KEMENTERIAN PENGAJIAN TINGGI

POLITEKNIK MALAYSIA MUKAH

STUDENT HANDBOOK

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POLITEKNIK MUKAH

2ND EDITION

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POLITEKNIK MUKAH

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CONTENT

VISION

TO BE THE LEADING-EDGE TVET INSTITUTION

MISSION

- TO PROVIDE WIDE ACCESS TO QUALITY AND RECOGNIZED TVET PROGRAMMES.
- TO EMPOWER COMMUNITIES THROUGH LIFELONG LEARNING.
- TO DEVELOP HOLISTIC, ENTREPRENEURIAL AND BALANCED GRADUATES.
- TO CAPITALISE ON SMART PARTNERSHIP WITH STAKEHOLDERS.

EDUCATIONAL GOAL

TO PRODUCE HOLISTIC AND COMPETENT TVET GRADUATES CAPABLE OF CONTRIBUTING TO THE NATIONAL DEVELOPMENT.

WELCOME SPEECH BY DIRECTOR

Assalamualaikum w.b.t and Salam Sejahtera.

Politeknik Mukah (PMU) is the 20th Polytechnic under the Ministry of Higher Education Malaysia. It has been established since 2005 producing graduates in the fields of engineering, information technology and commerce. PMU offers a variety of programmes to meet the needs and requirements of the industry today. To uphold its responsibilities, PMU will always ensure its courses offered are constantly in line with the mission and vision of the Ministry of Higher Education in developing vibrant, talented and creative human capital.

PMU facilitates teaching and learning needs with adequate and advanced technologies to improve the quality of the graduates for their future advancement. We provide diversified opportunities to the students to be in the vanguard of a new field and help them gain experience by encouraging the students to participate in designing and creating innovation from time to time.

In order to attain to its standard and goals, PMU is outfitted with certified lecturers whom are able to guide and facilitate the students and convey the knowledge at their very best. We are also equipped with updated education equipment to enhance the effectiveness of the learning process entirely. By the time you graduate, it is our hope that you would have become a confident, resourceful problem-solver and presenter who can be an asset to any organization.

It is hoped that this handbook will provide adequate information about PMU and its programmes. It will serve as a reference book that will guide the students throughout their studies here. It will aid the students in planning their activities, goals and further achievements in the near future. Here for your reference, I encourage you to read it thoroughly so you will be well-prepared for your time here. As the director of Politeknik Mukah, I would like to welcome all of you to PMU and wish you all the best.

Warmest regards,

En Hisamudin bin Mohd Tamim

Director

Politeknik Mukah

KEMENTERIAN PENDIDIKAN TINGGI
JABATAN PENDIDIKAN POLITEKNIK DAN KOLEJ KOMUNITI

Carta Organisasi Pengurusan
POLITEKNIK MUKAH, SARAWAK

POLITEKNIK MALAYSIA MUKAH

Pengarah (DH54)
Hisamudin bin Mohd Tamim

Setiausaha Pejabat (N22)
Sarah binti Mohammed

Ketua Unit Komunikasi Korporat (S44)
Mohd Baharruddin bin Mohamad

Timbalan Pengarah Akademik (DH52)
Iskandar bin Reduan

Timbalan Pengarah (Sokongan Akademik) (DH48)
Sophian bin Sout

Ketua Jabatan Kejuruteraan Awam (DH48)
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Ketua Jabatan Kejuruteraan Elektrik (DH48)
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Aisyah Suhailla binti Hj. Jili

Ketua Jabatan Matematik, Sains dan Komputer (DH48)
Sudiman bin Suhaili

Ketua Unit Pembangunan dan Penyelenggaraan Fasiliti (J41)
Shahrul Nazrin bin Aha

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Azrina binti Ali

Ketua Jabatan Pengajian Am (DH48)
Fatin Faqeriah binti Hamsah

Ketua Unit Peperiksaan (DH41)
Amir Haziq bin Loh Bojeng

Ketua Unit Teknologi Maklumat (F41)
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Ketua Unit Khidmat Pengurusan (N29)
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Ketua Unit Kewangan dan Akaun (W32)
Kiu Chai Yung

Ketua Unit Pengantarabangsaan (DH52)
Mohammad Fardillah bin Wahi

Ketua Unit Pembangunan CoT (DH48)
Nurul Asmahani binti Osman

Ketua Jabatan Sukan, Kokurikulum dan Kebudayaan (DH48)
Fairose binti Mohtar

Ketua Unit CISEC (DH52 (M))
Hj. Mohd Azlan bin Ab Aziz

Ketua Unit Penyelidikan, Inovasi dan Komersialan (DH52 (M))
Dr. Habsah binti Mohamad Sabli

Ketua Unit Pengurusan Prestasi (DH52)
Mariati binti Masduki

Ketua Unit Kewangan (DH48)
Johari bin Kusai

Ketua Unit Pengurusan Aset (DH52)
Rosidi bin Muhamad Nor

Lantikan Dalaman

Tarikh Kemaskini :
15 Mei 2023

INTRODUCTION

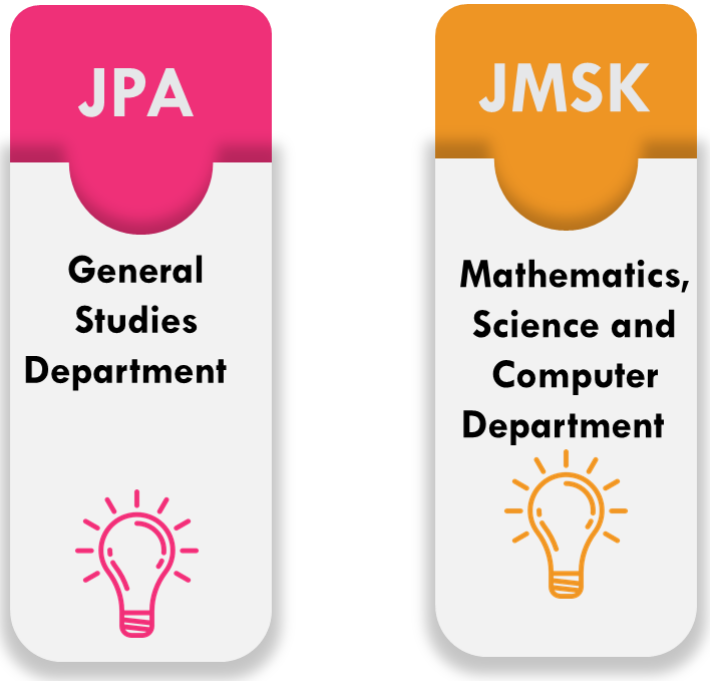
Politeknik Mukah (PMU) is located at the central region of Sarawak within Mukah Division. PMU is the twentieth polytechnic in Malaysia. PMU campus was built on a hundred acre site and is fully equipped with modern infrastructure and education facilities.

PMU started its operation in 2004 at Sekolah Menengah Teknik Sibu. Its first student intake began in July 2005. During the early age of its establishment, three courses were offered; Certificate in Information Technology, Certificate in Civil Engineering and Certificate in Business Studies. Diploma level Programmes were introduced a year later after the establishment of seven departments.

The major academic departments are:

- **JKA** – Civil Engineering Department
- **JKE** – Electrical Engineering Department
- **JKM** – Mechanical Engineering Department
- **JP** – Commerce Department
- **JTMK** – Information & Communication Technology Department

Two supporting departments are;



In order to promote lifelong learning, a number of short courses are offered to public and local communities under Time Sector Privatization (TSP) besides full-time courses. This is significant with the existence of PMU as one of the higher learning institutions providing knowledge, skills and competencies

OUTCOME BASED EDUCATION

INTRODUCTION

- A model of education whereby students demonstrate what they know and are able to do whatever the required outcomes are. The outcomes are specified in terms of individual student learning.
- OBE focuses on desired results.
- OBE emphasizes setting clear standards for observable, measurable outcomes through which student performances can be measured.
- An approach that focuses on students' learning rather than teaching.
- OBE is concerned with how students demonstrate their learning (called outcomes).

COMPONENTS OF OBE

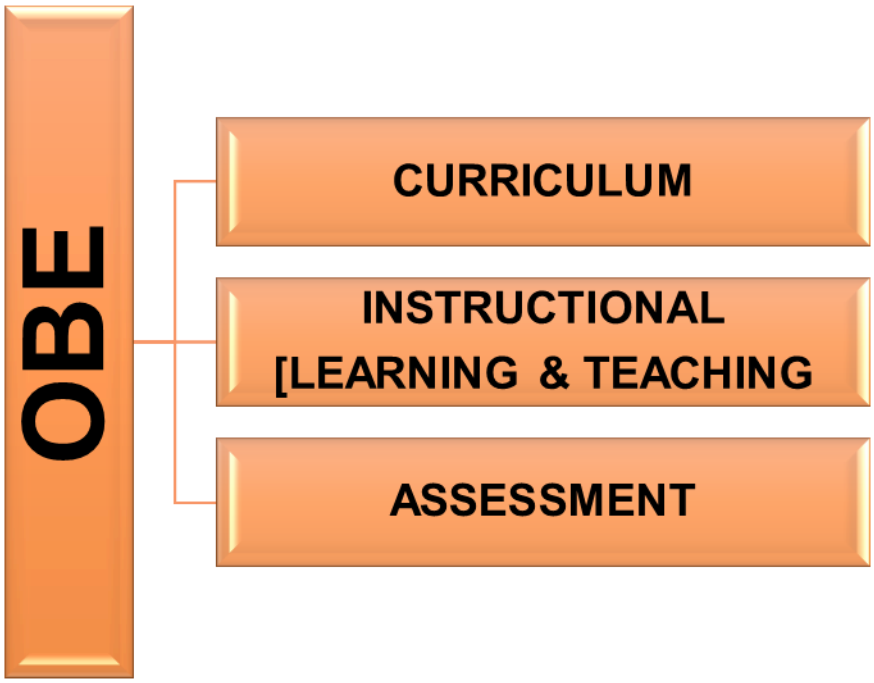


Figure 1: Components of OBE

OUTCOME BASED EDUCATION

PRINCIPLES OF OBE

There are four (4) principles that guide the transformational OBE approach. Each of these principles are explored and applied to practice as shown in Table 1 below;

Table 1: OBE Principles: Explanation and Application (Spady 1994; Killen 2000)

OBE Principles	Explanation	Application to Practice
Clarity of focus	Focus on what want learners able to do successfully.	• Help learners to develop competencies • Enable to predetermined significant outcomes • Clarify short and long term learning intentions • Focus assessments on significant outcomes
Design down	Begin curriculum design with a clear definition of the significant learning that learners are to achieve by the of their formal education.	• Develop systematic education curricula • Trace back desired end results • Identify 'learning building blocks' • Link planning, teaching and assessment decision to significant learner outcomes
High expectations	Establish high, challenging performance standards.	• Engage deeply with learning issues • Push beyond where learners would normally have gone
Expanded opportunities	Do not learn same thing in same way in same time.	• Provide multiple learning opportunities matching learner's needs with teaching techniques.

OUTCOME BASED EDUCATION

ASSESSMENT LEVELS OF OBE

The level of assessment varies from what students should know and achieve upon completion of a topic, to caries and professional achievement after 3-5 years of graduation, as shown in Table 2

Table 2: Assessment levels of OBE

PAI/ PEO	**Few years after graduation (3 – 5 years)**
	It focus on what graduates are expected to attain within a few years after graduation. Program Aims / Program Educational Objective are based on the needs of the program's constituencies.
PLO	**Upon graduation**
	Program Learning Outcomes are statement of what the learner is expected to know, understand or be able to do on successful completion of the entire program that is upon graduation.
CLO	**Upon course completion**
	Course Learning Outcomes are assessed upon subject completion by instructors who evaluate students' performance on homework problems, programming and other projects, essays, oral presentations, and quizzes, tests, or examinations.
Topic LO	**Upon topic completion**
	Topic Learning Outcomes are statements of what learners know and can do for that particular topic.

OUTCOME BASED EDUCATION

CONTENT BASED LEARNING vs OUTCOME BASED EDUCATION

CONTENT BASED LEARNING								
Passive learners	Examination driven	Content-based syllabus	Textbook and lecturer centered	Syllabus is rigid	Lecturers responsible for learning	Emphasis on what lecturer hopes to achieve	Content placed into rigid time frames	Rote learning

OUTCOME BASED EDUCATION								
Active learners	Assessment on an ongoing basis	An integration of knowledge	Learner centred	Lecturers can be innovative and creative	Learners responsible for their own learning	Emphasis on outcomes	Flexible time frames; learner determines paces	Critical thinking, reasoning and action

Figure 2: Content (traditional/ transactional) based learning vs outcome (transformational) based education (Spady, 1994)

TEACHER CENTERED vs STUDENT CENTERED

TEACHER CENTERED	STUDENT CENTERED
Course objectives is the learning target	*Learning outcmes in the learning target*
No mapping of learning outcomes	*Mapping of learning outcomes*
Student independent learning not calculated	*Students independent learning time calculated*
Contact hourse reflects credit	*Total SLT reflects credit value*

Figure 3: Teacher centered vs student centered

OUTCOME BASED EDUCATION

EFFECTIVENESS OF OBE

- Students are expected to be able to do more challenging task other than memorize and reproduce what was taught.
- Students able to write project proposals, complete projects, analyze case studies, give case presentations, show their abilities to think, question, research and make decisions based on the finding.
- Students could be creative, able to analyze and synthesize information.
- Students able to plan and organize tasks, able to work in a team as a community or in entrepreneurial service teams to propose and market the problem solutions.

DOMAIN/ CLUSTERS OF LEARNING OUTCOMES

Figure 3: Domain/ clusters of learning outcomes

OUTCOME BASED EDUCATION

THE ROLES OF STUDENTS

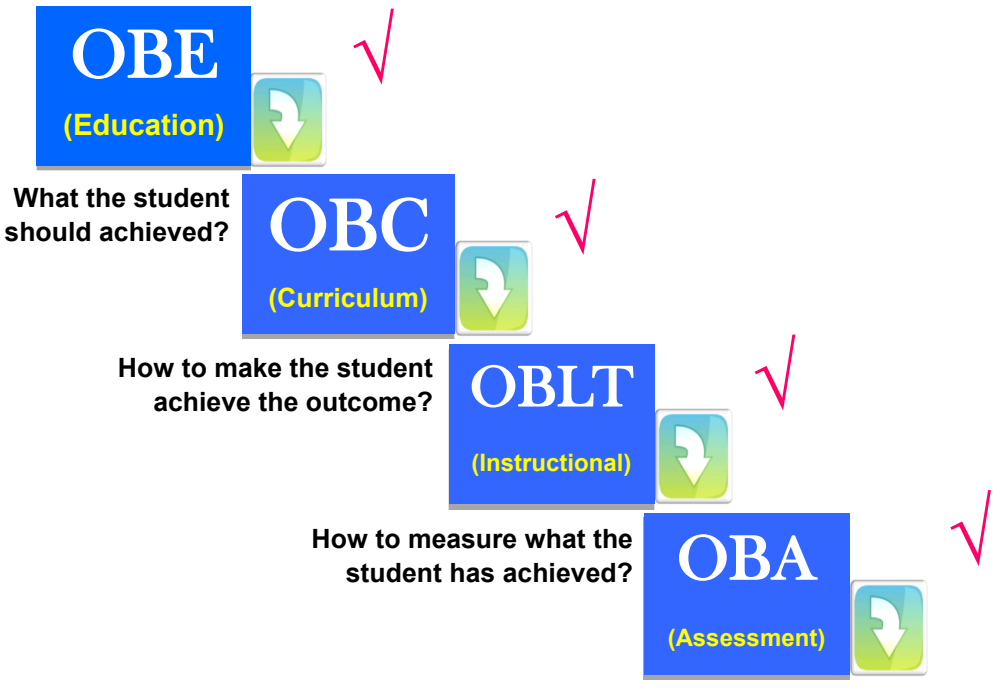
- Takes responsibility for learning.
- Seeks knowledge actively.
- Constructs knowledge by interacting with his/ her lecturer and also information gathered from various sources to be used in problem solving.

THE RESPONSIBILITIES OF STUDENTS

- The students must be responsible for their own learning process as much as the lecturers are responsibles for their teaching.
- In OBE, the emphasis is on students' responsibility in their own learning by clearly defining the Student Learning Time (SLT):face-to-face and non face-on-face.

CONCLUSION

"A comprehensive approach to organizing and operating an education system that is focused on and defined by the successful demonstrations of learning sought from each student"



CIVIL ENGINEERING DEPARTMENT

INTRODUCTION

Department of Civil Engineering (JKA), among the pioneer departments in Politeknik Mukah Sarawak, offering an intensive high-quality diploma with Technical and Vocational Education and Training (TVET) skills. JKA is led by Muhamad Aqmarr Norhakim Bin Ismail as Heads of Civil Engineering Department and assisted by Heads of Programme, Nik Nur Dina Binti Nik Azmi. JKA comprises of well experienced 19 academic staffs accredited by Board of Engineers Malaysia (BEM) and 2 non-academic staffs with expertise and competence in various Civil Engineering fields.

In line with the Industrial Revolution 4.0, Green Technology and Sustainable Development initiatives, the programmes offered are designed based on latest trends of education and future needs of industries and have gained accreditation from the Malaysian Qualification Agency (MQA) and The Engineering Technology Accreditation Council (ETAC).

The full-time programmes comprising of six semesters course work with one full semester of Industrial training built-in. Apart from the technical knowledge and skills, the programmes offers by JKA are designed to develop an individual potential of each student in an integrated and holistic manner through courses such as Islamic studies, moral studies, soft skills and entrepreneurship. The aspiration of JKA is to ensure the students are well-prepared for real case-studies and function as highly qualified, competent and professionals in the field of engineering.

PROGRAMME

The accredited programmes are designed with various elective courses such as 'Building Information Modelling', 'Building Services' and 'Environmental Pollution and Control' that allow students to specialize in areas of interest.

DIPLOMA IN CIVIL ENGINEERING

INTRODUCTION

Diploma in Civil Engineering provides knowledge, skills and attitude to adapt to new technology in civil engineering with the ability to demonstrate professionalism and work ethics in fulfilling responsibilities towards the creator, client and society. This programme provides theory as well as carries out practical work. This programme also offers courses in Civil Engineering area such as Engineering Graphics, Water & Water Resources Engineering, Environment, Strength & Structural Design, Road & Transportation, Engineering Management and Geotechnics. This programme is specially designed with hands-on training in addition to the theoretical learning in civil engineering. They are required to complete the industrial training to prepare graduates for employment in different sectors of the industry because the skills and knowledge acquired are used throughout modern industry. They will be able to use appropriate communication and interpersonal skills to perform tasks in various situations. Graduates will demonstrate desired behavioural traits like integrity, team work, problem solving and passion in performing the tasks related to their area of specialization. They will possess entrepreneur skill to contribute to the economic growth for the nation's development in the construction industries. With these additional skills, they will be more competitive in the present job market.

SYNOSIS

This programme is designed to equip students with sound knowledge, skills, attitude and understanding of the environment, construction industries, construction designs and infrastructural development of civil engineering. The knowledge and skills acquired will be useful for success in future or current employment.

PROGRAMME AIM

This programme believes that all individuals have potential to be proactive and responsible senior technicians to support national agenda in transforming construction industry to be highly productive, environmentally sustainable with globally competitive players while focused on safety and quality standards.

JOB PROSPECT

The knowledge and skills that the students acquire from the program will enable them to participate in the job market such as specified as:

a. Technical Assistant
b. Site Supervisor
c. Inspector of Work
d. Assistant Engineer
e. Contractor
f. Health and Safety Officer
g. Research Assistant
h. Quality Control Assistant Engineer
i. Material Coordinator
j. Entrepreneur

PROGRAMME EDUCATIONAL OBJECTIVES

PROGRAMME EDUCATIONAL OBJECTIVES (PEO)

The Diploma in Civil Engineering programme shall produce semi-professionals who are:

PEO1 : Working in the field of civil engineering

PEO2 : Lead or a team member to support their role in industries

PEO3 : Engaged in activities to enhance knowledge or starting/embark their own enterprise

PEO4 : Fulfill professional and communities responsibilities, conforming to ethical and environmental values

PROGRAMME LEARNING OUTCOMES (PLO)

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

PLO1: Apply knowledge of applied mathematics, applied science, engineering fundamentals and an engineering specialisation as specified in DK1 to DK4 respectively to wide practical procedures and practices

PLO2: Identify and analyse well-defined engineering problems reaching substantiated conclusions using codified methods of analysis specific to their field of activity (DK1 to DK4)

PLO3: Design solutions for well-defined technical problems and assist with the design of systems, components or processes to meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental consideraions (DK5)

PLO4: Conduct investigations of well-defined problems; locate and search relevant codes and catalogues, conduct standard tests and measurements

PLO5: Apply appropriate techniques, resources, and modern engineering and IT tools to well-defined engineering problems, with an awareness of the limitations (DK6)

PLO6: Demonstrate knowledge of the societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to engineering technician practice and solutions to well-defined engineering problems (DK7)

PLO7: Understand and evaluate the sustainability and impact of engineering technician work in the solution of well-defined engineering problems in societal and environmental contexts (DK7)

PLO8: Understand and commit to professional ethics and responsibilities and norms of technician practice

PLO9: Function effectively as an individual, and as a member in diverse technical teams

PLO10: Communicate effectively on well-defined engineering activities with the engineering community and with society at large, by being able to comprehend the work of others, document their own work, and give and receive clear instructions

PLO11: Demonstrate knowledge and understanding of engineering management principles and apply these to one's own work, as a member or leader in a technical team and to manage projects in multidisciplinary environments.

PLO12: Recognise the need for, and have the ability to engage in independent updating in the context of specialised technical knowledge

NOTES

DK1: A descriptive, formula-based understanding of the natural sciences applicable in a sub-discipline

DK2: Procedural mathematics, numerical analysis, statistics applicable in a subdiscipline

DK3: A coherent procedural formulation of engineering fundamentals required in an accepted sub-discipline

DK4: Engineering specialist knowledge that provides the body of knowledge for an accepted sub-discipline

DK5: Knowledge that supports engineering design based on the techniques and procedures of a practice area

DK6: Codified practical engineering knowledge in recognised practice area.

DK7: Knowledge of issues and approaches in engineering technician practice ethics, financial, cultural, environmental and sustainability impact

DIPLOMA IN CIVIL ENGINEERING

SEMESTER 1

COMPONENTS	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	0		
COMPULSORY	MPU21032	Penghayatan Etika dan Peradaban	1	0	2	0	2	-
	DUE10012	Communicative English 1	1	0	2	0	2	-
	MPU24XX1	Sukan ***/Unit Beruniform 1 ***	0	2	0	0	1	-
COMMON CORE	DUW10022	Occupational, Safety & Health for Engineering	2	0	0	0	2	-
	DBS10012	Engineering Science	2	1	0	0	2	-
	DBM10013	Engineering Mathematics 1	2	0	2	0	3	-
DISCIPLINE CORE	DCC10012	Engineering Drawing and Computer Aided drafting (CAD)	0	4	0	0	2	-
	DCC10022	Brickworks and Concrete Laboratory	0	3	0	0	2	-
	DCC10032	Civil Engineering Materials	2	0	0	0	2	-
TOTAL			**26**				**18**	

SEMESTER 2

COMPONENTS	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	0		
COMPULSORY	MPU23052	Sains, Teknologi dan Kejuruteraan Dalam Islam*	1	0	2	0	2	-
	MPU23042	Nilai Masyarakat Malaysia**	1	0	2	0	2	-
	MPU24XX1	Kelab/Persatuan ***	0	2	0	0	1	MPU24XX1
	MPU24XX1	Unit Beruniform 2						
COMMON CORE	DBM20023	Engineering Mathematics 2	2	0	2	0	3	DBM10013
DISCIPLINE CORE	DCC20042	Plumbing and Carpentry Workshop	0	3	0	0	2	-
	DCC20053	Mechanics of Civil Engineering Structures	3	0	1	0	3	-
	DCC20063	Engineering Survey	2	3	0	0	3	-
	DCC20073	Contract and Estimating	3	0	1	0	3	-
TOTAL			**25**				**17**	**-**

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DIPLOMA IN CIVIL ENGINEERING

SEMESTER 3

COMPONENTS	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	0		
COMPULSORY	DUE30022	Communicative English 2	1	0	2	0	2	DUE10012
	MPU22012	Entrepreneurship	1	0	2	0	2	-
DISCIPLINE CORE	DCC30082	Industrialised Building System (IBS) in Sustainable Construction	0	4	0	0	2	-
	DCC30093	Geotechnical Engineering	3	0	1	0	3	-
	DCC30103	Highway and Traffic Engineering	3	0	1	0	3	-
	DCC30112	Geotechnical and Highway Engineering Laboratory	0	3	0	0	2	-
	DCC30122	Fluids Mechanics	2	0	1	0	2	-
TOTAL			**24**				**16**	

SEMESTER 4

COMPONENTS	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	0		
COMPULSORY	DUE50032	Communicative English 3	1	0	2	0	2	DUE30022
DISCIPLINE CORE	DCC40132	Project Management and Practices	2	1	0	0	2	-
	DCC40142	Steel Structure Design	2	0	1	0	2	DCC20053
	DCC40152	Water Supply and Waste Water Engineering	2	0	1	0	2	-
	DCC40163	Theory of Structures	3	0	1	0	3	DCC20053
	DCC40172	Structure, Hydraulics and Water Quality Laboratory	0	3	0	0	2	-
	DCC40181	Final Year Project 1	0	2	0	0	1	-
ELECTIVES		Electives 1	0	4	0	0	2	-
TOTAL			**25**				**16**	**-**

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DIPLOMA IN CIVIL ENGINEERING

SEMESTER 5

COMPONENTS	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	0		
DISCIPLINE CORE	DCC50194	Civil Engineering Project 2	0	8	0	0	4	DCC40181
	DCC50203	Reinforced Concrete Design	3	0	1	0	3	-
	DCC50212	Engineering Hydrology	2	0	1	0	2	-
	DCC50222	Hydraulics	2	0	1	0	2	DCC30122
	DCC50232	Engineering in Society	2	0	0	0	2	-
Electives		Electives 2	2	0	0	0	2	-
TOTAL			**22**				**15**	

SEMESTER 6

COMPONENTS	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	0		
INDUSTRIAL TRAINING	DUT40110	Industrial Training	0	0	0	0	10	-
TOTAL			**0**				**10**	-
TOTAL CREDIT VALUE							**92**	-

ELECTIVES

COMPONENTS	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	0		
ELECTIVES COURSES	DCC50242	Building Information Modeling (BIM)	0	4	0	0	2	-
	DCC50252	Building Services	2	0	0	0	2	-
	DCC50262	Environmental Polution and Control	2	0	0	0	2	-
FREE ELECTIVE	DUD10012	Design Thinking	1	0	0	1	2	-

LEGEND/NOTES:

PREQ	:	Prerequisite (s)
L	:	Lecture
P	:	Practical/Lab
T	:	Tutorial
O	:	Others
* For Muslim students		
** For non-Muslim students		
# Path 1 : Sport and Club		
## Path 2 : Uniform Unit		

(The numbers indicated under L, P, T & O represent the contact hours per week, to be used as a guide for time table preparation)

POLITEKNIK MALAYSIA MUKAH

DIPLOMA IN CIVIL ENGINEERING

COURSE SINOPSIS

SEMESTER	SINOPSIS
1	**DCC10012 :ENGINEERING DRAWING & COMPUTER AIDED DRAFTING (CAD)** covers the basic manual drafting of technical drawing to enhance engineering student ability to communicate ideas in modern technology industry. It provides a platform for student to interpret engineering drawings, use CAD and develop their skills in technical sketching. Student should be able to produce engineering drawing using manual graphics sketching and CAD software related to IR4.0
	DCC10022 : BRICKWORKS AND CONCRETE LABORATORY covers a basic concept of practical works and principles regarding the brickworks and concrete works including the safety exposure in workshop. This course emphasizes the related brick laying using mortar mixing 1:3 and student needed to complete a selected mini project. As for concrete works the method of statement for concrete which referred is BS1881. The cement to be used throughout the work shall be Portland cement obtained from an approved manufacturers that comply with MS 522. Fine and coarse aggregates shall comply with MS 29. All testing specification were referred by MS EN 206.This course also need students toparticipate actively in teamwork during the practical activities.
	DCC10032 : CIVIL ENGINEERING MATERIALS course is designed to equip students with a comprehensive knowledge and skills related to construction materials used in civil engineering. It will emphasize on types and function of cement, the function of aggregates in concrete, water, admixtures, properties of fresh and hardened concrete, concrete mix design, and manufacturing concrete on site. This course also focuses on the properties of timber, types and characteristics of brick and concrete block, steel and no steel, the types and function of building finishes materials and the introduction to building elements.

DIPLOMA IN CIVIL ENGINEERING

SEMESTER	SINOPSIS
2	**DCC20053: MECHANICS OF CIVIL ENGINEERING STRUCTURES** covers knowledge of facts and basic principles of types of forces, strength of materials and behavior of loaded structures. This course provides exposure to the impact of loaded structures on direct and shear stresses, slope and deflection. This exposure will be the pre requisite to understand other courses in Civil Engineering.
	DCC20063 : ENGINEERING SURVEY focus on the basic principles of levelling and total station traverse survey. This course emphasizes the basic distance measurement, bearing and angle in order to get the shape of terrain and the position on the field. It also gives knowledge and practical skills to students in operating and handling survey instruments, control survey, detail survey, data collection or acquisition, calculation and plotting of survey works. The course emphasis on the method used to carry out surveying works especially data collection or acquisition to produce plan based on the scope of work. It also gives exposure to the need for accurate data to be used for other surveying work.
	DCC20042 : PLUMBING AND CARPENTRY WORKSHOP covers basic practical works of plumbing and carpentry works. This course emphasizes the related materials used and active participation of student to produce simple project.
	DCC20073 : CONTRACT AND ESTIMATING is a study of construction industry in general, tender procedure, contract procedure, preliminary estimating method, build-up rate and quantity measurement. The module emphasis on contract condition and provide exposure to the students regarding the procedures and standard practice in the construction field based on Standard Form of Contract (P.W.D. Form 203/ 203A).

SEMESTER	SINOPSIS
3	**DCC30112 : GEOTECHNICAL AND HIGHWAY LABORATORY** covers knowledge in the form of practical through the experiments which are carried out based on the concepts and the theories learned in the class. The emphasis of the course is on the method of conducting experiments, analysis and understanding its relationship with theories learned. The course also focused on the geotechnical and highway which are the core of the civil engineering field.
	DCC30122: FLUIDS MECHANICS covers the behavior and characteristics of engineering fluid and their application in hydrostatic and hydrodynamic fluid. This course involves discussion on fluid properties, fluid flow concept and basic equations, moving fluid forces, dimensional analysis, flow in closed conduits and pipe network and momentum equations.
	DCC30103: HIGHWAY AND TRAFFIC ENGINEERING is a study on history of highway construction and the organization involved in Malaysia. The courses also provides the students with the knowledge regarding the method and design involved in traffic engineering. This course emphasizes on introduction to highway and traffic, pavement materials, construction of flexible pavement, construction of rigid pavement, traffic control equipment and road furniture, flexible pavement design, junction design, traffic management and highway maintenance.
	DCC30093: GEOTECHNICAL ENGINEERING covers basic knowledge of the process of soils and rock formation and the characteristics of soil. It also covers soil improvement works such as compaction, shear strength, seepage, slope stability, earth pressure and foundation.

POLITEKNIK MALAYSIA MUKAH

DIPLOMA IN CIVIL ENGINEERING

SEMESTER	SINOPSIS
3	**DCC30082: INDUSTRIALISED BUILDING SYSTEM (IBS) IN SUSTAINABLE CONSTRUCTION** is designed to equip student the concept of Industrialised Building System (IBS) in conjunction with sustainability of the construction industry. The courses teaches on elements such modular Coordination and IBS Score, site management and supervision and installation of IBS components. This course will also include practical work in assembling green system, supervision and quality checking in IBS construction and also installation of IBS in a small scale project pertaining to sustainable construction.
4	**DCC 40132 : PROJECT MANAGEMENT AND PRACTICES** focuses on the basic knowledge and understanding of project management. Students will be introduced to the definition and basic concept of project management and practices. . Every aspect in project management is explained starting from the overview of project management, the influences of organizational structures in project management, project lifecycle, resources in project management, planning and scheduling, project control and monitoring, safety control, environmental management plan and quality assurance in project management. The application of common software such as Microsoft Project for planning and scheduling also will be exposed to the student.
	DCC40142 : STEEL STRUCTURE DESIGN covers the fundamental concepts and basic principles required to design steel structures including beam, column, roof truss and connections. This course enables student to develop understanding basic knowledge related to the theoretical background for the design of steel structures and the practical expertise to translate this background knowledge into successfully performing actual design calculations according to Eurocode 3 (EC3) for a single storey steel building.

SEMESTER	SINOPSIS
4	**DCC40152: WATER & WASTE WATER ENGINEERING** is a study of water resources, water characteristics, usage and demand of water supply, raw water treatment process and water distribution system. This course also includes the information on the process in sewage treatment plant, sludge treatment and disposal. It also emphasize on the parameter of drinking water and effluent from sewage treatment plant.
	DCC40172 : STRUCTURE, HYDRAULICS AND WATER QUALITY LABORATORY covers knowledge in the form of practical through the experiments which are carried out based on the concepts and the theories learned in the class. The emphasis of the course is on the method of conducting experiments, analysis and understanding its relationship with theories learned. The course also focused on the structure, hydraulics and water quality which are the core of the civil engineering field.
	DCC40181: FINAL YEAR PROJECT 1 covers knowledge and displays practice skills in civil engineering. The students are exposed to communications skills, groups works, work planning, decision making and creativity using available facilities.
	DCC40163: THEORY OF STRUCTURE covers basic knowledge of facts and principles in calculate the reactions, bending moments and shear forces for statically indeterminate beams and portal frame using the slope deflection method and moment distribution method. It also includes basic principles in analyze the forces in truss members using the equilibrium joint method for the statically determinate and using unit load method for the statically indeterminate trusses. Influence lines have important application for the design of structures that resist large live loads. Evaluation in influence line include determination of shear force, bending moment and absolute maximum moment.

