



**UniKL**  
UNIVERSITI  
KUALA LUMPUR

# 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





## OVERVIEW

Bachelor of Engineering Technology (Hons.) in Mechanical Design (BET MD) aims to assist graduates to become full fledge Mechanical Design Technologist with the required knowledge and technical skills to serve the industry upon graduating. Besides Mechanical Engineering knowledge, students also will have the advantage of specializing in Mechanical Design. Emphasize 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 on 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.

**FINANCIAL ASSISTANT**

**HRDF Claimable**  
*\*subject to company levy contribution*

**EPF WITHDRAWAL**

**PTPTN**  
*\*subject to PTPTN approval*

**CREDIT CARD**

**+ PROFESSIONAL CERTIFICATES**  
TRIZ Level 1 and Solidwork Certification

## 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

### SEMESTER 1

Fundamental English  
Professional English 1  
Engineering Mathematics 1  
Tamadun Islam & Tamadun Asia (TITAS) /  
Bahasa Melayu Komunikasi 2 (I)  
Technopreneurship

### INTER-SEMESTER

Engineering Mechanics  
Manufacturing Technology

### SEMESTER 2

Hubungan Etnik / Pengajian Malaysia 3  
Innovation Management  
Engineering Drawing  
Strength of Materials  
Electrical & Electronics Laboratories  
Electric Circuit Analysis  
Workshop Technology

### SEMESTER 3

Isu-isu Kontemporari Muslim di Malaysia /  
Culture and Lifestyle in Malaysia  
Engineering Mathematics 2  
Computer Aided Design & Modeling  
Fundamentals of Materials Science  
Thermal Science  
Ergonomics and Human Factors

### SEMESTER 4

Co-Curriculum\*\*  
Fluid Mechanics  
Engineering Design Process  
Design for Plastics & Elastomer  
Finite Element Application  
Engineering Materials  
Computer Programming

### SEMESTER 5

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

### SEMESTER 6

Mandarin 1 / Spanish 1  
Control Systems  
Machine & Mechanism Design  
Elective 1\*  
Industrial Safety & Health  
Applied Statistics  
Final Year Project 1

### SEMESTER 7

Mandarin 2 / Spanish 2  
Elective 2\*  
Elective 3\*  
Professional Engineering Practice and Ethics  
Quality Engineering  
Final Year Project 2

### SEMESTER 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 Masjid 2  
Siswa-siswi Bomba & Penyelamat 2  
Siswa-siswi Pertahanan Awam 2  
Sports Management 2  
Personal Financial Management 2  
Askar Wataniah

\*credit transfer or exemption based on prior learning

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