1.0 INTRODUCTION

Politeknik Sultan Abdul Halim Mu'adzam Shah (POLIMAS) is a comprehensive, learner centered higher education institution that serves its local and regional learners and their communities through high-quality and flexible education and training. It is aimed to develop student's employability skills to meet the needs of a more dynamic economy, which values innovation and productivity. Programmes include a global perspective that will enable graduates to make a valuable contribution to the wider society as it changes in response to regional and international competition and demand.

POLIMAS programmes include a variety of Outcome-Based Education teaching approaches, adding value to POLIMAS teaching and learning which cater to students seeking a quality polytechnic education and training.

The POLIMAS Programme Handbook provides students with information on many facets of college life such as policies, procedures, and services. It is written for every student enrolled in one or more courses at POLIMAS.

This Handbook is aimed to guide students through the various procedural steps that lead to a Diploma study. It also provides graduate program descriptions, the requirements needed to obtain a graduate Diploma, and a clear outline of the procedural steps that students need to follow. Students are also provided with information on matters related to general administration such as student services and facilities, campus disciplinary measures, student organizations and other relevant matters.

This book serves as a preliminary guide and does not purport to completely address every policy, procedure and regulation. In addition no claim is made that this document covers all the rules and regulations in effect now at POLIMAS. Students must refer to there event POLIMAS Department programmes and services publications and other Departments and Units Policies for further information.

2.0 VISION & MISSION

DEPARTMENT OF POLYTECHNIC EDUCATION

VISION

To be the Premier Industry-led TVET institution.

MISSION

1. To provide access to quality and recognised TVET programme.
2. To develop industry-led curriculum and enhance graduate readiness through coordinated industry engagement.
3. To produce balanced and enterprising graduate through dynamic and sustainable study programme.
4. To gain international recognition through collaboration and active participations in TVET community.

SULTAN ABDUL HALIM MU'ADZAM SHAH POLYTECHNIC

POLIMAS VISION:

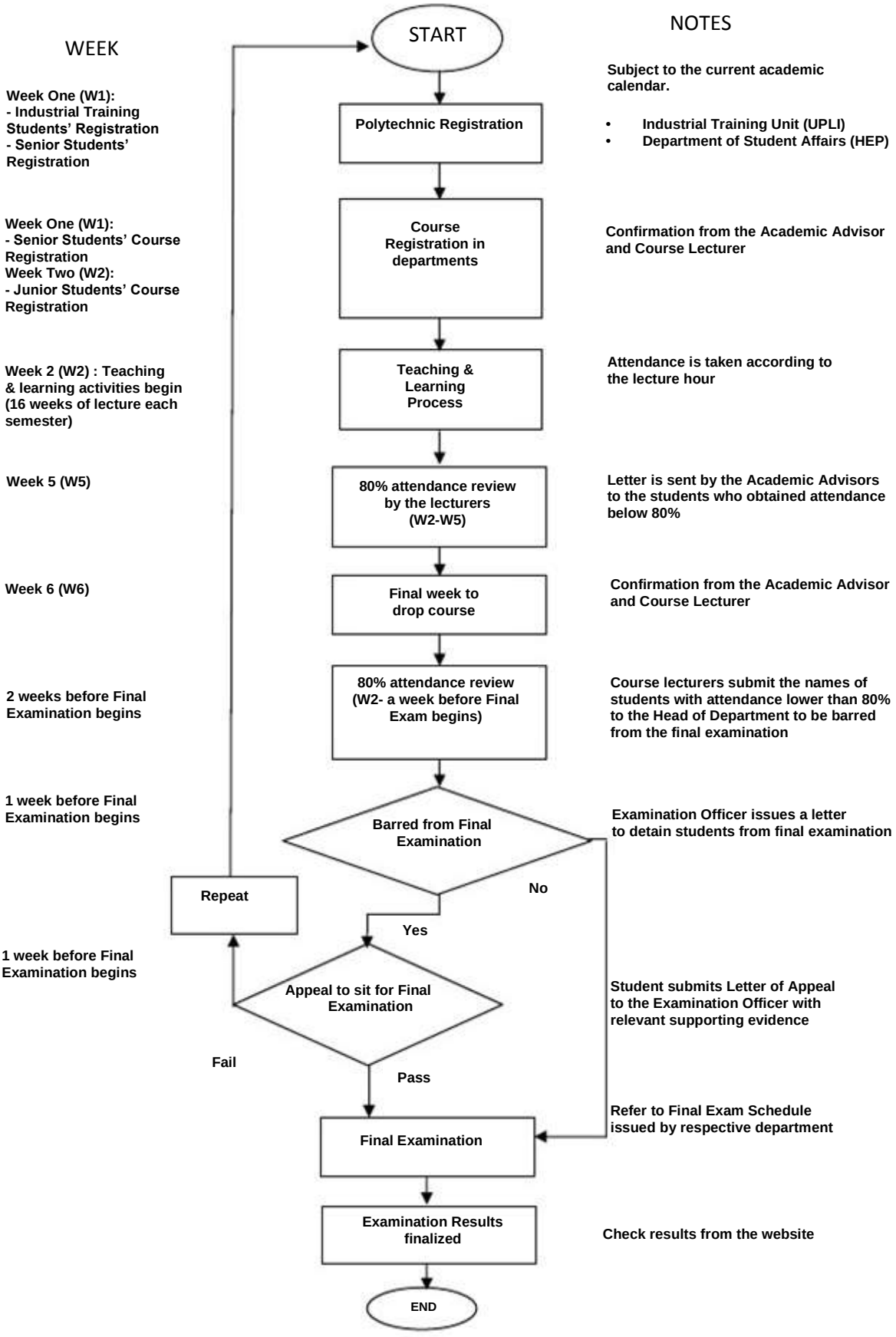
To be an excellent TVET institution in line with industrial needs.

POLIMAS MISSION:

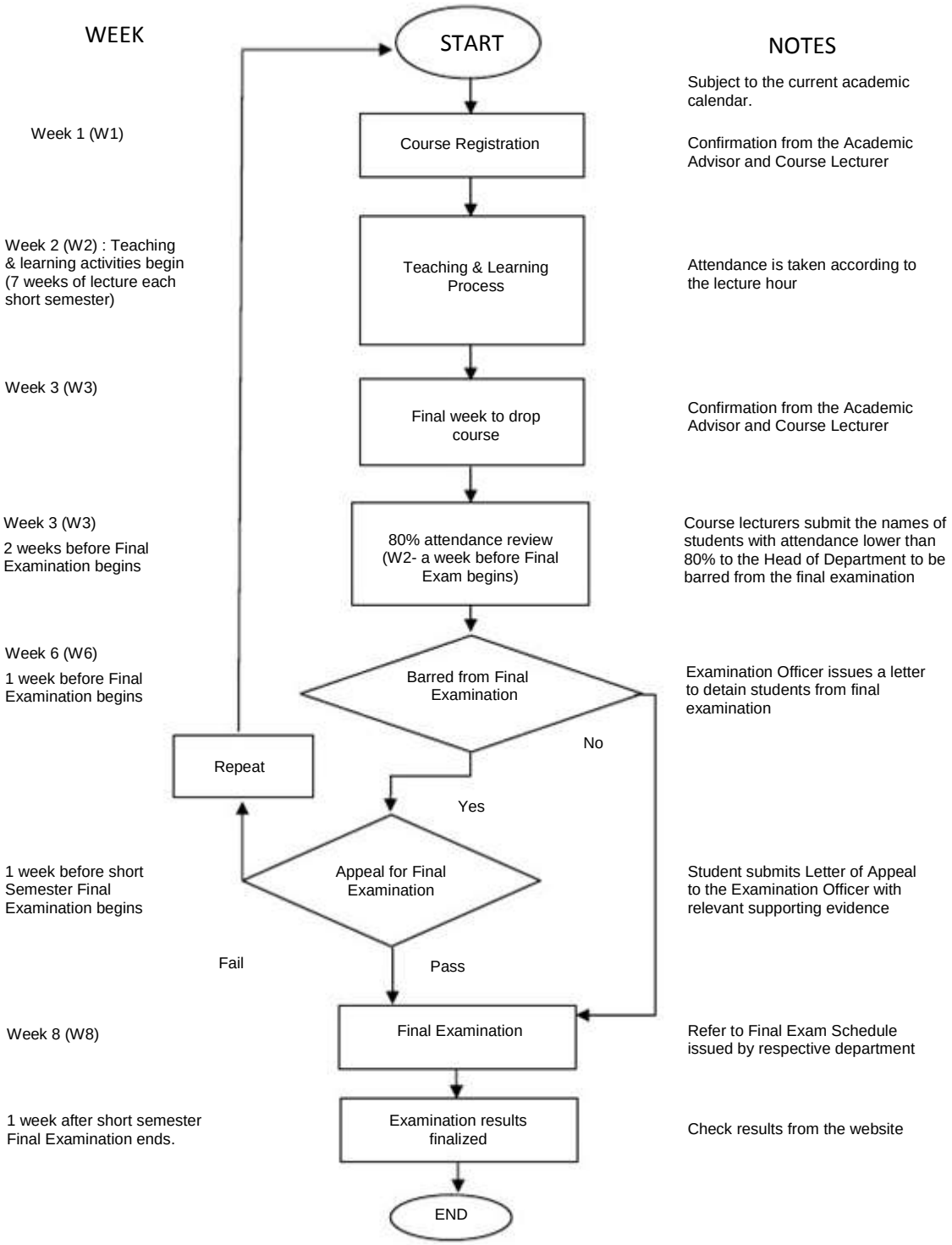
Provide access to quality and recognised TVET programmes to produce holistic, enterprising and competitive human capital in line with glocal industrial needs.