POLITEKNIK MALAYSIA
MUKAH

DIPLOMA IN CIVIL ENGINEERING

SEMESTER	SINOPSIS
5	**DCC50194 : CIVIL ENGINEERING PROJECT 2** covers knowledge and skills in civil engineering practices. The students will be exposed to communication skills, group works, work planning, decision making, recommendation and gain creativity by using related facilities to a design of a system. This course also covers conducting experiments in the laboratory/workshop, field works, and academic researches, designing product or method of civil engineering related fields. The students will be learn the method to analyze data, prepare presentation and report writing.
	DCC50203 : REINFORCED CONCRETE DESIGN covers concepts and methods of design for reinforced concrete structures comprising beam and slab. This course emphasizes on knowledge andpractice of producing double storey reinforced concrete building design starting from the layout plan, action analysis, structural design and detailing according to Eurocode 2 (EC2).
	DCC50212 : ENGINEERING HYDROLOGY . This course introduces students to the concepts of engineering hydrology including hydrologic cycle and rainfall-run off processes. It covers the quantification of rainfall and runoff processes for engineering design, including computation of design rainfalls, peak discharges and hydrographs. The basic concept of Urban Drainage Design and compliance with local guideline of Urban Storm Water Management Manual for Malaysia (MSMA) are discuss and employ in considering sustainability environmental value.
	DCC50222 : HYDRAULICS covers the application in hydrostatic and hydrodynamic fluids. This course involves discussion on hydrostatics concept and basic equations of stability and buoyancy. This course also emphasize on the application of constituents of pumps and open channel flow concept appropriately in solving hydraulics problem.

DIPLOMA IN CIVIL ENGINEERING

SEMESTER	SINOPSIS
5	**DCC50232 : ENGINEERING IN SOCIETY** focuses on the introduction to the role of engineers in the context of their employment in industry and their interaction with the wider community. In this course, students will be exposed to safety and health of the public, technology and development in industry of civil engineering. This course also covers the meaning and impacts of engineering in society, ethical decision making, professional codes of ethics and sustainable development in the context of science and engineering application locally and globally. The students will be able to display excellent teamwork skills for working in group projects and organizing the activities of engineering practice in the society.
Electives	**DCC50262: ENVIRONMENTAL POLLUTIONS AND CONTROL** is a study on types and effect of communicable and non-communicable diseaces to public health. It also emphasizes on the control and monitoring of pollution from water, air and noise and the effects to general health and environment. It also covers the knowledge on management of municipal solid waste and hazardous waste. The students are exposed to the Environmental Quality Act 1974 as the guidelines and procedures in managing environmental pollution.
	DCC50242 : BUILDING INFORMATION MODELLING (BIM) focuses on the designing and analyzing building models using techniques, resources and BIM tools. Students will be introduced to building models using BIM process for architectural, structural and plumbing. It covers BIM coordination, clash detection and construction scheduling. This course is a project-based where students gain knowledge and skills on the implementation of BIM concepts from planning to design stage.
	DCC50252 : BUILDING SERVICES focuses on the basic concepts and the principles of the systems in a building. The course emphasizes on the electrical installation system, fire prevention system, building transportation system, air conditioning system, maintenance works and the demolition works.

ELECTRICAL ENGINEERING DEPARTMENT

INTRODUCTION

Department of Electrical Engineering (JKE), among the pioneer departments in Politeknik Mukah Sarawak, offering an intensive high-quality diploma with Technical and Vocational Education and Training (TVET) skills. JKE which is led by Nik Aznan bin Ab. Hadi and assisted by two Heads of Programme, Kumar bin Boniface Jubilee (Diploma in Electrical and Electronic Engineering) and Samsawi bin Bujang (Diploma in Electronic Engineering (Communication)). JKE comprises of well experienced 36 academic staffs and 3 non-academic staffs with expertise and competence in various electrical and electronic fields. In line with the Industrial Revolution 4.0, Green Technology and Sustainable Development initiatives, the programmes offered are designed based on latest trends of education and future needs of industries and have gained accreditation from the Malaysian Qualification Agency (MQA). and The Engineering Technology Accreditation Council (ETAC). The full-time programmes comprising of six semesters course work with one full semester of industrial training built-in. Apart from the technical knowledge and skills, the programmes offers by JKE are designed to develop an individual potential of each student in an integrated and holistic manner through courses such as Islamic studies, moral studies, soft skills and entrepreneurship. The aspiration of JKE is to ensure the students are well-prepared for real case-studies and function as highly qualified, competent and professionals in the field of engineering.

PROGRAMMES

The accredited programmes are designed with various elective courses such as power engineering, digital computers, telecommunications and control systems that allow students to specialize in areas of interest.

ELECTRICAL ENGINEERING DEPARTMENT

FACILITIES

JKE is equipped with advanced teaching and learning facilities.

- Computer Programming Laboratory
- Electronic Digital Laboratory
- Repairing Laboratory
- Project Presentation Room
- Electrical Machine Laboratory
- Project Laboratory
- Electronic Communication Laboratory
- Lecture Room
- Electrical Wiring Laboratory
- Power Energy Laboratory
- CAD Laboratory
- Electrical Technology Laboratory

DIPLOMA IN ELECTRICAL AND ELECTRONIC ENGINEERING

INTRODUCTION

This programme provides the knowledge and skills in electrical engineering that can be applied to a wide range of careers in most power generation provider and manufacturing industries. The Diploma in Electrical and Electronic Engineering programme is designed to cover the wide discipline of electrical and electronic engineering which includes electrical and electronic principles, computer fundamental and programming, computer aided design, semiconductor devices, communication systems, wiring installation, power system, electrical machine and programmable logic controller. The green technology elements are also incorporate in the curriculum to provide awareness towards the importance of the sustainable energy.

SYNOPSIS

The Diploma in Electrical and Electronic Engineering programme is designed to cover the broad discipline of electrical and electronic engineering which includes electrical and electronic principles, computer fundamental and programming, computer aided design, semiconductor devices, communication systems, wiring installation, power system, electrical machine and programmable logic controller. The green technology elements are also incorporate in the curriculum to provide awareness towards the importance of the sustainable energy.

PROGRAMME AIM

This programme believes that all individuals have potential to be a resourceful and adaptable technician to support the nation aspiration in providing engineering talent

DIPLOMA IN ELECTRICAL AND ELECTRONIC ENGINEERING

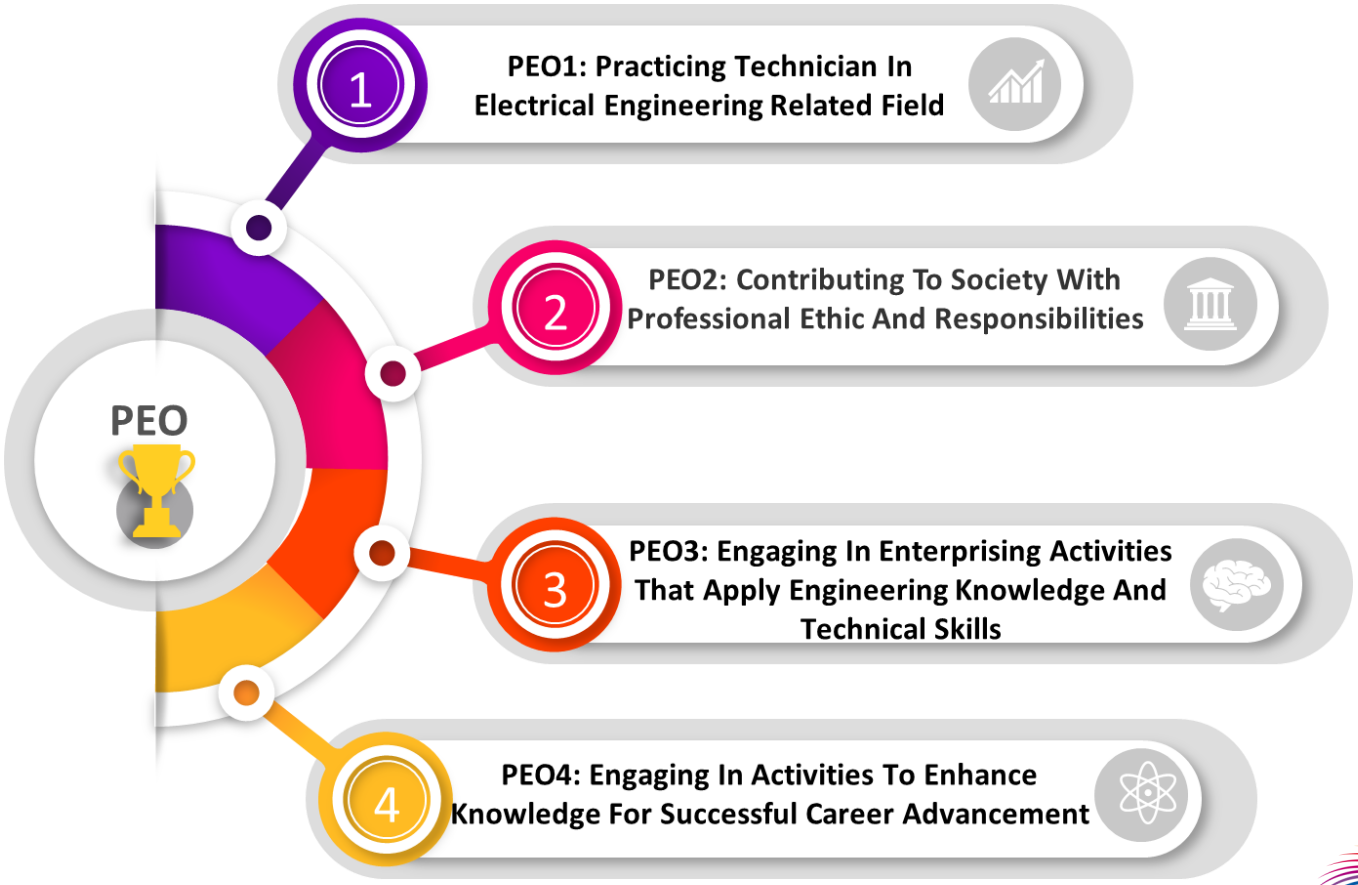
JOB PROSPECT

This programme provides the knowledge and skills in electrical engineering that can be applied to a broad range of careers in most power generation provider and manufacturingindustries. The knowledge and skills that the students acquire from the programme will enable them to participate in the job market as:

- Electrical/Electronic Engineering Supervisor
- Electrical Engineering Service Advisor
- Technical Assistant
- Electrical/Electronic Technician
- Assistant Engineer.

PROGRAMME EDUCATIONAL OBJECTIVES (PEO)

The engineering programme should produce balanced TVET graduates who are:



DIPLOMA IN ELECTRICAL AND ELECTRONIC ENGINEERING

PROGRAMME LEARNING OUTCOMES (PLO)

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

PLO1: Apply knowledge of applied mathematics, applied science, engineering fundamentals and an engineering specialisation as specified in DK1 to DK4 respectively to wide practical procedures and practices

PLO2: Identify and analyse well-defined engineering problems reaching substantiated conclusions using codified methods of analysis specific to their field of activity (DK1 to DK4)

PLO3: Design solutions for well-defined technical problems and assist with the design of systems, components or processes to meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations (DK5)

PLO4: Conduct investigations of well-defined problems; locate and search relevant codes and catalogues, conduct standard tests and measurements

PLO5: Apply appropriate techniques, resources, and modern engineering and IT tools to well-defined engineering problems, with an awareness of the limitations (DK6)

PLO6: Demonstrate knowledge of the societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to engineering technician practice and solutions to well-defined engineering problems (DK7)

PLO7: Understand and evaluate the sustainability and impact of engineering technician work in the solution of well-defined engineering problems in societal and environmental contexts (DK7)

PLO8: Understand and commit to professional ethics and responsibilities and norms of technician practice.

PLO9: Function effectively as an individual, and as a member in diverse technical teams

PLO10: Communicate effectively on well-defined engineering activities with the engineering community and with society at large, by being able to comprehend the work of others, document their own work, and give and receive clear instructions

PLO11: Demonstrate knowledge and understanding of engineering management technical team and to manage projects in multidisciplinary environments.

PLO12: Recognise the need for, and have the ability to engage in independent updating in the context of specialised technical knowledge.

NOTES

DK 1: A descriptive, formula-based understanding of the natural sciences applicable in sub-discipline

DK 2: Procedural mathematics, numerical analysis, statistics applicable in a subdiscipline

DK 3: A coherent procedural formulation of engineering fundamentals required in anaccepted sub-discipline

DK 4: Engineering specialist knowledge that provides the body of knowledge for anaccepted sub-discipline

DK 5: Knowledge that supports engineering design based on the techniques andprocedures of a practice area

DK 6: Codified practical engineering knowledge in recognized practice area

DK 7: Knowledge of issues and approaches in engineering technician practice: ethics, financial, cultural, environmental and sustainability impacts

POLITEKNIK MALAYSIA MUKAH

DIPLOMA IN ELECTRICAL AND ELECTRONIC ENGINEERING

PROGRAM STRUCTURE

SEMESTER 1

COMPONENTS	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
COMPULSORY	DUE10012	Communicative English 1	1	0	2	0	2	-
	MPU24XX1 MPU24XX1	*Sukan* *Unit Beruniform 1*	0	2	0	0	1	-
COMMON CORE	DUW10022	Occupational, Safety and Health	2	0	0	0	2	-
	DBM10013	Engineering Mathematics 1	2	0	2	0	3	-
	DBS10012	Engineering Science	2	1	0	0	2	-
DISCIPLINE CORE	DET10013	Electrical Technology	2	2	0	0	3	-
	DET10022	Electrical Wiring	1	3	0	0	2	-
	DEE10013	Measurement Devices	2	2	0	0	3	-
TOTAL			**26**				**18**	

SEMESTER 2

COMPONENTS	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
COMPULSORY	MPU21032	Penghayatan Etika dan Peradaban	1	0	2	0	**2**	-
	MPU24XX1	*Kelab/Persatuan*	0	2	0	0	1	
	MPU24XX1	*Unit Beruniform 2*						MPU24XX1
COMMON CORE	DBM20023	Engineering Mathematics 2	2	0	2	0	3	DBM10013
DISCIPLINE CORE	DET20033	Electrical Circuits	2	2	0	0	3	DET10012
	DEE20023	Semiconductor Devices	2	2	0	0	3	-
	DEE20033	Digital Electronics	2	2	0	0	3	-
	DEC20012	Programming Fundamentals	1	2	0	0	2	-
TOTAL			**24**				**17**	

DIPLOMA IN ELECTRICAL AND ELECTRONIC ENGINEERING

SEMESTER 3

COMPONENTS	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
COMPULSORY	DUE30012	Communicative English 2	1	0	2	0	2	DUE10012
COMMON CORE	DBM30043	Electrical Engineering Mathematics	2	0	2	0	3	DBM20023
DISCIPLINE CORE	DEE30043	Electronic Circuits	2	2	0	0	3	-
	DEE30061	Computer Aided Electrical Drawing	0	2	0	0	1	-
	DEE30052	Electronic Equipment Repair	1	3	0	0	2	DEE20023
	DEE30071	Electronic Computer Aided Design	0	2	0	0	1	-
	DEP30013	Communication System Fundamentals	2	2	0	0	3	-
	DET30053	Power System	2	2	0	0	3	DET20033
TOTAL			**27**				**18**	

SEMESTER 4

COMPONENTS	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
COMPULSORY	DUE50032	Communicative English 3	1	0	2	0	2	DUE30022
	MPU22012	Entrepreneurship	1	0	2	0	2	-
DISCIPLINE CORE	DEC40053	Embedded System Application	2	2	0	0	3	DEC20012
	DEJ40033	Programmable Logic Controller (PLC) and Automation	2	2	0	0	3	-
	DEC30023	Computer Networking Fundamentals	2	2	0	0	3	-
	DEE40082	Project 1	1	2	0	0	2	-
ELECTIVE		Elektif 1 ***	0	0	0	0	2	-
TOTAL			**21**				**17**	

DIPLOMA IN ELECTRICAL AND ELECTRONIC ENGINEERING

SEMESTER 5

COMPONENTS	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
COMPULSORY	MPU23052 MPU23042	*Sains Teknologi & Kejuruteraan Dalam Islam** Nilai Masyarakat Malaysia**	1	0	2	0	2	-
DISCIPLINE CORE	DEG30013	Fundamental of Renewable Energy	2	2	0	0	3	-
	DET40073	Power Electronics	2	2	0	0	3	-
	DEE50102	Project 2	0	3	0	0	2	DEE40082
	DET30043	Electrical Machine	2	2	0	0	3	-
ELECTIVE		Elektif 2 ***	0	0	0	0	2	-
TOTAL			**18**				**15**	

SEMESTER 6

COMPONENTS	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
INDUSTRIAL TRAINING	DUT600610	Engineering Industrial Training	0	0	0	0	10	-
TOTAL			0				10	-
TOTAL CREDIT VALUE							**95**	**-**

DIPLOMA IN ELECTRICAL AND ELECTRONIC ENGINEERING

ELECTIVES

COMPONENTS	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
ELECTIVE	DEE40113	Signal and System	2	2	0	0	3	DBM20023
	DEP40053	Fibre Optic Communication System	2	2	0	0	3	-
	DEC50122	Embedded Robotic	1	2	0	0	2	DEC20012
	DEE50122	Circuit Analysis	2	0	1	0	2	-
	DEP50063	Wireless Communication	2	2	0	0	3	-

LEGEND/NOTES:

PREQ	:	Prerequisite (s)
L	:	Lecture
P	:	Practical/Lab
T	:	Tutorial
O	:	Others
* For Muslim students		
** For non-Muslim students		
# Path 1 : Sport and Club		
## Path 2 : Uniform Unit		

(The numbers indicated under L, P, T & O represent the contact hours per week, to be used as a guide for time table preparation)

DIPLOMA IN ELECTRICAL AND ELECTRONIC ENGINEERING

COURSE SINOPSIS

SEMESTER	SYNOPSIS
1	**DEE10013: MEASUREMENT DEVICES** introduce students to the basic concept of electrical instrument and measurement. It covers the basic principles of measurement, safety precautions and meter calibration. Students will also use measurement devices such as analogue meters, DC meters, analogue and digital multimeters, oscilloscopes, signal generators and power meters during practical session. This course also covers the basic concept and simple application of DC Bridge
	DET10013: ELECTRICAL TECHNOLOGY course will introduce students to the principles related to DC electrical circuits. It covers the fundamental laws, theorems and circuit techniques of the electrical technology basic fundamental. This course also covers inductor, capacitor, magnetic and electromagnetic circuits.
	DET10022: ELECTRICAL WIRING course exposes students to the various aspects of wiring installation according to the MS IEC 60364 standard. Students will be able to relate theoretical aspect in practical work on electrical wiring during workshop sessions. This course also provides students with the knowledge and skill in doing different types of wiring installation, wiring protection, wiring inspection, wiring testing and sustainable energy practices in electrical wiring.
2	**DEE20033: DIGITAL ELECTRONICS** introduces the theories on the basic of digital systems. This course emphasizes on the digital system fundamentals and applications. This course mainly covers number systems, code systems, logic gates, Boolean operations, flip-flops, counters and registers.

DIPLOMA IN ELECTRICAL AND ELECTRONIC ENGINEERING

SEMESTER	SYNOPSIS
2	**DEE20033: DIGITAL ELECTRONICS** introduces the theories on the basic of digital systems. This course emphasizes on the digital system fundamentals and applications. This course mainly covers number systems, code systems, logic gates, Boolean operations, flip-flops, counters and registers.
	DET20033: ELECTRICAL CIRCUITS designed to provide students with the knowledge of electrical circuits. It emphasizes the principles of an alternating current AC waveform and sinusoidal steady-state circuit analysis. This course also covers the applications of three phase system and operation of various types of transformers.
	DEE20023: SEMICONDUCTOR DEVICES is an introduction to the basic electronic theories and devices. The course covers the fundamentals of electronic devices which includes diodes, bipolar junction transistors and field effect transistors. The content encompasses devices structure to biasing basic applications.
	DEC20012: PROGRAMMING FUNDAMENTAL course provides the skills necessary for the effective of application of computation and computer programming in engineering applications. Students will develop their programming skills through a variety of assignments and labs and by reviewing case studies and example programs. The learning outcome is proficiency in writing small to medium programs in a procedural programming language.
3	**DEE30071: ELECTRONIC COMPUTER AIDED DESIGN** covers the general introduction to the basic concept and fundamentals of electronic simulation and the applications of electronic packages for electronic circuit simulation at the circuit level and the logic level. Attention is also given to the concept of simulation for analogue, digital logic and mixedsignal circuits using various types of simulation analysis using an electronic simulation package such as Protel / Altium Designer, ORCAD, PSpice, Circuit Maker or Electronic Workbench.

DIPLOMA IN ELECTRICAL AND ELECTRONIC ENGINEERING

SEMESTER	SYNOPSIS
3	**DET30053: POWER SYSTEM** course will provide students with the concepts of non-renewable and renewable energy. It also annotates on the environmentally friendly electrical power generation, transmission, distribution and consumerization of the electrical power.
	DEE30052: ELECTRONIC EQUIPMENT REPAIR provides the knowledge and skills on troubleshooting and repairing the electronics equipment. This course focuses on the identification of faults in regulated dc power supply, audio equipment and television system. This course also provides knowledge and skills on troubleshooting and repairing broken cell phones
	DEP30013: COMMUNICATION SYSTEM FUNDAMENTALS introduce the students to the concepts of communication system. This course covers the principles of communications, analog and digital modulation techniques, multiplexing and transmission medium. It also exposes the students to the basic data communication system.
	DEE30043: ELECTRONIC CIRCUITS emphasizes the concept of electronic devices applications. The course covers the fundamental of electronic circuit applications which include power supply unit, filters, operational amplifier, timer, oscillator and AD/DA converters. The contents cover circuit configurations, operations and applications of the electronic circuits.
	DEE30061: COMPUTER AIDED ELECTRICAL DRAWING provides knowledge and exposure on the usage of AutoCAD software. The course focuses on the application of the software to produce drawings of graphics, electrical / electronic component symbols, circuit schematics and electrical wiring layout diagram. The skills acquired from this course will also equip students with the ability to learn and use other similar software .

DIPLOMA IN ELECTRICAL AND ELECTRONIC ENGINEERING

SEMESTER	SYNOPSIS
4	**DEJ40033: PROGRAMMABLE LOGIC CONTROLLER (PLC) AND AUTOMATION** provides knowledge regarding the concept and principle of automation system. This course emphasizes the relationship between conventional/hardwired/relay ladder logic (RLL) and PLC system, application of various industrial input and output devices of PLC, designing process, programming, constructing and PLC maintenance method. This course also provides knowledge and skills in designing environmentally friendly of automation control system based on conventional/hardwired/relay ladder logic (RLL) and PLC.
	DEE40082: PROJECT 1 provides knowledge regarding the implementation and development methods of a project based on hardware or software or a combination of hardware and software. This course provides exposure to the project management and finance, techniques to develop project and proposal preparation. The students are allowed to do an individual or group project but will be assessed individually through the project assessment tasks throughout the course
	DEC40053: EMBEDDED SYSTEM APPLICATIONS cover the basic concept and application of microcontroller system based on Peripheral Interface Controller (PIC) microcontroller. Students will learn software and hardware development on PIC16F/ PIC18F microcontroller development system and understand how to do interfacing with external devices using suitable internal chip features. Students are exposed to the new Microcontroller Unit (MCU) simulation software such as Proteus
	DEC30023: COMPUTER NETWORK FUNDAMENTALS introduce students to the concepts and principles of data transmission and computer networks. This course enables students to correctly use standard terminology in describing the main Local Area Network (LAN) topologies, hardware and software components used in networking. This course provides students with the knowledge and skills to build a network infrastructure using copper cabling, and wireless devices wisely. Students also learn to troubleshoot and secure the network.

DIPLOMA IN ELECTRICAL AND ELECTRONIC ENGINEERING

SEMESTER	SYNOPSIS
5	**DEE50102: PROJECT 2** is the continuation of DEE40082 PROJECT 1 course. The course focuses on methods of circuit construction, testing, troubleshooting, debugging, repair and also completion of the project which was planned during the previous semester. This course also requires students to manage an economical engineering-based project, prepare a project report in a given format and deliver a project presentation at the end of the semester. The students are allowed to do an individual or group project but will be assessed individually through the project assessment tasks throughout the course.
	DET40073: POWER ELECTRONICS course is aimed to equip students with the knowledge and skills related to power electronic devices and its application in power conversion. This course also will focus on the operational principle of rectifiers, choppers, inverters and AC voltage controller circuits. Emphasis is given more on producing the output voltage waveforms of the converters.
	DEG30013: FUNDAMENTAL OF RENEWABLE ENERGY course is aimed to provide students with the knowledge and skills related to meet the demands of the new economy that will rely on the primary source. The focus is on the renewable energy sources such as solar, wind, bioenergy, geothermal, hydroelectric, tidal and fuel cell. The importance and public benefits of renewable energy used and the environmental impact of renewable energy technologies will also be discussed.
	DET30043: ELECTRICAL MACHINE course expose students to the basic construction, principle of operation and control of various type of motor and generator. This course provides students with the basic knowledge and skills to solve various problem related to motors and generators.

SEMESTER	SYNOPSIS
Electives	**DEE40113: SIGNAL AND SYSTEM** provides knowledge on the signals and systems, the Linear Time-Invariant (LTI) systems, the Laplace transform the Z-transform and Fourier analysis. The course focuses on the mathematical description of signals and systems, the input-output relationship for Linear Time-Invariant (LTI) systems, the Laplace transform and Z-transform and their application techniques for analyzing the systems and Fourier analysis of signals and systems.
	DEP40053: FIBER OPTIC COMMUNICATION SYSTEM introduces students to the basic concept of fiber optic in communication systems with environmental sustainability. This course covers fiber optic characteristics, components in fiber optic system, losses in fiber optic cable and the fundamental concept of optical measurement. This course also provides knowledge in splicing techniques with safety awareness, multiplexing techniques and design consideration in fiber optic communication link
	DEP50063: WIRELESS COMMUNICATION introduces student to the basic of wireless communication includes several specialized topics. Students are expose to wireless networking, evolution of mobile communication, cellular network channels, techniques used to enhance capacity and speed, interferences, radio wave propagation and multiple access techniques. This course also exposes the student to the awareness of wireless technology to the health and environmental.
	DEE50122: CIRCUIT ANALYSIS provides knowledge and exposure on how to analyze electrical circuits that have alternating current (AC) voltage or current sources using various circuit analysis techniques and theorems. Application of mathematic theorem of Laplace Transform is also introduced as another method of AC circuit analysis and the use of mathematic theorem of Fourier Series to analyze electrical waveforms

DIPLOMA IN ELECTRONIC ENGINEERING (COMMUNICATION)

INTRODUCTION

This programme provides the knowledge and skills in communication engineering that can be applied to a wide range of careers in most electronic communication field. The Diploma in Electronic Engineering (Communication) covers wide discipline of electronics engineering, with specialization in communication technology which includes, electrical and electronic fundamentals, computer fundamentals and programming, communication system fundamentals, semiconductor devices, and computer aided design, while emphasizing the area of specialization. The specialization courses include telecommunication network, fibre optic communication system, data communication and networking, wireless communication and microwave devices.

PROGRAM SINOPSIS

The Diploma in Electronic Engineering (Communication) covers broad discipline of electronics engineering, with specialization in communication technology which includes, electrical and electronic fundamentals, computer fundamentals and programming, communication system fundamentals, semiconductor devices, and computer aided design, while emphasizing the area of specialization. The specialization courses include telecommunication network, fibre optic communication system, data communication and networking, wireless communication and microwave devices

PROGRAMME AIMS (PAI)

This programme believes that all individuals have potential to be a resourceful and adaptable technician to support the nation aspiration in providing engineering talent

DIPLOMA IN ELECTRONIC ENGINEERING (COMMUNICATION)

JOB PROSPECT

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

a. Assistant Engineer

b. Assistant Radio Frequency Engineer

c. Technical Executive

d. Marketing Executive

e. Technical Supervisor

f. Assistant Technical Designer

g. Assistant Network Engineer

h. Assistant Network Administrator

i. Assistant Drive Test Engineer

j. Assistant Drive Test Analyser Engineer

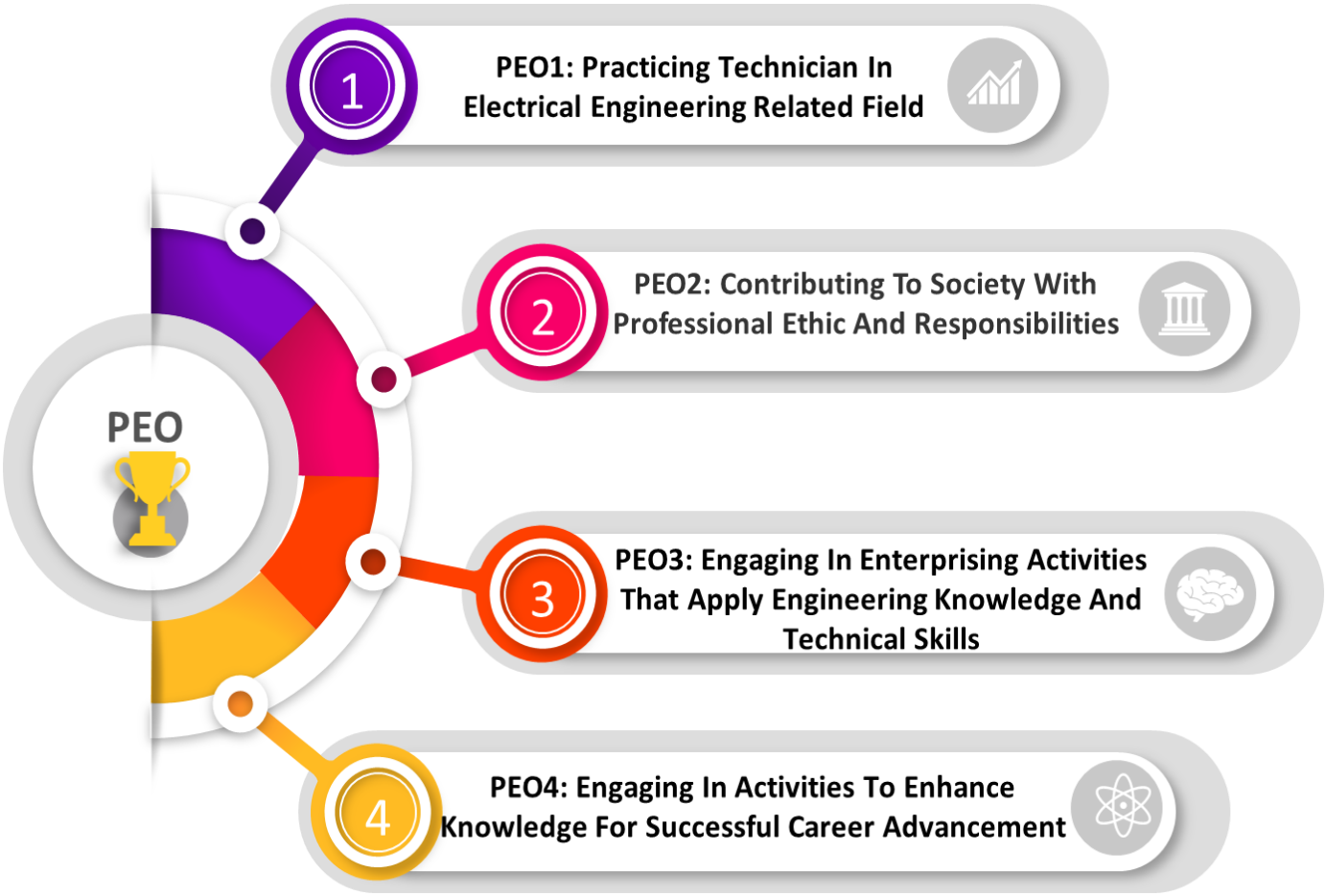
k. Network planner

l. Electrical/Electronic Technician

DIPLOMA IN ELECTRONIC ENGINEERING (COMMUNICATION)

PROGRAMME EDUCATIONAL OBJECTIVES (PEO)

The engineering programme should produce balanced TVET graduates who are:



PROGRAMME LEARNING OUTCOME (PEO)

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

PLO1: Apply knowledge of applied mathematics, applied science, engineering fundamentals and an engineering specialization as specified in DK1 to DK4 respectively to wide practical procedures and practices

PLO2: Identify and analyses well-defined engineering problems reaching substantiated conclusions using codified methods of analysis specific to their field of activity (DK1 to DK4)

PLO3: Design solutions for well-defined technical problems and assist with the design of systems, components or processes to meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations (DK5)

PLO4: Conduct investigations of well-defined problems; locate and search relevant codes and catalogues, conduct standard tests and measurements

PLO5: Apply appropriate techniques, resources, and modern engineering and IT tools to well-defined engineering problems, with an awareness of the limitations (DK6)

PLO6: Demonstrate knowledge of the societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to engineering technician practice and solutions to well-defined engineering problems (DK7)

PLO7: Understand and evaluate the sustainability and impact of engineering technician work in the solution of well-defined engineering problems in societal and environ mental contexts (DK7)

PLO8: Understand and commit to professional ethics and responsibilities and norms of technician practice

PLO9: Function effectively as an individual, and as a member in diverse technical teams

