FLEXILEARN
WEEKEND & EVENING CLASSES

MOHE / MQA Approved & Accredited

JPT/BPP (N/521/6/0126) 12/20, MQA PA 7648

BACHELOR OF ENGINEERING TECHNOLOGY (HONS.) IN MECHANICAL DESIGN
Bachelor of Engineering Technology (Hons.) in Mechanical Design (BET MD) aims to assist graduates to become full-fledged Mechanical Design Technologist with the required knowledge and technical skills to serve the industry upon graduating. Besides Mechanical Engineering knowledge, students will also have the advantage of specializing in Mechanical Design. Emphasis will be given on components and systems level design to serve the mechanical, manufacturing, semiconductor, electronics, and also oil and gas industry. Students will be exposed to the required knowledge and skills to produce detail Engineering Design that complies with Engineering Standards on safety, reliability and also environment impact. They will also learn to create design which is highly manufactured able and save cost.

At early stage of the programme, courses are aligned to expose the students to the basic Mechanical / Manufacturing knowledge. In the middle of the programme students will learn Specialized Design Courses which are relevant to the industry. At the end of the programme student will use their design knowledge to create complex design that will be reflected in their Final Year Projects.

**ENTRY REQUIREMENT**

Passed Sijil Tinggi Pelajaran Malaysia (STPM) or equivalent with at least Grade C (CGPA 2.0) in Mathematics and one Science subject OR
Passed Diploma or Higher National Diploma (HND) UK (Level 4 KKM) in Engineering / Engineering Technology related or equivalent with a minimum CGPA of 2.00 OR
Passed Diploma (Level 4 KKM) in the field of vocational and technical / skill associated with at least a CGPA of 2.00 OR
Graduated UniKL Foundation in Science and Technology / Matriculation / Foundation with at least a CGPA of 2.00 OR
Passed Sijil Tinggi Agama Malaysia (STAM) or equivalent with a minimum grade of Jayyid and passed SPM or equivalent with at least a credit in Mathematics and one Science subject OR
Graduated International Baccalaureate (IB) with at least 24/45 marks including Mathematics and one Science subject related.

**PROGRAMME STRUCTURE**

**SEMMETER 1**
- Fundamental English
- Professional English 1
- Engineering Mathematics 1
- Tanadun Islam & Tanadun Asia (TTAS) I
- Bahasa Meliau Komunikasi 2 (i)
- Tecnopreneurship

**INTER-SEMESTER**
- Engineering Mechanics
- Manufacturing Technology

**SEMMETER 2**
- Hubungan Ekik / Pangajian Malaysia 3
- Innovation Management
- Engineering Drawing
- Strength of Materials
- Electrical & Electronics Laboratories
- Electric Circuit Analysis
- Workshop Technology

**SEMMETER 3**
- Isu-Isu Kewarganegaraan Masyarakat di Malaysia
- Culture and Lifestyle in Malaysia
- Engineering Mathematics 2
- Computer-Aided Design & Modeling
- Fundamentals of Materials Science
- Thermal Science
- Ergonomics and Human Factors

**SEMMETER 4**
- Co-Curricula**
  - Fluid Mechanics
  - Engineering Design Process
  - Design for Plastics & Elastomer
  - Finite Element Application
  - Engineering Materials
  - Computer Programming

**SEMMETER 5**
- Professional English 2
- Vibration and Noise
- CAD/CAM Rapid Prototyping
- Machine Component Design
- Pneumatic & Hydraulic Systems
- Design for Sheet Metal Forming
- Metrology

**SEMMETER 6**
- Mandarain 1 / Spanish 1
- Control Systems
- Machine & Mechanism Design
- Elective 1
- Industrial Safety & Health
- Applied Statistics
- Final Year Project 1

**SEMMETER 7**
- Mandarain 2 / Spanish 2
- Elective 2
- Elective 3
- Professional Engineering Practice and Ethics
- Quality Engineering
- Final Year Project 2

**SEMMETER 8**
- Industrial Training

**ADDITIONAL MODULE**
- Bahasa Kebangsaan A

**ELECTIVES**
- Applied Computational Fluid Dynamics
- Heat Exchanger Design
- Introduction to Oil and Gas Industry
- CNC Technology
- Automotive Design Engineering
- Automotive Structure
- Applied Control Systems
- Object Oriented Programming
- Microcontroller and Interfacing

**CO-CURRICULUM**
- Career Guidance 2
- Community Service 2
- Culture 2
- Rakan Majid 2
- Siswa-siswi Bomba & Penyelamat 2
- Siswa-siswi Pertahanan Awam 2
- Sports Management 2
- Personal Financial Management 2
- Askar Watanah

*credit transfer or exemption based on prior learning