IBA Institute of Business Administration Karachi

Leadership and Ideas for Tomorrow

PROGRAM ANNOUNCEMENT 2024-25

PROGRAM
ANNOUNCEMENT 2024-25

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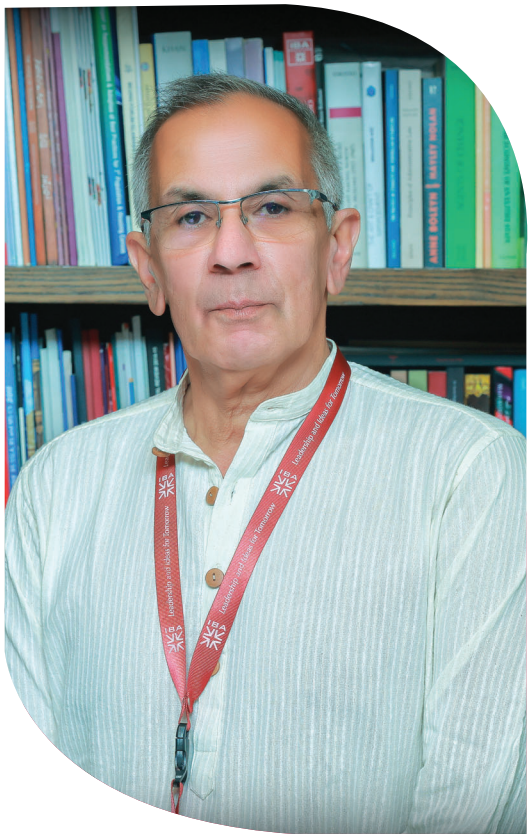
Message from the
Executive Director

It gives me immense pleasure and pride to welcome you all to Pakistan's leading institution of higher learning, the IBA. I can assure you, that this is going to be a life-changing experience for each one of you, one that you will never forget, and this starts as soon as you enter the IBA for the very first time. You are the new admissions to IBA's Class of 28 and by being admitted, which is always a very challenging and competitive process, you have already shown your capabilities and potential, we know how good you are. Congratulations on this huge achievement! You should feel an immense sense of pride and achievement and ought to be prepared for what we know will be the best years of your life.

The IBA has a stellar history of seven decades, with high academic standards and ethical values, and I hope all of you will quickly assimilate these traits which are part of our 16,000 plus global alumni network. The IBA offers a very high standard of learning and education, and I am convinced that this process of education will benefit each one of you immensely. Apart from class learning, the IBA also has a large number of student societies and numerous and varied extracurricular activities which all of you should partake in and benefit from. We pride ourselves for the sports and recreational facilities we offer. For us, the IBA experience goes well beyond the classroom.

The IBA journey is challenging and requires dedication and commitment, and hard work on your part and is one of high academic standards. While you study, do remember that the educational experience is also one of fun and joy. In this process of acquiring your degrees and learning, don't forget to enjoy yourself and experience life's many gifts. The IBA will support you in every way possible as you pursue your dreams and goals. Enjoy the next few years, they will surely be the ones you remember most.

Dr. S Akbar Zaidi
Executive Director



Message from the Registrar

Office of the Registrar envisions a learning experience for students that fosters personal and professional growth during their time at the Institute. With the growing needs of key stakeholders in view, our team works as a catalyst to facilitate a seamless transition of quality education.

In the recent year, we have successfully upscaled and initiated various physical and virtual enhancements to the campus experience. To develop and facilitate a conducive learning environment, a new Wi-Fi 6 solution has been deployed across all IBA premises, allowing for improved efficiency and enhanced performance in dense environments. The classrooms have also been upgraded with state-of-the-art technology and facilities to further enhance the learning experience. The expansion of the Boys Hostel has enabled the premises to accommodate approximately 469 students, while the Girls Hostel expansion has now added up to approximately 144 more spaces for students. Along with the student body, the project of faculty accommodation has been duly evaluated and now the designated apartments are under finalization stage.

With the vision of strengthening our commitment towards extracurricular activities, IBA Sports & Community Engagement (SP@CE), has been actively providing new opportunities and exposure to the IBA community. Various events were held during last academic year to engage over 10,000 extended community members, including the HEC All Pakistan Intervarsity Women Cricket Championship, HEC Cricket Trials/Camp for Domestic Cricket and President Trophy 2023-24, IBA Sports Gala and Athletics Championship 2024, and PCB Intervarsity Women Cricket Championship 2024.

The Office of Registrar is committed to ensure a cooperative, efficient, and effective environment, paving the way towards personal and professional growth for the leaders of tomorrow. With our commitment to support you at every step, we wish you a remarkable academic experience ahead.

Dr. Mohammad Asad Ilyas
Registrar

About IBA

Founded in 1955, Institute of Business Administration (IBA), Karachi is a leading institution for higher learning. With a legacy of almost seven decades, the Institute comprises three schools: School of Business Studies (SBS), School of Economics & Social Sciences (SESS), and School of Mathematics & Computer Science (SMCS).

IBA Karachi has nurtured generations of leaders and its esteemed alumni have ascended to prominent roles as thought leaders and CEOs in nationals and international corporations. The IBA alumni have made significant contributions across diverse fields including media, philanthropy, academics, politics, technology, arts, governance, entrepreneurship, and industries.

