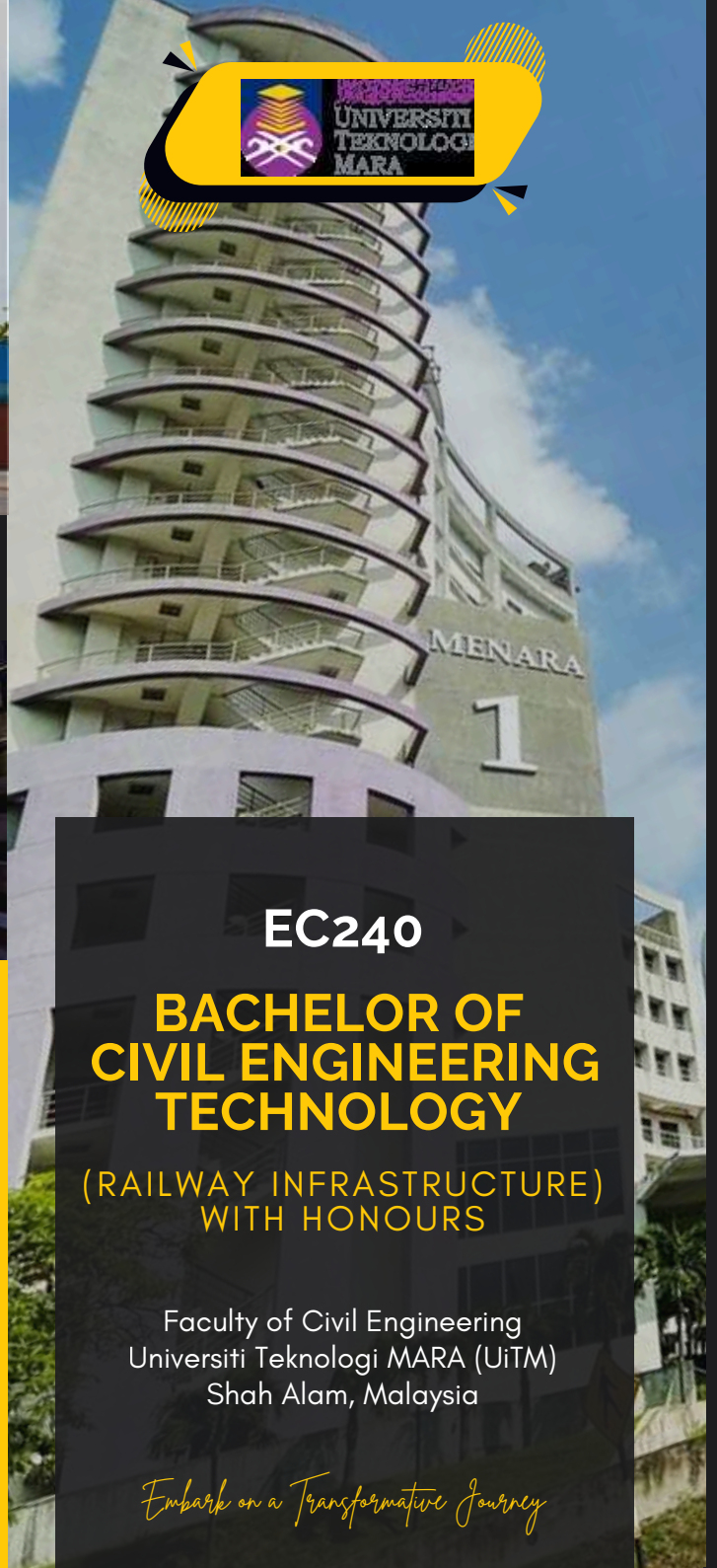
ENTRY REQUIREMENT

A pass in Diploma in Engineering from Universiti Teknologi MARA (UfTM) with a minimum CGPA of 2.00.
OR
A pass in Diploma in Engineering or Engineering Technology from any higher institution recognised by the Malaysian Government with a minimum CGPA of 2.00.
OR
Possess a Diploma Vokasional Malaysia (DVM) in engineering field with minimum CGPA 2.00 recognised by Malaysian Government and approved by University Senate.
OR
Possess a Diploma Kemahiran Malaysia (DKM) / Diploma Lanjutan Kemahiran Malaysia (DLKM) in engineering field with minimum CGPA of 2.00 recognised by Malaysian Government and approved by University Senate.
OR
A pass in Matriculation programmes from Ministry of Education, Malaysia and Foundation programmes from UiTM / UM / UKM with a minimum grade C (CGPA 2.00) in Mathematics, Physics / Engineering Physics and Biology / Chemistry / Engineering Chemistry.
OR
A pass in STPM with grade C (CGPA 2.00) in Mathematics and any Science subjects.
OR
A pass in Accreditation of Prior Experiential Learning (APEL) Level 6 MQF, age more than 21 years old in the year of application, a minimum of four (4) years working experience and pass an interview by the faculty.
AND
Fulfill general requirements of the University, have no physical / vision / hearing / speech disabilities that make practical work difficult and MUET with a minimum of Band 1.

CAREER PROSPECT

- Railway Engineering Technologist (Track, Rolling Stock, Signaling & Communication, Electrification)
- 2. Railway Maintenance Engineer
- 3. Rail Engineering Assurance
- 4. Project Management
- 5. Railway Consultant
- 6. Research officer (R&D)
- Management positions in industry
- Entrepreneurhip



UNIVERSITI TEKNOLOGI MARA

EC240

BACHELOR OF CIVIL ENGINEERING TECHNOLOGY

(RAILWAY INFRASTRUCTURE) WITH HONOURS

Faculty of Civil Engineering
Universiti Teknologi MARA (UiTM)
Shah Alam, Malaysia

Embark on a Transformative Journey

PROGRAM OVERVIEW

The Bachelor of Civil Engineering Technology (Railway Infrastructure) with Honours (EC240) is an OBE-based programme that equips students with practical skills and knowledge aligned with national goals, IR 4.0, and UiTM's vision.

The curriculum blends TVET, engineering fundamentals, and advanced railway technologies, supported by strong industry ties—especially with KTMB, students gain real-world experience through fieldwork, site visits, projects, and industry-standard tools.