PLO10: Communicate effectively on well-defined engineering activities with the engineering community and with society at large, by being able to comprehend the work of others, document their own work, and give and receive clear instructions

PLO11: Demonstrate knowledge and understanding of engineering management principles and apply these to one's own work, as a member leader in a technical team and to manage projects in multidisciplinary environments

PLO12: Recognise the need for, and have the ability to engage in independent updating in the context of specialised technical knowledge

NOTES

DK 1: Adescriptive, formula-based understanding of the natural sciences applicable in a sub-discipline

DK 2: Procedural mathematics, numerical analysis, statistics applicable in a subdiscipline

DK 3: A coherent procedural formulation of engineering fundamentals required in an accepted sub-discipline

DK 4: Engineering specialist knowledge that provides the body of knowledge for an accepted sub-discipline

DK 5: Knowledge that supports engineering design based on the techniques and procedures of a practice area

DK 6: Codified practical engineering knowledge in recognised practice area

DK 7: Knowledge of issues and approaches in engineering technician practice: ethics,

DIPLOMA IN ELECTRONIC ENGINEERING (COMMUNICATION)

PROGRAM STRUCTURE

SEMESTER 1

COMPO-NENTS	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
COMPULSORY	DUE10012	Communicative English 1	1	0	2	0	2	-
	MPU24XX1 MPU24XX1	*Sukan* *Unit Beruniform 1*	0	2	0	0	1	-
COMMON CORE	DUW10022	Occupational, Safety and Health	2	0	0	0	2	-
	DBM10013	Engineering Mathematics 1	2	0	2	0	3	-
	DBS10012	Engineering Science	2	1	0	0	2	-
DISCIPLINE CORE	DET10013	Electrical Technology	2	2	0	0	3	-
	DET10022	Electrical Wiring	1	3	0	0	2	-
	DEE10013	Measurement Devices	2	2	0	0	3	-
TOTAL			**26**				**18**	

SEMESTER 2

COMPONENTS	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
COMPULSORY	MPU21032	Penghayatan Etika dan Peradaban	1	0	2	0	**2**	-
	MPU24XX1	Kelab/Persatuan	0	2	0	0	1	-
	MPU24XX1	Unit Beruniform 2						MPU24XX1
COMMON CORE	DBM20023	Engineering Mathematics 2	2	0	2	0	3	DBM10013
DISCIPLINE CORE	DET20033	Electrical Circuits	2	2	0	0	3	DET10013
	DEE20023	Semiconductor Devices	2	2	0	0	3	-
	DEE20033	Digital Electronics	2	2	0	0	3	-
	DEC20012	Programming Fundamentals	1	2	0	0	2	-
TOTAL			0				**17**	

DIPLOMA IN ELECTRONIC ENGINEERING (COMMUNICATION)

SEMESTER 3

COMPONENTS	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
COMPULSORY	DUE30012	Communicative English 2	1	0	2	0	2	DUE10012
COMMON CORE	DBM30043	Electrical Engineering Mathematics	2	0	2	0	3	DBM20023
DISCIPLINE CORE	DEE30043	Electronic Circuits	2	2	0	0	3	-
	DEP30013	Communication System Fundamentals	2	2	0	0	3	-
	DEE30052	Electronic Equipment Repair	1	3	0	0	2	DEE20023
	DEE30071	Electronic Computer Aided Design	0	2	0	0	1	-
SPECIALISATION	DEP 30083	Telecommunication Network	2	2	0	0	3	-
TOTAL			**25**				**17**	

SEMESTER 4

COMPONENTS	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
COMPULSORY	DUE50032	Communicative English 3	1	0	2	0	2	DUE30022
	MPU22012	Entrepreneurship	1	0	2	0	2	-
DISCIPLINE CORE	DEC40053	Embedded System Application	2	2	0	0	3	DEC20012
SPECIALISATION	DEP40053	Fibre Optic Communication System	2	2	0	0	3	-
	DEE40113	Signal and System	2	2	0	0	3	DBM20023
	DEE40082	Project 1	1	2	0	0	2	-
ELECTIVE		Elektif 1 ***	0	0	0	0	2	-
TOTAL			**21**				**17**	

DIPLOMA IN ELECTRONIC ENGINEERING (COMMUNICATION)

SEMESTER 5

COMPONENTS	COURSE CODE	COURSE	CONTACT HOURS				CREDIT VALUES	PREQ
			L	P	T	O		
COMPULSORY	MPU23052	Sains Teknologi & Kejuruteraan Dalam Islam*	1	0	2	0	2	-
	MPU23042	Nilai Masyarakat Malaysia**						-
DISCIPLINE CORE	DEE30061	Computer Aided Electrical Drawing	0	2	0	0	1	-
SPECIALISATION	DEP50033	Data Communication and Networking	2	2	0	0	3	DEP30013
	DEE50102	Project 2	0	3	0	0	2	DEE40082
	DEP50063	Wireless Communication	2	2	0	0	3	-
	DEP50043	Microwave Devices	2	2	0	0	3	-
ELECTIVE		Elektif 2 ***	0	0	0		2	-
TOTAL			**20**				**16**	**-**

SEMESTER 6

COMPONENTS	COURSE CODE	COURSE	CONTACT HOURS				CREDIT VALUES	PREQ
			L	P	T	O		
INDUSTRIAL TRAINING	DUT600610	Engineering Industrial Training	0	0	0	0	10	-
TOTAL							**10**	**-**
TOTAL CREDIT VALUE							**95**	

DIPLOMA IN ELECTRONIC ENGINEERING (COMMUNICATION)

ELECTIVES

COMPONENTS	COURSE CODE	COURSE	CONTACT HOURS				CREDIT VALUES	PREQ
			L	P	T	O		
ELECTIVES	DEJ40033	Programmable Logic Controller & Automation	2	2	0	0	3	-
	DEC50122	Embedded Robotic	1	2	0	0	2	DEC20012
	DEE50122	Circuit Analysis	2	0	1	0	2	-
	DET40073	Power Electronics	2	2	0	0	3	-

LEGEND/NOTES:

PREQ	:	Prerequisite (s)
L	:	Lecture
P	:	Practical/Lab
T	:	Tutorial
O	:	Others
* For Muslim students		
** For non-Muslim students		
# Path 1 : Sport and Club		
## Path 2 : Uniform Unit		

(The numbers indicated under L, P, T & O represent the contact hours per week, to be used as a guide for time table preparation)

DIPLOMA IN ELECTRONIC ENGINEERING (COMMUNICATION)

COURSE SINOPSIS

SEMESTER	SYNOPSIS
1	**DEE10013: MEASUREMENT DEVICES** introduce students to the basic concept of electrical instrument and measurement. It covers the basic principles of measurement, safety precautions and meter calibration. Students will also use measurement devices such as analogue meters, DC meters, analogue and digital multimeters, oscilloscopes, signal generators and power meters during practical session. This course also covers the basic concept and simple application of DC Bridge.
	DET10013: ELECTRICAL TECHNOLOGY course will introduce students to the principles related to DC electrical circuits. It covers the fundamental laws, theorems and circuit techniques of the electrical technology basic fundamental. This course also covers inductor, capacitor, magnetic and electromagnetic circuits.
	DET10022: ELECTRICAL WIRING course exposes students to the various aspects of wiring installation according to the MS IEC 60364 standard. Students will be able to relate theoretical aspect in practical work on electrical wiring during workshop sessions. This course also provides students with the knowledge and skill in doing different types of wiring installation, wiring protection, wiring inspection, wiring testing and sustainable energy practices in electrical wiring.
2	**DEE20033: DIGITAL ELECTRONICS** introduces the theories on the basic of digital systems. This course emphasizes on the digital system fundamentals and applications. This course mainly covers number systems, code systems, logic gates, Boolean operations, flip-flops, counters and registers.
	DET20033: ELECTRICAL CIRCUITS designed to provide students with the knowledge of electrical circuits. It emphasizes the principles of an alternating current AC waveform and sinusoidal steady-state circuit analysis. This course also covers the applications of three phase system and operation of various types of transformers.

DIPLOMA IN ELECTRONIC ENGINEERING (COMMUNICATION)

SEMESTER	SYNOPSIS
2	**DEC20012: PROGRAMMING FUNDAMENTAL** course provides the skills necessary for the effective of application of computation and computer programming in engineering applications. Students will develop their programming skills through a variety of assignments and labs and by reviewing case studies and example programs. The learning outcome is proficiency in writing small to medium programs in a procedural programming language.
	DEE20023: SEMICONDUCTOR DEVICES is an introduction to the basic electronic theories and devices. The course covers the fundamentals of electronic devices which includes diodes, bipolar junction transistors and field effect transistors. The content encompasses devices structure to biasing basic applications.
3	**DEP30083: TELECOMMUNICATION NETWORK** provides students with the basic knowledge of telecommunication network of Next Generation Networks (NGN). This course focuses on NGN architectures, protocols and services, including technologies and regulation. Students are also expose to NGN convergence between the traditional telecommunications and the internet to facilitate voice and data communications.
	DEE30071: ELECTRONIC COMPUTER AIDED DESIGN covers the general Introduction to the basic concept and fundamentals of electronic simulation and the applications of electronic packages for electronic circuit simulation at the circuit level and the logic level. Attention is also given to the concept of Simulation for analogue, digital logic and mixedsignal circuits using various types of simulation analysis using an electronic simulation package such as Protel / Altium Designer, ORCAD, PSpice, Circuit Maker or Electronic Workbench.
	DEE30043: ELECTRONIC CIRCUITS emphasizes the concept of electronic devices applications. The course covers the fundamental of electronic circuit applications which include power supply unit, filters, operational amplifier, timer, oscillator and AD/DA converters. The contents cover circuit configurations, operations and applications of the electronic circuits.

DIPLOMA IN ELECTRONIC ENGINEERING (COMMUNICATION)

SEMESTER	SYNOPSIS
3	**DEE30052: ELECTRONIC EQUIPMENT REPAIR** provides the knowledge and skills on troubleshooting and repairing the electronics equipment. This course focuses on the identification of faults in regulated dc power supply, audio equipment and television system. This course also provides knowledge and skills on troubleshooting and repairing broken cell phones
	DEE30052: ELECTRONIC EQUIPMENT REPAIR provides the knowledge and skills on troubleshooting and repairing the electronics equipment. This course focuses on the identification of faults in regulated dc power supply, audio equipment and television system. This course also provides knowledge and skills on troubleshooting and repairing broken cell phones
	DEP30013: COMMUNICATION SYSTEM FUNDAMENTALS introduce the students to the concepts of communication system. This course covers the principles of communications, analog and digital modulation techniques, multiplexing and transmission medium. It also exposes the students to the basic data communication system.
4	**DEE40113: SIGNAL AND SYSTEM** provides knowledge on the signals and systems, the Linear Time-Invariant (LTI) systems, the Laplace transform the Z-transform and Fourier analysis. The course focuses on the mathematical description of signals and systems, the input-output relationship for Linear Time-Invariant (LTI) systems, the Laplace transform and Z-transform and their application techniques for analyzing the systems and Fourier analysis of signals and systems.
	DEE40082: PROJECT 1 provides knowledge regarding the implementation and development methods of a project based on hardware or software or a combination of hardware and software. This course provides exposure to the project management and finance, techniques to develop project and proposal preparation. The students are allowed to do an individual or group project but will be assessed individually through the project assessment tasks throughout the course.

DIPLOMA IN ELECTRONIC ENGINEERING (COMMUNICATION)

SEMESTER	SYNOPSIS
4	**DEP40053: FIBER OPTIC COMMUNICATION SYSTEM** introduces students to the basic concept of fiber optic in communication systems with environmental sustainability. This course covers fiber optic characteristics, components in fiber optic system, losses in fiber optic cable and the fundamental concept of optical measurement. This course also provides knowledge in splicing techniques with safety awareness, multiplexing techniques and design consideration in fiber optic communication link.
	DEC40053: EMBEDDED SYSTEM APPLICATIONS cover the basic concept and application of microcontroller system based on Peripheral Interface Controller (PIC) microcontroller. Students will learn software and hardware development on PIC16F/ PIC18F microcontroller development system and understand how to do interfacing with external devices using suitable internal chip features. Students are exposed to the new Microcontroller Unit (MCU) simulation software such as Proteus.
5	**DEE50102: PROJECT 2** is the continuation of DEE40082 PROJECT 1 course. The course focuses on methods of circuit construction, testing, troubleshooting, debugging, repair and also completion of the project which was planned during the previous semester. This course also requires students to manage an economical engineering-based project, prepare a project report in a given format and deliver a project presentation at the end of the semester. The students are allowed to do an individual or group project but will be assessed individually through the project assessment tasks throughout the course.
	DEE30061:COMPUTER AIDED ELECTRICAL DRAWING provides knowledge and exposure on the usage of AutoCAD software. The course focuses on the application of the software to produce drawings of graphics, electrical /electronic component symbols, circuit schematics and electrical wiring layout diagram. The skills acquired from this course will also equip students with the ability to learn and use other similar software.

DIPLOMA IN ELECTRONIC ENGINEERING (COMMUNICATION)

SEMESTER	SYNOPSIS
5	**DEP50063:WIRELESS COMMUNICATION** introduces student to the basic of wireless communication includes several specialized topics. Students are expose to wireless networking, evolution of mobile communication, cellular network channels, techniques used to enhance capacity and speed, interferences, radio wave propagation and multiple access techniques. This course also exposes the student to the awareness of wireless technology to the health and environmental
	DEP50043:MICROWAVE DEVICES introduces the existence, characteristic and the effect of electromagnetic wave to the surrounding. This course also focuses on the devices used in microwave communication system such as waveguide (transmission lines), basic accessories, sources, microwave antennas as well as the techniques of measurement used in microwave system.
	DEP50043:MICROWAVE DEVICES introduces the existence, characteristic and the effect of electromagnetic wave to the surrounding. This course also focuses on the devices used in microwave communication system such as waveguide (transmission lines), basic accessories, sources, microwave antennas as well as the techniques of measurement used in microwave system.
ELECTIVES	**DET40073: POWER ELECTRONICS** course is aimed to equip students with the knowledge and skills related to power electronic devices and its application in power conversion. This course also will focus on the operational principle of rectifiers, choppers, inverters and AC voltage controller circuits. Emphasis is given more on producing the output voltage waveforms of the converters.

SEMESTER	SYNOPSIS
ELECTIVES	**DEG30013: FUNDAMENTAL OF RENEWABLE ENERGY** course is aimed to provide students with the knowledge and skills related to meet the demands of the new economy that will rely on the primary source. The focus is on the renewable energy sources such as solar, wind, bioenergy, geothermal, hydroelectric, tidal and fuel cell. The importance and public benefits of renewable energy used and the environmental impact of renewable energy technologies will also be discussed.
	DEJ40033: PROGRAMMABLE LOGIC CONTROLLER (PLC) & AUTOMATION provides knowledge regarding the concept and principle of automation system. This course emphasizes the relationship between conventional/hardwired/relay ladder logic (RLL) and PLC system, application of various industrial input and output devices of PLC, designing process, programming, constructing and PLC maintenance method. This course also provides knowledge and skills in designing environmentally friendly of automation control system based on conventional/ hardwired/relay ladder logic (RLL) and PLC.

POLITEKNIK MALAYSIA
MUKAH

MECHANICAL ENGINEERING DEPARTMENT

DIPLOMA IN MECHANICAL ENGINEERING

INTRODUCTION

In line with the 3rd Industrial Malaysia Plan (IMP3) aiming for the innovative and creative human capital development, via matching talent to expertise with market demand, Diploma in Mechanical Engineering for polytechnic is developed to give balance emphasis on theoretical and practical aspects. The Eleventh Malaysia Plan was drawn to produced 60% out of 1.5 million workers was in TVET sector. Until now a total of 69,475 (51%) of the 136,062 technical education and vocational training (TVET) graduates in Malaysia are working as professionals and skilled workers. Thus, to keep abreast with rapid demand in TVET sector, Department of Polytechnic and Community College Education (DPCCE) progressively collaborates with major industry players in the country in developing the curriculum. The programme will take six semesters to complete, five academic semesters at their respective polytechnics and one semester of industrial training at relevant industries during the final semester. This programme complies with the Board of Engineer (BEM) requirement.

SYNOPSIS

The Diploma in Mechanical Engineering programme is designed to produced holistic graduates that have knowledge and competent skills in the field of mechanical engineering to fulfil the demand of workers in engineering sector. The programme structure focusses on the area of Solid Mechanics, Statics & Dynamics, Thermodynamics & Heat Transfer, Fluid Mechanics, Materials, Mechanical Design, Workshop Practices, Manufacturing, Instrumentation & Control, Mechanical Maintenance, Electrical & Electronic Technology.

PROGRAMME AIM

The programme believes that every individual has potential and the programme aims to develop adaptable and responsible Senior Assistant Engineers to support government aspiration to increase workforce in engineering related field.

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:

a. Assistant Engineer

b. Technical Assistant

c. Assistant Service Manager

d. Service Advisor

e. Supervisor

f. Technician

g. Technical Instructor or Lecturer

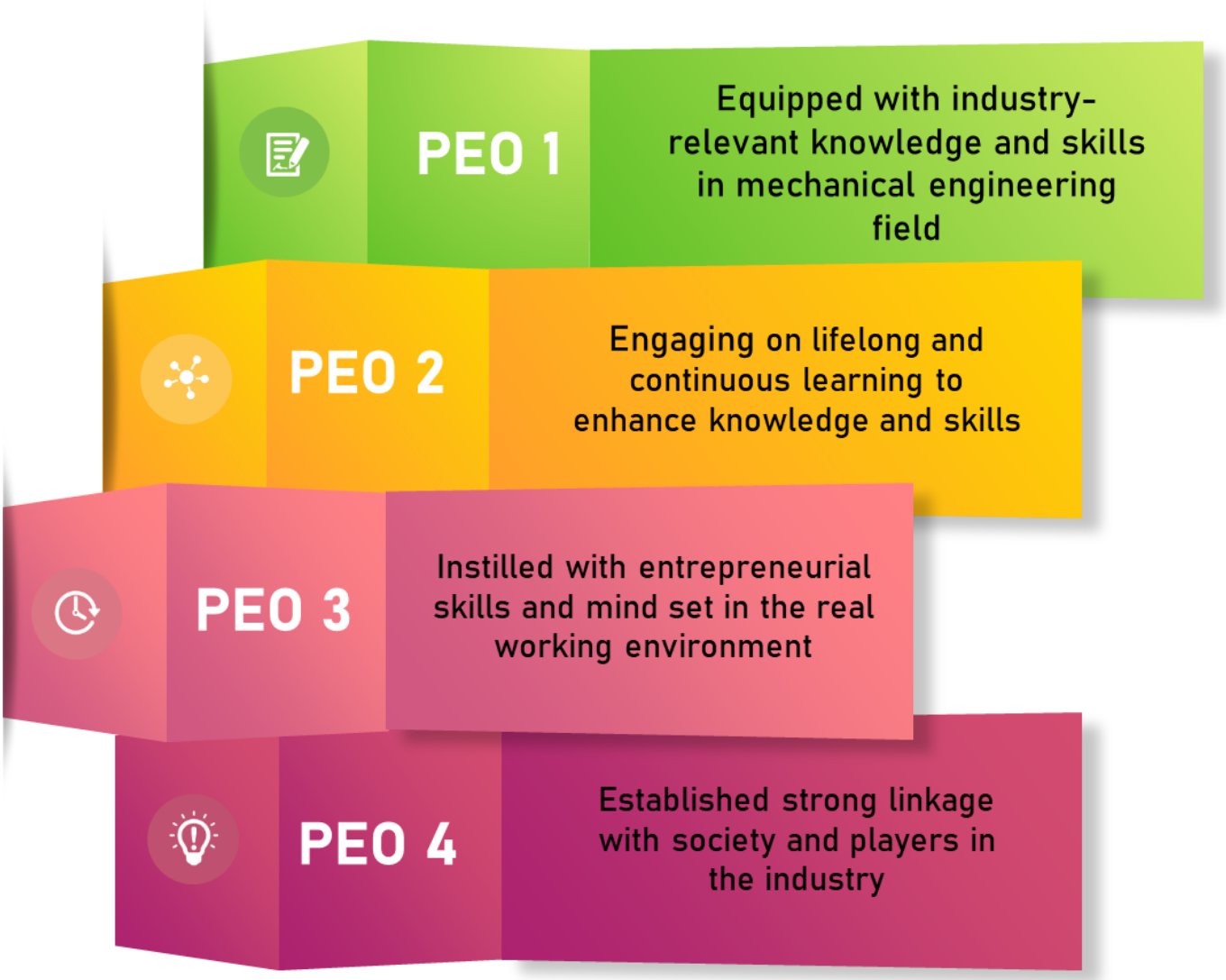
h. Technical Sales Executive / Engineer

i. Draughter / Designer j

j. Entrepreneur

PROGRAMME EDUCATIONAL OBJECTIVES (PEO)

The Diploma in Mechanical Engineering programme should produce balanced and competent technical workers who are:



PROGRAMME EDUCATIONAL OBJECTIVES (PEO)

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

PLO1: Apply knowledge of applied mathematics, applied science, engineering fundamentals and an engineering specialisation as specified in DK1 to DK4 respectively to wide practical procedures and practices .

PLO2: Identify and analyse well-defined engineering problems reaching substantiated conclusions using codified methods of analysis specific to their field of activity (DK1 to DK4)

PLO3: Design solutions for well-defined technical problems and assist with the design of systems, components or processes to meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations (DK5)

PLO4: Conduct investigations of well-defined problems; locate and search relevant codes and catalogues, conduct standard tests and measurements

PLO5: Apply appropriate techniques, resources, and modern engineering and IT tools to well-defined engineering problems, with an awareness of the limitations (DK6)

PLO6: Demonstrate knowledge of the societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to engineering technician practice and solutions to well-defined engineering problems (DK7)

PLO7: Understand and evaluate the sustainability and impact of engineering technician work in the solution of well-defined engineering problems in societal and environmental contexts (DK7)

PLO8: Understand and commit to professional ethics and responsibilities and norms of technician practice

PLO9: Function effectively as an individual, and as a member in diverse technical teams

PLO10: Communicate effectively on well-defined engineering activities with the engineering community and with society at large, by being able to comprehend the work of others, document their own work, and give and receive clear instructions

PLO11: Demonstrate knowledge and understanding of engineering management principles and apply these to one's own work, as a member or leader in a technical team and to manage projects in multidisciplinary environments

PLO12: Recognise the need for, and have the ability to engage in independent updating in the context of specialised technical knowledge

NOTES

DK 1 : A descriptive, formula-based understanding of the natural sciences applicable in a sub-discipline

DK 2 : Procedural mathematics, numerical analysis, statistics applicable in a sub discipline

DK 3: A coherent procedural formulation of engineering fundamentals required in an accepted sub-discipline

DK 4 : Engineering specialist knowledge that provides the body of knowledge for an accepted sub-discipline

DK 5 : Knowledge that supports engineering design based on the techniques and procedures of a practice area

DK 6 : Codified practical engineering knowledge in recognised practice area.

DK 7 : Knowledge of issues and approaches in engineering technician practice: ethics, Financial, cultural, environmental and sustainability impacts

DIPLOMA IN MECHANICAL ENGINEERING
PROGRAM STRUCTURE

SEMESTER 1

CLASSIFICATION	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
COMPULSORY	DUE10012	Communicative English 1	1	0	2	0	2	-
	MPU24XX1	Sukan	0	2	0	0	1	-
	MPU24XX1	Unit Beruniform 1						
COMMON CORE	DUW10022	Occupational, Safety and Health for Engineering	2	0	0	0	2	-
	DBS10012	Engineering Science	2	1	0	0	2	-
	DBM10013	Engineering Mathematics 1	2	0	2	0	3	-
DISCIPLINE CORE	DJJ10013	Engineering Drawing	1	3	0	0	3	-
	DJJ10022	Mechanical Workshop Practice 1	0	4	0	0	2	-
	DJJ10033	Workshop Technology	3	0	0	0	3	-
TOTAL			**25**				**18**	

SEMESTER 2

CLASSIFICATION	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
COMPULSORY	MPU23052	Sains, Teknologi dan Kejuruteraan Dalam Islam*	1	0	2	0	2	-
	MPU23042	Nilai Masyarakat Malaysia**						
	MPU24XX1	Kelab/Persatuan	0	2	0	0	1	MPU24XX1
	MPU24XX1	Unit Beruniform 2						
COMMON CORE	DBM20023	Engineering Mathematics 2	2	0	2	0	3	DBM10013
DISCIPLINE CORE	DJJ20042	Mechanical Workshop Practice 2	0	4	0	0	2	DJJ10022
	DJJ20053	Electrical Technology	2	2	0	0	3	-
	DJJ20063	Thermodynamics	2	2	0	0	3	-
	DJJ20073	Fluid Mechanics	2	2	0	0	3	-
TOTAL			**25**				**17**	

DIPLOMA IN MECHANICAL ENGINEERING

SEMESTER 3

CLASSIFICATION	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
COMPULSORY	DUE30022	Communicative English 2	1	0	2	0	2	DUE10012
COMMON CORE	DBM30033	Engineering Mathematics 3	2	0	2	0	3	DBM20023
DISCIPLINE CORE	DJJ30082	Mechanical Workshop Practice 3	0	4	0	0	2	DJJ20042
	DJJ30093	Engineering Mechanics	2	2	0	0	3	-
	DJJ30103	Strength of Materials	2	2	0	0	3	-
	DJJ30113	Material Science and Engineering	2	2	0	0	3	-
	DJJ30122	Computer Aided Design	1	2	0	0	2	DJJ10013
TOTAL			**26**				**18**	

SEMESTER 4

CLASSIFICATION	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
COMMON CORE	DJJ40132	Engineering and Society	2	0	0	0	2	-
DISCIPLINE CORE	DJJ40142	Mechanical Workshop Practice 4	0	4	0	0	2	DJJ30082
	DJJ40153	Pneumatic and Hydraulics	2	2	0	0	3	-
	DJJ40163	Mechanics of Machines	2	2	0	0	3	DJJ30093
	DJJ40173	Engineering Design	2	2	0	0	3	DJJ30122
	DJJ40182	Project 1	2	0	0	0	2	-
Elective		Elective***						-
TOTAL			**20**				**15**	

DIPLOMA IN MECHANICAL ENGINEERING

SEMESTER 5

CLASSIFICATION	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
COMPULSORY	MPU21032	Penghayatan Etika dan Peradaban	1	0	2	0	2	-
	DUE50032	Communicative English 3	1	0	2	0	2	DUE30022
	MPU22012	Entrepreneurship	1	0	2	0	2	-
DISCIPLINE CORE	DJJ50193	Project 2	0	4	0	0	3	DJJ40182
	DJJ50203	Troubleshooting and Maintenance for Mechanical Components	2	2	0	0	3	-
	DJJ50212	Maintenance Engineering and Management	2	0	0	0	2	-
ELECTIVE		Elective***						-
TOTAL			**19**				**14**	

SEMESTER 6

CLASSIFICATION	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
INDUSTRIAL TRAINING	DUT600610	Engineering Industrial Training	0	0	0	0	10	
TOTAL			**0**				**10**	
TOTAL CREDIT VALUES							**94**	

ELECTIVES COURSES

CLASSIFICATION	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
ELECTIVE	DJJ42022	Industrial Management	2	0	0	0	2	-
	DJJ42032	Instrumentation and Control	2	0	0	0	2	-
	DJJ52012	Engineering Plant Technology	2	0	0	0	2	-
	DJJ52052	Railway Track System	2	0	0	0	2	-
	DJM20032	C Programming	1	2	0	0	2	-
	DJM40082	Programmable Logic Control	1	2	0	0	2	-
	DJM40092	Control System	2	1	0	0	2	-
	DJF51082	Quality Control	2	0	0	0	2	-
FREE ELECTIVES	DUD10012	Design Thinking	1	0	0	1	2	-

LEGEND/NOTES:

PREQ	:	Prerequisite (s)
L	:	Lecture
P	:	Practical/Lab
T	:	Tutorial
O	:	Others
* For Muslim students		
** For non-Muslim students		
# Path 1 : Sport and Club		
## Path 2 : Uniform Unit		

(The numbers indicated under L, P, T & O represent the contact hours per week, to be used as a guide for time table preparation)

COURSE SINOPSIS

SEMESTER	SINOPSIS
1	**DJJ 10013 : ENGINEERING DRAWING** course provides the students with the fundamentals of technical drawings and the application Computer Aided Design (CAD) software. For technical drawing, it emphasizes on the practical knowledge of drawing instruments and drawing techniques while for CAD the student will learn to navigate and use the software to create 2D drawing design in engineering. Students shall be able to demonstrate competency in using some standard available features of technical drawing and CAD application to create and manipulate objects or elements in engineering drawing.
	DJJ 10022 :MECHANICAL WORKSHOP PRACTICE 1 exposes the students to welding, machining and fitting which involve the use of arc and 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.
	DJJ 10033: 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)
2	**DJJ20042: MECHANICAL WORKSHOP PRACTICE 2** exposes the students to arc and gas welding, foundry and machining works. Safety procedure practice is heavily emphasized in the workshop.
	DJJ 20063 :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 to the demonstration of experiments in Thermodynamics by using the real equipment.

COURSE SINOPSIS

SEMESTER	SINOPSIS
2	**DJJ 20053 : 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 Engineering.
	DJJ 20073 : FLUID MECHANICS provides students with a strong understanding of the fundamentals of fluid mechanics principles related to the fluid properties and behavior in static and dynamic situations. This course also exposes the students to the demonstration at the real equipment of fluid mechanics.
3	**DJJ 30082 : MECHANICAL WORKSHOP PRACTICE 3** exposes the students to the use of Tungsten Inert Gas (TIG) and Metal Inert Gas (MIG) welding machines. Students also will perform a task by using lathe and milling machine. In addition students will be exposed in safety procedures practice will be emphasized in workshop.
	DJJ 30093 :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.
	DJJ 30113:MATERIALS SCIENCE AND ENGINEERING course introduces students a comprehensive coverage of basic fundamentals of materials science and engineering. The course focuses on material structures, properties, fabrication methods, corrosion, thermal processing and material testing mostly of metals and alloys. New fabrication method of powder metallurgy are introduces to student to cater the fabrications of devices, sensors for Industry 4.0 technology.

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DIPLOMA IN MECHANICAL ENGINEERING

SEMESTER	SINOPSIS
3	**DJJ 30103 : 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.
	DJJ 30122:COMPUTER AIDED DESIGN exposes the students to the fundamentals and principles of 3D drawing using 3D CAD software. Students also equip with various method of creating a solid model using extrude, revolve, swept, assembly, simulation and animation. Hands-on exercises drawing of mechanical engineering will also be covered in this course.
4	**DJJ 40132 : ENGINEERING AND SOCIETY** focuses on the introduction to professional ethics, theory and philosophy of ethics, values in professional ethics, engineering bylaws and standards, issues in professional ethics and sustainability. It also relates towards IR 4.0 introduction and green engineering.
	DJJ 40142:MECHANICAL WORKSHOP PRACTICES 4 course allows the students to operate machine tools, precision grinding, CNC machine and able to work in a clean and safe workshop environment.
	DJJ 40153:PNEUMATIC & HYDRAULICS provides knowledge and understanding to the importance of pneumatics and hydraulics circuits, equipment and design along with its usage in the industry.
	DJJ40173: ENGINEERING DESIGN course offers a comprehensive coverage of basic concept engineering design. Student will learn the fundamental concepts for designing process, designing consideration, ergonomic, materials selection and emphasizes on mathematical analysis for simple components designs in engineering. It also provides knowledge on reverse engineering and practical on 3D printing.

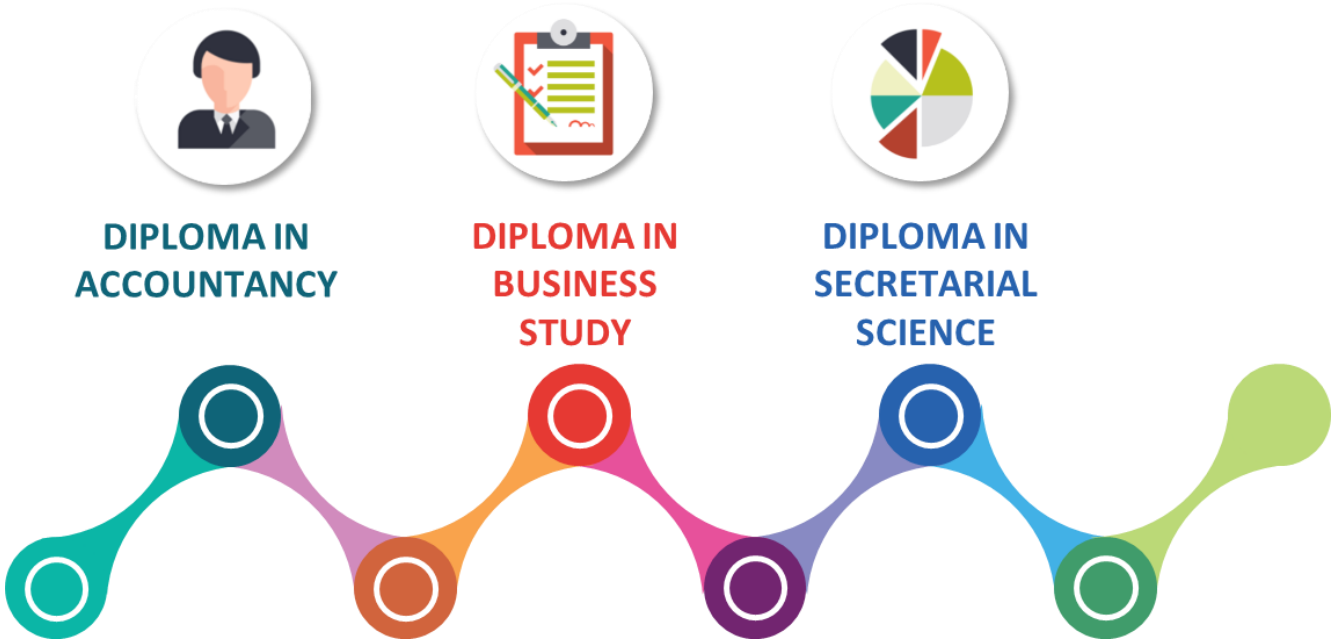
SEMESTER	SINOPSIS
4	**DJJ40182:PROJECT 1** provides students with solid foundation on knowledge and skills in formulating project proposal preparation, writing and presentation.
	DJJ 42022 :INDUSTRIAL MANAGEMENT provides students with a strong fundamental understanding of industrial management prospect 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.
	DJJ 40163:MECHANICS OF MACHINES exposes the students with knowledge on techniques and concepts of mechanics of machines and analyzing problems related to hoists, simple harmonic motion, velocity and acceleration diagram, and belt drives. This course also exposes the students to the demonstration of experiments in Mechanics of Machines by using the real equipment.
5	**DJJ 50193: PROJECT 2** is a continuation of Project 1 focusing on project planning, development, project report and presentation. This course introduces students with ability and skills in conducting project planning, development and management based on their project design. It also provides the student with technical writing and presentation skills. The project will be implemented in a group and each group will work on a project under lecturer(s) supervision. Project titles will be based on specialization and students will be assessed individually.
	DJJ50203: TROUBLESHOOTING AND MAINTENANCE FOR MECHANICAL COMPONENTS course covers necessary mechanical components needed in Industries. The topics include maintenance and troubleshooting principles and procedures, power transmission, bearing and pump. This course provides knowledge and skills on maintenance and troubleshooting lubrication, bearing, power transmission and pump.
	DJJ 50212: MAINTENANCE ENGINEERING AND MANAGEMENT covers topic such as maintenance organization, maintenance strategies system, system approach to maintenance, maintenance planning and scheduling and computerized maintenance management system (CMMS).