The IBA has expanded its academic offerings beyond business administration to include programs in social sciences, data science, and other emerging fields, while preserving its core values and principles of imparting quality education. We are driven to ensuring quality education to students selected on merit, irrespective of ethnicity, gender, religion, or financial means.

The Institute emphasizes a teaching and learning environment that nurtures critical thinking, ethical conduct, and effective decision-making skills among its students. IBA's core values includes discipline, creativity, tolerance, integrity, inclusivity, and teamwork. These values not only shape the character of our students but also contribute to the institutional culture that fosters innovation and prepares graduates for leadership roles.

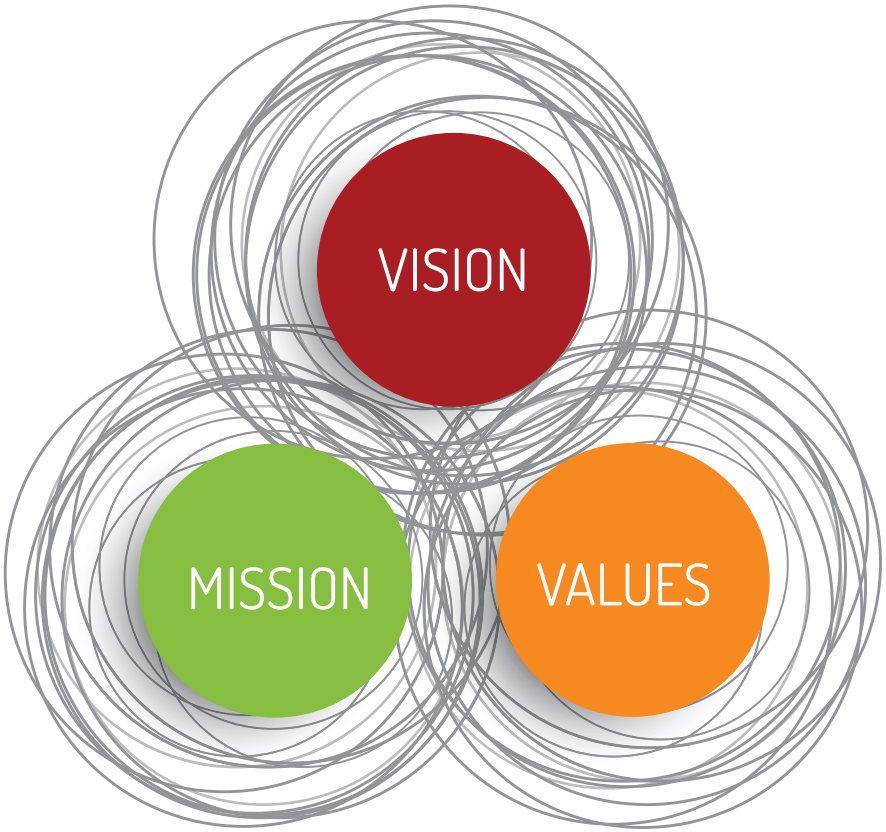
Today, the IBA stands as an institution that not only prepares students for the corporate world but also for significant contributions to business, government, and civil society. Continuously adapting to meet the current educational needs and global practices, the IBA remains dedicated to maintaining its academic excellence and elevating the communities it serves.

VISION

To be among the best learning institutions in Pakistan.

MISSION

- To impart quality education in numerous educational fields to students selected on merit irrespective of ethnicity, gender, religion, or financial means.
- To provide a teaching and learning environment that encourages critical thinking, ethical conduct and effective decision making.
- To undertake original research that enriches teaching which benefits business, government and civil society.



VALUES

Discipline
Discipline requires self-regulation and adherence to an established code of conduct. Discipline facilitates the smooth functioning of the institute and is essential for an IBA student.

Creativity
Creativity breeds innovation which is critical for an institution to expand its frontiers. IBA students are encouraged to generate new ideas to attain their goals.

Tolerance
Tolerance represents the ability and willingness toaccept and coexist with other opinions and behaviors. Tolerance is an essential characteristic of successful individuals and societies.

Integrity
Integrity suggests the quality of being honest and having strong moral principles. Integrity is crucial to the reputation of individual students as well as that of the IBA.

Teamwork
Teamwork requires harmonizing individual effort to achieve a common goal. Without teamwork, individual efforts can be wasted and institutions can suffer.

Academic Calendar 2024-25

FALL SEMESTER 2024

Orientation Gala	August 16 to 18, 2024 (Friday-Saturday)
Classes start	August 19, 2024 (Monday)
Midterm exams	October 07 to 12, 2024 (Monday - Saturday)
Mid-semester break	October 14 to 19, 2024 (Monday – Saturday)
Faculty evaluation	November 20 to December 03, 2024
Classes end	December 14, 2024 (Saturday)
Teaching days	87
Final exams	December 16 – 31, 2024
Results of Final Examinations	January 15, 2025 (Wednesday)

SPRING SEMESTER 2025

Orientation	January 19, 2025 (Sunday)
Classes start	January 20, 2025 (Monday)
Midterm exams	March 17 to 22, 2025 (Monday - Saturday)
Mid-semester break	March 24 to 29, 2025 (Monday - Saturday)
Faculty evaluation	April 28 to May 10, 2025
Classes end	May 19, 2025 (Monday)
Teaching days	85
Reserve days(+)	May 20, 2025 (Tuesday)
Final exams	May 21 to June 3, 2025 (Wednesday - Tuesday)
Results of Final Examinations	June 18, 2025 (Wednesday)

