



INTERNATIONAL MEDICAL UNIVERSITY  
MALAYSIA

# ANALYTICAL & PHARMACEUTICAL CHEMISTRY (MSc)

SCHOOL OF  
POSTGRADUATE  
STUDIES

2018



# What Is IMU's Analytical & Pharmaceutical Chemistry Programme About?

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## Overview

The IMU MSc in Analytical and Pharmaceutical Chemistry is suitable for graduates with a degree in Chemistry, Pharmacy or related disciplines and is targeted at both recent graduates and those already employed within the pharmaceutical or chemical industries. The course provides graduates with an opportunity to sharpen, and increase their existing knowledge and understanding of advanced analytical chemistry; spectroscopy and separation techniques; research methodology and scientific writing skills; drug discovery, design and development; quality management and regulatory systems; pharmaceutical microbiology; and product commercialisation. One of the modules on the principles and practices of green chemistry instils in students a sense of responsibility towards the environment.

The course comprises core taught modules, selectives, a research component and laboratory sessions that provide hands-on experience of using analytical equipment for drug characterisation, identification and quantification. Students leave the programme with comprehensive knowledge and the practical and technical skills that are necessary for them to work effectively within a research and/or analytical division of a pharmaceutical or chemical company. The research component involves in-depth investigations into a subject that is important to today's pharmaceutical or chemical industry and introduces students to the processes of critical thinking and research methodology to develop their careers in the field of research.

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### DEGREE / DURATION

**MSc in Analytical and  
Pharmaceutical Chemistry —  
1½ – 6 years**

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### COMMENCEMENT

**March and September**

## A Word from the Programme Director

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“Graduates of this programme will have developed a greater depth of knowledge and advanced skills that are essential for R&D, pharmaceutical & biomedical analysis to pursue careers in academia, biotechnology, drug discovery and development, and QA/QC.”

**DR SREENIVASA RAO SAGINEEDU — Lecturer & Programme Director**  
BPharm (AU), MPharm (AU), PhD (UPM), MRSC (UK)

# How Does the Programme Work?

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## Analytical & Pharmaceutical Chemistry Programme Structure

The programme consists of three semesters and is a combination of course work (21 credits) and research (22 credits). New semesters commence in March and September each year and each semester comprises 20 weeks.

Teaching and learning methods, comprise both conventional and blended learning approaches, are in line with objectives of programme modules. They include lectures, tutorials, laboratory sessions, workshops, case studies, critical reviews and seminars. The teaching and learning activities are conducted on weekends for convenience of students who have personal or work commitments on weekdays.

Core modules are as follows:

Spectroscopy I (3 credits)  
Spectroscopy II (3 credits)  
Separation Techniques (3 credits)  
Research Methodology & Scientific Writing (3 credits)  
Natural Products (3 credits)  
Principles & Practices of Green Chemistry (3 credits)  
Research Project (22 credits)

Selective modules are as follows:

Drug Discovery, Design & Development (3 credits)  
Quality Management & Regulatory Systems (4 credits)  
Current Trends in Pharmaceutical Sciences (3 credits)  
Pharmaceutical Microbiology (2 credits)  
Bench to Market (2 credits)

The curriculum is reviewed periodically and is subject to change.

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## Assessment

There is no end-of-semester examination for this course. Students' progress is evaluated based on continuous assessment via project work, critical reviews, practical reports, assignments and oral presentations. A research dissertation will be assessed at the end of Semester 3.

## Entry Requirements

A Bachelor Degree in related discipline with a minimum cGPA of 2.75 or equivalent, as accepted by the University's Senate; or

A Bachelor Degree in related discipline with a minimum cGPA of 2.50, but not meeting cGPA of 2.75, can be accepted subject to rigorous internal assessment; or

A Bachelor Degree in related discipline not meeting cGPA of 2.50, can be accepted subject to a minimum of 5 years working experience in relevant field.

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## English Language Requirements

### For International Students

- 1) IELTS : Band score 5.0; or
- 2) TOEFL (PBT) : Overall score of 410-413; or
- 3) TOEFL (iBT) : Overall score of 34; or
- 4) Cambridge English : Advanced (CAE) : Overall score of 160; or
- 5) Cambridge English : Proficiency (CPE) : Overall score of 180; or
- 6) Pearson Test of English (PTE) : Overall score of 36



**Left:** This modular programme is designed for students of all ages and backgrounds, who want to balance work commitments with learning.

**Below:** Hands-on workshops and laboratory-based practical sessions offer the unique opportunity to engage in an interactive learning environment.

**Bottom:** The integral research project provides you with substantial experience of working independently and communicating your research effectively and efficiently through dissertation and publication.



# Why Study Analytical & Pharmaceutical Chemistry at IMU?

1

## An Established Private Healthcare University

IMU is Malaysia's first and most established private medical and healthcare university with over 26 years of dedicated focus in healthcare education. IMU achieved the SETARA-2017 Tier 6 status (Outstanding) under the Mature University category.

