#### **MASTER /Ph.D BY RESEARCH**

This programme is designed to introduce candidates to the processes by which new knowledge is developed or/and applied accordingly. The academic progress of a candidate is accessed through a research progress report submitted each semester. The degree is awarded based on an oral examination (viva-voice) of the thesis submitted by the candidate on completion of the study.

#### **Research Area**

- · Software Engineering & Database Management
- Software & Mobile Application Solution
- · Cybersecurity and Digital Forensic
- · Cyber Physical System & Advanced Networking

#### · Big Data Analγtics & Operation Research

- · Artificial Intelligence & Soft Computing
- · Immersive Technology, Game Technology & Multimedia

# Master of Science in Information and Communication Technology.

(MQA/FA5649)

#### **Admission Requirements**

- i. A Bachelor degree in Computer Science or relevant ICT fields with minimum CGPA of 3.0 from higher institutions recognized by the Senate OR
- ii. A Bachelor degree with relevant work experience in ICT field and recognized by the Senate.

#### **English Requirement (for foreign student)**

- Minimum TOEFL score: 520; OR
- Minimum IELTS score: 5.0: OR
- Minimum MUET score: 3.0

#### Duration

Full time – Minimum: 2 years, Maximum: 5 years Part time – Minimum: 3 years, Maximum: 5 years

#### **Fees**

Citizen: RM 5986.00 Non-Citizen: RM 10,432.00 \*Fees for the minimum period of study

# **Doctor of Philosophy (Ph.D)** (MQA/FA5648)

## **Admission Requirements**

- i. A Master degree from higher institutions recognized by the Senate  $\mbox{\rm OR}$
- ii. Other equivalent Master degree with relevant work experience recognized by the Senate.

#### **English Requirement (for foreign student)**

- · Minimum TOEFL score: 550; OR
- · Minimum IELTS score: 5.0; OR
- · Minimum MUET score: 3.0

#### Duration

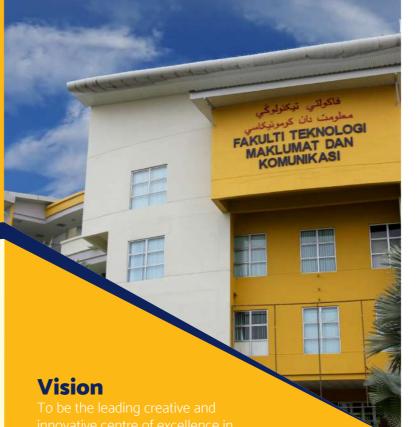
Full time – Minimum: 3 years, Maximum: 8 years Part time – Minimum: 4 years, Maximum: 8 years

#### Fees

Citizen: RM 16,264.00 Non-Citizen: RM 29,728.00 \*Fees for the minimum period of study

## Mission

To produce highly competent professionals in the field of Information and Communication Technology through a world-class quality technical education based on applicationoriented teaching, learning and rsearch with smart university-industry partnership in line with the country's aspiration.



# Faculty of Information & Communication Technology

# POSTGRADUATE PROGRAMMES

Security Science

Internetworking Technology

Software Engineering

Database Technologγ •

Data Science and Analytics

Mobile Development

Multimedia Computing

## **DOCTORAL DEGREE BY MIXED MODE**

# **Doctor of Information Technology** (MQA/PA2100)

Our professional doctoral degree is tailored to meet the industry demand to solve real problems. Candidates undertaking a Professional Doctorate will make significant and original contributions to professional practice.

#### **Admission Requirements**

- i. A master degree (or equivalent) recognized by the Malaysia Government AND
- ii. Obtain at least one computing-related degree AND
- iii. Working in an industry with at least two γears' experience

#### **English Requirement (for foreign student)**

- Minimum TOEFL score 550 OR
- · IELTS 5.0

## A Professional Doctorate candidate is expected to:

- · Complete a coursework component through blended learning.
- · Conduct industrial-driven research to solve real problems.
- Communicate convincingly with clarity and relevance to appropriate audiences

#### Duration

Full time – Minimum: 3.5 years, Maximum: 8 years

#### Fees

Citizen: RM 16,245.00 Non-Citizen: RM 29,520.00 \*Fees for the minimum period of study

Faculty of Information & Communication Technology Universiti Teknikal Malaysia Melaka Hang Tuah Jaya, 76100 Durian Tunggal Melaka, Malaysia

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Fax: +606 2701048
https://www.facebook.com/utemftmk

Acredited by





## **MASTER BY COURSE WORK**

This programme is designed to advance the knowledge and skills in order to develop new professional skills among graduates in the particular area of study.

