POLITEKNIK MALAYSIA
PORT DICKSON

MECHANICAL ENGINEERING DEPARTMENT
POLITEKNIK PORT DICKSON

Student HANDBOOK

2023 Edition

Diploma in Mechanical Engineering
Diploma in Mechanical Engineering (Automotive)
Diploma in Mechanical Engineering (Manufacturing)
Diploma in Mechatronics Engineering

POLITEKNIK PORT DICKSON

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1.0 Foreword

Assalamualaikum wbt

All praises to Allah, the Most Gracious, and with His Mercy, this handbook is impeccably completed.

My heartiest congratulations to all the new students. Please begin this academic journey with new hopes and positive mindset. I assure you that you are at the right place to study, since Politeknik Port Dickson is the institution where a great technical and commercial career begins.

This handbook is designed to guide you in the overwhelmingly academic and social world of Politeknik Port Dickson. It will assist you on the available options and resources. It gives you an opportunity to experience new things and to learn things you never knew before.

All polytechnics in Malaysia has implemented a new curriculum structure, where activities related to teaching and learning are conducted based on the Outcome-Based Education (OBE) concept. These improvements are based on practice and application- oriented as they meet the Malaysian Qualification Agency's requirement. Therefore, this handbook comprises information related to academic requirements, curriculum structure, academic advisory system, residential system, and other activities which take place outside the classroom. For a complete college experience, please explore the diverse programs, clubs, and organizations to complement your classroom learning.

Prepare yourself to enter the new experiences at Politeknik Port Dickson which awaits you with many opportunities to unfold. Never get scared from challenges and always welcome the chances to learn new things in life in order to grow and prosper. This handbook outlines the rights and responsibilities, polytechnic policies and procedures, and polytechnic resources. Please take advantage of these resources and opportunities.

Wish you lots of luck as you are all set to begin a new academic journey. May you shine bright and happy with your efforts.

Wassalam.

Khairun Syatirin bin Md Salleh
Head of Mechanical Engineering Department
Politeknik Port Dickson

2.0 Background of
Politeknik Port Dickson

Politeknik Port Dickson was established in 1990 on a 100-acre campus. It is the sixth polytechnic built under Polytechnic Management Division, Technical Education Department, Malaysian Ministry of Education.

There are 6 academic departments in Polytechnic Port Dickson namely, the departments are:

1. **Civil Engineering Department:**
    - B. Sc. (Hons) HBP (Architecture) Offshore Programme USM-KPT (PoliPD)
    - Diploma in Civil Engineering – DKA
    - Diploma in Architecture - DSB
2. **Electrical Engineering Department:**
    - Diploma in Electrical Engineering – DET
    - Diploma in Electronic Engineering (Computer) - DTK
    - Diploma in Electronic Engineering (Communication) – DEP
    - Diploma in Electrical Engineering (Green Energy) – DEG
    - Diploma in Electrical Engineering (Energy Efficiency) – DEQ

3. **Mechanical Engineering Department:**
    - Diploma in Mechanical Engineering – DKM
    - Diploma in Mechanical Engineering (Automotive) – DAD
    - Diploma in Mechanical Engineering (Manufacturing) – DTP
    - Diploma in Mechatronic Engineering – DEM

4. **Commerce Department:**
    - Diploma in Accountancy – DAT
    - Diploma in Marketing – DPR
    - Diploma in Secretarial Science – DSK

5. **General Studies Department.**

6. **Mathematics, Science and Computer Department.**

3.0 Background of Mechanical Engineering Department (JKM)

Department of Mechanical Engineering (JKM) was established in June 1990 with 7 lectures. There were 110 students registered in two certificates at that time which were Certificate in Mechanical Engineering (Construction) and Certificate in Mechanical Engineering (Automotive). Now, total lectures have increase to 90 while student to 1200.

Parallel to time past, there are increased number of workshops and labs, variety of course and student intake. The growing number of courses, classes and labs enable the student intake. JKM has its own proud compared to another department involving in curriculum and co curriculum.

4.0 VISSION & MISSION

Department of Polytechnic and College Community Education (DPCCE) Vision:

> **To be the Leading-Edge TVET Institution".**
> *Menjadi Peneraju Institut TVET yang Unggul*

DPCCE Mission:

1. **To provide wide access to quality and recognized TVET programmes.**
   Menyediakan akses yang meluas kepada program TVET berkuaiti dan diiktiraf.

2. **To empower communities through lifelong learning.**
   Memperkasa komuniti melalui pembelajran sepanjang hayat.

3. **To develop holistic, entrepreneurial, and balanced graduates.**
   Melahirkan graduan holistic, berciri keusahawanan dan seimbang.

4. **To capitalize on smart partnership with stakeholders.**
   Manfaatkan sepenuhnya perkongsian Pintar dengan pihak berkepentingan.

Politeknik Port Dickson (PPD) Vision:

> **To be a towering TVET institution globally"**
> *Menjadi institusi TVET unggul bertaraf global*

PPD Mission:

1. **Producing quality, holistic and well-balanced TVET graduates with entrepreneurship in order to fulfill the needs of the nation.**
   Menghasilkan graduan TVET berkualiti, holistik dan seimbang serta berciri keusahawanan yang memenuhi keperluan negara.

2. **Developing and sustaining smart partnerships with relevant parties locally and internationally.**
   Membangun dan melestarikan kerjasama pintar dengan pihak berkepentingan dalam dan luar Negara.

3. **To benefit society through education, research and innovation**
   Memberi manfaat kepada masyarakat melalui pendidikan, penyelidikan dan inovasi

Quality Policy:

1. **Develop student potential towards excellence in engineering and non-engineering fields.**
   Membangunkan potensi pelajar ke arah kecemerlangan di dalam bidang kejuruteraan dan bukan kejuruteraan.

2. **Strive to achieve customer satisfaction.**
   Berusaha mencapai kepuasan pelanggan.

3. **Ensure the compliance of certification and accreditation requirements through an efficient system.**
   Memastikan keperluan pensijilan dan akreditasi dipatuhi melalui sistem yang efisien.

4. **Implement continuous improvement of the management system.**
   Melaksanakan peningkatan sistem pengurusan secara berterusan

5.0 THE MANAGEMENT TEAM

Top Management Team

DR. ISHAK BIN MOHAMAD
Pengarah
Politeknik Port Dickson

ABDUL RAHIM BIN IBRAHIM
Timbalan Pengarah (Akademik)
Politeknik Port Dickson

RAZALI BIN BAKRI
Timbalan Pengarah (Sokongan)
Politeknik Port Dickson

Organisational Chart
Mechanical Engineering Department

KHAIRUN SYATIRIN BIN MD SALLEH
Head of Department
Mechanical Engineering Department

SITI HAJAR BINTI MOHD NOH
Head of Program
Diploma in Mechanical Engineering

HASNY BINTI ABDUL JALIL
Head of Program
Diploma in Mechanical Engineering (Manufacturing)

MOHD IZAD AFFENDY BIN MOHD YUSOF
Head of Program
Diploma in Mechanical Engineering(Automotive)

RAGUNATHAN A/L JAYARAMAN
Head of Program
Diploma in Mechanical Engineering(Mechatronics)

HAIRUL AZAM BIN MOHD MOKHTAR
Assistant Head of Program
Diploma in Mechanical Engineering

