

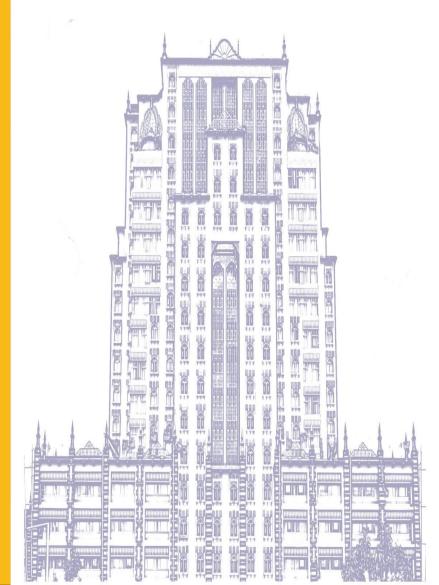


Building and GrowingMalaysian Talent

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Department of Higher Education
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VUCA



BANI

From the **1980s** shaped by the Cold War







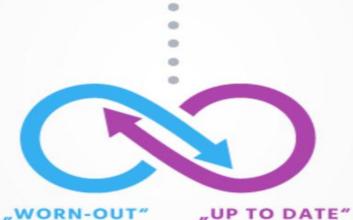
From **2020** shaped by climate and global systemic change

serves to describe the situation of ambiguity and complexity



serves to describe the situation of the Next Generation of Business

- **V** olatile
- 1 ncertain
- Omplex
- (A) mbiguous



- B rittle
- (A) nxious
- N on-linear
- ncomprehensible

The Four Worlds of Work in 2030

Fragmentation



Social-first and community businesses prosper. Crowdfunded capital flows towards ethical and blameless brands. There is a search for meaning and relevance with a social heart. Artisans, makers and 'new Worker Guilds' thrive. Humanness is highly valued.

Collectivism -



Social responsibility and trust dominate the corporate agenda with concerns about demographic changes, climate and sustainability becoming key drivers of business.



Organisations and individuals race to give consumers what they want. Innovation outpaces regulation. Digital platforms give outsized reach and influence to those with a winning idea. Specialists and niche profitmakers flourish.

Individualism



Big company capitalism rules as organisations continue to grow bigger and individual preferences trump beliefs about social responsibility.





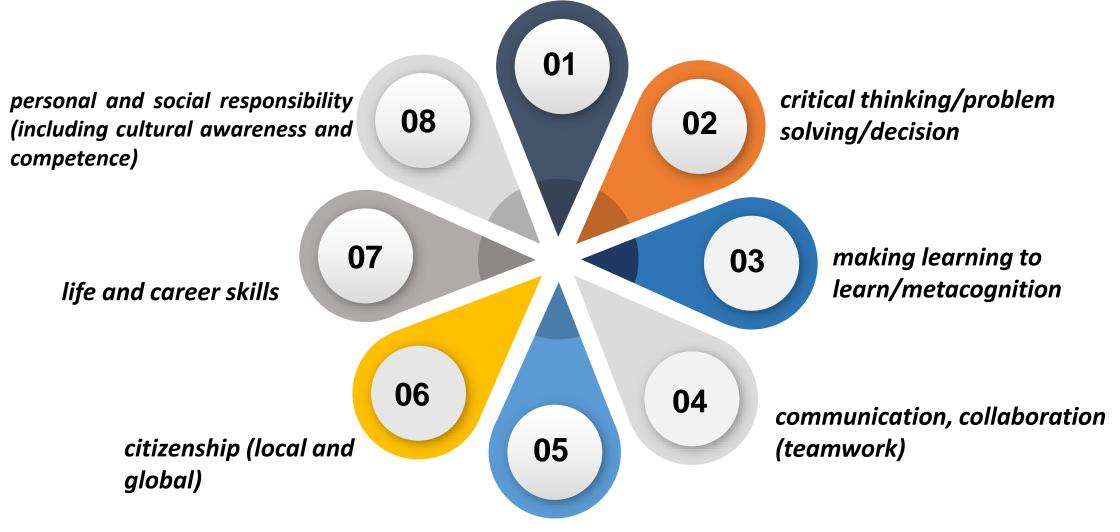
Twenty-first-century skills (21CS), also referred to variously as "non-cognitive," "soft," "whole child development," "transversal," "transferable" or "socialemotional" skills or competencies