SEMESTER	SINOPSIS
ELECTIVES	**DJJ 52012: ENGINEERING PLANT TECHNOLOGY** provides an introduction to power plant technology industry such as steam power plant, gas turbine power plant, diesel power plant, compressed air plant and water pump.
	DJM40082 : PROGRAMMABLE LOGIC CONTROLLER (PLC) is a course designed to provide students with hardware adaptation and programming skills by employing a PLC for an automation system in the industry. Basic types of automation systems will be studied to assist students in visualizing the application of PLC. The co-relation application of PLC in the automation system will be explored both by theoretical and experimental mode. Practical application of an automation system with PLC will be simulated in a laboratory environment to provide a pseudo industrial based experience.

COMMERCE DEPARTMENT

INTRODUCTION

COMMERCE DEPARTMENT offers Diploma in Accountancy, Diploma in Business Studies and Diploma in Secretarial Science programmes. All programmes are approved and accredited by Malaysia Qualification Agency (MQA). Commerce Department is led by Kartini Binti Che Ibrahim and assisted by three Heads of Programme, Adi Jaya Bin Adam (Diploma in Accountancy) and Dolly Shandy Anak Robert (Diploma in Secretarial Science) and Siti Khadijah Binti Sebli Joney (Diploma In Business Study)



DIPLOMA IN BUSINESS STUDIES

INTRODUCTION

The world of business continues to grow, expand and develop both in terms of scale and complexity. Technological advancements and globalisation have led to the creation of several new approaches to cater to the current trend to keep pace with global needs. The birth of the knowledge age creates challenges to compete and survive in business today. Thus, a multi-skilled worker is highly demanded by employers to meet the needs of their organisations. Hence, the Department of Polytechnic and Community College Education (DPCCE) has collaborated with the industrial sectors in reviewing the curriculum. The purpose of the collaboration is to equip our students with the latest information, knowledge and skills which are desired in fulfilling the job market requirements. Thus, the graduates of this diploma are expected to be proficient in core business-oriented disciplines such as business management, marketing, accounting, entrepreneurship, business law, human resource management, finance and economics. Our programme structure ensures that all courses are coherent at every stage and that knowledge and skills are developed progressively throughout the course.

SYNOPSIS

The Diploma in Business Studies aim to increase and enrich student's knowledge across a broad range of business disciplines and help preparing students for the challenges of a career in contemporary business. This programme, dynamically enables students to develop their skills in a wide range of area such as management, sales, operations, marketing, human resource management, accounting, finance, marketing, insurance, banking and also entrepreneurship. Due to the flexible nature of frameworks the courses enable to select pathways appropriates to their interest, either to enter job the market or to pursue their studies in various business programmes.

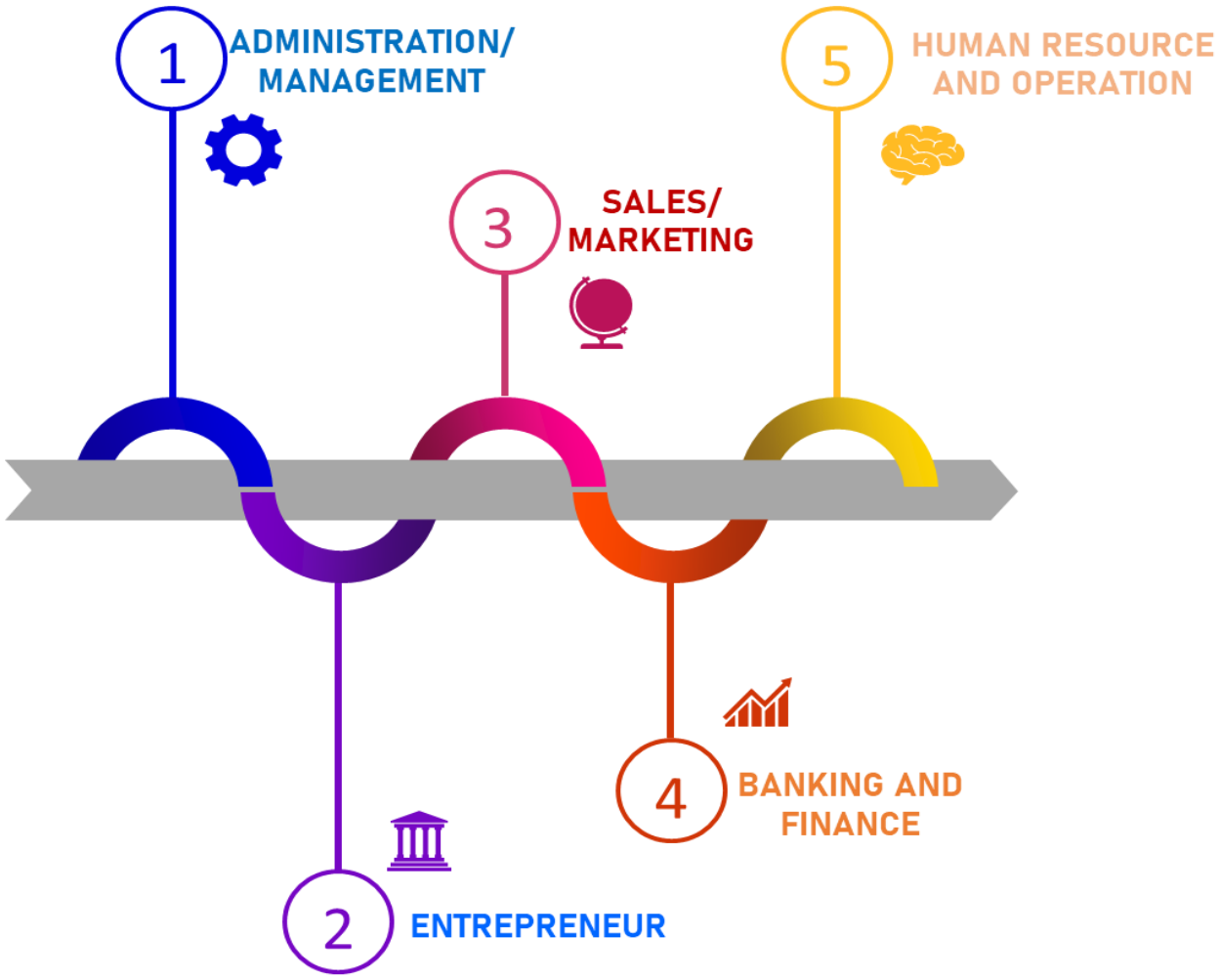
PRORGRAM AIM

This programme believes that every individual has the potential to be adaptable and responsible business practitioners in supporting national agenda to spur the development of industrial activities towards enhancing Malaysia's economic growths and thus becoming a developed nation.

DIPLOMA IN BUSINESS STUDIES

JOB PROSPECT

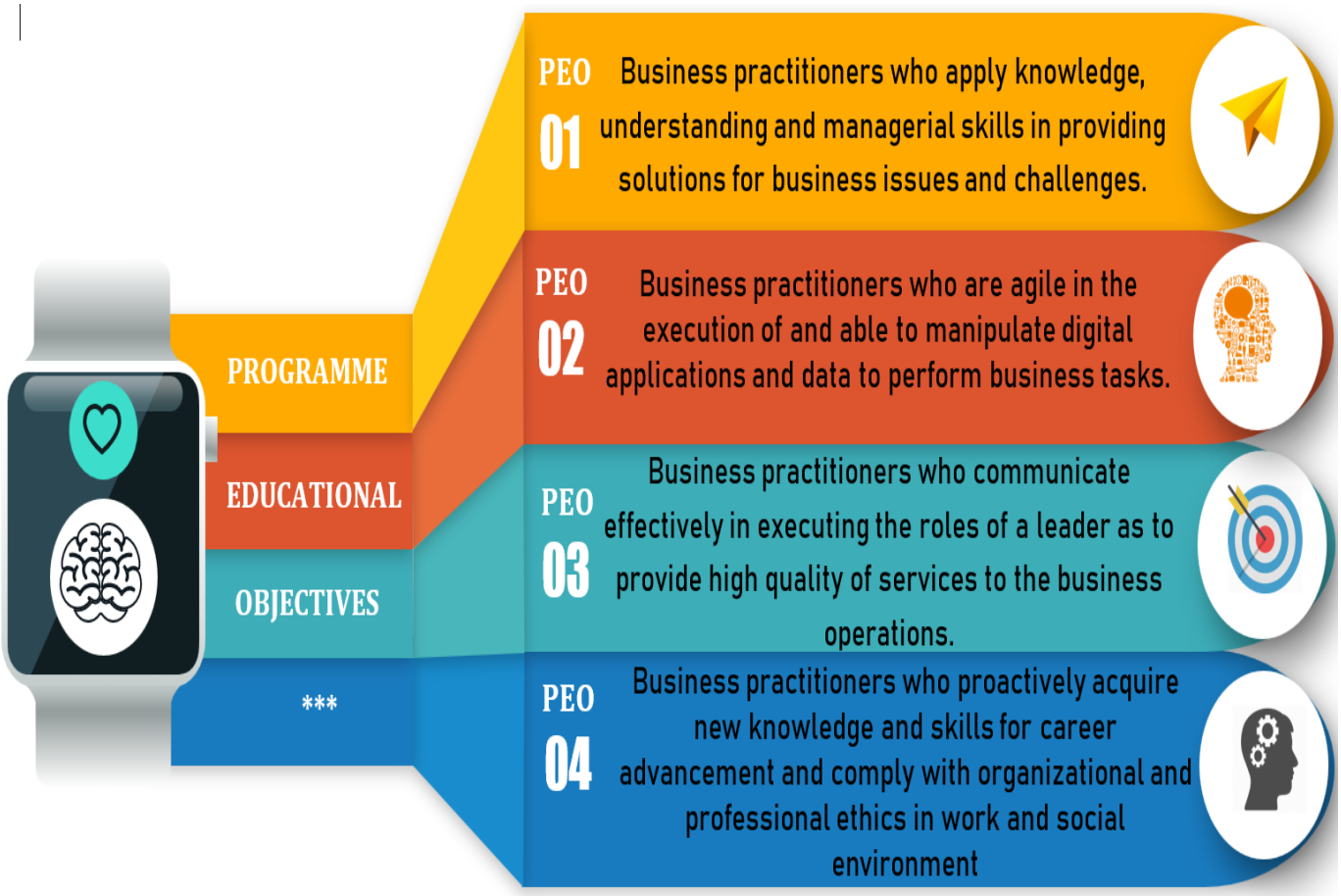
Graduates of the Diploma in Business Studies programme are able to work as Executives / Officers / Supervisors / Assistants in the following area:



DIPLOMA IN BUSINESS STUDIES

PROGRAMME EDUCATIONAL OBJECTIVES (PEO)

The Diploma in Business Studies programme shall produce semi-professionals who are:



PROGRAMME LEARNING OUTCOME (PLO)

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

PLO1: Apply principles of business and other related areas in managing business operations

PLO2: Analyse issues and solutions in conducting business operations

PLO3: Demonstrate business technical skills in business activities

PLO4: Demonstrate effective communication and interpersonal skills in a team

PLO5: Use digital application and interpret data in managing business operations

PLO6: Demonstrate social skills and responsibilities by taking alternate roles as a Leader or member of a diverse team

PLO7: Demonstrate personal and entrepreneurial skills in managing business operating activities

PLO8: Integrate professionalism, positive attitudes and values in engaging with society and stakeholders

DIPLOMA IN BUSINESS STUDIES
PROGRAM STRUCTURE

SEMESTER 1

CLASSIFICATION	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
COMPULSORY	MPU21032	Penghayatan Etika dan Peradaban	1	0	2	0	2	-
	DUE10012	Communicative English 1	1	0	2	0	2	-
	MPU24XX1	Sukan	0	2	0	0	1	-
	MPU24XX1	Unit Beruniform 1	0	2	0	0	1	-
COMMON CORE	DBC20012	Computer Application	1	2	0	0	2	-
	DPA10183	Business Accounting	2	2	0	0	3	-
DISCIPLINE CORE	DPB10013	Microeconomics	3	0	1	0	3	-
	DPB10023	Principles of Management	3	0	1	0	3	-
TOTAL			**23**				**16**	

SEMESTER 2

CLASSIFICATION	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
COMPULSORY	MPU23012	Pengajian Islam*	1	0	2	0	2	-
	MPU23042	Nilai Masyarakat Malaysia**						
	MPU24XX1	Kelab/Persatuan	0	2	0	0	1	MPU24XX1
	MPU24XX1	Unit Beruniform 2						
	DUE30022	Communicative English 2	1	0	2	0	2	DUE10012
COMMON CORE	DPM10013	Principles of Marketing	3	0	1	0	3	-
DISCIPLINE CORE	DPB20033	Macroeconomics	3	0	1	0	3	DPB10013
	DPB20043	Management Information System	3	0	1	0	3	-
	DPB20053	Business Mathematics	3	0	1	0	3	-
TOTAL			**24**				**17**	

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DIPLOMA IN BUSINESS STUDIES

SEMESTER 3

CLASSIFICATION	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
COMPULSORY	DUE50032	Communicative English 3	1	0	2	0	2	DUE30022
	MPU22012	Entrepreneurship	1	0	2	0	2	-
COMMON CORE	DPP20013	Introduction to International Business	3	0	1	0	3	-
DISCIPLINE CORE	DPB30063	Statistics	3	0	1	0	3	-
	DPB30073	Business Law	3	0	1	0	3	-
	DPB30083	Business Ethics	3	0	1	0	3	-
TOTAL			**22**				**16**	

SEMESTER 4

CLASSIFICATION	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
COMMON CORE	DPA10203	Personal Financial Management	2	0	2	0	3	-
	DPA20193	Basic Cost Accounting	3	1	0	0	3	-
	DPU30013	Digital Entrepreneurship	1	4	0	0	3	-
DISCIPLINE CORE	DPB40093	Business Communication	2	2	0	0	3	-
	DPB40103	Organizational Behaviour	3	0	1	0	3	-
ELECTIVES		Elective 1					3	-
TOTAL			**21**				**18**	

DIPLOMA IN BUSINESS STUDIES

SEMESTER 5

CLASSIFICATION	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
COMMON CORE	DUG30023	Green Technology Compliance	2	0	2	0	3	-
DISCIPLINE CORE	DPB50113	Business Finance	3	0	1	0	3	-
	DPB50123	Human Resource Management	3	0	1	0	3	-
	DPB50133	Operations Management	3	0	1	0	3	-
ELECTIVES		Elective 2					3	-
TOTAL			**16**				**15**	

SEMESTER 6

CLASSIFICATION	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
INDUSTRIAL TRAINING	DUT60019	Industrial Training	0	0	0	0	9	-
TOTAL			**0**				**9**	-
TOTAL CREDIT VALUE							**91**	

ELECTIVES

CLASSIFICATION	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
ELECTIVES	DPK20073	Personality Development	2	2	0	0	3	-
	DPL10013	Fundamental of Logistics Management	3	0	1	0	3	-
	DPN30043	Risk Management	2	2	0	0	3	-
	DPB50143	Business Research	2	0	2	0	3	-
	DPB50153	Investment Management	3	0	1	0	3	-
	DPB50163	Business Project	2	2	0	0	3	-
	DPB50173	Business Plan	2	2	0	0	3	-
FREE ELECTIVE	DUD10012	Design Thinking	1	0	0	1	2	-

LEGEND/NOTES:

PREQ	:	Prerequisite(s)
L	:	Lecture
P	:	Practical/Lab
T	:	Tutorial
O	:	Others
* For Muslim students		
** For non-Muslim students		
# Path 1 : Sport and Club		
## Path 2 : Uniform Unit		

(The numbers indicated under L, P, T & O represent the contact hours per week, to be used as a guide for time table preparation)

DIPLOMA IN BUSINESS STUDIES

COURSE SINOPSIS

SEMESTER	SYNOPSIS
1	**DPA10183: BUSINESS ACCOUNTING** enables students to develop knowledge in the operational aspects of accounting system and procedures. Students can comply with the accounting techniques to maintain accounting record in preparation of financial statements. Students can also apply in accounting cycle related to principles and practice of accounting.
	DPB10013:MICROECONOMICS provides information on concepts and basic principles related to microeconomics problems. The course emphasises the demand and supply theory, elasticity and production as well as market equilibrium. It also provides information on how to determine the efficiency of a market, and how to evaluates the costs and benefits of government intervention in a market.
	DPB10023: PRINCIPLES OF MANAGEMENT provide information on basic functions in management which consists of planning, organizing, leading, controlling, staffing and decision making as practiced in the organization. This course emphasizes the principles in management functions to ensure the efficiency and the effectiveness of in the organizations.
2	**DPB20053 :BUSINESS MATHEMATICS** provides knowledge of various basic mathematical concepts, management problems and basic operational research techniques based on financial and quantitative methods. The course emphasizes the application of mathematical concepts and solutions in business and management. This course provides information and exposes the student to basic practices in the world of business and finance.
	DBC20012: COMPUTER APPLICATION exposes students to different packages of applications software such as word processor, spreadsheet, presentation, project management, internet security and digital etiquette. This course mainly emphasize on the practical aspects of using applications software and awareness in digital world activity. Students will develop teamwork and leadership skills to present ideas and organize project. Student are able to use the information and technology skill attained in future.

SEMESTER	SYNOPSIS
2	**DPB20043: MANAGEMENT INFORMATION SYSTEM** introduces the concepts of data and information management using information system. This course provides students with the knowledge of telecommunication systems and e-business. It also explores ethic, privacy and information security.
	DPM10013 :PRINCIPLES OF MARKETING provides knowledge to students regarding the concepts and terminologies in marketing. This course emphasizes the marketing principles; the environment; segmentation, targeting and positioning; and marketing mix focusing on the consumer market.
	DPB20033 :MACROECONOMICS provides information on the concepts of economics. The course emphasizes the role of economics sectors in determining the GDP. This course also provides information on the importance of government policy to overcome the economic problem.
3	**DPB30063 : STATISTICS** provides knowledge and exposure to of statistical concepts, techniques, and how to utilize these techniques in data collection processes. This course emphasizes on the knowledge and the ability to handle statistical data and interpret them effectively. This course also provides understanding on how to apply statistical data in relevant fields.
	DPB30073 : BUSINESS LAW provides knowledge regarding legal aspects and conducts of business transactions in Malaysia. The course is related to an introduction to the legal principles in Malaysia, basic principles of contracts, legal aspects of business entities, agency and sale of goods.
	DPB30083 :BUSINESS ETHICS is about relationships, values, justice, and culture (personal, professional, corporate, national and global). It also provides a basic framework for examining the range of ethical issues arising from a business context. This course also discusses issues of right and wrong actions or decisions from all levels of decisions making. It also explains corporate culture, ethical leadership, corporate governance, corporate social responsibility, employee responsibilities, diversity and discrimination.

DIPLOMA IN BUSINESS STUDIES

SEMESTER	SYNOPSIS
3	**DPP20013: INTRODUCTION TO INTERNATIONAL BUSINESS** provides an overview of how international business is conducted by taking into consideration various mechanism for dealing with governments and the changing political landscape, different business laws and regulations, local customs and culture. This course fulfills the need to ensure that students are well versed in global operations.
4	**DPA20193 : BASIC COST ACCOUNTING** provide knowledge on basic elements, procedures and methods used in planning, controlling and preparing the product cost which is used in financial accounting. This knowledge will enhance students' ability to prepare a costing report for either manufacturing or services sectors.
	DPU30013 : DIGITAL ENTREPRENEURSHIP introduces how to develop creativity and innovation and managing risk in starting up a digital business environment. This course will also guide the students on ways to conduct a business using online marketing platform such as social media marketing, website, mobile marketing and email marketing. This course also emphasis on the development of e-business via ecommerce platform to reach a bigger market.
	DPB40093: BUSINESS COMMUNICATION course is designed to give students a comprehensive view of communication, its principles and importance in business. It also covers the written and verbal communication skills for effective business communication. The course focuses on the application of communication principles in achieving organisations goals. Some of the topics include the fundamentals of good business communication and explore the latest trends in workplace communication.
	DPA10203 : PERSONAL FINANCIAL MANAGEMENT provides the skills on how to manage personal money wisely and can spend within the means and achieve the financial goals with ease. The course emphasises on being in control of own finances regardless of whether or not facing financial problems.

DIPLOMA IN BUSINESS STUDIES

SEMESTER	SYNOPSIS
4	**DPB40103 : ORGANIZATIONAL BEHAVIOUR** combines the functions of management with the psychology of leading and managing people. This organizational behaviour course encompasses the study of individual and group behaviour in organizational settings. As a result, students may apply organizational behaviour in many other discipline of organisation.
5	**DUG30023: GREEN TECHNOLOGY** course is designed to introduce students with fundamentals of green technology, green practices and green compliances towards the ultimate target of sustainable living. Students will be exposed to different feasible technologies in achieving goals that show developments in rapidly growing fields such as sustainability, innovation, viability and natural sources reduction. Students will also learn other areas where green technology is implemented such as energy, transport, building, water and waste management.
	DPB50123 :HUMAN RESOURCE MANAGEMENT covers principles and approaches applicable to the human resource management in an organization. It also offers students an understanding about activities of human resource management department. Through this course, students also have the opportunity to have an overview of Malaysia industrial relations practices and procedures.
	DPB50133 : OPERATIONS MANAGEMENT provides knowledge of concept in operations management. This course emphasizes operations management and productivity, product design, plant location strategies, layout and process strategies, forecasting and aggregate planning, work measurement, supply chain and inventory-management, project management and maintenance, quality management concept and sustainability. This course also provides knowledge and skills in planning, decision and control of operation in the organization.
ELECTIVES	**DPB50153: INVESTMENT MANAGEMENT** exposes students to various investment methods and management techniques used in investment activities. It also emphasizes on methods used in investment analysis, equity and bond valuation, and exposes students to others forms of investment.

SEMESTER	SYNOPSIS
ELECTIVES	**DPB50143: BUSINESS RESEARCH** serves as a central basis for business decision-making. This course provides students with a managerial overview of business research process and with a good understanding and practice of the analytic techniques. Students will be exposed the concept of business research; how to conduct business research; how to analyze data, how to evaluate results; and how to communicate the findings. This course focuses equally on technical competence and application to real life problems. The students will be exposed to the technical aspects of business research both for qualitative and quantitative.
	DPB50163:BUSINESS PROJECT provides students with an opportunity to apply knowledge and skills on how to construct new ideas and provide solutions to current issues or challenges faced by businesses. Students will be able to apply business concepts and strategies acquired throughout their studies to address a specific business issue in areas such as accounting, entrepreneurship, human resources, management, insurance, banking and finance, marketing, logistics and supply chain, retailing and international business.
	DPK20073 : PERSONALITY DEVELOPMENT provides knowledge on the character study of a secretary involving personal qualities, healthy lifestyle and image building. It is designed to train students to build a professional image as a secretary. Development of self-confidence and positive attitudes, as well as rational decisions making is inculcated throughout the course.
	DPN30043: RISK MANAGEMENT course provides students with basic knowledge about risk management standard, principles and application. Students are exposed to combination of methods or appropriate techniques that can be selected to manage risk.

DIPLOMA IN BUSINESS STUDIES

SEMESTER	SYNOPSIS
ELECTIVES	**DPL10013: FUNDAMENTALS OF LOGISTICS MANAGEMENT** aim to introduce basic terms, concepts, principles and methods for the successful planning, organizing and controlling of these logistics management. There are several topics covered under this course, such as product, customer service, order processing, transportation, inventory and warehousing.
	DPB50173 : BUSINESS PLAN focuses on preparation of business plan and developing the entrepreneurial competencies. Students will be exposed to the standard for format of business plan and business support systems in business activities.

DIPLOMA IN ACCOUNTANCY

INTRODUCTION

A career in accounting profession offers an excellent job prospect and great opportunity for career advancement. This profession is highly in demand as they are required in all sectors. The body of knowledge in accounting is to develop and communicate the financial information to stakeholders and other related parties for the purpose of decision making. Therefore, the need for graduates with adequate knowledge, skills and values in accountings essential to fulfil the task. In addition, to meet the demand of producing 60,000 accountants by the year 2030, as part of nation's talent-building agenda, the government will continue to strengthen the education system to ensure graduates are equipped with the right qualities and skills in line with the era of industrial revolution 4.0 (IR 4.0).(ASC,2018).

Department of Polytechnic and Community College Education (DPCCE) takes initiative to meet this demand by offering the Diploma in Accountancy programme. The department hopes this programme will be a platform in providing continuous career advancement in the accounting field.

SYNOPSIS

The Diploma in Accountancy programme is designed to equip graduates with knowledge and skillsets through integrated educational experience in accounting disciplines including areas and sub-areas of financial and management accounting, auditing, taxation, finance, professional ethics as well as management knowledge, digital information, entrepreneurship, and interpersonal development. The objective of this programme is to provide the accounting education at SME professional level to meet the demands of both the public and private sectors.

This programme is governed by both local and international accounting standards in accordance to requirements of accounting professional and other regulatory bodies in Malaysia to comply with the Programme Standards of Accounting issued by Malaysian Qualification Agency (MQA).

DIPLOMA IN ACCOUNTANCY

PROGRAMME AIMS

This programme believes every individual has potential to foster accounting skills and responsible accounting professional at SME level in supporting national agenda to achieve competitive and advanced economics driven by high skills resources.

JOB PROSPECT

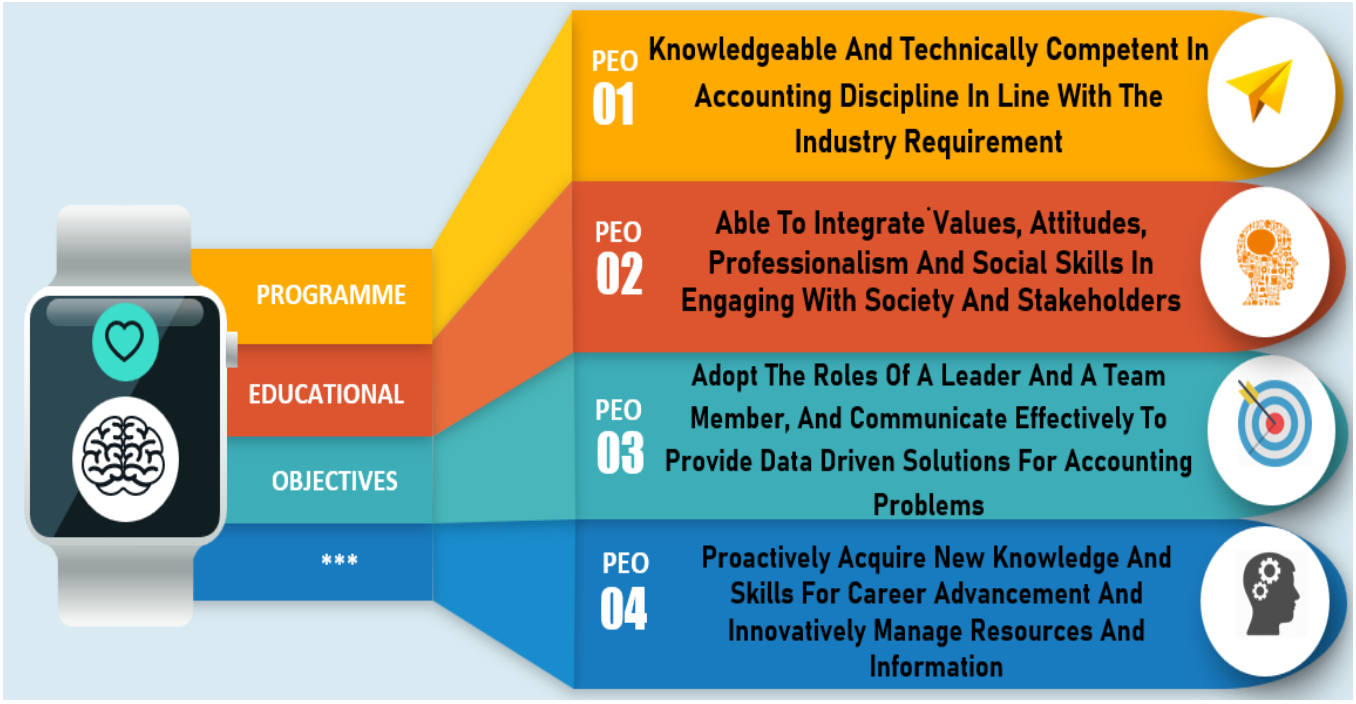
ICT manpower demand is expected to have a strong growth recently based on the research done by Malaysia Digital Economy Corporation (MDEC). The rapid development in ICT has raised the demand for qualified IT graduates that meet the industry needs and requirements for both locally and globally. Thus, graduates from this programme are equipped with the knowledge, skills, attitude and abilities that can be applied to a broad range of careers in the ICT industrial worlds and businesses. The knowledge and skills that the students acquire from the programme will enable them to participate in the job market such as:

1. Computer Application Programmer
2. Internet Programmer
3. Web Programmer
4. Database Programmer
5. System Analysts Assistant
6. Software Developer
7. Database Administrator
8. Software Tester
9. System Support Personnel
10. Systems Programmer
11. Network Support Personnel
12. Network Administrator
13. IT Supporting Engineer
14. Assistant Network Engineer
15. Technical Helpdesk / Support.

