

BITAN
PPD



STUDENT HANDBOOK DIPLOMA IN MECHANICAL ENGINEERING



LB
2300
.S78
2018

Politeknik Port Dickson
Department of Mechanical Engineering
2018 edition

LB2300 .S78 2018



0000029101

Student handbook : diploma in Mechanical engineering / Sufandi
bin Mohd Johan...[et al.].

EDITORIAL COMMITTEES

Advisor

Encik Abdul Rahim Bin Ibrahim

Lead Editor

Encik Sufandi Bin Mohd Johan

- Outcome-Based Education
- Organization Chart
- Name of Lecture
- PPD Floor Plan
- Quickfact DKM JKM
- Handbook Design

Editor Members

Encik Razali Bin Bakri

- Background of Polytechnic Port Dickson & Programme Overview
- Vision & Mission
- The Department Of Mechanical Engineering
- Program Overview

Puan Siti Hajar Binti Mohd Noh

Puan Helly Suhailla Binti Solaiman

- Engineering Technology Accreditation Council (ETAC)

Encik Wong Kee Meng

- E-book Designer

PERPUSTAKAAN POLITEKNIK PORT DICKSON				
	PESANAN KERAJAAN			
	NO. INVOIS			
	PEMBEKAL			
	NO. PANGGILAN			LB 2300. 578 2018

BUKU INI DISUMBANGKAN OLEH

PPD

Publishing by :

Jawatankuasa Student Handbook
Program Diploma Kejuruteraan Mekanikal
Mechanical Engineering Department
Polytechnic Port Dickson
Km14, Jalan Pantai
Sirusa Port Dickson
71050 Negeri Sembilan
Tel: 606-6622044
Website: www.polipd.edu.my/v5/

Second Publication 2018

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, without the prior permission in writing of Mechanical Engineering Department, Polytechnic Port Dickson.

Perpustakaan Negara Malaysia

Data pengkatalogan dalam penerbitan

STUDENT HANDBOOK DIPLOMA MECHANICAL ENGINEERING

ISBN 978-967-5677-88-5



9 789675 677885

Dicetak oleh
Galaxy Wany Enterprise
Jalan PDS 1, PD Sunggala Gateway,
71050 Port Dickson, Negeri Sembilan Darul Khusus

TABLE OF CONTENT

PREFACE	5
1.0 BACKGROUND OF POLYTECHNIC PORT DICKSON (PPD)	6
2.0 POLITEKNIK PORT DICKSON FLOOR PLAN	7
3.0 VISION & MISSION	8
4.0 ENGINEERING TECHNOLOGY ACCREDITATION COUNCIL (ETAC)	9
4.1 Programme History of Accreditation	10
4.2 The Programme History of Accreditation by LAN and MQA	10
4.3 Organogram	11
4.4 Registration of engineers act 1967 rev. 2015	11
4.5 Four Main Component for Accreditation – ETAC Focus	13
5.0 OUTCOME-BASED EDUCATION (OBE)	14
5.1 What is OBE	14
5.2 Why OBE	15
5.3 The element of OBE: Constructive Element Process	16
5.4 The OBE impact	16
5.5 Pembelajaran Teradun (Blended Learning)	17
5.6 Portal CIDOS E-Learning	18
6.0 THE DEPARTMENT OF MECHANICAL ENGINEERING	19
6.1 The Organisational Chart of JKM	20
6.2 Dkm Programme Organisation Chart	21
6.3 Name Of Lecturer	22
7.0 PROGRAMME OVERVIEW	25
7.1 Introduction	25
7.2 Synopsis	25
7.3 Job Prospect	26
7.4 Program Aims	26
7.5 Programme Educational Objectives (PEO)	27
7.6 Programme Learning Outcomes (PLO)	27

7.7 Programme Structure For Diploma In Mechanical Engineering	28
7.8 Practice Oriented Components Courses	29
8.0 ACADEMIC SUPPORT DEPARTMENT / UNIT	31
8.1 Department of Mathematics, Science and Computer (JMSK)	31
8.2 Department of General Studies (JPA)	31
8.3 Examination Unit	32
8.4 Student Affair Department (HEP)	34
8.5 Hostel Unit	34
8.6 Sport and Co-Curricular	34
8.7 Unit Liaison and Industrial Training Unit	35
8.8 Psychology And Career Unit	36
8.9 Instructional Development & Multimedia Unit	37
8.10 Library Unit	37
8.11 Information Technology unit	37
8.12 Corporate Industrial Services & Employability Unit	38
8.13 Research, Innovation & Entrepreneurship Unit	38
8.14 Quick fact DKM JKM	39





Encik Roslee bin Yahya

Director of Politeknik Port Dickson

Assalamualaikum w.b.t and Greetings to All

Welcome to Polytechnic Port Dickson. Congratulation from the management to Mechanical Engineering Department editor committee members for successfully comes out with this Programme Handbook as one of mechanism to promote Outcome Based Education (OBE) towards the accreditation from Engineering Technology Accreditation Council (ETAC). It is hope that his Programme Handbook became the source of information on programmes offered at the department of Mechanical Engineering, Polytechnic Port Dickson.

As we know, towards the transformation of the polytechnic, we are in the process of obtaining accreditation from ETAC. Therefore, we need to implement the education system that is based on Outcome Based Education (OBE).

I hope that this Programme Handbook can provide early exposure with information on the program followed by student in the Department of Mechanical Engineering. This includes the information on Programme Educational Objectives (PEO), Programme Learning Outcome (PLO) and Course Learning Outcome (CLO) for each Programme. Other than students, all lectures can also use this Programme Handbook to improve existing information.

I am assured that all the editor committee members have been work together in producing this Programme Handbook as a mechanism to transmit information. I applaud and congratulate you once again.

Thank You



WEBSITE
Politeknik Port Dickson

1.0 BACKGROUND OF POLYTECHNIC PORT DICKSON (PPD)



Polytechnic Port Dickson was built in 1990 on a 100 acre land in Si Rusa territory. It is situated 14 kilometers from Port Dickson town and 120 kilometers from Kuala Lumpur. Si Rusa territory is one of the most famous tourist attractions because of the fresh air and a white sandy beach which is located about 30 kilometers along The Strait of Malacca.

Polytechnic Port Dickson is the sixth polytechnic built under Polytechnic Management Division, Technical Education Department, Malaysian Ministry of Education. The building expenditure was fully sponsored by World Bank and was able to accommodate about 1200 full time students. But, to fulfill the ever increasing demand in half professional field for career needs, the polytechnic is obligated to increase the number of student intake to 5000 students by 2005.

In the Seventh Malaysian Plan, polytechnic was given a grant of RM 55 million to upgrade and improve all the necessary facilities and buildings for future usage. This polytechnic was then successfully developed and upgraded at the end of 2005. After 15 years of existence, Polytechnic Port Dickson has been one of the country's notable higher education institutes in Malaysia. Started with only 120 students in 1990, the number of students has increased to 5,781 students in various fields. With the help from all staffs, Polytechnic Port Dickson has produced 26,158 graduates to be injected in various job sectors in the country.

There are 6 academic departments in Polytechnic Port Dickson namely; the departments are Department of Civil Engineering, Department of Mechanical Engineering, Department of Electrical Engineering, Department of Commerce, Department of Mathematics, Science and Computer, and Department of General Studies. In the meantime, there are 14 diploma courses in Polytechnic Port Dickson.

2.0 POLITEKNIK PORT DICKSON FLOOR PLAN



3.0 VISION AND MISSION

VISION

To be a towering TVET institution globally

MISSION

Producing quality, holistic and well-balanced TVET graduates with entrepreneurship in order to fulfill the needs of the nation.

