issues and the consequent responsibilities relevant to broadly-defined technology practices.

PLO 6 : Recognize the needs for professional development and to engage independent lifelong learning in specialist technologists.

PLO 7 : Demonstrate an awareness of management and technopreneurship practices in real perspective.

PLO 8 : Demonstrate professionalism and social and ethical consideration.

PLO 9 : Demonstrate leadership quality, mentoring and work effectively in diverse teams.

Programme Educational Objectives (PEO)

These are the PEOs for Bachelor of Technology Electrical System Maintenance with Honours:

PEO 1 : To produce electrical system maintenance technologists that perform maintenance related work including electrical maintenance, facility manager, and energy manager.

PEO 2 : To produce technopreneurs in Electrical related technology.

PEO 3 : To produce relevant, respected and referred professionals in Electrical maintenance technology.

Programme Learning Outcomes (PLO)

These are the PLOs for Bachelor of Technology Electrical System Maintenance with Honours:

PLO 1 : Apply knowledge of technology fundamentals to broadly-defined procedures, processes, systems and methodologies in Electrical system maintenance.

PLO 2 : Able to suggest and apply latest tools and techniques to solve broadly-defined problems in Electrical system maintenance..

PLO 3 : Demonstrate strong analytical and critical thinking skills to solve broadly-defined problems in Electrical system maintenance.

PLO 4 : Able to communicate and articulate effectively in both verbal and written among technologist communities and society at large.

PLO 5 : Demonstrate understanding of the societal related issues and the consequent responsibilities relevant to broadly-defined technology practices.

PLO 6 : Recognize the needs for professional development and to engage independent lifelong learning in specialist technologists.

PLO 7 : Demonstrate an awareness of management and technopreneurship practices in real perspective.

PLO 8 : Demonstrate professionalism and social and ethical consideration.

PLO 9 : Demonstrate leadership quality, mentoring and work effectively in diverse teams.

Programme Educational Objectives (PEO)

These are the PEOs for Bachelor of Technology in Welding with Honours:

PEO 1 : To produce Welding Technologists who can apply knowledge, skills, competent and innovative in solving tasks and problems in the field of Welding technology.

PEO 2 : To produce technopreneurs related with the field of Welding technology.

PEO 3 : To produce ethical, socially responsible, respected and relevant, respected and referred professionals in the field of Welding technology.

These are the PLOs for Bachelor of Technology in Welding with Honours:

PLO 1 : Apply knowledge of technology fundamentals to define and applied Welding system procedures, processes, systems and methodologies.

PLO 2 : Able to suggest and apply latest tools and techniques to solve and upgrading of Welding system faults and problems.

PLO 3 : Demonstrate strong analytical and critical thinking skills to solve common Welding Systems problems and solutions in the field of study.

PLO 4 : Able to communicate and articulate effectively in both verbal and written among technologist communities and society at large.

PLO 5 : Demonstrate understanding of the societal related issues and the consequent responsibilities relevant to Welding technology practices.

PLO 6 : Recognize the needs for professional development and to engage independent lifelong learning in Welding specialist technologists.

PLO 7 : Demonstrate an awareness of management and technopreneurship practices in real perspective.

PLO 8 : Demonstrate professionalism and social and ethical consideration.

PLO 9 : Demonstrate leadership quality, mentoring and work effectively in diverse teams.



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Bachelor of Technology in Industrial Machining with Honours

Programme Educational Objectives (PEO)

These are the PEOs for Bachelor of Technology in Industrial Machining with Honours:

PEO 1 : To produce machining technologists that perform related work including machinist, design, manufacturer, maintenance, facility manager and production manager.

PEO 2 : To produce technopreneurs in machining related technology.

PEO 3 : To produce relevant, respected and referred professionals in Machining technology.



Bachelor of Technology in Industrial Machining with Honours

Programme Learning Outcomes (PLO)

These are the PEOs for Bachelor of Technology in Industrial Machining with Honours:

PLO 1 : Knowledge; Apply knowledge of technology fundamentals to broadly-defined procedures, processes, systems and methodologies in Machining technology.

