



# MASTER OF SCIENCE IN MATHEMATICS AND APPLIED MATHEMATICS

KPT/JPS [N/461/7/0031] 03/25 [MQA/FA12013]

DURATION OF STUDY	INTAKE	MEDIUM OF INSTRUCTION	ANNUAL FEE*
Full-time : minimum 2 years Part-time: minimum 3 years	April / September	English	RM 12,000 (Local) RM 13,200 (International)

\* Scholarships and allowances available, subject to fulfilment of requirements

## ABOUT THE PROGRAMME

The Mathematics and Applied Mathematics programme at Xiamen University (XMU), offered by the School of Mathematical Sciences (SMS), was introduced in 1923, among the first batch of programmes of XMU. The renowned mathematician, Chen Jingrun, once studied in this programme from 1949 until 1953. In the “2018 Best Universities for Mathematics” published by US News and World Report, XMU was ranked 81st globally, and 10th among the universities in China.

The discipline of mathematics of XMU has been ranked among the top 0.5% globally in Essential Science Indicators (ESI) since 2018, and the ranking has been improving every year. Currently SMS has 86 full-time faculty members. From 2015 to 2019, SMS has secured more than 120 research grants from the National Natural Science Foundation et al, amounting to RMB 55 million. Around 150 SCI journal papers were published by the School faculty every year. SMS also publishes the Journal of Mathematical Study, and jointly publishes the SCIE journal, East Asian Journal of Applied Mathematics, with Global Science Press. Benefiting from the cooperation with various universities around the world, it hosts more than 100 mathematicians to XMU annually. In 2019, TianYuan Mathematical Center in Southeast China was established in Xiamen University.

The Master Programme in Mathematics and Applied Mathematics in Xiamen University Malaysia is established with two main missions. One is to provide rigorous training to those talented mathematics students to equip them with enough tools and skills to pursue a PhD degree in Mathematics or Applied Mathematics. The other one is to provide advanced training in mathematics to scientists and engineers who want to work in highly technical areas that require indepth mathematical knowledge, such as artificial intelligence, financial engineering, etc.

## PROGRAMME HIGHLIGHTS

- A comprehensive programme encompassing pure and applied mathematics, with flexibility in choosing the area of specialty
- An excellent team of faculty members from renowned universities from all over the world
- A distinctive educational approach encouraging applications of knowledge to enhance understanding
- Good access to excellent educational resources of XMU
- Tight interaction and collaboration with the School of Mathematical Sciences in XMU
- A seamless pathway to doctorate program in mathematics at XMUM or other well-known institutions in the world

## CAREER OPPORTUNITIES

- Lecturer or Teacher
- Data Analyst
- Programmer
- AI (Artificial Intelligence) Engineer
- Financial Analyst
- Actuary
- Bank Manager



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### ENTRY REQUIREMENTS

*For other equivalent qualifications, please consult our programme counsellor.*

- A bachelor's degree in Mathematical Sciences with a minimum CGPA of 2.50 or the equivalent; or
- A bachelor's degree or equivalent with a CGPA below 2.50, can be accepted subject to a minimum of 5 years' working experience in a relevant field; or
- A bachelor's degree in Engineering or Other Sciences with a minimum CGPA of 2.75, with at least grade B (Grade Point 3.00) in Calculus I (Single Variable Calculus), Calculus II (Multivariable Calculus) and Linear Algebra; or
- A student who does not meet any of the requirements above, but who has had a bachelor's degree with a minimum CGPA of 2.75 (in any field), can sit for the examination of Calculus I, Calculus II and Linear Algebra conducted by Xiamen University Malaysia. A student that passes all these three subjects with a grade B (Grade Point 3.00) or above can be admitted into the programme.
- English proficiency for international students: IELTS 5.0/MUET Band 3.5

### LIST OF COURSES OFFERED

	Chinese 1*	Selected Topics on China	*ADDITIONAL REQUIREMENT
	Research Methodology		MAJOR CORE
YEAR 1	Real Analysis	Differentiable Manifolds	MAJOR ELECTIVE (8 courses)
	Advanced Linear Algebra	Analytic Number Theory	
	Dynamical Systems	Algebraic Number Theory	
	Graduate Algebra	Differential Geometry	
	Graduate Complex Analysis	Fourier Analysis	
	General Topology	Mathematical Statistics	
	Algebraic Topology	Advanced Numerical Analysis	
	Functional Analysis	Applied Numerical Linear Algebra	
	Graduate Partial Differential Equations	Numerical Methods of Partial Differential Equations	
	Advanced Probability Theory	Optimization	
	Stochastic Processes	Stochastic Calculus	
	Regression Analysis	Advanced Financial Mathematics	
	Time Series	Graph Theory	
	Combinatorics		
YEAR 2	Master Dissertation		MAJOR CORE

\*Students with credits in Chinese courses in previous result slips (UPSR/STPM/UEC/A-Level/Foundation/Matriculation/Diploma/SPM/O-Level/HSK, etc.) can be exempted from Chinese 1.

### XIAMEN UNIVERSITY MALAYSIA DULN009(B)

TEL : +603 7610 2079

FAX : +603 7610 2068

E-MAIL : [enquiry@xmu.edu.my](mailto:enquiry@xmu.edu.my)

WEBSITE : [www.xmu.edu.my](http://www.xmu.edu.my)

CAMPUS ADDRESS : Jalan Sunsuria, Bandar Sunsuria, 43900 Sepang, Selangor Darul Ehsan, Malaysia



The information in this brochure is correct at the time of publication. Xiamen University Malaysia (XMUM) reserves the right to change the information in line with updates from time to time. Please check the website ([www.xmu.edu.my](http://www.xmu.edu.my)) for latest information.

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