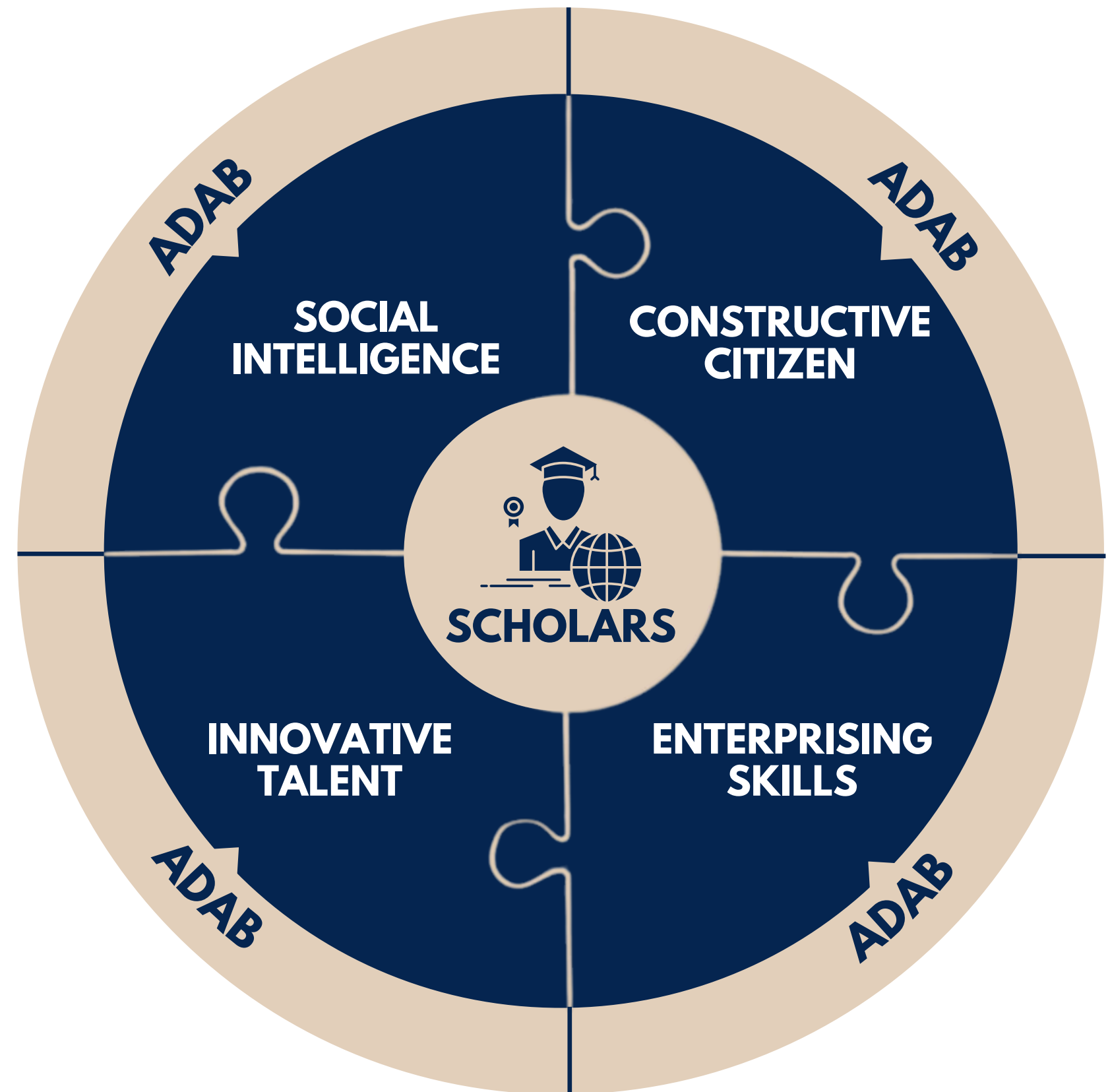


UTM Graduate Attribute 2024



Introduction

Pengenalan

Graduate Attribute

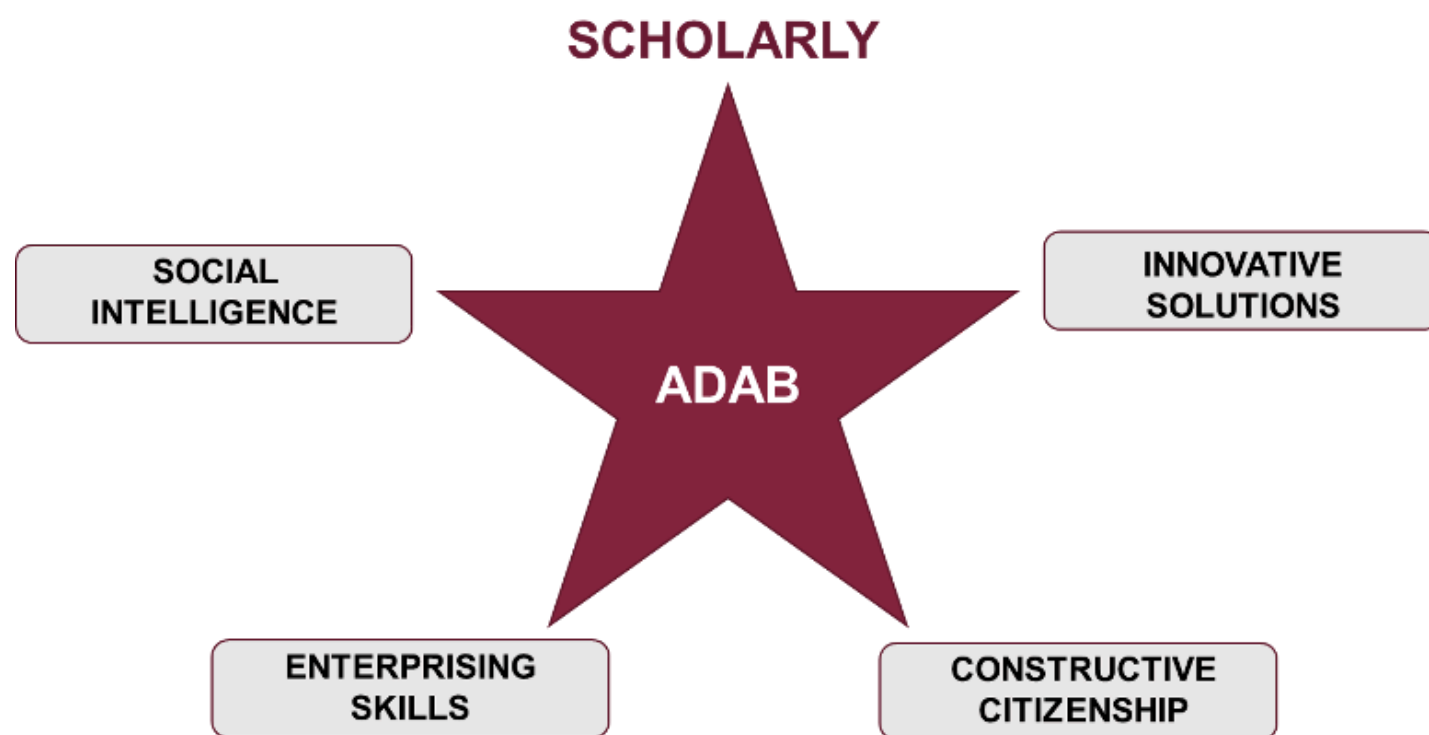
UTM graduates need to have a high level of knowledge and skills in their respective fields of study; in line with the goal of producing competitive graduates to advance in the fields of science and technology, as well as to be oriented towards innovative solutions. UTM has established six attributes for all of its graduates. These attributes represent the knowledge, competencies, and values that students need to develop throughout their learning and experiences at UTM.