#### **Admission Requirements**

Master of Computer Science/Master of Technology/Master of Software Engineering/ Master of Information System

- i. A Bachelor's Degree of Computing or its equivalent with minimum CGPA of 2.75 from higher institutions recognized by the Senate; OR
- ii. A Bachelor's Degree of Computing or its equivalent, with a minimum CGPA of 2.50 and not meeting CGPA of 2.75, may be accepted subject to rigorous internal assessment process; OR
- iii. A Bachelor's Degree of Computing or its equivalent, with CGPA less than 2.50, with a minimum of five (5) years working experience in a relevant field may be accepted and subject to rigorous internal assessment process.
- iv. A Bachelor's Degree not related to the field of Computing must undergo appropriate prerequisite courses determined by the University and meet the minimum CGPA based on (i), (ii) to (iii).

#### **English Requirement (for foreign student):**

- Minimum TOEFL score: Master (520); OR
- Minimum IELTS score: Master (5.0): OR
- Minimum MUET score: Master (3.0)

## **Master of Software Engineering** (Mobile Development)

(MQA/FA9614)

This programme is specifically designed to equip students with the use of the latest technology to develop artifacts and mobile computing systems.

#### **Coursework List**

- Research Methodology
- Entreprenuership
- Native Mobile Development I •
- The Development of Internetworking Object
- User Experience & User-Interface Design
- Mobile Analytics
- Mobile Testing
- Mobile Back-end
- Project 1
- Project 2

**Duration** 

#### **Electives [Choose 2]:**

- Agile Project Management
- Mobile Application
- Architecture

Privacy

- Development II Mobile Security &
- · Project 2

Full time - Minimum: 1 year, Maximum: 3 years Part time – Minimum: 2 years, Maximum: 4 years

#### **Fees**

\*Fees for the minimum period of study

## **Master of Computer Science** (Multimedia Computing)

(MQA/FA1760)

This program is specifically designed to equip students with the use of the latest technologies to design and develop high-level multimedia based applications that meet industry needs.

#### **Coursework List**

- University courses \*\*
- Research Methodology
- Advanced Data Communications & Network
- Algorithm Analysis & Design
- Computer Architecture & Compiler
- Computational Method
- Advanced Human-Computer Interaction
- Project 1
- Project 2

#### Electives [Choose 4]:

- · 3D Modelling
- Advanced 3D Animation
- Advanced Audio & Video Technology
- Mobile Application Development
- Advanced Web Programming
- Multimedia Professional
- Multimedia Based Instructional Design

#### Duration

Full time - Minimum: 1 year, Maximum: 3 years Part time – Minimum: 2 years, Maximum: 4 years

#### Fees

Citizen: RM 7090.00 Non-Citizen: RM 11,815.00 \*Fees for the minimum period of study

#### Master of Technology (Data Science and Analytics) (MQA/FA9613)

This programme is specifically designed to equip students with the core and utilization of knowledge, technical skills, and the latest technology in the field of Data Science and Analytics.

#### **Coursework List**

- Research Methodology
- Entreprenuership
- Fundamental of Data Science
- Big Data Management
- Applied Statistical Methods
- Applied Machine Learning
- Big Data Analytics & Visualization
- Modelling & Decision Making
- Project 1

- Computer Graphics & Visualization
- Ethics

Electives [Choose 2]:

Applied Data Science

Geospatial Analytics

Healthcare Analytics

Tourism Analytics

· Customer & Financial

Special Topics in

Manufacturing

Social Media

Analytics

**Analytics** 

**Analytics** 

#### Duration

Full time - Minimum: 1 year, Maximum: 3 years Part time – Minimum: 2 years, Maximum: 4 years

#### **Fees**

Citizen: RM 7090.00 Non-Citizen: RM 11,815.00 \*Fees for the minimum period of study

#### **Master of Computer Science** (Security Science) (MQA/FA5653)

This programme is specifically designed to equip students with security elements in information and communication technology related to management, data and infrastructure.