LIST OF HOLIDAYS

Bhittai Day*	Eid-Milad-un-Nabi	Iqbal Day	Quaid Day + Christmas	Benazir Day
August 20, 2024 (Tuesday)	September 16, 2024 (Monday)	November 09, 2024 (Saturday)	December 25, 2024 (Wednesday)	December 27, 2024 (Friday)

LIST OF HOLIDAYS

Kashmir Day	Holi (Optional)	Pakistan Day	Eid ul Fitr(*)	Bhutto Day	Labor Day
February 5, 2025 (Wednesday)	March 14, 2025 (Friday)	March 23, 2025 (Saturday)	March 31 to April 2, 2025 (Monday – Wednesday)	April 04, 2025 (Friday)	May 1, 2025 (Wednesday)

SUMMER SEMESTER 2025

Classes start	June 19, 2025 (Thursday)
Midterms	July 11 – 12, 2025 (Friday - Saturday)
Faculty evaluation	July 21 to 26, 2025 (Monday – Saturday)
Classes end	August 02, 2025 (Saturday)
Teaching days	36
Final exams	August 04 – 05, 2025 (Monday - Tuesday)
Results of Final Examinations	August 15, 2025 (Friday)

FALL SEMESTER 2025

Orientation Gala	August 15 to 17, 2025
Classes start	August 18, 2025 (Monday)

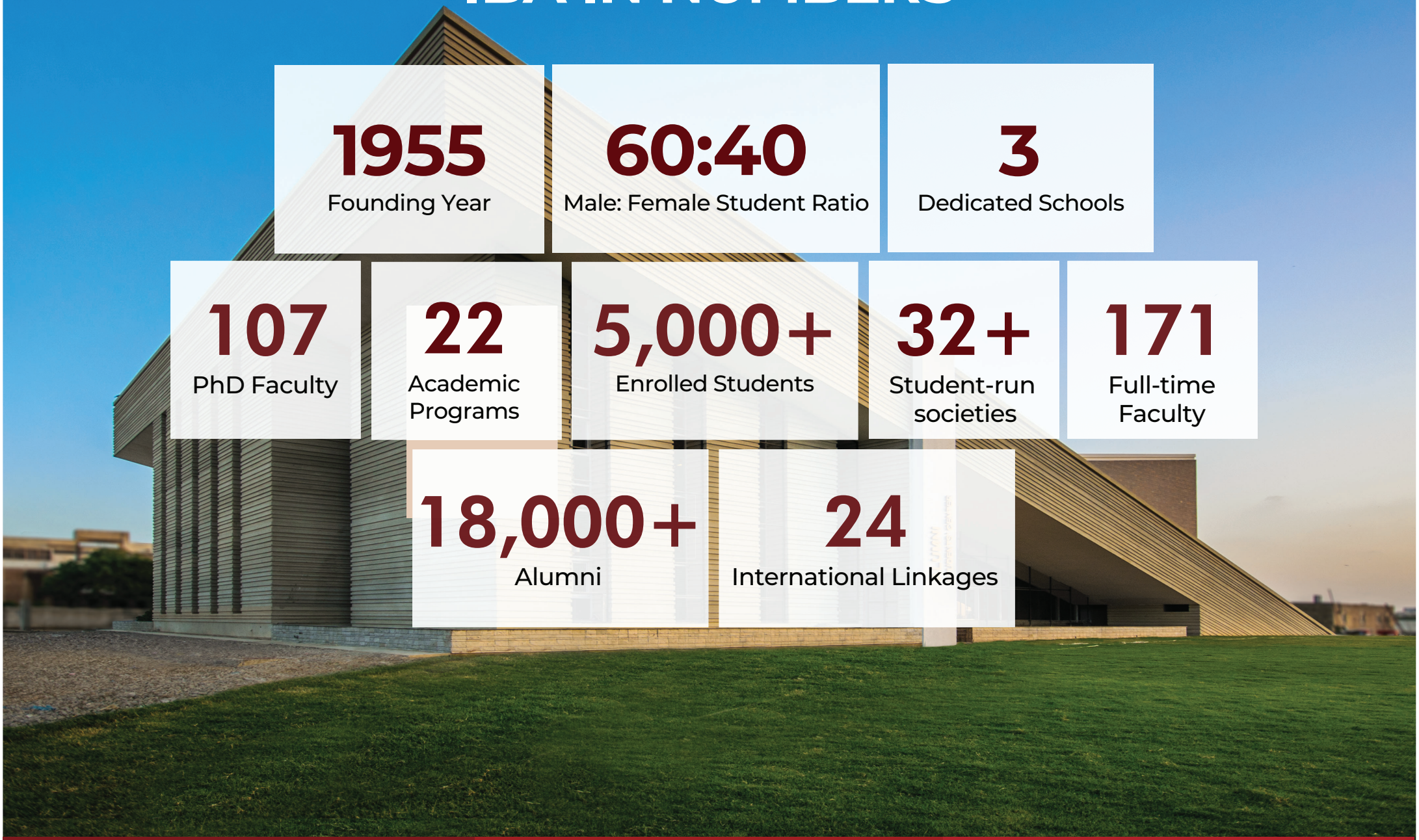
LIST OF HOLIDAYS

Eid ul Azha(*)	Ashura(*)
June 07 to 09, 2025 (Saturday - Monday)	July 05 and 06, 2025 (Saturday - Sunday)

Important information / notes:

IBA Karachi reserves the right to change/update the academic calendar whenever it deems suitable.
(+) Reserve days will only be used for academic / teaching activities to make up for unexpected holidays, no extracurricular activity will be held during the reserve days.
(*) The holidays mentioned above are subject to the sighting of the moon.