ATRIBUT GRADUAN

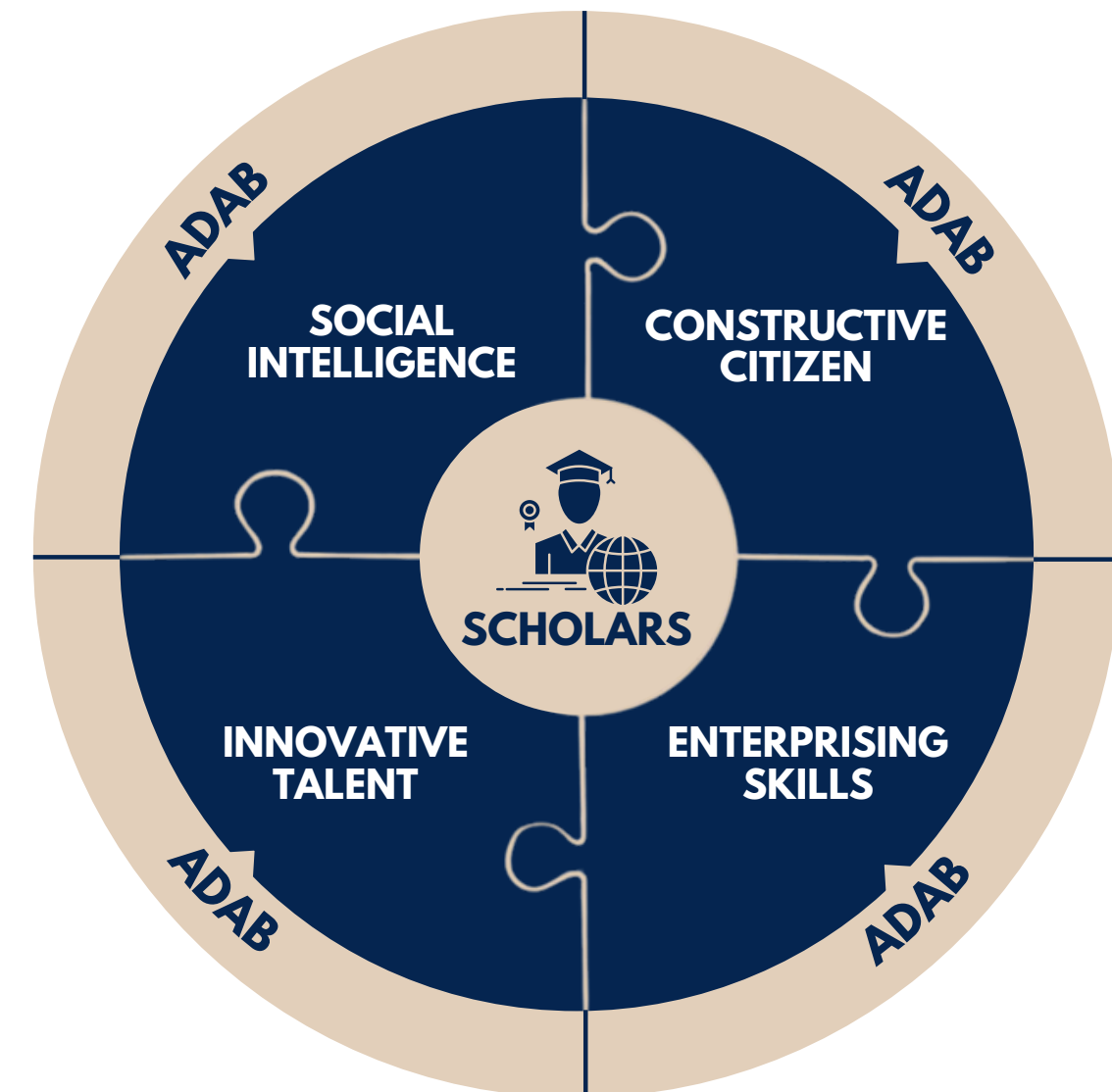
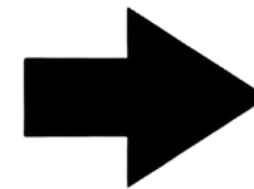
Graduan UTM perlu berpengetahuan dan berketerampilan tinggi dalam bidang pengajian yang diceburi; selari dengan matlamat untuk melahirkan graduan yang kompetitif untuk mengungguli kemajuan dalam sains dan teknologi, serta berorientasikan penyelesaian inovatif. UTM telah menetapkan enam atribut bagi semua graduannya. Atribut ini terdiri daripada pengetahuan, kompetensi dan nilai-nilai yang perlu diterapkan kepada pelajar di sepanjang pembelajaran dan pengalaman di UTM.