3.0 ACADEMIC FLOW CHART

ACADEMIC FLOW CHART FOR SEMESTER



ACADEMIC FLOW CHART FOR SHORT SEMESTER

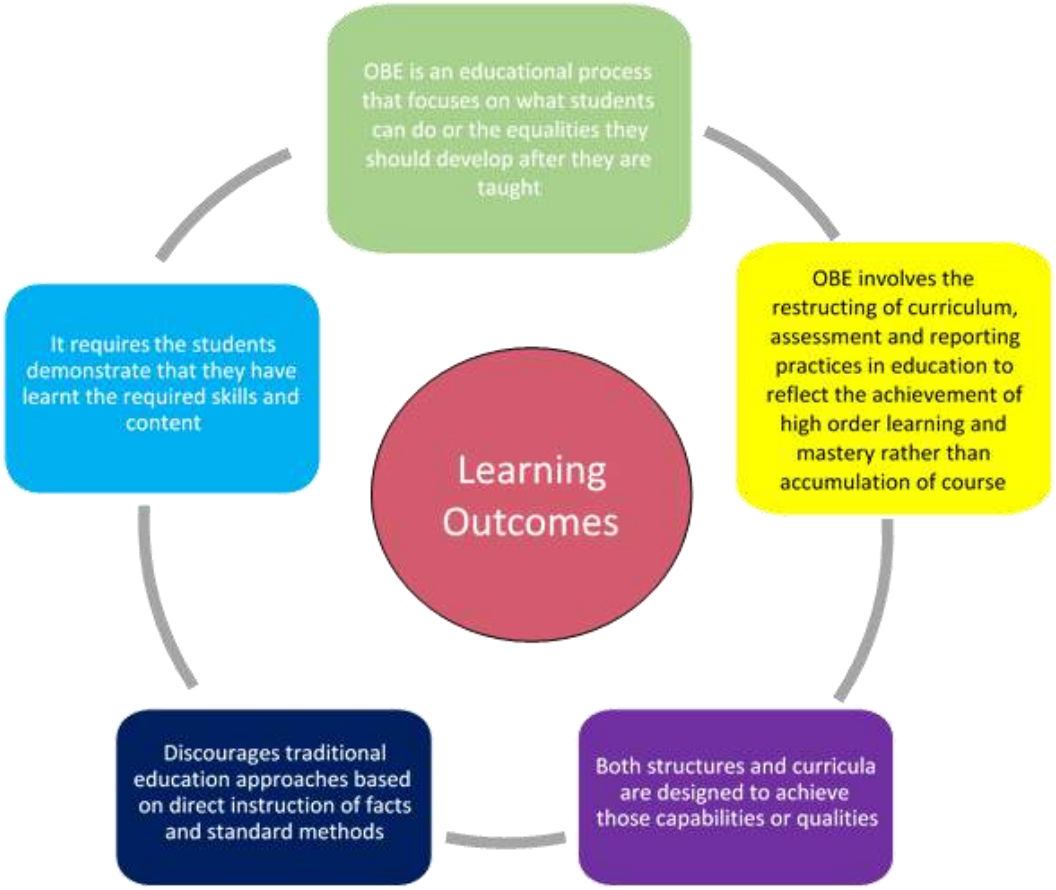


4.0 OUTCOME-BASED EDUCATION [OBE]

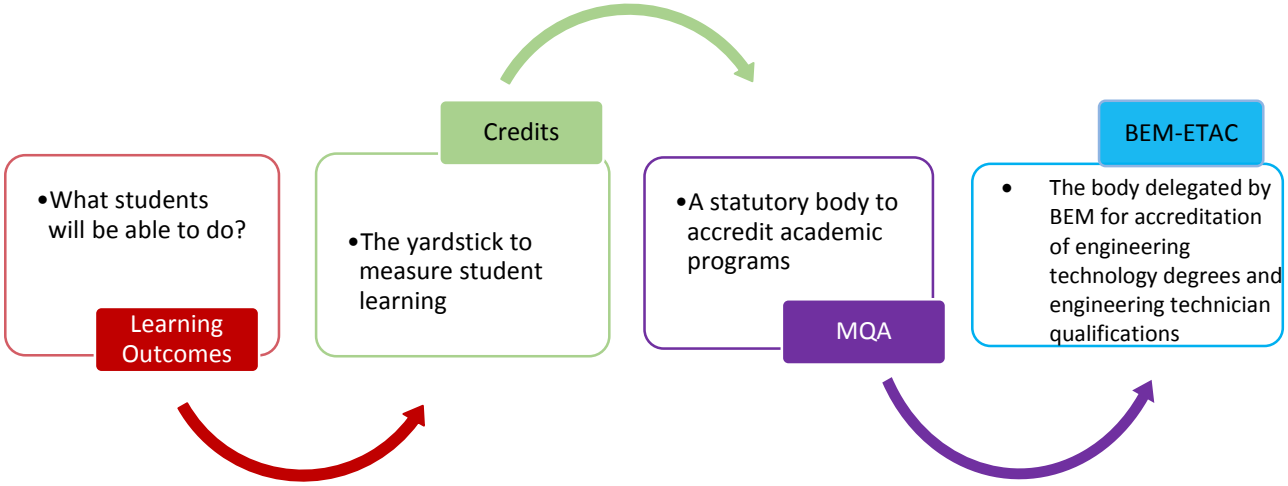
Outcome-based education (OBE) is an educational model for students to demonstrate their knowledge and able to perform according to the required outcomes. It is a student-centered approach that focuses on students' learning. It starts with a clear picture of what students should know, what they should be able to do, and what desirable attitudes and values needed to organize the curriculum, instruction, and assessment to ensure an ultimate learning (Spady, 1994:1). Thus, OBE involves the restructuring of curriculum and assessment that reflects achievement of high learning order and mastery learning.

OBE helps students to be aware of what they should learn, aware of what they are learning and the control over their own learning. It leads to successful student learning and encourages lecturers to be well prepared. It also provides students with appropriate, purposeful learning experiences and opportunities for students to develop originality, self-motivation and independence while acquiring useful knowledge and skills.

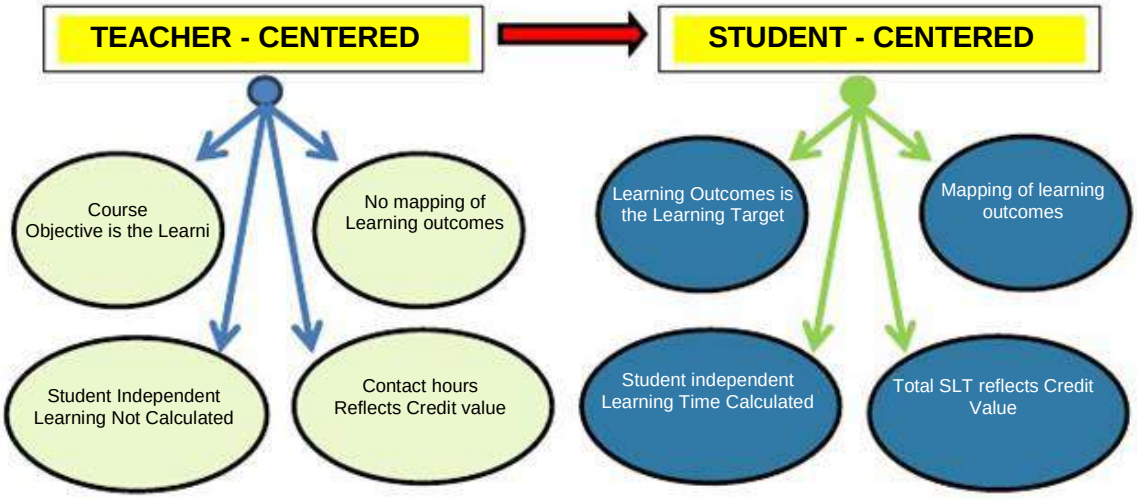
4.1 WHAT IS OUTCOME-BASED EDUCATION [OBE]