IBA IN NUMBERS



1955
Founding Year

60:40
Male: Female Student Ratio

3
Dedicated Schools

107
PhD Faculty

22
Academic Programs

5,000+
Enrolled Students

32+
Student-run societies

171
Full-time Faculty

18,000+
Alumni

24
International Linkages

Academic Programs

School of Business Studies (SBS)

SBS is the largest and flagship School in IBA. The SBS is a leading business school in Pakistan with a state-of-the-art campus that follows the best international standards and offers faculty and students a unique learning and teaching experience. SBS is proactively pursuing AACSB accreditation and has already achieved a key milestone in the AACSB journey. SBS faculty comprises distinguished experts across various business disciplines and hold doctorates from world-renowned universities. The school offers a wide range of programs in different management disciplines to train a new generation of high-potential executives.

Director of Undergraduate Programs: Ms. Sumayyah Khurshid Khan
Director of Graduate Programs: Dr. Ashar Saleem

Bachelor of Business Administration (BBA)

Program Director: Ms. Sumayyah Khurshid Khan

The BBA program is a full-time 128 credit hours program comprising four years of rigorous education, allowing the student to have a broad view of the business world. Although there are no formally labeled specializations, students can opt for any combination of electives from Marketing, Accounting, Finance, Supply Chain, Human Resource Management (HRM), Business Analytics and Entrepreneurship. To ensure that BBA graduates from the IBA develop an awareness of societal and environmental challenges facing the world, students have to undergo an internship as a responsible citizen initiative with a non-profit organization (NPO). In addition, all BBA students are required to undergo a corporate internship to get exposure to the business world. This exposure is augmented by a semester long experiential learning project (ELP), which takes the form of a consulting project for an organization. This serves as on-the-job training in the real business environment.

Bachelor of Science (BS) Accounting and Finance

Program Coordinator: Ms. Sumayyah Khurshid Khan

The BSAF program is a full-time 126 credit hours program comprising 4 years of rigorous education. The program is designed to provide an exclusive opportunity for students to receive a specialization in Accounting and Finance. The graduates of this program obtain multiple exemptions from the Institute of Chartered Accountants of Pakistan (ICAP) and the Association of Chartered Certified Accountants (ACCA). Furthermore, the Chartered Institute of Management Accountants (CIMA), Institute of Cost and Management Accountants of Pakistan (ICMAP) and Institute of Bankers Pakistan (IBP) also provide exemptions on a case-to-case basis to the program graduates.

BBA and BSAF students can pursue a minor in Computer Science, Data Science & Software Engineering as offered by Department of Computer Science, SMCS.
For more details, please refer to page **91**.

Master of Business Administration (MBA)

Program Director: Dr. Muhammad Shafique

The MBA program at IBA Karachi is among the pioneering business programs in the region. Quality intake, academic rigor, and active industry engagement are hallmarks of the MBA program. The alumni include professionals who have achieved top positions in world-class organizations and established successful businesses.

Executive MBA

Program Director: Dr. Muhammad Shafique

The Executive MBA program is designed to prepare working professionals from diverse backgrounds for general management positions. The program develops strategic and cross-functional competencies and broadens intellectual horizons through a rich experiential exchange. An innovative learning experience based on case studies and simulations provides participants with an opportunity to leap from managerial to leadership roles.

Master of Science (MS) Finance

Program Director: Dr. Ashar Saleem

MS Finance was launched in the fall of 2020 as a specialized postgraduate program, designed to provide a solid theoretical foundation, as well as a computational skill set for a successful career in the field of finance. This program is designed to prepare graduates for challenges in the domestic and global financial system by imparting comprehensive knowledge of finance and its multidisciplinary aspects. Students gain in-depth knowledge with core courses in corporate finance and investments.

Master of Science (MS) Islamic Banking

Program Director: Dr. Ashar Saleem

MS IBF is a 42 credit hours program to be completed in a minimum duration of 1.5 years and a maximum duration of 4 years as approved by the HEC. It is offered to fresh graduates from business and other disciplines, experienced practitioners and Shariah scholars. The program is designed to meet the growing needs of the Islamic Finance industry by providing theoretical and applied knowledge of Islamic Finance, Islamic Jurisprudence, Banking, and Economics. Graduates of the program will have promising career prospects in academia and the local and international Islamic Finance industry. The MS IBF program is offered for both full-time and part-time (working) students.

Master of Science (MS) Management

Program Director: Dr. Ashar Saleem

MS Management program is designed to prepare students for high-quality research and in-depth analysis. Currently, we offer specializations in Strategy and Operations Management. The program is aimed at challenging students intellectually and enabling them to contribute towards the knowledge and practice of Management. Our graduates are working in organizations as business analysts, consultants, and academics.

Master of Science (MS) Marketing

Program Director: Dr. Ashar Saleem

MS Marketing program aims to drive students on a journey from the basic level to the highest conceptual areas and philosophies of marketing. The degree will engage the students in a manner that takes a pragmatic and applied approach to learning, enabling them to solve business problems realistically and identify opportunities and challenges while working in teams.