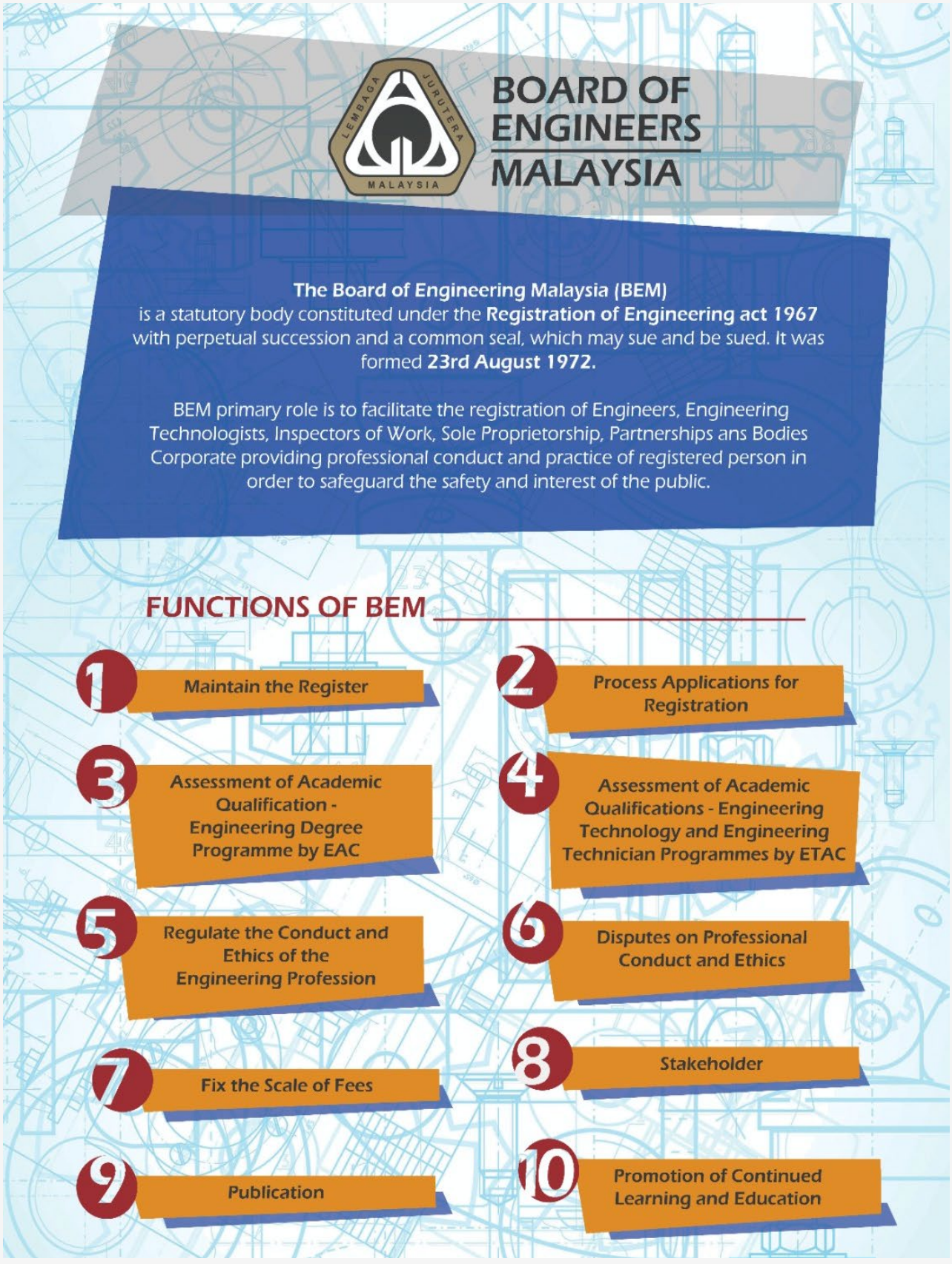
ACADEMIC STAFF

ACADEMIC STAFF

ACADEMIC STAFF

ACADEMIC STAFF

6.0 BOARD OF ENGINEERS MALAYSIA



BOARD OF ENGINEERS MALAYSIA

EAC — ENGINEERING ACCREDITATION COUNCIL

A delegated body by the BEM as the only recognized accrediting body for **engineering degree** programme offered offered in Malaysia.

ETAC — ENGINEERING TECHNOLOGY ACCREDITION COUNCIL

A delegated body by the BEM as the only recognized accrediting body for **engineering technology bachelor degree, engineering diploma and engineering technology diploma** programme offered in Malaysia.

GE — GRADUATE ENGINEER

A person registered under section 10(1) of the Registration of Engineers Act 1967 (Revised 2015).

According to Section 7(1B),

Entitled to himself '**Grad.Eng.**' after his name or in any way associate with his name.

REQUIREMENTS

Hold any academic qualification for registration as a Graduate Engineer with BEM includes:

1. ENGINEERING DEGREE AWARDED BY MALAYSIA:
An engineering degree accredited / recognised by EAC.

2. ENGINEERING DEGREE AWARDED BY OTHER COUNTRY
Engineering degree from overseas (outside Malaysia) accredited by professional body who is a signatory of **Washington Accord (WA)**

ET — ENGINEERING TECHNOLOGIST

A person registered under Section 10© of the Registration of engineers Act 1967 (Revised 2015).

According to Section 7(1B) of the Act

Entitled to describe himself '**Eng.Tech.**' after his name or in any way associate with this name.

REQUIREMENTS

Holds any academic qualification for registration as an Engineering Technology with BEM includes:

1. ENGINEERING DEGREE AWARDED BY MALAYSIA:
Bachelor Degree in Engineering Technology accredited by ETAC.

2. ENGINEERING DEGREE AWARDED BY OTHER COUNTRY
An engineering technology degree accredited by professional body who is a signatory of **Sydney Accord (SA)**

7.0 OUTCOME BASED EDUCATION (OBE)

7.1 What is OBE

Outcome Based Education (OBE) is an education philosophy that focuses on the graduate outcomes after completing an academic programme.

OBE is an educational process that focuses on what student can do or the qualities they should develop from what they have learnt.

OBE involves the restructuring of curriculum, assessment, and reporting practices in education to reflect the achievement of higher order learning.

It is a student-centered approach that focuses on student's learning that requires them to learn the required skills and content.

Both structures and curriculum are designed to archive those capabilities or qualities.

7.2 Level Of Learning Outcomes

Programme Educational Objective (PEO)

Programme Course Learning Outcome (CLO)

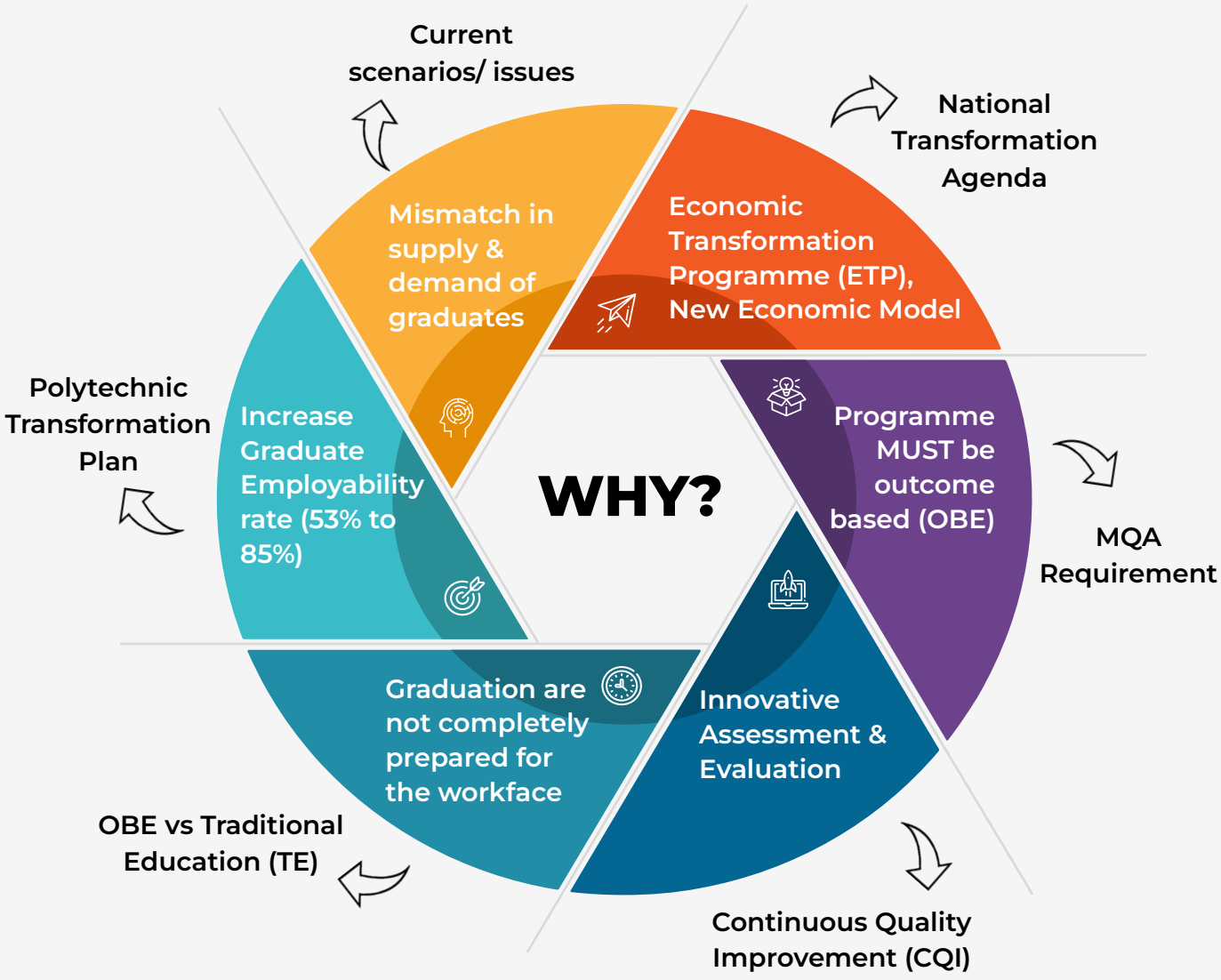
Course Learning Outcome (CLO)