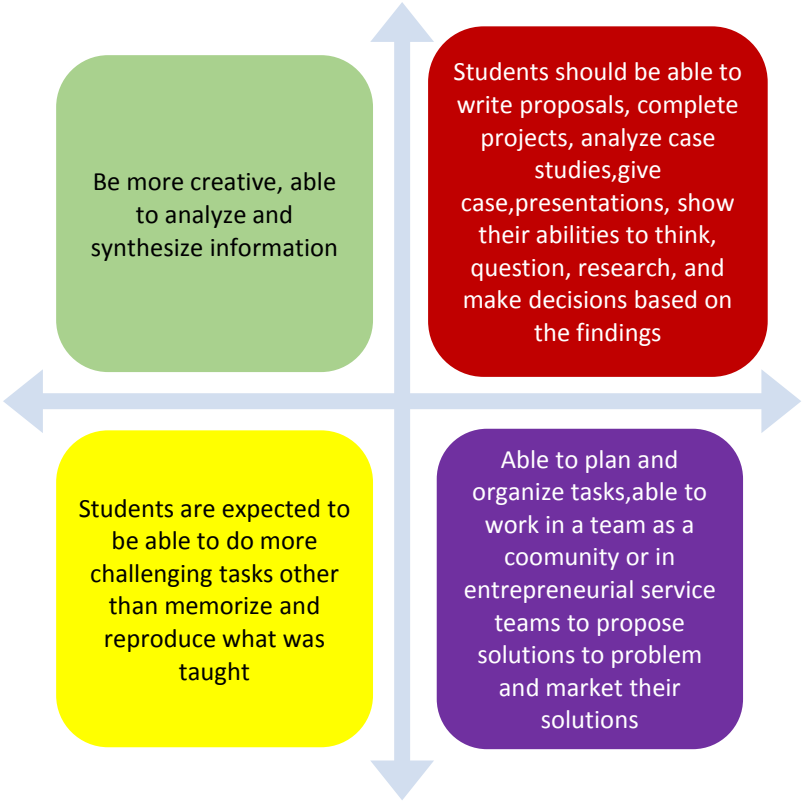
4.2 ACREDITATION PROCESS



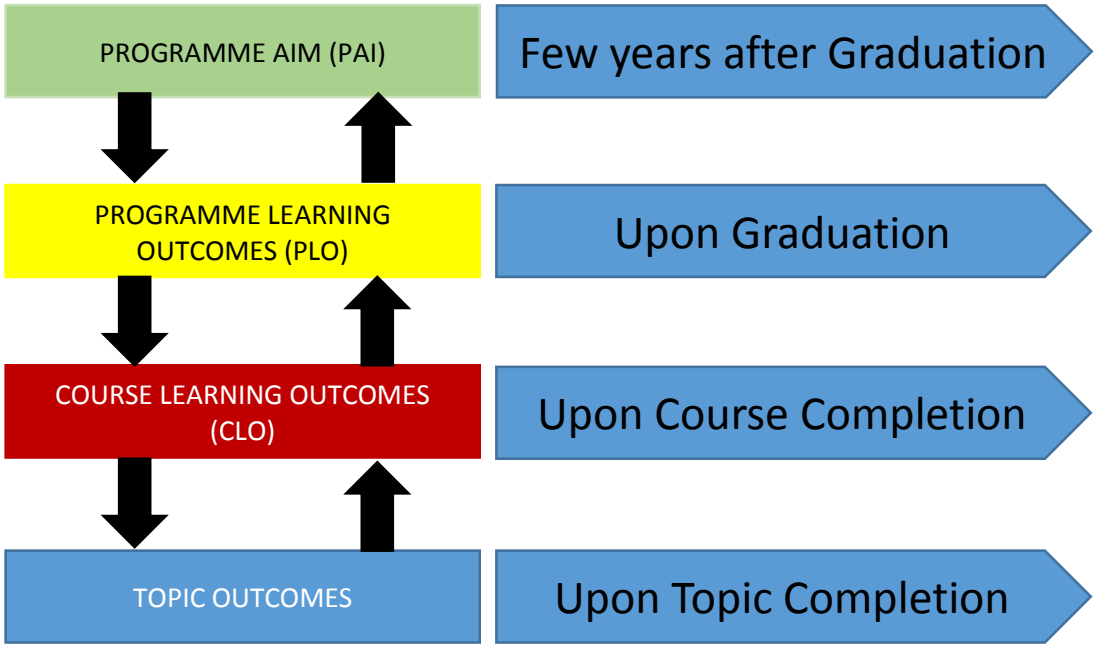
4.3 HOW DOES OBE AFFECT TEACHING-LEARNING



4.4 EXPECTATIONS ON STUDENTS



4.5 DIFFERENT LEVELS OF OBE



4.6 EXPECTED LEARNING DOMAIN

5.0 MANAGEMENT ORGANISATION CHART

6.0 MECHANICAL ENGINEERING DEPARTMENT

6.1 MECHANICAL ENGINEERING DEPARTMENT ORGANISATION CHART

KETUA JABATAN: **IR NIK AHMAD FARIS BIN NIK ABDULLAH**
PEN. KETUA JABATAN (Hal-Hal Pelajar): **NAZRI BIN AHMAD**
PEN. KETUA JABATAN (Akademik): **MOHD ZAHRI BIN JAAFAR**

PROGRAM KEJ. MEKANIKAL (DKM)		
1	**Mohd Zahri Bin Jaafar (KP)**	DH44

PROGRAM KEJ. MEKANIKAL LOJI (DJL)		
1	**Muhammad bin Abdullah (KP)**	DH44
2	Mhd Radzi Bin Hussain	DH54
3	Abd Khalid Bin Juraimi	DH52
4	Mohamad Pauzi Bin Mat Din	DH48
5	Mohd Fathurahman Bin Kamarudin	DH48
6	Airul Aznie Bin Mohd Sahari	DH44
7	Haslawati Binti Mohamad	DH44
8	Mohd. Fadzli Bin Othman	DH44
9	Muhammad Adli Bin Haron	DH44
10	Nazri Bin Ahmad	DH44
11	Norhasimah Binti Habibi	DH44
12	Rokayah Binti A. Rashid	DH44
13	Siti Salwa binti Samsuri	DH44
14	Rohaizan Bin Radzi	DH41
15	Mohd Nizam Bin Osman	DH42
16	Mohd Rafidi Bin A. Aziz	DH41
17	Mohd Radzi Bin Mohd Rajab	DH34
18	Wan Mahafez Bin Rosni	DH34

PROGRAM KEJ. MEKATRONIK (DEM)		
1	**Syukrul Hassani Bin Jamaludin (KP)**	DH44
2	Che Mohd Azmi Bin Che Ibrahim	DH48
3	Faizal Bin Ahmad	DH48
4	Mohd Yahya Bin Saad	DH48
5	Norfidah Binti Abdul Hamid	DH48
6	Muffili Bin Mahadi	DH48
7	Azahar Bin Mohd Noor	DH44
8	Kamsidi @ Abd Malek Bin Sidek	DH44
9	Lizawati Binti Jaafar	DH44
10	Mohd Nazri Bin Saad	DH44
11	Mohd. Zaniel Bin Mahadzir	DH44
12	Shaiful Zamri Bin Abdul Sattar	DH44
13	Shariman Bin Johari	DH44
14	Wan Nor Harman Bin Wan Yahaya	DH44
15	Abdul Latif Bin Abd Razak	DH41
16	Siti Arfah Binti Hashim	DH41
17	Sofian Bin Yusoff	DH41
18	Mohd Zulkiflee Faizal Bin Saleh	DH41

PROGRAM KEJ. MEKANIKAL PEMBUATAN (DTP)		
1	**Khairul Adly Bin Abd Wahib (KP)**	DH44
2	Normah Binti Cheman	DH52
3	Kamarulna Fuzi Bin Mad Kasim	DH48
4	Mohd. Nadzri Bin Lazim	DH48
5	Neza Nurulhuda Binti Nekmat	DH48
6	Syaiful Nizam Bin Ab. Rahim	DH48
7	Ahmad Asmadishah Bin Samsudin	DH44
8	Azijan Bin Murad	DH44
9	Mohd Hazri Bin Omar	DH44
10	Mohd Helmi Bin Abd Halim	DH44
11	Mohd Nazri Bin Abd Halim	DH44
12	Nur Faridah Hanim binti Mohd. Mokhtar	DH44
13	Syed Mohd. Fadly Bin Syed Hassan	DH44
14	Zainol Bin Hashim	DH44
15	Mohd Izham Bin A. Rahim	DH41
16	Nor Ruzzana Binti Abd Rahman	DH41
17	Zairini Binti Mohammad	DH41
18	Mohd Shakir Bin Mohammad Isa	DH42
19	Abdul Rahman Bin Mohd Khaidzir	DH34

PROGRAM KEJ. MEKANIKAL PLASTIK(DMK)		
1	**Azunaidi Bin Abdul Aziz (KP)**	DH44
2	Azimah Binti Ismail	DH48
3	Nor Mahani Binti Md Rasidi	DH48
4	Riduwan Bin Zakaria	DH48
5	Wan Aziz Bin Wan Abd Kadir	DH48
6	Ahmad Fahmi Bin Fadzil	DH44
7	Mahdir Bin Abdullah	DH44
8	Mohd Hairol Mizzam Bin Haris	DH44
9	Noor Ikhsan Bin Mohd Jamil	DH44
10	Suzana Binti Shafie	DH44
11	Azora Binti Jaafar	DH41
12	Jefri Bin Hanafiah	DH41
13	Ku Nasharudin Bin Ku Ismail	DH41
14	Mohd Alfathi Bin Md Udin	DH41
15	Siti Rohanah Binti Murad	DH41
16	Zulkifli Bin Hamzah	DH41
17	Muhammad Izzuddin Bin Mohd Yusoff	DH34
18	Mohd Nubli Bin Ahmat	DH34

STAF SOKONGAN		
PEMBANTU MAKMAL		
1	Ishak Bin Man	C17
2	Norizan Binti Md Isa	C17
3	Norazaimi Binti Ramli	C17
PENOLONG JURUTERA		
1	Mohamad Taufik Bin A.Rahman	JA29
PEMBANTU OPERASI		
1	Mohd Padzri Bin Bakar	N11

6.2 PROGRAMME MECHANICAL ENGINEERING (PLASTIC) LECTURERS

No.	Name	Designation	Contact No.	E-mail
1.	AZUNAIDI B. ABDUL AZIZ	Head Of Programme	04-914 6100 ex 6226	azu9657@gmail.com
2.	AZIMAH BT. ISMAIL	Lecturer	04-914 6100 ex 6226	azimahpolimer@gmail.com
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4.	RIDUWAN B. ZAKARIA	Lecturer	04-914 6100 ex 6226	onekck@gmail.com
5.	WAN ABDUL AZIZ B. WAN ABDUL KADIR	Lecturer	04-914 6100 ex 6226	wanaziz@gmail.com
6.	AHMAD FAHMI B. FADZIL	Lecturer	04-914 6100 ex 6226	ahmadfahmi@polimas.edu.my
7.	MAHDIR B. ABDULLAH	Lecturer	04-914 6100 ex 6226	mahdirabdullah@yahoo.com
8.	MOHD HAIROL MIZZAM B. HARIS	Lecturer	04-914 6100 ex 6226	mizzam@polimas.edu.my
9.	NOOR IKHSAN BIN MOHD. JAMIL	Lecturer	04-914 6100 ex 6226	nikeair1979@yahoo.com
10.	SUZANA BINTI SHAFEI	Lecturer	04-914 6100 ex 6226	hirosezana@yahoo.com
11.	AZORA BT. JAAFAR	Lecturer	04-914 6100 ex 6226	azorajaafar@yahoo.com
12.	JEFRI BIN HANAFIAH	Lecturer	04-914 6100 ex 6226	jefri@polimas.edu.my
13.	KU NASHARUDIN B. KU ISMAIL	Lecturer	04-914 6100 ex 6226	farnash72@ gmail.com
14.	MOHD ALFATHI B. MAT UDIN	Lecturer	04-914 6100 ex 6226	alfathi75@yahoo.com
15.	SITI ROHANAH BT. MURAD	Lecturer	04-914 6100 ex 6244	ctrohanah@gmail.com
16.	ZULKIFLI BIN HAMZAH	Lecturer	04-914 6100 ex 6226	kfl_zul@yahoo.com
17.	MOHD NUBLI B. AHMAT	Lecturer	04-914 6100 ex 6226	ali2live82@gmail.com
18.	MUHAMMAD IZUDDIN B. MOHD YUSOFF	Lecturer	04-914 6100 ex 6226	Izzuddin_jkm@yahoo.com

6.3 PROGRAMME DIPLOMA IN MECHANICAL ENGINEERING (PLASTIC)-DMK

6.3.1 PROGRAMME OVERVIEW

SYNOPSIS

Diploma in Mechanical Engineering (Plastic) for Polytechnic is developed to give balanced emphasis on theoretical and practical aspects. The programme will take 6 semesters to complete, relatively 5 academic semesters at their respective Polytechnics and 1 semester of industrial training at relevant industries during the final semester. The programme is designed to cover the current wide discipline of mechanical engineering with added specialization in the area of plastic. Our graduate from this programme will have the knowledge, technical skills, entrepreneurship and attitude to adapt themselves with new technological advancement and challenges in the mechanical and plastic engineering field.