21Cs skills

creativity and innovation







information literacy & ICT literacy

SIGNAL OF CHANGE

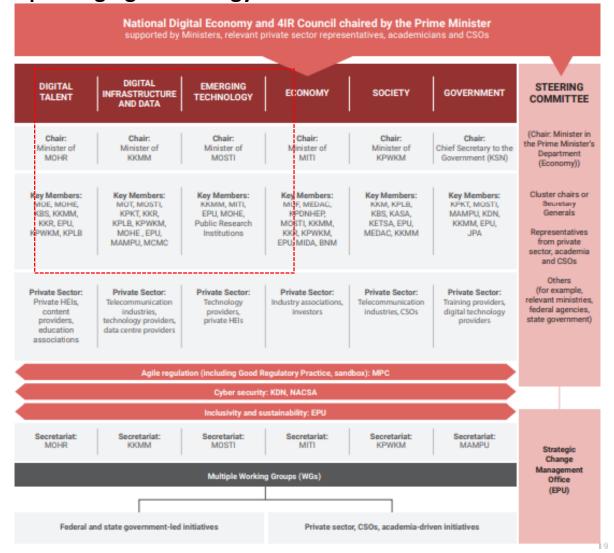






MYDIGITAL GOVERNANCE STRUCTURE

Digital Talent | Digital Infrastruture and Data | Emerging Technology



Experiential Learning and Competency-Based Education Landscape (EXCEL)



Resilient and Change Ready Talent

10C's

- Communication
- Critical Thinking
- Creative, Innovative, Entrepreneurial Skills
- Computational Thinking& ICT Literacy
- Complex Problem Solving

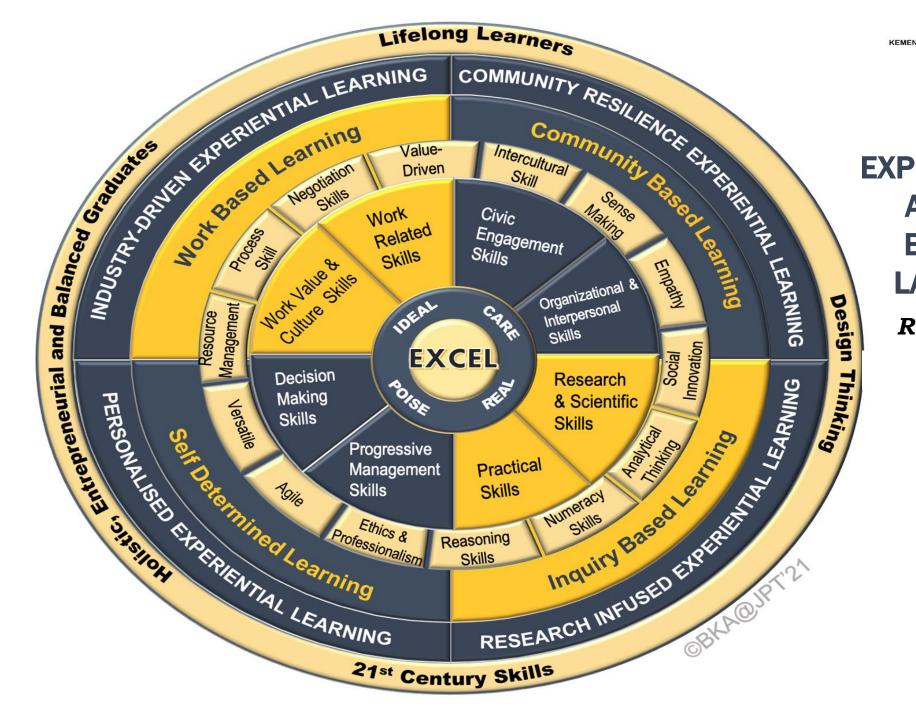
- Collaboration and Leadership
- Cognitive and Affective Flexibility
- Cross-cultural and Global Learning Skills
- Career and Learning Self –Reliance
- Coping and Well-being Skills









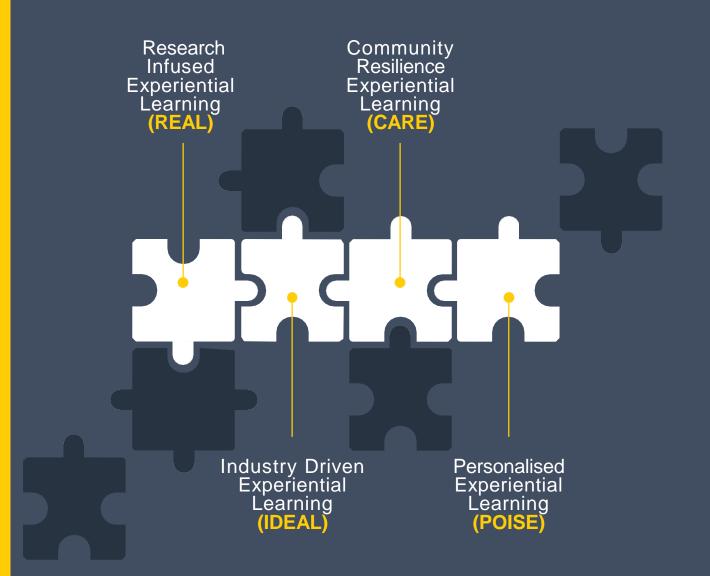


AND COMPETENCY BASED EDUCATION LANDSCAPE (EXCEL)

Resilient and Change Ready Talent

THE FOUR EXCEL THRUSTS

The next sections will describe the four thrusts; explicating the What, Why and How each of the thrust may be exemplified and implemented. Criteria of REAL, IDEAL, CARE and POISE along with each thrust's graduate attributes are explained as well.