Developing and sustaining smart partnerships with relevant parties locally and internationally. To benefit society through education, research and innovation.



QUALITY OBJECTIVES

- Pass rate per program not less than 90% per semester.
- Achieve at least 25% of current students who pass for each program (degree and diploma) for each semester to achieve PNM 3.00 or more.
- Achieve at least 3.80 levels of employer satisfaction towards working Polytechnic graduates.
- Achieve at least 90% of graduates getting a job during the convocation
- Achieve at least 17 graduates who venture into business or entrepreneurship within 1 year after graduation.
- Achieve at least 10% of students who achieve at least Band 4 results in the MUET exam.
- Achieving at least 10% of students can communicate in English well among Polytechnic students.
- Achieve at least 70% of students graduating by cohort.



- Achieve at least 20% of student involvement in national / international level student activities.
- Achieve at least 80% of the programs that achieve interaction hours involving industry visitor lecturers (PPI).
- Achieve at least 70% of the courses of study at Polytechnic in Blended Learning Mod.
- Develop at least one (1) MOOC - Massive Open Learning Courses.
- Develop at least five (5) teaching and learning videos for a minimum duration of 5 to 15 minutes.
- Achieve 100% of the overall program that has External Assessment (at least one meeting per year.
- Achieve 100% of the overall program with Industrial Advisors (at least one meeting per year.
- Ensuring that 100% eligible students undergo Industrial Training get training and monitored.
- Ensure that at least 45% of Industrial Training students get excellent grade in every semester.
- Ensure that at least one (1) award is given by an outside party received by a graduate.

4.0ENGINEERING TECHNOLOGY ACCREDITATION COUNCIL (ETAC)

Polytechnic Port Dickson has earned MQA qualification in 2013. Now, Polytechnic Port Dickson will be evaluated by Engineering Technology Accreditation Council (ETAC) which is a requirement for engineering Technology studies and as a registration of Inspector on Works. The requirements of this Accreditation are under the registration of Engineers Act 1967 under the Board of Engineers Malaysia.

The Boards of Engineers Malaysia will decide to accord the accreditation whether for three or six years based on the performance of the institution that being evaluated.

In accordance with Act 679 Section 51 (1), LJM as a professional organization that is responsible for accrediting professional qualifications including Engineering Technology qualification has established the "Engineering Technology Accreditation Council (ETAC).

The Engineering Technology Accreditation Council (ETAC) is a delegated body by the Board of Engineers Malaysia established in early 2015 as the only recognized accrediting body for engineering technology bachelor degree, engineering diploma and engineering technology diploma programs offered in Malaysia.

The ETAC was instrumental in ensuring Malaysia's ETAC accredited engineering technology bachelors' degree, engineering diploma and engineering technology diploma programs are substantially equivalent to the engineering degrees of the signatories of the Sydney Accord and Dublin Accord.

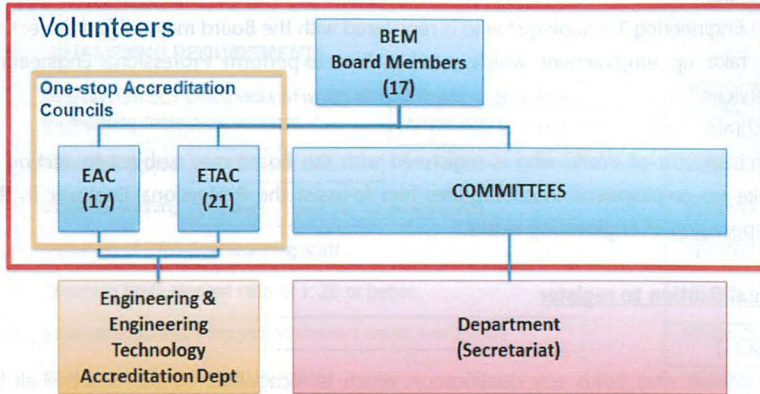
4.1 Programme History of Accreditation

DKM programme has been offered at PPD since the year of 1991. It was accredited by a statutory body known as National Accreditation Board (LAN). When LAN was dissolved in 2007, its functions were taken over by the Malaysian Qualifications Agency (MQA). Since then, PPD has put on all efforts towards getting the accreditation from the MQA for all programmes offered at the institution. The full status of accreditation by the MQA has been achieved for DKM programme in the year of 2013. The history of the accreditation process for DKM programme is shown in Table below.

4.2 The Programme History of Accreditation by LAN and MQA

No.	Years of Accredited	Accreditation Agency
1	2004 – 2009	National Accreditation Board of Malaysia (LAN)
2	2010 – 2012	Deemed accreditation status by the Malaysian Qualifications Agency (MQA)
3	2013	Full accreditation status by the Malaysian Qualifications Agency (MQA)

4.3 Organogram



BEM is certified to ISO 9001:2015

Shows where ETAC is under the BEM structure (LJM). ETAC is a council under LJM which sees accreditation of degree programs in engineering technology and engineering diploma and engineering technology diploma. EAC is responsible for engineering degree accreditation. The number in the bracket is the number of members.

4.4 Registration of engineers act 1967 rev. 2015

Key changes related to REA:

- Liberalisation of engineers' registration and practice
- Include technologists and technicians as part of the engineering service professionals
- Recognition of engineering technologists as professional engineers
- Recognition of engineering technicians as assistant to Professional Engineers' services

Requirement to register

7(2)(aa)

An Engineering Technologist who is registered with the Board may, subject to section 8, take up employment which requires him to perform Professional Engineering services."

7(2)(ab)

An Inspector of Works who is registered with the Board may, subject to section 8, take up employment which requires him to assist the Professional Engineer in the supervision of engineering works."

Qualification to register

10C(1)

A person who holds any qualification which is recognized by the Board shall be entitled on application to be registered as an Engineering Technologist.

10E

A person who holds any qualification which is recognized by the Board shall be entitled on application to be registered as an Inspector of Works.

Why the requirement for engineering technologist and technicians to register with BEM?

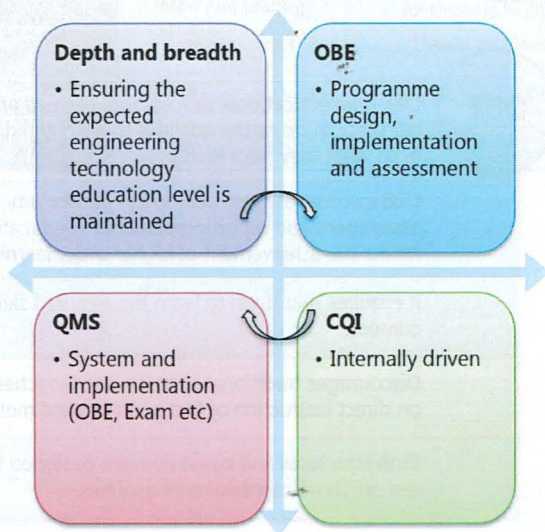
BEM to ensure PUBLIC SAFETY	By regulating • Education • Registration
------------------------------------	---

Qualifying Requirements

A QUALIFYING REQUIREMENTS

1	Minimum 90 SLT credit units of which 60 SLT credit units must be engineering technician subjects	At least 50% time allocated for practice-oriented components	YES/NO
2	Final year project	4-6 SLT credit units	YES/NO
3	Industrial training	16 weeks– 1 year ; 8 - 12 credits (max)	YES/NO
4	Minimum of 8 full-time teaching staff		YES/NO
5	Teaching Staff: student ratio of 1: 20 or better		YES/NO
6	External examiner's report	Minimum 1 report over 2 years	YES/NO
7	Programme Educational Objectives		YES/NO
8	Programme Outcomes		YES/NO

4.5 Four Main Component for Accreditation – ETAC Focus



5.0 OUTCOME BASED-EDUCATION (OBE)

Outcome-Based Education means clearly focusing and organizing everything in an educational system around what is essential for all students to be able to do successfully at the end of their learning experiences. This means starting with a clear picture of what is important for students to be able to do, then organizing the curriculum, instruction and assessment to make sure this learning ultimately happens "(Spady 1994, 1)

MISSION

Break through the border to build a transformative and creative learning environment to generate innovation-led economy.