6.3.2 JOB PROSPECT

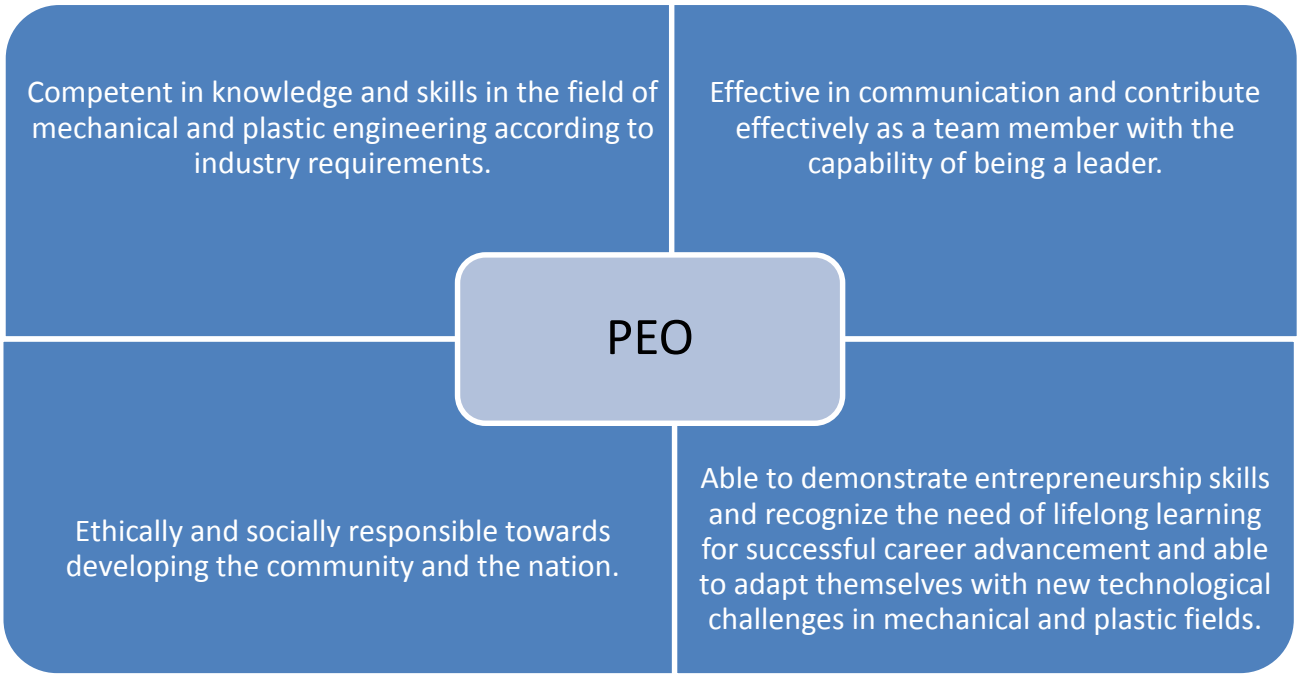
This programme provides the knowledge and skills in Mechanical Engineering field that can be applied to a broad range of careers in Mechanical Engineering. The knowledge and skills that the students acquire from the programme will enable them to participate in the job market as:

i. Technical Assistant
ii. Assistant Service Manager
iii. Service Advisor
iv. Supervisor
v. Assistant Engineer
vi. Technician
vii. Technical Instructor
viii. Technical Sales Executive

6.3.3 PROGRAMME AIMS

Graduates of Diploma in Mechanical Engineering (Plastic) programme in Malaysian Polytechnic will have knowledge, skills and attitude that will allow them to make tangible contributions and meet new technical challenges. They will possess entrepreneurial skills, practice good work ethics, be able to promote good moral and behaviour, and continuously enhance their knowledge and skills. The graduates will communicate and interact responsibly and be able to contribute effectively as a team member. They will also be adaptable to new changes at the workplace.

6.3.4 PROGRAMME EDUCATIONAL OBJECTIVES (PEO)



6.3.5 PROGRAM LEARNING OUTCOMES (PLO)

Upon completion of the programme, the graduates should be able to:

PLO 1	•apply knowledge of mathematics, science and engineering fundamentals to well defined mechanical engineering procedures and practices with specialisation in plastic.
PLO 2	•analyse well-defined mechanical engineering specializing in plastic problems with respect to operation and maintenance, including troubleshooting.
PLO 3	•conduct investigations and assist in the design of solutions for mechanical specializing in plastic engineering systems.
PLO 4	•apply appropriate techniques, resources, and engineering tools to well-defined mechanical specializing in plastic engineering activities, with an awareness of the limitations.
PLO 5	•demonstrate an awareness and consideration for societal, health, safety, legal and cultural issues and their consequent responsibilities.
PLO 6	•communicate effectively with the engineering community and society at large.
PLO 7	•function effectively as an individual and as a member in diverse technical teams.
PLO 8	•demonstrate an understanding of professional ethics, responsibilities and norms of engineering practices.
PLO 9	•demonstrate an awareness of management and entrepreneurship.
PLO 10	•demonstrate an understanding of the impact of engineering practices, taking into account the needs for sustainable development.
PLO 11	•recognise the needs for professional development and to engage in independent and lifelong learning.

6.3.6 PROGRAMME STURUCTURE FOR DIPLOMA IN MECHANICAL ENGINEERING (PLASTIC)

COURSE CODE							COURSE	SEMESTER 1				SEMESTER 2				SEMESTER 3				SEMESTER 4				SEMESTER 5				S6
	L1	L2	L3	L4	L5	L6		L	P	T	C	L	P	T	C	L	P	T	C	L	P	T	C	L	P	T	C	
							COMPULSORY																					
DUB	1012						Pengajian Malaysia	1	0	2	2																	
DUB		2012					Nilai Masyarakat Malaysia **					1	0	2	2													
DUE	1012		3012		5012		Communicative English 1, 2 & 3	1	0	2	2					1	0	2	2					1	0	2	2	
DRB	1XX0						Asas Unit Beruniform																					
DRB		2XX1					Unit Beruniform 1																					
DUA		2012					Sains, Teknologi dan Kejuruteraan Islam *					1	0	2	2													
DUA						6022	Komunikasi dan Penyiaran Islam																	1	0	2	2	
DRS		2XX1					Sukan					0	2	0	1													
DRK			3XX2				Kelab/Persatuan									0	4	0	2									
							TOTAL	2	0	4	4	1	2	2	3	1	4	2	4	0	0	0	0	2	0	4	4	
							COMMON CORE																					
DUW	1012						Occupational, Safety and Health	2	0	0	2																	
DBM	1013	2013	3013				Engineering Mathematics 1, 2 & 3	2	0	2	3	2	0	2	3	2	0	2	3									
DBS	1012						Engineering Science	2	1	0	2																	
DPB		2012					Entrepreneurship																	2	1	0	2	
							TOTAL	6	1	2	7	2	0	2	3	2	0	2	3	0	0	0	0	2	1	0	2	
							DISCIPLINE CORE																					
DJJ	1012						Engineering Drawing	1	2	0	2																	
DJJ	1032						Mechanical Workshop Practice 1	0	4	0	2																	
DJJ	1043						Workshop Technology	3	0	0	3																	
DJJ		2022					Electrical Technology					2	2	0	2													
DJJ		2062					Computer Aided Design 1					1	2	0	2													
DJJ			3213				Material Science					2	2	0	3													
DJJ			3053				Engineering Mechanics									2	2	0	3									
DJJ		2073					Thermodynamics									2	2	0	3									
DJJ		2093					Fluid Mechanics													2	2	0	3					
DJJ			3103				Strength Of Materials													2	2	0	3					
DJJ					5123		Pneumatic & Hydraulics													2	2	0	3					
							TOTAL	4	6	0	7	5	6	0	7	4	4	0	6	6	6	0	9	0	0	0	0	
							SPECIALIZED CORE																					
DJC		2013					Plastic Technology					3	0	0	3													
DJC		2022					Machining Workshop Practice					0	4	0	2													
DJC			3032				Plastic Workshop Practice									0	4	0	2									
DJC			3043				Plastic Production Process									3	0	0	3									
DJC					5141		Project 1													1	0	0	1					
DJC				4053			Product Design & CAE Modeling													2	2	0	3					
DJC						6143	Project 2																	0	4	0	3	
DJC					5063		Plastic Testing																	1	3	0	3	
DJC					5073		Mould Design																	2	2	0	3	
							TOTAL	0	0	0	0	3	4	0	5	3	4	0	5	3	2	0	4	3	9	0	9	
							ELECTIVE																					
DJJ					5062		Computer Aided Design2													1	2	0	2					
DJJ					5172		Instrumentation & Control													1	2	0	2					
DJM					5092		Control System													2	1	0	2					
DJM	1022						C Programming													1	3	0	2					
DJM			3072				Programmable Logic Controller													1	2	0	2					
DJF						6102	Quality Control																	2	0	0	2	
DJJ						6202	Diagnosis & Troubleshooting For Mechanical Component																	1	2	0	2	
DJJ						6182	Engineering Plant Technology																	2	0	0	2	
DJJ						6192	Industrial Management																	2	0	0	2	
DUA						6042	Tamadun Islam																	1	0	2	2	
DUA						6012	Integrasi Malaysia																	1	0	2	2	
DBC		2012			2012		Computer Aplication																	1	2	0	2	
							TOTAL													1	2	0	2	2	0	0	2	
							GRAND TOTAL	12	7	6	18	11	12	4	18	10	12	4	18	10	10	0	15	9	10	4	17	10
							CONTACT HOURS/ CREDIT	25			18	27			18	26			18	20			15	23			17	10
							TOTAL CREDIT	96																				