Few years after graduation (4-5 years)

Upon graduation

Upon subject completion

7.3 The Importance of OBE

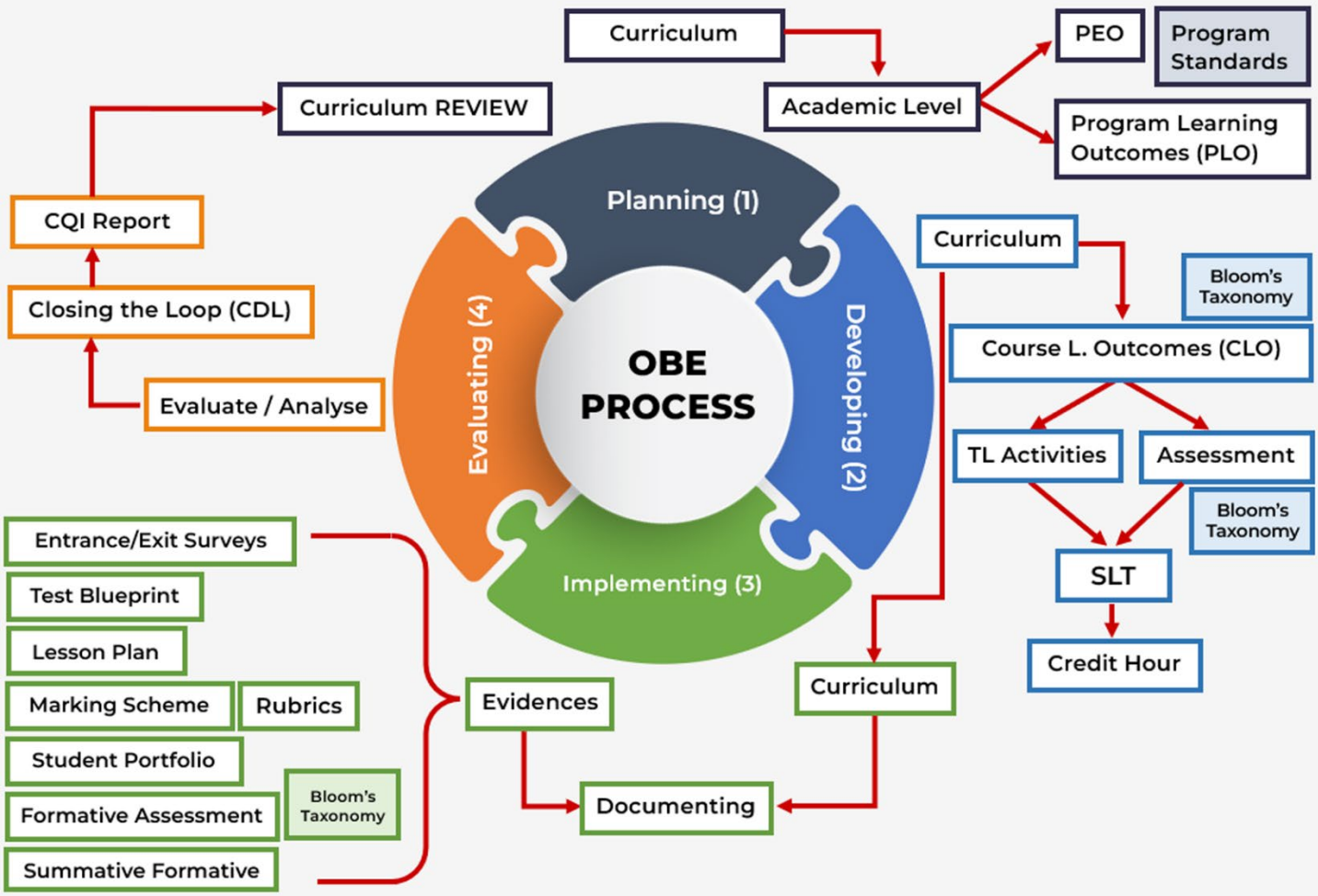


7.4 The OBE impact

- Students are expected to be able to do more challenging tasks other than memorizing and reproducing what has been taught.
- Students should be more creative, able to analyze and synthesize information.
- Students are able to plan and organize tasks, able to work in a team as a community or in entrepreneurial service terms to propose solutions to the problem.
- Students should be able to conduct projects, analyze case studies, do presentations, be able to think, asking questions and conduct research and make decisions based on the finding.

7.5 The element of OBE:

Constructive Element Process OBE impact



8.0 MECHANICAL ENGINEERING DEPARTMENT (JKM)

Mechanical Engineering Department is one of Polytechnic Port Dickson's leading departments, providing with mechanical engineering, manufacturing, automotive and mechatronic knowledge by producing skilled and competitive semi-professional graduates.

JKM is led by a Head of Department and supported by four Heads of Programmes, 90 academic staff and three support staff. The department offers four main programmes which are Diploma in Mechanical Engineering, Diploma in Mechanical (Automotive), Diploma in Mechanical (Manufacturing) and Diploma in Mechatronic.

