PROGRAMMES OFFERED

**DOCTOR OF PHILOSOPHY AND MASTERS:**

<table>
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<tr>
<th>Programme</th>
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<tbody>
<tr>
<td>Doctor of Philosophy Civil Engineering</td>
<td>♦</td>
</tr>
<tr>
<td>Masters of Civil Engineering (Research)</td>
<td>■</td>
</tr>
<tr>
<td>Masters of Civil Engineering (Coursework)</td>
<td>♦</td>
</tr>
<tr>
<td>Doctor of Philosophy Electrical Engineering</td>
<td>♦</td>
</tr>
<tr>
<td>Masters of Electrical Engineering (Research)</td>
<td>■</td>
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<tr>
<td>Masters of Electrical Engineering (Coursework)</td>
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<tr>
<td>Doctor of Philosophy Mechanical Engineering</td>
<td>♦</td>
</tr>
<tr>
<td>Masters of Mechanical Engineering (Research)</td>
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</tr>
<tr>
<td>Masters of Mechanical Engineering (Coursework)</td>
<td>♦</td>
</tr>
<tr>
<td>Masters of Science in Manufacturing Engineering (Mix Mode)</td>
<td>♥</td>
</tr>
<tr>
<td>Masters of Science in Material Engineering (Mix Mode)</td>
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<tr>
<td>Doctor of Philosophy Technical and Vocational Education</td>
<td>♦</td>
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<tr>
<td>Doctor of Philosophy Education (ubah kedudukan)</td>
<td>♦</td>
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<tr>
<td>Masters of Technical and Vocational Education (Research)</td>
<td>■</td>
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<tr>
<td>Masters of Technical and Vocational Education (Coursework)</td>
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<tr>
<td>Doctor of Philosophy Science in Technology Management</td>
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<tr>
<td>Masters of Science in Technology Management</td>
<td>■</td>
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<tr>
<td>Doctor of Philosophy Science in Real Estate and Facilities Management</td>
<td>♦</td>
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<tr>
<td>Masters of Science in Real Estate and Facilities Management</td>
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<tr>
<td>Master of Business Administration</td>
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<tr>
<td>Doctor of Philosophy Information Technology</td>
<td>♦</td>
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<tr>
<td>Masters of Information Technology</td>
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<tr>
<td>Doctor of Philosophy Science</td>
<td>♦</td>
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<tr>
<td>Masters of Science</td>
<td>■</td>
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<tr>
<td>Doctor of Philosophy Engineering Technology</td>
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<tr>
<td>Masters of Engineering Technology</td>
<td>■</td>
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<tr>
<td>Masters of Technical Education (Civil Engineering) (Coursework)</td>
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</tr>
<tr>
<td>Masters of Technical Education (Electrical Engineering) (Coursework)</td>
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<tr>
<td>Masters of Technical Education (Mechanical Engineering) (Coursework)</td>
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</tr>
<tr>
<td>Masters of Technical Education (Instructional Design and Technology) (Coursework)</td>
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</tr>
<tr>
<td>Masters of Science in Construction Technology Management (Coursework)</td>
<td>♦</td>
</tr>
<tr>
<td>Masters of Science (Applied Mathematics) (Coursework)</td>
<td>♦</td>
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<tr>
<td>Masters of Science (Industrial Statistics) (Coursework)</td>
<td>♦</td>
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<tr>
<td>Masters of Computer Science (Soft Computing) (Mix Mode)</td>
<td>♥</td>
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<tr>
<td>Masters of Computer Science (Software Engineering) (Mix Mode)</td>
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<tr>
<td>Masters of Computer Science (Web Technology) (Mix Mode)</td>
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<tr>
<td>Masters of Computer Science (Information Security) (Mix Mode)</td>
<td>♥</td>
</tr>
<tr>
<td>Masters of Science in Railway Engineering (Mix Mode)</td>
<td>♥</td>
</tr>
</tbody>
</table>

- ♦ PhD
- ■ Master by Research
- ♦ Master by Coursework
- ♥ Master by Mixed-mode
ATTENTION:

1. CLOSING DATE FOR APPLICATION ON-LINE ON 2th NOVEMBER 2014 (SUNDAY)

2. CLOSING DATE FOR APPLICATION FORM SUBMISSION (HARD COPY) ON 9th NOVEMBER 2014 (SUNDAY)

3. LOCAL STUDENT ADMISSION THROUGH APPLICATION ON-LINE & HARD COPY

4. INTERNATIONAL STUDENT ADMISSION THROUGH APPLICATION FORM SUBMISSION (HARD COPY) ONLY

5. INCOMPLETE APPLICATION WILL NOT BE CONSIDERED

6. ENGLISH LANGUAGE REQUIREMENTS FOR INTERNATIONAL STUDENTS:

   TOEFL 500 or;
   IELTS 5.0 or,
   MUET Band 3

   Must be achieved before graduation

Exemption granted to a candidate or international students who:
(a) graduate in Malaysia
(b) originate from countries that use English as a first language but must be certified by experts in FSTPI, UTHM
(c) taken courses English which is equivalent with minimum requirement of MUET, TOEFL or IELTS.