DUT40110 - INDUSTRIAL TRAINING

	TOTAL CREDIT	%
i. Compulsory	15	16%
ii. Common Core	15	16%
iii. Discipline Core	29	30%
iv. Specialized Core	23	24%
iv. Elective	4	4%
v. Industrial Training	10	10%
TOTAL CREDIT	**96**	**100%**

	TOTAL	%
i. Lecture	52	43
ii. Practical (Practical+Tutorial)	69	57
iii. Contact Hours	121	-

Legend / Notes:
L : Lecture, **P** : Practical/Lab, **T** : Tutorial, **C** : Credit
(The numbers indicated under L, P & T represent the contact hours per week, to be used as a guide for time table

* For Muslim Students
** For Non Muslim Students
*** Students are required to complete a minimum of four credits of elective course

For Co-curriculum,
1. Path 1 : Sport and Club
2. Path 2 : Uniform Unit

Uniform Unit (Students who choose Uniform Unit are required to complete 5 modules for commisioning)
1. DRB1XX0 (Asas Unit Beruniform) is a prerequisite to DRB2xx1 (Unit Beruniform 1)

6.3.7 SYNOPSIS AND COURSE LEARNING OUTCOMES (CLO)

SEM	COURSE	SYNOPSIS	COURSE LEARNING OUTCOMES (CLO)
1.	**DUB1012 PENGAJIAN MALAYSIA**	**PENGAJIAN MALAYSIA** memupuk penghayatan ke arah melahirkan generasi yang cintakan negara. Kursus ini juga dapat mendidik kelompok masyarakat yang mempunyai daya juang yang tinggi dan mampu menghadapi cabaran di peringkat antarabangsa. Kursus ini memberi penghayatan tentang sejarah dan politik, perlembagaan Malaysia, kemasyarakatan dan perpaduan, pembangunan negara dan isu-isu keprihatinan negara. Objektif kursus ini adalah untuk melahirkan warganegara yang setia dan cintakan negara, berwawasan serta bangga menjadi rakyat Malaysia. KREDIT: 2 PRASYARAT: TIADA	1. Menerangkan dengan baik sejarah bangsa dan negara. (C2, LD1) 2. Menjelaskan Perlembagaan Malaysia dan sistem pemerintahan negara. (C2, LD1) 3. Melaksanakan aktiviti berkaitan kenegaraan ke arah peningkatan patriotisme pelajar. (C3, LD1 : A3,LD6)
	DUE1012 COMMUNICATIVE ENGLISH 1	**COMMUNICATIVE ENGLISH 1** focuses on developing students' speaking skills to enable them to communicate effectively and confidently in group discussions and in a variety of social interactions. It is designed to provide students with appropriate reading skills to comprehend a variety of texts. It is also aimed to equip students with effective presentation skills. CREDIT(S): 2 PRE-REQUISITE(S): NONE	1. Apply appropriate language and communication skills in discussions and conversations. (C3) 2. Apply effective listening skills to demonstrate comprehension of audio recordings in a variety of situations. (C3) 3. Comprehend a variety of reading texts by applying effective reading skills. (C2) 4. Write in response to a stimulus using appropriate language. (C3) 5. Deliver an effective presentation using appropriate visual aids, verbal and non-verbal communication skills.(C3, A3)

SEM	COURSE	SYNOPSIS	COURSE LEARNING OUTCOMES (CLO)
	DUW1012 OCCUPATIONAL, SAFETY AND HEALTH	**OCCUPATIONAL SAFETY AND HEALTH** course is designed to impart understanding of the self-regulatory concepts and provisions under the Occupational Safety & Health Act (OSHA). This course presents the responsibilities of employers and employees in implementing and complying with the safety procedures at work. This course provide an understanding of the key issues in OSH management, incident prevention, Emergency Preparedness and Response (EPR), fire safety, occupational first aid, Hazard Identification, Risk Assessment and Risk Control (HIRARC) and guide the students gradually into this multi-disciplinary science. CREDIT(S): 2 PRE-REQUISITE(S): NONE	1. Identify the OSH legislation and its compliance in Malaysia. (C2, LD1) 2. Explain briefly incident hazards, risks and safe work practices in order to maintain health and safe work environment. (C2, LD1) 3. Discuss cooperatively in responding to an accident action at workplace. (C3,LD1; A2,LD4) 4. Adhere to the safety procedures in respective fields. (A3, LD8)
	DBM1013 ENGINEERING MATHEMATICS 1	**ENGINEERING MATHEMATICS 1** expose students to the basic algebra including perform partial fractions. This course also exposes the concept of trigonometry and the method to solve trigonometry problems by using basic identities, compound angle and double angle formulae. Students also will be introduced to the theory of complex number and matrices method to solve simultaneous equation. This course also introduces students to concept of vector and scalar. CREDIT(S): 3 PRE-REQUISITE(S): NONE	1. Identify mathematical methods in solving the mathematical problems. (C2, LD1) 2. Solve the mathematical problems by using appropriate techniques and solutions. (C3, LD1) 3. Practice mathematical knowledge and skills in different mathematics problem. (C3, LD1)
	DBS1012 ENGINEERING SCIENCE	**ENGINEERING SCIENCE** is an applied science with theoretical concepts and practical learning sessions that can be applied in the engineering fields. This course focuses on the Physical Quantities, Measurement, Linear Motion, Force, Work, Energy, Power, Solid, Fluid, Temperature and Heat. CREDIT(S): 2 PRE-REQUISITE(S): NONE	1. Solve the basic engineering science problems by using related concept. (C3, LD1) 2. Organise an appropriate experiments to prove related physic principles. (P3, LD2) 3. Apply related physic principles in various situations to enhance knowledge. (C3, LD1)

SEM	COURSE	SYNOPSIS	COURSE LEARNING OUTCOMES (CLO)
	DJJ1012 ENGINEERING DRAWING	The **ENGINEERING DRAWING** course provides the students with the fundamentals of engineering drawings. It emphasizes on the practical knowledge of drawing instruments and drawing techniques that will be applied in workshop practical activities and in Computer Aided Design courses. CREDIT(S): 2 PRE-REQUISITE(S): NONE	1. Apply the basic fundamentals of engineering drawing in comply to related problems. (C3, PLO1) 2. Construct engineering drawings according to the required standards. (P4, PLO 4) 3. Demonstrate the understanding of engineering norms and practices in engineering drawing. (A3, PLO 8)
	DJJ1032 MECHANICAL WORKSHOP PRACTICE 1	**MECHANICAL WORKSHOP PRACTICE 1** exposes the students to welding, machining and fitting which involve the use of arc and gas welding machine, lathe machine, drilling machine, grinding, hand tools, marking out tools, measuring and testing tools. Students are also taught to emphasize on safety procedures and cleanliness in the workshop. CREDIT(S): 2 PRE-REQUISITE(S): NONE	1. Perform fitting , machining and welding works according to Standard Operating Procedure (SOP). (P4, PLO4) 2. Demonstrate the awareness of social responsibility and safety in practical work procedures and practices. (A3, PLO5) 3. Demonstrate an understanding of professional ethics, responsibilities and norms of engineering practices according to the workshop safety regulation. (A3, PLO8)
	DJJ1043 WORKSHOP TECHNOLOGY	**WORKSHOP TECHNOLOGY** provides exposure and knowledge in using hand tools, machine operation such as drilling, lathe, milling and computer numerical control. It also covers on gear measurement and inspection welding process in oxy acetylene, Shielded Metal Arc Welding (SMAW), Gas Tungsten Arc Welding (GTAW) and Gas Metal Arc Welding (GMAW). CREDIT(S): 3 PRE-REQUISITE(S): NONE	1. Apply the knowledge of basic mechanical components and equipment, hand tools and measuring equipment in workshop technology. (C3, PLO1) 2. Analyze the types of the removal and joining process in mechanical engineering. (C4, PLO2) 3. Demonstrate continuous learning and information management skills while engaging in the new knowledge and skills to develop report and presentation. (A3, PLO11)
2.	**DUA2012 SAINS, TEKNOLOGI DAN KEJURUTERAAN ISLAM**	**SAINS, TEKNOLOGI DAN KEJURUTERAAN DALAM ISLAM** memberi pengetahuan tentang konsep Islam sebagai al-Din dan seterusnya membincangkan konsep sains, teknologi dan kejuruteraan dalam Islam serta impaknya, pencapaiannya dalam tamadun Islam, prinsip serta peranan syariah dan etika Islam, peranan kaedah fiqh serta aplikasinya. KREDIT: 2 PRASYARAT: TIADA	1. Menghuraikan konsep Islam sebagai cara hidup. (C2, LD1 : P2, LD2) 2. Menjelaskan konsep sains, teknologi dan kejuruteraan dalam Islam. (C2, LD1) 3. Membincangkan prinsip syariah dan kaedah fiqh dalam sains, teknologi dan kejuruteraan. (C3, LD1 : A3, LD6)

SEM	COURSE	SYNOPSIS	COURSE LEARNING OUTCOMES (CLO)
	DUB2012 NILAI MASYARAKAT MALAYSIA	**NILAI MASYARAKAT MALAYSIA** membincangkan aspek sejarah pembentukan masyarakat Malaysia, nilai-nilai agama serta adat resam dan budaya masyarakat majmuk. Selain itu, pelajar diberi kefahaman mengenai tanggungjawab individu dalam kehidupan dan cabaran-cabaran dalam membangunkan masyarakat Malaysia. KREDIT: 2 PRASYARAT: TIADA	1. Menerangkan sejarah pembentukan masyarakat dan nilai agama di Malaysia. (C2 : LD1) 2. Menghubung kait tanggungjawab individu dalam kehidupan masyarakat dan negara. (C3 : LD1, A2 : LD5) 3. Membincangkan cabaran-cabaran dalam membangunkan masyarakat Malaysia. (C3 : LD1, A3 : LD6)
	DBM2013 ENGINEERING MATHEMATICS 2	**ENGINEERING MATHEMATICS 2** exposes students to the basic laws of exponents and logarithms. This course also introduces the basic rules of differentiation concept to solve problems that relate maximum, minimum and calculate the rates of changes. This course also discuss integration concept in order to strengthen student knowledge for solving area and volume bounded region problems. In addition, students also will learn application of both techniques of differentiation and integration. CREDIT(S): 3 PRE-REQUISITE(S): NONE	1. Solve the mathematical problems by using appropriate mathematical techniques and solutions. (C3, LD1) 2. Show the solution for differentiation and integration problem by using appropriate method. (C3, LD1) 3. Practice mathematical knowledge and skills in different mathematics problem. (C3, LD1)
	DJJ2022 ELECTRICAL TECHNOLOGY	**ELECTRICAL TECHNOLOGY** exposes students to the basic electrical circuit concepts, the application of electromagnetism in electrical machines and transformers. The course focuses on the different types of electrical circuits, the relationship between current and voltage including the resistance. It also provides the skills on the methods of constructing basic circuits and operation of electrical machines and transformers. This course also exposes the students to the demonstration of experiments in Electrical Technology. CREDIT(S): 2 PRE-REQUISITE(S): NONE	1. Explain the principles of electrical circuits, electromagnetism, transformers and electrical machines to solve related problems. (C4,PLO2) 2. Organize appropriately experiments in groups according to the Standard Operating Procedures. (P4,PLO4) 3. Demonstrate continuous learning and information management skills while engaging in independent acquisition of new knowledge and skills in laboratory report. (A3,PLO11)

