For over a decade, the Syed Babar Ali School of Science and Engineering (SBASSE) at LUMS has been imparting top-quality education with an aim to carry out world-class, multidisciplinary research.

SBASSE offers undergraduate, graduate and doctoral degrees in a wide range of disciplines. The MS programmes at SBASSE are rigorous and designed to impart specialised professional and research-oriented training to students. To graduate, students must accumulate a total of 30 credit hours either entirely from coursework, or by collecting 24 credit hours from coursework and the rest from a thesis. Hence, all SBASSE departments offer two options to choose from: MS-by-Coursework or MS-by-Thesis.

The SBASSE PhD programmes prepare students to think scientifically and conduct high-quality research independently. To graduate, students must earn a total of 42 credit hours from which 18 must be from coursework and 24 from research work/thesis. Major milestones that must be achieved for the successful completion of the PhD degree include the Comprehensive (Qualifying) Examination, Thesis Proposal Defense and PhD Thesis Defense.

During the course of study, student learning takes place through lectures, tutorials, laboratories, problem-solving exercises, research projects and frequent interaction with experienced, world-class faculty members.
WHY CHOOSE SBASSE

MULTIDISCIPLINARY EDUCATION
The rigorous curriculum of the graduate programmes at SBASSE offers a multidisciplinary learning environment. It provides students with the opportunity to work with knowledge drawn from all six disciplines being offered at SBASSE as a part of the free elective requirement.

TOP-QUALITY PUBLICATIONS
The research conducted by graduate students has been published in top-quality, renowned journals including:

- Journal of Mathematical Analysis and Applications
- IEEE/ACM Transactions on Networking
- Artificial Intelligence Review
- Photonics and Nanostructures: Fundamentals and Applications
- Organic Letters
- The Journal of Biological Macromolecules
- Nature Publishing Group
- Royal Society of Chemistry
- Journal of Computational and Applied Mathematics

INTERNATIONAL AND NATIONAL EXCHANGE PROGRAMMES
MS and PhD students at SBASSE participate in various exchange programmes and research opportunities sponsored by National ICT R&D Fund, HEC, Commonwealth, Erasmus-Mundus, DAAD etc.

COLLABORATIONS WITH NATIONAL AND INTERNATIONAL INSTITUTES

- Institute of Electronics and Telecommunications of Rennes, France
- Singapore University of Technology and Design, Singapore
- CentraleSupélec, France
- Texas A&M University, Qatar
- NUST School of Electrical Engineering and Computer Science, Pakistan

OUR PLACEMENTS

Top academic placements
(Massachusetts Institute of Technology, University of Warwick, London School of Economics, University of Oxford, University of Cambridge etc.)

Our graduates are hired by top local and international organisations (Engro Corporation, Nestle Pakistan, Systems Ltd., Microsoft, Google, Facebook etc.)

64% of the graduates have been placed on jobs and 49% who opted for higher studies received scholarships from different universities across the globe.

MS and PhD students work alongside faculty members at SBASSE as Teaching Assistants and Research Assistants.
HOW WILL YOU LAUNCH YOUR NEW WORLD?

The Department of Computer Science will help you stay on top of the growing trends of information and technology. It will equip you with first-hand experience of the quality work being done in the areas of Computer Vision, Data Mining, Polymers and Nanocomposites, Networks, Information Security, Privacy and Distributed Systems, Software Engineering, Human Computer Interaction, Big Data, Artificial Intelligence and Robotics.

As an integral element of a graduate education, the Department of Computer Science provides unmatched research possibilities, opportunities and resources. The Department not only encourages students to get involved in rigorous research alongside coursework but also provides fully equipped clusters, groups and labs.

WHAT WILL YOUR NEW WORLD INVENT?

The faculty members at the Department of Computer Science have years of experience exhibited not only through their taught courses and curriculum but also through their rigorous research work and publications in renowned journals.