PLO 2 : Practical Skills and High Technology; Able to suggest and apply latest tools and techniques to solve broadly-defined problems.

PLO 3 : Analytical and Critical Thinking and Scientific Approach; Demonstrate strong analytical and critical thinking skills to solve broadly-defined problems in Machining technology.

PLO 4 : Communication Skills; Able to communicate and articulate effectively in both verbal and written among technologist communities and society at large.


PLO 5 : Social and Responsibility in Society and Technologist Community; Demonstrate understanding of the societal related issues and the consequent responsibilities relevant to broadly-defined technology practices.

PLO 6 : Lifelong learning and information management; Recognize the needs for professional development and to engage independent lifelong learning in specialist technologists.

PLO 7 : Entrepreneurs and Management Skills; Demonstrate an awareness of management and technopreneurship practices in real perspective.

PLO 8 : Ethics and Professionalism; Demonstrate professionalism and social and ethical consideration.

PLO 9 : Teamwork and Leadership; Demonstrate leadership quality, mentoring and work effectively in diverse



**PROGRAMME EDUCATIONAL OBJECTIVES
(PEO)
&
PROGRAMME LEARNING OUTCOMES (PLO)**

POSTGRADUATE

PROGRAM EDUCATION OBJECTIVES

- PEO 1** Knowledgeable and experienced in evaluating educational theory and practice and able to conduct research in the teaching and learning environment.
- PEO 2** Capable of synthesizing, evaluating, and applying knowledge and problem-solving practice in the field of education
- PEO 3** Able to implement and manage research projects and activities for the purpose of applying knowledge towards the well-being of local communities, national development and global prosperity
- PEO 4** Active in discussion and knowledge sharing through writing, publishing, and lecturing in the academic and non-academic world
- PEO 5** Competent and capable of teaching, advising, and mentoring, and can serve as an example in the field of education

1

Doctor of Education - PBD

PROGRAM LEARNING OUTCOME

- PLO 1** Demonstrate systematic comprehension and in-depth understanding in the field of education (Knowledge-K)
- PLO 2** Demonstrate abilities and skills in research and project development (Technical Skills-PS)
- PLO 3** Analyze, evaluate and synthesize new ideas in education critically and ethically (Ethics and Morals-EM)
- PLO 4** Solving educational problems effectively through critical, creative and analytical thinking (Problem Solving Skills & Critical Thinking-CTPS)
- PLO 5** Expanding knowledge and experience by conducting research on teaching and learning practices. (Continuous Learning & Information Management-LL)
- PLO 6** Sharing ideas and knowledge in education with peers and the academic community via various academic media including publications (Communication Skills-CS)
- PLO 7** Demonstrate the ability to comprehend and advance educational thought through multidisciplinary ways (Lifelong Learning- LLL)
- PLO 8** Develop the ability to contribute meaningfully to knowledge beyond the education sector (Leadership Skills- LS)
- PLO 9** Applying knowledge to enhance abilities and involvement in accordance with current educational needs (Lifelong Learning-LL)
- PLO 10** Develop individual talents and potential, as well as broad general knowledge, on a continuous basis (Lifelong Learning- LLL)



PROGRAM EDUCATION OBJECTIVES

- PEO 1** To produce educational and school professionals who are able to synthesize knowledge critically and analytically in line with the National Education Philosophy and the Teacher Education Philosophy for the well-being of society and national development
- PEO 2** To produce educational and school professionals who are able to analyze, synthesize and solve problems based on research ethical inquiry.
- PEO 3** To participate in scholarly discourse and disseminate knowledge and research findings through publications and conferences in all level of education
- PEO 4** To serve as a role model in his profession through education in teaching, training or facilitating.
- PEO 5** To demonstrate the ability to produce knowledge and research initiatives through lifelong learning practices and contributions to society as a whole.