"All genuine learning comes through experience

- John Dewey -

Industry Driven Experiential Learning (IDEAL)









WHAT IS IDEAL?

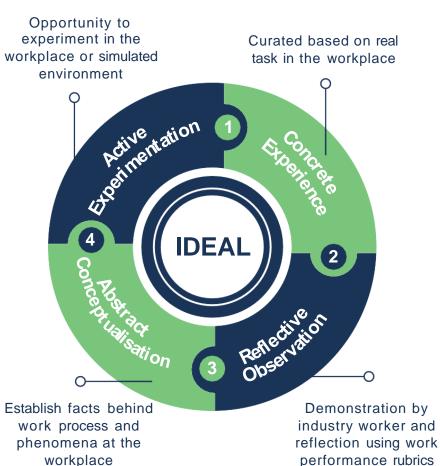
IDEAL 'Industry driven experiential learning' is a curricular thrust that is dominantly characterized by the requirements of industry and involves a significant amount of experiential learning.

INDUSTRY

Industry comes from Latin word industria, which means "diligence, hard work". In the context of IDEAL, 'industry' is economic activity concerned with the production of goods and the offering of services.

Experiential Learning requires learners to be actively involved in the experience, able to reflect on the experience, able to conceptualize the experience and able to experiment on the new ideas gained from the experience in order to gain genuine knowledge from an experience.

INDUSTRY DRIVEN EXPERIENTAL LEARNING



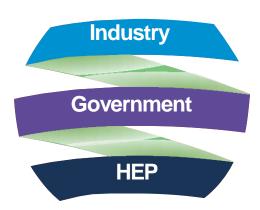






Elements of IDEAL

Triple Helix Platform



Triple Helix Co-creation of Academic Program with IDEAL is facilitated by supporting structures, policies, procedures, infrastructures such as online platforms.

Approaches

Coop Education

Apprenticeship

Program with IDEAL could be implemented through conventional, cooperative and apprenticeship approaches, with varying degree of industry involvement, flexibility in curriculum structure and ease in implementation.

Characteristics



Program with IDEAL will have its curriculum, delivery, assessment and management be highly involved by the industry.

IDEAL



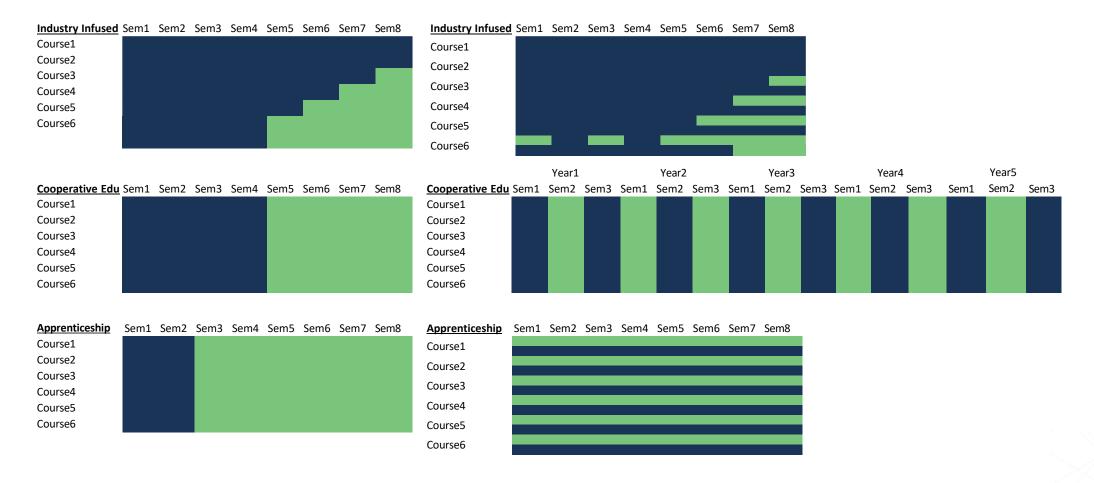
Program ensures learners follows experiential learning principles to fully benefit from industrial practice and experience.







Curriculum Structure (example)











1

YEAR 1

Core – Math and computer programming

Competition - Hackathon 1.0

2

YEAR 2

Workshop – Python and Javascript

Competition - Hackathon 2.0



GRAD

Industry Computer vision and Artificial Intelligence Professional Examination.

Master/PhD project.



YEAR 4

Project – Final year project in Computer vision and Artificial Intelligence.

Competition – FYP Exhibition, Grant proposal, Business Model.



YEAR 3

Electives – Computer vision and Artificial Intelligence (with Industry).

Competition - IDP Exhibition.