School of Economics and Social Sciences (SESS)

SESS is an amalgamation of two academic departments and two research centers. The two academic departments are the Department of Economics, and the Department of Social Sciences and Liberal Arts (SSLA), and the two research centers include the Center for Business and Economic Research (CBER) and Population Research Center (PRC).
The SESS has a faculty comprising seasoned academics, out of which 37 faculty members hold PhDs. The Economics department's faculty employs diverse teaching and research methods in their scholarly work and is highly specialized in the fields of Development Economics, Applied Economics, Macroeconomics, Trade, Industrial Organization, and Labor Economics. The Department of Social Sciences and Liberal Arts prepares students in a wide range of academic disciplines including Philosophy, History, Literature, Political Science, Urban Studies, Media Studies, Anthropology, and Journalism.

Bachelor of Science (BS) Economics

Program Director: Dr. Heman Das Lohano

The BS Economics program is designed to provide students with a solid foundation in Economics and to prepare them for entry-level positions in the private and public sectors, development organizations, banks, investment firms, the education sector, and research organizations.

Bachelor of Science (BS) Economics and Mathematics

Program Director: Dr. Heman Das Lohano and Dr. Danish Ali

The BS Economics and Mathematics program contains fundamental components of two fields of study: Economics and Mathematics. The program prepares students for entry-level positions in private and public sectors, development organizations, banks, insurance companies, investment firms, education sector, and research organizations.

Bachelor of Science (BS) Social Sciences and Liberal Arts

Program Coordinator: Dr. Irum Iqbal Hussain

The Bachelor of Science (BS) in Social Sciences and Liberal Arts is a 4-year interdisciplinary undergraduate program. It draws from and introduces students to a range of academic disciplines in social sciences and humanities. The combination of core and elective courses in the Social Sciences and Liberal Arts degree allows students to develop comprehensive skills in reading and writing, quantitative thinking, problem-solving, critical inquiry, and research. The program offers majors in Psychology, Political Science, Media and Culture, and History. Students can also opt for a minor in World Literature or Urban Studies. Moreover, the Culminating Experience can be completed by students in their final year of the program, if they have a CGPA of 3.0 or higher. The experience provides students an opportunity to carry out original research projects of their own. Students choose a foreign language to study for two semesters and complete two different summer internships, one focusing on research skills and the other on social service.

BS (Economics), BS (Economics and Mathematics) and BS (SSLA) students can pursue a minor in Computer Science, Data Science & Software Engineering as offered by Department of Computer Science, SMCS. For more details, please refer to page **91.**

Master of Science (MS) Development Studies

Program Director: Dr. Arslan Waheed

MS Development Studies is a multi and inter-disciplinary program that explores critical topics of development theory and practices, viewing development as a complex and ongoing historical process. Development Studies also encompasses policy debates around the need for accommodating varied local and grassroots responses to regional or global development processes and rationalities.

Master of Science (MS) Economics

Program Director: Dr. Faiz Ur Rehman

The MS Economics program provides a comprehensive foundation in economic theory, quantitative methods, and practical applications, equipping economists for effective policy planning and analysis. Aligned with international standards, the curriculum emphasizes applied economics to meet the growing demand for skilled analysts. Graduates will acquire the expertise necessary for careers in academia, research, corporate entities, government, and multinational corporations.

MS Journalism

Program Director: Dr. Arslan Waheed

MS Journalism at the Centre for Excellence in Journalism at IBA offers a 1.5-year program that allows students to immerse themselves in all forms of journalism - digital, audio, and video - and acquire hands-on experience in a newsroom under the guidance of experienced instructors. The up-to-date syllabus, which has been adapted, keeping the current global situation in mind, reflects new media trends and practices.

PhD Economics

Program Director: Dr. Faiz Ur Rehman

The fully funded PhD Economics program provides comprehensive training in economic theory, quantitative methods, and practical applications. Focused on both theory and practice, the curriculum meets the demands of economists in policy planning, analysis, and forecasting for both public and private sectors. Compliant with international standards, the program ensures an intellectually stimulating experience, preparing graduates for impactful research and diverse career opportunities in academia, research, corporate entities, government, and multinational corporations.

School of Mathematics and Computer Science (SMCS)

The School of Mathematics and Computer Science (SMCS) at IBA is one of the fastest-growing schools for excellence in teaching and research of computer science in Pakistan. The SMCS has a qualified faculty comprising experienced practitioners and researchers that enrich teaching, provide business consultancies, support startups, and prepare students for higher education and industry. The school has state-of-the-art facilities focusing on undergraduate and graduate education. The research labs for Artificial Intelligence, Web Science, Big Data and Telecommunications allow computer science students to delve deep into the technological realm. In contrast, the mathematics programs offer a thorough background in pure and applied mathematics ranging from high-performance computing to commutative algebra.

Bachelor of Science (BS) Computer Science

Program Coordinator: Dr. Imran Rauf

The Bachelor of Science (BS) in Computer Science is a comprehensive 4-year degree designed to develop skilled professionals with strong problem-solving capabilities in Computer Science (CS) and related fields. This program also prepares students for roles in research and development. The curriculum consists of 135 units, distributed as follows: general education (19 units), CS core courses (56 units), CS electives (21 units), program core courses (21 units), and general electives (9 units). The program's core and general elective courses are drawn from supporting disciplines such as Mathematics, Statistics, Physics, Accounting, Economics, Finance, Human Resource Management, Marketing, Management, and Social Sciences & Liberal Arts. This diverse selection of core and elective courses is carefully structured to provide students with the flexibility to pursue a professional career path that aligns with their interests.