ADMISSION REQUIREMENTS

Doctor of Philosophy
- Master’s Degree from Universiti Tun Hussein Onn Malaysia or any other Institutions of Higher Learning recognised by the Senate;
- Other qualifications equivalent to Master’s Degree with related experience deemed acceptable by the Senate;
- Bachelor’s Degree with first class honours from Universiti Tun Hussein Onn Malaysia or any other Institutions of Higher Learning recognised by the Senate;

Other Qualifications Will Be Considered:
Master’s Degree in other field but Bachelor’s Degree in related field

Master’s Degree
- Bachelor’s Degree with honours from Universiti Tun Hussein Onn Malaysia or any other Institutions of Higher Learning recognised by the Senate;
- Other qualifications equivalent to Bachelor’s Degree with related experience deemed acceptable by the Senate;

* Minimum CPA for
  - Coursework CPA ≥ 2.50
  - Research CPA ≥ 2.75
  - Mixed-mode CPA ≥ 2.75

Other Qualifications Will Be Considered:
- Working experiences in related field for those do not meet the minimum CPA
- Higher Diploma equivalent to Bachelor’s Degree

SPECIFIC REQUIREMENTS FOR TECHNICAL AND VOCATIONAL EDUCATION PROGRAMMES

<table>
<thead>
<tr>
<th>No.</th>
<th>Programmes</th>
<th>Admission Requirements</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>PhD in Technical and Vocational Education</td>
<td>Master’s Degree from the University Tun Hussein Onn Malaysia or any institution of higher learning recognized by the Senate UTHM; and Education certificate or Working experience at least one year in education.</td>
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### SPECIFIC REQUIREMENTS FOR TECHNICAL AND VOCATIONAL EDUCATION PROGRAMMES

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<td>PhD in Education</td>
<td>Master's Degree from the University Tun Hussein Onn Malaysia or any institution of higher learning recognized by the Senate UTHM; Education certificate or Working experience at least one year in education.</td>
</tr>
<tr>
<td>3</td>
<td>Master of Technical and Vocational Education (Coursework)</td>
<td>Bachelor's degree with honours in engineering / technical / technology / science / business / management from Universiti Tun Hussein Onn Malaysia or from any recognized institution of higher education or other equivalent qualification in a related field recognized by the Senate UTHM with at least CPA 2.75. or Experience in related field for candidates who receive CPA less than 2.75 and Attend and Passed faculty interviews</td>
</tr>
<tr>
<td>4</td>
<td>Master of Technical and Vocational Education (Research)</td>
<td>Bachelor's degree with honours from Universiti Tun Hussein Onn Malaysia or from any recognized institution of higher education or other equivalent qualification in a related field recognized by the Senate UTHM with at least a CPA 2.75; Education certificate or Working experience of at least 3 years in education</td>
</tr>
<tr>
<td>5</td>
<td>Master of Technical Education (Civil Engineering)</td>
<td>Bachelor's degree in the following areas: • Engineering; • Technology; • Architecture; • Living Skills; • Commerce; • Accounting; • Tourism; • Hospitality; Bachelors Degree in Civil Engineering / Electrical Engineering / Mechanical Engineering with honours from Universiti Tun Hussein Onn Malaysia or from any recognized institution of higher education or other qualifications that are equivalent to a Bachelor of Civil Engineering Electrical Engineering / Mechanical Engineering in the relevant field recognized by the Senate UTHM with at least CPA 2.50; and Education certificate or Working experience of at least 3 years in education</td>
</tr>
<tr>
<td>6</td>
<td>Master of Technical Education (Instructional Design and Technology)</td>
<td>Bachelor's degree in the following areas: • Engineering; • Technology; • Architecture; • Living Skills; • Commerce; • Accounting; • Tourism; • Hospitality; Universiti Tun Hussein Onn Malaysia or from any recognized institution of higher education or other qualifications that are equivalent to a Bachelor's degree in a related field recognized by the Senate UTHM with at least CPA 2.50; and Education certificate or Working experience of at least 3 years in education</td>
</tr>
</tbody>
</table>
### HOW TO GET APPLICATION FORMS


3. Counter purchase at: Centre for Graduate Studies, UTHM (A fee of RM15.00 (Application form RM5.00 & processing fee RM10.00)

4. Purchase by mail

   Please enclose:
   - A fee of RM15.00 (Application form RM5.00 and processing fee RM10.00) at Bank Muamalat Malaysia Berhad - 0107-0000002-719 (UTHM Student Collection Account)
   - A stamped (RM2.00) self-addressed envelope (28cm x 34cm) and mail to:

   Dean
   Centre for Graduate Studies
   Universiti Tun Hussein Onn Malaysia
   86400 Parit Raja, Batu Pahat
   Johor Darul Takzim
   MALAYSIA

Any enquiries and further details, please contact:
Tel: +(6) 07-4537757/7903/7905
Fax: +(6) 07-4536111
Email: psonline@uthm.edu.my
Website: [http://ps.uthm.edu.my](http://ps.uthm.edu.my)

### LIST SPECIALIZATION BY FIELD OF STUDY

#### CIVIL AND ENVIRONMENTAL ENGINEERING

**Areas of Research:**
- Geotechnical Engineering • Construction Engineering • Structural Engineering • Materials Engineering • Environmental Engineering • Water Resources Engineering • Highway Engineering • Transportation Engineering • Traffic Engineering • Building Engineering • Construction Management

**Electives for Coursework Programmes:**
- Geotechnical Engineering • Structural Engineering • Highway and Transportation Engineering • Environmental Engineering • Water Resources Engineering

#### ELECTRICAL AND ELECTRONICS ENGINEERING

**Areas of Research:**

- **COMMUNICATION ENGINEERING**
  - Mobile Ad Hoc and Sensor Networks • Wireless and Optical Communications • Computational Electromagnetic Compatibility • Ionosphere and Aerospace Sciences • Radio Science and Satellite Communications • Antenna and Wave Propagation • Microwave and RF Engineering • Digital Signal Processing

- **ELECTRONIC ENGINEERING**
  - Medical Electronics • Microelectronics • Nanotechnology • Biomedical Engineering • Biomedical Imaging • Plasma Processing Technology • Biosensors • Cell Engineering • Telemedicine • Thin Film • Solar Cell • Biomedical Modeling & Simulation

- **MECHATRONIC AND ROBOTIC ENGINEERING**
  - Industrial Automation • Mechatronic and Robotic Systems • Medical Robotic and Teleoperation • Autonomous System • Advanced Computer Vision • Advanced Machine Learning/Neural Networks & Statistical Models • Rehabilitation Engineering

- **ELECTRIC POWER ENGINEERING**
  - Renewable Energy • Power Quality • Electric Drives • Power Electronics • Industrial Power Systems • Power System Protection • High Voltage Engineering

- **COMPUTER ENGINEERING**
  - High-Performance Computing • Embedded System Computing • Image and Vision Systems • Intelligent Systems • Virtual
### MECHANICAL AND MANUFACTURING ENGINEERING

**Areas of Research:**

**MECHANICS / DESIGN:**
- Noise and Vibration
- Fatigue and Fracture Mechanics
- Finite Element Methods
- Computational Fracture Mechanics
- Impact and Crashworthiness Mechanics
- Finite Element Methods
- Strength of Solids and Structures
- Control Engineering
- Intelligent Control System Design
- Structural Health Monitoring

**MANUFACTURING:**
- Advanced Machining Processes
- Laser Processing
- Micro Manufacturing
- CAD/CAM
- Rapid Prototyping
- Rapid Tooling
- Metal Casting
- Metal Fabrication
- Plastic Injection Molding
- Sustainable Manufacturing System
- Recycling Technology
- Quality Engineering
- Ergonomic
- Industrial Engineering
- Industrial Automation
- Quality and Productivity Improvement
- Production and Operations Management
- Manufacturing Intelligent System
- Modelling and Simulation
- Human Factor Engineering
- Industrial Automation
- Industrial Robotics
- Intelligent Design and Manufacturing
- Product Design and Development
- Rapid Prototyping and Additive Manufacturing
- Quality Management System
- Machining and Machine Tools
- Advanced Metal Casting Process

**MATERIALS:**
- Composites / Natural Fiber Composite
- Biomaterials
- Polymers
- Powder Metallurgy and Sintering
- Membrane
- Porous Materials
- Computer Aided Engineering
- Engineering Design Methodologies
- Ceramics / Electro-ceramics
- Electroplating
- Thin Film and Coating
- Lightweight Metal and Alloy
- Product Lifecycle Management
- Railway Engineering
- Engineering Education
- Nano Materials
- Natural Fiber Based Composite
- Foam
- Advanced Materials
- Materials Characterisation
- Corrosion

**THERMOFLUIDS:**
- Thermodynamics
- Heat Transfer
- Computational Fluid Dynamics
- Indoor Air Quality and Thermal Comfort
- Combustion and Pollution Control
- Green Technology
- Burner System
- Vehicles Performance and Emissions
- Alternative and Renewable Fuel
- Spray and Atomisation
- Wind Turbine
- CNG-Biodiesel Dual Fuel
- Fuel Injection Retrofit Kit