Example: An Al-CV Learning Ecosystem

On transformative Educational approach – e.g. Student Extracurricular activity







Co Op Education Models

Duration	Model											
		Semester										
		1	2	3	4	5	6	7	8			
4 years	2u2i		mm m	mm m		22	11	224	<u> </u>			
									N			
			N						N			
	3u1i											
3 years	2u1i			22			22					
						22						
		N. N.										
2 1/2 years	11/2u1i	22	mam m			22						
						22						
				N		N						







2u2i







A learning concept that combines on and off campus education

Done in multiple combinations such as 2u2i, 3u1i and 2u1i

"u" represent time on campus while "i" is industrial placement



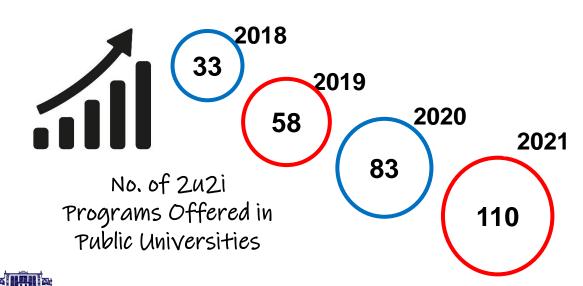


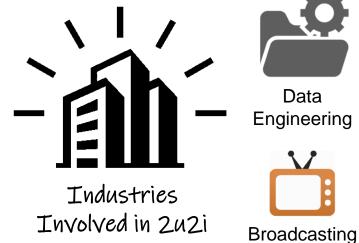






Higher Learning **Institutions** Industry



















Apprenticeship Proposed





Model

Preparation

- Organisational readiness to deliver apprenticeships
- Staff readiness to deliver apprenticeships
- Working with employers
- Finding and taking on an apprentice

Planning

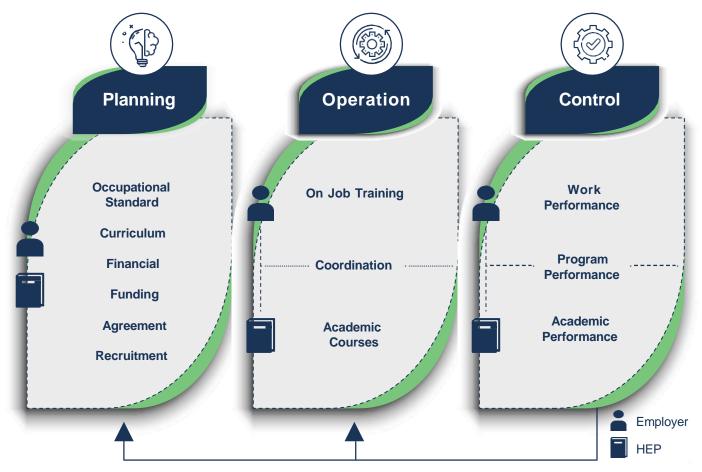
- Induction
- Initial assessment
- Individual learning plan

Delivery

- Designing blended learning
- Setting objectives and giving feedback
- · Learner support
- Evidencing learning

Preparation

- Progress checking, monitoring and review
- Gateway to end point assessment (EPA)
- End point assessment
- Framework assessment



Evaluation and Improvement

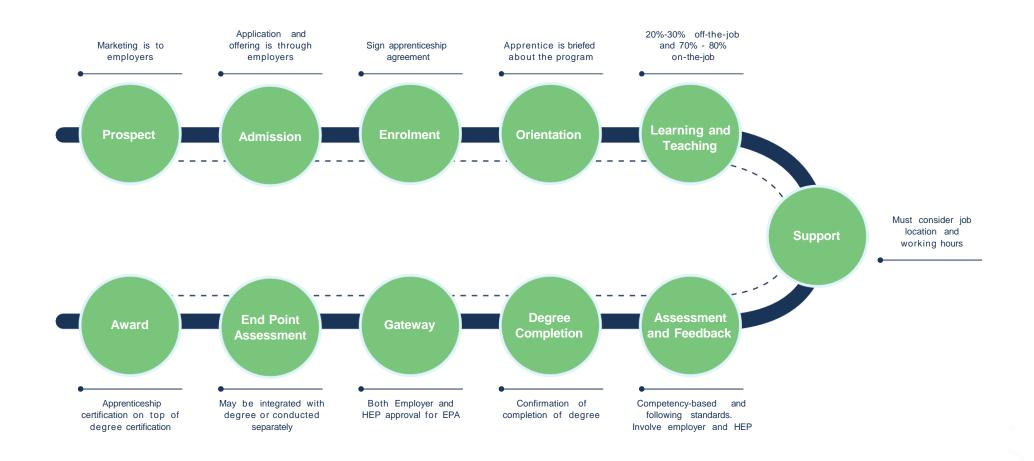
Proposed Malaysia Level 6 Apprenticeship Framework







Degree Apprenticeship Life Cycle









Core Work-Related Skills

Abilities

Basic Skills

Cross-functional Skills

Cognitive Abilities

- Cognitive Flexibility
- Creativity
- Logical Reasoning
- Problem Sensitivity
- Mathematical Reasoning
- Visualization

Content Skills

- Active Learning
- Oral Expression
- Reading Comprehension
- Written Expression
- ICT Literacy

Social Skills

- Coordinating with Others
- Emotional Intelligence
- Negotiation
- Persuasion
- Service Orientation Training and Teaching Others