SEM	COURSE	SYNOPSIS	COURSE LEARNING OUTCOMES (CLO)
	DJJ2062 COMPUTER AIDED DESIGN 1	**COMPUTER AIDED DESIGN 1** provides a comprehensive introduction to Computer-Aided Design software. It is an introductory level where the students will learn to navigate and use the software to create two-dimensional design in engineering. Students shall be able to demonstrate competency in using some standard available features of a CAD application to create and manipulate objects or elements and to modify them. They should be able to change object properties and to undertake printing or plotting activity associated with the delivery outputs. In addition, students are required to use some advanced features of CAD software, such as inserting objects from other applications. CREDIT(S): 2 PRE-REQUISITE(S): NONE	1. Apply the fundamental features of CAD software in producing engineering drawing. (C3, PLO 1) 2. Construct 2D drawing using fundamental features of CAD software. (P4, PLO 4) 3. Demonstrate continuous learning and information management skill while engaging in independent acquisition of new knowledge and skill to solve assigned task. (A3, PLO 11)
	DJJ3213 MATERIAL SCIENCE	**MATERIAL SCIENCE** provides students with an understanding of material science and engineering which emphasizes on atomic and crystal structure, material properties and behaviour including material classification and its application in the engineering field. The topic also covers the processes of metal work used to produce engineering components and apply basic principles of material testing and processing through practical. CREDIT(S): 3 PRE-REQUISITE(S): NONE	1. Explain the fundamental of material science including identification of various types of materials, mechanical behavior, metal production processes, and various principles of material testing. (C3, PLO1) 2. Perform experiments related to material science and engineering based on standard operating procedure. (P4, PLO4) 3. Demonstrate ability to work in team to complete assigned tasks during practical work sessions. (A3, PLO7)
	DJC2013 PLASTIC TECHNOLOGY	**PLASTIC TECHNOLOGY** focuses on theoretical knowledge on the basic plastic and organic materials that is related to its properties. It is also provides knowledge on the process involved in the resin manufacturing. This course will also give knowledge about reinforcing of plastics and the methods involved. The use of plastic technology in the important industries such as in packaging industry, aeronautical, construction and engineering industry will be discussed as well as the economy aspects of plastics. This course also touches about the environmental aspects of plastics which emphasize how plastic is recycled and the methods of disposing plastic wastes.	1. Explain types of plastics and the methods of producing plastic raw materials. (C2, PLO1) 2. Distinguish which type of plastics resin can be used related to product that is going to be manufactured. (C4, PLO3) 3. Demonstrate understanding the uses of plastic technology in various major industries and have good consideration in environmental aspects of plastic in assigned topic for case study. (A3, PLO8)

SEM	COURSE	SYNOPSIS	COURSE LEARNING OUTCOMES (CLO)
		CREDIT(S): 3 PRE-REQUISITE(S): NONE	
	DJC2022 MACHINING WORKSHOP PRACTICE	**MACHINING WORKSHOP PRACTICE** covers the basic metrologies and machining. Student will learn the application of measuring and gauging, conventional and Computer Numerical Control (CNC) machines. This course also provides the skills to carry out project work. CREDIT(S): 2 PRE-REQUISITE(S): NONE	1. Display ability of using instrument and take the right reading in measuring. (P4,PLO 4) 2. Display ability of operate conventional and CNC machines according to Standard Operational Procedure (SOP). (P4,PLO4) 3. Demonstrate continuous learning and information management skill while engaging in dependent acquisition of new knowledge and skill to develop a project. (A3, PLO11)
3.	**DUE3012 COMMUNICATIVE ENGLISH 2**	**COMMUNICATIVE ENGLISH 2** emphasises the skills required at the workplace to describe products or services as well as processes or procedures. It also focuses on the skills to give and respond to instructions. This course will also enable students to make and reply to enquiries and complaints. CREDIT(S): 2 PRE-REQUISITE(S): DUE1012 COMMUNICATIVE ENGLISH 1	1. Describe products or services related to their field of studies using appropriate language. (C3, A3) 2. Transfer information of a process or procedure accurately from linear to non-linear form and vice versa. (C3) 3. Listen and respond to enquiries using appropriate language. (C3) 4. Make and respond to complaints using appropriate language. (C3)
	DBM3013 ENGINEERING MATHEMATICS 3	**ENGINEERING MATHEMATICS 3** exposes students to the statistical and probability concepts and their applications in interpreting data. The course also introduces numerical methods concept to solve simultaneous equations by using Gaussian Elimination method, LU Decomposition using Doolittle and Crout methods, polynomial problems using Simple Fixed Point Iteration and Newton-Raphson methods. In additional, the course also discusses optimization problems by using Linear Programming. In order to strengthen the students in solving advanced engineering problems, Ordinary Differential Equation (ODE) is also included. CREDIT(S): 3 PRE-REQUISITE(S): DBM2013 ENGINEERING MATHEMATICS 2	1. Solve the mathematical problems by using appropriate techniques and solutions. (C3, LD1) 2. Show the solution for statistics and probability problems, and linear programming by using appropriate mathematical methods. (C3, LD1) 3. Practice mathematical knowledge and skills in different mathematical problem. (C3, LD1)

SEM	COURSE	SYNOPSIS	COURSE LEARNING OUTCOMES (CLO)
	DJJ3053 ENGINEERING MECHANICS	**ENGINEERING MECHANICS** focuses on theoretical knowledge in statics and dynamics. This course provides students with fundamental understanding of forces and equilibrium, resultants, equilibrium of a particles and structural analysis. This course also covers kinematics and kinetics of particles. This course also exposes the students to the demonstration of experiments in Engineering Mechanics. CREDIT(S): 3 PRE-REQUISITE(S): NONE	1. Analyze problems related to statics and dynamics based on the concept and principles of engineering mechanics and data from the experiments in relation to the theoretical aspects. (C4, PLO2) 2. Organize appropriately experiments in groups according to the Standard Operating Procedures. (P4, PLO4) 3. Demonstrate ability to work in team to complete assigned tasks during practical work sessions. (A3, PLO7)
	DJJ2073 THERMODYNAMICS	**THERMODYNAMICS** provides knowledge of theory, concept and application of principles to solve problems related to thermodynamics. It emphasizes on concept of non-flow process and flow process, properties of steam, Carnot cycle and Rankine cycle. This course also exposes the students of the experiments in Thermodynamics applications. CREDIT(S): 3 PRE-REQUISITE(S): NONE	1. Apply the fundamentals of thermodynamics to solve related problems. (C3,PLO1) 2. Organize appropriately experiments in groups according to the Standard Operating Procedures. (P4) 3. Demonstrate the ability to work in team to complete assigned tasks. (A3)
	DJC3032 PLASTIC WORKSHOP PRACTICE	**PLASTIC WORKSHOP PRACTICE** provides knowledge in handling the common plastic production machines with correct procedures. The course emphasis on skills in start-up, shut down, operation and parameter setting the Injection Molding, Blow Molding, Extrusion machines, Compression Molding and Thermoforming machine by correctly and efficiently. It also gives knowledge on parts of machines and skill to carry out service and maintenance of machine tooling. CREDIT(S): 2 PRE–REQUISITE(S): NONE	1. Apply the concept of process to classify the types of plastic production correctly. (C3, PLO1) 2. Adapt knowledge and skill to operate and troubleshoot the machine or equipment base on Standard Operational Procedure (SOP). (P3, PLO4) 3. Identify the defect problems on plastic products correctly in group. (A1, PLO7)

SEM	COURSE	SYNOPSIS	COURSE LEARNING OUTCOMES (CLO)
	DJC3043 PLASTIC PRODUCTION PROCESS	**PLASTIC PRODUCTION PROCESS** is divided into two parts: Part 1 provides the main plastics molding process such as injection moulding, blow moulding, blown film, extrusion, compression moulding, transfer moulding and thermoforming. While parts two is about the other plastic moulding process and secondary process consists of plastic fabrication process and printing process such as hot stamping process, silk screen printing and pad printing. CREDIT(S): 3 PRE-REQUISITE(S): NONE	1. Explain the plastic production methods related to plastic products. (C2, PLO1) 2. Sketch the appropriate production processes related to the plastic products according to the correct method. (C3, PLO3) 3. Discuss the theory of plastic production process to solve actual plastic engineering problems in groups. (A2, PLO7)
4.	**DJJ2093 FLUID MECHANICS**	**FLUID MECHANICS** provides the fundamentals of fluid mechanics principles related to the fluid properties and behaviour in static and dynamic situations. This course also exposes the experiments in fluids mechanics applications. CREDIT(S) : 3 PRE-REQUISITE: NONE	1. Analyze problems related to the fluid mechanics and data from the experiments in relation to the theoretical aspects. (C4, PLO2) 2. Organize appropriately experiments in groups according to the Standard Operating Procedures. (P4, PLO4) 3. Demonstrate team work skill in assigned task. (A3, PLO7)
	DJJ3103 STRENGTH OF MATERIALS	**STRENGTH OF MATERIALS** provides knowledge on concepts and calculation of forces on materials, thermal stress, shear force and bending moment, bending stress, shear stress and torsion in shafts. It also deals with the experiments conducted on tensile test, bending moment, shearing force and torsion and deflection. CREDIT(S): 3 PRE-REQUISITE(S) : NONE	1. Analyze problems related to strength of materials and data from the experiments in relation to the theoretical aspects. (C4, PLO2) 2. Organize appropriately experiments in groups according to the Standard Operating Procedures. (P4, PLO4) 3. Demonstrate ability to work in team to complete assigned tasks during practical work sessions. (A3, PLO7)
	DJJ5123 PNEUMATIC & HYDRAULICS	**PNEUMATICS & HYDRAULICS** provides knowledge and understanding to the importance of pneumatics and hydraulics circuits, equipment and design along with its usage in the industry. CREDIT(S): 3 PRE-REQUISITE(S): NONE	1. Analyze the basic concept and function of pneumatics and hydraulics system. (C4,PLO2) 2. Construct pneumatic, electro-pneumatic and hydraulic circuit according to assigned tasks. (C5, PLO3 & P4, PLO4) 3. Demonstrate understanding of engineering norm and practices in pneumatics and hydraulics during practical work sessions. (A3, PLO8)