In addition, in line with MQA's requirements and meeting KPI's KPI targets, it also organizes activities such as: -

1. Interaction of Industry-Visitor Lecturers with each student's program
2. Lifelong Learning Course (Collaboration with Advanced Training and Education Unit)
    - Short Term Courses with the community
    - Part Time Course
    - Customized Course
3. Active Collaboration with Industry and Agencies
4. Research and Innovation by Lecturers (Collaboration with Research and Innovation Unit)
5. Entrepreneurship Program for Students (Cooperation with Entrepreneurship Unit)

6. Programs on Marketability to students (Collaboration with CISEC Unit)
7. Staff Training (Collaboration with Training and Continuing Education Unit)

Programme Offered

1. Diploma in Mechanical Engineering (DKM)
2. Diploma in Mechanical Engineering (Manufacturing) (DTP)
3. Diploma in Mechatronics Engineering (DEM)
4. Diploma in Mechanical Engineering (Automotive) (DAD)

8.1 Organizational Chart & Academic Staff
Mechanical Engineering Department (JKM)

KETUA JABATAN (DH48)
Khairun Syatirin bin Md Salleh

KETUA PROGRAM MEKANIKAL AM (DH44)
Siti Hajar binti Mohd Noh

PENSYARAH UTAMA (DH52)
Aida Syariza binti Othman

PENSYARAH KANAN(DH48)
- Helly Suhaila binti Solaiman
- Norhazlina bt Amon
- Sufandi bin Mohd Johan
- Shaifatulna'im bt Shamsuddin
- Siti Ruziati bt Tomin
- Norizan bin Md Nor
- Nor Hafidzah bt Mohd Husni
- Mohd Hamdan bin Abdul Razak
- Mohd Fiti bin Basiran
- Ts. Tham Sook Chan
- Rafidah bt Aziz
- Ts. Deenesh Kumar A/L Nalathambi

PENSYARAH (DH44)
- Dr Mazlina bt Mohd Tahir
- Ramli bin Ngatniman
- Azman bin Jamhuri
- Hairul Azam bin Mohd Mokhtar
- Noor Hafidzan bin Abu Bakar
- Nur Hazwani bin Nasruddin

PENSYARAH (DH41)
- Mohd Zawawi bin Ismail
- Mutiman bin Mat
- Muhammad Ihsan bin Mohd Gaus

PENSYARAH (DH32)
- Muhamad Asri bin Muhamad@Omar
- Azmi bin Hj Udi

KETUA PROGRAM PEMBUATAN (DH44)
Hasny binti Abdul Jalil

PENSYARAH UTAMA (DH52)
- Noor Hapizah bt Abdullah
- Ts. Ahmad Afandi bin Abdul Khalil

PENSYARAH KANAN(DH48)
- Khor Seow Loon
- Maya Sofa bt Ismail
- Mohd Radzuan Hairi bin Mat Din
- Suhaila bt Mohd Sharif
- Mohd Sallehuddin bin Yazid
- Sharifah Enne Suhaini by Syed Zahari
- IR. TS. Azrol bin Jailani

PENSYARAH (DH44)
- Zulfaka bin Zainal
- Ahmad Zailani bin Ahmad
- Wan Mohd Ridzuan bin Wan Husin
- Pavithra Malar A/P Sanga Pillai
- Mad Hafis bin Mohamed Yusof

PENSYARAH (DH42/41/40)
- Noorazian bt Mohd Arshad
- Mohd Shamsulzamri bin Wahid
- Shah Rizal bin Zainal
- Tan Wei Sin
- Mohamad Mokhtar bin Padeli

PEMBANTU MAKMAL
- Md Faizal bin Mohd Barin
- Rah Hassan bin Abd Rahman

KETUA PROGRAM AUTOMOTIF (DH44)
Mohd Izad Affendy bin Mohd Yusof

PENSYARAH UTAMA (DH52)
Mohd Jalil bin Ahmad

PENSYARAH KANAN(DH48)
- Ahmad Taufiq Wafi bin Abd Ghani
- Khairuhisam bin Ramly
- Mohd Hafiz bin Hassan
- Mohd Nahar bin Ahmad

PENSYARAH (DH44)
- Mustaffa Kamal bin Mohammad
- Raja Noorzihan bin Raja Ab Kadir
- Ab Hakim bin Ab Halim

PENSYARAH (DH42/41/40)
- Mohd Fakuruddin bin Abd Manaf
- Mohd Fikri bin Mohd Soffian
- Mohd Normaizal bin Rahman
- Mohd Firdaus bin Abu Bakar
- Mohd Zubir bin Amir
- Muhammad Hilmi bin Zaid
- Mohd Syafiq bin Radzali
- Ta. Mohd Fakhrur Razi bin Misran

PENSYARAH (DH32)
- Salim bin Matraji
- Normizam bin Halid
- Azizan bin Saad
- Hasrin bin Hussin

PEMBANTU OPERASI (PO)
Hairul Anuar bin Alwi

KETUA PROGRAM MEKATRONIK (DH44)
Ragunathan A/L Jayaraman

PENSYARAH KANAN(DH48)
- Lim Tian Pau
- Wong Kee MIng
- Che Azlina bt Che Norohoseni
- Haspirudin bin Basiron
- Siti Meriam bt Ibrahim

PENSYARAH (DH44)
- Izuan bin Ishak
- Salina bt Sumali
- Muhammad bin Abdul Jalil
- Mohd Asyraf bin Md Junos
- Muhammad bin Ahmad Kamal
- Wong Wei Ming
- Nurul Adillah Ariffin Muhamad Arif
- Wan Zilliani binti Wan Ismail

PENSYARAH (DH41/40)
- Abd Ghani bin Abd Malek
- Ahmad Fauzi bin Ahmad Kamar
- Mohd Fairuz bin Mohd Noh

8.2 Academic Staff
Diploma in Mechanical Engineering

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Mohd Fitri bin Basiran

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Sufandi bin Mohd Johan

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sufandi@polipd.edu.my

Norizan bin Md Nor

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8.3 Programme Of (DAD)
Diploma in Mechanical Engineering (Automotive)

8.3.1 Synopsis

The Diploma in Mechanical Engineering (Automotive) programme is designed to produced holistic graduates that have knowledge and competent skills in the field of mechanical engineering with added specialization subjects in the automotive 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, Vehicle system, Vehicle Technology and Workshop Practice & Management.

8.3.2 Programme Aim

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

8.3.3 Job Prospect

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

- Assistant engineer
- Service advisor
- Technical assistant
- Quality officer
- After sales services officer
- Sales executive
- Technical instructor or lecturer
- Technical specialist
- Workshop supervisor
- Factory supervisor
- Team Leader Service Advisor
- Service Assistant Manager
- Service manager
- Entrepreneur

8.3.4 Programme Educational Objectives (PEO)

The Diploma in Mechanical Engineering (Automotive) programme should produce balanced and competent TVET workers who are:

PEO	Curriculum June 2019
PEO1	Equipped with industry-relevant knowledge and skills in Mechanical Engineering field.
PEO2	Engaging on lifelong and continuous learning to enhance knowledge and skills.
PEO3	Instilled with entrepreneurial skills and mind set in the real working environment.
PEO4	Establish with strong linkage with society and players in the industry.

8.3.5 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 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 sub-discipline.

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 impacts.

8.3.6 Programme Structure

Bil.	CLASSIFICATION	KOD	KURSUS	CREDIT
SEMESTER 1				
1	Compulsory	DUE10012	Communicative English 1	2
2		MPU24XX1	SUKAN / UNIT BERUNIFORM 1	1
3	Common Core	DUW 10022	OCCUPATIONAL, SAFETY AND HEALTH FOR ENGINEERING	2
4		DBM10013	ENGINEERING MATHEMATICS 1	3
5		DBS 10012	ENGINEERING SCIENCE	2
6	Discipline Core	DJJ 10013	ENGINEERING DRAWING	3
7		DJJ 10022	MECHANICAL WORKSHOP PRACTICE 1	2
8		DJJ 10033	WORKSHOP TECHNOLOGY	3
			TOTAL	18
SEMESTER 2				
1	Compulsory	MPU23052	SAINS, TEKNOLOGI DAN KEJURUTERAAN DALAM ISLAM*	2
2		MPU23042	NILAI MASYARAKAT MALAYSIA** (non-muslim)	
3		MPU24XX1	KELAB / PERSATUAN / UNIT BERUNIFORM 2	1
4	Common Core	DBM20023	ENGINEERING MATHEMATICS 2	3
5	Discipline Core	DJJ20063	THERMODYNAMICS	3
6	Specialization	DJA20063	AUTOMOTIVE ELECTRICAL AND ELECTRONICS	3
7		DJA20013	AUTOMOTIVE TECHNOLOGY 1	3
8		DJA20032	AUTOMOTIVE WORKSHOP PRACTICE 1	2
			TOTAL	17
SEMESTER 3				
1	Compulsory	DUE30022	COMMUNICATIVE ENGLISH 2	2
2	Common Core	DBM30033	ENGINEERING MATHEMATICS 3	3
3	Discipline Core	DJJ30093	ENGINEERING MECHANICS	3
4		DJJ20073	FLUID MECHANICS	3
5		DJJ30122	COMPUTER AIDED DESIGN	2
6	Specialization	DJA30023	AUTOMOTIVE TECHNOLOGY 2	3
7		DJA30042	AUTOMOTIVE WORKSHOP PRACTICE 2	2
			TOTAL	18