DIPLOMA IN ACCOUNTANCY

PROGRAMME EDUCATIONAL OBJECTIVES (PEO)

Diploma in Accountancy programme shall produce semi-professionals accounting practitioners who are:



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DIPLOMA IN ACCOUNTANCY

PROGRAMME LEARNING OUTCOME (PLO)

Upon completion of this programme, students should be able to:

PLO1 : Discuss knowledge of accounting and related field in an organization

PLO2 : Apply financial and non-financial information in decision making process

PLO3 : Prepare financial statements and internal reports that comply with approved standards and provide tax, audit and other accounting related services

PLO4 : Demonstrate effective communication to relevant stakeholders in all aspects of decision making

PLO5 : Apply various types of digital application ethically and propose data driven solutions

PLO6 : Develop leadership to manage diverse team in order to be effective members in organisation

PLO7 : Demonstrate a commitment to continue in professional development and possess entrepreneurial skills

PLO8 : Demonstrate positive values, ethics and accountability with professional skepticisms engaging with society and stakeholders

DIPLOMA IN ACCOUNTANCY
PROGRAM STRUCTURE

SEMESTER 1

CLASSIFICATION	COURSE CODE	COURSE	CONTACT HOURS				CREDIT VALUES	PREQ
			L	P	T	O		
COMPULSORY	DUE10012	Communicative English 1	1	0	2	0	2	-
	MPU21032	Penghayatan Etika dan Peradaban	1	0	2	0	2	-
	MPU24XX1	Sukan#	0	2	0	0	1	-
	MPU24XX1	Unit Beruniform 1##						
COMMON CORE	DPB20053	Business Mathematics	3	0	1	0	3	-
	DPB10013	Microeconomics	3	0	1	0	3	-
DISCIPLINE CORE	DPA10013	Financial Accounting 1	2	2	0	0	3	-
	DPA10023	Computer Application in Accounting	1	4	0	0	3	-
TOTAL			**25**				**17**	

SEMESTER 2

CLASSIFICATION	COURSE CODE	COURSE	CONTACT HOURS				CREDIT VALUES	PREQ
			L	P	T	O		
COMPULSORY	MPU23012	Pengajian Islam*	1	0	2	0	2	-
	MPU23042	Nilai Masyarakat Malaysia**	1	0	2	0	2	-
	MPU24XX1	Kelab/Persatuan#	0	2	0	0	1	
	MPU24XX1	Unit Beruniform 2##						MPU24XX1
DISCIPLINE CORE	DPB10023	Principles of Management	3	0	1	0	3	-
	DPB20033	Macroeconomics	3	0	1	0	3	DPB10013
	DPB30073	Business Law	3	0	1	0	3	-
COMMON CORE	DPA20033	Financial Accounting 2	2	2	0	0	3	DPA10013
	DPA20043	Computerised Accounting System	1	4	0	0	3	-
TOTAL			**26**				**18**	

DIPLOMA IN ACCOUNTANCY

SEMESTER 3

CLASSIFICATION	COURSE CODE	COURSE	CONTACT HOURS				CREDIT VALUES	PREQ
			L	P	T	O		
COMPULSORY	DUE30022	Communicative English 2	1	0	2	0	2	DUE10012
COMMON CORE	DPB40103	Organizational Behaviour	3	0	1	0	3	-
DISCIPLINE CORE	DPA30053	Financial Accounting 3	2	2	0	0	3	DPA20033
	DPA30063	Financial Management 1	2	2	0	0	3	
	DPA30073	Cost and Management Accounting 1	2	2	0	0	3	DPA10013
	DPA30083	Company Law	2	0	1	0	3	
TOTAL			**22**				**17**	

SEMESTER 4

CLASSIFICATION	COURSE CODE	COURSE	CONTACT HOURS				CREDIT VALUES	PREQ
			L	P	T	O		
COMPULSORY	MPU22012	Entrepreneurship	1	0	2	0	2	-
DISCIPLINE CORE	DPA40093	Financial Accounting 4	2	2	0	0	3	DPA30053
	DPA40103	Financial Management 2	2	2	0	0	3	DPA30063
	DPA40113	Cost and Management Accounting 2	2	2	0	0	3	DPA30073
	DPA40123	Audit 1	2	2	0	0	3	
	DPA40133	Malaysia Taxation 1	2	2	0	0	3	
TOTAL			**23**				**17**	

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DIPLOMA IN ACCOUNTANCY

SEMESTER 5

CLASSIFICATION	COURSE CODE	COURSE	CONTACT HOURS				CREDIT VALUES	PREQ
			L	P	T	O		
COMPULSORY	DUE50032	Communicative English 3	1	0	2	0	2	DUE30022
DISCIPLINE CORE	DPA50143	Financial Accounting 5	2	2	0	0	3	DPA40093
	DPA50153	Audit 2	2	2	0	0	3	DPA40123
	DPA50163	Malaysian Taxation 2	2	2	0	0	3	DPA40133
	DPA50173	Professional Ethics	2	2	0	0	3	-
TOTAL			**19**				**14**	

SEMESTER 6

CLASSIFICATION	COURSE CODE	COURSE	CONTACT HOURS				CREDIT VALUES	PREQ
			L	P	T	O		
COMPULSORY	DUT60019	INDUSTRIAL TRAINING	0	0	0	0	9	-
TOTAL							**9**	
TOTAL CREDIT VALUE							**92**	

LEGEND/NOTES:

PREQ	:	Prerequisite(s)
L	:	Lecture
P	:	Practical/Lab
T	:	Tutorial
O	:	Others
* For Muslim students		
** For non-Muslim students		
# Path 1 : Sport and Club		
## Path 2 : Uniform Unit		

(The numbers indicated under L, P, T & O represent the contact hours per week, to be used as a guide for time table preparation)

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MUKAH

DIPLOMA IN ACCOUNTANCY

COURSE SINOPSIS

SEMESTER	SYNOPSIS
1	**DPA10013 - FINANCIAL ACCOUNTING 1** helps students to develop knowledge and understanding of accounting concepts and principles, as well as to develop the capability to perform the basic accounting function. This course will cover in depth on recording, processing and reporting business transactions and events. Students will be able to prepare trial balance and financial statements in accordance to accounting standard.
	DPA10023 - COMPUTER APPLICATION IN ACCOUNTING provides knowledge and skills to students relating to basic components of computer systems, usage of internet and its implication in accounting. This course also exposes students to different types of software applications. The students will be able to produce documents, spreadsheets, charts and presentations concisely.
	DPB10013 - MICROECONOMICS provides information on concepts and basic principles related to microeconomics problems. The course emphasises the demand and supply theory, elasticity and production as well as market equilibrium. It also provides information on how to determine the efficiency of a market, and how to evaluates the costs and benefits of government intervention in a market.
	DPB20053 - BUSINESS MATHEMATICS provides knowledge of various basic mathematical concepts, management problems and basic operational research techniques based on financial and quantitative methods. The course emphasizes the application of mathematical concepts and solutions in business and management. This course provides information and exposes the student to basic practices in the world of business and finance.

DIPLOMA IN ACCOUNTANCY

SEMESTER	SYNOPSIS
2	**DPA20043 - COMPUTERISED ACCOUNTING SYSTEM** is generally a computer-based method or tracking accounting activity in conjunction with information technology resources. It offers skills to use computer as an accounting tool in producing a full set of account. Students will use the computer for recording transaction and producing financial report. The computer will also be used to analyze financial reports by management. In addition, student will be exposed to the latest technology trend in accounting and other external sources attempting to collected information.
	DPB10023 - PRINCIPLES OF MANAGEMENT provide information on basic functions in management which consists of planning, organizing, leading, controlling, staffing and decision making as practiced in the organization. This course emphasizes the principles in management functions to ensure the efficiency and the effectiveness of in the organizations.
	DPB20033 - MACROECONOMICS provides information on the concepts of economics. The course emphasizes the role of economics sectors in determining the GDP. This course also provides information on the importance of government policy to overcome the economic problem.
	DPB30073 - BUSINESS LAW provides knowledge regarding legal aspects and conducts of business transactions in Malaysia. The course is related to an introduction to the legal principles in Malaysia, basic principles of contracts, legal aspects of business entities, agency and sale of goods.
	DPA20033 - FINANCIAL ACCOUNTING 2 covers topic on accounting for cash and cash equivalents, inventories, plant, properties and equipment, trade receivables, trade payables, provisions and contingent liabilities / assets, revenues and expenses and also partnership. This course will help student to gain a comprehensive understanding on various category of adjustments. Thus, the students will be able to extract the financial statements in accordance to approved accounting standards

DIPLOMA IN ACCOUNTANCY

SEMESTER	SYNOPSIS
3	**DPA30053 - FINANCIAL ACCOUNTING 3** covers topic on Intangible Assets, Equity Share, Issuance, Redemption and Conversion of Loan Instruments, Preparation Financial Statement for Company and Statement of Cash Flows. Thus, the students will be able to extract the financial reporting in accordance to approved accounting standards.
	DPA30063 - FINANCIAL MANAGEMENT I focuses on the basic principles and techniques in making financial decisions. It covers both the concepts of financial management as well as the applications of financial techniques as tools for making decisions. The topics covered in the course include financial system, time value of money, risk and return and financial statements analysis.
	DPA30073 - COST AND MANAGEMENT ACCOUNTING 1 is concerned with the application of accounting and costing principles, methods and techniques in the ascertainment of costs. Students will learn elements of costs involved in manufacturing and servicing industries, costing methods used within production activities and the procedures of controlling in business organizations.
	DPA30083 - COMPANY LAW provides knowledge on the principles and the law that need to be adhered by a company. This course emphasizes towards the incorporation of a company, the management and administration, the financial aspects and the winding up process. This enables students to gain comprehensive knowledge on the importance of the provisions under the Companies Act 2016.
4	**DPA40093 - FINANCIAL ACCOUNTING 4** offers a comprehensive coverage of preparation of Financial Statements according to Companies Act 2016 and approved accounting standards. Besides that, students should be able to apply accounting treatment and other accounting information or accounting events in company's financial statement. This course also provides students with knowledge of leases, accounting policies, changes in accounting estimates and errors, borrowing cost and impairment of assets.

DIPLOMA IN ACCOUNTANCY

SEMESTER	SYNOPSIS
4	**DPA40133 - MALAYSIAN TAXATION 1** covers the overview and administration of Malaysian income tax; the determination of residence status for individual; and the tax chargeability for individual with employment income, investment income and/or business income inclusive of capital allowance, personal reliefs and other deductions under separate assessment and joint assessment.
	DPA40103 - FINANCIAL MANAGEMENT 2 offers skills in financial management and it emphasis on analyzing and evaluating using tools and instruments given to make financial decisions. Among the topics covered in the course include working capital management, short-term financing, long-term financing, capital budgeting and leverages.
	DPA40113 - COST AND MANAGEMENT ACCOUNTING 2 provides knowledge and skills on cost and management accounting techniques which accumulates, classifies, summarizes and reports information to assist management in planning, decision making, control and performance evaluation.
	DPA40123 - AUDIT I focuses on providing students with an understanding the technical, professionalism and value skill of audit services. Students will be exposed to the auditing process which includes understanding the management impact on the services in accordance to an approved auditing standard.
5	**DPA50143 - FINANCIAL ACCOUNTING 5** prepares students to produce relevant financial statements in accordance with the approved accounting standards and Companies Act 2016. Students should also be able to apply the particular transactions, accounting treatment and other accounting information or other financial events in reporting the relevant financial statements. Students will be exposed with the reporting standards for consolidated financial statement, internal reconstruction, changes in business structure and other related issues in financial accounting and reporting.

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SEMESTER	SYNOPSIS
5	**DPA50173 - PROFESSIONAL ETHICS** provides students an understanding of the underlying ethical theories, philosophies and values in individual, organizational and professional. Students will be focus on the practical development of skills needed in dealing with ethical issues in accounting and corporate. The application of these ethical principles is best discussed within the framework of good practice of corporate governance, corporate social responsibilities, professional skepticism and code of ethics.
	DPA50153 - AUDIT 2 is a continuation of Audit 1 which provides further knowledge in completing the audit process, types of non-audit services, ethics and auditor's liability. This knowledge will enhance student ability to develop their leadership, ethics and professional skills.
	DPA50163 - MALAYSIAN TAXATION 2 covers tax computation for partnership and company which includes the deductions of capital allowances and investment incentives as provided under the tax laws and continues with computation of real property gains tax and indirect taxes for taxpayer's tax planning decision.
6	**DUT60019 - INDUSTRIAL TRAINING** prepares students with employability skills and current industrial technologies in actual working environment. This course allows students to experience the work culture of the workplace as well as provides a platform for students to put into practice the skills and knowledge learnt. The desired attributes include organizational orientation and professional ethics, effective communication, leadership and teamwork, continuous learning and information management, as well as self-management and entrepreneurial mind at the workplace.

DIPLOMA IN SECRETARIAL SCIENCE

INTRODUCTION

A secretary plays a vital role in an organization Their duties vary between industries or employers particularly with the adoption of technology and organisational restructuring which allows them to assume responsibilities once reserved for managerial and professional staff. As a secretary, he/she needs to ensure reports, files and other data are properly filed, readily available on time and secure. The core responsibilities of a secretary are performing and coordinating an office's administrative activities and storing. retrieving, and integrating information for dissemination to staff and clients. In order to produce qualified manpower in this area, Department of Polytechnic and Community College Education collaborates with industries in developing a rigorous curriculum with a focus on the right knowledge, skills and attitude to meet the requirements of knowledge-based and digital economy. Students are also trained to be job ready with a sound set of secretarial skills and confidence to enter the job market.

SYNOPSIS

This programme has been designed with invaluable skills to prepare the students to face the challenging real work environment. It covers various fields of knowledge and skills such as Keyboarding Skills, Document Processing, Shorthand, "Trengkas", Office Administration, Office Suite Software, Personality Development, Event Management and Business Accounting. Secretarial Science programme equips students with the knowledge and abilities needed to assist in several administrative works in any organization or industry.

PROGRAMME AIM

This programme believes that every individual has potential and the programme aims to foster adaptable and responsible secretary in supporting national agenda to modernize, globalize and revolutionize the industry or organization

DIPLOMA IN SECRETARIAL SCIENCE

JOB PROSPECT

The knowledge and skills that the students acquire from the program will enable them to participate in the job market as:

DIPLOMA IN SECRETARIAL SCIENCE

PROGRAMME EDUCATIONAL OBJECTIVES (PEO)

The Diploma in Secretarial Science programme shall produce semi-professionals who are able to :

PEO1 : Fulfill the public and private sectors need with secretaries who are knowledgeable and skillful

PEO2 : Provide the public and private sectors need with secretaries who can communicate well in written and spoken to convey information as a leader or a member of A team in executing programmes related to secretarial as well as other activities in a variety of context

PEO3 : Produce secretaries who are involved in continuously seeking the knowledge and skills activities or emerge as an entrepreneur in order to sustain themselves in the challenging world of information and technology

PEO4 : Establish the behavior of secretaries by conforming to the ethics and professionalism of secretarial in order to grow and succeed in life within the industries, organisations as well as society

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DIPLOMA IN SECRETARIAL SCIENCE

PROGRAMME LEARNING OUTCOME (PLO)

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

PLO1: Apply good understanding of concepts in the field of secretarial

PLO2: Analyze valuable information and ideas gathered by possessing scientific skills and utilizing different thinking skills in order to solve problems in secretarial field

PLO3: Perform secretarial practical work skills in managing activities

PLO4: Display the ability to work in a group effectively by conveying verbal and written information coherently as a leader or a member of a team in managing secretarial operations

PLO5: Adopt a variety of skills in managing information including the use of digital application and to continue seeking knowledge to improve themselves

PLO6: Demonstrate the ability of being a responsible individual either as a leader or a member of a team by using social skills in delivering messages, thoughts and feelings with other human beings while implementing secretarial programmes

PLO7: Decide career path by identifying self improvement initiatives and possibilities of being an entrepreneur during the exploration and engagement in entrepreneurial activities

PLO8: Exhibit acts of integrity through positive values, ethics and professionalism in executing secretarial activities

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DIPLOMA IN SECRETARIAL SCIENCE

PROGRAM STRUCTURE

SEMESTER 1

CLASSIFICATIONS	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
COMPULSORY	MPU21032	Penghayatan Etika dan Peradaban	1	0	2	0	2	-
	DUE10012	Communicative English 1	1	0	2	0	2	-
	MPU24XX1	Sukan	0	2	0	0	1	-
	MPU24XX1	Unit Beruniform 1	0	2	0	0	1	-
	DPK10012	Shorthand 1	1	2	0	0	2	-
DISCIPLINE CORE	DPK10023	Office Administration 1	2	2	0	0	3	-
	DPK10033	Keyboarding Skills	1	4	0	0	3	-
	DPK10042	Trengkas 1	1	2	0	0	2	-
	DPK10053	Office Software	1	4	0	0	3	-
TOTAL			28				18	

SEMESTER 2

CLASSIFICATIONS	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
COMPULSORY	MPU23012	Pengajian Islam*	1	0	2	0	2	-
	MPU23042	Nilai Masyarakat Malaysia**	1	0	2	0	2	-
	MPU24XX1	Kelab/Persatuan	0	2	0	0	1	-
	MPU24XX1	Unit Beruniform 2	0	2	0	0	1	MPU24XX1
COMMON CORE	DUW10012	Occupational, Safety and Health	2	0	0	0	2	-
DISCIPLINE CORE	DPK20062	Shorthand 2	1	2	0	0	2	DPK10012
	DPK20073	Personality Development	2	2	0	0	3	-
	DPK20083	Document Processing	1	4	0	0	3	DPK10033
	DPK20092	Trengkas 2	1	2	0	0	2	DPK10042
Electives		Elective 1					2	-
TOTAL			**22**				**17**	

DIPLOMA IN SECRETARIAL SCIENCE

SEMESTER 3

CLASSIFICATIONS	COURSE CODE	COURSE	CONTACT HOUR				CREDIT HOUR	PREQ
			L	P	T	O		
COMPULSORY	MPU22012	Entrepreneurship	1	0	2	0	2	-
	DUE30022	Communicative English 2	1	0	2	0	2	DUE10012
COMMON CORE	DPA10183	Business Accounting	2	2	0	0	3	-
DISCIPLINE CORE	DPK30102	Shorthand 3	1	2	0	0	2	DPK20062
	DPK30113	Office Administration 2	2	2	0	0	3	-
	DPK30122	Trengkas 3	1	2	0	0	2	DPK20092
	DPK30133	Public Speaking	2	2	0	0	3	-
TOTAL			**24**				**17**	

SEMESTER 4

CLASSIFICATIONS	COURSE CODE	COURSE	CONTACT HOUR				CREDIT HOUR	PREQ
			L	P	T	O		
COMPULSORY	DUE50032	Communicative English 3	1	0	2	0	2	DUE30022
COMMON CORE	DPB40103	Organizational Behaviour	3	0	1	0	3	-
	DPU30013	Digital Enterpreneurship	1	4	0	0	3	-
DISCIPLINE CORE	DPK40143	Note Taking	2	2	0	0	3	DPK20083 DPK30102 DPK30122
	DPK40153	Record Management	2	0	2	0	3	-
	DPK40163	Principles of Meeting	2	0	2	0	3	-
TOTAL			**24**				**17**	

DIPLOMA IN SECRETARIAL SCIENCE

SEMESTER 5

CLASSIFICATIONS	COURSE CODE	COURSE	CONTACT HOUR				CREDIT HOUR	PREQ
			L	P	T	O		
COMMON CORE	DUG30023	Green Technology Compliance	2	0	2	0	3	-
COMMON CORE	DPB50123	Human Resource Management	3	0	1	0	3	-
DISCIPLINE CORE	DPK50173	Office Practice	1	4	0	0	3	DPK40143
DISCIPLINE CORE	DPK50183	Event Organization	2	2	0	0	3	-
ELECTIVES		Elective 2					2	-
TOTAL			**17**				**14**	

SEMESTER 6

CLASSIFICATIONS	COURSE CODE	COURSE	CONTACT HOUR				CREDIT HOUR	PREQ
			L	P	T	O		
Industrial Training	DUT60019	Industrial Training	0	0	0	0	9	-
TOTAL			**0**				**9**	
TOTAL CREDIT VALUE							**92**	

DIPLOMA IN SECRETARIAL SCIENCE

ELECTIVES

CLASSIFICATIONS	COURSE CODE	COURSE	CONTACT HOUR				CREDIT HOUR	PREQ
			L	P	T	O		
ELECTIVES	DUF10012	Bahasa Arab 1	1	0	2	0	2	-
	DUF20082	Bahasa Arab 2	1	0	2	0	2	-
	DUF10022	Bahasa Mandarin 1	1	0	2	0	2	-
	DUF20092	Bahasa Mandarin 2	1	0	2	0	2	-
	DPA10203	Personal Financial Management	2	0	2	0	3	-
FREE ELECTIVES	DUD10012	Design Thinking	1	0	0	1	2	-

LEGEND/NOTES:

PREQ	:	Prerequisite (s)
L	:	Lecture
P	:	Practical/Lab
T	:	Tutorial
O	:	Others
* For Muslim students		
** For non-Muslim students		
# Path 1 : Sport and Club		
## Path 2 : Uniform Unit		

(The numbers indicated under L, P, T & O represent the contact hours per week, to be used as a guide for time table preparation)

DIPLOMA IN SECRETARIAL SCIENCE

SEMESTER	SINOPSIS
1	**DPK10012 :SHORTHAND 1** equips students with knowledge and skills of shorthand rules. This course allows students to have a better understanding that shorthand is written based on spoken sound. Students also should be able to recognize and illustrate each outline and words without any hesitation by performing the right writing and transcribing outline.
	DPK10023: OFFICE ADMINISTRATION 1 is an introductory subject to provide the students with a basic foundation of knowledge that covers the role and functions of an office, office accommodation, layout and environment, telephone and technology services, office stationery, office automation and procedures in office mail services that give impact to the efficiency of a secretary or an administrator in an organization.
	DPK10033: KEYBOARDING SKILLS provide students with hands on knowledge and skills on proper typing techniques and procedures. The course covers the Introduction to typing, keyboarding the alphabet, the numbers, and symbols. At the same time this course also emphasizes on building accuracy and increasing their typing speed progressively. Typescripts in English and Bahasa Malaysia are used for this purpose.
	DPK10042: TRENGKAS 1 memberi pengetahuan kepada pelajar tentang teori-teori penulisan trengkas dengan menggunakan sistem Trengkas Pantas. Kursus ini memberi penekanan kepada kemahiran memahami, mengguris dan mentranskrip semua perkataan dalam Bahasa Malaysia.
	DPK10053: OFFICE SOFTWARE enables students to acquire and apply hands-on knowledge in using office application. It helps students to improve their personal productivity by making it faster and easier to create flexible documents, powerful spreadsheets, and great looking presentation. It also prepares students the concept of working as a group that work together dynamically and effectively.

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SEMESTER	SINOPSIS
2	**DPK20062:SHORTHAND 2** equips students with the knowledge and skills of shorthand rule. This course allows students to have a better understanding that in shorthand, spoken sounds are represented by written signs and students have to understand every shorthand rules. Students should be able to recognize and illustrate each outline and words without any hesitation by performing the dictation speed of 30 w.p.m with 96% accuracy of transcribing outline.
	DPK20073: PERSONALITY DEVELOPMENT provides knowledge on the character study of a secretary involving personal qualities, healthy lifestyle and image building. It is designed to train students to build a professional image as a secretary. Development of self-confidence and positive attitudes, as well as rational decisions making is inculcated throughout the course.
	DPK20083:DOCUMENT PROCESSING provides students with knowledge and skills on proper typing techniques and procedures. This course exposes various types of business documents and format which also emphasis on speed using typescripts given.
	DPK20092 :TRENGKAS 2 memberi pengetahuan kepada pelajar tentang teori-teori penulisan trengkas dengan menggunakan sistem Trengkas Pantas. Kursus ini memberi penekanan kepada kemahiran memahami, mengguris dan mentranskrip semua perkataan dalam Bahasa Malaysia. Kursus ini juga memberi penekanan kepada kemahiran mengambil catatan trengkas dengan kelajuan 30 p.s.m. dan mentranskrip dengan ketepatan 96%.
3	**DPA10183: BUSINESS ACCOUTNING** enables students to develop knowledge in operational aspects of accounting systems and procedures. Students can comply with the accounting technique to maintain accounting record in preparation of financial statement. Students can also apply in accounting cycle related to principles and practice of accounting.

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SEMESTER	SINOPSIS
3	**DPK30102 : SHORTHAND 3** equips students with knowledge and skill of shorthand rules. The focus of this course is taking note fast and accurate using the shorthand outline and able to transcribe the text quickly and accurately into handwritten and typewritten form. This course also helps students to practice their outlines, words and take dictation at a speed range of 35 w.p.m to 60 w.p.m and construct the transcription using a computer at a speed of 20 w.p.m to 35 w.p.m with 96% accuracy according to Shorthand Rules.
	DPK30113: OFFICE ADMINISTRATION 2 provides students with an understanding of the secretarial functions in managing the office. The course emphasizes on abilities and capabilities of students in leading and assisting other staff as well as providing specific training in the real workplace. This course will help them to develop skills that will be important in their career as a professional or business position.
	DPK30122: TRENGKAS 3 melengkapkan pelajar dengan pengetahuan dan kemahiran mengikut peraturan Trengkas Pantas. Kursus ini memberi penekanan dengan memastikan gurisan dapat diguris dengan pantas dan tepat ketika mengambil catatan kepantasan dan boleh mentranskrip rencana secara bertulis atau bertaip. Kursus ini juga dapat membantu pelajar untuk membuat latih tubi, mengguris perkataan dan mengambil catatan pada kelajuan 35 p.s.m hingga 60 p.s.m dan mentranskrip rencana menggunakan komputer pada kelajuan 20 p.s.m hingga 35 p.s.m dengan ketepatan 96% mengikut peraturan Trengkas Pantas.
	DPK30133: PUBLIC SPEAKING introduces student to the common types of public speaking and perform effectively in public. The particular purpose including to inform and to persuade the audience with the theoretical basis and practical instruction successfully. Areas covered include ethical standards, topic selection, audience analysis, speech preparation and organization, support of speeches, strategic and creative language use, effective listening and delivery skills.

SEMESTER	SINOPSIS
4	**DPB40103: ORGANIZATIONAL BEHAVIOUR** combines the functions of management with thepsychology of leading and managing people. This organizational behaviour course encompasses the study of individual and group behaviour in organizational settings. As a result, students may apply organizational behaviour in many other discipline of organisation.
	DPK40413: NOTE TAKING stresses on knowledge and competence application of shorthand, trengkas and document processing. This course concentrates on note taking and produce business document into appropriate format according to the instruction given by the instructor. The exercises will be either verbally or recorded using two languages, Bahasa melayu and English.
	DPK40153: RECORDS MANAGEMENT introduces students to the principles and practices of effective records management for manual and electronic records systems. This programme emphasizes students on the application of appropriate records management system. The course also includes comprehensive coverage of the records management system to the effective operation of modern business firms.
	DPK40163: PRINCIPLES OF MEETING provide students with the knowledge and skills of handling meetings. It covers the understanding of the principles and practices of different types of meetings held within companies or society and the concept of company secretary in the operation and administration of the office. It also covers the essentials of writing minutes and to cultivate students the important practices involved in meetings.
	DPU30013: DIGITAL ENTREPRENEURSHIP introduces how to develop creativity and innovation and managing risk in starting up a digital business environment. This course will also guide the students on ways to conduct a business using online marketing platform such as social media marketing, website, mobile marketing and email marketing. This course also emphasis on the development of e-business via ecommerce platform to reach a bigger market.

DIPLOMA IN SECRETARIAL SCIENCE

SEMESTER	SINOPSIS
4	**DPB50123: HUMAN RESOURCE MANAGEMENT** covers principles and approaches applicable to the human resource management in an organization. It also offers students an understanding about activities of human resource management department. Through this course, students also have the opportunity to have an overview of Malaysia industrial relations practices and procedures.
	DPK50173: OFFICE PRACTICE explores the natures of administration and management in office practice, set in a simulated environment with the mock task assigned to students. Students will be given various office practice simulation based on different topics. By doing these tasks, they can apply the theory they have learned and apply it in their simulated situation that are usually performed by secretary in the administrative services.
	DPK50183: EVENT ORGANIZATION is a course that allows students to develop functional and managerial skills in event management and planning. Student will be exposed to each aspect of event planning from prioritizing the budget to day-of coordination. Students will be gradually guided to plan all aspects of events that cater to large crowds and gives students an idea about event's challenges.
ELECTIVES	**DPA10203: PERSONAL FINANCIAL MANAGEMENT** provides the skills on how to manage personal money wisely and can spend within the means and achieve the financial goals with ease. The course emphasises on being in control of own finances regardless of whether or not facing financial problems.
FREE ELECTIVES	**DUD 10012: DESIGN THINKING**. This guideline must be read together with the course information document for DUD10012 Design Thinking. This course is a 2-credit free elective course that aims to equip polytechnic students with creative and critical thinking skills via the Design Thinking approach. The approach consists of five iterative phases: Empathy, Define, Ideate, Prototype and Testing. Students will apply Design Thinking principles, process and techniques to solve real-world problems and come up with innovative solutions in the form of products, systems or services prototypes.

INFORMATION & COMMUNICATION TECHNOLOGY DEPARTMENT

INTRODUCTION

The Information & Communication Technology Department (JTMK) is one of the main Academic Departments at Mukah Polytechnic (PMU), Sarawak. Its establishment is in line with the beginning of the operation of PMU with the recruitment of the first group of students consisting of students in the field of Information Technology Certificate in the study session July 2005. JTMK is the main mover in Mukah Polytechnic (niche area) and offers study programs in the field of Information & Communication Technology (ICT) which has been fully accredited by the Malaysian Qualifications Agency (MQA). Currently, JTMK produces skilled ICT graduates through Diploma in Information Technology (Digital Technology) Software and Application Development Track (MQA / FA3339) and Diploma in Information Technology (Digital Technology) Network Systems Track (MQA / FA3338) study programs.

JTMK is equipped with the best and most complete training and educational facilities or training facilities to support the achievement of practical and theoretical learning outcomes for all courses, in line with the needs of outcome-based education (OBE). JTMK Premises is equipped with a Mini Lecture Hall (Capacity 200 students), 17 classrooms, 6 Application Development Laboratories, 2 Network and Communication Laboratories, 2 Computer and Digital Systems Laboratories, 3 Hypermedia Laboratories, 4 Information Technology Laboratories, 2 Project Rooms, a Presentation Rooms, Lecture Rooms include 2 TECC Rooms.

PROGRAMME

DIPLOMA IN INFORMATION TECHNOLOGY (DIGITAL TECHNOLOGY)

- Track Networking Systems (MQA/FA3338)
- Track Software and Application Development (MQA/FA3339)

DIPLOMA IN INFORMATION TECHNOLOGY (DIGITAL TECHNOLOGY)

INTRODUCTION

In order to keep abreast with rapid technological advancements and evolving requirements in industries today, Department of Polytechnic & College Community Education (DPCCE) has worked collaboratively with the nation's key industry players in developing and reviewing the curriculum of Information and Communication Technology (ICT) programme. This collaboration aims to equip students with timely knowledge and relevant skills to meet the global challenges and the requirements of the ICT industries. In achieving blended learning, this aim pedagogy that blends classroom instructions with structured simulated real-life working experience is fully utilised to prepare students for the competitive edge in today's workplace.

The growly demand for highly skilled and technically savvy workplace drives the need to produce area for qualified men power in this industry to remain competitive in the world market. To address these issues the Curriculum Division (CD), DPCCE cooperates with the industries, Private Higher Learning Institutions and Public Higher Learning Institutions to develop and review the curriculum of the ICT programme. This curriculum integrates with the curriculum of professional certification and industry-led curriculum such as Computer Technology Industry Association (CompTIA A+), Oracle Java Certification, Microsoft Computer System Administrator (MCSA) and Microsoft Certified Desktop Service Technician (MCDST), Cisco Certified Network Associates (CCNA), EC-Council Network Security (ENSA), Certified Ethical Hacker (CEH), and Infosys Campus Connect programme, so as to give the opportunities for the students to sit for professional certificate examinations by the end of the final semester. This will give the students an added value and ensure that the knowledge and skills acquired through this programme are relevant with the needs of the ICT industries specifically.

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SINOPSIS

This programme provides education and training in Computing field with a specific emphasis on Information Technology area. The courses provide opportunities for students to get into a broad range of careers in a variety of ICT sectors. This programme also provides the students with transferable skills and multiskilling which enable them to adapt to new technologies. In addition to the technical courses, students are also taught English for Digital Technology, Penghayatan Etika dan Peradaban, Pengajian Islam or Pendidikan Moral and Co-Curriculum, to enhance their competencies in soft skills. As the programme emphasizes self- initiated learning and hands-on competencies, graduates of this programme should be ready to take the challenges in the world of computing technologies.