VISION

The major driver of innovation human capital through education and training to meet the needs of transformational global workforce by 2015

5.1 What is OBE?

OBE

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.

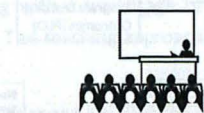
It requires that them to learn the required skills and content.

Discourages traditional education approaches based on direct instruction of fact and standard methods.

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

5.2 Why OBE?

1. Transformation in Education



Conventional Education
Teacher Centered

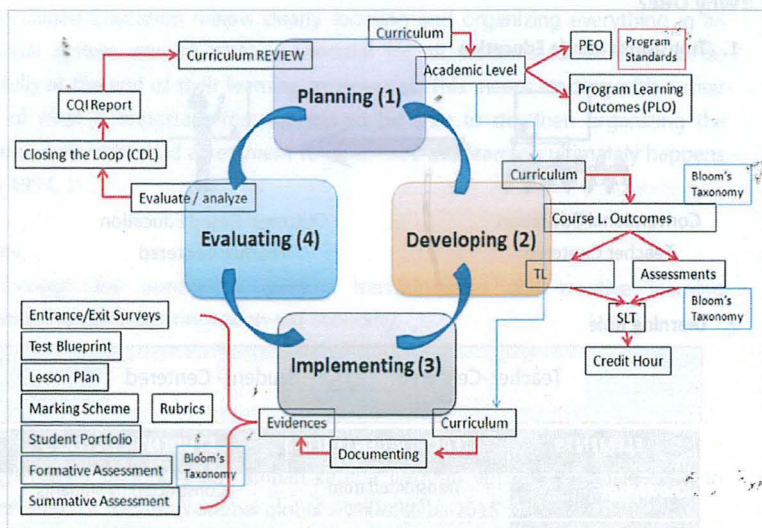


Outcome-Based Education
Teacher Centered

2. Learning Role

Teacher-Centered VS Student-Centered		
ELEMENTS	TEACHER-CENTERED	STUDENT-CENTERED
Knowledge	Transmitted from instruction	Constructed by students
Student Participation	Passive	Active
Role of Lecturer	Leader/Authority	Facilitator/Partner in Learning
Role of Assessment	Few Test, Mainly for Grading	Many Tests, for Ongoing Feedback
Emphasis	Learning Correct Answers	Developing Deeper Understanding
Assessment Method	One-Dimensional testing	Multidimensional testing
Academic Culture	Competitive, Individualistic	Collaborative, Supportive

5.3 The element of OBE: Constructive Element Process



5.4 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 able to conduct projects, analyze case studies, do presentations, able to think, asking question and conduct research and make decisions based on the finding.

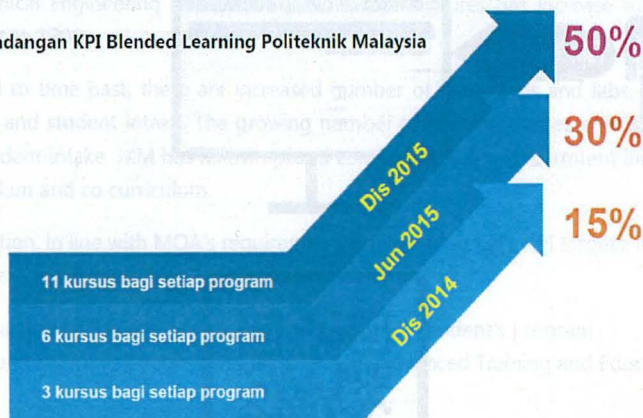
Student should be more creative, able to analyze and synthesize information.

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.

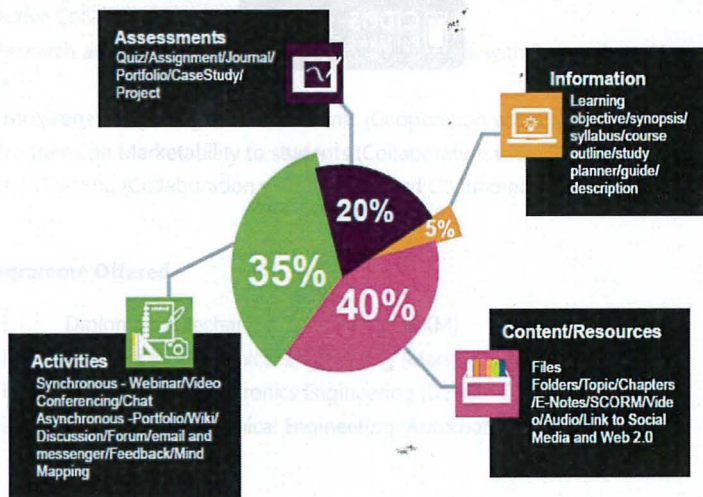
5.5 PEMBELAJARAN TERADUN (BLENDED LEARNING)

This teaching and learning method integrates a mixture of online mode and onsite mode of learning with a weightage of 30% - 80% course and activity content which is managed online. This teaching approach either facilitates or replaces the face to face contact learning.

Cadangan KPI Blended Learning Politeknik Malaysia



Petunjuk minimum mod pembelajaran teradun bagi menyokong pembelajaran bersemuka



5.6 PORTAL CIDOS E-LEARNING POLITEKNIK MALAYSIA

<http://portal.cidos.edu.my>



6.0 THE DEPARTMENT OF MECHANICAL ENGINEERING

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 has increase to 84 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 compare to other department involving in curriculum and co curriculum.

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

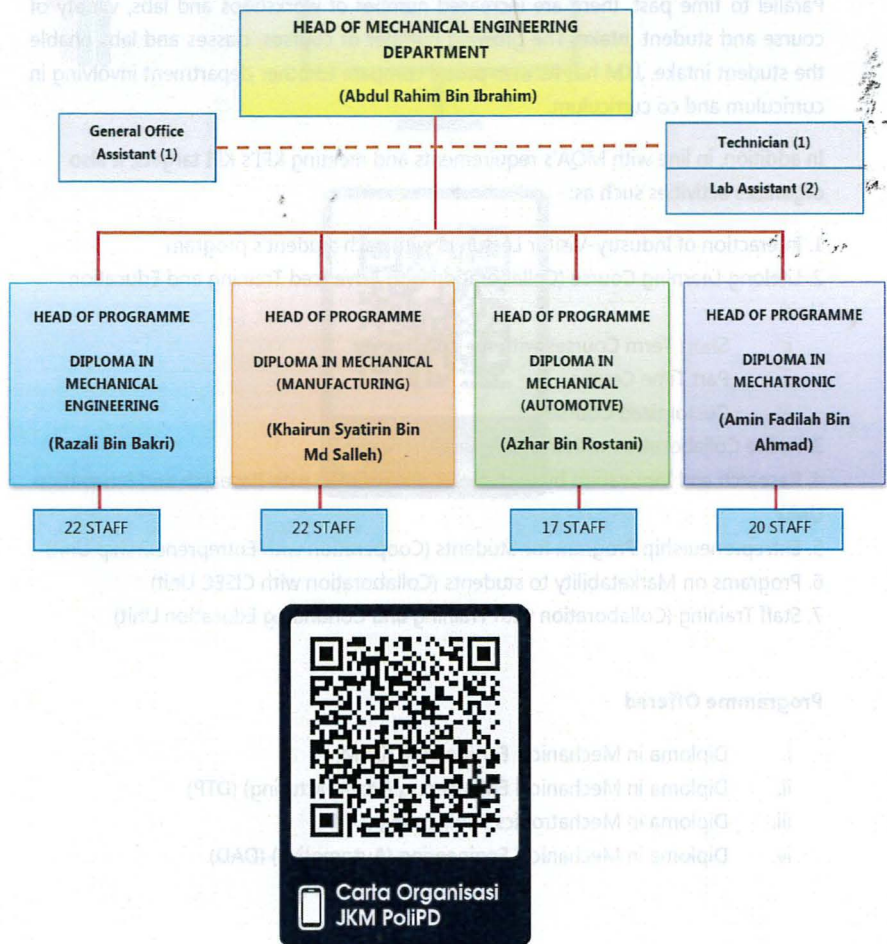
1. Interaction of Industry-Visitor Lecturers with each student's program
2. Lifelong Learning Course (Collaboration with Advanced Training and Education Unit)
 - i. Short Term Courses with the community
 - ii. Part Time Course
 - iii. Customized Course
3. Active Collaboration with Industry and Agencies
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

