POLITEKNIK MALAYSIA
PORT DICKSON

ENGINEERING TECHNOLOGY ACCREDITATION COUNCIL

DEPARTMENT OF MECHANICAL ENGINEERING

DAD	DEM	DKM	DTP
DIPLOMA IN MECHANICAL ENGINEERING (AUTOMOTIVE)	DIPLOMA IN MECHATRONIC ENGINEERING	DIPLOMA IN MECHANICAL ENGINEERING	DIPLOMA IN MECHANICAL ENGINEERING (MANUFACTURING)

PROGRAMME EDUCATIONAL OBJECTIVES PEO

Within a few years after completing Diploma, graduates are able to:

	DAD	DEM	DKM	DTP
PEO 1	Proficient with industry-relevant knowledge and skills in mechanical engineering (automotive) field	Proficient with industry-relevant knowledge and skills in mechatronic engineering field	Proficient with industry-relevant knowledge and skills in mechanical engineering field	Proficient with industry-relevant knowledge and skills in mechanical and manufacturing engineering field
PEO 2	Engaging on lifelong and continuous learning to enhance knowledge and skills	Engaging on lifelong and continuous learning to enhance knowledge and skills	Engaging on lifelong and continuous learning to enhance knowledge and skills	Engaging on lifelong and continuous learning to enhance knowledge and skills
PEO 3	Acquire with entrepreneurial skills and mindset in the real working environment	Acquire with entrepreneurial skills and mindset in the real working environment	Acquire with entrepreneurial skills and mind set in the real working environment	Acquire with entrepreneurial skills and mind set in the real working environment
PEO 4	Establish links with society and players in the industry	Establish links with society and players in the industry	Establish links with society and players in the industry	Established links with society and players in the industry

PROGRAMME LEARNING OUTCOMES PLO

Upon completion the programme, students should be able to:

	DAD	DEM	DKM	DTP
PLO 1	Apply knowledge of applied mathematics, applied science, computer and engineering fundamentals and an engineering specialisation as specified in DK1 to DK4 respectively to wide practical procedures and practices in area of mechanical engineering (automotive).	Apply knowledge of applied mathematics, applied science, computer and engineering fundamentals and an engineering specialisation as specified in DK1 to DK4 respectively to wide practical procedures and practices in area of mechatronic engineering.	Apply knowledge of applied mathematics, applied science, computer and engineering fundamentals and an engineering specialisation as specified in DK1 to DK4 respectively to wide practical procedures and practices in area of mechanical engineering.	Apply knowledge of applied mathematics, applied science, computer and engineering fundamentals and an engineering specialisation as specified in DK1 to DK4 respectively to wide practical procedures and practices in area of mechanical engineering specialized in manufacturing.
PLO 2	Identify and analyse well-defined engineering problems reaching substantiated conclusions using codified methods of analysis specific to mechanical engineering (automotive) field (DK1 to DK4).	Identify and analyse well-defined engineering problems reaching substantiated conclusions using codified methods of analysis specific to mechatronic engineering field (DK1 to DK4).	Identify and analyse well-defined engineering problems reaching substantiated conclusions using codified methods of analysis specific to mechanical engineering field (DK1 to DK4).	Identify and analyse well-defined engineering problems reaching substantiated conclusions using codified methods of analysis specific to mechanical engineering specialized in manufacturing (DK1 to DK4).
PLO 3	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 as well as, cultural, societal and environmental considerations in area of mechanical engineering (automotive) (DK5).	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 as well as, cultural, societal, and environmental considerations in area of mechatronic engineering (DK5).	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 as well as, cultural, societal and environmental considerations in area of mechanical engineering (DK5).	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 as well as, cultural, societal and environmental considerations in area of mechanical engineering specialized in manufacturing (DK5).
PLO 4	Conduct investigations of well-defined problems; locate and search relevant codes and catalogues, conduct standard tests and measurements (DK8).	Conduct investigations of well-defined problems; locate and search relevant codes and catalogues, conduct standard tests and measurements (DK8).	Conduct investigations of well-defined problems; locate and search relevant codes and catalogues, conduct standard tests and measurements (DK8).	Conduct investigations of well-defined problems; locate and search relevant codes and catalogues, conduct standard tests and measurements (DK8).
PLO 5	Apply appropriate techniques, resources, and modern engineering computing and IT tools to well-defined engineering problems, with an awareness of the limitations (DK2 and DK6).	Apply appropriate techniques, resources, and modern engineering computing and IT tools to well-defined engineering problems, with an awareness of the limitations (DK2, DK6).	Apply appropriate techniques, resources, and modern engineering computing and IT tools to well-defined engineering problems, with an awareness of the limitations (DK2 and DK6).	Apply appropriate techniques, resources, and modern engineering computing and IT tools to well-defined engineering problems, with an awareness of the limitations (DK2 and DK6).
PLO 6	Consider sustainable development impacts to: society, the economy, sustainability, health and safety, legal frameworks, and the environment, in solving well-defined engineering problems. (DK1,DK5 and DK7).	Consider sustainable development impacts* to: society, the economy, sustainability, health and safety, legal frameworks, and the environment, in solving well-defined engineering problems (DK1, DK5, DK7).	Consider sustainable development impacts* to: society, the economy, sustainability, health and safety, legal frameworks, and the environment, in solving well- defined engineering problems (DK1,DK5 and DK7).	Consider sustainable development impacts* to: society, the economy, sustainability, health and safety, legal frameworks, and the environment, in solving well- defined engineering problems (DK1, DK5 and DK7).
PLO 7	Understand and commit to professional ethics and responsibilities and norms of technician practice and including compliance with national and international laws. Demonstrate an understanding of the need for diversity and inclusion. (DK9)	Understand and commit to professional ethics and responsibilities and norms of technician practice and including compliance with national and international laws. Demonstrate an understanding of the need for diversity and inclusion (DK9).	Understand and commit to professional ethics and responsibilities and norms of technician practice and including complience with national and international laws. Demonstrate an understanding of the need for diversity and inclusion (DK9).	Understand and commit to professional ethics and responsibilities and norms of technician practice and including compliance with national and international laws. Demonstrate an understanding of the need for diversity and inclusion (DK9).
PLO 8	Function effectively as an individual, and as a member in diverse and inclusive teams in multi-disciplinary, face-to-face, remote and distributed settings (DK9).	Function effectively as an individual, and as a member in diverse and inclusive teams in multi-disciplinary, face-to-face, remote and distributed settings (DK9).	Function effectively as an individual, and as a member in diverse and inclusive teams in multi-disciplinary, face-to-face, remote and distributed settings (DK9).	Function effectively as an individual, and as a member in diverse and inclusive teams in multi-disciplinary, face-to-face, remote and distributed settings (DK9).
PLO 9	Communicate effectively and inclusively 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.	Communicate effectively and inclusively 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.	Communicate effectively and inclusively 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.	Communicate effectively and inclusively 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 (NA).
PLO 10	Demonstrate awareness of engineering management principles as a member or leader in a technical team and to manage projects in multidisciplinary environments.	Demonstrate awareness of engineering management principles as a member or leader in a technical team and to manage projects in multidisciplinary environments.	Demonstrate awareness of engineering management principles as a member or leader in a technical team and to manage projects in multidisciplinary environments.	Demonstrate awareness of engineering management principles as a member or leader in a technical team and to manage projects in multidisciplinary environments.
PLO 11	Recognise the need for, and have the ability for independent and life long learning and critical thinking in the face of specialised technical knowledge (DK8).	Recognise the need for, and have the ability for i) independent and lifelong learning and ii) critical thinking in the face of specialised technical knowledge (DK8).	Recognise the need for, and have the ability for i) independent and life long learning and ii) critical thinking in the face of specialised technical knowledge (DK8).	Recognise the need for, and have the ability for i) independent and lifelong learning and ii) critical thinking in the face of specialised technical knowledge (DK8).

Effective - Session 1 : 2024/2025