Department of Computer Science offers minors to all undergraduate programs in the following areas:

1. Data Science
2. Computer Science
3. Software Engineering

For more details, please refer to page **91.**

Bachelor of Science (BS) Mathematics

Program Coordinator: Dr. Babar Ahmed Qureshi

Bachelor of Science (BS) Mathematics is a 4-year degree program. This program uniquely offers the opportunity to earn a concentration in allied areas of sciences while adhering to the mathematics core. The flexibility and diversity that this scheme offers to students in studying mathematics, aligns with the current common structure of the BS-Math programs worldwide while keeping in line with HEC guidelines. Regular academic and professional career development guidance is available to students to help them cope with the challenges more effectively.

Master of Science (MS) Computer Science

Program Coordinator: Dr. Tariq Mahmood

The Master of Science (MS) in Computer Science (MSCS) program offers students with a bachelor's degree in CS or allied areas the opportunity to advance their skills through specialized professional and research-oriented training. The curriculum is designed to ensure that graduates can creatively develop technology-based solutions, think critically, and independently analyze systems and emerging problems. The program also prepares students for doctoral studies, equipping them with the foundational knowledge and research capabilities required for advanced academic pursuits. Through a combination of advanced coursework, practical projects, and mentorship from experienced faculty, the MSCS program fosters a comprehensive understanding of both theoretical and applied aspects of computer science, enabling graduates to excel in academia, industry, and research environments.

Master of Science (MS) Data Science

Program Coordinator: Dr. Tariq Mahmood

Data Science lies at the intersection of machine learning, statistics, and big data analysis. The Master of Science (MS) in Data Science (MSDS) program prepares students to extract valuable insights from data using state-of-the-art methods. Designed for students aiming to begin or advance their careers in data science, the program offers a comprehensive blend of statistical and Bayesian modeling, machine learning, deep learning, management of massive data sets, data visualization, software engineering, and data ethics. The curriculum ensures that graduates are equipped with the skills necessary to tackle complex data challenges, implement advanced analytical techniques, and contribute to data-driven decision-making processes in various industries. Through hands-on projects, interdisciplinary coursework, and mentorship from experienced faculty, the MSDS program fosters the development of both technical expertise and ethical considerations, enabling graduates to excel as data science professionals.

Master of Science (MS) Mathematics

Program Director: Dr. Danish Ali

MS in Mathematics aims to provide a thorough background in theory, quantitative methods, and applications commensurate with international standards, offering the opportunity for more specialized training in selected areas of pure and applied mathematics.

PhD Computer Science

Program Coordinator: Dr. Imran Rauf

The PhD in Computer Science program encourages graduate scholars to make significant contributions to their field through original research. It offers specializations in artificial intelligence, computer vision, data science, and theoretical computer science. The program develops candidates' professional and research competencies, enabling them to gain recognition from national and international employers. Scholars are expected to immerse themselves in research, adhering to the institute's strong and vibrant research culture.

PhD Mathematics

Program Director: Dr. Danish Ali

A PhD in Mathematics aims to polish the individual's skills in using Mathematics as a compact language to describe problems in any area. This enables them to theoretically expand the frontiers to create new and formerly unknown avenues in this discipline.

Deans & Chairpersons

Deans

Dr. Abdullah Zafar Sheikh
School of Business Studies (SBS)
PhD (Human Resource Management),
University of Nottingham, UK

Dr. Asma Hyder
School of Economics and Social Sciences (SESS)
PhD (Labor Economist), National University of Sciences and Technology, Pakistan & Sussex University
(Post-Doc) University of Pennsylvania, USA

Dr. Shakeel Ahmed Khoja
School of Mathematics and Computer Science (SMCS)
PhD (Computer Science),
(Post-Doc Fellowship),
University of Southampton, UK

Chairpersons

Accounting and Law

Dr. Sharjeel Hasnie

Computer Science

Dr. Shahid Hussain

Economics

Dr. Muhammad Nasir

Finance

Dr. Hilal Anwar Butt

Management

Dr. Sahar Awan

Marketing

Dr. Nida Aslam Khan

Mathematical Sciences

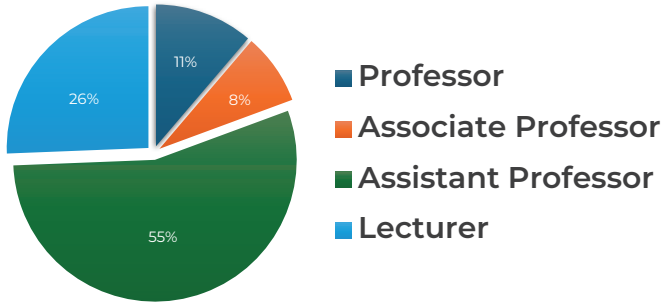
Dr. Hisham Bin Zubair

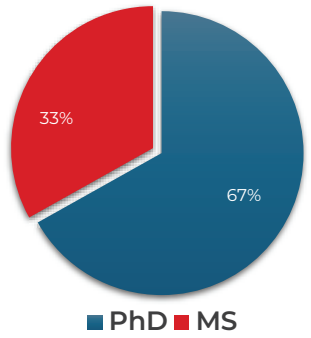
Social Sciences and Liberal Arts

Dr. Laila Sohail Farooq

Full-time Faculty at a glance

PhD (Foreign)	91
PhD (Local)	16
Masters (Foreign)	25
Masters (Local)	28
Total	160
Pursuing Higher Education (Abroad)	6
Pursuing Higher Education (Local)	5
Total	11