PROGRAMME AIM

The programme believes that every individual has potential to foster adaptable and responsible Information and Communication Technology (ICT) Assistant with new technological advancement in supporting the national digital initiative transformation agenda

JOB PROSPECT

Research by Malaysian Digital Economy Corporation (MDEC) shows a globally. Thus, graduates from this programme are equipped with the knowledge, skills, attitude and abilities that can be applied to a broad range of careers in the ICT industrial worlds and businesses. The knowledge and skills that the students acquire from the programme will enable them to participate in the job market such as:

1. Computer Application Programmer
2. Internet Programmer
3. Web Programmer
4. Database Programmer
5. System Analysts Assistant
6. Software Developer

7. Database Administrator
8. Software Tester
9. System Support Personnel
10. System Programmer
11. Network Support Personnel
12. Network Administrator
13. IT Supporting Engineer
14. Assistant Network Engineer
15. Technical Helpdesk / Support
16. Assistant Game Programmer
17. Game Designer
18. 3D Animator
19. Storyboard Artist
20. 2D Concept Artist
21. 3D Artist
22. Assistant Security Analysis
23. Assistant Information Security Engineer
24. Assistant Game Developer
25. Computer Hardware Technician
26. Assistant Penetration Tester
27. Assistant Data Scientist
28. Assistant Data Analyst
29. Business Intelligence Analyst
30. Junior Data Visualization
31. Junior Statistician
32. Junior Data Insights and Virtualization
33. Web Designer

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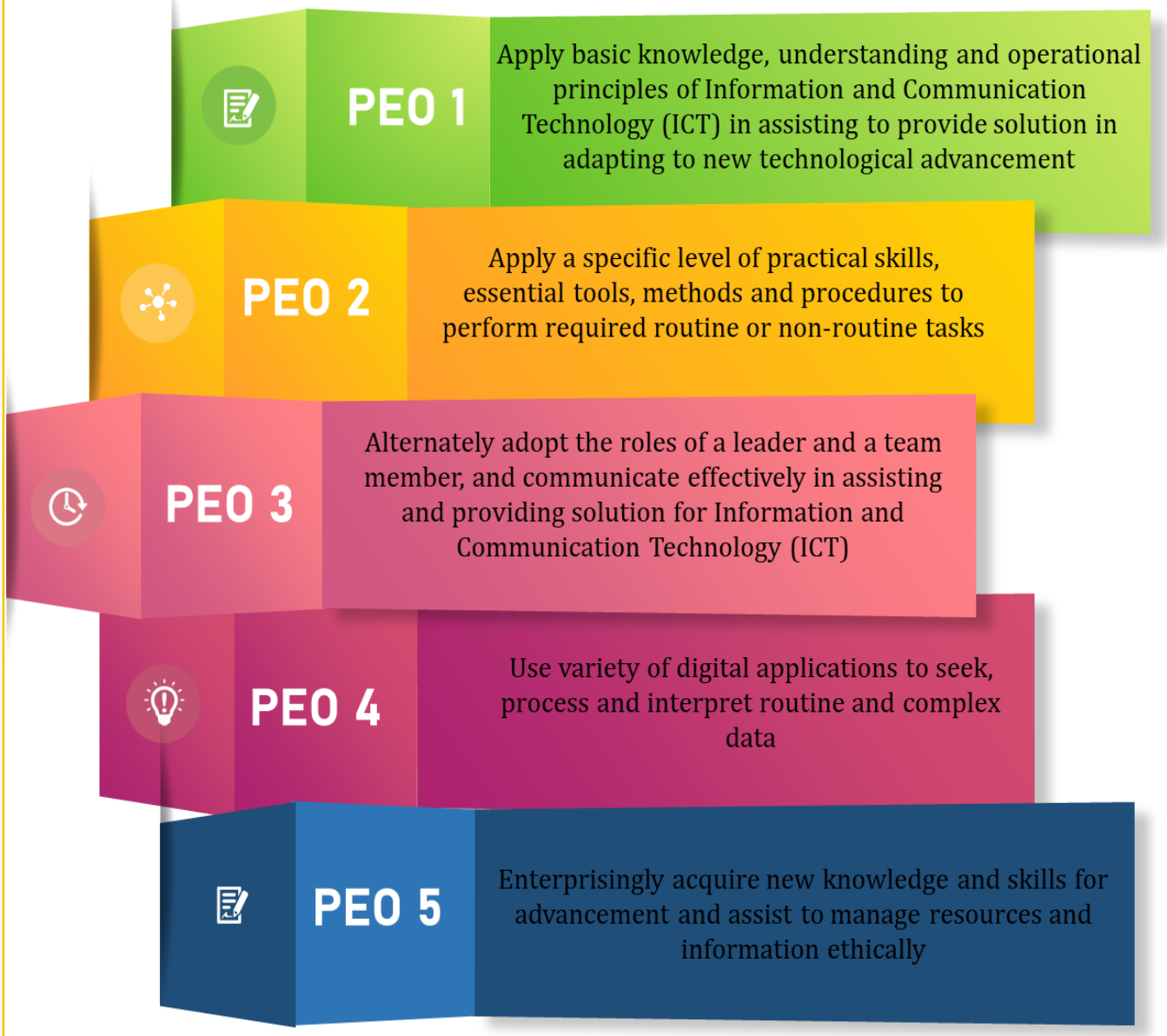
PROGRAMME EDUCATIONAL OBJECTIVES

The Diploma In Information Technology (Digital Technology) programme shall produce semi-professionals ICT practitioners who are capable to:



DIPLOMA IN INFORMATION TECHNOLOGY (DIGITAL TECHNOLOGY)

PROGRAMME LEARNING OUTCOMES (PLO)

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

PLO1: Practice Information and Communication Technology (ICT) skill in performing diagnostic and documenting processes in ICT related fields

PLO2: Analyse issues and provide solutions in Information and Communication Technology (ICT) by implementing appropriate scientific approaches and reasoning

PLO3: Display Information and Communication Technology (ICT) skill in performing diagnostic and documenting processes in ICT related fields

PLO4: Demonstrate effective communication both orally and in writing to others including peers, experts and non-experts

PLO5: Demonstrate social skills and responsibilities by taking alternate role as a leader or member of a diverse team

PLO6: Demonstrate ability to use Information and Communication Technology (ICT) in quantitative skills to support work and studies

PLO7: Demonstrate entrepreneurial and good managerial skills in working environment

PLO8: Demonstrate positive values, ethics and accountability in engaging with society

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PROGRAM STRUCTURE

SEMESTER 1

CLASSIFICATION	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
COMPULSORY	MPU24XX1	Sukan	0	2	0	0	1	-
	MPU24XX1	Unit Beruniform 1	0	2	0	0	1	-
	MPU22053	English for Digital Technology	2	0	2	0	3	-
COMMON CORE	DBM10063	Mathematical Computing	2	0	2	0	3	-
	DFC10033	Introduction to Computer System	2	3	0	0	3	-
	DFC10042	Problem Solving and Program Design	2	2	0	0	2	-
	DFC10093	Computer System Architecture	3	1	0	0	3	-
	DFC10103	Operating System	2	3	0	0	3	-
TOTAL			**28**				**18**	

SEMESTER 2

CLASSIFICATION	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
COMPULSORY	MPU23032	Pengajian Islam*	1	0	2	0	2	-
	MPU23142	Pendidikan Moral**	1	0	2	0	2	-
	MPU24XX1	Kelab/Persatuan	0	2	0	0	1	MPU24XXX1
	MPU24XX1	Unit Beruniform 2	0	2	0	0	1	
COMMON CORE	DBM20083	Discrete Mathematics	2	0	2	0	3	-
	DFC20123	Database Design	2	3	0	0	3	-
	DFC20143	Introduction to Networks	2	3	0	0	3	-
	DFC20113	Programming Fundamentals	2	3	0	0	3	DFC10042
	DFT20083	Security Basics and IT Professional	3	2	0	0	3	-
TOTAL			**29**				**18**	

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SEMESTER 3

CLASSIFICATION	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
COMPULSORY	MPU21032	Penghayatan Etika dan Peradaban	1	0	2	0	2	-
COMMON CORE	DFC30153	Data Structures	3	1	0	0	3	DFC20113
	DFP30033	Human Computer Interaction	3	1	0	0	3	-
SPECIALISATION	DFT30103	Cyberpreneurship	2	3	0	0	3	-
		TRACK : SUBJECT 1					3	-
		TRACK : SUBJECT 2					3	-
TOTAL			**16**				**17**	

SEMESTER 4

CLASSIFICATION	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
COMMON CORE	DFC40163	System Analysis and Design	3	1	0	0	3	-
SPECIALISATION		TRACK : SUBJECT 3					3	-
SPECIALISATION		TRACK : SUBJECT 4					3	-
SPECIALISATION		TRACK : SUBJECT 5					3	-
ELECTIVES		TRACK : ELECTIVES 1					2	-
ELECTIVES		TRACK : ELECTIVES 2					3	-
TOTAL			**4**				**17**	

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SEMESTER 5

CLASSIFICATION	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
SPECIALISATION		TRACK : SUBJECT 6					3	-
SPECIALISATION		TRACK : SUBJECT 7					3	-
SPECIALISATION		TRACK : SUBJECT 8					4	-
ELECTIVES		TRACK : ELECTIVES 3					3	-
TOTAL			**0**				**13**	**-**

SEMESTER 6

CLASSIFICATION	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES
			L	P	T	O	
INDUSTRIAL TRAINING	DUT60019	Industrial Training	0	0	0	0	9
TOTAL			**0**				**9**
TOTAL CREDIT VALUE							**92**

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SPECIALISATION COURSES OF TRACK SOFTWARE AND APPLICATION DEVELOPMENT

TRACK	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
SUBJECT 1	DFT30043	Digital Multimedia	1	4	0	0	3	-
SUBJECT 2	DFC30133	Object Oriented Programming	2	4	0	0	3	DFC10042
SUBJECT 3	DFT40043	Web Design Technology	1	4	0	0	3	-
SUBJECT 4	DFP40023	Visual Basic Programming	1	4	0	0	3	DFC30133
SUBJECT 5	DFP40093	Mobile Application Development	2	3	0	0	3	DFC30133
SUBJECT 6	DFP50043	Integratives Programming & Technologies	2	3	0	0	3	DFC30133
SUBJECT 7	DFP50123	Secure Mobile Computing	2	3	0	0	3	DFT20083
SUBJECT 8	DFT50114	Integrated Project	2	3	0	0	4	All Common Core Course

ELECTIVES COURSES OF TRACK SOFTWARE AND APPLICATION DEVELOPMENT

TRACK	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
ELECTIVES 1	DFP40182	Software Requirement & Design	1	2	0	0	2	-
ELECTIVES 1	DFP40162	Business Intelligence	1	2	0	0	2	DFC20123
ELECTIVES 2	DFP40053	Database Administration	2	3	0	0	3	DFC20123
ELECTIVES 2	DFP40203	Python Programming	2	3	0	0	3	DFC20113
ELECTIVES 2	DFP40103	IOS Application Development	2	3	0	0	3	DFC30113
ELECTIVES 3	DFP50173	Web Development Technology	1	4	0	0	3	DFC20123, DFT40043
ELECTIVES 3	DFP50193	Web Programming	2	3	0	0	3	DFC20123, DFT40043

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SPECIALISATION COURSES OF TRACK NETWORKING SYSTEM

TRACK	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
SUBJECT 1	DFN30273	Switching Essentials	2	3	0	0	3	DFC20143
SUBJECT 2	DFN30053	Open Sources Operating Systems	2	3	0	0	3	DFC10103
SUBJECT 3	DFN40283	Routing Essentials	2	3	0	0	3	DFC20143
SUBJECT 4	DFN40183	Open Sources Server Administration	2	3	0	0	3	-
SUBJECT 5	DFN40143	Network Security	2	3	0	0	3	DFC20143
SUBJECT 6	DFN50173	Connecting Wan	2	2	0	0	3	DFC20143
SUBJECT 7	DFN50223	Windows Server Administration	2	3	0	0	3	DFC10103
SUBJECT 8	DFT50114	Integrated Project	2	3	0	0	4	All Common Core Course

ELECTIVES COURSES OF TRACK NETWORKING SYSTEM

TRACK	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
ELECTIVES 1	DFN40232	Fiber Optic Communication System	1	3	0	0	2	-
ELECTIVES 1	DFN40242	Embedded Internet Of Things (IOT)	1	3	0	0	2	-
ELECTIVES 2	DFN40253	Cloud Computing	2	3	0	0	3	DFC20143
ELECTIVES 2	DFN40263	Programming Essentials In Python	2	3	0	0	3	-
ELECTIVES 2	DFC30133	Object Oriented Programming	2	4	0	0	3	DFC10042
ELECTIVES 3	DFN50133	Network Design	2	3	0	0	3	DFC20143
ELECTIVES 3	DFN50153	Socket Programming	2	3	0	0	3	DFC20113

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FREE ELECTIVES COURSE FOR TRACK NETWORKING SYSTEM & TRACK SOFTWARE AND APPLICATION DEVELOPMENT

CLASSIFICATION	COURSE CODE	COURSE	CONTACT HOUR				CREDIT VALUES	PREQ
			L	P	T	O		
SUBJECT 1	DUD10012	Design Thinking	1	0	0	1	2	-

LEGEND/NOTES:

PREQ	:	Prerequisite (s)
L	:	Lecture
P	:	Practical/Lab
T	:	Tutorial
O	:	Others
* For Muslim students		
** For non-Muslim students		
# Path 1 : Sport and Club		
## Path 2 : Uniform Unit		

(The numbers indicated under L, P, T & O represent the contact hours per week, to be used as a guide for time table preparation)

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COURSE SINOPSIS

SEMESTER	SINOPSIS
1	**DFC10033: INTRODUCTION TO COMPUTER SYSTEM** introduces students to the hardware, software and foundation of the basic Information Technology (IT) knowledge and skills necessary for ICT professionals. This course covers the study of personal computer (PC) hardware including PC assembly, installing and connecting peripherals. Student will learn hardware troubleshooting techniques used to identify and rectify computer faults. Student are exposed to the principles and good practices in environmentally sustainable computing and the use of appropriate technologies, methodologies in managing IT environment.
	DFC10042: PROBLEM SOLVING AND PROGRAM DESIGN introduces the techniques in problem solving and program design. The concepts learned in this course can be applied to many of the real life problems which can be solved by writing computer programs. A multiphase program development life cycle and two basic phases of problem solving and program design are emphasized. Problem analysis and the stepwise specification of the algorithms, pseudo code and flow chart are also defined.
	DFC10093 :COMPUTER SYSTEM ARCHITECTURE. This course is a continuation of foundational knowledge in computer system and technology which is a part of the requirement in the body of knowledge in Information Technology field. It is the basic computer machinery skills needed to progress to the next level.
	DFC10103: OPERATING SYSTEM introduces the design and implementation of operating systems. This course will cover briefly the evolution and major components of operating system. Particular emphasis will be given to three major OS subsystems; memory management, processes management, file systems and operating systems in mobile devices today that supporting distributed systems.

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SEMESTER	SINOPSIS
2	**DFC20143 :INTRODUCTION TO NETWORK** is an introductory computer networks subject and it aims to provide a wide overview of networking and its technologies such as the seven layers of OSI and TCP/ IP model. This course also provides students with the knowledge in wireless networking device and network troubleshooting. Students will get an experience in troubleshooting and configuration by using networking tools.
	DFC20123 : DATABASE DESIGN course engages students to analyze business scenarios and create a data model—Students implement their database design by creating a physical database using SQL (Structured Query Language). Basic SQL syntax and the rules for constructing valid SQL statements are reviewed. This course culminates with a case study that challenges students to design, implement and demonstrate a database solution for a business or organization.
	DFC20113 : PROGRAMMING FUNDAMENTALS course introduces the fundamental concepts of structured programming and provides a comprehensive introduction to programming for Information Technology majors. Topics include data types, control structures, pointer, structure, functions, arrays and the mechanics of running, testing and debugging. Practical lab sessions will help to develop the skills required to identify the best data and program constructs to solve well-defined problems.
	DFT20083: SECURITY BASICS AND IT PROFESSIONAL course introduces students the common threats and attacks faced today. This course provides student with foundational theory behind information security, the basic principles and techniques when designing a secure system. Students are exposed to the principles and good practices in environmentally sustainable secured computing and the use of appropriate tools and technology in managing information system environment.

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SEMESTER	SINOPSIS
3	**DFT30103 : CYBERPRENEURSHIP** course provides a broad overview of the role of entrepreneurial thinking and innovation in advancing IT-focused businesses. This student will examine how these skills can be leveraged to create new IT-driven businesses as well as to create competitive advantage for existing businesses via new IT products and services. Students will be introduced to concepts, tools, and principles of business management including business strategy, finance, marketing, human resources, and leadership within the context of IT business models.
	DFC30153: DATA STRUCTURE course is designed to focus on the basic data structures. Among the specific data structures covered are linked list, stacks, queues, trees, sorting and searching. The emphasis is on choosing appropriate data structures and designing correct and efficient algorithms to operate on these data structures.
	DFP30033: HUMAN COMPUTER INTERACTION course aims to provide students with fundamental knowledge of HCI, including areas such as user and task analysis, human factors, ergonomics, accessibility standards and universal design. The course focuses on awareness in computer technology and how usability plays a major part in achieving effective implementation of designs and interactivity. This provides a new dimension that will enrich the lives of people who are ICT savvy.
4	**DFC40163: SYSTEM ANALYSIS AND DESIGN** course is an introduction to the concept and the development of information system. The course is designed to acquire the knowledge of system development life cycle. It covers all activities in planning, analyzing, designing and developing information systems including techniques used in software maintenance. Systems analysis is the process of turning a set of user requirements into a logical system specification. Systems design takes the logical specification and converts it into a set of designs that can then be implemented to create a working application. It includes expanded coverage of data flow diagrams, data dictionary, and process specifications.

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SPECIALISATION COURSES OF TRACK NETWORKING SYSTEM

SEMESTER	SINOPSIS
SUBJECT 1	**DFN30273: SWITCHING ESSENTIALS** course introduces students to the equipment and protocols in a small , switched networks. The course provides knowledge on Inter-VLAN dynamic routing protocols which includes VLSM, VLANs and Dynamic Trunking Protocol (DTP). Students also learn about the Spanning Tree Protocol and link aggregation concepts through the introduction of EtherChannel. Students' skills are developed through hands-on exercises in the laboratory on configuration, installation and troubleshooting a network.
SUBJECT 2	**DFN30053: OPEN SOURCE OPERATING SYSTEM** course is an introductory course in which, students will learn and familiarize with the open source environment. Installation, configuration and management of Linux operating systems are explored. Focus on filesystem management, user and group accounts management, and common administrative tasks. This course is ideal for beginners to learn the Linux command line but it is also recommended for intermediate and advanced users.
SUBJECT 3	**DFN40283: ROUTING ESSENTIALS** course introduces students to the architecture, components and operations of routers in larger and more complex networks. Students learn how to configure router for advanced functionality. By the end of this course, students will be able to configure, troubleshoot and demonstrate routers and resolve the common issues with DHCP, FHRP, routing concepts, static route and OSPF in both IPv4 and IPv6 networks.
SUBJECT 4	**DFN40183: OPEN SOURCE SERVER ADMINISTRATION** course is designed to provide students with skills on managing servers used to administer Campus Area Network (CAN) and network services needed. Students will acquire knowledge and skills in using Linux to configure services for Campus Area Network (CAN) environment.

SPECIALISATION COURSES OF TRACK NETWORKING SYSTEM

SEMESTER	SINOPSIS
SUBJECT 5	**DFN40143: NETWORK SECURITY** course is designed to focus on the overall security processes based on security policy emphasizing on hands-on skills in the areas of a secure perimeter, secure connectivity, identity services and intrusion detection. The knowledge delivered shall enable students to identify some of the security approaches to design a defensive strategy in a computer network environment. Discussion on the core security concepts and skills needed for the installation, troubleshooting, and monitoring of network devices to maintain the integrity, confidentiality, and availability of data and devices.
SUBJECT 6	**DFN50173: CONNECTING WAN** course introduces students to the WAN technologies and network services required by converged applications in a complex network. The course enables students to understand the selection criteria of a network devices and WAN Technologies to meet network requirements. Students learn how to configure and troubleshoot network devices and resolve common issues with data link protocols. Knowledge and skills are developed to implement virtual private network (VPN) operations in a complex network.
SUBJECT 7	**DFN50223: WINDOWS SERVER ADMINISTRATION** is a course designed to provide students with valuable skills on configuring and managing Windows Server network. Students will acquire knowledge in Windows Server networking, including DNS configuration, DHCP configuration, remote access and distributed network solutions in Windows Server environment.
SUBJECT 8	**DFT50114: INTEGRATED PROJECT** course will give students the practical and design experience of carrying out an independent application software or technical project from project requirements, implementation, testing to delivery and presentation of the project. The course requires students to learn new technologies and encourage student to develop their generic skills such as developing teamwork, project management, communication skills, problem solving skills and technical writing skills. This will inculcate independent and life-long learning.

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ELECTIVES COURSES OF TRACK NETWORKING SYSTEM

SEMESTER	SINOPSIS
ELECTIVES	**DFN40253: CLOUD COMPUTING** is a course designed to provide students with valuable skills on configuring and managing cloud services in AWS environment. Students will acquire knowledge in different AWS services, including Elastic Compute Cloud (EC2), Virtual Private Cloud (VPC), Route 53 and CloudFront.
	DFN40263: PROGRAMMING ESSENTIALS IN PYTHON course introduces students to the essentials skills of Python Programming language. The course provides knowledge on learning to design, write, debug, and run programs encoded in the Python language. Student's skills are developed through programming exercises in the class, from writing simple functions to developing complete application.
	DFN50133 : NETWORK DESIGN course reveals a competence to network professionals, as students will learn about the ability to install, configure, operate, and troubleshoot routed and switched networks. It will train the students to make connections to remote sites using WAN, diminish basic network security threats, and recognize the fundamental networking concepts.
	DFN50153: SOCKET PROGRAMMING course focuses on the concept of sockets as means of using Internet Protocol (IP) to communicate between machines and using Java programming language to establish the network communication. The course introduces elements of network programming and concepts involved in creating network applications using sockets. This opens up a whole new class of applications to programmers.
	DFN40242: EMBEDDED INTERNET of THINGS course provides students with a comprehensive understanding of the Internet of Things (IoT). It develops foundational skills using hands-on lab activities that stimulate the students in applying creative problem-solving and rapid prototyping in the interdisciplinary domain of electronics, networking, security, and business. The student-centric approach translates into the student being able to ideate, design, prototype and present an IoT solution for an identified business or society need.

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SPECIALISATION COURSES OF TRACK SOFTWARE AND APPLICATION DEVELOPMENT

SEMESTER	SINOPSIS
SUBJECT 1	**DFT30043: DIGITAL MULTIMEDIA** course covers multimedia concepts and applications utilizing text, graphics, animation, sound, video, and various multimedia applications in the design, development, and creation of multimedia presentations and publications within an interactive environment. Students will explore the use of multimedia tools in designing and authoring of interactive digital media.
SUBJECT 2	**DFC30133: OBJECT ORIENTED PROGRAMMING (OOP)** course introduces students to the principles and concepts behind the paradigm of OOP. This course introduces students to write, compile and run programs, make effective use of some of the standard packages, write object-oriented code using classes and objects, inheritance and polymorphism.
SUBJECT 3	**DFT40043: WEB DESIGN TECHNOLOGIES** introduces students to basic web design using HTML (Hypertext Markup Language), CSS (Cascading Style Sheets) and JavaScript. Throughout the course students are introduced to planning and designing effective web pages; implementing web pages by writing HTML, CSS code and JavaScript; enhancing web pages with the use of page layout techniques, text formatting, graphics, images, and multimedia; and producing a functional, multi-page website.
SUBJECT 4	**DFP40023: VISUAL BASIC PROGRAMMING (VB PROGRAMMING)** course provides students with the knowledge and skills needed to develop applications in Microsoft Visual Basic .NET for the Microsoft .NET platform. The course focuses on user interfaces programming structure, language syntax, and integration of VB.NET application development. This course introduces computer programming using the VB Programming language with object-oriented programming principles. Emphasis is on event-driven programming methods, including creating and manipulating objects, classes, and using object- oriented tools such as the class debugger. Upon completion, students should be able to design, code, test and debug at a beginning level.

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SPECIALISATION COURSES OF TRACK SOFTWARE AND APPLICATION DEVELOPMENT

SEMESTER	SINOPSIS
SUBJECT 5	**DFP40093 : MOBILE APPLICATION DEVELOPMENT** introduces mobile application development for the Android platform. Android is a software stack for mobile devices that includes an operating system, middleware and key applications. The Android SDK provides the tools and APIs necessary to begin developing applications on the Android platform using the Java programming language. Students will learn skills for creating and deploying Android applications, with particular emphasis on software engineering topics including software architecture, software process, usability, and deployment. Topics will include Android Development Environment, user interfaces, audio, persistence, SQLite databases, location, sensors, and graphics.
SUBJECT 6	**DFP50043: INTEGRATIVE PROGRAMMING AND TECHNOLOGIES** course introduces students to the knowledge of GUI programming in Java. This course addresses the creation of interactive GUIs through standalone front-end applications. This course primarily focuses on the Swing library, Abstract Window Toolkit (AWT) and also equips students with knowledge in the development of database applications solutions.
SUBJECT 7	**DFP50123: SECURE MOBILE COMPUTING** course appraises vulnerabilities and threat vector associated with Mobile Computing devices. This course contains a specifies emphasis on mitigation techniques including security configurations as well as security software.
SUBJECT 8	**DFT50114: INTEGRATED PROJECT** course will give students the practical and design experience of carrying out an independent application software or technical project from project requirements, implementation, testing to delivery and presentation of the project. The course requires students to learn new technologies and encourage student to develop their generic skills such as developing teamwork, project management, communication skills, problem solving skills and technical writing skills. This will inculcate independent and life-long learning.

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ELECTIVES COURSES OF TRACK SOFTWARE AND APPLICATION DEVELOPMENT

SEMESTER	SINOPSIS
ELECTIVES 1	**DFP40182:SOFTWARE REQUIREMENT AND DESIGN** introduces the engineering disciple that is concerned with all aspects of software product from the early stages of development, which is system requirement, software development, software design and implementation process.
ELECTIVES 1	**DFP40162: BUSINESS INTELLIGENCE** course is designed to emphasize the classification of specific technologies for collecting, storing, analyzing and giving the best option for enterprise users to make better decisions. It consists of the Data Warehousing, Decision Support System, OLAP and OLTP which are useful in helping human being to get the best decision for their business.
ELECTIVES 2	**DFP40053 :DATABASE ADMINISTRATION** course will help students to develop the database administration capabilities and will discuss how to create and manage database, users, roles and resources. It also gives them in depth knowledge of important features of Oracle database administrator.
ELECTIVES 2	**DFP40203: PYTHON PROGRAMMING** introduce with the knowledge and skills needed to develop applications using Python. This course introduces computer programming using the Python Programming language with object-oriented programming principles. Upon completion, students should be able to design, code, test and debug at a beginning level.

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ELECTIVES COURSES OF TRACK SOFTWARE AND APPLICATION DEVELOPMENT

SEMESTER	SINOPSIS
ELECTIVES 3	**DFP50173: WEB DEVELOPMENT TECHNOLOGY** introduces the techniques in Java technologies for web development. The course focuses on Java EE components, terminologies of web concepts, Servlets and JSP. Database manipulation and web deployment are emphasized. Upon completion students are able to design, code, test, and debug at beginning level.
ELECTIVES 3	**DFP50193 : WEB PROGRAMING** course will provide a basic understanding of the methods and techniques of developing a simple to moderately complex web site. Using the current standard web page language, students will be instructed on creating and maintaining a simple web site. After the foundation language has been established, the aid of a web editor will be introduced. A second web-based language will be included to further enhance the web sites. Throughout the course, students will learn proper techniques to develop web based applications starting from designing interfaces to publishing application to production server.

MATHEMATICS,SCIENCE & COMPUTER DEPARTMENT

INTRODUCTION

Mathematics, Science & Computer Department (JMSK) operates at Politeknik Mukah since 2005. It is an academic supporting department that supported five main academic departments. It is responsible for three different fields that are Mathematics, Science and Computer. The Head of Department is supported by 3 Head of Courses to monitor the staffs under their supervisions in order to ensure the teaching and learning implementations run effectively. The department is equipped with lecturer's room, classrooms, computer laboratories, science laboratory, meeting room, preparation room, technical room, prayer room and pantry.

COURSE SINOPSIS

SEMESTER	COURSE SINOPSIS
1	**DBM10013 : ENGINEERING MATHEMATICS 1** exposes students to the basic algebra including resolve partial fractions. This course also covers the concept of trigonometry and the method to solve trigonometry problems by using basic identities, compound angle and double angle formulae. Students will be introduced to the theory of complex number and concept of vector and scalar. Students will explore advanced matrices involving 3x3 matrix.
	DBC20012: COMPUTER APPLICATION exposes students to different packages of applications software such as word processor, spreadsheet, presentation, project management, internet security and digital etiquette. This course mainly emphasize on the practical aspects of using applications software and awareness in digital world activity. Students will develop teamwork and leadership skills to present ideas and organize project. Students are able to use the information and technology skill attained in future.

MATHEMATICS,SCIENCE & COMPUTER DEPARTMENT

SEMESTER	COURSE SINOPSIS
1	**DBS10012: ENGINEERING SCIENCE** course introduces the physical concepts required in engineering disciplines. Students will learn the knowledge of fundamental physics in order to identify and solve engineering physics problems. Students will be able to perform experiments and activities to mastery physics concepts.
	DBM10063: MATHEMATICAL COMPUTING course introduces students to numbering system, basic algebra and complex numbers. Calculus covers the simple techniques of differentiation and integration. In addition, this course also exposes to basic concept of matrices and linear algebra to help them in solving mathematical problem in organizing data through theoretically.
2	**DBM20023: ENGINEERING MATHEMATICS 2** exposes students to the basic laws of indices and logarithms. This course introduces the basic rules of differentiation concepts to solve problems that relates maximum, minimum and calculate the rates of changes. This course discusses integration concepts in order to strengthen student's knowledge for solving area and volume bounded region problems. In addition, students will learn application of both techniques of differentiation and integration.
	DBM20083 : DISCRETE MATHEMATICS course introduces students to logical and mathematical thinking. This course focuses on providing basic logic, sets, relations and functions, as well as graphs and trees which integrate symbolic tools, graphical concepts and numerical calculations. This course also addresses the counting principle as well as Boolean Algebra which are related to the information technology programmed.

SEMESTER	COURSE SINOPSIS
3	**DBM30033: 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 order to strengthen the students in solving engineering problems, Ordinary Differential Equation (ODE) is also included. In additional, the course also discusses optimization problems by using Linear Programming. It is designed to build students' teamwork and problems solving skill.
	DBM30043: ELECTRICAL ENGINEERING MATHEMATICS 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 methods and Newton Raphson method. In additional, the course also discuss Ordinary Differential Equation (ODE). In order to strengthen the students in solving engineering problems, Laplace Transform by using the Table of Laplace is also included. It is designed to build students' teamwork and problems solving skill.

GENERAL STUDIES DEPARTMENT

INTRODUCTION

General Studies Department or Jabatan Pengajian Am (JPA) serves as an academic support department among the major academic departments in Politeknik Mukah, Sarawak. General Studies Department exposes students to the importance and values of spirituality, humanity and social principles as well as emphasizing communication skills and the importance of using the English language. These values are meant to help boost students' marketability in the industry as well as to produce a balanced and holistic human capital. The General Studies Department consists of two units, namely the English Unit and the Islamic and Moral Education Unit, which offers credit courses to support and complement the Main Academic Department. Apart from that, General Studies Department also organizes various activities for all students to take up. Among the activities carried out are Public Speaking and Debate Competition, Process and Procedure Competition, Video Presentation Competition and many other activities under the supervision of the English Unit. Islamic and Moral Education Unit on the other hand organizes activities such as Kembara Falak, Q-STEM Workshop, and Historian Poster Drawing Competition. Apart from that, General Studies Department is also actively involved in Corporate Social Responsibility Program around Mukah community as well as having active collaborations with government and private institutions. General Studies Department also coordinates MUET courses for the on-campus students as well as private candidates under the lifelong learning component (PSH).

FACILITIES

To administer and facilitate teaching and learning process, General Studies Department is equipped with the following amenities:

- Lecture Rooms • Language Labs • Smart Classroom, • Tasmik and Tahfiz Room
- Lecturers' Office • Meeting Room • Head of Department Office • Head of Unit Offices • Document Room • Prayer Rooms (Muslim)

GENERAL STUDIES DEPARTMENT

COURSE SINOPSIS

SEMESTER	SINOPSIS
1	**DUE10012: COMMUNICATIVE ENGLISH** focuses on developing students speaking skill 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. The students are equipped with effective presentation skills as a preparation for academic and work purposes.
	MPU22053:ENGLISH FOR DIGITAL TECHNOLOGY emphasises the skills required at the workplace to describe products or services as well as processes or procedures related to Digital Technology. This course will also enable students to make and reply to enquiries and complaints related to the field of Digital Technology.
2/3	**DUE30022: COMMUNICATIVE ENGLISH 2** emphasises the skills required at the workplace to describe products or services as well as processes or procedures. This course will also enable students to make and reply to enquiries and complaints.
3/4/5	**DUE 50032 : COMMUNICATIVE ENGLISH 3** aims to develop the necessary skills in students to analyse and interpret graphs and charts from data collected as well as to apply the job hunting mechanics effectively in their related fields. Students will learn to gather data and present them through the use of graphs and charts. Students will also learn basics of job hunting mechanics which include using various job search strategies, making enquiries, and preparing relevant resumes and cover letters. The students will develop communications skills to introduce themselves, highlight their strengths and abilities, present ideas, express opinions and respond appropriately during job interviews.

POLITEKNIK MALAYSIA MUKAH

GENERAL STUDIES DEPARTMENT

SEMESTER	SINOPSIS
1,2,3,5	**MPU21032: PENGHAYATAN ETIKA DAN PERADABAN** ini menjelaskan tentang konsep etika daripada perspektif peradaban yang berbeza. Ia bertujuan bagi mengenal pasti sistem, tahap perkembangan, kemajuan dan kebudayaan merentas bangsa dalam mengukuhkan kesepaduan sosial. Selain itu, perbincangan dan perbahasan berkaitan isu-isu kontemporari dalam aspek ekonomi, politik, sosial, budaya dan alam sekitar daripada perspektif etika dan peradaban dapat melahirkan pelajar yang bermoral dan profesional. Penerapan amalan pendidikan berimpak tinggi (HIEPs) yang bersesuaian digunakan dalam penyampaian kursus ini.
2	**MPU22012:ENTREPRENEURSHIP** focuses on the fundamentals and concept of entrepreneurship in order to inculcate the value and interest in students to choose entrepreneurship as a career. This course can help students to initiate creative and innovative entrepreneurial ideas. It also emphasizes a preparation of a business plan framework through business model canvas.
2/5	**MPU23042: NILAI MASYARAKAT MALAYSIA** membincangkan aspek sejarah pembentukan masyarakat, nilai-nilai agama, adat resam dan budaya masyarakat di Malaysia. Selain itu, pelajar dapat mempelajari tanggungjawab sebagai individu dan nilai perpaduan dalam kehidupan di samping cabaran- cabaran dalam membentuk masyarakat Malaysia.
2/5	**MPU23052: 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

GENERAL STUDIES DEPARTMENT

SEMESTER	SINOPSIS
2	**MPU23032: PENGAJIAN ISLAM** disediakan untuk melahirkan warganegara yang faham tasawwur (konsep) Islam sebagai satu cara hidup yang bersepadu dan seimbang serta berupaya menghadapi pelbagai masalah dan cabaran. Perbincangan berasaskan kepada konsep-konsep asas Islam, Islam sebagai cara hidup, institusi Islam dan cabaran semasa
	MPU23142 : PENDIDIKAN MORAL memberi pengetahuan tentang konsep asas moral untuk diamalkan. Selain itu, kursus ini juga menjelaskan etika individu yang bermoral dan bertanggungjawab serta isu-isu moral yang mempengaruhi pembentukan negara dan masyarakat
	MPU23012:PENGAJIAN ISLAM disediakan untuk melahirkan warganegara yang faham tasawwur (konsep) Islam sebagai satu cara hidup yang bersepadu dan seimbang serta berupaya menghadapi pelbagai masalah dan cabaran. Perbincangan berasaskan kepada konsep-konsep asas Islam, Islam sebagai cara hidup, institusi Islam dan cabaran semasa

SPORT, CO-CURRICULUM AND CULTURAL & HERITAGE DEPARTMENT

INTRODUCTION

The Department of Sport, Co Curriculum, Cultural and Heritage (JSKK), Politeknik Mukah (PMU) is responsible for planning, managing, implementing all sports activities and coordinating co-curriculum courses as well as cultural and heritage activities and development in PMU. The department organizes three important organizations which are Sport, Co-curriculum and Cultural & Heritage. All activities planned for every semester are according to the polytechnic academic calendar. Sport Organization plan and organize sports activities for PMU students. It also acts to prepare athletes to take part in the Polytechnic Sport Council (MSP) Competition which is held every year as well as local competitions and other national competitions. Co-curriculum Organization involves in learning and teaching activities in PMU. The Co-curriculum Unit coordinates, supervises and monitors the co-curriculum courses. It is designed to ensure that all co-curriculum courses are implemented smoothly and effectively. There are two type of co-curriculum to be chosen as a pre-requisite condition to complete the diploma in Polytechnic Malaysia. The first path is taken when the students first have their co-curriculum for sports in semester 1 as prerequisite before they enroll for club in their semester two. The second path is students can choose to take the Uniform Unit for their semester one and two for co-curriculum course. Students who chose this can continue the Uniform Unit until their semester four (4). The Cultural and Heritage Organization on the other hand is responsible to manage and organize the implementation of arts and cultural program in PMU from time to time. It prepares talented students for cultural and heritage competition held by KPTM or any other organization such as JKKN, etc.