The concept of UTM GA

Konsep Atribut Graduan UTM



Gambarajah Konsep Atribut Graduan UTM yang dinyatakan dalam FOCU 2023



Gambarajah Konsep Atribut Graduan UTM 2024

The main core attributes of graduates

Teras utama atribut graduan

Specific Skills
(Core Skills of the Academic Program)

Kemahiran Khusus
(Kemahiran Teras Program Akademik)



SCHOLARS
KESARJANAAN

Soft Skills
Kemahiran Insaniah



MANNERS
ADAB



INNOVATIVE TALENTS
BAKAT INOVATIF



CONSTRUCTIVE CITIZEN
WARGANEGARA YANG KONSTRUKTIF



ENTERPRISING SKILLS
KEMAHIRAN BERDAYA USAHA



SOCIAL INTELLIGENCE
KEPINTARAN SOSIAL

OPERATIONAL DEFINITION OF GRADUATE ATTRIBUTE

Definisi Operasi Atribut Graduan



SCHOLARS

Graduates with a mastery of knowledge and practical skills in their subject areas, possess inquiry skills, exemplary manners, and high professionalism to make a positive impact on mankind.

KESARJANAAN

Graduan yang mempunyai penguasaan ilmu dan kemahiran praktikal dalam bidang masing-masing, memiliki kemahiran penyelidikan, adab yang tinggi, dan profesionalisme tinggi untuk memberi impak positif kepada manusia.

OPERATIONAL DEFINITION OF GRADUATE ATTRIBUTE

Definisi Operasi Atribut Graduan



SCHOLARS KESARJANAAN

SC 1: KNOWLEDGE PENGETAHUAN

Demonstrating a profound understanding and mastery of relevant subject matter, theories, and concepts within a specific academic or professional field.

Menunjukkan penguasaan dan pemahaman yang mendalam tentang konsep, teori dan perkara yang berkaitan dalam bidang profesional atau akademik tertentu.

SC 2: COGNITIVE SKILLS KEMAHIRAN KOGNITIF

The ability to develop intellectual skills progressively begins with understanding, critical/ creative thinking, assessment, applying, analysing, problem-solving, and synthesising to create new ideas, solutions, strategies or practices.

Keupayaan membangunkan kemahiran intelek bermula dengan pemahaman, pemikiran kritis dan kreatif, penilaian, penggunaan, analisis, penyelesaian masalah, dan mensintesis untuk mencipta idea, penyelesaian, strategi atau amalan baharu.

SC 3: PRACTICAL SKILLS KEMAHIRAN PRAKTIKAL

Applying work and operational skills in various environments, including planning, organisation, tool/material selection, and technology use. It extends to study skills, procedures, scientific methods, designs, and research in academic settings. Specialised skills specific to subjects or professions are also included, promoting professional competence with an emphasis on safe and sustainable practices.

Menggunakan kebolehan kerja dan operasi dalam pelbagai persekitaran, seperti perancangan, organisasi, pemilihan bahan dan teknologi. Ia termasuk kebolehan, prosedur, kaedah saintifik, reka bentuk dan penyelidikan akademik. Selain itu, kemahiran khusus yang berkaitan dengan bidang atau profesion digunakan untuk meningkatkan kecekapan profesional dengan penekanan pada amalan yang selamat dan mampan.

OPERATIONAL DEFINITION OF GRADUATE ATTRIBUTE

Definisi Operasi Atribut Graduan



MANNERS

Graduates who exhibit positive behavior, speech, and appearance, demonstrating respect, humility, and ethical professionalism that aligns with both societal and organizational good practice.

