GEARING UP WITH SPANISH TECHNOLOGY

UNIVERSITI KUALA LUMPUR
MALAYSIAN SPANISH INSTITUTE (UniKL-MSI)

www.unikl.edu.my
Universiti Kuala Lumpur Kampus Cawangan Malaysian Spanish Institute (UniKL-MSI) was established in response to the rapidly increasing demand of the automotive industry and it encompasses the most advanced technology in automotive engineering. It has been fully operational from its campus located at Kulim Hi-Tech Park, Kedah since 2003. With a strong collaborative effort between the Malaysian and Spanish government, UniKL MSI is able to offer unique well-designed academic program (both at degree and diploma levels) which integrate theoretical training with practical application.

PROGRAMS OFFERED

- Bachelor of Engineering Technology (Hons) in Mechanical (Automotive)  JPT/BPP [03/525/6/0048] 09/29, MQA FA 13397
- Bachelor of Mechtronics Engineering Technology (Automotive) with Honours  JPT/BPP [03/525/6/0067] 09/29, MQA FA 11196
- Bachelor of Engineering Technology (Hons) in Manufacturing (Automotive)  JPT/BPP [03/525/6/0068] 09/29, MQA FA 13398
- Bachelor of Engineering Technology (Hons) in Mechanical Design  JPT/BPP [03/521/6/0126] 12/27, MQA FA 7648
- Bachelor of Engineering Technology (Hons) in Applied Electronics  JPT/BPP [03/521/6/0278] 12/27, MQA FA 7649
- Bachelor of Mechanical Engineering with Honours  JPT/BPP [03/521/6/0160] 07/29, MQA FA 8216
- Bachelor of Business Technology (Honours) in Automotive Management  JPT/BPP [IN/145/6/1109] 04/26, MQA FA 11795
- Diploma of Engineering Technology in Mechanical Design & Development  JPT/BPP [02/521/4/0078] 06/24, MQA A 10152
- Diploma of Engineering Technology in Production  JPT/BPP [02/521/4/0077] 06/24, MQA A 10151
- Diploma of Engineering Technology in Electromechanical Installation & Maintenance  JPT/BPP [02/521/4/0047] 06/24, MQA A 10154
- Diploma of Electronic Engineering Technology Industrial Automation and Control  JPT/BPP [02/521/4/0185] 04/24, MQA A 10190

ENTRY REQUIREMENTS

BACHELOR OF ENGINEERING TECHNOLOGY PROGRAMS

- Pass in STPM/Matriculation/Foundation or its equivalent, with minimum CGPA 2.0 and at least Grade C in Mathematics and one relevant Science subject; OR
- Pass in International Baccalaureate (IB) with at least 24 points; OR
- Pass in A-Level with minimum Grade D in Mathematics one (1) relevant Science subject; OR
- Pass in Sijil Tinggi Agama Malaysia (STAM) with minimum grade of Jayyid and pass SPM or its equivalent with minimum Grade C in Mathematics and one relevant Physical Science subjects (i.e; Physic, Chemistry & etc); OR
- Recognized Diploma in Engineering/Engineering Technology or its equivalent with CGPA 2.0; OR
- Recognized related Technical/Vocational Skills Diploma with CGPA 2.0; OR
- Pass Diploma Kemahiran Malaysia (DKM)/ Diploma Lanjutan Kemahiran Malaysia (DLKM)/ Diploma Vokasional Malaysia (DVM) with a minimum CGPA of 2.50 and the program must get Full Accreditation (FA) by MQA or others Accreditation bodies that had been recognized by government of Malaysia and according to approval by UniKL Senate; OR
- Pass the DKM/DLKM/DVM with a minimum CGPA of 2.00 AND have at least two (2) years of work experience in the related field. The program must get Full Accreditation (FA) by MQA or others Accreditation bodies that had been recognized by government of Malaysia and according to approval by UniKL Senate.