Fee Structure

Fall 2024 intake

Undergraduate Programs	
Particulars	**BBA & BS Programs Amount in PKR**
Tuition fee (per credit hour) (Fall-24 Intake)	28,000
Student activity charges	7,000
Course Fee(s) will be applicable on credit hour basis	

MBA Programs		
Particulars	**Morning**	**Executive**
Tuition fee (per credit hour) (Fall-24 Intake)	35,000	35,000
Student activity charges	7,000	-
Course Fee(s) will be applicable on credit hour basis		

MS Programs		
Particulars	**Full-time Programs**	**Part time Programs**
Tuition fee(per credit hour) (Fall-24 Intake)	31,000	31,000
Student activity charges	7,000	-
Course fee(s) will be applicable on credit hour basis		

One - time Charges	
Admission charges (all students)	115,000
Orientation Courses Fee	40,000

Transport Fee (per semester)	
Particulars	**Amount in PKR**
Charges	45,000 (0 - 20 km)
	65,000 (21 km - onwards)

Hostel Fee (per semester)	
Room Type	**Amount in PKR**
Single occupancy - without AC	110,400
Double occupancy - without AC	106,260
Three or more occupancy - without AC	104,400
AC room - Single occupancy	121,440
AC room - Double occupancy	117,300
AC room - Three or more occupancy	113,850

Note:

1. The Summer Semester fees for Hostel residents staying for any reason will be charged on a prorate basis.
2. Utility charges for an AC room will be applied separately based on actual usage.
3. Currently, AC room facilities are available only in the Girls' Hostel.

Financial Assistance Program

PKR 3.17 billion	granted between 2008-2024	**Around 170**	students benefitted from Qarz-e-Hasna facility in 2023-2024
41%	students received financial assistance in the academic year 2023-2024	**Around 600**	students benefitted from installment plan in the academic year 2023-2024

The IBA invites talented and meritorious students from any social background, across Pakistan to enroll and study at the Institute. At the IBA, we believe that financial limitations should not be a hindrance in accessing quality education.

Financial Assistance Packages

The Financial Assistance Packages include the following:

a. Fee Installments

Full-time students enrolled in undergraduate and graduate morning programs, who are facing short-term financing constraints, and are unable to pay the entire semester fee at the beginning of the semester can apply for the fee installment plan.

Installment for the semester fee

- The students can be allowed to pay the fee in two or a maximum of three installments and these installments must be paid within the same semester period.
- The fee installment plan can be availed for the active semester fee only. Installment of fee arrears or defaults is not permissible under this option.
- Fee installment will be allowed after need assessment (i.e. subject to approval).

  Fee installments can be applied for here: https://www.iba.edu.pk/installments.

Deferment of fee

In case a student does not pay his/her total fee within a particular semester then the Finance department shall send an intimation to the student to pay the outstanding dues.

The Director Financial Assistance may call the student and the parents (if necessary) to evaluate the financial situation and reach an amicable solution for the fee recovery. The student may also be directed to avail other options in the Financial Assistance Packages.

If no other options are available and the circumstances necessitate, the Director Financial Assistance may defer the fee payment to a certain date.

If a student is unable to pay the fee in full, then as a first step, the student would have to submit an affidavit on Rs.100 stamp paper for settlement by the deferred date.

The fee balance should be cleared within the same semester period before the commencement of the final exam. If the student fails to clear his outstanding fee, the Finance department may stop him/her from appearing in the final examination for that semester.

b. Need-based financial assistance

The IBA Financial Aid (FA) Program covers a wide range of need-based financial assistance in the form of scholarships. These need-based scholarships are funded through Zakat and the valuable support of public and private sector donors. Upon submission of the need-based scholarship form by the student, the IBA facilitates by providing 'bridge financing' till the applicants are successfully connected with the public or private sector scholarship donor and Zakat funds. The level of bridge financing is determined by the financial need of the student which is assessed through the information provided in the financial aid application form as submitted by the student. This bridge financing may range in between 25% and 100% of the applicable tuition fee and is decided by IBA Financial Assistance Committee (FAC).

Eligibility

For undergraduate students - only full-time students enrolled in morning programs, who are facing constraints, and cannot manage to pay fees through financial assistance options of fee installments and Qarz-e-Hasna, may apply for need-based scholarships.

Applicants can apply for financial assistance to cover their tuition fee for Fall and Spring semesters.

Financial assistance will be provided on a course basis up to the 8th semester of the undergraduate program.

Financial assistance will be provided for graduate students up to the duration of the course mentioned in the Program announcement except for the Executive MBA (EMBA).

Graduate students must take a full load of courses and should not freeze any semester throughout their graduate studies.

The repetition of courses for grade improvement or otherwise and previously withdrawn courses are not covered under need-based scholarships.

Any student receiving Financial Assistance must maintain a minimum CGPA of 2.5. If a student's CGPA falls below this threshold, their financial assistance will be discontinued.