**COMPUTER VISION**
- Dr. Murtaza Taj

**DATA MINING**
- Dr. Asim Karim
- Dr. Arif Zaman
- Dr. Yasir Mehmood

**POLYMERS AND NANOCOMPOSITES**
- Dr. Habib-ur-Rehman

**NETWORKS, INFORMATION SECURITY, PRIVACY AND DISTRIBUTED SYSTEMS**
- Dr. M. Fareed Zaffar
- Dr. Ihsan Ayyub Qazi
- Dr. Basit Shafiq
- Dr. Zartash Afzal Uzmi

**SOFTWARE ENGINEERING**
- Dr. Hamid Abdul Basit
- Dr. Naveed Arshad
- Dr. Junaid Haroon Siddiqui

**ALGORITHMS AND THEORY OF COMPUTATION**
- Dr. Imdad Ullah Khan
- Dr. Arif Zaman

**ARTIFICIAL INTELLIGENCE AND ROBOTICS**
- Dr. Mian M. Awais
- Dr. Asim Karim

**MS | PhD COMPUTER SCIENCE**

**QUICK FACTS**
- 64% graduates placed on jobs
- 80+ highly qualified faculty members

**MS | PhD COMPUTER SCIENCE**

**DR. SHAHID MASUD**
Dean and Professor, Syed Babar Ali School of Science and Engineering

“Our multifaceted 21st century curriculum provides students adequate breadth and depth in their education, and positions them to pursue rapidly evolving areas that interface with other disciplines. The fact that our graduates are much sought after by leading academic institutions as well as organisations in the Engineering and IT sectors every year serves as a solid indicator of the high-quality of our programmes. With our resolute vision, excellent research-active faculty, outstanding students and modern infrastructure that includes state-of-the-art classrooms and laboratories, SBASSE is poised to become a globally competitive leader in Science and Engineering research and education.”
The Department covers a broad spectrum of CS areas and aims to equip students with skills and analytical foundations to tackle important societal challenges such as personalised health, transportation, personalised learning, energy efficiency, accessibility, and ICT for Development (ICT4D). The CS curriculum covers the essential breadth and depth needed for contemporary practice and research through a combination of design and lab work. Our world-class faculty carries out research and teaching in Computer Vision and Graphics, Human Computer Interaction, Data Science and Machine Learning, Computer Networks, Algorithms, Software Engineering, Security and Privacy, Distributed Systems, and ICT4D.

The Department offers various research opportunities through the following state-of-the-art facilities:

- Computer Vision Laboratory
- Robotics and Intelligent Computing (RICE) Laboratory
- Knowledge and Data Engineering (KADE) Laboratory
- Software Engineering Research Laboratory (SERL)
- Networks and Systems Group (NSG)
- Programme Analysis Group (PAG)
- Technology for People Initiative (TPI)
- Computer Human Interaction and Social Experience Lab (CHISEL)
- Embedded Systems & Networks (SYSNET) Laboratory
- 4G Wireless Research Lab

Dr. Ihsan Ayyub Qazi
Associate Professor and Chair, Department of Computer Science

“The Department covers a broad spectrum of CS areas and aims to equip students with skills and analytical foundations to tackle important societal challenges such as personalised health, transportation, personalised learning, energy efficiency, accessibility, and ICT for Development (ICT4D). The CS curriculum covers the essential breadth and depth needed for contemporary practice and research through a combination of design and lab work. Our world-class faculty carries out research and teaching in Computer Vision and Graphics, Human Computer Interaction, Data Science and Machine Learning, Computer Networks, Algorithms, Software Engineering, Security and Privacy, Distributed Systems, and ICT4D.”
TAYYABA ZAINAB
MS Computer Science 2017

“Being at LUMS provided me excellent exposure. Empathetic staff and hard-working mentors have encouraged me to achieve my goals and made me the person I thought I never would be.”
YOUR JOURNEY BEGINS HERE!