PROGRAM LEARNING OUTCOME

- PLO 1** Apply general and specific knowledge to address challenges in educational fields and schools.
- PLO 2** Adapt analytical and critical thinking skills to solve complex problems and make decisions in educational fields and school.
- PLO 3** Demonstrates ability as an educational and school researcher as well as technical skills to handle and supervise research projects.
- PLO 4** Practice planning and supervisory skills through group collaboration in the implementation of educational and school projects / programs.
- PLO 5** Utilize communication skills through academic discussion and writing using ICT and linguistic style to convey ideas in educational field and school.
- PLO 6** Adapt numeracy skills in educational field and school through effective approaches, methods and strategies.
- PLO 7** Lead the education sector and school with effective leadership skills and mind set.
- PLO 8** Strengthen lifelong learning for self-development
- PLO 9** Produce educational and school researchers who develop general knowledge and potential as well as individual talents.
- PLO 10** Cultivate positive and ethical values in the education and school profession for the development of the education sector in meeting social, cultural and global environmental needs.

PROGRAM EDUCATION OBJECTIVES

- PEO 1** To produce educational and school professionals who are able to synthesize knowledge critically and analytically in line with the National Education Philosophy and the Teacher Education Philosophy for the well-being of society and national development.
- PEO 2** To produce educational and school professionals who are able to analyze, synthesize and solve problems based on research ethical inquiry.
- PEO 3** To participate in scholarly discourse and disseminate knowledge and research findings through publications and conferences in all level of education.
- PEO 4** To serve as a role model in his profession through education in teaching, training or facilitating
- PEO 5** To demonstrate the ability to produce knowledge and research initiatives through lifelong learning practices and contributions to society as a whole

PROGRAM LEARNING OUTCOME

- PLO 1** Apply general and specific knowledge to address challenges in TVET field.
- PLO 2** Adapt analytical and critical thinking skills to solve complex problems and make decisions in TVET field.
- PLO 3** Demonstrates ability as a TVET researcher as well as technical skills to handle and supervise research projects.
- PLO 4** Practice planning and supervisory skills through group collaboration in the implementation of TVET projects / programs
- PLO 5** Utilize communication skills through academic discussion and writing using ICT and linguistic style to convey ideas in TVET field.
- PLO 6** Adapt various numeracy skills in the field of TVET through effective approaches, methods and strategies.
- PLO 7** Lead the TVET sector with effective leadership skills and mind set.
- PLO 8** Strengthen lifelong learning for self-development.
- PLO 9** Produce TVET researchers who develop general knowledge and potential as well as individual talents.
- PLO 10** Cultivate positive and ethical values in the TVET profession for the development of the education sector in meeting social, cultural and global environmental needs.

PROGRAM EDUCATION OBJECTIVES

PEO 1 Evaluate relevant theories and practices and demonstrate the ability to generate new and creative knowledge to become effective and inspiring professionals in the field of Technical Education (Civil Engineering).

PEO 2 Analyze and critically synthesize self-understanding sourced from professional knowledge and practice to solve significant problems in the field of Technical Education (Civil Engineering).

PEO 3 Plan and implement innovative projects, research initiatives and write dissertations, theses and reports for constructive purposes and apply the knowledge of Technical Education (Civil Engineering) for the benefit of the profession and society as a whole.

PEO 4 Demonstrate the ability to generate and deliver knowledge of Technical Education (Civil Engineering) effectively through the practice of lifelong learning and entrepreneurship.

PEO 5 Lead and participate in the development of knowledge and in championing the intellectual property rights and appreciation of the original work of others, guarding against plagiarism and academic misconduct in the field of Technical Education (Civil Engineering).

PEO 6 Develop general knowledge and various educational specializations, talents and academic potentials in the field of Technical Education (Civil Engineering).

PROGRAM LEARNING OUTCOME**PLO 1**

Apply and integrate knowledge related to current research issues in the field of Technical Education (Civil Engineering). (Knowledge and Understanding).

