



SYED BABAR ALI SCHOOL OF SCIENCE AND ENGINEERING

Founded in 1985 as a not-for-profit, LUMS has pioneered innovative educational trends. The expanse of research and teaching at LUMS offers its community 'Learning Without Borders' by breaking academic, geographic, and socio-economic barriers to enhance students' academic exposure and make education accessible to all.

The Syed Babar Ali School of Science and Engineering (SBASSE) at LUMS is at the forefront of research and teaching in Pakistan. The MS programmes at SBASSE are rigorous and designed to impart specialised professional and research-oriented training to students. All SBASSE departments offer at least two options to choose from: MS-by-Coursework or MS-by-Thesis. The School's PhD programmes prepare students to think scientifically and conduct high-quality research independently. Major milestones that must be achieved for the successful completion of the PhD degree include the Coursework, Comprehensive (Qualifying) Examination, Thesis Proposal Defense, at least one peer-reviewed journal article, and PhD Thesis Defense.



WHY MS AND PHD COMPUTER SCIENCE AT LUMS?

LUMS AND SBASSE FOSTER A DYNAMIC LEARNING ENVIRONMENT

DEPARTMENT RANKINGS FROM CSRANKINGS.COM*

- 1st in Pakistan across all categories
- 53rd in the world in the Computer Systems category
- 6th in Asia in the Computer Systems category

*This is the widely-used standard for CS department rankings across global universities.

The Department of Computer Science comprises faculty members with PhDs from Berkeley, Carnegie Mellon, and Stanford, who help students stay on top of growing trends in information and technology. Students gain first-hand experience of quality work in the areas of Computer Vision, Data Mining, Networks, Information Security, Privacy and Distributed Systems, Software Engineering, Human-Computer Interaction, Big Data, Artificial Intelligence, and Robotics.

The Department provides students with unmatched research possibilities, opportunities, and resources. It not only encourages students to get involved in rigorous research alongside coursework but also provides fully-equipped clusters, groups, and labs. These include the Computer Vision lab, the Robotics and Intelligent Computing lab, the Knowledge and Data Engineering lab, and more.

PROMINENT PLACEMENTS

Our graduates ascend to prominent roles, pursuing academics at world-renowned institutions, securing fully-funded PhD positions, and driving innovation at leading industries.





PROGRAMME STRUCTURE

Graduate students are exposed to advanced courses:

SPECIALISATIONS

The MS programme offers three dynamic specialisation tracks:

- SYSTEMS AND SECURITY
- SOFTWARE ENGINEERING AND HUMAN-COMPUTER INTERACTION (HCI)
- DATA SCIENCE AND MACHINE LEARNING

CORE COURSES*

DEPTH CORE

- COMPUTER SCIENCE
Design and Analysis of Algorithms
- MATHEMATICS
Applied Statistics or Applied Probability

*All students must complete 15 credit hours of core courses.

The programme provides a strong foundation through core courses in Algorithms and Probability, complemented by introductory courses that offer breadth across the specialisations.

ELECTIVE COURSES

In addition to the 15 credit hours of core courses, students opting for MS-by-Coursework must take 15 credit hours of electives. Students are required to complete three to five elective courses within their chosen specialisation, depending on whether they pursue the thesis or coursework track. Successful completion is reflected as a declared specialisation on their transcript. For those pursuing MS-by-Thesis, the requirement includes 6 credit hours of MS Thesis and 9 credit hours of electives to complete the MS degree.



ADMISSION CRITERIA

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

MS & PHD PROGRAMMES

- Academic Record
- Performance in Admission Tests
- Research Statement (for PhD applicants only)
- Online Application Submission
- Online Submission of Supporting Documents and Fee Payment
- Letters of Recommendation (for PhD applicants only)
- Application Review
- Interview Performance (if shortlisted)

Note: These are the minimum criteria applicants must fulfil to be eligible to apply. Meeting these criteria does not guarantee admission to LUMS.

Scan for more information
on MS Computer Science





PHD ADMISSION CRITERIA FOR FOREIGN NATIONALS

The following criteria applies to all foreign applicants:

- Academic Record
- Research Background
- Letters of Recommendation
- Online Application Submission
- Online Submission of Supporting Documents
- Application Review
- Online Test and Interview Performance (if shortlisted)

To study at LUMS, foreign nationals must follow requirements such as obtaining a visa and a no-objection certificate from Pakistani authorities. LUMS will assist in this process.

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on PhD Computer Science



HAFSA ZAFAR

PhD Computer Science Student

“The PhD Computer Science journey at LUMS—a pivotal chapter in my life—has been challenging and incredibly rewarding. Focusing on resilience in distributed systems, I have worked on novel technological interventions to support the government and benefit society, particularly during COVID-19. As a member of the state-of-the-art Cloud Computing Research Lab (CCRL), I have found dynamic research teams and strong industry collaboration to be standout elements of my experience. The faculty advisors have been instrumental in my academic development, guiding me in publishing our work in highly-ranked journals and conferences.”



FINANCIAL SUPPORT

- Merit scholarships
- LUMS Financial Aid (for local applicants only) aims to reduce financial barriers to higher education, nurturing an inclusive and vibrant community where academically distinguished students can realise their full potential and achieve their professional aspirations. At the graduate level, financial aid is provided in the form of an interest-free loan.
- Fully-funded scholarship for PhD that covers admission, tuition, semester registration fees, and a monthly stipend subject to the supervisor's approval for 4 years
- Options to work as Research or Teaching Assistants (subject to availability)
- External scholarships (support and eligibility for these vary depending on the donor)



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