BACHELOR OF MECHANICAL ENGINEERING WITH HONOURS

- Pass in STPM/Matriculation/Foundation or its equivalent, with a minimum CGPA 2.0 and a grade C in Mathematics and one (1) of the Physical Science subjects (i.e; Physic, Chemistry and etc); OR
- Pass in International Baccalaureate Diploma (IBD) with minimum of 24 points and attained a minimum score of 4 in Mathematics and one (1) of the Physical Science subjects (i.e; Physic, Chemistry and etc); OR
- Pass in A-Level with minimum Grade D in Mathematics and one (1) of the Physical Science subjects (i.e; Physic, Chemistry and etc); OR
- Pass in Sijil Tinggi Agama Malaysia (STAM) with minimum grade of Jayyid and pass SPM or equivalent with minimum Grade C in Mathematics and one relevant Physical Science subjects (i.e; Physic, Chemistry & etc); OR
- Pass in Diploma (Level 4, KKM) related to Engineering/Engineering Technology fields from higher education provider recognized by Government of Malaysia with a minimum CGPA 2.00
BACHELOR OF BUSINESS TECHNOLOGY

- A pass in STPM with at least Grade C (GP 2.0) in any TWO subjects* and a pass in Mathematics and English at SPM; OR
- A pass in STAM with at least Grade Jayyid*; OR
- Matriculation or Foundation with at least CGPA of 2.00; OR
- A Diploma (Level 4, MQF) with at least CGPA of 2.00; OR
- An Advanced Diploma (Level 5, MQF) with at least CGPA of 2.00; OR
  *Can be waived should any other higher qualifications contain Mathematics and English subjects with an equivalent/higher achievement.
- Pass Diploma Kemahiran Malaysia (DKM)/ Diploma Lanjutan Kemahiran Malaysia (DLKM)/ Diploma Vokasional Malaysia (DVM) with a minimum CGPA of 2.50 and the program must get Full Accreditation (FA) by MQA or others Accreditation bodies that had been recognized by government of Malaysia and according to approval by Unikl Senate; OR
- Pass the DKM/DLKM/DVM with a minimum CGPA of 2.00 AND have at least two (2) years of work experience in the related field. The program must get Full Accreditation (FA) by MQA or others Accreditation bodies that had been recognized by government of Malaysia and according to approval by Unikl Senate

DIPLOMA PROGRAMS

- Pass in SPM or its equivalent with at least credits (minimum Grade C and higher) in Mathematics and Natural Sciences or Technical Based Subjects; OR
- Pass in O-Level with minimum Grade C in three (3) subjects including Mathematics and science or technical based subjects; OR
- Accredited Certificate in Engineering, Engineering Technology, Technical or Malaysian Skills Certificate Level 3 with PT3; or its equivalent; OR
- Recognized related Technical/Vocational/Skills qualifications AND an adequate and relevant bridging program; OR
- Pass Technical/Vocational/Skills qualifications and recognized and approve by Unikl Senate; OR
- Pass in Sijil Vokasional Malaysia (SVM) qualification been recognized by government of Malaysia and according to approval by Unikl Senate. SVM is recognized as equivalent to 3 credits SPM for candidates who obtain;
  - Academic CGPA is equal to or greater than 2.00;
  - Vocational CGPA is equal to or greater than 2.67 and competent in all vocational modules;
  - Credit in Bahasa Melayu with SVM Code 1104;
  - Pass in Sejarah for graduate cohort 2013-2016

BACHELOR OF ENGINEERING TECHNOLOGY (HONS.) IN APPLIED ELECTRONICS

JPT/BPP IRI/523/6/0278 12/27, MQA FA 7649

PROGRAM CONTENTS

YEAR 1 - SEMESTER 1
- Fundamental English
- Professional English 1
- Engineering Mathematics 1
- Tamadun Islam & Tamadun Asia (TITAS)
- Technopreneurship
- Bahasa Melayu Komunikasi 2

YEAR 1 - SEMESTER 2
- Hubungan Etik/Malaysian Studies 3
- Innovation Management
- Applied Electronics Laboratory
- Electric Circuit Analysis
- Semiconductor Technology
- Engineering Mechanics
- Digital Electronics

YEAR 2 - SEMESTER 3
- Professional Engineering Practice and Ethics
- Engineering Mathematics 2
- Analog Circuit Application 1
- Introduction to VLSI and Fabrication
- Computer Programming
- Electronic Devices
- Fundamental of Material Science
- Co-curriculum

YEAR 2 - SEMESTER 4
- Electronic Instrumentation
- Signals and Systems
- Object Oriented Programming
- Analog Circuit Application 2
- Sensor Technology
- Applied Digital Electronics
- Ibu-ibu Kontemporari Muslim di Malaysia
- Malaysia/Culture and Lifestyle in Malaysia

YEAR 3 - SEMESTER 5
- Professional English 2
- PCB Design
- Electric Machine Fundamentals
- Internet of Thing (IoT) Technology
- Control Systems
- Microcontroller and Interfacing
- Engineering Electromagnetics

