

DIPLOMA IN MECHANICAL TECHNOLOGY (MATERIAL PROCESSING)

VK08 DIPLOMA IN MECHANICAL TECHNOLOGY (MATERIAL PROCESSING)

MATERIAL MECHANICAL TECHNOLOGY SECTION (DEPARTMENT OF MANUFACTURING AND ADVANCED MATERIALS)

STUDY DURATION :

36 MONTHS (FULL TIME)

ELIGIBILITY REQUIREMENTS:

1. SPM GRADUATE.

- i. Pass the SPM in these following subjects:
- Bahasa Melayu/ Malay Language
- Sejarah / History
- Matematik/ Mathematics
- Any one (1) subject other than the subjects mentioned above.

PROGRAMME SYNOPSIS :

This 3-year learning programme is prepared specifically for teaching and learning in Mechanical Technology with specialization in materials-related fields. This skills-oriented programme is expected to provide graduates who are capable and professional in masterina various theoretical and practical aspects, especially in the field of materials. Among the knowledge and skills learned include the concept of materials, processing technology and the production of products based on advanced ceramics materials, polymers, composites, and also semiconductor fabrication technology. The students will also be exposed to material and product design, mold design and fabrication, machine maintenance and basic component repair, metrology and measurement, product quality control and assurance as well as testing/ characterization and analysis of materials and products. In addition, students are not only equipped with technical knowledge, but they will be exposed to soft skills to prepare future graduates before entering the workforce or continuing to study at a higher level either domestically or abroad.

PROGRAMME STRUCTURE :

Students will be exposed to and study the following subjects :

YEAR ONE

Engineering Measurement, Metrology & Technology, Whiteware Mould Making Technology, Workshop Technology Practice, Technical Drawing, Computer Aided Design (CAD), Powder Pressing Technology, Ceramic Mould Making Technology, Advanced Ceramic Technology, Plastic Processing Casting Technology, Islamic/Morale Education 1&2, Technical English 1&2, Mathematics 1&2, Physics 1&2, Co-curriculum 1&2, Computer Application and Core Abilities Level 1&2.

YEAR TWO

Engineering Product Design, Advanced Powder Pressing Technology, Ceramic Fabrication Process, Physical Testing & Analysis, Machining & Finishing, Entrepreneurship, Quality Control, Mechanical & Non-destructive Testing, Materials Characterization Laboratory, Supervisory, Machine Maintenance, Composite Processing Technology, Islamic/Morale Education 3. Engineering Science, Mathematics 3, Final Year Project 1 and Core Abilities Level 3&4.

YEAR THREE

Instrumental Characterization Laboratory, Project Management, Semiconductor Fabrication Technology, Hak Pekerja, Final Year Project 2 and Industrial Training.

MACHINE AND TOOLS:

•PROCESSING/ FABRICATION/ DESIGN, MEASURE-MENT

Spray drying machine, roller head machine, ball mill, uniaxial press machine, powder press machine, hot press (HP) machine, cold isostatic press (CIP) machine, hot isostatic press (HIP) machine, drying oven, high temperature sintering furnace, surface grinding, plastic injection moulding, plastic resin compounder, extrusion machine, pultrusion machine, prototyping machine (3D printer), coordinate measuring machine (CMM)

•MATERIAL TESTING AND CHARACTERIZATION TOOLS

Universal testing machine (UTM), pendulum impact testing machine, microhardness testing machine, viscometer, sieve shaker, precision electronics balance, X-ray diffractometer (XRD), X-ray fluorescent (XRF) spectrometer, thermogravimetry (TG) - differential thermal analysis (DTA), dilatometer, optical microscope, optical microscope with image analyzer, scanning electron microscope (SEM).

SPONSORSHIPS AND SCHOLARSHIPS

PTPK, JPA, Baltulmal, SUK Negeri (State Government Secretary), Yayasan Negeri (State Foundation), Yayasan Bank Rakyat (Bank Rakyat Foundation)

JOB PROSPECTS

Assistant Engineer, Assistant Officer, Technology Assistant, Production Supervisor, Technical Executive, Maintenance Technician, Production Technician, Process Technician, R&D Technician, QA/ QC Technician, Product Designer, Planning and Control Officer, Draughtsman, Technopreneur, Researcher, Mechanical Engineering Technician, CAD/ CAM Technician, Technical Instructors and Technical Entrepreneur

Graduates can also venture into a career in public sector services such as the Malaysian Armed Forces (ATM), Royal Malaysian Police (PDRM), Malaysian Fire and Rescue Department, Malaysian Civil Defense Force (APM), Malaysian Royal Customs Department, Malaysian Immigration Department and so on.







THE PROSPECT OF FURTHER STUDIES

The opportunity to continue studying for a Bachelor's Degree in public and private educational institutes, domestically and abroad such as

• Bachelor of Science Degree with Honours (Material Science),

National University of Malaysia (UKM)

• Bachelor's Degree in Mechanical Engineering Technology (Material Processing), University of Malaysia Perlis (UniMAP)

• Bachelor's Degree in Mechanical Engineering Technology (Product Design),

University of Malaysia Perlis (UniMAP)

• Bachelor's Degree in Mechanical Engineering Technology,

Technical University of Malaysia Melaka (UTeM)

• Bachelor's Degree in Manufacturing Engineering Technology (Process and Technology), Technical University of Malaysia Melaka (UTeM)

 Bachelor's Degree in Manufacturing Engineering Technology (Product Design),
Technology (HTechnology (HTechnology))

Technical University of Malaysia Melaka (UTeM)
 Bachelor's Degree in Mechanical Engineering Technology (Manufacturing) with Honors,

Tun Hussein Onn Malaysia University (UTHM)

• Bachelor's Degree in Vocational Education (General Machining) with Honors,

Tun Hussein Onn Malaysia University (UTHM)

• Bachelor's Degree in Manufacturing Engineering Technology,

Sultan Zainal Abidin University (UniSZA)

• Bachelor's Degree in Applied Science (Material Technology),

University of Malaysia Kelantan (UMK)

• Bachelor's Degree in Applied Science (Material Technology),

University of Malaysia Pahang (UMP)

• Bachelor of Science Degree (Honours) Material Science and Technology,

MARA University of Technology (UiTM)

• Bachelor's Degree in Education (Design and Technology) with Honours,

Sultan Idris University of Education



PENERAJU KEMAHIRAN TERBILANG

Pusat Latihan Teknologi Tinggi, Taiping

Advanced Technology Training Center (ADTEC)Taiping

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