Resource Management Skills

- Management of Financial Resources
- Management of Material Resources
- People Management
- Time Management

Physical Abilities

- · Physical Strength
- Manual Dexterity and Precision

Process Skills

- Active Listening
- Crtitical Thinking
- Monitoring Self and Others

Systems Skills

- Judgement and
- Decision-making
- Systems Analysis

Technical Skills

- Equipment Maintenance and Repair
- Equipment Operation and Control
- Programming
- Quality Control
- Technology and User Experience Design
- Troubleshooting

Source: World Economic Forum based on O'NET Content Model

Complex Problem Solving Skills

 Complex Problem Solving





IDEAL

Graduate Attributes

IDEAL graduates are highly sought, work-ready graduates:

- Who are ready for work and able to apply technical knowledge and work-related skills to solve tasks at work.
- Whose knowledge and skills match industrial needs.
- Whose values and characters are aligned with the workplace culture and increase value to the organisation.

"

Knowledge gained through experience is far superior and many times more useful than bookish knowledge

- Mahatma Gandhi -

Research Infused Experiential Learning (REAL)









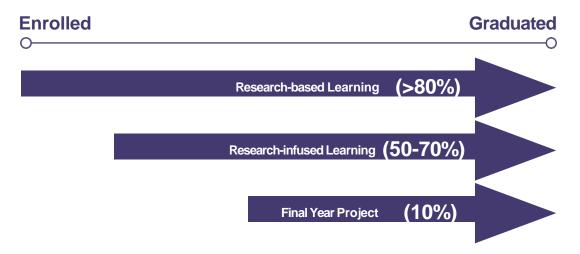
WHAT IS REAL?

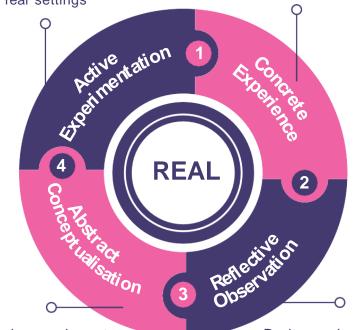
RESEARCH INFUSED EXPERIENTIAL LEARNING

Opportunity to perform research in real settings

Curated based on actual research through inquiry-based learning

REAL is a curricular thrust structure that promotes meaningful research learning experiences. REAL allows students to identify problems, to pursue interests, to learn something new, to hone and challenge themselves in new ways. It is an experiential learning process leading to the development of inquisitive and exploratory learning mindset and culture. REAL cultivates research skills and inspires learning through research and enquiry through an innovative research-informed curriculum. Students will engage in inquiry-based, evidence-based, and challenge-based learning.





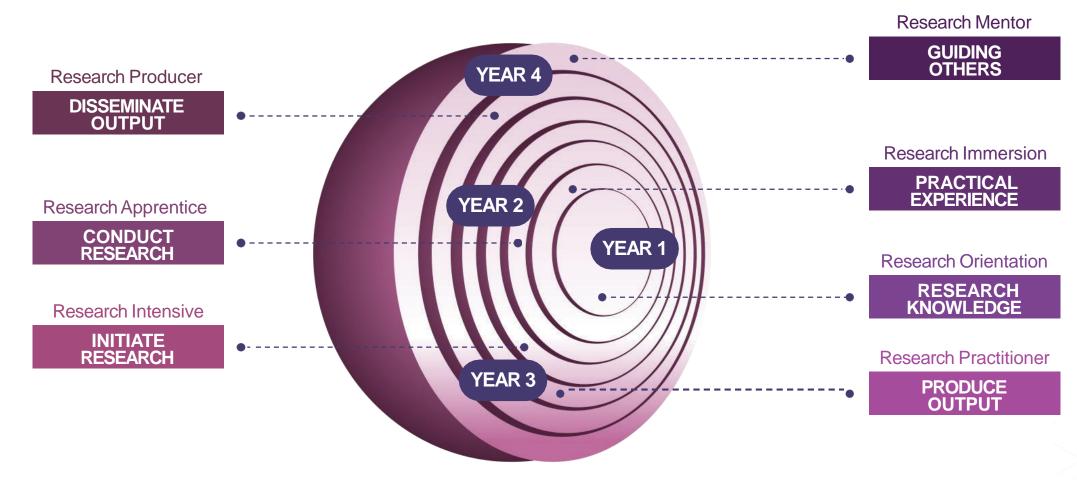
Analyze and create meaning from research findings to modify and form new ideas Review and reflect on the research experience and activities







REAL COMPETENCY







REAL

Graduate Attributes

REAL graduates are:

- Who are able to perform scientific research professionally and ethically.
- Who are able to demonstrate analytical thinking, reasoning, and numeracy skills for scientific research.
- Who are able to translate ideas into research activities for practical solutions to local and global issues.

11

You may learn to imitate a birdcall, but do you experience what the nightingale feels for the rose?

- Rumi -

Community Resilience Experiential Learning (CARE)





WHAT IS CARE?