SPORT, CO-CURRICULUM AND CULTURAL & HERITAGE DEPARTMENT

FACILTIES

To administer and facilitate teaching and learning process, SPORT, CO-CURRICULUM AND CULTURAL & HERITAGE DEPARTMENT is equipped with the following amenities:

- Hockey Field
- Tennis Court
- Ping pong Tables
- Sport Centre
- Recreation Area
- Discussion Room
- Badminton Court
- Squash Hall
- Gymnasium
- Volleyball Court
- Rugby Field
- Football Field

SPORT, CO-CURRICULUM AND CULTURAL & HERITAGE DEPARTMENT

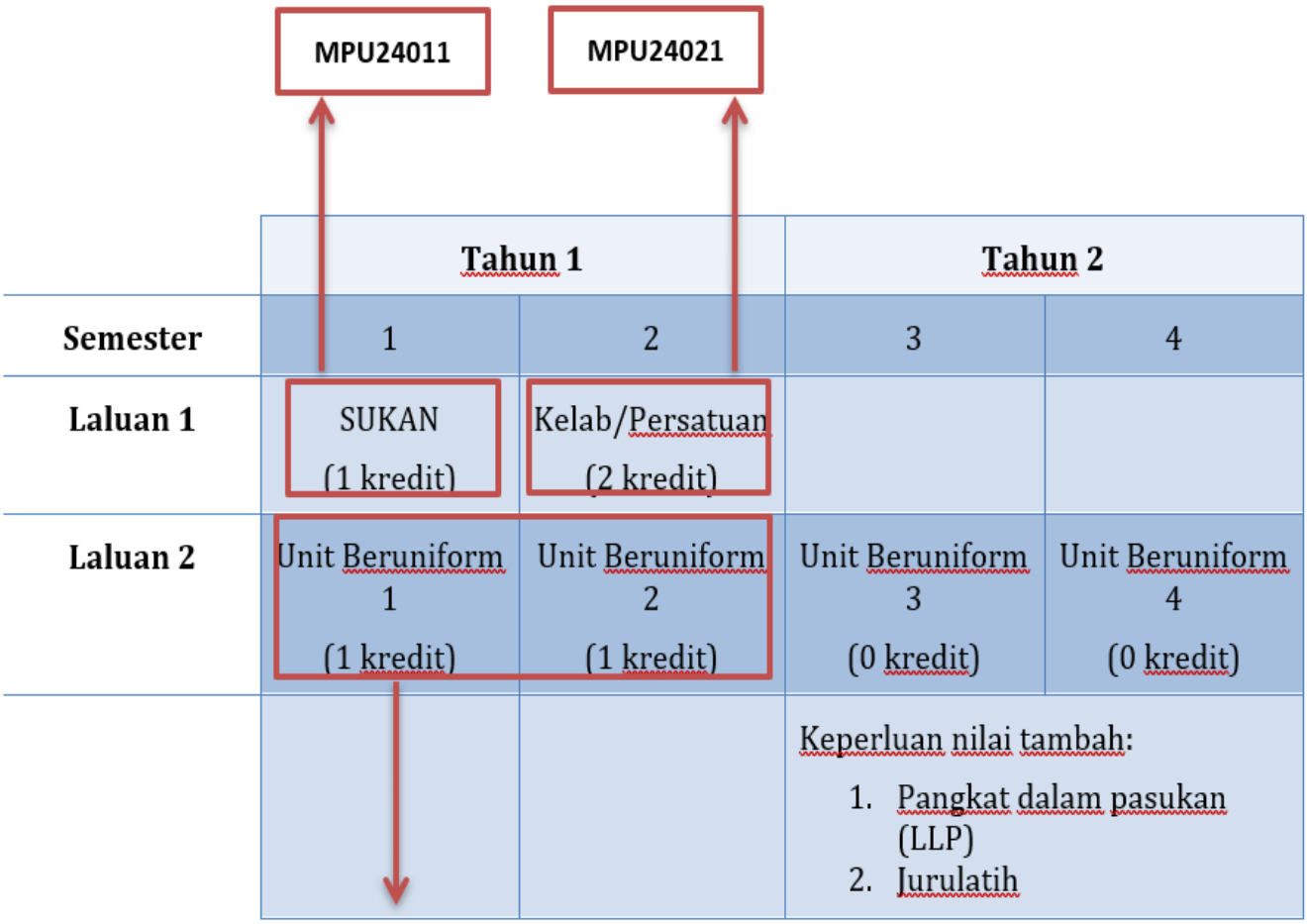
COURSE SINOPSIS

SEMESTER	SINOPSIS
1	**MPU24XX1 Sports** first (1st) path choice which offered to students during their semester one (1) as prerequisite for their semester two (2). SPORTS are activities that contain recreationally useful skills training and certain rules in the pursuit of excellence for the mastery of specific knowledge and skills holistically to strengthen the formation of positive soft skills of students
1,2	**MPU24XX1 Uniform Unit** second (2nd) path choice where it require students to complete the course from semester one (1) until semester two (2). It focuses on Uniform Unit skills during their weekly activities. Specific skills like humanity skills and activity management skills are among the skills taught at the same time developing the spirit of patriotism and national integration. This course must be completed during the first two semesters, and an addition of another two semesters as optional.
2	**MPU24XX1 Club** as part of the first (1st) path choice, where the students are required to pass their Co-Curriculum course in semester one (1) as the prerequisite condition to take this course in semester two (2). It focuses on the mastery of specific knowledge and skills holistically to strengthen the formation of positive soft skills of students.

SPORT, CO-CURRICULUM AND CULTURAL & HERITAGE DEPARTMENT

COURSE SINOPSIS

OPTION IN TYPE OF PATH



Wajib diikuti dari semester 1 ke semester 2

SPORT, CO-CURRICULUM AND CULTURAL & HERITAGE DEPARTMENT

SPORT

MPU24XX1 Sports first (1st) path choice which offered to students during their semester one (1) to take in their semester two (2). SPORTS are activities that contain recreationally useful skills training and certain rules in the pursuit of excellence for the mastery of specific knowledge and skills holistically to strengthen the formation of positive soft skills of students.

List of sport:

No	Code	Sport
1	MPU24011	BADMINTON
2		BOLA BALING
3		BOLA JARING
4		BOLA KERANJANG
5		BOLA SEPAK
6		BOLA TAMPAR
7		CATUR
8		DART
9		GOLF
10		HOKI
11		KARATE DO
12		KAROM
13		MEMANAH
14		OLAHRAGA
15		PING PONG
16		RAGBI
17		SCRABBLE
18		SEPAK TAKRAW
19		SILAT
20		SKUASY
21		SOFTBALL

No	Code	Sport
22	MPU24011	TAEKWONDO
23		TENIS
24		TENPIN BOLING
25		BOLING PADANG
26		FUTSAL
27		KAYAK
28		ORIENTEERING
29		PETANQUE
30		WOODBALL
31		BERBASIKAL
32		DODGEBALL
33		ULTIMATE FRISBEE
34		TAI CHI GONG
35		FLOORBALL
36		RAGBI SENTUH
37		PERMAINAN TRADI-SIONAL

*Sports offered are subject to availability of equipment and instructors.

SPORT, CO-CURRICULUM AND CULTURAL & HERITAGE DEPARTMENT

CLUB

MPU24XX1 Club as part of the first (1st) path choice, where the students are required to pass their Co-Curriculum course in semester two (1) as the prerequisite condition to take this course in semester three (2). It focuses on the mastery of specific knowledge and skills holistically to strengthen the formation of positive soft skills of students.

List of Club :

No	Code	Sport
1	MPU24021	AMALAN 5S
2		AUDIO VISUAL
3		BAHASA INGGERIS
4		DIKIR BARAT
5		FOROGRAFI
6		INOVASI DAN REKACIPTA
7		KAUNSELING
8		KEMBARA
9		KEUSAHAWANAN
10		KOMPANG
11		KOMPUTER
12		LAYANG-LAYANG
13		MESRA ALAM
14		NASYID
15		PENGGUNA

No	Code	Sport
16	MPU24021	STUDY CIRCLE
17		TARIAN TRADISIONAL
18		KALIGRAFI
19		BAHASA ARAB
20		BAHASA MANDARIN
21		BAHASA SEPANYOL
22		BAHASA JERMAN
23		BAHASA JEPUN
24		BAHASA PERANCIS
25		ILMU WAHYU
26		BORIA
27		TEATER
28		GURINDAM
29		KRAFTANGAN TRADISIONAL

SPORT, CO-CURRICULUM AND CULTURAL & HERITAGE DEPARTMENT

UNIFORM UNIT

MPU24XX1 Uniform Unit second (2nd) path choice where it requires students to complete the course in semester one (1) and semester two (2). It focuses on Uniform Unit skills during their weekly activities. Specific skills like humanity skills and activity management skills are among the skills taught at the same time developing the spirit of patriotism and national integration. This course must be completed during the first two semesters, and an addition of another two semesters as optional.

List of uniform unit:

No	Code	Uniform
1	MPU24611	ASKAR WATANIAH 1
2	MPU24661	PENGAKAP KELANA 1
3	MPU24691	RELASIS 1
4	MPU24651	PISPA 1
5	MPU24711	ASKAR WATANIAH 2
6	MPU24761	PENGAKAP KELANA 2
7	MPU24791	RELASIS 2
8	MPU24751	PISPA 2
9	MPU24711	ASKAR WATANIAH 3
10	MPU24761	PENGAKAP KELANA 3
11	MPU24791	RELASIS 3
12	MPU24751	PISPA 3

* Uniform Unit offered is subject to availability of instructors.

EXAMINATION UNIT

INTRODUCTION

The Examination Unit are responsible to coordinating, supervising, monitoring, assisting and faciliting management related to assessment and examination in academic departments. This unit is also responsible for the coordination of matters related to the end-of-semester examination, examination result and certication related. Politeknik Mukah Examination Unit is lead by the Head of Examination Unit

COURSE REGSITRATION

1. Course registration are required to be done at the beginning of each semester within **SEVEN (7)** days from the date of official semester begin.
2. Students should consult their academic advisor regarding their course registration and approved by the Head of Academic Department before proceed with course registration in SPMP.
3. Students need to make sure that the minimum total credit requirement total credit are ful-filled by adding the courses offered in the current semester.
4. In a case involving a student transferred from other polytechnic, the student registrations are required to be done base on Students Recruitment and Management Polytechnique Guideline at Deparment of Student Affaires and Development (JHEPP) before the students are able to register their course in SPMP.

COURSE CREDIT

1. Credit for each course is as stated in the document of Curriculum and Program structure as approved by the Board of Polytechnic Studies Curriculum and Training Program.
2. The total credits to be taken by the student for each semester are between **TWELVE (12)** to TWENTY (20) or as specified in the document Curriculum and Program Structure
3. The minimum credit amount to be collected by the student before being eligible to be considered for the award of the Certificate is as prescribed in the curriculum document and program structure

EXAMINATION UNIT

ADDING COURSES

1. Students may register additional courses provided that they do not exceed the maximum allowed credit for a semester.
2. Adding courses can be done from week THREE (3) until week SIX (6) within study session.
3. Students should first seek an advice and support from their academic advisor and the approval of the Head of the Academic Department.
4. After the specified period, the student is not allowed to make any additional courses

DROPPING COURSES

1. Students may drop any courses provided that the total of credit taken in current semester are not less than TWELVE (12) credits.
2. Dropping courses can be done from week THREE (3) until week SIX (6) within study sessions.
3. Students should first seek the advice and support of the academic adviser and / or the program and have the approval of the Head of the Academic Department
4. After the specified period, the student is not allowed to make any dropping courses. For students who fail a compulsory course, core courses and specialization courses

COURSES REPEATING

For students who fail a compulsory course, core courses and specialization courses should

1. Retake failed courses
2. In the case of final year student who fail TWO (2) or more courses from the previous semester is required to repeat failed courses in the current semester;
3. For student failed an elective courses should retake the same failed elective course or any others.

EXAMINATION UNIT

IMPROVING COURSES GRADE

For students who have passes with a grade C- , D + and D for any course;

(a) Students are allowed to improve the grade of the course only once throughout their study.

(b) (b) Students must retake all of the learning activities and assessments for the course applicable in any subsequent semester including short semester.

(c) (c) Results for students for the course will be taken from the best grades .

(d) The number of total credits to be taken by students who retake a course to improve their course grade shoud not exceed TWENTY (20) credits except in circumstances which do not allowed the students to do so and has been approved by the Head of Academic Department.

(e) The maximum duration of study are still applied to the student that retake the courses to improve their grade.

REQUIREMENTS TO SIT FINAL EXAMINATION

Students must meet the following requirements before being eligible to sit for the final examination:

A) Has done the registration

b) Has attended 80 % or more lecture / tutorial / practical for the prescribed period ; and

c) The percentage of student attendance are calculated as follows;

$$attendance\ (\%) = \frac{total\ of\ studemt\ actual\ attendace}{total\ of\ required\ attendace} x\ 100\%$$

If the students does not achieve the total of 80% attendance of lecture/tutorial/practical classes without any reasonable excuse , the students will be given grade F for the course.

CREDIT TRANSFER AND COURSE EXEMPTION

a) Students must submit the credit transfer and course exemption application to the Committee of CTCE through the Academic Advisor. Transfer credit can only be done once throughout their study at the polytechnic.

b) Students who apply for course exemption must prove the level of knowledge reached at least 80% of the course requirements. CTCE Committee reserves the right to conduct tests or interviews to determine whether students are eligible for course exemption.

c) Applications must be made within the first three weeks of lectures. Decisions made by the Committee are final CTCE.

d) Results for credit transfer and course exemption will be notified to students no later than week SIX (6) of the course of study sessions.

GRADING SYSTEM

PERCENTAGE	GRADE	GRADE POINT	REMARK
90-100	A+	4.00	VERY EXCELLENT
80-89	A	4.00	EXCELLENT
75-79	A-	3.67	
70-74	B+	3.33	HONORS
65-69	B	3.00	
60-64	B-	2.67	
55-59	C+	2.33	
50-54	C	2.00	PASS
47-49	C-	1.67	
44-46	D+	1.33	
40-43	D	1.00	
30-39	E	0.67	
20-29	E-	0.33	FAIL
0-19	F	0.00	

CATEGORIES OF FINAL EXAMINATIION RESULT

Final Examinations Result of each semester will be categorized into:

LULUS PENUH (LP) → Given to the Final year students who obtained CGPA equal to or greater than 2.00 and eligible to be awarded the Certificate.

KEDUDUKAN Lu-

Given to the Final year students who obtained CGPA equal to or greater than 2.00 and eligible to be awarded the Certificate.

lus Penuh (LP)

Kedudukan Baik (KB)

Students that gain CGPA equal to or greater than 2.00.

Kedudukan Bersyarat (KS)

Students that gain CGPA equal to or greater than 1.60 and less than 2.00

Gagal dan Diberhentikan (GB)

Fail and dismissed status will be given to students or:

(a) obtaining CGPA less than 1.60 ;

(b) obtaining CPA less than 1.00

(c) Failed of a course THREE (3) times, including a special final exam or a special assessment or semester short ; or

(d) Obtaining KS THREE (3) times in a row excluding short semester

(e) failed Industry Training TWO (2) times ; or

(f) Has exceeded the maximum duration of any program

POLITEKNIK MALAYSIA MUKAH

EXAMINATION UNIT

CATEGORIES OF FINAL EXAMINATIION RESULT

Final Examinations Result of each semester will be categorized into:

LULUS PENUH (LP) → Given to the Final year students who obtained CGPA equal to or greater than 2.00 and eligible to be awarded the Certificate.

KEDUDUKAN BAIK (KB) → Students that gain CGPA equal to or greater than 2.00.

KEDUDUKAN BERSYARAT (KS) → Students that gain CGPA equal to or greater than 1.60 and less than 2.00

GAGAL & DIBERHENTIKAN (GB) →

(a) obtaining CGPA less than 1.60 ;

(b) obtaining CPA less than 1.00

(c) Failed of a course THREE (3) times, including a special final exam or a special assessment or semester short ; or

(d) Obtaining KS THREE (3) times in a row excluding short semester

(e) failed Industry Training TWO (2) times ; or

(f) Has exceeded the maximum duration of any program

EXAMINATION UNIT

CERTIFICATE AWARD

A Students are considered completed their studies and eligible be awarded the Certificate for the program if the following requirement are fulfilled:

a) pass all courses required for the program;

b) obtained CGPA equal to or more than 2.00;

c) obtain the full amount of credit set for a particular program ; and

d) has been certified by the Board of Examination and Certificate / Diploma Polytechnic

FINAL YEAR STUDENTS

a) Final year students should complete and send the application form for the award of a certificate / diploma to Examination Unit before end of semester.

b) Certification and Verification of Graduation letter will be sent to graduates after the meeting of the Board of Examination Polytechnic , Higher Education Ministry

c) Application for Academic Transcript can be submitted to Examination Unit after the meeting of the Board of Examination Polytechnic, Higher Education Ministry.

INDUSTRIAL LIAISON & TRAINING UNIT

The Industrial Liaison and Training Unit (ILTU) are in charge of coordinating all matters concerning student's industrial training. The industrial training exposes students to real workplace experiences and ensures that they are well-prepared to enter the job market once they have completed their studies in the polytechnic.

The main roles of this unit are to:

- coordinate suitable training placements
- provide the students with relevant information prior to industrial training
- provide students with guidelines on industrial training and report writing
- equip basic skills related to the course of study
- monitor and evaluate student' training progress
- coordinate the student's evaluation

The result classification is based on the Table below:

Marks	Result	Status
80-100	Excellent	PASS
65-79	Credit	
40-64	Pass	
0-39	Fail	FAIL

All the student is required **(COMPULSORY)** to undergo industrial training at the end of the semester. Students need to passes all the courses before industrial training.

Head of Unit)

Nurhazura Binti Hassam

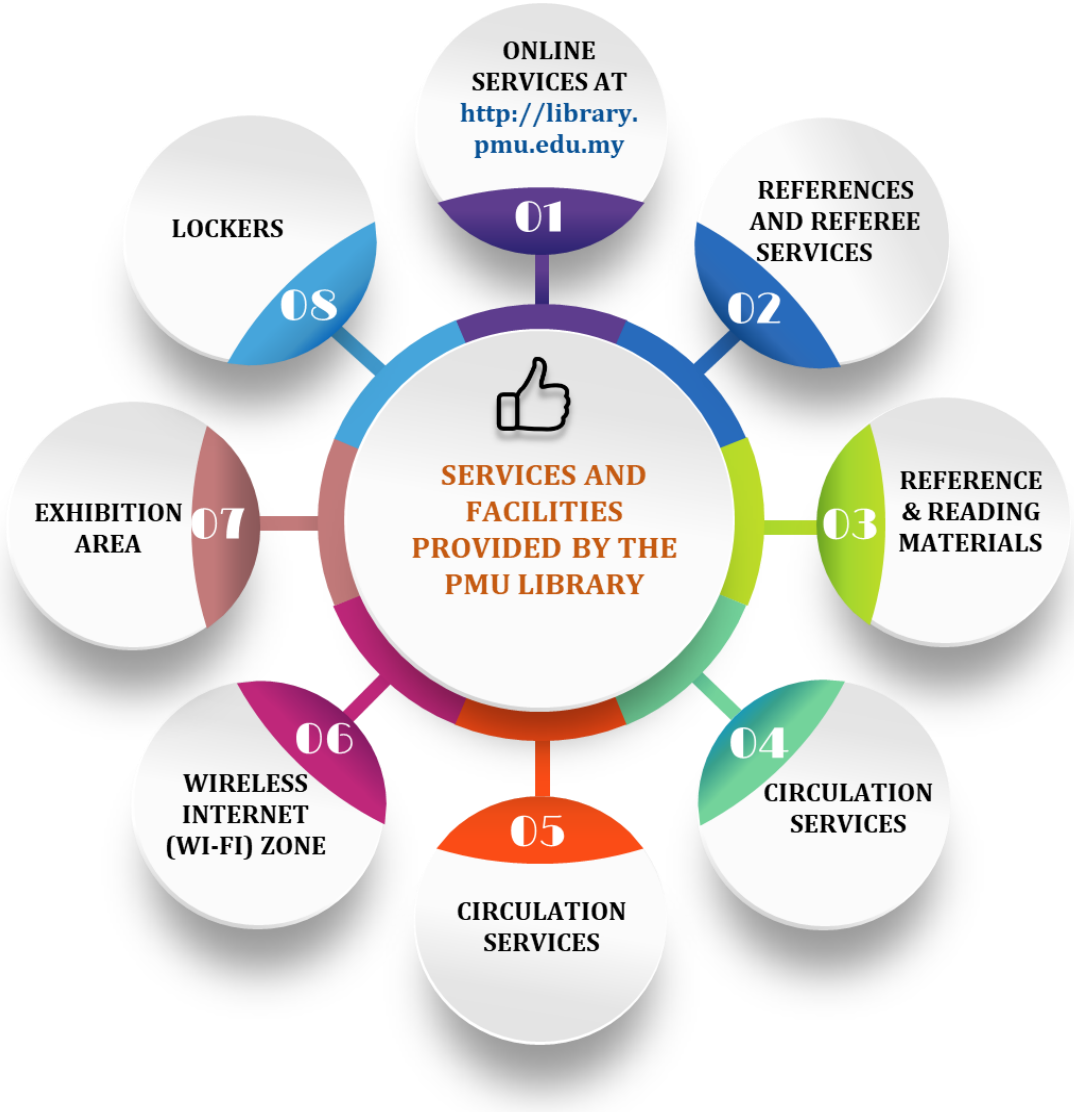
nurhazura@pmu.edu.my

Telefon: 084-874001 Sambungan:8017

POLITEKNIK MALAYSIA MUKAH

LIBRARY

The Library plays a vital role as an information center for the students and staffs to enhance the teaching and learning process, as well as being a center for research and accessing information. Services and facilities provided by the PMU library are :



POLITEKNIK MALAYSIA MUKAH

LIBRARY

Online services at http://library.pmu.edu.my such as

Reference & reading materials at the PMU library encompasses a wide variety of books arranged using the Dewey Decimal Classification (DDC). The DDC scheme organizes library materials by discipline or field of study that ensures books on the same subject are near each other on the shelves. This scheme is used at the PMU library to help user locate the item needed.

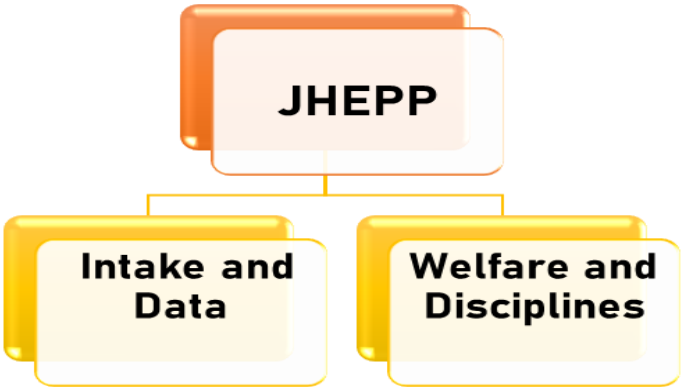
LIBRARY SERVICE HOURS	
Day	**Time**
Monday – Thursday Friday	8:00 am – 5:00 pm 8:00 am – 11:45 am 2:15 pm – 5:00 pm
Exam week (Night opening hours) Monday - Thursday	5:00 pm—9:00 pm
Saturday, Sunday and Public Holiday – CLOSED	

STUDENT'S AFFAIR AND DEVELOPMENT DEPARTMENT

INTRODUCTION

Student Affairs and Development Department (JHEPP) is a non-academic supporting department responsible in the intake, records and data management, welfare, disciplines enforcement and act as a supporting body in students' development programmes/activities.

JHEPP consists of two (2) main units:



INTAKE AND DATA UNIT

Intake and Data unit is led by Student Affairs Officer (PD) responsible for managing the intake and students' record and data. The unit's main functions are as follow:

- Managing students intake and registration
- Managing all students' application for polytechnic and programme transitions, deferment and discontinuation of study
- Student card issuance
- Managing data and statistics
- Issuance of students' declaration letter

STUDENT'S AFFAIR AND DEVELOPMENT DEPARTMENT

WELFARE AND DISCIPLINE UNIT

Welfare and Discipline (KD) unit is in charge of handling students' welfare and well-being and also serve as a regulatory unit in ensuring all students are following all the rules and regulations set. Led by Student Affairs Officer (KD), the unit main roles include:

- Facilitating financial support (loan and scholarship)
- Providing temporary financial support
- Monitoring the establishment and management of registered clubs and committees
- Monitoring and planning of students' activities.
- Establishing Student Representative Council (MPP) through campus election
- Supervising Student Representative Council activities
- Issuing students' vehicles passes
- Enforcing rules and regulations
- Supervising and monitoring New Students Orientation Programme
- Facilitating the application and renewal of immigration pass for Sabah and Peninsular students
- Covering all students under Batch Insurance scheme.

STUDENT'S AFFAIR AND DEVELOPMENT DEPARTMENT

NEW STUDENTS REGISTRATION

JHEPP plays an important role in the management of new students' registration at Politeknik Mukah. The registration process normally takes place on pre-determined New Students' Registration Day. The registration process includes:

- Checking of New Student's Registration slip (Online)
- Checking of student's document/ BHEP1-6 form
- Checking of slips of payment (fees & miscellaneous)
- Photo-taking session for issuance of Student's Card
- Briefing for Parents/ Guardians

REGISTRATION PROCESS FOR SENIORS

All senior students in their second semester and above (qualified to continue their studies) are required to perform Self-Report online through *Sistem Pengurusan Maklumat Politeknik* (SPMP).

Senior students' self-report process can only be done 24 hours after payment for study fees and miscellaneous fees are made. Self-report process:

- Log in to SPMP (http://spmp.pmu.edu.my)
- Click on iHelp module
- Click "*Lapor Diri Pelajar Senior*" (Senior-student Self-Report)
- Update student's information
- Continue Self-Report process and print Self-Report slip

JHEPP Seniors are required to bring the Self-Report slip during registration day (for seniors) to be submitted to their respective Academic Advisor with a copy of their Examination Result Slip. Students are reminded to be present at Politeknik Mukah within 14 days from the official Registration Day. If the students failed to do so after the set period, it will be presumed that they have no interest to further their studies and could be entitled for discontinuation of study.

FINANCIAL POLICY/STUDENT FEES

All students of Politeknik Mukah are required to make payment to the following fees for each semester of studies:

SEMESTER 1

Type of fees	Amount (RM)	Payment Method
Study Fee	200.00	Made through Cash Deposit Machine (CDM), Automated teller machine (ATM) or online banking of Islamic Bank (Bank Islam)(Yuran IPT – Politeknik KPT)
Residential College Fee **Only for students staying at KAMSIS	60.00	Made through Cash Deposit Machine (CDM), Automated teller machine (ATM) or online banking of Islamic Bank (Bank Islam)(Yuran IPT – Politeknik KPT)
Miscellaneous Fee	300.00	Paid during the day of student registration

SEMESTER 2 AND ABOVE

Type of Fees	Amount (RM)	Payment Method
Study Fee	200.00	Made through Cash Deposit Machine (CDM), Automated teller machine (ATM) or online banking of Islamic Bank (Bank Islam)(Yuran IPT – Politeknik KPT)
Residential College Fee **Only for students staying at KAMSIS	60.00	Made through Cash Deposit Machine (CDM), Automated teller machine (ATM) or online banking of Islamic Bank (Bank Islam)(Yuran IPT – Politeknik KPT)
Miscellaneous Fee **Only for semesters 3,5 & 7	35.00	Made through online banking to KOPERASI POLITEKNIK MUKAH BERHAD (Public Bank)

All payments must be made prior to the online self-report process through SPMP (which can only be done after 24 hours the payment is cleared by the respective bank).

SCHOLARSHIP/FINANCIAL ASSISTANCES/EDUCATION LOAN

Students that need assistance to apply for scholarship, financial aids and education loan can directly contact JHEPP for application process. Currently, JHEPP is assisting students in the management of application for the following sponsorship/ scholarship/ financial aid:

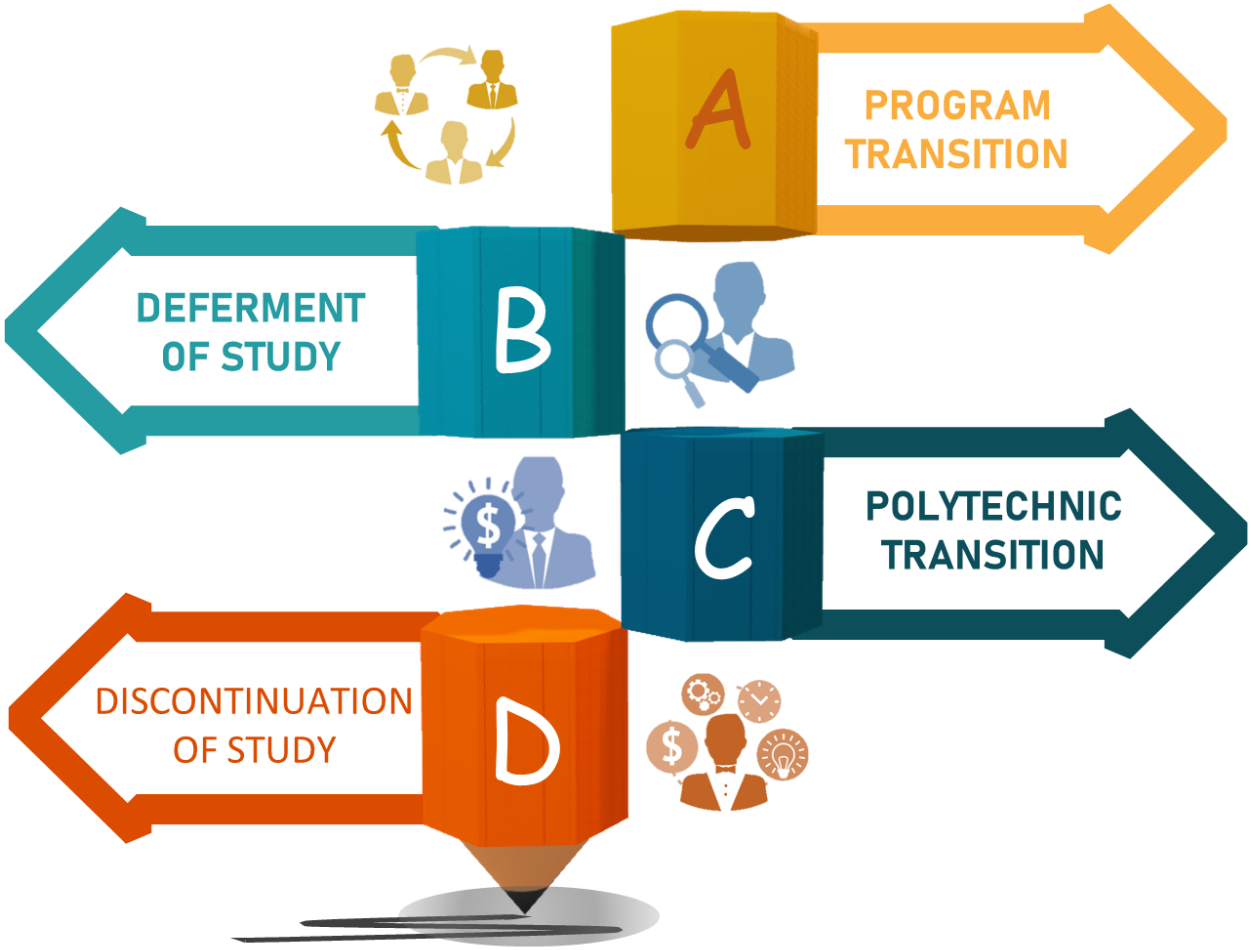
- PTPTN Loan
- JPA Loan/ Scholarship
- Yayasan Sarawak Loan/ Scholarship
- Suruhanjaya Perkhidmatan Awam Negeri Sarawak (SPANS) Loan/ Scholarship
- Kuok Foundation Scholarship
- Tabung Amanah Bakun (Bakun Trust Fund) Financial Aid
- KWSP (Employees Provident Fund) Contribution Withdrawal
- PERKESO (Social Security Organisation - SOCSO) Contribution Withdrawal
- Baitulmal Financial Aid
- Other sponsors
- Politeknik Mukah's Subsistence/ Welfare Support

For assistance in this matter, students can approach JHEPP directly or contact Scholarship Moderator (Penyelaras Biasiswa) for their respective department.

STUDENT'S AFFAIR AND DEVELOPMENT DEPARTMENT

STUDENT AFFAIRS MANAGEMENT

JHEPP is also responsible in handling other applications of students' affairs during their course of studies in Politeknik Mukah, such as:



PROGRAM TRANSITION

Program transition can be made within a month after the official date for new students' registration day, while fulfilling the following requirements:

- Student fulfils the entry requirement for the applied program, and
- There is an empty slot for the student in the applied program.