SEMESTER 4				
1	Common Core	DJJ40132	ENGINEERING AND SOCIETY	2
2	Discipline Core	DJJ30103	STRENGTH OF MATERIALS	3
3		DJJ30113	MATERIAL SCIENCE AND ENGINEERING	3
4		DJJ40182	PROJECT 1	2
5	Specialization	DJA40052	AUTOMOTIVE WORKSHOP PRACTICE 3	2
6		DJA40072	INTERNAL COMBUSTION ENGINE	2
7		DJA40092	WORKSHOP SERVICE MANAGEMENT	2
8	Elective		**Elective*** **	
			TOTAL	***16***
SEMESTER 5				
1	Compulsory	MPU21032	PENGHAYATAN ETIKA DAN PERADABAN	2
2		MPU22012	ENTREPRENEURSHIP	2
3		DUE50032	COMMUNICATIVE ENGLISH 3	2
4	Discipline Core	DJJ50193	PROJECT 2	3
5		DJJ40153	PNEUMATIC AND HYDRAULIC	3
6		DJA50082	VEHICLE DYNAMICS	2
7	Elective		**Elective*** **	**2**
			TOTAL	*16*
1		DUT600610	INDUSTRIAL TRAINING	10
			TOTAL	10
			GRAND TOTAL	***95***

* For Muslim

** For Non-Muslim

ELECTIVE SUBJECT - ***Only one (1) elective course can be chosen either in semester 4 or 5

1		***DJA42012***	***MOBILE HYDRAULIC***	**2**
2		***DJJ52012***	***ENGINEERING PLANT TECHNOLOGY***	**2**
3		***DJF42012***	***ADVANCED MANUFACTURING PROCESS***	**2**
4		***DJF51082***	***QUALITY CONTROL***	**2**
5		***DJJ42032***	***INSTRUMENTATION AND CONTROL***	**2**
6		***DJF51072***	***JIG AND FIXTURE DESIGN***	**2**
7		***DJF41042***	***CAD/CAM***	**2**
8		***DUD10012***	***DESIGN THINKING***	**2**

Notes:

1. MPU22042 Bahasa Kebangsaan A is **COMPULSORY** for students who did not attain credit in Bahasa Melayu at Sijil Pelajaran Malaysia (SPM) level and will contribute to students' CGPA.
2. Co-curriculum pathways:
    a) Path 1: Sport and Club
    b) Path 2: Uniform Unit (Students are required to **PASS** Uniform Unit 1 as a prerequisite to Uniform Unit 2)

8.4 Programme Of (DEM)
Diploma in Mechatronics Engineering

8.4.1 Synopsis

Diploma in Mechatronic Engineering programme is designed to produce holistic graduates that have knowledge and competent skills in the field of mechatronic engineering to fulfil the demand of workers in engineering sector. Five components related to the programme have been identified. Components make up the BOK for Diploma in Mechatronic Engineering are namely Technical, Personal Development, Mathematics, Science and Workplace Competencies. Technical Components is Electronic system, Mechanical System, Computers and Control Systems.

8.4.2 Programme Aim

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

8.4.3 Job Prospect

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

- Assistant Engineer
- Technical Assistant
- Assistant Service Manager
- Service Advisor
- Controller system supervisor
- Automation and robotic supervisor
- Supervisor
- Technician
- Technical Instructor or Lecturer
- Technical Sales Executive/ Engineer
- Draughter/ Designer
- Assistant Programmer
- Technical Instructor
- Entrepreneur
- Production Technician

8.4.4 Programme Educational Objectives (PEO)

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

PEO	Curriculum June 2019
PEO1	Equipped with industry-relevant knowledge and skills in Mechanical Engineering field.
PEO2	Engaging on lifelong and continuous learning to enhance knowledge and skills.
PEO3	Instilled with entrepreneurial skills and mind set in the real working environment.
PEO4	Establish with strong linkage with society and players in the industry.

8.4.5 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 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 sub-discipline.

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 impacts.

8.4.6 Programme Structure

Bil.	CLASSIFICATION	KOD	KURSUS	CREDIT
SEMESTER 1				
1	Compulsory	DUE10012	COMMUNICATIVE ENGLISH 1	2
2		MPU24XX1	SUKAN / UNIT BERUNIFORM 1	1
3	Common Core	DUW 10022	OCCUPATIONAL, SAFETY AND HEALTH FOR ENGINEERING	2
4		DBM10013	ENGINEERING MATHEMATICS 1	3
5		DBS 10012	ENGINEERING SCIENCE	2
6	Discipline Core	DJJ 10013	ENGINEERING DRAWING	3
7		DJM10012	MECHATRONIC WORKSHOP PRACTICE 1	2
8		DJJ 10033	WORKSHOP TECHNOLOGY	3
			TOTAL	18
SEMESTER 2				
1	Compulsory	MPU23052	SAINS, TEKNOLOGI DAN KEJURUTERAAN DALAM ISLAM*	2
2		MPU23042	NILAI MASYARAKAT MALAYSIA** (non-muslim)	
3		MPU24XX1	KELAB / PERSATUAN / UNIT BERUNIFORM 2	1
4	Common Core	DBM20023	ENGINEERING MATHEMATICS 2	3
5	Discipline Core	DJJ20053	ELECTRICAL TECHNOLOGY	3
6		DJM20022	MECHATRONIC WORKSHOP PRACTICE 2	2
7		DJM20032	C PROGRAMMING	2
8		DJM20042	ELECTRONIC SYSTEM	2
9		DJM20053	THERMOFLUIDS	3
			TOTAL	18
SEMESTER 3				
1	Compulsory	DUE30022	COMMUNICATIVE ENGLISH 2	2
2	Common Core	DBM30033	ENGINEERING MATHEMATICS 3	3
3	Discipline Core	DJM30062	INDUSTRIAL ELECTRONICS	2
4		DJM30073	DIGITAL SYSTEM	3
5		DJJ30093	ENGINEERING MECHANICS	3
6		DJJ30113	MATERIAL SCIENCE AND ENGINEERING	3
7		DJJ30122	COMPUTER AIDED DESIGN	2
			TOTAL	18
SEMESTER 4				
1	Common Core	DJJ40132	ENGINEERING AND SOCIETY	2
2	Discipline Core	DJM40082	PROGRAMMABLE LOGIC CONTROLLER	2
3		DJM40092	CONTROL SYSTEMS	2
4		DJM40103	POWER ELECTRONICS	3
5		DJJ40153	PNEUMATIC AND HYDRAULICS	3
6		DJJ40182	PROJECT 1	2
7	Elective		**Elective*** **	
			TOTAL	***14***

SEMESTER 5				
1	Compulsory	MPU21032	PENGHAYATAN ETIKA DAN PERADABAN	2
2		MPU22012	ENTREPRENEURSHIP	2
3		DUE50032	COMMUNICATIVE ENGLISH 3	2
4	Discipline Core	DJJ50193	PROJECT 2	3
5		DJM50113	INDUSTRIAL AUTOMATION	3
6		DJM50122	EMBEDDED SYSTEM APPLICATION	2
7	Elective		**Elective*** **	**2**
			TOTAL	*16*
1		DUT600610	INDUSTRIAL TRAINING	10
			TOTAL	10
			GRAND TOTAL	***94***