**AERONAUTICS:**
- Aircraft Propulsion
- Aircraft Turbomachinery
- Aircraft Material and Structure
- Aircraft Design
- Aerodynamics
- Aircraft Control & Dynamics
- Unmanned Aerial Vehicle
- Aviation Management

**Electives for Coursework Programmes:**
- Manufacturing
- Thermofluids
- Materials
- Mechanics

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### TECHNICAL AND VOCATIONAL EDUCATION

**Areas of Research:**

- Teaching and Learning
- Curriculum
- Women
- Life Long Learning
- Dual System
- Instructional Design and Technology
- Entrepreneurship
- Professional Development
- Development of Technology and Pedagogical Practices
- Assessment
- Online Learning
- Policy Study
- Management
- Human Resource Development
- Leadership
- Moral Values
- Quality Assurances
- Economy

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### COMPUTER SCIENCE AND INFORMATION TECHNOLOGY

**Areas of Research:**

**SOFT COMPUTING**
- Data Mining
- Neural Network
- Swarm Intelligence
- Decision Tree
- Data Clustering
- Data Classification
- Rough Set
- Soft Set
- Pattern Recognition
- Image Processing

**SOFTWARE ENGINEERING**
- Software Requirement and Specification
- Software Design
- Software Management
- Software Testing
- Formal Method

**GRID AND CLOUD**
- Data Management
- Data Replication
- Security in Cloud
### Areas of Research:

**TECHNOLOGY MANAGEMENT**
- Technology Management
- Production and Operation Management
- Manufacturing Process
- Total Quality Management
- Industrial Forecasting
- Supply Chain Management
- ICT in Manufacturing and Management
- Technology Assessment
- Knowledge Management
- Performance Evaluation
- Construction Quality
- Concrete Technology in Construction
- ICT in Construction
- Project Management
- Environmental Management
- Social Impact Assessment
- Sustainable Development in Construction
- Benchmarking of Real Estate and Facilities Management
- Asset Management
- Housing
- Real Estate Agency and Marketing
- Real Estate Finance and Investment
- Supply Chain Management
- Total Quality Management
- Real Estate Va

### Electives for Coursework Programmes:

**CONSTRUCTION TECHNOLOGY MANAGEMENT**
- Construction Management
- Construction Project Management
- Civil Engineering
- Quantity Surveying
- Building Technology
- Building Surveying
- Architecture
- Landscape
- Real Estate Management
- Town Planning
- Land Development
- And others related with Construction and Development area

### Areas of Research:

**SCIENCES, TECHNOLOGY AND HUMAN DEVELOPMENT**

**MATHMATICS**
- Engineering Mathematics
- Mathematical Computing
- Bio Mathematics
- Computational Fluid Dynamics
- Fluid Dynamics
- Mathematical Modelling
- Numerical Analysis and Simulation
- Fuzzy Math
- Mathematical Physics
- Topology

**STATISTICS**
- Stochastic Modelling
- Medical Statistics
- Statistical Modeling
- Statistical Analysis and Data Mining
- Biostatistics
- Statistical Simulation
- Optimization and Operations Research
- Quality and Process Control
- Nonparametric Methods
- Robust Statistics
- Forecasting and Time Series Analysis
- Experimental Design

**PHYSICS**
- Materials Science
- Surface Science
- Nano-Scale Engineering and Science
- Health Physics
- Energy Physics
- Bio-Physics
- Computational Physics
- Nuclear Physics
- Environmental Physics
- Opto Electronics
- Physics Instrumentation

**CHEMISTRY**
- Organic Chemistry
- Inorganic Chemistry
- Materials Chemistry
- Advanced Materials
- Biopolymers
- Polymer Technology
- Catalysis and Surface Chemistry
- Membrane Separation Technology
- Green Technology / Environment

**BIOLOGY**
- Botanical
- Zoology
- Plant Physiology
- Animal Physiology
- Biodiversity
- Conservation Biology
- Genetics
- Biochemistry
- Ecology
- Biotechnology

**APPLIED SCIENCE AND TECHNOLOGY**
- Heritage Conservation Technology
- Islamic Science and Technology
- Missionary and Multimedia Technology
- Technology in Social Development
- E-Management and Governance
- English for Communication and Information Technology
- Technical Communication
- English for Academic & Research
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<td>ENGINEERING TECHNOLOGY</td>
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<td>Ethics and Integrity in Social Development, Social Transformation and Leadership, Social Development, Thoughts and Philosophy, Human Development and Civilization, Islamic Science Thought and Philosophy, English and Communication, Communication in Workplace</td>
<td>Civil Engineering Technology, Electrical Engineering Technology, Chemical Engineering Technology, Mechanical Engineering Technology, Occupational Safety and Health</td>
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<tr>
<td>RAILWAY ENGINEERING</td>
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