YEAR 3 - SEMESTER 6
- Mandarin 1/Spanish 1
- Digital Control Systems
- Analog IC Design and Verification
- Telecommunication System
- Elective 1
- Elective 2
- Final Year Project 1

YEAR 4 - SEMESTER 7
- Mandarin 2/Spanish 2
- Bahasa Kebangsaan A
- Quality Engineering
- Digital Signal Processing
- Applied Statistics
- Elective 3
- Final Year Project 2

YEAR 4 - SEMESTER 8
- Industrial Training

ELECTIVE SUBJECT
- Industrial Safety & Health
- RF/Microwave Circuits & Systems
- RFIC Design for Wireless Communication
- Power Electronics and Drive
- Advanced Digital Design and FPGA
- Artificial Intelligence
**YEAR 3 - SEMESTER 5**
- Professional Engineering Practice & Ethics
- Internal Combustion Engine
- Pneumatic & Hydraulic Systems
- Automotive Electrical & Electronic Systems
- Electric Machine Fundamentals
- Microcontroller and Interfacing
- Control Systems

**YEAR 3 - SEMESTER 6**
- Mandarin 1 / Spanish 1
- Industrial Safety & Health
- Electric Vehicle System
- Electronic Instrumentation
- Power Electronics and Drives
- Machine Vision **(ELECTIVE)**
- Final Year Project 1

**YEAR 4 - SEMESTER 7**
- Bahasa Kebangsaan A**
- Mandarin 2 / Spanish 2
- Industrial Automation
- Quality Engineering
- Artificial Intelligence **(ELECTIVE)**
- Digital Signal Processing **(ELECTIVE)**
- Final Year Project 2

**YEAR 4 - SEMESTER 8**
- Industrial Training

**ELECTIVE SUBJECT**
- Machine Vision
- Digital Signal Processing
- Introduction to Robotics
- Artificial Intelligence
- Digital Control System
- Electric Vehicle Charging Infrastructure
- Diagnosis of Electric and Hybrid Vehicles
- Automation Vehicles

**BACHELOR OF ENGINEERING TECHNOLOGY (HONS.) IN MANUFACTURING (AUTOMOTIVE)**

**JPT/BPP (R3/525/6/0068) 09/29, MQA FA 13398**

**PROGRAM CONTENTS**

**YEAR 1 - SEMESTER 1**
- Fundamental English
- Professional English 1
- Engineering Mathematics 1
- Tasmadun Islam & Tasmadun Asia (TITAS)
- Technopreneurship
- Bahasa Melayu Komunikasi 2

**YEAR 2 - SEMESTER 2**
- Automotive Engineering Fundamentals
- Engineering Mechanics
- Engineering Drawing & CAD
- Electrical & Electronic Laboratories
- Electric Circuit Analysis
- Engineering Mathematics 2
- Innovation Management
- Workshop Technology

**YEAR 3 - SEMESTER 3**
- Fundamentals of Materials Science
- Thermal Science
- Isu-isu Kontemporer Muslim di Malaysia / Culture and Lifestyle in Malaysia
- Production Planning
- Industrial Safety & Health
- Professional English 2
- Strength of Materials
- Hubungan Etnik / Pengajian Malaysia 3

**YEAR 4 - SEMESTER 4**
- Co-curriculum
- Automotive Power Train
- Fluid Mechanics
- Design for Plastics and Elastomer
- Chassis and Vehicle Dynamics
- Engineering Materials
- Computer Programming

**YEAR 4 - SEMESTER 5**
- Automotive Safety
- Internet of Thing (IoT) Technology
- Mandarin 1 / Spanish 1
- CNC Technology
- Operation Research
- Elective 1
- Final Year Project 1

**YEAR 3 - SEMESTER 6**
- Automotive Ergonomics
- Smart Manufacturing
- Quality System and Standard
- Manufacturing Safety

**BACHELOR OF MECHANICAL ENGINEERING WITH HONOURS**

**JPT/BPP (R/52/5/0160) 07/29, MQA FA 8216**

**PROGRAM CONTENTS**

**YEAR 1 - SEMESTER 1**
- Fundamental English
- Professional English 1
- Mathematics for Engineers 1
- Tasmadun Islam & Tasmadun Asia (TITAS)
- Technopreneurship
- Bahasa Melayu Komunikasi 2