Apply research techniques to acquire, interpret and expand the knowledge of

PLO 2

Technical Education (Civil Engineering) to meet the employment needs of the country. (Practical skills).

PLO 3

Demonstrate the ability to communicate, lead and work as a team in building new knowledge in the field of Technical Education (Civil Engineering). (Interpersonal and communication skills).

PLO 4

Synthesize advanced knowledge and bind oneself to problem solving and scientific skills in the field of Technical Education (Civil Engineering). (Cognitive Skills and Numbering Skills).

PLO 5

Demonstrate quality, ability and inclination to work as a professional educator in the field of Technical Education (Civil Engineering) towards developing the learning community of the future. (Autonomy and Accountability).

PLO 6

Design and conduct research professionally and ethically in the field of Technical Education (Civil Engineering). (Ethics and Professionalism).

PLO 7

Develop general knowledge and various talents and potentials continuously, in stages and cumulatively in the field of Technical Education (Civil Engineering). (Personnel and Entrepreneurship Skills).

PROGRAM EDUCATION OBJECTIVES

PEO 1 Make judgments of relevant theories and practices and demonstrate capability of producing new and creative knowledge in order to be effective and inspiring professionals in the field of Technical Education (Electrical Engineering).

PEO 2 Critically analyse, and synthesize the understanding of their own sources of mature professional knowledge and professional practices to solve significant problems in the field of Technical Education (Electrical Engineering).

PEO 3 Plan and execute innovative projects, research initiatives and write dissertations, theses and reports for the purpose of building and applying knowledge of Technical Education (Electrical Engineering) for the benefit of the profession and society as a whole.

PEO 4 Demonstrate capabilities in generating and communicating of Technical Education (Electrical Engineering) effectively through the practice of life-long learning and life-long contribution.

PEO 5 Lead and participate in knowledge generation and in championing intellectual property rights and acknowledgments of original works by others, guarding against plagiarism and other academic improprieties in Technical Education (Electrical Engineering).

PEO 6 Acquire general knowledge and develop diverse educational specializations, individual talents and potentialities in the field of Technical Education (Electrical Engineering).

PROGRAM LEARNING OUTCOME

- PLO 1** Apply and integrate knowledge relating to current research issues in the field of Technical Education (Electrical Engineering).
- PLO 2** Apply research techniques to acquire, interpret and extend educational knowledge in the field of Technical Education (Electrical Engineering).
- PLO 3** Demonstrate the capability to communicate, lead and work together in building new knowledge in the field of Technical Education (Electrical Engineering).
- PLO 4** Synthesize advanced knowledge and engage in problem solving and scientific skills in the field of Technical Education (Electrical Engineering).
- PLO 5** Demonstrate the capabilities and dispositions to work as engaged professional educators in building learning communities into the future in the field of Technical Education (Electrical Engineering).
- PLO 6** Design and conduct research professionally and ethically.
- PLO 7** Continuously, incrementally and cumulatively develop encyclopaedic general knowledge and diverse individual talents and potentialities in the field of Technical Education (Electrical Engineering).

PROGRAM EDUCATION OBJECTIVES

PEO 1 Make judgments of relevant theories and practices and demonstrate capability of producing new and creative knowledge in order to be effective and inspiring professionals in the field of Technical Education (Mechanical Engineering)

PEO 2 Critically analyse, and synthesize the understanding of their own sources of mature professional knowledge and professional practices to solve significant problems in the field of Technical Education (Mechanical Engineering).

PEO 3 Plan and execute innovative projects, research initiatives and write dissertations, theses and reports for the purpose of building and applying knowledge of Technical Education (Mechanical Engineering) for the benefit of the profession and society as a whole.

PEO 4 Demonstrate capabilities in generating and communicating of Technical Education (Mechanical Engineering) effectively through the practice of life-long learning and life-long contribution.

PEO 5 Lead and participate in knowledge generation and in championing intellectual property rights and acknowledgments of original works by others, guarding against plagiarism and other academic improprieties in Technical Education (Mechanical Engineering).