Students who are approved for program transition are required to continue on their studies in new program in the effective semester. Any application for program transition made after a month of the set date will only be considered for approval in the following semester. Until then, students are required to stay and continue their studies in the current program, as well as pass all the courses offered in that particular program before pursuing a new program in their next semester of studies. Students that are granted approval for program transition in their next semester of studies will be reverted to semester one (1) in the new program, and any application for credit transfer for any similar courses taken (and passed) in the previous semester (semester one, old program) should be made through the Head of Department for the new program.

POLYTECHNIC TRANSITION

As stated in *Surat Tawaran Politeknik KPT* (Polytechnic KPT Offer Letter), transition of polytechnics is fundamentally is not allowed whereby the study offer is final. Nonetheless, application for polytechnic transition can be considered in the following cases:

- Students' serious health condition (that needs medical attention near to their place of residence), and
- Life-threatening condition of the student in the current polytechnic.

All matters in regards to polytechnic transition will be forwarded to Bahagian Pengambilan Pelajar – BAP (Students Admission Division) of Jabatan Pengajian Politeknik - JPP (Department of Polytechnic Education). The result of the application will be notified to the students through their respective Head of Department.

STUDENT'S AFFAIR AND DEVELOPMENT DEPARTMENT

DEFERMENT OF STUDY

Throughout their study years, students are only eligible to make deferment of study twice (2 times) due to health problems/ involved in any accidents that inhibit them to resume studies for a long period of time in that particular semester. Application for deferment of study is only entitled for a duration of one (1) semester (6 months) each. Deferment of study will not be taken into calculation of students' maximum duration of their studies in polytechnic.

DISCONTINUATION OF STUDY

Students that no longer have interest to pursue their studies or decided to quit due any reason(s) can apply for discontinuation. Students are advised to make application for discontinuation of study before leaving the campus to enable the student's registry be officially removed from Polytechnic's system. Students applying for discontinuation of study will not be black-listed and can still re-apply for admission in polytechnic or other higher learning institutions.

STUDENT DECLARATION LETTER

JHEPP also assists in issuance of student declaration letter/ student verification to those studying in Politeknik Mukah for the following purposes:

- Application for loan/ scholarship/ Baitulmal
- Withdrawal of KWSP (EPF)/ PERKESO (SOCSO)
- Application for Student Pass (Immigration)
- Medical treatment at government hospitals/ clinics
- Other official affairs (students)

APPLICATION FOR STUDENT PASS FOR SABAH AND PENINSULAR MALAYSIA STUDENTS

For those coming from outside of Sarawak (Sabah and other Peninsular states), it is compulsory for the students to apply for Student Pass for the duration of their studies in Politeknik Mukah. The application is usually made within the first month each semester commences, and application form can be obtained from JHEPP office.

DISCIPLINE MANAGEMENT

Apart from managing students' affair, JHEPP is also responsible in enforcement of Polytechnic's rules and regulations. All students registered under Polytechnic system are bound to the following rules and regulations:

- **Akta Institusi-Institusi Pelajaran (Tatatertib) Pindaan 2012 (Akta 174)**
- **Politeknik Mukah's Students' Regulations**
- **Politeknik Mukah's Residential College**

STUDENT'S AFFAIR AND DEVELOPMENT DEPARTMENT

Students failing to adhere to the rules and regulations or convicted to any disciplinary offences can be imposed to any of the following penalties:

- Fines/ Levies
- Suspension
- Discontinuation of study
- Denied of Polytechnic amenities (which includes retracting the residential status of the student in residential college)
- Other penalties decided by the Polytechnic's Disciplinary Board.

STUDENT CARD

All students are required to display their Student Card at all time in Politeknik Mukah campus. For those staying in Residential College, Student Card should be scanned through at guard post to record students' movement in and out of campus.

STUDENT 'S DRESS CODE & ETIQUETTE

Student's dress code and etiquette established in Politeknik Mukah aims to ensure students are always in their best of appearance that represents the polytechnic's identity when outside of campus.

STUDENT'S AFFAIR AND DEVELOPMENT DEPARTMENT

FINES/LEVIES

If students are fined for any disciplinary offences, they are responsible to clear off the fines at JHEPP counter within 14 days each fine is issued. Students can appeal for deduction of amount of payment for the fines by writing in appeal letter stating reasonable reasons for the deduction through:

- **Head of Department** : For fines/ levies issued by Department's Discipline Officer.
- **Head of Felo** : For fines/ levies issued by Felo/ Residential College Supervisor.
- **Head of Students' Affair & Development Department** : For fines/ levies issued by JHEPP.

All payment for the fines/ levies made through JHEPP counter will be issued official receipt *(Hasil Kerajaan).* It is to be reminded that students with a record of more than two (2) fines/ levies issuance will not be deliberated for their application for occupying the Residential College in the next semester of their studies.

STUDENT'S AFFAIR AND DEVELOPMENT DEPARTMENT

STUDENT'S ACTIVITIES

Students are encouraged to participate in all activities organised by the Polytechnic throughout their study years. For those who are interested to organise any activities internal / external of Polytechnic, prior authorization from the Polytechnic's Director must be obtained before the activity is to be carried out (through writing of proposal – Kertas Kerja Aktiviti). Organising of activities can be made by:

* Registered Club/ Committee in Polytechnic
* Class (for academic purposes/ course requirement)
* Extra-Curricular Courses supervised by Sports, Co-Curriculum & Culture Unit (USKK)
* Students Representative Council (MPP)
* Academic Departments/ Academic Support Units

STUDENTS ACTIVITIES PROPOSALS/PAPERWORKS

All students' activities must be approved by the Polytechnic's Director prior to their commencement. It can be attained through writing of paperwork/ proposal based on the format and procedures specified. The guidelines can be from students' respective department or JHEPP.

STUDENTS VEHICLE PASS

If students feel the need to bring their own vehicle to the campus, they are required to apply for the Student's Vehicle Pass and display it on the vehicle. Only vehicles with the pass (sticker) are allowed to be parked inside the campus compound.

The procedures in applying for the Student's Vehicle Pass are as follow:

- Apply online through SPMP (i-Help Module – Application for vehicle pass/ sticker)
- Print out completed application form from SPMP
- Prepare the following supporting documents with the application form:

  Copy of valid driving license

  Copy of vehicle grant

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- Apply online through SPMP (i-Help Module – Application for vehicle pass/ sticker)
- Print out completed application form from SPMP
- Prepare the following supporting documents with the application form:

    a) Copy of valid driving license

    b) Copy of vehicle grant

    c) Copy of vehicle's valid Insurance Cover Note

    d) Copy/ photo of valid road tax

    e) Consent letter from parents/ guardians/ vehicle's owner

The validity of the vehicle pass lasts for the period of six (6) months and new application should be made after its expiry date.

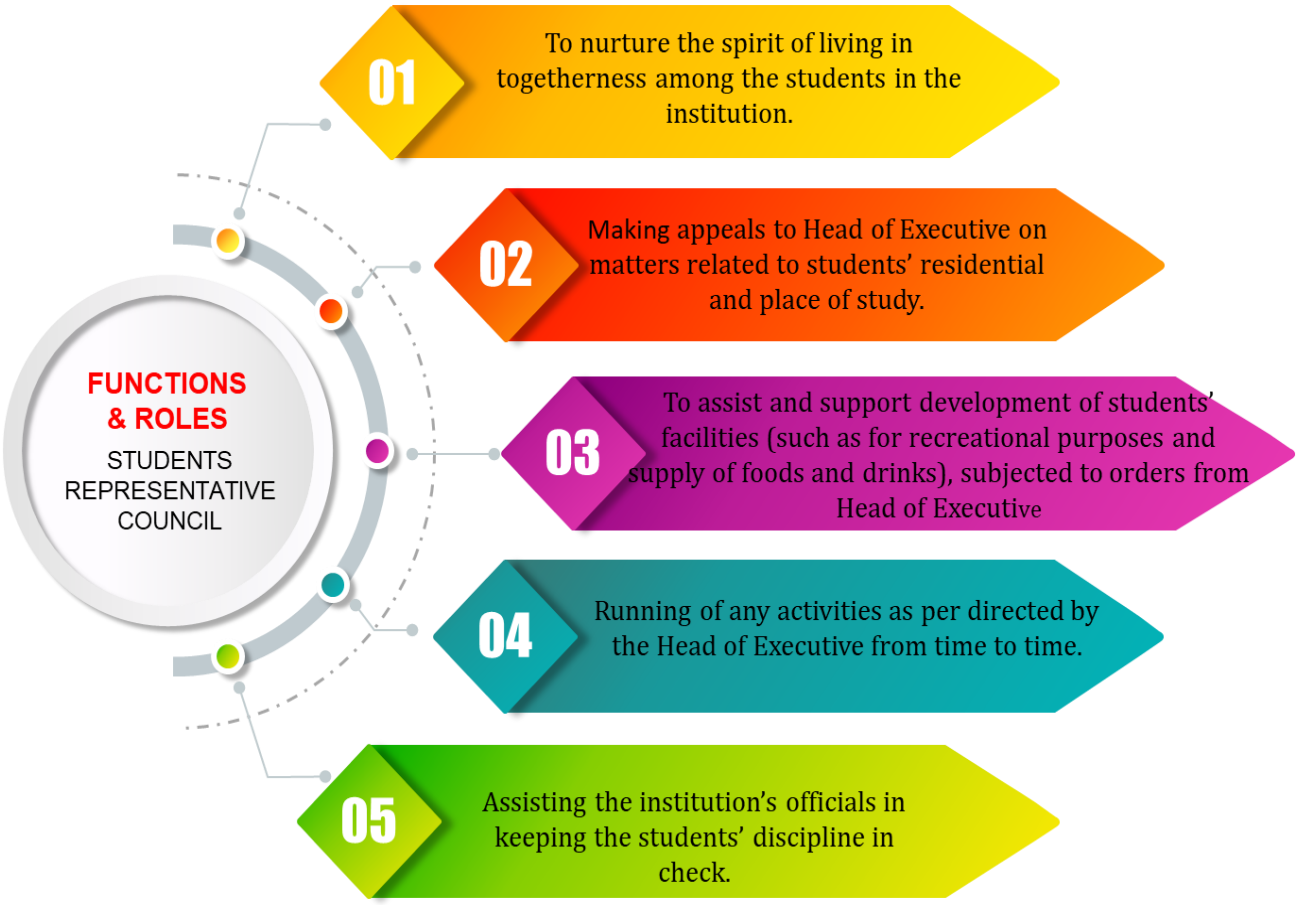
Students are reminded that any vehicles issued with the pass can only be driven by the registering student t. If the vehicle is discovered to be driven by other individual(s), Security Guards have the rights to deny their access into the campus.

Students possessing the vehicle pass are also prohibited from renting/ lending out their vehicle to other students/ individuals. The vehicle pass is void shall the students commit these offences.

STUDENT'S AFFAIR AND DEVELOPMENT DEPARTMENT

STUDENTS REPRESENTATIVE COUNCIL

Akta Institusi-Institusi Pelajaran (Tatatertib) Pindaan 2012 (Akta 174), also known as Act 174, has allocated that a committee of Students Representative Council (MPP) is to be established in the effort to care for students' welfare and development throughout their study years. Selection of MPP members are done through campus election organised by the JHEPP.



CAMPUS ELECTION

Students in their second semester and above are eligible to run for the positions in the council (MPP) by submitting a nominator and seconder on nomination day. Students are required to fulfill their responsibility as voters during election day.

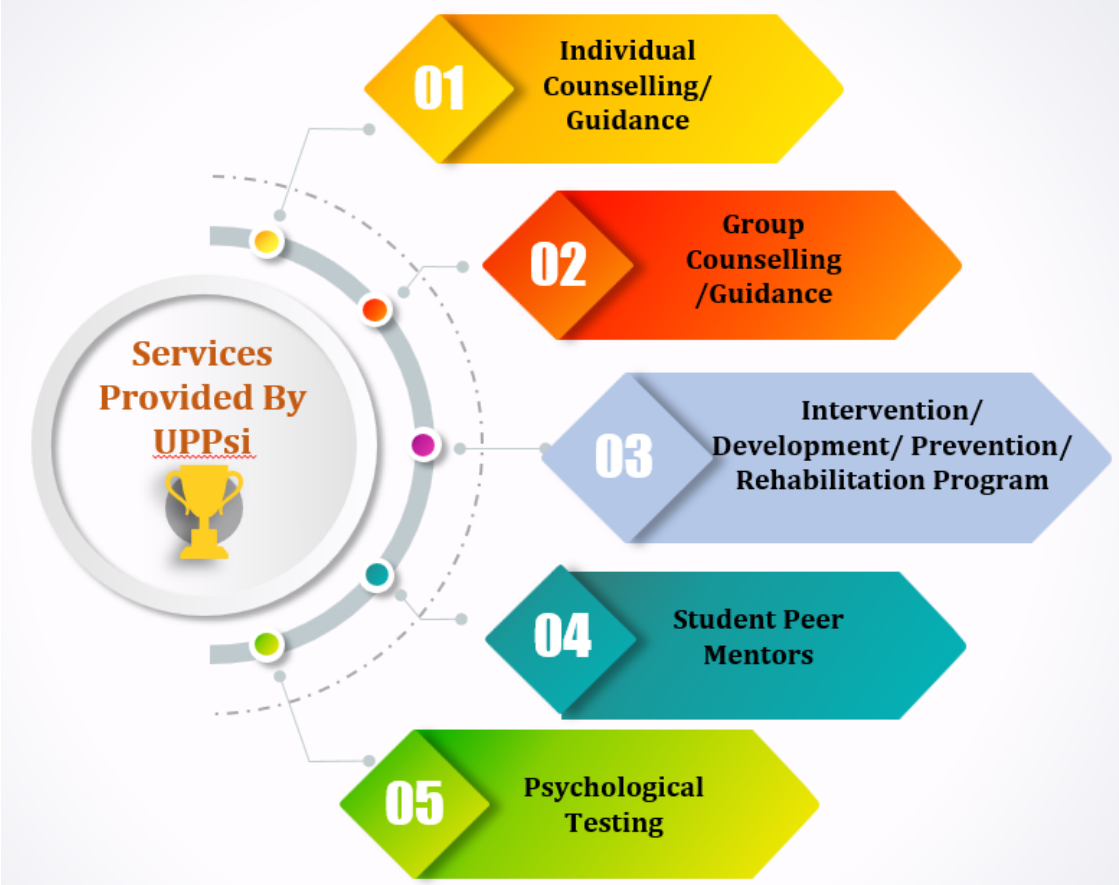
PSYCHOLOGY MANAGEMENT UNIT

INTRODUCTION

Psychology Management Unit (UPPsi) is one of the academic support units within the Politeknik Mukah (PMU) since August 2004. Our unit is committed to provide comprehensive guidance and counselling services as a remedial to facilitate problem-resolution, improve relationships, enhance growth and empowered development to the fullest potential by promoting positive mental health for our students and staffs.

SERVICES

UPPsi always ensure that our services are relevant with the current issues by providing support services to students of polytechnics in terms of academic support, mental health, personality, social, career planning and all related aspects. In short, our services is to assist students to overcome the challenges of campus life and learned more perfect and successful career future undertakings. The following are the services provided by UPPsi:



PSYCHOLOGY MANAGEMENT UNIT

UPPsi is equipped with facilities such as:

- Discussion/meeting room
- Counseling/guidance room

  Student Peer Counselor Operations Room

GUIDELINES

What you can expect from your counsellor? You can expect someone who is interested in listening to your concerns and in helping you to develop a better understanding so that you can deal with it more easily and effectively. Your counsellor will take you seriously and be willing to openly discuss anything you wish. Your counsellor will want to work with you, but won't do for you things you are capable of doing for yourself. Confidentiality is a vital part of counselling so you need not worry about your information being disclosed to other parties. Counsellor will only disclose information with or without client's consent under special circumstances.

Your main responsibilities in counselling are to:

Attend your regularly scheduled sessions. Talk about what is bothering you as openly and honestly as you can. Complete tasks or "homework assignments you may be asked to do. Let your counsellor know if you are unable to make it to an appointment preferably four hours before the appointment time. Take risks to try something new or facing a new approach. Give feedback to your counsellor about your progress.

PSYCHOLOGY MANAGEMENT UNIT

For further information, please do not hesitate to contact us:

PSYCHOLOGY MANAGEMENT UNIT

Azrol Bin Adenan

Head of Unit / Psychology Officer

Tel: 084-874001 (8139)| Fax: 084-874006 | E-mail: azroladenan@ pmu.edu.my

Nurul Hidaya Binti Hamli

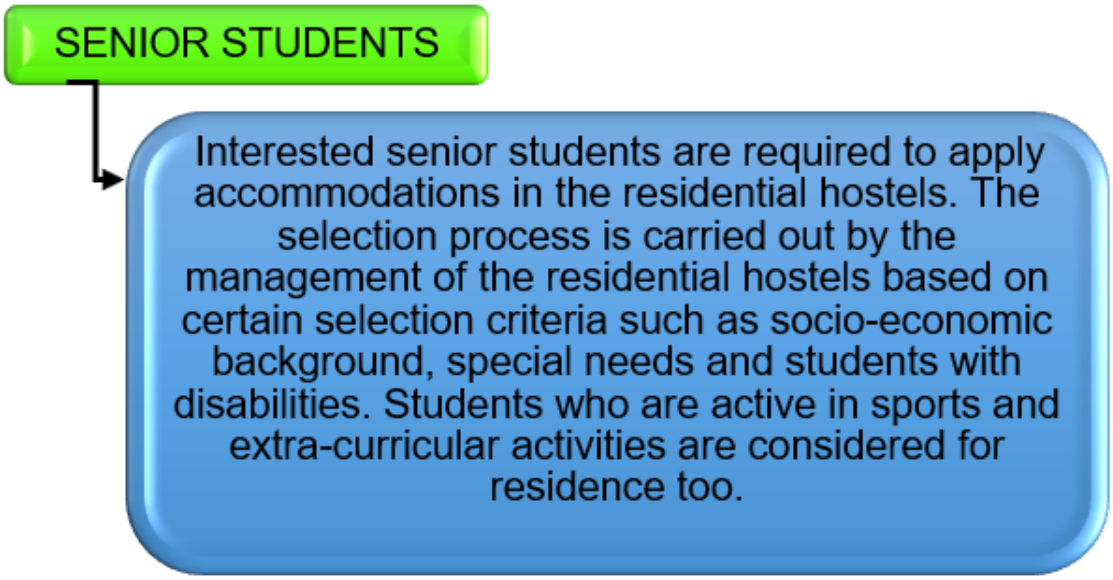
Psychology Officer

Tel: 084-874001 (8028)| Fax: 084-874006 | E-mail: hidaya@pmu.edu.my

RESIDENTIAL COLLEGE

RESIDENTIAL COLLEGE RULES & REGULA-

- Students' Placement in Residential College
- Polytechnic offers limited place in residential college for students studying in Politeknik Mukah. Students receiving this offer to stay in residential college will be placed accordingly as determined by the Director or his representatives in charge.
- The decision for selection of students staying in residential college is final and students MUST abide by the decision.
- The Director has ultimate authority to choose any students or individuals or group of people to stay in polytechnic's residential college.
- The selections for placement in the student residence are stated as following:



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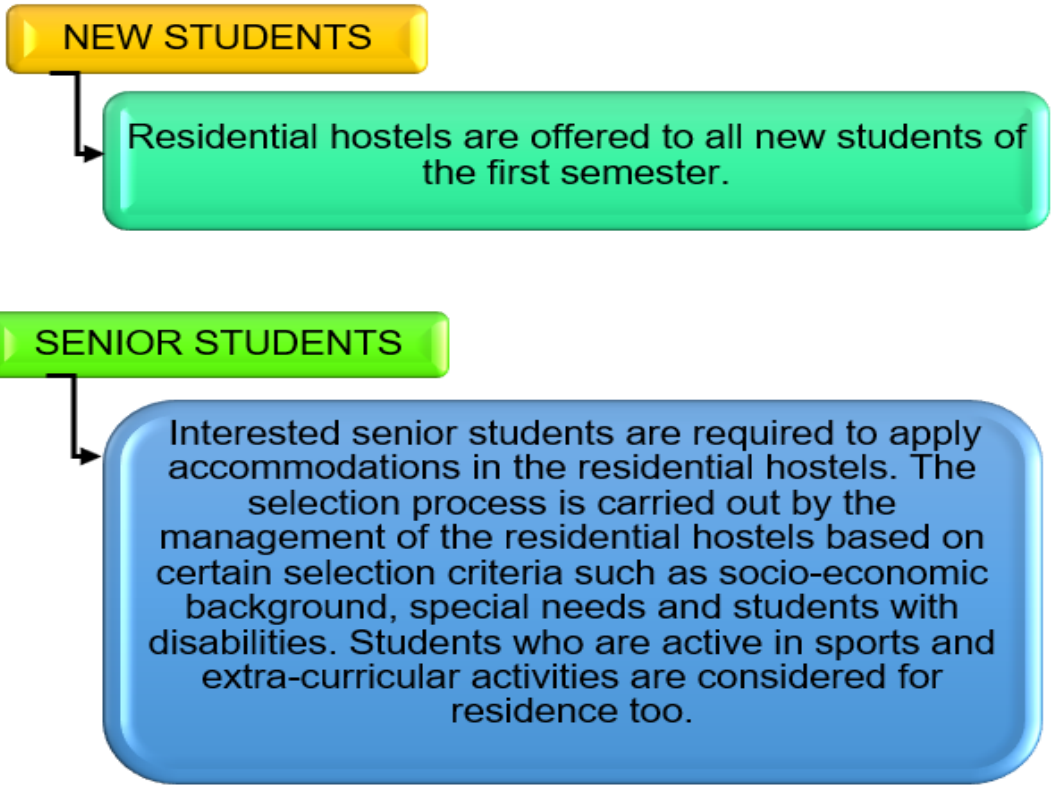


- The Director or his representatives in charge can retract the offer for residential college placement from students at any time which deemed applicable to polytechnic's interest.

POLITEKNIK MALAYSIA
MUKAH

RESIDENTIAL COLLEGE

PAYMENT

- Residential college fee must be paid in full for each effective semester throughout students' study years in polytechnic. Residents that wish to move out from the college in the middle of the semester will not receive any refund for their payment of the fee.
- Payment for residential college fee should be made in the name of the Director on registration day or the day students start staying at residential college.
- Residential college's facilities and amenities damaged by the resident/ group of residents must be replaced by them immediately as directed by the Director or his representatives in charge.
- Rate of compensation that residents should pay for the damage done is subjected to Director's decision.

RESIDENTIAL COLLEGE GENERAL RULES

- Residents must make sure that all equipment and furniture in the room are complete and in good condition upon moving in. Any missing or damage to the furniture
- All equipment inside the room MUST NOT BE CHANGED its location or modified without permission form the Director or his representatives in charge.
- Room cleanliness is fully under the resident's responsibility. The use of bed sheets and pillows cases is mandatory.
- Residents are responsible for the safety of their personal belongings. Rooms must be locked to warrant this.
- Switching of rooms between the residents without the Director's or his representatives in charge permission is strictly prohibited.
- All residents are collectively responsible for their rooms, level (floor) and block.
- Residents are NOT ALLOWED to bring in any form of weaponry into residential college.
- Any form of ragging is not allowed.

RESIDENTIAL COLLEGE

- Male residents are PROHIBITED from entering females' residential area, and vice versa.
- A resident CANNOT obstruct or block the access of any officer, worker or polytechnic representatives from entering their room to perform their duty and responsibility.
- The Director or his representatives in charge can instruct a resident to vacant their room or relocate to another room at any time.
- Residents are NOT ALLOWED to attend or organise any meeting or assembly in residential area without written authorization from Head of Warden or his representatives.
- Residents must always carry or readily make available in their possession Residential College Card when in residential area.
- The use of electrical appliances without permission is PROHIBITED. Only radio, CD or cassette players powered by batteries are allowed in the room.
- Head of Warden or his representatives can, from time to time, give out any verbal or written instructions deemed necessary and applicable to maintain order and peacefulness in residential college.
- Any forms of electrical wiring/ connection in residential college are banned.
- Residents are prohibited from entering staffs' residence without authorization by the Director or his representatives in charge.
- Residents are NOT allowed to keep in their possession and use DRUGS, ALCOHOLIC DRINKS or any kind of consumption that may lead to intoxication inside their rooms.
- Residents are NOT allowed to smoke or keep in their possession any form of cigarettes inside their room.
- Residents must participate in all programs organised by residential college administration.
- All Muslim residents are required to be presence at Pusat Islam to perform solat in communion.

RESIDENTIAL COLLEGE

PROHIBITED ITEMS AT RESIDENTIAL COLLEGE

RESIDENTIAL COLLEGE MANAGEMENT UNIT

POLITEKNIK MUKAH

POLITEKNIK MALAYSIA
MUKAH

1L5G

INTRODUCTION

1L5G (1 Lecturer 5 Students) is a programme established to monitor or keep track of the graduates for the first 6 months after they have completed their final semester of study in polytechnic. The purpose of this programme is to monitor the employability rate and the market-ability of our students in the industry. During their final semester, five (5) students will be placed under one (1) lecturer that will act as a liaison officer/ supervisor and be responsible to collect the needed information for this programme. Students are required to update their current status to their respective lecturer/liaison officer for the first six (6) months after graduating.

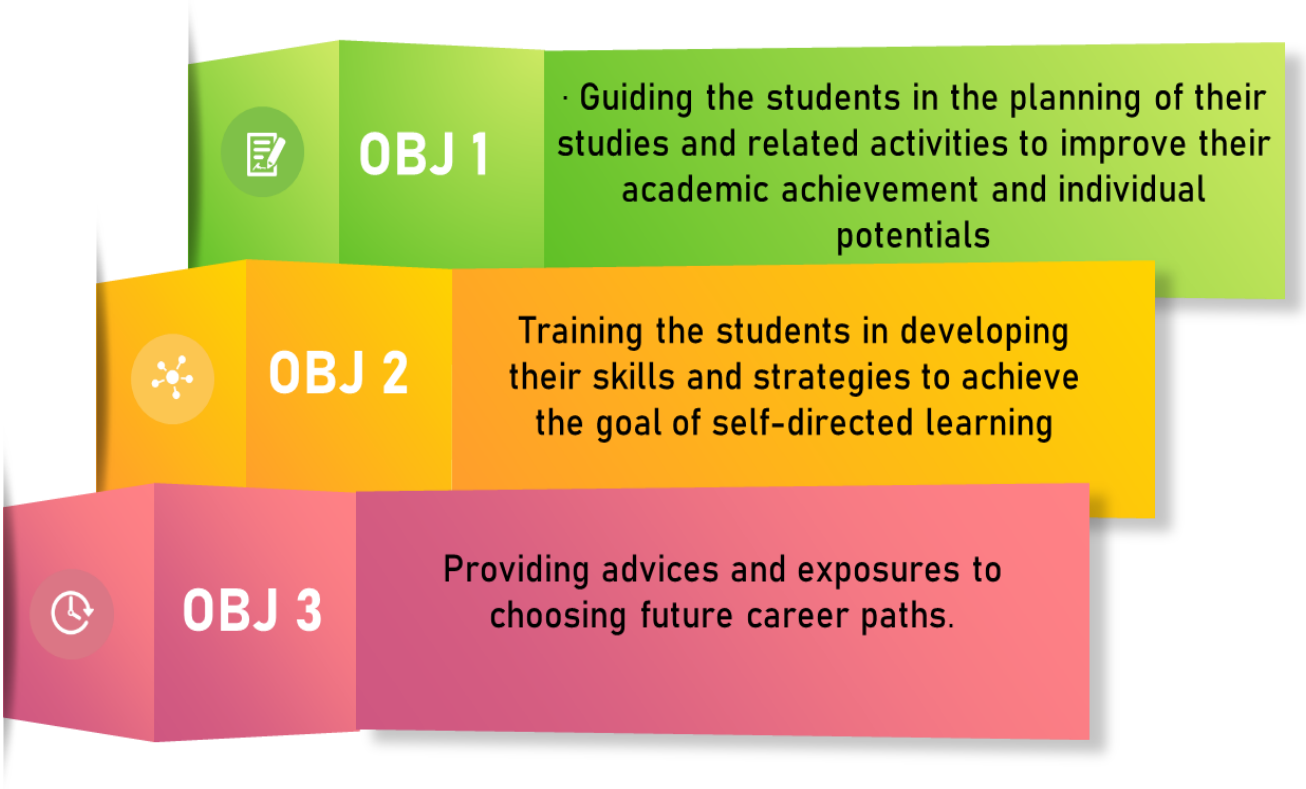
The six (6) categories in 1L5G consist of :

- **Working in the field of studies :** Students that are grouped in this category are those who work within their respective field of studies.
- **Not working in the field of Studies :** Students that are grouped in this category are those who got attached to a job which is not in their field of studies.
- **Waiting for job placement :** Students that are grouped in this category are those who are waiting to be stationed in a particular department or waiting for posting to any vacancy/ post.
- **Entrepreneurship :** Students that are grouped in this category are those who decided to start their own business ventures, regardless its business nature (on/offline businesses).
- **Further Studies :** Students that fall into this category are those who continue their studies to a higher level.
- **Unemployed :** Students that fall in this category are those who are still searching for job opening.

STUDENTS' ACADEMIC ADVISING SYSTEM

INTRODUCTION

Academic Advisory System (SPA) was introduced in Polytechnic system since 2004. The purpose its existence is to ensure that students achieve not only excellence in their academic pursuit but also to shape and develop their personality and soft skills. During their course of studies in polytechnic, the students will be supervised by their respective Academic Advisor (PA), which are also their lecturers. PA role is to help students develop their skills and strategies towards achieving the following objectives:



STUDENTS' ACADEMIC ADVISING SYSTEM

ROLES AND RESPONSIBLE OF PA

Updating documents/ records related to Academic Advisory in print or online.

1. **Student's Academic Achievement**

- Provide guidance in students' planning of their studies as a whole or by semester, in accordance to their individual ability to achieve the pre-determined learning outcomes.
- To monitor students' achievement of the learning outcomes and help develop appropriate learning skills and strategies to accomplish them.
- Guide students in their time management during their studies at polytechnic to support towards achievement of learning outcomes.
- Identify students that require special guidance and counseling by referring them to the appropriate personnel.
- Making sure that the students comply with and stay attentive to all applicable rules and regulations in polytechnic.
- Monitor / administer / manage students' registration period.

2. **Student's Self Development**

- Inform and explain to the students about the results of Sidek Personality Inventory (IPS) analysis received from Psychology and Career Management Unit (UPPSI).
- Help students to set their goal(s).
- Help students to maintain their motivation through continuous motivational activities/ programmes.
- Constantly reviewing students' progress through Self-Inspiring & Transforming Manual (*Manual Insprirasi & Transformasi Diri*) book and take appropriate subsequent actions.
- Make record and reflection of each meeting with the students.
- Help establish students' effective communication skills and assertiveness.

3. Career Path

- Ensure that the students gain enough exposure to opportunities and methods to furthering their studies, becoming entrepreneurs or pursuing other relevant career paths through activities and programmes organized by the polytechnic before graduation.

ALUMNI

INTRODUCTION

Politeknik Mukah Alumni Association was established on the 25th March 2008 by the former students of Politeknik Mukah. Up to date until 2020, there are almost 9224 graduates Polytechnic Mukah. The membership is open to all Politeknik Mukah former students with Malaysian nationality.

The objective of organizing the association is to enhance collaboration between the associations with other organization especially those in a related industry. This is aimed to help students for their internship collaboration, industrial training as well as their future career for the graduates. Apart from that, Politeknik Mukah Alumni Association is also a respectable platform for the graduates to share their knowledge and skills. This will ultimately a perfect platform for them to share knowledge and competencies in their respective field. Besides that, they can also contribute to the organization (Politeknik Mukah) on the relevance of courses taught in the syllabus or offered by the institution. This is parallel to the vison and mission of Politeknik Mukah which is to become a centre of excellence in the field of engineering, commerce, and hospitality.

INTRODUCTION

The objective of Politeknik Mukah Alumni Association are as follows:

- To enhance good network and collaboration among members of the association
- To build a right channel for members to give feedback on the relevance of the programme offered by the organization.
- To develop good relationship and bigger collaboration between Politeknik and other institution for the better future prospect of the graduates.

POLITEKNIK MALAYSIA
MUKAH

EDITORIAL COMMITTEE

CHAIRMAIN
En Hisamudin Bin Mohd Tamim

DEPUTY CHAIRMAN
En Iskandar bin Reduan
En Sophian Bin Sout

LEAD EDITOR
Pn Hasnah Binti Ngah

EDITOR
Pn Norazah binti Abdullah
Nur Hidayah binti Mohamed Yunus

WRITERS

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En Awang Annuar Bin Awang Mansor	Pn Syamimi Binti Muhamad
Nik Nur Dina Binti Nik Azmi	Pn. Farihana Binti A. Rahman
En Samsawi Bin Bujang	En Azrol Bin Adenan
En Kumar Bin Boniface Jubilee	En Mohamad Sobri Bin Suhaili
En Redza Izwan Bin Abdul Rahman	Pn Yong Hua Ying
En Adi Jaya Bin Adam	En Kamil Bin Sahidin @ Salehudin
Pn Dolly Shandy Anak Robert	Pn Rozaida binti Halil
Tpgr (Bersekutu) Amir Haziq Bin Loh Bojeng	Pn Rohaliza Binti Karim
Pn Siti khadijah binti Sebli Joney	Pn Azrina Binti Ali
Pn Lezawati Binti Seron	Pn. Norhajijah Binti Shamsuddin
Mdm Siew Min Hui	Pn. Nurhazura Binti Hassan
TPgR (Bersekutu) Mohammad Nor Ihsan Bin Md Zin	Pn. Nur Adilla Binti Kasim

DESIGN & GRAPHICS

Cik Mazira binti Ramli
En Ag. Aswan bin Ag. Mohd Kassim


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