ADMISSION PROCESS FOR LOCAL AND INTERNATIONAL STUDENTS

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

- Academic record
- Admission test performance
- Submission of completed application form and supporting documents by the stipulated deadline
- Interview performance (if called)

For details, visit: https://admission.lums.edu.pk/graduate-programmes

TESTING DETAILS

Local Applicants

Applicants to the MS/PhD Programme in Computer Science are required to take the following two (2) admission tests in order to be considered for Fall 2020 admission:

1. LUMS Graduate Admission Test (LGAT); and
2. LUMS SBASSE Subject Test in Computer Science

Exemption for applicants who have taken the Graduate Record Examination (GRE) Test:

- Applicants who have taken the Graduate Record Examination (GRE) General Test (through the Educational Testing Service (ETS), USA) during the last two years (after April 01, 2018) and obtained an aggregate score of 300 in the Quantitative and Verbal sections may choose not to take the LGAT.

International Applicants

Applicants residing outside Pakistan are required to take the GRE General Test through the Educational Testing Service (ETS), USA.

For further information, please visit www.ets.org

Due to the unavailability of a GRE Subject Test in Computer Science, applicants will be assessed based on their GRE General Test score only.

NOTE

- LUMS Graduate Admission Test (LGAT) is comprised of Quantitative, Verbal, and Analytical sections.
- The LUMS Graduate Admission Test (LGAT) and the SBASSE Subject Test in Computer Science for Fall 2020 admission will be held ONLY ONCE on April 12, 2020.
- LGAT and SBASSE Subject Test Scores will be valid only for one (1) academic year.
- The LGAT and SBASSE Subject Test scores will be used for application evaluation, hence will not be disclosed to applicants.

FINANCIAL SUPPORT FOR LOCAL AND INTERNATIONAL STUDENTS

Admission to all LUMS programmes is purely on merit and independent of students’ ability to pay the related tuition fees. Once a student has been admitted to a programme, there are several mechanisms in place to provide financial support based on need and merit. All awards are reassessed each academic year based on performance, need, available resources and prevailing University policies. LUMS is committed to providing as much financial assistance as possible within the limits of its available resources. Nevertheless, the University may not be able to meet all requests for financial assistance, and it is strongly recommended that applicants secure as much of their own funding as possible. Several funding opportunities are available to deserving MS and PhD students. These include:

- Merit Scholarships for MS programmes
- Partial tuition fee waivers for all MS Basic Sciences and Mathematics students
- LUMS Interest Free Loan (only for local applicants)
- External Scholarships (support and eligibility for these scholarships vary depending on the donor)
- 100% Scholarships (tuition, registration, admission, and a stipend) for PhD students for 4 years
- HEC Research Grants
- Options to work as Research or Teaching Assistants (subject to availability)

For details, please visit: https://financial-aid.lums.edu.pk/ms-programme-grad-fa

INTERNATIONAL STUDENTS

In order to study at LUMS, foreign nationals must obtain a ‘Study Visa’ from the Pakistani Embassy/Consulate working in their country. The Pakistani Embassy/Consulate will only issue a Study Visa for students’ stay at LUMS upon receipt of Higher Education Commission (HEC), Pakistan’s ‘No Objection Certificate’ and clearance from the Ministry of Interior, Pakistan.

For the issuance of Visa, students must submit relevant documents to the LUMS Admissions Office through postal mail/courier service by the stipulated deadline.

For details, please visit: international.lums.edu.pk
DATES TO REMEMBER

DEADLINE TO APPLY
APRIL 1, 2020
5:00 pm (PKT)

LGAT & SBASSE SUBJECT TEST
APRIL 12, 2020

DEADLINE TO APPLY FOR LUMS
UG CONTINUING STUDENTS
APRIL 1, 2020 5:00 pm (PKT)

DEADLINE TO TAKE GRE (GENERAL)
APRIL 12, 2020

ADMISSION DECISIONS
JUNE - JULY 2020

COMMENCEMENT OF CLASSES
SEPTEMBER 2020

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