* For Muslim

** For Non-Muslim

ELECTIVE SUBJECT - ***Only one (1) elective course can be chosen either in semester 4 or 5

1		***DJJ42022***	***INDUSTRIAL MANAGEMENT***	**2**
2		***DJJ42032***	***INSTRUMENTATION AND CONTROL***	***2***
3		***DJJ52012***	***ENGINEERING PLANT TECHNOLOGY***	***2***
4		***DJF51082***	***QUALITY CONTROL***	***2***
5		***DJF40142***	***CAD/CAM***	***2***
6		***DJM42012***	***RAILWAY 1 - COMMUNICATION FOR RAIL***	***2***
7		***DJM52022***	***RAILWAY 2 - SIGNALLING IN RAIL***	***2***
8		***DUD10012***	***DESIGN THINKING***	***2***

Notes:

1. MPU22042 Bahasa Kebangsaan A is **COMPULSORY** for students who did not attain credit in Bahasa Melayu at Sijil Pelajaran Malaysia (SPM) level and will contribute to students' CGPA.
2. Co-curriculum pathways:
   a) Path 1: Sport and Club
   b) Path 2: Uniform Unit (Students are required to **PASS** Uniform Unit 1 as a prerequisite to Uniform Unit 2)

8.5 Programme Of (DKM)
Diploma in Mechanical Engineering

8.5.1 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.

8.5.2 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.

8.5.3 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:

- Assistant Engineer
- Supervisor
- Draughter / Designer
- Technical Assistant
- Technician
- Assistant Service Manager
- Service Advisor
- Technical Instructor or Lecturer
- Entrepreneur
- Technical Sales Executive / Engineer

8.5.4 Programme Educational Objectives (PEO)

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

PEO	Curriculum June 2019
PEO1	Equipped with industry-relevant knowledge and skills in Mechanical Engineering field.
PEO2	Engaging on lifelong and continuous learning to enhance knowledge and skills.
PEO3	Instilled with entrepreneurial skills and mind set in the real working environment.
PEO4	Establish with strong linkage with society and players in the industry.

8.5.5 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 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 sub-discipline.

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 impacts.

8.5.6 Programme Structure

Bil.	CLASSIFICATION	KOD	KURSUS	CREDIT
SEMESTER 1				
1	Compulsory	DUE10012	COMMUNICATIVE ENGLISH 1	2
2		MPU24XX1	SUKAN / UNIT BERUNIFORM 1	1
3	Common Core	DUW 10022	OCCUPATIONAL, SAFETY AND HEALTH FOR ENGINEERING	2
4		DBM10013	ENGINEERING MATHEMATICS 1	3
5		DBS 10012	ENGINEERING SCIENCE	2
6	Discipline Core	DJJ 10013	ENGINEERING DRAWING	3
7		DJJ 10022	MECHANICAL WORKSHOP PRACTICE 1	2
8		DJJ 10033	WORKSHOP TECHNOLOGY	3
			TOTAL	18
SEMESTER 2				
1	Compulsory	MPU23052	SAINS, TEKNOLOGI DAN KEJURUTERAAN DALAM ISLAM*	2
2		MPU23042	NILAI MASYARAKAT MALAYSIA** (non-muslim)	
3		MPU24XX1	KELAB / PERSATUAN / UNIT BERUNIFORM 2	1
4	Common Core	DBM20023	ENGINEERING MATHEMATICS 2	3
5	Discipline Core	DJJ20053	ELECTRICAL TECHNOLOGY	3
6		DJJ20042	MECHANICAL WORKSHOP PRACTICE 2	2
7		DJJ20073	FLUID MECHANICS	3
8		DJJ20063	THERMODYNAMICS	3
			TOTAL	17

SEMESTER 3				
1	Compulsory	DUE30022	COMMUNICATIVE ENGLISH 2	2
2	Common Core	DBM30033	ENGINEERING MATHEMATICS 3	3
3	Discipline Core	DJJ30082	MECHANICAL WORKSHOP PRACTICE 3	2
4		DJJ30093	ENGINEERING MECHANICS	3
5		DJJ30103	STRENGTH OF MATERIALS	3
6		DJJ30113	MATERIAL SCIENCE	3
7		DJJ30122	COMPUTER AIDED DESIGN	2
			TOTAL	18
SEMESTER 4				
1	Common Core	DJJ40132	ENGINEERING AND SOCIETY	2
2	Discipline Core	DJJ40142	MECHANICAL WORKSHOP PRACTICE 4	2
3		DJJ40163	MECHANICS OF MACHINES	3
4		DJJ40153	PNEUMATIC AND HYDRAULIC	3
5		DJJ40173	ENGINEERING DESIGN	3
6		DJJ40182	PROJECT 1	2
7	Elective		**Elective*** **	**2**
			TOTAL	***17***
SEMESTER 5				
1	Compulsory	MPU21032	PENGHAYATAN ETIKA DAN PERADABAN	2
2		MPU22012	ENTREPRENEURSHIP	2
3		DUE50032	COMMUNICATIVE ENGLISH 3	2
4	Discipline Core	DJJ50193	PROJECT 2	3
5		DJJ50203	TROUBLESHOOTING AND MAINTENANCE FOR MECHANICAL COMPONENTS	3
6		DJJ50212	MAINTENANCE ENGINEERING AND MANAGEMENT	2
7	Elective		**Elective*** **	
			TOTAL	*14*
1		DUT600610	INDUSTRIAL TRAINING	10
			TOTAL	10
			GRAND TOTAL	***94***

* For Muslim

** For Non-Muslim

ELECTIVE SUBJECT - ***Only one (1) elective course can be chosen either in semester 4 or 5

1		***DJM40092***	***CONTROL SYSTEM***	**2**
2		***DJF51082***	***QUALITY CONTROL***	***2***
3		***DJJ52012***	***ENGINEERING PLANT TECHNOLOGY***	***2***
4		***DJJ42022***	***INDUSTRIAL MANAGEMENT***	***2***
5		***DJM40082***	***PROGRAMMABLE LOGIC CONTROL***	***2***
6		***DJJ52052***	***RAILWAY TRACK SYSTEM***	***2***
7		***DJM20032***	***C PROGRAMMING***	***2***
8		***DJJ42032***	***INSTRUMENTATION AND CONTROL***	***2***
9		***DUD10012***	***DESIGN THINKING***	***2***

Notes:

1. MPU22042 Bahasa Kebangsaan A is **COMPULSORY** for students who did not attain credit in Bahasa Melayu at Sijil Pelajaran Malaysia (SPM) level and will contribute to students' CGPA.
2. Co-curriculum pathways:
    a) Path 1: Sport and Club
    b) Path 2: Uniform Unit (Students are required to **PASS** Uniform Unit 1 as a prerequisite to Uniform Unit 2)

8.6 Programme Of (DTP)
Diploma in Mechanical Engineering (Manufacturing)

8.6.1 Synopsis

The Diploma in Mechanical Engineering (Manufacturing) programme is designed to produce 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, Electrical, Manufacturing, Instrumentation & Control and Mechanical Maintenance.

8.6.2 Programme Aim

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

8.6.3 Job Prospect

This programme provides the knowledge and skills in Manufacturing 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:

- Assistant Engineer
- Production/ Process
- Supervisor
- Technical Assistant
- Technician
- Product Designer
- Quality Officer
- Entrepreneur

- CNC Programmer Technical Assistant
- Precision Machinist
- Production / Process Executive
- Procurement Executive
- Technical Specialist
- Technical Instructor or Lecturer

8.6.4 Programme Educational Objectives (PEO)

The Diploma in Mechanical Engineering (Manufacturing) programme should produce Assistant Mechanical Engineers who are:

PEO	Curriculum June 2019
PEO1	Equipped with industry-relevant knowledge and skills in Mechanical Engineering field.
PEO2	Engaging on lifelong and continuous learning to enhance knowledge and skills.
PEO3	Instilled with entrepreneurial skills and mind set in the real working environment.
PEO4	Establish with strong linkage with society and players in the industry.