ADAB

Graduan yang mempamerkan tingkah laku, pertuturan, dan penampilan yang sopan, saling menghormati, rendah hati, beretika dan profesional, sesuai dengan amalan baik masyarakat dan organisasi.

OPERATIONAL DEFINITION OF GRADUATE ATTRIBUTE

Definisi Operasi Atribut Graduan



INNOVATIVE TALENTS

*Graduates with innovative talent demonstrate **creativity, critical thinking and problem-solving**, to generate ideas, solve complex problems, and drive technological and scientific advancements **in various contexts for mankind**.*

BAKAT INOVATIF

Graduan dengan bakat inovatif menunjukkan **kreativiti, pemikiran kritis dan penyelesaian masalah**, untuk menghasilkan idea, menyelesaikan masalah kompleks, dan memacu kemajuan teknologi dan sains **dalam pelbagai konteks untuk kebaikan manusia**.

OPERATIONAL DEFINITION OF GRADUATE ATTRIBUTE

Definisi Operasi Atribut Graduan



INNOVATIVE TALENTS BAKAT INOVATIF

IT 1: DIGITAL CREATIVE KREATIF DIGITAL

An individual who has the capability to use digital technology innovatively for positive impact to solve problems, generate new ideas, and create digital content.

Individu yang berkeupayaan untuk menggunakan teknologi digital **berimpak positif** secara inovatif untuk **menyelesaikan masalah, menghasilkan idea baru, dan mencipta kandungan digital.**

IT 2: TECHNOLOGY PROFICIENT MAHIR TEKNOLOGI

An individual who is skilled in using and applying technology effectively to solve problems in various contexts and jobs.

Individu yang berkemahiran untuk **menggunakan dan mengaplikasikan teknologi secara berkesan** dalam penyelesaian masalah di pelbagai **konteks dan pekerjaan.**

IT 3: ANALYTICAL SKILL KEMAHIRAN ANALITIKAL

Individual with abilities to collect, analyse information, evaluate arguments, and make well-reasoned decisions.

Individu yang mempunyai **keupayaan untuk mengumpul, menganalisis maklumat, menilai hujah, dan membuat keputusan berasaskan logik serta bukti kukuh**

OPERATIONAL DEFINITION OF GRADUATE ATTRIBUTE

Definisi Operasi Atribut Graduan



CONSTRUCTIVE CITIZEN

*Graduates are able to contribute for a **betterment of mankind and planetary health** in a **constructive and patriotic manner**.*

WARGANEGARA YANG KONSTRUKTIF

Graduan mampu menyumbang untuk **kemajuan manusia dan kesejahteraan planet** secara **konstruktif dan patriotik**.

OPERATIONAL DEFINITION OF GRADUATE ATTRIBUTE

Definisi Operasi Atribut Graduan



CONSTRUCTIVE CITIZEN WARGANEGARA YANG KONSTRUKTIF

CC 1: ADVOCATIVE MENDOKONG

An individual who publicly supports or speaks in favour of a particular cause, idea, or group in line with Malaysian societal values often aims to initiate positive change or raise awareness

Individu yang secara terbuka menyokong atau bercakap untuk mempertahankan sesuatu tujuan, idea, atau kumpulan yang selari dengan nilai-nilai masyarakat Malaysia sering bertujuan untuk memulakan perubahan positif atau meningkatkan kesedaran.

CC 2: LEADERSHIP KEPIMPINAN

An individual who is able to share, influence and guide other members of team, organization and society.

Seseorang yang berupaya untuk berkongsi, mempengaruhi dan membimbing ahli kumpulan, organisasi dan masyarakat.

OPERATIONAL DEFINITION OF GRADUATE ATTRIBUTE

Definisi Operasi Atribut Graduan



CONSTRUCTIVE CITIZEN WARGANEGARA YANG KONSTRUKTIF

CC 3: PATRIOTISM AND SOCIAL RESPONSIBILITIES PATRIOTISM DAN TANGGUNGJAWAB SOSIAL

Patriotism refers to love, loyalty, sacrifice for country: pride, devotion, protect interests, values, engaging in activities to advance nation, patriotic spirit. Social responsibilities refer to ethical duty to benefit society: decisions, actions beyond profit, prioritize communities, environment, societal well-being, creating a positive impact.