**YEAR 3 - SEMESTER 5**
- Electronics Engineering
- Solid Mechanics
- Fluid Mechanics 1
- Manufacturing Processes
- Thermodynamics 2
- Professional English 2

**YEAR 4 - SEMESTER 8**
- Engineers in Society
- Project and Industrial Management
- Engineering Final Year Project 2
- Elective 2
- Elective 3

**YEAR 2 - SEMESTER 2**
- Hubungan Etnik/Malaysian Studies 3
- Electrical Engineering
- Engineering Practice & Professionalism
- Material Engineering
- Mathematics for Engineers 2
- Engineering Drawing & CAD

**YEAR 3 - SEMESTER 6**
- Mandarin 2 / Spanish 2
- Industrial Safety & Health
- Noise and Vibrations
- Computer Aided Engineering Analysis
- Control Systems
- Internet of Thing (IoT) Technology
- Co-curriculum 2

**YEAR 3 - INTER SEMESTER**
- Industrial Training

**YEAR 4 - SEMESTER 7**
- Electives
- Innovation Management
- Statistics for Engineers
- Numerical Methods for Engineers
- Measurement and Instrumentation Systems
- Design 3
- Engineering Final Year Project 1
- Elective 1

**ELECTIVE SUBJECT**
- CNC and CAD/CAM Technology
- Industrial Automation & Robotics
- Quality Engineering
- Internal Combustion Engines
- Automotive Structures
- Ergonomics and Human Factors
- Quality System and Standard
- Automotive Design Engineering
- Smart Manufacturing
- Design for Sheet Metal
- Design for Plastic and Elastomer
BACHELOR OF BUSINESS TECHNOLOGY (HONS.) IN AUTOMOTIVE MANAGEMENT

PROGRAM CONTENTS

YEAR 1 - SEMESTER 1
- Fundamental English
- Professional English 1
- Human Resource Management
- Principles of Marketing
- Principles of Management
- Tasmadun Islam & Tasmadun Asia (TTAS)
- Entrepreneurship
- Mandarin for Business
- Co-curriculum
- Business Mathematics
- Business Law and Policy
- Innovation Management
- Principles of Accounting
- Consumer Behavior
- Isu-isu Konsenperah Muslim di Malaysia / Culture and Lifestyle in Malaysia

YEAR 1 - SEMESTER 2
- Purchasing Management
- Industrial Attachment 1
- Pre Project
- Management Accounting
- Automotive Safety
- Management Information Systems
- Professional Business Practices and Ethics
- Professional English 2
- Hubungan Etnik / Pengajian Malaysia 3

YEAR 2 - SEMESTER 3
- Final Year Project
- Elective 1
- Elective 2
- Elective 3
- Elective 4

YEAR 2 - SEMESTER 4
- Technopreneurship
- Research Methodology
- Business Communication
- Supply Chain Management
- IoT Data Analytics
- Automotive Engineering Fundamentals
- Elective 1

YEAR 3 - SEMESTER 5
- Automotive Shop Management and Supervision
- Automotive Parts and Service Management
- Operation Management
- Automotive Business & Sales Management
- Automotive Marketing Management
- Elective 2
- Automotive Kebangsaan A
- Automotive Sales Concepts and Applications
- Final Year Project
- Elective 1
- Elective 2
- Elective 3
- Elective 4

YEAR 3 - SEMESTER 6
- Automotive Financial Management (Elective 1)
- Automotive Commercial Relationships (Elective 2)
- Automotive Part Inventory Management and Merchandising (Elective 3)
- Project Management (Elective 4)

YEAR 3 - SEMESTER 7
- Industrial Training

ELECTIVE SUBJECT
- Franchise Business Management (Elective 1)
- International Entrepreneurship (Elective 2)
- Economics of Innovation and Entrepreneurship (Elective 3)
- Strategic Management (Elective 4)

DIPLOMA OF ENGINEERING TECHNOLOGY IN MECHANICAL DESIGN AND DEVELOPMENT

PROGRAM CONTENTS

YEAR 1 - SEMESTER 1
- Competency English
- Pengajian Malaysia 2 / Bahasa Melayu Kemunicasi I
- Technical Mathematics 1
- Engineering Science
- Materials Science
- Basic Fitting
- Engineering Drawing & CAD

YEAR 2 - SEMESTER 4
- Mandarin (1/2)
- Co-curriculum
- Communication English 2
- Machine Component Design
- CNC Programming
- Mechanical Design Process
- Pneumatic & Hydraulic Systems