CARE is a curriculum thrust that promotes student learning by addressing community needs and ultimately create positive social change through immersive community-based learning and Service Learning Malaysia (SULAM), University for Society. It serves to enhance student learning of course content, teach civic responsibility, and strengthen communities.

In the context of EXCEL, communities are local residents, non-profit organisations, government and community-based organisations, where community services rendered are to improve the quality of life for community residents, particularly low-income individuals or to solve/address particular problems related to their needs.

In terms of experience, the learning cycle is explicated in the diagram.

COMMUNITY RESILIENCE EXPERIENTIAL LEARNING

Applying their knowledge and ideas to create positive social change and building community resilience

Curated based on real problem exist in the community



Revisiting, refreshing and building their knowledge and ideas for social innovation in community Deep understanding and appreciation of their roles and functions in their field/domain towards building community resilience



The FXCFL Framework





POSSIBLE CARE MODELS

	Semester										
Model	1	2	Break	3	4	Break	5	6	Break	7	8
SCoPe		%	-			-			-		
3u1c			-			-			-		
2u1i1c			-			-			-	(4)	
2u1c			-			-			-	-	-
Coop			Off (Planning)				999				



Community services could use multi or transdisciplinary framework and carried out in a single or different community through out the curriculum.



University



Industry



CARE Graduate Attributes

Care Graduates

- Graduates who are not only technically competent but also creative, innovative, adaptive, possess good leadership skills, and responsive to social issues.
- Graduates who are able to practice theories learnt to solve community issues & problems.
- Graduates who can relate well with community, aware
 of cultural differences and actively involved in civic engagement.





"Education is the kindling of a flame, not the filling of a vessel

- Socrates -

Personalised Experiential Learning (POISE)







WHAT IS POISE?

POISE is a curriculum structure that expands access to a range of high-quality higher education options.

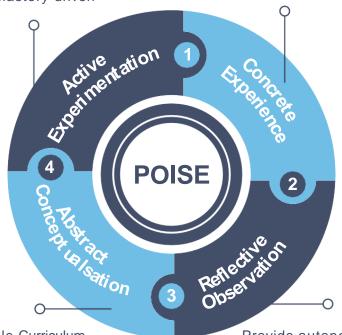
POISE provides students with diverse interests in obtaining academic qualifications with opportunities for lifelong learning.

POISE provides learners in HEIs with industry-driven learning materials, agile curriculum material, and buffet-style learning with standardised guidance.

PERSONALISED EXPERIENTIAL LEARNING

Flexible pathways based on passion, competency and mastery driven

Based on personalized and individual needs



Agile Curriculum, buffet-style learning with structured guidance Provide autonomy and flexibility in deciding academic pathways



WHY POISE?

POISE offers new redesigned academic pathways to ensure Malaysian Higher Education systems remain relevant and within reach for all.

It aims to provide autonomy and flexibility to students in deciding their most preferred pathway in line with their passion, interest or career needs.

The redesigned curriculum structure is poised to transform how Malaysians gain access to higher education without being confined to the traditional pathway.

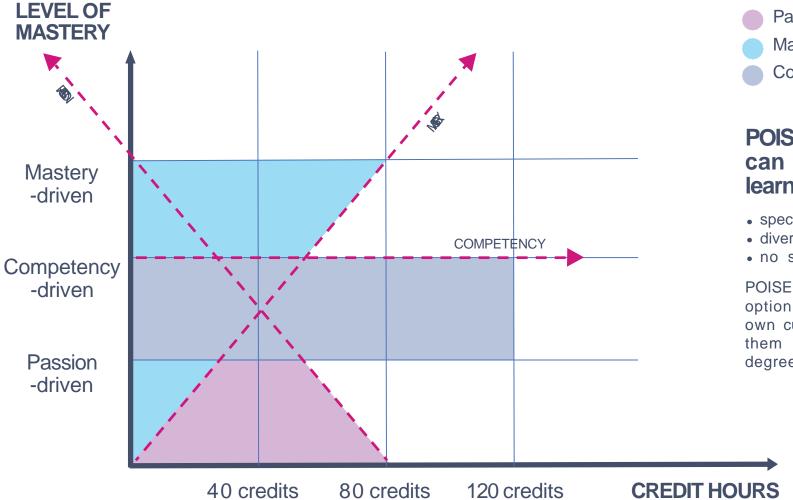
POISE is about CHOICE







POISE: GENERAL MODEL



- Passion-driven
- Mastery-driven
- Competency-driven

POISE curriculum structure can fulfil the demand of learners with:

- specific interest/goals/passions or;
- diverse interest/goals/passions or;
- no specific interest/goals/passions

POISE curriculum structure gives option for learners to design their own curriculum based on what drives them towards achieving their degree/certification.