The A key feature is the Work-Based Learning (WBL) component, providing direct industry exposure to enhance hands-on skills. Graduates are prepared for careers in the railway sector through a balanced mix of theory and practice.

Contact us:

Faculty of Civil Engineering (FCE)
Universiti Teknologi MARA,
40450 Shah Alam,
Selangor Darul Ehsan

pkashahalam@uitm.edu.my

03-5543 5248

CORE & GENERAL COURSES

YEAR 1

Semester 1
- Philosophy and Current issues
- English for Oral Reporting
- Co-Curriculum I
- Foundation Mathemathics
- Engineering Drawing
- Public Transportation System
- Introduction to Railway Infrastructure
- Engineering Survey
- Engineering Materials

Semester 2
- English for Professional Correspondence
- Values and Civilization II
- Co-Curriculum II
- Foundation of Applied Mathematics
- Introductory Mandarin (Level I)
- Engineering Geology
- Statics
- Railway Geometric Design and Construction

YEAR 2

Semester 3
- Co-Curriculum III
- Applied Mathematics
- Introductory Mandarin (Level II)
- Dynamics
- Soil Mechanics
- Railway Signaling and Communication
- Railway Track Design
- Engineering Laboratory I (Civil)

Semester 4
- Introductory Mandarin (Level III)
- Mechanical and Electrical Engineering Practice
- Rolling Stock Technology
- Ground Exploration
- Station Building Infrastructure and Operation
- Project Quality Management
- Elective 1

YEAR 3

Semester 5
- Engineering Laboratory II (M&E)
- Geotechniques
- Electrical Power Systems for Railway
- Geographical Information System (GIS) for Engineering Technologist
- Railway Policy and Legislation
- Elective 2
- Elective 3

Semester 6
- Railway Engineering Technology Practices
- Railway Maintenance and Operation
- Safety and Health for Engineering Technologist
- Railway Project Impact Assessment
- Final Year Project I

YEAR 4

Semester 7
- Exit English Test
- Technology Entrepreneurship
- Railway Project Management
- Railway Bridge and Tunnel Engineering
- Transport and Society
- Final Year Project II

Semester 8
- Industrial Training

Elective Courses
- Vibration and Noise in Railway
- Electromagnetic Technology
- Fundamental Rail Safety and Accident Investigation
- Environmental Engineering and Sustainability
- Intelligent Transportation System
- Railway Infrastructure Geotechnology