PEO 6 Acquire general knowledge and develop diverse educational specializations, individual talents and potentialities in the field of Technical Education (Mechanical Electrical Engineering).

PROGRAM LEARNING OUTCOME

- PLO 1** Apply and integrate knowledge relating to current research issues in the field of Technical Education (Mechanical Engineering).
- PLO 2** Apply research techniques to acquire, interpret and extend educational knowledge in the field of Technical Education (Mechanical Engineering).
- PLO 3** Demonstrate the capability to communicate, lead and work together in building new knowledge in the field of Technical Education (Mechanical Engineering).
- PLO 4** Synthesize advanced knowledge and engage in problem solving and scientific skills in the field of Technical Education (Mechanical Engineering).
- PLO 5** Demonstrate the capabilities and dispositions to work as engaged professional educators in building learning communities into the future in the field of Technical Education (Mechanical Engineering).
- PLO 6** Design and conduct research professionally and ethically
- PLO 7** Continuously, incrementally and cumulatively develop encyclopaedic general knowledge and diverse individual talents and potentialities in the field of Technical Education (Mechanical Engineering).

PROGRAM EDUCATION OBJECTIVES

PEO 1

Demonstrate intellectuality to generate new knowledge creatively in the field of technical and vocational education and training (TVET) in line with the needs of the national education and training sector. (Knowledge; and Practical Skills)

PEO 2

Analyze and critically synthesize sources of knowledge and practice of ethical professionals to solve significant problems in Technical and Vocational Training Education (TVET). (Values, Attitudes and Professionalism)

PEO 3

Planning and implementing innovative projects, research initiatives and writing dissertations, theses and reports for the purpose of building and applying the knowledge of Technical and Vocational Training Education (TVET) for the benefit of the profession and society as a whole. (Problem Solving and Scientific Skills)

PEO 4

Demonstrate the ability in generating and imparting Technical and Vocational Training Education (TVET) knowledge effectively through lifelong learning and entrepreneurship practices. (Information Management Skills and Lifelong Learning)

PEO 5

Lead and participate in the development of knowledge and in encounter for the intellectual property rights and appreciation of the original work of others, guarding against plagiarism and academic misconduct in the field of Technical and Vocational Training Education (TVET). (Communication, Leadership and Team Skills; Social Skills and Responsibility)

PEO 6

Promote general knowledge and develop various educational specializations, talents and academic potentials in the field of Technical and Vocational Training Education (TVET). (Management and Entrepreneurship Skills)

PROGRAM LEARNING OUTCOME**PLO 1**

Apply and integrate knowledge related to current research and issues in the field of Technical and Vocational Training Education (TVET) (Knowledge and Understanding)

PLO 2

Apply research techniques to acquire, interpret and expand the knowledge of Technical and Vocational Training (TVET) education to meet the needs of the national employment. (Practical Skills)

PLO 3

Demonstrate the ability to communicate, lead and work as a team in building new knowledge in the field of Technical and Vocational Training Education (TVET) (Interpersonal Skills, and Communication Skills)

PLO 4

Synthesize advanced knowledge and bind themselves to problem solving and scientific skills in the field of Technical and Vocational Training Education (TVET). (Cognitive Skills, Digital Skills, and Numbering Skills)

PLO 5

Demonstrates the ability and inclination to work as a professional educator in the field of Technical and Vocational Training (TVET) in building a learning community towards the future. (Leadership, Autonomy and Accountability)

PLO 6

Design and conduct research professionally and ethically to generate high - market intellectual property. (Ethics and Professionalism)

PLO 7

Develop general knowledge and various talents and potentials in the field of Technical and Vocational Training Education (TVET) continuously, in stages and cumulatively. (Personnel and Entrepreneurial Skills)

PROGRAM EDUCATION OBJECTIVES**PEO 1**

Implement teaching with high skills based on relevant theories and practices as well as demonstrate the authority of a professional teacher in the field of technical and vocational education and training (TVET) based on the National Philosophy of Education and the Philosophy of Teacher Education.