POISE COMPETENCY

		COMPETENCY								
Experiential Learning	Description	Versatility	Adaptive	Decision Making	Agility	Skillful	Market Driven	Specialist		
PASSION -DRIVEN	1to 80 credits in more than 2 fields	٧	٧	٧	٧		V			
COMPETENCY -DRIVEN	1to 80 credit in 2 fields	٧	٧	٧	٧	٧	V			
MASTERY -DRIVEN	1to 80 credits in 1 field	V			V	V		V		

- Flexible time No full time or part time with maximum 7 years of study duration
- Percentage Credits based on % of major approved by MQA
- General curriculum structure need to be designed before-hand mix-matched existing courses to form academic programs
- Passion-driven Bachelor of General Studies (Higher % of BOK of the program)
- Competency/Mastery Driven Bachelor with Honours naming based on major



POISE

Graduate Attributes

POISE graduates are developed from inter-connected models, where they start from Zero and be somewhere at the end (Hero).

POISE graduates are versatile, adaptive, self-directed, self-empowered and self-regulated, whereby they will be:

- Decision makers
- Life-long learners
- Progressive thinker

PASSION-DRIVEN

Adaptive, Agile, Resilient, Versatile Bridge towards competency & mastery

COMPETENCY-DRIVEN

Skillful, Competent, Market-driven.

MASTERY-DRIVEN

Subject Matter Expert, Specialist, Professional, Authority

























What is SULAM?

It is a course-based, credit-bearing educational experience in which students participate in a structured **service** activity that meets identified community needs. They will reflect on their service activity and experiences and relate them to the desired learning outcomes, in such a way they will gain deeper understanding of course content, a broader appreciation of the discipline, enhanced sense of personal values and civic responsibility.

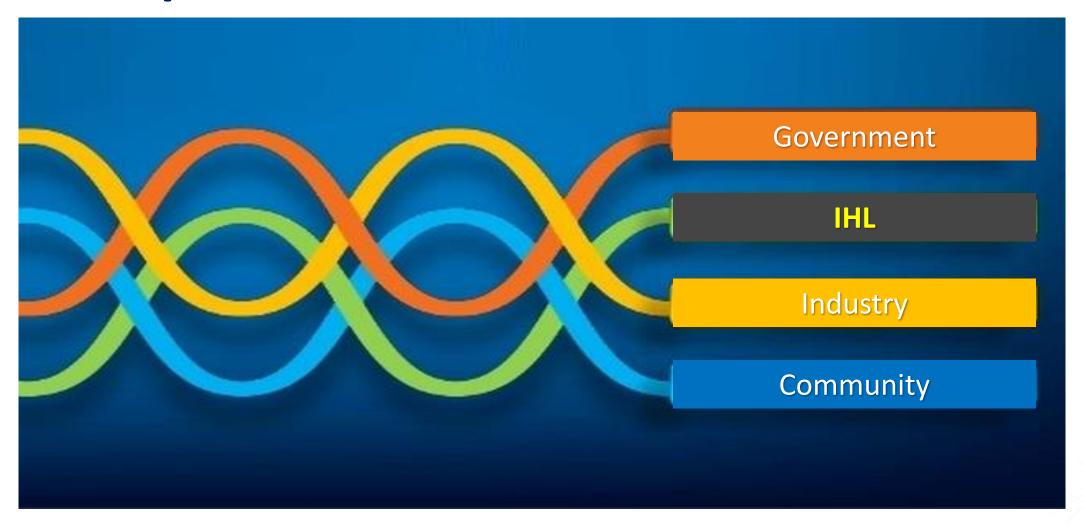








Quadruple Helix of SULAM









SULAM BENEFITS

INDUSTRY/AGENCY/NGO

- . Bigger pool of volunteers
- . Industry solutions in community
- Good 'branding'
- Fresh perspective of volunteers
- . Potential recruitment
- Tax exemptions





- Curriculum Improvement
- Student retention
- Enhanced research and outreach
- Community engagement



SULAM

2

3

STUDENT

- Course Learning Outcomes
- Personal Outcomes
- Social Outcomes
- . Career Development

COMMUNITY

- Access to IHL resources
- . Access to "skilled manpower"
- . New ideas
- Improve relations with IHL



INSTRUCTOR

- Alternative teaching method
- Networking
- Research opportunity
- Scholarship of Teaching





Universiti Teknologi Malaysia (UTM)







• Community: Flat Taman Plentong Utama, Johor Bahru

- Course: Professional Practice 1 Landscape Architecture dan Introduction of Landscape Architecture
- Project: Pembangunan Komuniti Lestari.
 Objektif projek: Mengindahkan laman flat yang tidak dijaga menggunakan konsep 'edible garden'.
- Impak: Pelajar dan komuniti bekerjasama dalam projek ini. Projek tamat pada 2015, namun kawasan tersebut masih dijaga rapi oleh komuniti.
- Project Leader: AP Ts. Dr. Mohd Hisyam bin Rasidi

Example SULAM Project





















Example SULAM Project 8







Universiti Teknologi MARA (UiTM) and Universiti Teknologi Malaysia (UTM)



- Course: Travel Agency, Housekeeping Management, Intro to Landscape Architecture
- Project: Solok Sengkuang Cabin D'Village
- Impact: Antaranya: Pengurusan homestay lebih sistematik, kaedah promosi produk pelancongan.
- **Products**: 2 manuals, 4 tourism packages and resort landscape





Sebelum



Selepas



Sebelum



Selepas











SULAM-Net



 Network of local IHLs, industries, government agencies, corporations and NGOs for the purpose of enhancing and strengthening the implementation of SULAM activities in the community.