Patriotisme merujuk kepada **cinta, kesetiaan, pengorbanan kepada negara**: kebanggaan, kehormatan, melindungi kepentingan, nilai-nilai, terlibat dalam aktiviti untuk memajukan negara, semangat patriotik. Manakala, tanggungjawab sosial merujuk kepada **tugas etika untuk memberi manfaat kepada masyarakat**: keputusan, tindakan melebihi keuntungan, **memberi keutamaan kepada komuniti, alam sekitar, kesejahteraan masyarakat, mencipta impak positif**

CC 4: ENVIRONMENTAL STEWARDSHIP MENJAGA ALAM SEKITAR

Personal responsibility for the quality of the environment and a commitment to the efficient use of natural resources, protection of ecosystems, and compliance with environmental requirements.

Tanggungjawab peribadi **terhadap kualiti alam sekitar** dan komitmen untuk **penggunaan yang cekap** terhadap sumber semulajadi, perlindungan ekosistem, dan pematuhan terhadap keperluan alam sekitar

OPERATIONAL DEFINITION OF GRADUATE ATTRIBUTE

Definisi Operasi Atribut Graduan



ENTERPRISING SKILLS

Graduates are *resourceful, resilient, opportunity driven and highly motivated* to produce solutions and to *create positive changes for mankind*.

KEMAHIRAN BERDAYA USAHA

Graduan adalah *sumber daya yang bijak, mampu berdaya tahan, berorientasikan peluang, dan sangat bermotivasi* untuk menghasilkan penyelesaian serta *mencipta perubahan positif untuk manusia*.

OPERATIONAL DEFINITION OF GRADUATE ATTRIBUTE

Definisi Operasi Atribut Graduan



ENTERPRISING SKILLS KEMAHIRAN BERDAYA USAHA

ES 1: RESILIENT TAHAN LASAK

Being able to bounce back from tough situations, staying strong and adaptable through challenges without giving up easily.

Berkemampuan untuk **bangkit semula** daripada **situasi yang sukar, kekal kuat dan boleh menyesuaikan diri** melalui cabaran tanpa mudah berputus asa.

ES 2: VISIONARY BERWAWASAN

The ability to act effectively and imaginatively in difficult situations, coupled with the capacity to generate and pursue innovative ideas foreseeing future trends, requires thinking beyond the present.

Kemampuan untuk **bertindak secara efektif** dan berimajinasi dalam situasi yang mencabar, bersekali dengan keupayaan untuk **menghasilkan idea inovatif yang meramalkan trend masa depan** yang memerlukan pemikiran luar kotak.

ES 3: RESOURCEFUL BERDAYA SUMBER

Ability to identify and leverage available resources and utilise available skills, networks, tools, and existing assets in novel ways to achieve goals and overcome challenges in the business or organizational landscape.

Kemampuan untuk **mengenal pasti dan memanfaatkan sumber yang ada** serta menggunakan kemahiran, rangkaian, alat, dan aset yang ada secara baru untuk **mencapai matlamat dan mengatasi cabaran** dalam **landskap perniagaan atau organisasi**

OPERATIONAL DEFINITION OF GRADUATE ATTRIBUTE

Definisi Operasi Atribut Graduan



ENTERPRISING SKILLS KEMAHIRAN BERDAYA USAHA

ES 4: OPPORTUNITY DRIVEN DIPACU OLEH PELUANG

Actively seek and ethically capitalise on opportunities that arise in the business or organisation.

Mencari dan memanfaatkan peluang yang timbul dalam perniagaan atau organisasi secara aktif dan beretika.

ES 5: ENTREPRENEURIAL BERMINDA USAHAWAN

Risk-taking, innovative, solution-oriented, and constantly seeking opportunities in both mindset and behaviour for growth and improvement.