#### **Coursework List**

- University Courses\*\*
- Research Methodology
- Advanced Data
- Communications & Network
- · Algorithm Analysis & Design
- Cryptography & Data Security
- Security Management Practices
- Cyber Threat Intelligence
- Systems & Network Ethical Hacking
- Project 1
- Project 2

#### Duration

Part time - Minimum: 2 years, Maximum: 4 years

#### Fees

Non-Citizen: RM 11.815.00 Citizen: RM 7090.00 \*Fees for the minimum period of study

This programme is specifically designed to equip students with the latest technical knowledge and advanced technology in internetworking that can meet industry needs.

**Master of Computer Science** 

(Internetworking Technology)

#### **Coursework List**

(MQA/FA5650)

- University Courses\*\*
- Research Methodology
- Advanced Data Communications & Network
- · Algorithm Analysis and Design
- Distributed Computing Systems Advanced Mobile Computing
- Advanced Network Design & Diagnostics
- Internet Security Project 1
- Project 2

- Internetworking
- Advanced High Performance Networks
- Internet Governance Network and Internet
- Emerging Internetworking

#### Electives [Choose 2]:

- Advanced Scalable
- Programming

Electives [Choose 2]:

Intrusion Detection &

Computer Forensics

Infrastructure

Watermarking

Secure Software

Security Audit &

Assessment

Desian &

Development

Prevention

Public Kev

Technology

## Advanced Data

Communications & Network Algorithm Analysis & Design

Research Methodology

Spatial Database

**Master of Computer Science** 

This programme is specifically designed to equip students with

the knowledge and technical skills on technology, design and

database management that can meet industry needs.

(Database Technology)

(MQA/FA5652)

**Coursework List** 

University Courses\*\*

 Project 1 Project 2

& Security

Big Data Analytics

Advanced Database

System Principles

Database Administration

#### **Electives [Choose 2]:**

- Software Quality Data Warehousing & Data Mining
- Data Integration
- Agile Project Management

#### Duration

Full time - Minimum: 1 year, Maximum: 3 years Part time - Minimum: 2 years, Maximum: 4 years

#### Fees

Citizen: RM 7090.00 Non-Citizen: RM 11.815.00 \*Fees for the minimum period of study

## **Master of Computer Science** (Software Engineering) (MQA/FA5651)

This programme is specifically designed to equip students with knowledge and technical skills on software engineering and software engineering management that can meet industry needs.

#### **Coursework List**

- University Courses\*\* Research Methodology
- Advanced Data Communications &
- Network Algorithm Analγsis &
- Design
- Advanced Software Engineering
- Advanced Software Project Management
- · Requirements Engineering
  - Software Testing Project 1
  - · Project 2

#### Electives [Choose 2]: Software Quality

- Secure Software Development
- · Advanced Database System Principles

#### Duration

Full time - Minimum: 1 year, Maximum: 3 years Part time - Minimum: 2 years, Maximum: 4 years

#### Fees

Citizen: RM 7090.00 Non-Citizen: RM 11,815.00 \*Fees for the minimum period of study

- Entrepreneurship Project Management
- Management of Quality Management System

**Fees** 

Citizen: RM 9990.00 Non-Citizen: RM 16,890.00 \*Fees for the minimum period of study

Full time – Minimum: 1 year, Maximum: 3 years

Part time - Minimum: 2 years, Maximum: 4 years

- Native Mobile

## **Duration**

Citizen: RM 9990.00 Non-Citizen: RM 16,890.00

Full time - Minimum: 1 year, Maximum: 3 years

## \*\*University Courses [Choose 1]:

Engineering & Technology