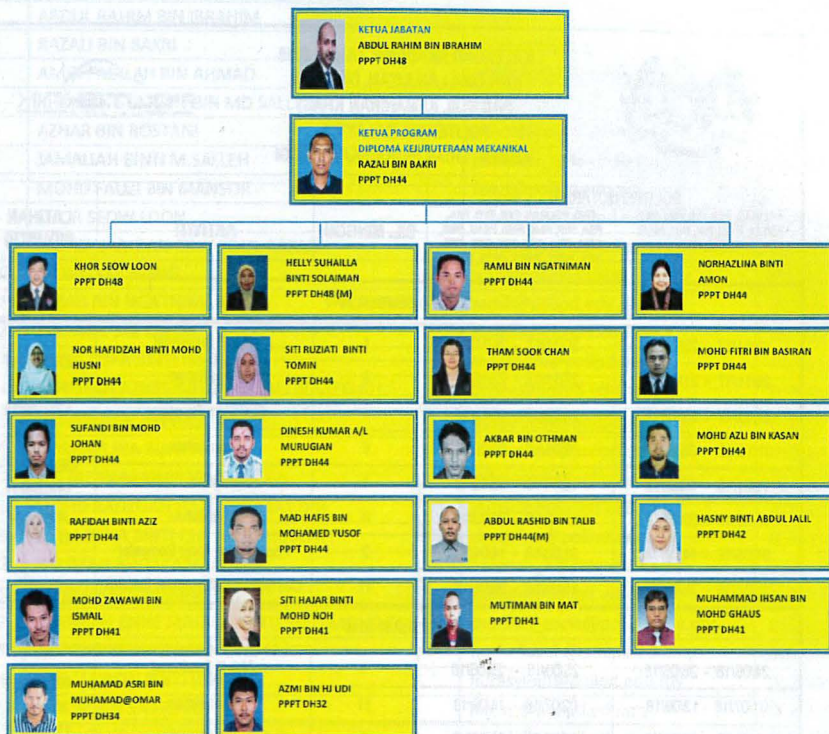
- i. Diploma in Mechanical Engineering (DKM)
- ii. Diploma in Mechanical Engineering (Manufacturing) (DTP)
- iii. Diploma in Mechatronics Engineering (DEM)
- iv. Diploma in Mechanical Engineering (Automotive) (DAD)

6.1 The Organisational Chart of Mechanical Engineering Department

DKM programme has been offered at JKM since the year of 1990. This programme is led by a Head of Programme and supported by 22 competent staff. Chart below show the general information and organisational chart of DKM programme. The implementation of the teaching and learning process is divided into two sessions namely June and December Session by referring to the academic calendar provided by DPE. The latest academic calendar for 2017/2018 is shown in figure below.



DKM PROGRAMME ORGANISATION CHART



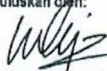
Staff JKM PoliPD

2017/2018 ACADEMIC CALENDAR



KALENDAR AKADEMIK TAHUN 2018 (DIPLOMA LANJUTAN, DIPLOMA, DAN SIJIL KEMAHIRAN KHAS) POLITEKNIK MALAYSIA KEMENTERIAN PENDIDIKAN TINGGI



POLITEKNIK/TARIKH		BIL. MINGGU	AKTIVITI	LATIHAN INDUSTRI
POLIMAS, PKB, PIS, PMU, PKT, PSMZA, PTSS, PJK, PHT, PMJB, PTSM, PST	PUO, POLSAS, PKS, PPO, PKK, PSA, PSP, PMK, PMM, PSAS, PSIS, PTSS, PMS, PMU, PBU, PMS, PBS, PSS, PMKL, PMKU, PMTG, PMBS, PBO			
SESI DISEMBER 2017				
19/11/17 - 23/11/17	20/11/17 - 24/11/17	1	Aktiviti Sukaenak	27/11/2017 sehingga 13/04/2018 Penilaian LJ: 16/04/2018 sehingga 27/04/2018
26/11/17 - 21/12/17	27/11/17 - 22/12/17	4	Perkuliahan	
24/12/17 - 28/12/17	25/12/17 - 29/12/17	1	Cuti Khas Perayaan	
31/12/18 - 08/02/18	02/01/18 - 09/02/18	6	Perkuliahan	
11/02/18 - 15/02/18	12/02/18 - 16/02/18	1	Cuti Pertengahan Semester	
18/02/18 - 29/03/18	19/02/18 - 30/03/18	6	Perkuliahan	
31/03/18 - 14/04/18	31/03/18 - 14/04/18	2	Pepersiksaan Akhir Semester	
15/04/18 - 28/06/18	16/04/18 - 29/06/18	11	Cuti Semester/Semester Pendek	
SESI JUN 2018				
24/06/18 - 28/06/18	25/06/18 - 29/06/18	1	Aktiviti Sukaenak	02/07/2018 sehingga 16/11/2018 Penilaian LJ: 19/11/2018 sehingga 30/11/2018
01/07/18 - 13/09/18	02/07/18 - 14/09/18	11	Perkuliahan	
16/09/18 - 20/09/18	17/09/18 - 21/09/18	1	Cuti Pertengahan Semester	
23/09/18 - 25/10/18	24/09/18 - 26/10/18	5	Perkuliahan	
27/10/18 - 17/11/18	27/10/18 - 17/11/18	3	Pepersiksaan Akhir Semester	
18/11/18 - 06/12/18	19/11/18 - 07/12/18	3	Cuti Semester	
SESI DISEMBER 2018				
02/12/18 - 06/12/18	03/12/18 - 07/12/18	1	Minggu Sukaenak	
CUTI UMUM: - Krismas - 25 Disember 2017 - Tahun Baru Cina - 16 & 17 Februari 2018 - Hari Pekerja - 1 Mei 2018 - Hari Wesak - 29 Mei 2018 - Hari Raya Aidil Fitri - 15 & 16 Jun 2018 - Hari Raya Aidil Adha - 22 Ogos 2018 - Hari Kebangsaan - 31 Ogos 2018 - Hari Kemerdekaan Seribu Raga Raga Yang Berperjuangan - 9 September 2018 - Awal Muharam - 11 September 2018				
BINGKASAN: - Aktiviti Sukaenak - 1 Minggu - Perkuliahan - 16 Minggu - Pepersiksaan Akhir - 2/3 Minggu (melibatkan Sabtu dan Ahad) - Cuti Pertengahan Semester - 1 Minggu				
			Diluluskan oleh:  Prof. Dato' Dr. Mohd Ismail bin Abd Aziz Ketua Pengarah Jabatan Pendidikan Politeknik Tarikh: 31/10/2017	