SEM	COURSE	SYNOPSIS	COURSE LEARNING OUTCOMES (CLO)
	DJJ5141 **PROJECT 1**	**PROJECT 1** provides students with solid foundation on knowledge and skills in preparing project proposal, writing and presentation of proposal. CREDIT(S): 1 PRE-REQUISITE(S): NONE	1. Organize research or project systematically. (C5) 2. Demonstrate good communication skill of oral presentation in group. (A3) 3. Demonstrate continuous learning and information management skills while engaging in independent acquisition of new knowledge and skill to develop a project. (A3)
	DJC4053 **PRODUCT DESIGN & CAE MODELING**	**PRODUCT DESIGN & CAE MODELING** provides knowledge about the design management, design process and the activities involved in the process of designing product. The emphasis of this course is on the principles of design and produce 3D CAD design of plastic product. This course also provides knowledge about analysis of product design and injection molding process using CAE software. Experience will be gained in producing a model of product and mock-up mould. This course also provides knowledge about the important of Intellectual Properties (IP) to a product designed. CREDIT(S): 3 PRE-REQUISITE(S): NONE	1. Explains the principles of plastic product design and production of plastic product using CAD. (C2, PLO1) 2. Design the plastic product according to the principles of plastic design and analysis using CAE software. (P6, PLO4) 3. Adapt the appropriate design principle and technique to develop a new or improve an existing plastic products design and produce a product model. (P7, PLO8)
	DJJ5062 COMPUTER AIDED DESIGN2 (ELECTIVE)	**COMPUTER AIDED DESIGN 2** exposes the students to learn the fundamental principles of 3D parametric part design and production-ready part drawings using 3D CAD software. Students will know the various method of creating a solid model using extrude, revolve, swept, assembly, simulation and animation. Hands-on exercises representing real-world, industry-specific design of mechanical engineering will also be covered in this course. CREDIT(S): 2 PRE-REQUISITE(S): DJJ2062 COMPUTER AIDED DESIGN 1	1. Apply the function of CAD commands in producing engineering drawing. (C3, PLO1) 2. Create drawing of mechanical component in 3D according to drawing standard. (P3, PLO2) 3. Demonstrate good written communication skill in group project report. (A3, PLO6)

SEM	COURSE	SYNOPSIS	COURSE LEARNING OUTCOMES (CLO)
	DJJ5172 INSTRUMENTATION & CONTROL (ELECTIVE)	**INSTRUMENTATION & CONTROL** exposes the students to the basic principles in control system and its usage in industrial sector is the main focus in this course. Instrumentation and control also provide knowledge to the students in components measurement in control systems that are normally used in industries. CREDIT(S): 2 PRE-REQUISITE(S): NONE	1. Apply the concepts of instrumentation and measurement systems in engineering. (C4, PLO2) 2. Analyze the concepts of instrumentation and measurement systems in engineering. (C5,PLO3) 3. Organize the experiment of the instruments and control system. (P5,PLO4) 4. Demonstrate good written communication skill in lab report on assigned topics. (A3, PLO6)
5.	**DUA6022 KOMUNIKASI DAN PENYIARAN ISLAM**	**KOMUNIKASI DAN PENYIARAN ISLAM** memfokuskan kepada penguasaan konsep, kemahiran komunikasi dan penyiaran islam bagi meningkatkan kefahaman pelajar secara holistik terhadap kursus ini. KREDIT: 2 PRASYARAT: TIADA	1. Menjelaskan konsep, bentuk komunikasi dan hubungannya dalam Islam. (C2 : LD1) 2. Menunjukkan kemahiran pengurusan komunikasi dalam bidang penyiaran Islam. (C3, A4 : LD1, LD5) 3. Menghubung kait isu-isu semasa dalam komunikasi dan penyiaran Islam. (C3, A3 : LD1, LD6)
	DUE5012 COMMUNICATIVE ENGLISH 3	**COMMUNICATIVE ENGLISH 3** aims to develop the necessary skills in students to analyse and interpret graphs and charts from data collected as well as job hunting mechanics. Students will learn to present data through the use of graphs and charts. Students will learn the process of job hunting which includes job search strategies and making enquiries. They will also learn to write resumes and cover letters. The students will develop skills to introduce themselves, highlight their strengths and abilities, present ideas, express opinions and respond appropriately during job interviews. CREDIT(S): 2 PRE-REQUISITE(S): DUE3012 COMMUNICATIVE ENGLISH 2	1. Describe and analyze information contained in graphs and charts clearly and accurately based on a mini project. (C4, A3) 2. Write an effective resume and a supporting cover letter for a relevant job opening. (C3) 3. Handle a job interview effectively and confidently. (C3)
	DPB2012 ENTREPRENEURSHIP	**ENTREPRENEURSHIP** focuses the principles and concept of entrepreneurship. This course concentrates on the systematic methods of getting business ideas. This course also prepares students on conducting online business using social media marketing. It also emphasizes a preparation of business	1. Explain clearly the concept of entrepreneurship and process of developing an effective business.(C2, LD1) 2. Prepare completely a business plan according to standard format. (P2,LD2) 3. Build the online business presence using the social media marketing. (P3,LD2) (A4, LD7)

SEM	COURSE	SYNOPSIS	COURSE LEARNING OUTCOMES (CLO)
		plan and developing their entrepreneurial skills. CREDIT(S): 2 PRE-REQUISITE(S): NONE	
	DJJ6143 **PROJECT 2**	**PROJECT 2** introduces the students to the concepts of conducting a design or case study. The students select a project, list the project's needs, the processes involved, cost estimation, project schedule by applying appropriate methodology in the project planning. It also involves project implementation, project report and presentation. CREDIT(S): 3 PRE-REQUISITE(S): DJJ5141 PROJECT 1	1. Develop creative solution to solve the problems in the project design or case study. (C5) 2. Organize the selected design or case study based on the project planning. (P5) 3. Demonstrate good communication skills of presentation in group. (A3) 4. Demonstrate ability to lead a team to complete assigned project during practical work sessions. (A3) 5. Demonstrate awareness of management, business practices and entrepreneurship related to product of project. (A3) 6. Demonstrate awareness of social responsibility in practical work procedure and practices. (A3)
	DJC5063 PLASTIC TESTING	**PLASTIC MATERIALS TESTING** exposes the various test methods carried out on Plastic Materials materials. This course emphasizes on the use and operation of the various Plastic Materials testing equipments. The tests include mechanical testing, physical testing, thermal testing, environmental testing, optical testing and electrical testing. CREDIT(S): 3 PRE-REQUISITE(S): NONE	1. Identify the standard and equipment used in Plastic Materials testing. (C3,PLO1) 2. Conduct various types of Plastic Materials testing independently using Standard Operation Procedure (SOP). (P4,PLO4) 3. Demonstrate ability to lead a team to complete assigned tasks during practical task sessions. (A3,PLO7)
	DJC5073 **MOULD DESIGN**	**MOLD DESIGN** provides knowledge about differences in implementation of technology over the conventional method of mold fabrication and plastic parts manufacturing, plastic product design and specification of mold. In product design it emphasis on wall thickness, draft angle, parting line, edges, webs, ribs and bosses while in mold it emphasis on mold base set, type of runner and gate, ejection system and material used for mold making. The development of mold drawing is done using CAD/CAM software. CREDIT(S): 3 PRE-REQUISITE(S): NONE	1. Describe the differences in implementation of technology over the conventional method of mold fabrication and plastic parts manufacturing. (C2, PLO1) 2. Design a new or improved the existing product and then assemble to mold base using CAD software. (P7, PLO4) 3. Demonstrate continuous learning and information management skill while engaging in independent acquisition of new knowledge and skill to develop a project. (A3, PLO11)