Berpemikiran dan bertingkah-laku yang berani mengambil risiko, berinovatif, berorientasikan penyelesaian, dan sentiasa mencari peluang untuk perkembangan dan penambahbaikan.

OPERATIONAL DEFINITION OF GRADUATE ATTRIBUTE

Definisi Operasi Atribut Graduan



SOCIAL INTELLIGENCE

Graduates who *effectively communicate, collaborate in diverse teams, and demonstrate adaptive leadership, within the context of professionals and society.*

KEPINTARAN SOSIAL

Graduan yang *berkomunikasi secara efektif, bekerjasama dalam pasukan yang pelbagai, dan menunjukkan kepimpinan yang boleh menyesuaikan diri, dalam konteks profesional dan masyarakat.*

OPERATIONAL DEFINITION OF GRADUATE ATTRIBUTE

Definisi Operasi Atribut Graduan



SOCIAL INTELLIGENCE **KEPINTARAN SOSIAL**

SI 1: **COLLABORATIVE** **BEKERJASAMA**

Contributes actively in team settings, valuing and integrating various perspectives, reflecting an appreciation of interpersonal dynamics.

Menyumbang secara aktif dalam suasana pasukan, menghargai dan mengintegrasikan pelbagai perspektif, mencerminkan penghargaan terhadap dinamik interpersonal.

SI 2: **ADAPTABILITY** **KEMAMPUAN** **MENYESUAIKAN DIRI**

Ability to adjust oneself and demonstrate empathy to diverse situations and communities.

Kemampuan untuk menyesuaikan diri dan menunjukkan empati terhadap pelbagai situasi dan komuniti.

OPERATIONAL DEFINITION OF GRADUATE ATTRIBUTE

Definisi Operasi Atribut Graduan



SOCIAL INTELLIGENCE KEPINTARAN SOSIAL

SI 3: PROFESSIONAL COMPETENCE KECEKAPAN PROFESIONAL

Applies specialized knowledge and skills with proficiency in professional contexts, seamlessly integrating ethical practices and awareness of social dynamics.

Mengaplikasikan pengetahuan dan kemahiran khusus dengan **kecekapan dalam konteks profesional**, dengan menggabungkan **amalan etika dan kesedaran terhadap dinamik sosial dengan lancar**.

SI 4: COMMUNICATE EFFECTIVELY BERKOMUNIKASI SECARA BERKESAN

Communicate complex ideas clearly and persuasively in professional and societal contexts

Berkomunikasi dengan jelas dan meyakinkan mengenai idea-idea kompleks dalam **konteks profesional** dan **masyarakat**.



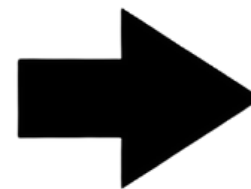
***PEMETAAN ATRIBUT
GRADUAN UTM 2024***

Mapping UTM Graduate Attribute 2024 vs Sub Attribute

Scholars			Adab															
			Social Intelligence				Innovative Talent			Constructive Citizen				Enterprising Skills				
SC1	SC2	SC3	SI1	SI2	SI3	SI4	IT1	IT2	IT3	CC1	CC2	CC3	CC4	ES1	ES2	ES3	ES4	ES5
Knowledge	Cognitive Skills	Practical Skills	Collaborative	Adaptability	Professional Competence	Communicate Effectively	Digital Creative	Technology Proficient	Analytical Skill	Advocative	Leadership	Patriotism And Social Responsibilities	Environmental Stewardship	Resilient	Visionary	Resourceful	Opportunity Driven	Entrepreneurial

Updating the Mapping of UTM Graduate Attribute 2024 vs MQF 2.0 Proposed in FOCU 2023

MQF 2.0	Future Oriented Curriculum Framework (UTM)
Knowledge & understanding	Scholars
Cognitive Skills	Innovative Talents
Practical Skills	Innovative Talents
Interpersonal Skills	Social Intelligence
Communication Skills	Constructive Citizen
Digital & Numerical Skills	Scholars
Numeracy Skills	Scholars
Leadership, Autonomy & Responsibility	Social Intelligence
	Constructive Citizen
Personal Skills	Enterprising Skills
Entrepreneurial Skills	Enterprising Skills
Ethics & Professionalism Skills	Adab