6.2 NAME OF LECTURE

No	NAME	email	TEL. NO
1	ABDUL RAHIM BIN IBRAHIM	abdulrahim@polipd.edu.my	019-6662415
2	RAZALI BIN BAKRI	razali.b@polipd.edu.my	012-7352475
3	AMIN FADILAH BIN AHMAD	aminfadilah@polipd.edu.my	013-7772425
4	KHAIRUN SYATIRIN BIN MD SALLEH	khairun@polipd.edu.my	019-3137396
5	AZHAR BIN ROSTANI	azhar@polipd.edu.my	019-8815992
6	JAMALIAH BINTI M.SALLEH	jamaliah_salleh@polipd.edu.my	016-6639403
7	MOHD FAUZI BIN MANSOR	fauzi@polipd.edu.my	
8	KHOR SEOW LOON	seowloon@polipd.edu.my	019-4184065
9	MOHD HAMDAN BIN ABDUL RAZAK	mhamdan@polipd.edu.my	012-5347454
10	WONG KEE MENG	wkeemeng@polipd.edu.my	011-20276780
11	RAMLI BIN NGATNIMAN	ramli@polipd.edu.my	010-5515951
12	ZULFAKA BIN ZAINAL	zulfaka@polipd.edu.my	017-3209283
13	MAYA SOFA BINTI ISMAIL	mayasofa@polipd.edu.my	016-7151058
14	SHARIFAH AZNEE BINTI SAID ALI @ SYED ALI	aznee@polipd.edu.my	019-6603478
15	HASPIRUDIN BIN BASIRON	haspirudin@polipd.edu.my	019-2757540
16	NORHAZLINA BINTI AMON	norhazlina@polipd.edu.my	019-6462754
17	SITI MERIAM BINTI IBRAHIM	sitimeriam@polipd.edu.my	012-9559742
18	MOHD RADZUAN HAIRI BIN MAT DIN	radzuan@polipd.edu.my	013-2752118
19	CHE AZLINA BINTI CHE NOROHOSENI	cheazlina@polipd.edu.my	012-4632620
20	HALIMAH BINTI KAMARUDIN	halimah_k@polipd.edu.my	013-3481802
21	KANNAN A/L RASSIAH	kannan@polipd.edu.my	012-7931306
22	SHARIFAH ENNE SUHAINI BINTI SYED MOHD ZAHARI	sharifah_enne@polipd.edu.my	012-9143197
23	NOR HAFIDZAH BINTI MOHD HUSNI	norhafidzah@polipd.edu.my	019-6225346
24	NUR 'ASYIKIN BINTI IDRIS	nurasyiqin@polipd.edu.my	012-5880204
25	HANIM BIN SAIF(SAIB)	hanim@polipd.edu.my	012-3018053
26	SITI RUZIATI BINTI TOMIN	ruziati@polipd.edu.my	012-5053485
27	MOHD AZLI BIN KASAN	mohd_azli@polipd.edu.my	013-9841502
28	MOHD FITRI BIN BASIRAN	fitri@polipd.edu.my	019-7724977
29	SUHAILA BINTI MOHD SHARIF	suhaila@polipd.edu.my	019-7354977
30	AHMAD AFANDI BIN ABD KHALIL	afandi@polipd.edu.my	013-3438689
31	LIM TIA PAU	ltianpau@polipd.edu.my	013-9395855
32	SUFANDI BIN MOHD JOHAN	sufandi@polipd.edu.my	018-3119081
33	THAM SOOK CHAN	sookchan@polipd.edu.my	012-5613570
34	NOOR HASANAH THAM SHU-YIN	hasanahtham@polipd.edu.my	018-3219899
35	IZUAN BIN DATO' ISHAK	izuan@polipd.edu.my	019-2690310
36	HELLY SUHAILLA BINTI SOLAIMAN	helly@polipd.edu.my	016-2085975
37	MAHMOOD BIN ALI	mahmood@polipd.edu.my	012-5220204
38	RAFIDAH BINTI AZIZ	rafidah_aziz@polipd.edu.my	012-2718140
39	DINESH KUMAR MURUGIAN	dinesh@polipd.edu.my	017-3724793
40	AKBAR BIN OTHMAN	akbar@polipd.edu.my	017-7091560
41	MAD HAFIS BIN MOHAMED YUSOF	hafis@polipd.edu.my	012-7260846
42	MOHD NAHAR BIN AHMAD	mnahar@polipd.edu.my	012-7003069



43	PAVITHRA MALAR A/P SANGA PILLAI	pavithra@polipd.edu.my	017-4504503
44	SALINA BINTI SUMALI	salina_s@polipd.edu.my	011-32185641
45	WAN MOHD RIDZUAN BIN WAN HUSIN	ridzuan@polipd.edu.my	017-6035715
46	HASNY BINTI ABDUL JALIL	hasny@polipd.edu.my	012-7597929
47	NOOR ASSIFFA BINTI JAMALUDDIN	assiffa@polipd.edu.my	016-2829524
48	ABD. GHANI BIN ABD MALEK	ghani@polipd.edu.my	012-6972987
49	SHAH RIZAL BIN ZAINAL	shahrizal@polipd.edu.my	017-2975874
50	TAN WEI SIN	tweisin@polipd.edu.my	017-7795011
51	MOHD FAKURUDIN BIN ABDUL MANAF	fakurudin@polipd.edu.my	019-7552169
52	MOHD ZAWAWI BIN ISMAIL	zawawi@polipd.edu.my	013-2917738
53	MUSTAFA KAMAL BIN MOHAMAD	mustaffa@polipd.edu.my	019-6606747
54	AHMAD HAFRIZALMAN BIN ABDUL HAMID	hafrizalman@polipd.edu.my	019-2050345
55	MUTIMAN BIN MAT	mutiman@polipd.edu.my	012-9499444
56	MOHD FIKRI BIN MOHD SOFFIAN	fikri@polipd.edu.my	012-6408520
57	MOHD NORMAIZAL BIN RAHMAN	normaizal@polipd.edu.my	019-4295023
58	AB HAKIM BIN AB HALIM	hakim@polipd.edu.my	017-6746716
59	RAJA NOORZIHAN BIN RAJA AB KADIR	noorzihan@polipd.edu.my	016-7023439
60	MOHAMAD TARMIZI BIN ARBAIN	mizi@polipd.edu.my	013-7372428
61	MOHD SYAFIQ BIN RADZALI	mohdsyafiq@polipd.edu.my	011-11311303
62	MOHD IZAD AFFENDY BIN MOHD YUSOF	izad@polipd.edu.my	013-2621207
63	MOHD FIRDAUS BIN ABU BAKAR	mohdfirdaus@polipd.edu.my	016-2631320
64	MOHD SHAHRIL FAHMI BIN MOHD ZAINI	shahril@polipd.edu.my	011-20813193
65	MOHD ZUBIR BIN AMIR	zubir@polipd.edu.my	013-6244345
66	MUHAMMAD IHSAN BIN MOHD GHAS	ihsan@polipd.edu.my	019-9565852
67	NURUL ADILLAH ARIFFIN BINTI MUHAMAD ARIFF	adillah@polipd.edu.my	017-6877372
68	MUHAMMAD BIN AHMAD KAMAL	muhammad@polipd.edu.my	019-5644390
69	MUHAMMAD HILMI BIN ZAID	m.hilmi@polipd.edu.my	013-3605441
70	SITI HAJAR BINTI MOHD NOH	hajarnoh@polipd.edu.my	012-7489928
71	NORMAWAR BINTI ALI	normawar@polipd.edu.my	016-4107448
72	MOHD GHAZALI KADIR BIN SULAIMAN	ghazalikadir@polipd.edu.my	016-6878322
73	MUHAMAD ASRI BIN MUHAMAD @ OMAR	asri_omar@polipd.edu.my	019-2627455
74	MOHAMMAD MOKHTAR BIN PADELI	mokhtar@polipd.edu.my	019-3557979
75	MOHD FAIRUZ BIN MOHD NOH	mfairuz@polipd.edu.my	019-7502009
76	NOORAZIAN BINTI MOHD ARSHAD	noorazianarshad@polipd.edu.my	019-6532503
77	AZIZAN BIN SAAD	azizan@polipd.edu.my	012-2941887
78	RAMLATUL RAHILAH BINTI MOHD HUSIN	rahilah@polipd.edu.my	019-9344505
79	HASRIN BIN HUSSIN	hasrin@polipd.edu.my	019-7553075
80	AZMI BIN HJ UDI	azmi_udi@polipd.edu.my	013-6149003
81	SALIM BIN MATRAJI	salim@polipd.edu.my	018-9555088
82	NORMIZAM BIN HALID	mizam@polipd.edu.my	011-20512989
83	MUHAMMAD FAIRUZ HAZMI BIN MOHAMMAD AMIN	fairuz@polipd.edu.my	013-6292074
84	MOHD SAHRIZAN BIN SAHRUDIN	mohdsahrizan@polipd.edu.my	013-7760012