SEM	COURSE	SYNOPSIS	COURSE LEARNING OUTCOMES (CLO)
	DJF6102 QUALITY CONTROL (ELECTIVE)	**QUALITY CONTROL** provides knowledge on basic principle and concept of quality including statistical method in controlling products quality or services. This course also emphasises on the application of Control Chart and Quality Control tools and also explains the importance of International Standard of Quality Assurance Standard, ISO 9000 for an organization. CREDIT(S): 2 PRE-REQUISITE(S): NONE	1. Identify the standard and equipment's used in plastic material testing. (C3) 2. Conduct various types of plastic materials testing independently using Standard Operation Procedure (SOP). (P4) 3. Interpret the data and result findings in plastic materials testing. (A3)
	DJJ6202 DIAGNOSIS & TROUBLESHOOTING FOR MECHANICAL COMPONENT (ELECTIVE)	**DIAGNOSIS & TROUBLESHOOTING FOR MECHANICAL COMPONENT** are subjected to deterioration once commissioned. This deterioration may be in many forms, for example, vibration and misalignment, friction and wear, under or over lubrication. If this deterioration left uncorrected it will lead to component failure. This course provides knowledge and skills on diagnosis and troubleshooting lubrication, bearing, shaft alignment and pump. CREDIT(S): 2 PRE-REQUISITE(S): DJJ6153 MECHANICAL COMPONENTS & MAINTENANCE	1. Explain the concept of diagnosis and troubleshooting for mechanical components. (C4) 2. Solve problems related to the diagnose and troubleshoot of mechanical components. (P6) 3. Demonstrate understanding of engineering norm and practices in diagnosis and troubleshooting for mechanical components during practical work sessions. (A3)
	DJJ6182 ENGINEERING PLANT TECHNOLOGY (ELECTIVE)	**ENGINEERING PLANT TECHNOLOGY** provides an introduction to plant technology, such as steam powered plant, steam turbine, gas turbine plant, diesel power plant, compressed air plant and water pump. CREDIT(S): 2 PRE-REQUISITE(S): NONE	1. Apply the concepts and technology of power plant system to solve related problems. (C3, PLO1) 2. Construct diagrams of different types of power plants and water pumps based on its applications and functions. (C5, PLO3) 3. Demonstrate continuous learning and information management skills related to engineering plant technology. (A3, PLO11)
	DJJ6192 INDUSTRIAL MANAGEMENT (ELECTIVE)	**INDUSTRIAL MANAGEMENT** provides students with a strong fundamental understanding of industrial management prospect and production system planning such as inventory, scheduling, production system operation, facilities, plan location, layout and line balancing. This course also provides knowledge in quality control and human resource management.	1. Apply the basic concepts of industrial management system in Industry to solve related problems. (C3, PLO1) 2. Analyze problems related to industrial management. (C4, PLO2) 3. Demonstrate good written communication skills in case study on assigned topics in groups. (A3, PLO6)

SEM	COURSE	SYNOPSIS	COURSE LEARNING OUTCOMES (CLO)
		CREDIT(S): 2 PRE-REQUISITE(S): NONE	
6	DUT40110 INDUSTRIAL TRAINING	**INDUSTRIAL TRAINING** covers the basic knowledge and skills of the internship which students will undergo during the fourth semester of the Diploma program. This course provides exposure and experience to students in terms of technology literacy, effective communication, development of human capital, policies, procedures and regulations, professional perspective and reporting. This course will build enthusiasm and a proactive attitude in students and hence boost their confidence to become excellent trainees. CREDIT(S) : 10 PREREQUISITE : NONE	1. Apply the technology studied 2. Practice effective communication 3. Demonstrate the development of human capital 4. Professionally comply with policies, procedures and rules of the organization 5. Produce report

7.0 SPORTS & CO-CURRICULUM UNIT

The unit is responsible to oversee the implementation the sport and co-curriculum activities to fulfil their requirement for them to score a pass in co-curriculum activities before they are eligible to be awarded Polytechnic diploma.

Various co-curriculum units were set up to undertake the planning and implementation of activities for the students. The following are uniformed bodies, clubs and sports offered at the POLIMAS:

CATEGORY	UNIT	OFFERED	
		SEM 1	SEM 2
Uniformed Bodies	POLIMAS Malaysia Red Crescent Society	√	√
	Scouts	√	√
	Civil Defence (JPA-3) POLIMAS Unit	√	√
	POLIMAS Territorial Reserve Army Reg. 513	√	√
	Fire Fighting Brigade	√	√
	Puteri Islam	√	√
	S. Johns Ambulance	√	√
Clubs	Computer	-	√
	English Language	-	√
	Consumers	-	√
	Kelab Mesra Alam	-	√
	Kelab Seni Suara (Nasyid)	-	√
Sports	Taekwondo-Do	-	√
	Badminton	-	√
	Netball	-	√
	Basketball	-	√
	Football	-	√
	Volleyball	-	√
	Hockey	-	√
	Adventure	-	√
	Athletics	-	√

	UNIT	OFFERED	
		SEM 1	SEM 2
	Table Tennis	-	√
	Rugby	-	√
	Sepak Takraw	-	√
	Squash	-	√
	Tennis	-	√
	Softball	-	√
	Seni Silat Gayong Pesaka Malaysia	-	√
	Seni Silat Cekak Ustaz Hanafi	-	√
	Archery	-	√

8.0 SUPPORT SERVICES

8.1 STUDENT AFFAIRS DEPARTMENT (HEP)

OFFICER IN CHARGE	•RESPONSIBILITY
AHMAD WALID B. MD YUSOF	•HEAD OF DEPARTMENT
ABDUL RAHMAN B. SAAD	•HEAD OF DISCIPLINE AND WELFARE UNIT
SAIFUL NIZAM B. SA'ARI	•STUDENT AFFAIRS (DISCIPLINE AND WELFARE)
MOHD HAFEEZ B. MOHD SOID	•STUDENT AFFAIRS (INTAKE & DATA)
ROSNITA BT HARUN	•LOANS AND SCHOLARSHIPS

The Student Affairs Department basically has two main wings namely:

a) Admission and Data

The main function of this unit is to conduct the admission process efficiently and effectively. The process is conducted twice a year. Coordination and consultation with all the Head of Academic Departments is done in order to ensure the maximum enrolment of students.

b) Welfare and Discipline

The responsibilities of the Welfare and Discipline include the following:

- Scholarship And Education

- Insurance Policy
- Orientation Week
- Discipline
- Welfare
- Registration Of Student Vehicles
- Students' Representative Council

Each student will be covered under the insurance scheme known as *Accident Takaful* and *Family Group Takaful*. Insurance Policy from Takaful Company has been selected to cover the scope and amount of coverage as follows:

Company	Scope	Sum Assured
Takaful Malaysia **Premium:** RM15.00 yearly Students are insured 24 hours during their studies in POLIMAS	Death caused by accident Total Permanent/ Disablement Burial expenses Medical Expenses	RM20,000.00 RM20,000.00 RM1000.00 RM1000.00 @ RM40.00 perday

Actions to be taken during the occurrence of accidents are as follows:-

a. Students can get treatment from government or private hospitals in case of accidents.

b. Academic Advisors / Coordinators of Welfare / Students / Students Next Kin of Guardians / Guardians must report the accident to the Student Affairs Department (HEP), PSAS within 14 days from the date of accident. HEP will notify Takaful within 30 days after the report is made for further actions to be taken.

c. In the case of the student's location is far from PSAS and he or she may want to apply for claims from insurance companies, PSAS will hand the "Insurance Claim Form" to the student / family / guardian for follow-up actions. The completed claim form and supporting documents can be delivered or mailed to HEP PSAS.

Documents that need to be attached with the claim form are:-

a. A copy of the identity card and student card

b. A copy of the police report / industry

c. A copy of driver's license

d. Doctor report / Original medical bills

e. A copy of discharge letter

f. A copy of the death certificate / post mortem

g. Pictures (scene location / physical)

8.2 EXAMINATION UNIT

Each Polytechnic Ministry of Education is responsible for providing guidance on learning, assessment, control and conduct of the examination. Certificate and Diploma to each student is subject to approval and confirmation of Board of Examination and Certificate / Diploma Polytechnic after students have passed all examinations and meet all the requirements of the course. For a polytechnic, Examination Unit is the unit where responsible for planning, managing and implementing all activities related to student assessment based on the guidelines and evaluation set.

Grading System:

Marks	Grade Points	Grade	Status
90-100	4.00	A+	Excellent
80-89	4.00	A	Excellent
75-79	3.67	A-	Distinction
70-74	3.33	B+	Distinction
65-69	3.00	B	Distinction
60-64	2.67	B-	Passed
55-59	2.33	C+	Passed
50-54	2.00	C	Passed
47-49	1.67	C-	Passed
44-46	1.33	D+	Passed
40-43	1.00	D	Passed
30-39	0.67	E	Failed
20-29	0.33	E-	Failed
0-19	0.00	F	Failed

Complete information about Examination Unit can be referred to *ARAHAN-ARAHAN PEPERIKSAAN DAN KAEDAH PENILAIAN.*

8.3 LIAISON & INDUSTRIAL TRAINING UNIT

The Liaison & Industrial Training Unit (UPLI) is responsible for managing students' industrial training affairs. Students will be assigned to a particular organization during their training period based on their respective fields of study.

The placement process is finalised before training commences. Students are constantly advised to maintain a high level of discipline. They should abide by the rules and regulations of both the polytechnic and organization. Organizations are advised to consult the polytechnic immediately if there are any disciplinary problems.

Complete information about Liaison & Industrial Training Unit can be referred to *PENGURUSAN DAN KAEDAH PENILAIAN LATIHAN INDUSTRI POLITEKNIK*.

8.4 LIBRARY UNIT

POLIMAS library provides academic resources and services to all students, staff and other members of POLIMAS community. The library provides quality and up to date information to everyone in terms of managing and providing access to information resources. Taking the role as a centre of knowledge, the library acts as a catalyst and assist in the teaching and learning and research in the process of producing creative and innovative semi-professional.

Business Hour:

Sunday-Wednesday	8.30am – 4.45pm
Thursday	8.30am – 3.15 pm
Friday, Saturday and Public Holiday	Closed

8.5 PSYCHOLOGY, COUNSELING AND CAREER UNIT

The main objective of the Psychology, Counselling and Career Unit is to facilitate students' self-development by helping them make the most of their polytechnic experiences. This unit offers to help students in finding and searching for alternative ways to overcome their emotional and psychological difficulties in dealing with problem encountered during their course of study at the polytechnic, guiding students in their career planning as well as helping the acquire better access to the job market in the private and public sectors. The unit helps students to exercise self-determination, achieve and realize their potentials and become positive contributors to the society.

Psychology, Counselling and Career Unit is ready to guide and help students to overcome existing challenges in campus. It is hoped that through the counselling and consultation process offered by this unit, the students are able to achieve:

- Understanding of oneself
- Developing awareness of self-potential
- Able to make wise decision
- Actively participate in academic and co-curriculum activities

8.6 HALLS OF RESIDENCE UNIT

The management and administration consist of two parts:

a) Hostel management manage the hostel building and equipment

b) Hostel resident management in-out management, welfare activities, discipline and the resident security.

About 1100 new students been offered to stay at hostel with ratio 550 boys and 550 girls.

All information about support services and be referred to *BUKU PANDUAN DAN PERATURAN AM*.

EDITORIAL COMMITTEES

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