8.6.5 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 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 sub-discipline.

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 impacts.

8.6.6 Programme Structure

Bil.	CLASSIFICATION	KOD	KURSUS	CREDIT
SEMESTER 1				
1	Compulsory	DUE10012	COMMUNICATIVE ENGLISH 1	2
2		MPU24XX1	SUKAN / UNIT BERUNIFORM 1	1
3	Common Core	DUW 10022	OCCUPATIONAL, SAFETY AND HEALTH FOR ENGINEERING	2
4		DBM10013	ENGINEERING MATHEMATICS 1	3
5		DBS 10012	ENGINEERING SCIENCE	2
6	Discipline Core	DJJ 10013	ENGINEERING DRAWING	3
7		DJJ 10022	MECHANICAL WORKSHOP PRACTICE 1	2
8		DJJ 10033	WORKSHOP TECHNOLOGY	3
			TOTAL	18

SEMESTER 2				
1	Compulsory	MPU23052	SAINS, TEKNOLOGI DAN KEJURUTERAAN DALAM ISLAM*	2
2		MPU23042	NILAI MASYARAKAT MALAYSIA** (non muslim)	
3		MPU24XX1	KELAB / PERSATUAN / UNIT BERUNIFORM 2	1
4	Common Core	DBM20023	ENGINEERING MATHEMATICS 2	3
5	Discipline Core	DJJ20053	ELECTRICAL TECHNOLOGY	3
6		DJJ20063	THERMODYNAMICS	3
7		DJJ20073	FLUID MECHANICS	3
8	Specialization	DJF21012	MANUFACTURING WORKSHOP PRACTICE 1	2
			TOTAL	17
SEMESTER 3				
1	Compulsory	DUE30022	COMMUNICATIVE ENGLISH 2	2
2		MPU21032	PENGHAYATAN ETIKA DAN PERADABAN	2
3	Common Core	DBM30033	ENGINEERING MATHEMATICS 3	3
4	Discipline Core	DJJ30113	MATERIAL SCIENCE AND ENGINEERING	3
5		DJJ30093	ENGINEERING MECHANICS	3
6		DJJ30122	COMPUTER AIDED DESIGN	2
7	Specialization	DJF31022	MANUFACTURING WORKSHOP PRACTICE 2	2
			TOTAL	17
SEMESTER 4				
1	Common Core	DJJ40132	ENGINEERING AND SOCIETY	2
2	Discipline Core	DJJ40153	PNEUMATIC AND HYDRAULIC	3
3		DJJ30103	STRENGTH OF MATERIALS	3
4		DJJ40182	PROJECT 1	2
5	Specialization	DJF41032	MANUFACTURING WORKSHOP PRACTICE 3	2
6		DJF41042	CAD/CAM	2
7		DJF41052	MANUFACTURING SYSTEM	2
8	Elective		**Elective*** **	
			TOTAL	***16***
SEMESTER 5				
1	Compulsory	MPU22012	ENTREPRENEURSHIP	2
2		DUE50032	COMMUNICATIVE ENGLISH 3	2
3	Discipline Core	DJJ50193	PROJECT 2	3
4	Specialization	DJF51062	MANUFACTURING CONTROL	2
5		DJF51072	JIG AND FIXTURE DESIGN	2
6		DJF51082	QUALITY CONTROL	2
7		DJF51092	TOOL DESIGN	2
8	Elective		**Elective*** **	**2**
			TOTAL	*17*
1		DUT600610	INDUSTRIAL TRAINING	10
			TOTAL	10
			GRAND TOTAL	***95***

* For Muslim

** For Non-Muslim

ELECTIVE SUBJECT - ***Only one (1) elective course can be chosen either in semester 4 or 5

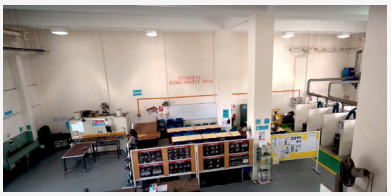
1		***DJF42012***	***ADVANCED MANUFACTURING SYSTEM***	**2**
2		***DJF52032***	***MANUFACTURING ECONOMY***	**2**
3		***DJJ42032***	***INSTRUMENTATION AND CONTROL***	**2**
4		***DJJ42022***	***INDUSTRIAL MANAGEMENT***	**2**
5		***DJJ52052***	***RAILWAY TRACK SYSTEM***	**2**
6		***DJM20032***	***C PROGRAMMING***	**2**
7		***DJM40082***	***PROGRAMMABLE LOGIC CONTROL***	**2**
8		***DJM40092***	***CONTROL SYSTEM***	**2**

Notes:

1. MPU22042 Bahasa Kebangsaan A is **COMPULSORY** for students who did not attain credit in Bahasa Melayu at Sijil Pelajaran Malaysia (SPM) level and will contribute to students' CGPA.
2. Co-curriculum pathways:
    a) Path 1: Sport and Club
    b) Path 2: Uniform Unit (Students are required to **PASS** Uniform Unit 1 as a prerequisite to Uniform Unit 2)

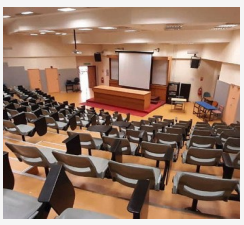
8.7 Facilities

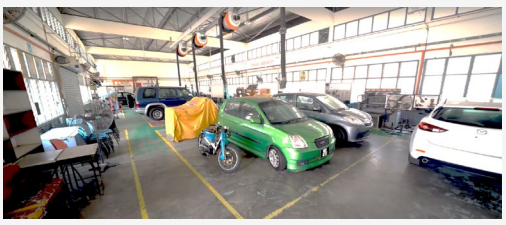
- Dewan Kuliah
- Bilik Kuliah
- Makmal Autotronik
- Makmal Automasi
- Makmal Autocad
- Makmal Sains Bahan
- Makmal Metallurgy
- Makmal Metrology
- Makmal Haba & Bendalir
- Makmal Logi
- Makmal CNC Milling
- Makmal CNC Lathe
- Makmal EDM Wire Cut
- Makmal Pneumatik & Hidraulik
- Makmal Robotik
- Makmal CAD CAM
- Makmal Prinsip Elektrik
- Makmal PLC
- Makmal Pengukuran Elektrik
- Makmal MicroP
- Makmal Aircond



Kemudahan Bengkel

- Bengkel Kimpalan
- Bengkel Foundry
- Bengkel Mesin
- Bengkel Gegas
- Bengkel Automotif
- Bengkel Kepingan Logam






Mechanical Dept.
Hostel
Mechanical Labs
Electrical Labs
Computer Labs
Civil Eng. Labs
Canteen
Student Affairs Dept.
Koperasi
Academic Block
Classroom
Dewan
Wawasan
Management Office
Library
Studios
Lecture Hall
Lecture Hall
Innovation Centre
Kelana Lodge

9.0 ACADEMIC SUPPORT DEPARTMENT/ UNIT

9.1 Department Of Mathematics, Science & Computer (JMSK)

Department of Mathematics, Science & Computer (JMSK), which was originally known as the Mathematics and Science Unit, was established in 1993. In June 2002, JMSK moved to a new building which has computer labs facilities and a server room for campus Information Network System Polytechnic Port Dickson. JMSK plays an important role in coordinating the teaching of Mathematics in Engineering, Technical Science & Computer Application for all departments. JMSK is also responsible for managing all classrooms, science lab and computer lab so that the usage among departments is coordinated.

9.2 Department of General Studies (JPA)

Department of General Studies (JPA) is another academic department that supports the main academic departments, in order to balance student needs to become better in academic, attitude and moral. It offers courses that cover topics and discussion of the elements of life such as values, principles, morals and skills base on mastery of the history of human civilization.