7.0 PROGRAM OVERVIEW

7.1 Introduction

For the past few decades, industries have evolved and progressed rapidly. The Ninth Malaysia Plan was drawn in response to the current global needs and to enable Malaysia to stay competitive in the world market. Thus, to keep abreast with rapid technological advancements and evolving requirements in industries today, Department of Polytechnic Education (DPE) constantly collaborates with major industry players in the country in developing the respective curriculum. One of the most important factors driving the growth of productivity is by having a qualified and talented manpower in order for the industry to develop and remain competitive in the world market. This is equally true in industries where there is a rapidly growing demand for highly competent and technically savvy workforce. The activities of many industries require increasingly competent technician in engineering field, particularly in mechanical engineering.

In response to these issues, Curriculum Development and Evaluation Division of the Department of Polytechnic Education has developed and introduced Diploma in Mechanical Engineering for polytechnic. This programme aims to prepare students with necessary knowledge, skills and abilities in the mechanical engineering industries. In ensuring the curriculum content fulfills the industrial requirement, several key players from related industries have been involved in the curriculum development process.

Diploma in Mechanical Engineering for polytechnic is developed to give balance emphasis on theoretical and practical aspects. The programme will take six semesters to complete, relatively three academic semesters at their respective polytechnics and one semester of industrial training at relevant industries during the fourth semester. Students are required to return to their respective institutions for the completion of the programme in the fifth and sixth semester.

7.2 Synopsis

Diploma in Mechanical Engineering at Polytechnic's Ministry of Education Malaysia is designed to cover the current wide discipline of mechanical engineering with added specialization subjects in the field of mechanical engineering. Core courses offered include Engineering Mechanics, Electrical Technology, Engineering Drawing, Mechanical Workshop Practice, Workshop Technology, Computer Aided Design, Thermodynamics, Fluid Mechanics, Strength Of Materials, Pneumatic & Hydraulics, Project, Maintenance Engineering & Management, Material Science, Mechanic Of

Machines, Engineering Design and Mechanical Components & Maintenance. The elective courses are Computer Aided Design 2, Control System, Instrumentation & Control, Engineering Plant Technology, Quality Control, C programming, Programmable Logic Control, Industrial Management, Diagnose & Troubleshooting for Mechanical Component, Tamadun Islam, Integrasi Malaysia and Computer Application. Common core courses included in the programme are Engineering Mathematics, Engineering Science, Occupational Safety & Health and Entrepreneurship. Compulsory courses offered include Communicative English, Pengajian Malaysia, Komunikasi dan Penyiaran Islam, Nilai Masyarakat Malaysia, Sains Teknologi Dan Kejuruteraan Dalam Islam and Ko-Kurikulum would provide students with interpersonal ability, attitude and professionalism towards their career.

7.3 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:

- Technical Assistant
- Assistant Service Manager
- Service Advisor
- Supervisor
- Assistant Engineer
- Junior Engineer
- Technical Instructor or Lecturer
- Technical Sales Executive

7.4 Programme Aims

The Diploma in Mechanical Engineering graduates in Polytechnics, Ministry of Education Malaysia will have the knowledge, technical skills, softskills and attitude to adapt themselves with new technological advancement and challenges in the mechanical engineering field.

7.5 Programme Educational Objectives (PEO)

The Diploma in Mechanical Engineering (Manufacturing) programme shall produce semi-professionals who are:

1. Competent in knowledge and skills in the field of mechanical engineering according to industry requirements.
2. Effective in communication and contribute effectively as a team member with the capability of being a leader.
3. Ethically and socially responsible towards developing the community and the nation.
4. Able to demonstrate entrepreneurship skills and recognize the need of lifelong learning for successful career advancement and able to adapt themselves with new technological challenges in mechanical fields.

7.6 Programme Learning Outcomes (PLO)

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

1. Apply knowledge of mathematics, science, engineering fundamentals and social sciences to well-defined mechanical engineering procedures and practices.
2. Analyse well-defined mechanical engineering problems with respect to operation and maintenance, including troubleshooting.
3. Conduct investigations and assist in the design of solutions for mechanical engineering systems.
4. Apply appropriate techniques, resources, and engineering tools to well-defined mechanical engineering activities, with an awareness of the limitations.
5. Demonstrate an awareness and consideration for societal, health, safety, legal and cultural issues and their consequent responsibilities.
6. Communicate effectively with the engineering community and society at large.
7. Function effectively as an individual and as a member in diverse technical teams.
8. Demonstrate an understanding of professional ethics, responsibilities and norms of engineering practices.
9. Demonstrate an awareness of management, business practice and entrepreneurship.
10. Demonstrate an understanding of the impact of engineering practices, taking into account the needs for sustainable development.
11. Recognize the needs for professional development and to engage in independent and lifelong learning.