MQF 2.0	Universiti Teknologi Malaysia Graduate Attribute 2024	
Knowledge & understanding	Scholars	
Cognitive Skills	Scholars	
Practical Skills	Scholars	
Interpersonal Skills	Social Intelligence	Adab
Communication Skills	Social Intelligence	
Digital & Numerical Skills	Innovative Talent	
Numeracy Skills	Innovative Talent	
Leadership, Autonomy & Responsibility	Constructive Citizen	
Personal Skills	Enterprising Skills	
Entrepreneurial Skills	Enterprising Skills	
Ethics & Professionalism Skills	Constructive Citizen	

Mapping

UTM Graduate Attribute 2024 vs MQF 2024

UTM Graduate Attribute 2024	Scholars	Scholars	Scholars	Adab															
				Social Intelligence			Social Intelligence	Innovative Talent		Innovative Talent	Constructive Citizen		Enterprising Skills		Enterprising Skills			Constructive Citizen	
	SC1	SC2	SC3	SI1	SI2	SI3	SI4	IT1	IT2	IT3	CC1	CC2	ES1	ES2	ES3	ES4	ES5	CC3	CC4
	Knowledge	Cognitive Skills	Practical Skills	Collaborative	Adaptability	Professional Competence	Communicate Effectively	Digital Creative	Technology Proficient	Analytical Skill	Advocative	Leadership	Resilient	Visionary	Resourceful	Opportunity Driven	Entrepreneurial	Patriotism And Social Responsibilities	Environmental Stewardship
MQF 2.0	Knowledge & Understanding	Cognitive Skills	Practical Skills	Interpersonal Skills			Communication Skills	Digital Skills		Numeracy Skills	Leadership, Autonomy & Responsibility		Personal Skills		Entrepreneurial Skills			Ethics & Professionalism Skills	
	PLO 1	PLO 2	PLO 3	PLO 4			PLO 5	PLO 6		PLO 7	PLO 8		PLO 9		PLO 10			PLO 11	
	C1	C2	C3A	C3B			C3C	C3D		C3E	C3F		C4A		C4B			C5	

Mapping UTM Graduate Attribute 2024 vs MQF 2024 vs PLO EAC 2024

UTM Graduate Attribute 2024	Scholars	Scholars	Scholars	Adab															
	SC1	SC2	SC3	Social Intelligence			Social Intelligence	Innovative Talent		Innovative Talent	Constructive Citizen		Enterprising Skills		Enterprising Skills			Constructive Citizen	
				SI1	SI2	SI3	SI4	IT1	IT2	IT3	CC1	CC2	ES1	ES2	ES3	ES4	ES5	CC3	CC4
Knowledge	Cognitive Skills	Practical Skills	Collaborative	Adaptability	Professional Competence	Communicate Effectively	Digital Creative	Technology Proficient	Analytical Skill	Advocative	Leadership	Resilient	Visionary	Resourceful	Opportunity Driven	Entrepreneurial	Patriotism And Social Responsibilities	Environmental Stewardship	
MQF 2.0	Knowledge & Understanding	Cognitive Skills	Practical Skills	Interpersonal Skills		Communication Skills	Digital Skills	Numeracy Skills	Leadership, Autonomy & Responsibility	Personal Skills	Entrepreneurial Skills	Ethics & Professionalism Skills							
	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5	PLO 6	PLO 7	PLO 8	PLO 9	PLO 10	PLO 11								
	C1	C2	C3A	C3B	C3C	C3D	C3E	C3F	C4A	C4B	C5								
PLO EAC	Engineering Knowledge	Problem Analysis	Design / Development Solutions	Investigation	Tool Usage	The Engineering and The World	Communication	Lifelong Learning	Individual and Collaborative Teamwork	Project Management & Finance	Ethics								
	1	2	3	4	5	6	9	11	8	10	7								