



LUMS

Create  
your own Future

**SYED BABAR ALI  
SCHOOL OF SCIENCE  
AND ENGINEERING  
(SBASSE)**

**MATHEMATICS**

SCHOOL OF SCIENCE & ENGINEERING

$$\sqrt{A^2+B^2} \left( \begin{array}{c} \frac{A}{\sqrt{A^2+B^2}} \\ \frac{B}{\sqrt{A^2+B^2}} \end{array} \right) = \sqrt{A^2+B^2} \left( \begin{array}{c} \sin\theta \cos\delta + \cos\theta \sin\delta \\ \sin\theta \sin\delta + \cos\theta \cos\delta \end{array} \right)$$

#MERITMATTERS

## WHY MATHEMATICS?

Mathematics is the study of structure and relationship. It is the most basic of all the sciences and also the one with the widest application. Some study Mathematics because it reveals the beauty of symmetric tiling and patterns; others explore it because the code for the universe is written in Mathematics.

The MS degree programme in Mathematics is designed to prepare students for professional careers in mathematical sciences, such as symmetry, differential equations, computational physics, mathematical biology, algebraic geometry, topology, mathematical finance, and operator theory. The programme is a rigorous introduction to graduate-level Mathematics for students wanting to strengthen their mathematical background prior to entering doctoral studies.

## PROGRAMMES OFFERED

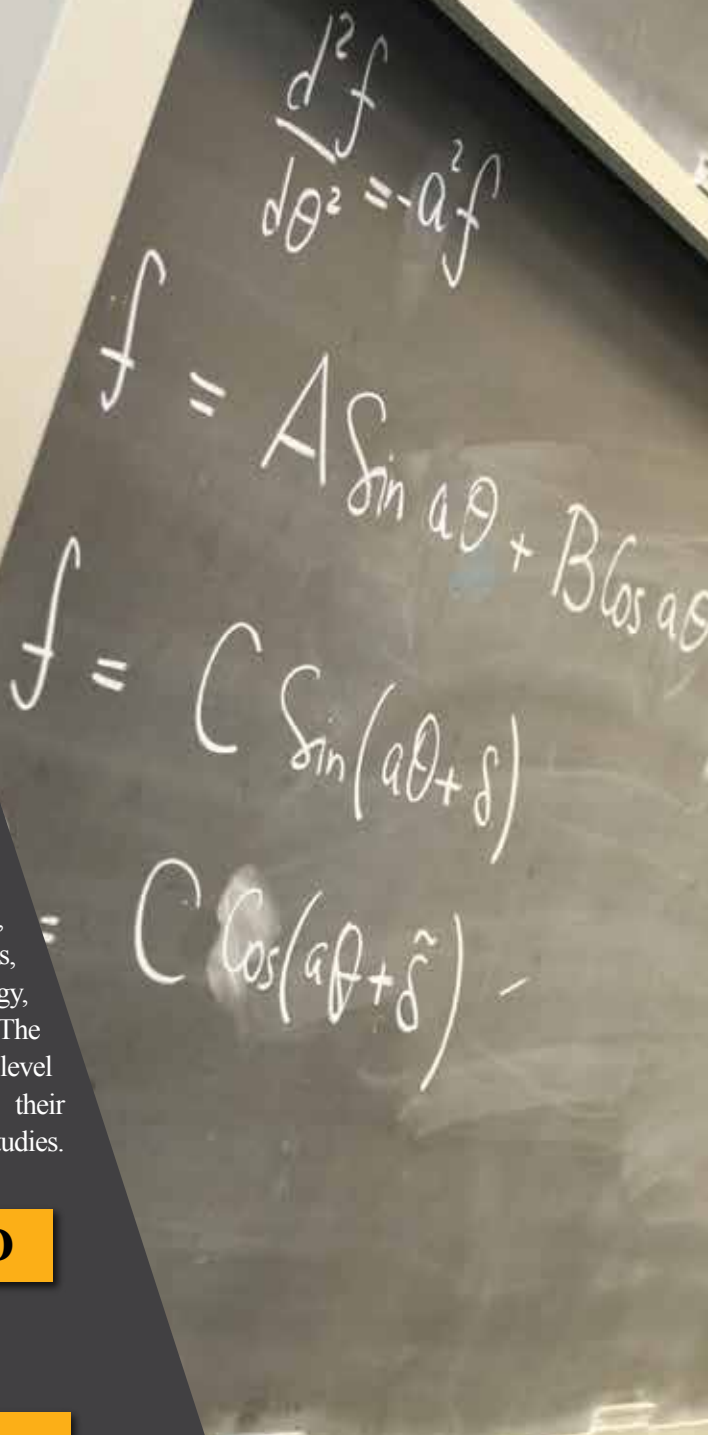
- MS
- PhD


## CAREER OPPORTUNITIES

- Our Mathematics graduates are accepted for higher studies in Mathematics and related disciplines at leading institutions such as Oxford, Cambridge, Waterloo, and the London School of Economics
- Our Graduates are employed at top positions in industry, finance and consulting

## RESEARCH OPPORTUNITIES

- The department offers core areas of applied and pure Mathematics
- Core research areas are numerical analysis, optimisation, stochastic optimal control, probability theory and stochastic analysis, mathematical biology, mathematical finance, scientific computation, differential equations/evolution equations, algebraic geometry, algebraic topology and combinatorial commutative algebra, fixed point theory, functional analysis and operator theory, operator theory, spectral theory and symmetry methods of differential equations





**LUMS Mathematics Department  
ranked Number 1 in Pakistan by the  
QS World University Rankings by  
Subject 2016**

## **Generous Tuition Fee Waivers for MS Students**

- 45% for new students
- 50% for returning students

**100% scholarship for PhD students**



## **FACILITIES**

- The High Performance Computing Centre provides computing facilities to faculty and students with specialised computational needs; engenders and facilitates science and engineering research efforts and provides research and development exposure to students
- The Centre for Advanced Studies in Mathematics (CASM) promotes the role of mathematics in formulating and solving interdisciplinary problems among students which is pivotal for scientific progress in every society. It organises conferences, workshops and seminars for a conducive research environment and strengthens international collaborations with the mathematics community



**Dr. Talat Nazir**  
PhD Mathematics,  
2012



*“The PhD in Mathematics was a great learning experience. I was able to explore new fields in Mathematics which I couldn't have done had I not joined LUMS.”*

## ADMISSION CRITERIA

Admission is purely merit-based and rests solely on the following criteria:

- Academic record
- GRE or LUMS Graduate Admission Test Performance\*
- Interview performance (if and where applicable)
- Completed online application form along with all supporting documents

\* For admission test details, visit: <https://admission.lums.edu.pk/graduate-programmes>

## FINANCIAL SUPPORT

- Loan Options
- Merit Scholarships
- External Scholarships (if available)
- Teaching Assistantships
- 45% Tuition Fee waiver for all new MS students
- 50% Tuition Fee waiver for returning students
- 100% Scholarship for PhD students

For details, visit:

<https://financial-aid.lums.edu.pk>