7.7 Programme Structure For Diploma In Mechanical Engineering

COMPONENTS	COURSE CODE	COURSE	CONTACT HOURS			CREDIT
			L	P	T	
SEMESTER 1						
Compulsory	DUB1012	Pengajian Malaysia	1	0	2	2
	DUE1012	Communicative English 1	1	0	2	2
	DRB1XX0	Asas Unit Beruniform	0	2	0	0
Common Core	DUW1012	Occupational, Safety and Health	2	0	0	2
	DBM1013	Engineering Mathematics 1	2	0	2	3
	DBS1012	Engineering Science	2	1	0	2
Discipline Core	DJJ1012	Engineering Drawing	1	2	0	2
	DJJ1032	Mechanical Workshop Practice 1	0	4	0	2
	DJJ1043	Workshop Technology	3	0	0	3
		TOTAL	27			18
SEMESTER 2						
Compulsory	DUA2012	Sains, Teknologi dan Kejuruteraan Dalam Islam *	1	0	2	2
	DUB2012	Nilai Masyarakat Malaysia **	1	0	2	2
	DRS2XX1	Sukan	0	2	0	1
	DRB2XX1	Unit Beruniform 1	0	2	0	1
Common Core	DBM2013	Engineering Mathematics 2	2	0	2	3
Discipline Core	DJJ2022	Electrical Technology	2	2	0	2
	DJJ2032	Mechanical Workshop Practice 2	0	4	0	2
	DJJ2062	Computer Aided Design 1	1	2	0	2
	DJJ2073	Thermodynamics	2	2	0	3
	DJJ2093	Fluid Mechanics	2	2	0	3
		TOTAL	26			18
SEMESTER 3						
Compulsory	DUE3012	Communicative English 2	1	0	2	2
	DRK3XX2	Kelab/Persatuan	0	4	0	2
	DRB3XX2	Unit Beruniform 2	0	4	0	2
Common Core	DBM3013	Engineering Mathematics 3	2	0	2	3
Discipline Core	DJJ3032	Mechanical Workshop Practice 3	0	4	0	2
	DJJ3053	Engineering Mechanics	2	2	0	3
	DJJ3103	Strength of Materials	2	2	0	3
	DJJ3213	Material Science	2	2	0	3
		TOTAL	23			18
SEMESTER 4						
	DUT40110	Industrial Training	0	0	0	10
			0			10
SEMESTER 5						
Compulsory	DUE5012	Communicative English 3	1	0	2	2
Discipline Core	DJJ5032	Mechanical Workshop Practice 4	0	4	0	2
	DJJ5113	Mechanics of Machines	2	2	0	3
	DJJ5123	Pneumatic and Hydraulic	2	2	0	3
	DJJ5133	Engineering Design	3	0	0	3
	DJJ5141	Project 1	0	2	0	1
Elective		Elective ***	1	2	0	2
	DJJ5062	Computer Aided Design 2	1	2	0	2
	DJJ5172	Instrumentation and Control	1	2	0	2
	DJM5072	Control System	2	1	0	2
		TOTAL	23			16

SEMESTER 6						
Compulsory	DUA6022	Komunikasi dan Penyiaran Islam	1	0	2	2
Common Core	DPB2012	Entrepreneurship	2	1	0	2
Discipline Core	DJJ6143	Project 2	0	4	0	3
	DJJ6153	Mechanical Components and Maintenance	2	2	0	3
	DJJ6162	Maintenance Engineering and Management	2	0	0	2
Elective		Elective***	2	0	0	2
	DJJ6202	Diagnosis and Troubleshooting For Mechanical Component	1	2	0	2
	DJF6102	Quality Control	2	0	0	2
	DJJ6182	Engineering Plant Technology	2	0	0	2
	DJJ6192	Industrial Management	2	0	0	2
	DJM1022	C Programming	1	3	0	2
	DJM3082	Programmable Logic Control	1	2	0	2
	DUA6042	Tamadun Islam	2	0	1	2
	DUA6012	Integrasi Malaysia	1	0	2	2
	DBC2012	Computer Application	1	2	0	2
TOTAL			18		14	

	Total Credit	%
i. Compulsory	15	16%
ii. Common Core	15	16%
iii. Discipline Core	50	53%
iv. Elective	4	4%
v. Industrial Training	10	11%
TOTAL CREDIT	94	100%

	Total	%
i. Lecture	49	42
ii. Practical (Practical+Tutorial)	68	58
iii. Contact Hours	117	-

Legend / Notes:

L : Lecture, P : Practical/Lab, T : Tutorial, C : Credit

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

* For Muslim Students

** For Non-Muslim Students

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

For Co-curriculum,

1. Path 1: Sport and Club

2. Path 2: Uniform Unit

Uniform Unit (Students who choose Uniform Unit are required to complete 5 modules for commissioning)

1. DRB1XX0 (Asas Unit Beruniform) is a prerequisite to DRB2xx1 (Unit Beruniform 1).

2. DRB2XX1 and DRB3XX2 are graded.

3. DRB5XX0 and DRB6XX0 are optional, non-graded and audited courses with full assessment. Upon completion, students are entitled for commissioning.

7.8 Practice Oriented Components Courses

The calculations on ETAC practical component requirement as shown in Table below.

Type	Code	Course	SLT			Credit Hour
			Tutorial	Practical	Tutorial	
Core	DBS1012	Engineering Science	30	15	0	2
Core	DJJ1012	Engineering Drawing	15	30	0	2
Core	DJJ1032	Mechanical Workshop Practice 1	0	60	0	2
Core	DJJ1043	Workshop Technology	45	0	0	3
Core	DJJ2022	Electrical Technology	30	15	0	2
Core	DJJ2032	Mechanical Workshop Practice 2	0	60	0	2
Core	DJJ2062	Computer Aided Design 1	15	30	0	2
Core	DJJ2073	Thermodynamics	30	30	0	3
Core	DJJ2093	Fluid Mechanics	30	30	0	3
Core	DJJ3032	Mechanical Workshop Practice 3	0	60	0	2
Core	DJJ3053	Engineering Mechanics	30	16	14	3
Core	DJJ3103	Strength of Materials	30	16	14	3
Core	DJJ3213	Material Science	30	30	0	3
Core	DJJ5032	Mechanical Workshop Practice 4	0	60	0	2
Core	DJJ5113	Mechanics of Machines	30	16	14	3
Core	DJJ5123	Pneumatic & Hydraulics	30	30	0	3
Core	DJJ5133	Engineering Design	45	0	0	3
Core	DJJ5141	Project 1	15	0	0	1
Elective	DJJ5062	Computer Aided Design 2	15	30	0	2
Core	DJJ6143	Project 2	0	60	0	3
Core	DJJ6153	Mechanical Components & Maintenance	30	30	0	3
Core	DJJ6162	Maintenance Engineering & Management	30	0	0	2
Elective	DJJ6102	Quality Control	30	0	0	2
Core	DUT40110	Industrial Training	0	0	0	10
Total Contact Hour			510	611	0	
Total Credit Hours Engineering Related Courses						66

	Hour	%	
i. Lecture	510	45	
ii. Practical	611	55	
iii. Contact Hour	1121	100	

8.0 ACADEMIC SUPPORT DEPARTMENT / UNIT

8.1 Department Of Methamatics, Science & Computer (JMSK)

Department of Mathematics, Science & Computer (JMSK), which was originally known as the Mathematics and Science Unit, was established in 1993. JMSK plays an important role in coordinating the teaching of Engineering Mathematics and Engineering in all departments and is also responsible for the Pre-Diploma Science program. JMSK is also responsible for coordinating the use of Science Laboratory and Lecture Hall 4 so that its usage schedule is more systematic for all departments.

Currently, JMSK has 29 teaching staff that has skills in various disciplines such as Mathematics and Science, Information Technology, Computer Science, Mechanical Engineering, Civil Engineering and Electrical Engineering as well as a laboratory assistant. In January 2017 session, a total of 3308 students enrolled for all courses under JMSK.

8.2 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.

8.3 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
- Administer Final Examination
- Handling Certification and Students Achievement Award
- Enforcement of Assessment Rules
- Administration

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 letter 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 matter 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 excuse 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

- Final Semester Students

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.

- Non Final Semester Students

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.

8.4 Student Affairs 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.

8.5 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).

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

8.6 Sports 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.

The main objective of the Sports, Co-Curriculum & Culture Department is to co-ordinate all academic and non-academic activities throughout the semester. The main objectives can be divided into two:

Iktisas

- Provide opportunities for students to acquire knowledge, experience, basic skills, ability to manage, leadership skills and trainability.
- Provide exposure to entrepreneurial aspects in order to develop a comprehensive, competent mind, talent and potential
- Increase capability in terms of leadership and identity
- Student attendance in co-curricular activities exceeds 90%

Society

- As a future preparation of students break into community activities
- Awareness and encourage students to engage in social, cultural and community service activities that can help achieve the goal of national unity
- Helping to create a democratic, moral, healthy, disciplined, dedicated society, in addition to having an attitude of tolerance and tolerance.

8.7 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.