PEO 2

Critically analyze and plan the needs of technical and vocational education and training using knowledge and skills in the process of technical and vocational education and training (TVET) management based on teacher ethics.

PEO 3

Plan and convey information through effective communication through speech, writing and the use of ICT, as well as working in groups with a high leadership style.

PEO 4

Demonstrate the ability to improve one's knowledge and skills in line with current needs through lifelong learning in technical and vocational education and training (TVET).

PEO 5

Lead and participate in planning, implementing and reporting innovative -based activities, projects, research initiatives for the purpose of development and application of knowledge in technical and vocational education and training (TVET).

PEO 6

Acquire knowledge and diversify skills as well as develop individual potential by adhering to high ethics and integrity to contribute to society in technical and vocational education and training (TVET).

PROGRAM LEARNING OUTCOME

PLO 1

Apply and integrate the latest knowledge in the field of technical and vocational education and training (TVET) based on the National Philosophy of Education and the Philosophy of Teacher Education. [knowledge and understanding] of MQF domain 1.

PLO 2

Apply research techniques to acquire, interpret, and develop teacher skills in the field of technical and vocational education and training (TVET) to meet the needs of the national employment. [Practical skills] domain MQF3a.

PLO 3

Demonstrate the ability to communicate, lead and work in groups to build new knowledge in the field of technical and vocational education and training (TVET). [Interpersonal and communication skills] domains MQF3b and 3c.

PLO 4

Synthesize advanced knowledge and engage in scientific problem solving and skills as a practitioner of education in technical and vocational education and training (TVET). [Cognitive and numbering skills] MQF domains 2 and 3e, 3d.

PLO 5

Demonstrate the quality, ability and capability to work as a professional educator in the field of technical and vocational education and training (TVET) towards developing the learning community of the future. [Autonomy and accountability] MQF domain 3f.

PLO 6

Design and apply scientific methods ethically and professionally for problem solving in technical and vocational education and training (TVET) [Ethics and professionalism] MQF domain 5

PLO 7

Diversify individual talents and potentials as well as continuous, gradual and cumulative enrichment in technical and vocational education and training (TVET). [Professional and entrepreneurial skills] MQF domain 4.

PROGRAM EDUCATION OBJECTIVES

- PEO 1** To synthesize knowledge critically and anatically for the well-being of society and national development.
- PEO 2** To analyze, synthesize and solve problems based on research ethical inquiry.
- PEO 3** To plan, coordinate and implement programs / projects creatively and innovatively, for the advancement of the profession and the needs of the community.
- PEO 4** To generate and disseminate knowledge effectively and be responsible for cultivating lifelong learning and entrepreneurship.
- PEO 5** To lead and participate in the development of knowledge and in fighting for intellectual property rights and appreciation of the original work of others, maintaining plagiarism and academic misconduct in the field of Technical and Vocational Education and Training (TVET)
- PEO 6** To conduct ethics and integrity and fights for intellectual property, copy right and free from plagiarism.

PROGRAM LEARNING OUTCOME

PLO 1 Mastering knowledge in Technical and Vocational Education and Training (TVET).

PLO 2 Apply scientific and critical thinking methods as well as problem solving skills in Technical and Vocational Education and Training(TVET).

PLO 3 Apply specific skills in the field of Technical and Vocational Education and Training (TVET) to meet the needs of national employment.

PLO 4 Demonstrate the ability to lead and work cooperatively in groups to build new knowledge in the research field of Technical and Vocational Education and Training (TVET).

PLO 5 Communicate effectively through verbal speech, discussion and scientific writing.

PLO 6 Analyze and plan with colleagues based on educational and training needs by utilizing ICT knowledge and skills in the TVET management process and cultivate lifelong learning for self-development.

PLO 7 Appreciate the professional role and ethics of an educator in meeting the social, cultural and environmental needs.

**THANK
YOU**