Malaysia







Corporate Social Responsibility

Contributing to the advancement and development of humankind and society through practice of the Kyocera Philosophy

"Do what is right as a human being"









CSR WITH SULAM



Industry carries out CSR together with IHL in community







INDUSTRY SUPPORTS

- Knowledge, skills & expertise
- Funding
- Network
- Equipment & space
- Technology









BENEFITS OF CSR WITH SULAM

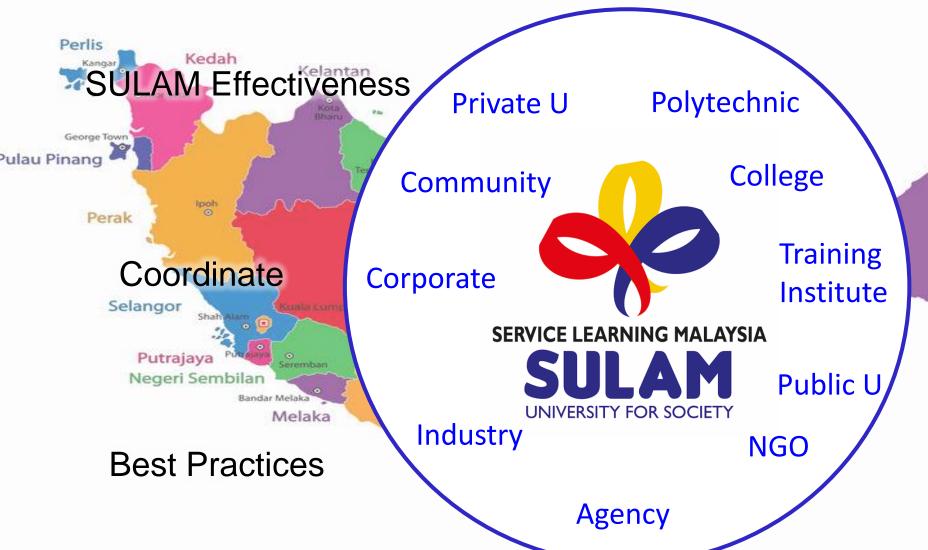
- Connecting Industry, IHL & Community
- Semi professional 'workforce'
- Industry solutions in community
- Tax exemption
- Placement of Internship
- Recruitment



SULAM-Net









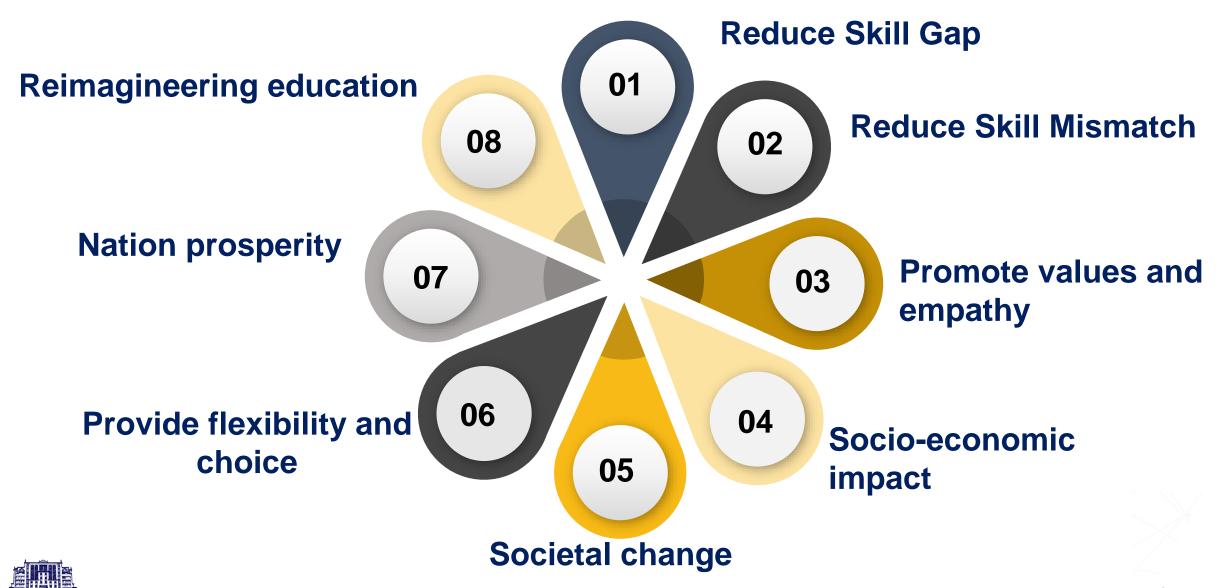
Malaysia

Conferences

OUR ACTIONS













THANK YOU



MINISTRY OF HIGHER EDUCATION

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