JPA is divided into two units which are English Unit and Islamic Studies Unit. Both units have their own responsibilities. English Unit is responsible in Technical English subject for Technical stream students and Commerce stream students. While Islamic Studies unit is responsible in three subjects which are Islamic Studies, Islamic Civilization and Moral Education for Muslims and non-Muslims.

9.3 Examination Unit

Examination Unit Politeknik Port Dickson is responsible to handle all affairs related to examination. Among main activities carried out by Examination Unit are:

- Preparing examination Paper
- Administration
- Administer Final Examination
- Enforcement of Assessment Rules
- Handling Certification and Students Achievement Award

Student qualification to sit on final exam

Students must meet the following requirements before qualifying for the final examination:

- have registered the course as the course registration rules
- has attended 80% or more lectures / tutorials / practices for the specified period; and

$$\% \text{ Attendance} = \frac{\text{Total attendance (hour)}}{\text{Total attendance should be (hour)}} \times 100\%$$

If student has health problems and does not meet required attendance:

1. Students must submit medical certificate letters from doctors. The private doctor's medical certificate letter is limited to TWO (2) consecutive days and does not exceed EIGHT (8) days of a semester.
2. Students are not eligible to sit for the final examination.
3. The entire student assessment is void.
4. Students will need to repeat the course, as taking the course for the first time; or
5. In certain circumstances, PPD Director may give his consideration to matters 1, 2 and 3.

Appeal for Review of the Final Examination Paper

A student who is not satisfied with the marking result of his/her semester final examination script might lodge an appeal for review through the re-examination of the final examination paper within fourteen days (14) upon the official exam result announcement. Appeals should be accompanied by reasonable excuses and relevant evidence.

Students will be charged RM50.00 for each appeal submitted and should be made in the form of Money/ Money Order on behalf of the name "PENGARAH POLITEKNIK PORT DICKSON".

Appeal Result

01 **Final Semester Student**

Appeal Result will be informed to the student by the Politeknik Examination Committee within fourteen (14) days from the date of receipt of the appeal result from the Examination Board. The appeal decision is final.

02 **Non-Final Semester Student**

Appeal result will be notified to the student by the Examination Officer within fourteen (14) days from the date of receipt of the appeal result from the Polytechnic Examination Committee. The appeal decision is final.

9.4 Student Affair Department (HEP)

Student Affairs Department plays a very important role in the administrative and managing the activities of student affairs in Politeknik Port Dickson. The Student Affairs Department is responsible for managing student admission and registration, financial assistance and scholarships, students' welfare and discipline and The Student Representative Committee.

It also functions to control and help to organize and monitor the students' activities in Politeknik Port Dickson. The motto of the Student Affairs Department is Courteous, Efficient and Effective. The department consists of three units namely, the Intake and Data Unit, the Welfare and Discipline Unit and starting August 2009, the Graduates and Alumni Unit is introduced under the department.

9.5 Hostel Unit

Politeknik Port Dickson provides various facilities for students who study here. Among the facilities provided is accommodation in PPD hostels. PPD can accommodate students over 3000 people. PPD hostels only have the capacity to accommodate 1580 which 692 places for male students (seven blocks) and 888 places for female students (nine blocks). Others have to rent around the campus.

At the end of 2017, the Si Rusa Residential College building was completed, and started operations in the session of December 2017. The residential college can accommodate 1000 students and is reserved only for female students.

9.6 Sport and Co-Curricular Unit

The main function of the Sports, Co-curricular & Culture Department is to coordinate and conduct all academic activities (co-curriculum) for semester 1 to 5 semester consisting of uniformed bodies (DRB), Sports (DRS) and Clubs Association (DRK) and non-academic activities (sports & culture) for all students in every semester. This activity is an essential element in shaping a skilled and active human capital, in shaping the self and at the end of the study.

9.7 Liaison & Industrial Training Unit

The main role of Training and Advance Unit is to coordinate the student's industrial training program and communicate issues related to student's practical training with the firm and departments. The establishment of this unit is intended to regulate and operate training site applications, identify appropriate training sites, monitoring of training and assessment of industrial training during training.

This unit is assisted by the Industrial Training Coordinator at each department. Nowadays, there are more than 2,200 companies across the country are listed in the Training and Advance Education Unit. Industrial training is part of the polytechnic, Ministry of Higher Education Malaysia curriculum requirement which must be fulfilled by all students before they are awarded with the diploma. Training period is for 20 weeks, and students are sent through training in various types of firms and departments throughout the country. Politeknik Port Dickson will try to accommodate students at suitable training sites and near student residences and which may benefit students.

9.8 Psychology And Career Unit (UPK)

The Psychology & Career Unit (UPK) provides a variety of facilities that help students utilize their potential to a maximum level and also create a good mental health condition among Port Dickson Polytechnic students. Students can meet their respective Polytechnic Psychology Officers or Psychological Coordinator Officers to discuss and share objective information on educational, academic, vocational and technical issues, personal, emotional, and mental, social and health issues that are relevant to the achievements of Polytechnics.

The main purpose of the UPK is to help students understand themselves so that they can solve the problems they face and can be used as guidance for future problem solving. In order to further strengthen the development of communication skills, interacting, managing, managing and administering, the activities of the cluster are carried out from time to time.

Through this approach, it is hoped that a positive awareness and responsible nature will arise among the students. On career, psychologist will assist students in obtaining career information and arrange interviews in and outside of their special polytechnics for final semester students. Counselling sessions are also carried out in this career guidance. Students are encouraged to explore their abilities and use them to advance their respective career fields. UPK provides such services:

- Individual and group counseling services
- Career counseling services

9.9 Library Unit

Library unit started at the same time Politeknik Port Dickson was built in the year 1990. It started its operation on 1991. Services offered by the Library Unit:

- Borrowable collection
- Limited Borrowable collection
- Reference book collection
- Magazine and Paper collection
- Examination question collection
- Internet

9.10 Information Technology Unit (ICT)

The Information Technology Unit is responsible for managing all Information Technology facilities at Port Dickson Polytechnic. This unit is fully responsible for almost 1000 computers in terms of technical and maintenance. Each lab is supplied with network services. Ease of sign-in and data storage is provided on the domain child. Each laboratory user is allocated a 3GB storage space. In addition, the Information Technology Unit also provides poliPD wi-fi services to residents of Port Dickson Polytechnic consisting of academic and non-academic staff at several locations around the campus. This service has also been extended to students up to the student's residential college to facilitate internet access.

9.11 Corporate Industrial Services & Employability Unit (CISEC)

The CISEC Unit was established in July 2010 to support one of the Polytechnic Transformation agendas that improving job marketability and employment rates among polytechnic graduates. Therefore, CISEC will be the intermediary of polytechnics and industry and will also coordinate career development and graduateship graduate program.

CISEC function:

- Career counselling and advanced education
- Career planning
- Industrial relations and placement
- Tracking and alumni studies

9.12 Instructional Development And Multimedia Unit

Unit for Instructional Development and Multimedia (UUIDM) functions as a supporting unit in providing teaching and learning aids. Besides that, UIDM also provides audio, video, photo and graphics facilities for PPD staff to enable them to conduct curricular activities as well as other official programs within or outside the campus.

9.13 Research, Innovation & Entrepreneurship Unit

Research, Innovation& Entrepreneurship unit, Politeknik Port Dickson was establishing in line with the thrust of the Third Strategic Plan Department of Polytechnic, which implemented policies and develop research, inn ovation and entrepreneurship. The activities to inculcate the culture of innovation among student and staff, conducting research, the establishment club entrepreneurs and cultivating research and published scientific literature is among the responsibilities that must be performed by this unit.

With the tagline "*Inovasi Pencetus Minda Kreatif*", the establishment of this Unit is officially on January 2010, all plans are made for purpose of driving the direction of the program as well as research and innovation in the PPD and provide an opportunity for the officers to carry out the duties and responsibilities better and more effective.

Good Luck
&
All the Best!

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