2

## Renowned and Highly Experienced Faculty

Students will be taught and supervised by staff who are experts in their field with well-established reputations nationally and internationally. The academic community of IMU pursues and achieves excellence in a wide range of research activities. Many of them present their research findings in international conferences to keep up to date with the latest development in specialised areas. They also publish their findings in international peer-reviewed journals.

3

## Curriculum Benchmarked to International Standards

IMU's Analytical & Pharmaceutical Chemistry curriculum has been developed to meet high international standards and stringent Malaysian Qualifications Agency (MQA) standards. The interactive and engaging curriculum delivery style enables the students to be focused, creating a conducive environment for experiential and lifelong learning.

4

## Better Preparation for Working in a Challenging Environment

The research module in the programme enhances the students analytical, critical thinking and problem solving skills, promotes their professional development and prepares them for the current challenging work environment.

5

## Research Partnerships

Students will benefit from IMU's national and international research collaborations with renowned institutions in areas such as drug discovery, design and development, natural products, drug synthesis, pharmaceutical and biomedical analysis.

# How Much Does It Cost?

## Analytical & Pharmaceutical Chemistry Programme Fees

All fees quoted are in Ringgit Malaysia unless stated otherwise.

All IMU alumni who are self-funding their postgraduate studies and meet the eligibility criteria will be eligible for a reduction in tuition fees.

### FEES OVERVIEW

Fee	Amount (RM)	
	Malaysian Student	International Student
Application Fee	150	450
Registration Fee	1,100	3,400
Refundable Caution Deposit	2,000	2,000
Student Association Fee per Semester	40	40
Tuition Fee	43,000	57,500

- Application fee is payable upon submission of application.
- Registration fee and refundable caution deposit are payable upon acceptance of the offer letter issued by the IMU Admissions Office.

### FEES BY SEMESTERS

Semester	Total (RM)	
	Malaysian Student	International Student
Semester 1	12,000	16,000
Semester 2	13,000	17,300
Semester 3	18,000	24,200
<b>Grand Total</b>	<b>43,000</b>	<b>57,500</b>

- Tuition fees are subject to annual increases.

## Contact Us

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IMUMalaysia

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## Programmes at IMU

### Pre-University

Foundation in Science  
KPT/JPT(N/010/3/0186)09/2018

### Undergraduate

Medicine  
KPT/JPT(R/721/6/0033)09/2019

Dentistry  
KPT/JPT(R/724/6/0010)10/2020

Pharmacy  
KPT/JPT(R/727/6/0050)09/2019

Pharmaceutical Chemistry  
KPT/JPT(R/442/6/0003)01/2018

Dietetics with Nutrition  
KPT/JPT(R/726/6/0021)09/2022

Nutrition  
KPT/JPT(R/726/6/0011)06/2022

Biomedical Science  
KPT/JPT(R/2/421/6/0011)09/2022

Medical Biotechnology  
KPT/JPT(R/2/545/6/0014)09/2022

Psychology  
KPT/JPT(R/2/311/6/0013)09/2022

Chiropractic  
KPT/JPT(R/726/6/0054)08/2019

Chinese Medicine  
KPT/JPT(R/721/6/0059)01/2020

Nursing Science  
(for registered nurses)  
KPT/JPT(R/723/6/0101)01/2019

Teaching Methodology  
(Post Basic Certificate)  
KPT/JPT(N/723/3/0121)09/2019

### Postgraduate

Public Health (MSc)  
KPT/JPT(R/720/7/0077)09/2020

Analytical & Pharmaceutical  
Chemistry (MSc)  
KPT/JPT(R-CDL/442/7/0001)01/2022

Molecular Medicine (MSc)  
KPT/JPT(R/545/7/0078)07/2022

Pharmacy Practice (Master)  
KPT/JPT(N/727/7/0051)03/2019

Health Professions Education (HPE)  
(Postgraduate Certificate/  
Postgraduate Diploma/Master)  
KPM/JPT(N/145/7/0066)09/2020  
KPM/JPT(N/145/7/0064)09/2020  
KPM/JPT(N/145/7/0070)09/2020

Implant Dentistry (Postgraduate Diploma)  
KPT/JPT(N/724/7/0019)06/2021

Medical & Health Sciences  
(MSc & PhD by Research)  
KPT/JPT(R/721/8/0043)01/2020  
KPT/JPT(R/720/7/0049)06/2019



INTERNATIONAL MEDICAL UNIVERSITY  
MALAYSIA

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ISO 9001:2008 Cert. No. KLR 0500119

The IMU has been certified with MS ISO 9001:2008 for the provision of tertiary education in medicine, pharmacy and health sciences.

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The University reserves the right to alter or delete any of the information included at any time and it shall not be bound by any errors or omissions and cannot accept liability in respect thereof.

Please visit [www.imu.edu.my](http://www.imu.edu.my) for the most up-to-date information.

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