Career Prospect

Technologist ⌄

- Railway Engineering Technologist
- Railway Infrastructure Technologist
- Railway Maintenance and Inspection Technologist
- Railway Design Technologist
- Railway Safety Technologist
- Railway Systems Technologist
- Railway Quality Control and Quality Assurance
- Railway Policy Analyst
- Railway Instructor or Trainer
- Railway Consultant
- Materials Testing Technologist

Project Management

Research Development

Become a driving force in revolutionising railway infrastructure. Join us to acquire the knowledge, skills, and mindset needed to create efficient, sustainable, and safe transportation systems for the world.

Enquiries should be addressed to:

Head
School of Civil Engineering
College of Engineering
Universiti Teknologi MARA
40450 Shah Alam, Selangor
Tel: (+603) 5543 5248
Email: pkashahalam@uitm.edu.my

Academic Affairs Division
College of Engineering
Universiti Teknologi MARA
40450 Shah Alam, Selangor
Tel: (+603) 5543 6165 / 5268

Entry Requirements

A pass in Diploma in Engineering from Universiti Teknologi MARA (UiTM) 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.
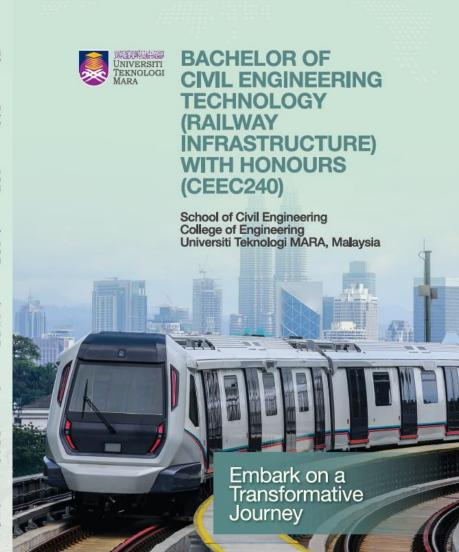
OR

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.

UNIVERSITI TEKNOLOGI MARA

BACHELOR OF CIVIL ENGINEERING TECHNOLOGY (RAILWAY INFRASTRUCTURE) WITH HONOURS (CEEC240)

School of Civil Engineering
College of Engineering
Universiti Teknologi MARA, Malaysia

Embark on a Transformative Journey

Programme Overview

The Bachelor of Civil Engineering Technology (Railway Infrastructure) with Honours (CEEC240) programme is designed based on the Outcome-Based Education (OBE) requirements to develop practical skills and a multi-range of intellectual competencies aligned with national aspiration and Industrial Revolution 4.0 (IR 4.0), which is consistent with the vision, mission, and philosophy of UiTM. The established Programme Educational Objectives (PEO) and the Programme Outcomes (PO) are aimed at producing a holistic Rail Engineering technologist. This program boasts a strong industry collaboration with Keretapi Tanah Melayu Berhad (KTMB). The programme also emphasizes a curriculum that combines engineering fundamentals with cutting-edge technology in the field of railway infrastructure engineering integrating TVET. This programme focuses on specialised training in railway infrastructure engineering, ensuring that graduates are well-prepared for thriving careers in the rail industry. Students have access to the latest software, equipment, and resources used in railway engineering, equipping them for the technological demands of the industry. Hands-on experience is emphasized throughout the programme, with opportunities for fieldwork, site visits, and real-world projects to keep abreast of the latest developments in the industry. A unique feature of this program is the integration of Work-Based Learning (WBL), enabling students to gain invaluable practical skills and experience within real industries. This program is committed to providing a holistic educational experience, blending theory and practice to prepare our students for a successful career in the dynamic field of railway engineering.

Programme Duration

Full Time / 8 Semesters

Core and General Courses

Semester 1
- Statics
- Engineering Drawing
- Introduction to Railway Engineering
- Philosophy and Current Issues
- Foundation Mathematics
- English for Oral Reporting
- Third Language I (Mandarin)
- Co-Curriculum I

Semester 2
- Engineering Geology
- Engineering Survey
- Engineering Materials
- Public Transportation System
- English for Professional Correspondence
- Applied Mathematic
- Values and Civilisation II
- Third Language II (Mandarin)
- Co-Curriculum II

Semester 3
- Dynamics
- Soil Mechanics
- Superstructure and Substructure Interaction in Railway
- Railway Project Impact Assessment
- Railway Geometric Design and Construction
- Advanced Differential Equation
- Third Language III (Mandarin)
- Co-Curriculum III

Semester 4
- Rolling Stock Technology
- Mechanical and Electrical Engineering Practice
- Engineering Laboratory I (Civil)
- Ground Exploration
- Railway Track Design
- Transport and Society
- Elective 1

Semester 5
- Construction Law
- Geographical Information System (GIS) for Technologist
- Safety and Health for Technologist
- Engineering Laboratory II (M&E)
- Railway Policy and Legislation
- Elective 2
- Elective 3

Semester 6 (Work-Based Learning)
- Railway Engineering Technology Practices
- Electrical Power System for Railway
- Railway Maintenance and Operation
- Signalling and Communication in Rail Traffic
- Final Year Project I

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

Semester 8
- Industrial Training

Elective Courses

- Vibration and Noise in Railway
- Electromagnetic Technology
- Railway Technology and Applications
- Environmental Engineering and Sustainability
- Intelligent Transportation System
- Railway Infrastructure Geotechnology