



WHY MS-COMPUTER SCIENCE AT IBA?

MS Computer Science program in IBA builds a strong foundation in computing, software development, and research. Curriculum is aligned with IEEE/ACM standards, it prepares students for careers in academia, research, and the tech industry.

- 30 credit hours with flexible thesis, project, or coursework options
- 02 years minimum completion time
- Research/ Industry oriented thesis, project, coursework options
- Curriculum aligned with IEEE/ACM standards
- Career prospects in academia



SCHOOL OF MATHEMATICS & COMPUTER SCIENCE



IBA Karachi is one of Pakistan's premier institutions, known for academic excellence, interdisciplinary learning, and cutting-edge research across diverse fields.

The School of Mathematics and Computer Science (SMCS) is a rapidly growing academic unit at IBA, offering excellence in computing and mathematical sciences. With a highly qualified faculty comprising researchers and industry experts, SMCS integrates rigorous academics with practical exposure. The school houses advanced labs in Artificial Intelligence, Web Science, Big Data, and Telecommunications. Its programs in Computer Science and Mathematics provide a solid foundation in theory and application—preparing students for research, higher education, and impactful careers in the tech and data-driven economy.

PROGRAM STRUCTURE

The MS Computer Science program at IBA comprises 30 credit hours, including a mix of core and elective courses. A research-based thesis option is available for eligible students who wish to pursue deeper specialization and academic research in the field.

SEMESTER 1

- Algorithms
- Parallel and Distributed Systems
- Elective I

- Elective II
- Elective III
- Elective IV

SEMESTER 3

- Elective VI
- Thesis II / Project / Elective VIII

SEMESTER 2

- Elective V
- Thesis I / Elective VII

SEMESTER 4

ELECTIVE COURSES

The MS Computer Science electives at IBA offer a rich mix of advanced courses across key computing domains. Students can explore areas such as Machine Learning, Deep Learning, Semantic Web, Big Data Analytics, Wireless Sensor Networks, and Advanced Algorithms. These electives support both theoretical research and practical innovation, enabling students to tailor their academic path toward careers in tech, research, or doctoral studies.

SCHOLARSHIPS, GRANTS & FINANCIAL ASSISTANCE

Installation Plan: The students can apply for 2-3 installments per semester. However, the installments must be paid within the same semester.

Need-based Financial Assistance: The IBA encourages aspiring students from diverse social backgrounds to enroll and study at the IBA.

Qarz-e-Hasna: The IBA facilitates its students in securing an interest-free loan (Qarz-e-Hasna) to pay their tuition fee during their study period.

Research & Teaching Assistantships (RA/TA): IBA offers part-time, paid opportunities for students to work as Research Assistants (RAs) or Teaching Assistants (TAs) as part of its financial assistance and academic enrichment initiatives.



ACADEMIC ENVIRONMENT

ADVANCED COMPUTING EXPERTISE

The MS Computer Science program at IBA builds strong theoretical and practical foundations in computing, enabling students to design systems, solve real-world problems, and drive innovation in academia and industry.

RESEARCH-DRIVEN LEARNING

Students engage in hands-on research and faculty-supervised projects in areas like AI, data science, cybersecurity, and software engineering, fostering inquiry, creativity, and critical thinking.

TECHNOLOGICAL & INDUSTRY ALIGNMENT

With access to cutting-edge tools and flexible coursework, students gain skills aligned with evolving industry demands and emerging technologies, preparing them for research, PhD pathways, or tech leadership roles.



CAREER OPPORTUNITIES

Graduates of the MS Computer Science program are equipped for dynamic and high-impact roles across academia, research, and the tech industry, including:

- AI / Machine Learning Engineer
- Software / Systems Architect
- Cybersecurity Analyst
- Product or Technical Program Manager
- University Lecturer or PhD Researcher
- Research Scientist in Computing

ELIGIBILITY CRITERIA

- Minimum 16 years of education (BS/BBA/BE or equivalent), with 4 years at an HEC-recognized institution.
- A minimum CGPA of 2.5 out of 4.0 or 60% marks in the last degree (percentage applicable only if CGPA is not available). Equivalency claims are subject to HEC evaluation.

APTITUDE TEST EXEMPTION

Minimum score of 600 on the GMAT, or a GRE score of 160 in quantitative and 150 in verbal.



<https://cs.iba.edu.pk/mscs/aboutmscs.php>

FOR MORE INFORMATION



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City Campus

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MS - COMPUTER SCIENCE

IDEAS • SYSTEMS • SOLUTIONS

GRADUATE PROGRAM