YEAR 1 - SEMESTER 2
- Interpersonal Skills
- Technical Mathematics 2
- Applied Material
- Engineering Mechanics
- Metrology
- Conventional Machining

YEAR 3 - SEMESTER 5
- Mandarin 2/3
- Bahasa Kebangsaan (A)**
- Introduction to Entrepreneurship
- Quality & Continuous Improvement
- Industrial Safety & Health
- Final Year Project

YEAR 2 - SEMESTER 3
- Amalan Islam di Malaysia / Religious Practices in Malaysia
- Communication English 1
- Strength of Materials
- Internet of Things (IoT) Technology
- Ergonomics & Human Factors
- Welding Technology
- Electrotechnics

YEAR 3 - SEMESTER 6
- Industrial Training
DIPLOMA OF ENGINEERING TECHNOLOGY IN ELECTROMECHANICAL INSTALLATION AND MAINTENANCE

PROGRAM CONTENTS

YEAR 1 - SEMESTER 1
- Competency English
- Pengajian Malaysia 2/Bahasa Melayu Komunikasi 1
- Technical Mathematics 1
- Engineering Science
- Electrical Technology
- Engineering Drawing & CAD

YEAR 2 - SEMESTER 4
- Co-curriculum
- Communication English 2
- Mandarin 1/Spanish 1
- Industrial Automation
- Control Systems
- Conventional Machining
- Control Systems

YEAR 3 - SEMESTER 5
- Bahasa Kebangsaan (A)
- Mandarin 2/Spanish 2
- Quality & Continuous Improvement
- Electronics Instrumentation
- Power Electronics & Drive
- Final Year Project

YEAR 2 - SEMESTER 3
- Communication English 1
- Pneumatic & Hydraulic Systems
- Sensor Technology
- Internet of Things (IoT) Technology
- Industrial Mechanics and Maintenance
- Welding Technology

YEAR 3 - SEMESTER 6
- Industrial Training

DIPLOMA OF ELECTRONIC ENGINEERING TECHNOLOGY (INDUSTRIAL AUTOMATION AND CONTROL)

PROGRAM CONTENTS

YEAR 1 - SEMESTER 1
- Competency English
- Pengajian Malaysia 2/Bahasa Melayu Komunikasi 1
- Technical Mathematics 1
- Engineering Science
- Electrical Technology
- Engineering Drawing & CAD

YEAR 2 - SEMESTER 4
- Co-curriculum
- Communication English 2
- Mandarin 1/Spanish 1
- Industrial Automation
- Control Systems
- Microcontroller
- Electrical Machines

YEAR 3 - SEMESTER 5
- Bahasa Kebangsaan (A)
- Mandarin 2/Spanish 2
- Quality & Continuous Improvement
- Electronics Instrumentation
- Power Electronics & Drive
- Final Year Project

YEAR 2 - SEMESTER 3
- Communication English 1
- Digital Electronics
- Pneumatic & Hydraulic Systems
- Sensor Technology
- Electronics Circuit Design
- Internet of Things (IoT) Technology

YEAR 3 - SEMESTER 6
- Industrial Training

DIPLOMA OF ENGINEERING TECHNOLOGY IN PRODUCTION

PROGRAM CONTENTS

YEAR 1 - SEMESTER 1
- Competency English
- Pengajian Malaysia 2/Bahasa Melayu Komunikasi 1
- Technical Mathematics 1
- Engineering Science
- Dimensional Metrology
- Basic Fitting
- Engineering Drawing & CAD

YEAR 2 - SEMESTER 4
- Co-curriculum
- Communication English 2
- Mandarin 1/Spanish 1
- Operation Management
- Production System Design
- Engineering Statistics
- Applied Materials
- CNC Milling
- Pneumatic & Hydraulic Systems

YEAR 3 - SEMESTER 5
- Bahasa Kebangsaan (A)
- Mandarin 2/Spanish 2
- Quality & Continuous Improvement
- Inventory Management & Scheduling
- Industrial Safety & Health
- Final Year Project

YEAR 2 - SEMESTER 3
- Amalan Islam di Malaysia
- Religious Practices in Malaysia
- Communication English 1
- Applied Metrology
- Internet of Things (IoT) Technology
- CNC Lathe
- Electro Discharge Machine

YEAR 3 - SEMESTER 6
- Industrial Training