8.8 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. Counseling 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

8.9 Instructional Development And Multimedia Unit

Unit for Instructional Development and Multimedia (UIDM) 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

8.10 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

8.11 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

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

8.13 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, innovation 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

VISION

To be a towering TVET institution globally.

MISSION

1. Producing quality, holistic and well-balanced TVET graduates with entrepreneurship in order to fulfil the needs of the nation.
2. Developing and sustaining smart partnerships with relevant parties locally and internationally.
3. To benefit society through education, research and innovation.

PROGRAMME EDUCATIONAL OBJECTIVES (PEO)

The Diploma in Mechanical Engineering (Manufacturing) programme shall produce semi-professionals who are:

1. competent in knowledge and skills in the field of mechanical engineering according to industry requirements,
2. effective in communication and contribute effectively as a team member with the capability of being a leader,
3. ethically and socially responsible towards developing the community and the nation,
4. able to demonstrate entrepreneurship skills and recognize the need of lifelong learning for a successful career advancement and able to adapt themselves with new technological challenges in mechanical fields

PROGRAMME LEARNING OUTCOMES (PLO)

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

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

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:

- Technical Assistant
- Assistant Service Manager
- Service Advisor
- Supervisor
- Assistant Engineer
- Junior Engineer

PROGRAM STRUCTURE

COURSE CODE	COURSE	L	P	T	C
SEMESTER 1					
DUE0102	Pengajian Malaysia	1	0	2	2
DUE0102	Communicative English 1	1	0	2	2
DRB1000	Asas Unit Beruniform	0	2	0	0
DUE0102	Occupational Safety and Health	2	0	0	2
DBM1013	Engineering Mathematics 1	2	0	2	3
DBS1012	Engineering Science	2	1	0	2
DJ1012	Engineering Drawing	1	2	0	2
DJ1032	Mechanical Workshop Practice 1	0	4	0	2
DJ1043	Workshop Technology	3	0	0	3
TOTAL		17		18	
DUA0012	Sains, Teknologi dan Kependidikan Islam *	1	0	2	2
DUE0102	Itikah Masyarakat Malaysia **	1	0	2	2
DRS2001	Sukan	0	2	0	1
DRB2001	Unit Beruniform 1	0	2	0	1
DBM1013	Engineering Mathematics 2	2	0	2	3
DJ2002	Electrical Technology	2	2	0	2
DJ2032	Mechanical Workshop Practice 2	0	4	0	2
DJ2062	Computer Aided Design 1	1	2	0	2
DJ2073	Thermodynamics	2	2	0	3
DJ2093	Fluid Mechanics	2	2	0	3
TOTAL		16		18	
SEMESTER 3					
DUE0102	Communicative English 2	1	0	2	2
DRK3002	Ketab-Persembahan	0	4	0	2
DRB3002	Unit Beruniform 2	0	4	0	2
DBM1013	Engineering Mathematics 3	2	0	2	3
DJ3032	Mechanical Workshop Practice 3	0	4	0	2
DJ3053	Engineering Mechanics	2	2	0	3
DJ3103	Strength of Materials	2	2	0	3
DJ3213	Material Science	2	2	0	3
TOTAL		13		18	
SEMESTER 4					
DUT4110	Industrial Training	0	0	0	10
SEMESTER 5					
DUE0102	Communicative English 3	1	0	2	2
DJ5032	Mechanical Workshop Practice 4	0	4	0	2
DJ5113	Mechanics of Machines	2	2	0	3
DJ5123	Pneumatic and Hydraulic	2	2	0	3
DJ5133	Engineering Design	3	0	0	3
DJ5141	Project 1	0	2	0	1
Elective ***		1		2	
DJ5062	Computer Aided Design 2	1	2	0	2
DJ5172	Instrumentation and Control	1	2	0	2
DJ5072	Control System	2	1	0	2
TOTAL		12		16	
SEMESTER 6					
DUA0022	Komunikasi dan Penyerahan Islam	1	0	2	2
DBP2012	Entrepreneurship	2	1	0	2
DJ6143	Project 2	0	4	0	3
DJ6153	Mechanical Components and Maintenance	2	2	0	3
DJ6162	Maintenance Engineering and Management	2	0	0	2
Elective***		2		0	
DJ6202	Diagnosis and Troubleshooting For Mechanical Component	1	2	0	2
DJ6102	Quality Control	2	0	0	2
DJ6182	Engineering Plant Technology	2	0	0	2
DJ6192	Industrial Management	2	0	0	2
DJ6122	C-Programming	1	3	0	2
DJ6102	Programmable Logic Control	1	2	0	2
DUA0402	Tamadun Islam	2	0	1	2
DUA0612	Integrasi Malaysia	1	0	2	2
DBC2012	Computer Application	1	2	0	2
TOTAL		18		14	



QUICKFACT
DKM, JKM

Why the requirement for engineering technologist and technicians to register with BEM?

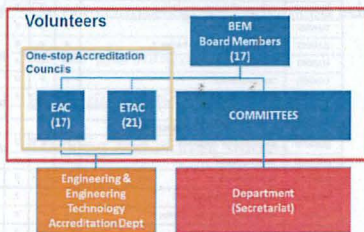
BEM to ensure PUBLIC SAFETY

By regulating
• Education
• Registration



EAC-ETAC

BEM Organogram



BEM is certified to ISO 9001:2015

Registration of engineers act 1967 rev. 2015

Key changes related to REA:

- Liberalisation of engineers' registration and practice
- Include technologists and technicians as part of the engineering service professionals
- Recognition of engineering technologists as assistant engineers
- Recognition of engineering technicians as assistant to Professional Engineers' services

Requirement to register

7[2](aa)

An Engineering Technologist who is registered with the Board may, subject to section 8, take up employment which requires him to perform Professional Engineering services."

7[2](ab)

An Inspector of Works who is registered with the Board may, subject to section 8, take up employment which requires him to assist the Professional Engineer in the supervision of engineering works."

Qualification to register

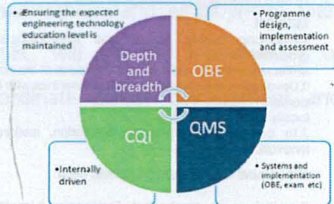
10C(1)

A person who holds any qualification which is recognized by the Board shall be entitled on application to be registered as an Engineering Technologist.

10E

A person who holds any qualification which is recognized by the Board shall be entitled on application to be registered as an Inspector of Works.

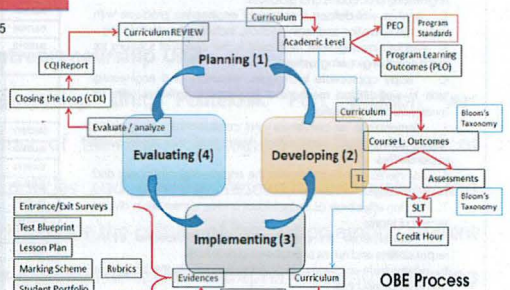
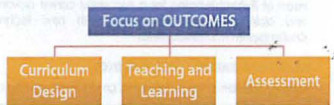
4 komponen utama akreditasi – ETAC Focus



What is Outcome Based Education (OBE)?

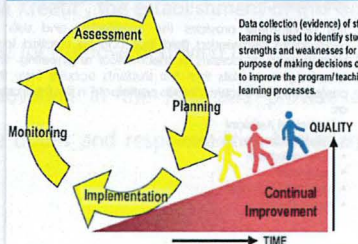
It's not what we teach, It's what the student learn

OBE Philosophy



OBE Process

CONTINUAL QUALITY IMPROVEMENT (CQI)



Data collection (evidence) of student learning is used to identify student strengths and weaknesses for the purpose of making decisions on how to improve the program/teaching/learning processes.

TARIKH DIPULANGKAN
(DATE DUE)



9 789675 677885