Submission Process

- Students are required to fill out and submit the complete application form online.
- A checklist of required supporting documents is included in the prescribed application form.
- Students are requested to attach scanned copies of all required documents with their applca tion. Incomplete applications will not be processed.
- CNICs for all family members who are above 18 years of age need to be submitted.
- Bridge Financing for New Admissions is available only at the time of admission for new students.
- Existing students must apply again at the start of each academic year for a reassessment of bridge financing.
- Only applications submitted within the stipulated period will be considered for financial assistance, including bridge financing or scholarships.
- Before submitting the application and supporting documents, students may consult with their parents or guardians.

Assessment process

- The submitted application forms and supporting documents are scrutinized by the Financial Assistance (FA) Committee, comprising senior faculty and staff members.
- The applicants may be required to appear for an interview if the FA committee deems it necessary.
- The Committee then ascertains the need level of the applicants against the laid down criteria.
- Scholarship awards are based on the available funds.

Note: The IBA reserves the right to verify all information provided by the candidates. The FA Committee may also conduct personal visits during the verification process and may call students/parents for verification of documentation and to provide Income and expenses details.

It is mandatory for all financial assistance awardees to apply for externally funded scholarships proposed by the IBA Financial Assistance office. Failure to do so will result in the discontinuation of bridge financing by IBA. The student may also be required to fulfill the assessment process of a donor.

The following terms and conditions apply to applicants of the Financial Assistance Program:

- Any student who directly approaches an IBA donor will face disciplinary action.
- The Financial Assistance Committee may also conduct personal visits during the verification process. If, after a physical verification, there is any change in the family's lifestyle compared to the declared income, the Financial Assistance Award will be reversed for that particular semester. The student will be notified of the change in award status via email.
- The applicants may be required to appear for an interview if the Financial Assistance Committee deems it necessary.
- The Financial Assistance Committee may also call students/parents for verification of documentation and Income and expenses details.
- If students fail to submit need-based scholarship forms (either fresh or renewal) within the stipulated dates, it will result in the cancellation of financial assistance.
- The IBA will provide 'bridge financing' till the applicants are successfully connected with the external donor (Government or private or Zakat). The applicants are required to keep applying for the externally funded scholarship (which is arranged by the IBA) till they are successfully parked with a donor. Such students are also advised to keep checking IBA Financial Assistance page as well as their registered email accounts to be aware of available donor-funded scholarships and should apply for the same. In case the applicant fails to apply for an externally funded scholarship, the Financial Assistance Committee will discontinue 'bridge financing' for that student.
- The IBA reserves the right to verify all information provided by the candidates.

In case of providing false information:

- The need-based financial assistance award will be revoked and the applicant will also be disqualified from applying for any loan / financial assistance in future.
- The student will have to refund all financial assistance payments received to date and / or bear the penalty equal to the total financial assistance amount on an immediate basis.
- Misrepresentation or concealment of facts may lead to the termination of admission from the Program.

Students can send their financial assistance queries at financial-aid@iba.edu.pk

Facilities at IBA

Facilities and infrastructure

Main Campus

The IBA Main Campus is spread over 50 acres of land for educational facilities, a residential complex, and boys and girls hostels. It is located within the premises of the University of Karachi and comprises around 30 classrooms, 8 seminar rooms, 5 computer labs, and 14 breakout rooms. These are in three academic buildings: Adamjee Academic Center, Abdul Razzak Tabba Building and Aman Center for Entrepreneurial Development. All instructional spaces are fully equipped with the latest audio-visual and video conferencing facilities to boost the overall learning experience.

Other facilities at the Main Campus include:

- Gani & Tayub Auditorium (seating capacity of 300)
- Mian Abdullah Library
- Alumni Students' Center
- Khawar Butt Gymnasium for males and females
- Pepsi & Adamjee cafeterias
- TPL Event Hall
- UBL Sports Complex
- Amphitheatre (seating capacity of 450)

Sports facilities

The Department of Sports and Community Engagement (SP@CE), under the Office of Registrar provides a platform to the IBA Community, including potential students to not only maintain mental, physical, and social well-being but to also hone their talents through sports activities. SP@CE has several coaches that train students in various sports. Students are encouraged to participate in sports events and different local, national, and international tournaments.

Outdoor sports facilities:

- Cricket ground
- Football ground
- Tennis courts
- Basketball court
- Volleyball, throwball court,
- Netball and Handball court
- Archery

Indoor sports facilities:

- Table tennis
- Badminton court
- Snooker, foosball, carrom, chess and ludo

Apart from these facilities we also facilitate and provide opportunities for professional sports persons in any sports, to participate at national and international levels.

Gym

The facility of the gym is available for all IBA students, staff, faculty, and alumni at both Main and City campuses. The separate gyms for girls and boys are well-equipped with different workout machines enabling users to select a variety of workout plans. Moreover, the gym instructor educates users about fitness and provides training to strengthen and maintain their physical health. Additionally, some basic gym equipment for the Visiting Faculty Residence (VFR), boys and girls' hostels is also available.

Labs details

- NBP Building: 1 hardware lab
- Aman CED Building: 3 computer labs, 1 finance lab, and 1 neuro lab
- Abdul Razzak Tabba Building: 1 computer lab, 1 BDA lab, 1 web science lab, 1 TRL lab, 1 robotic Lab, and 1 game lab
- Adamjee Academic Center: 1 economy growth & forecasting lab Fauji
- Foundation Building: 1 physiology lab

Breakout rooms

- Abdul Razzak Tabba Building: 2
- Adamjee Academic Center: 8
- Society Offices in ASC: 4

City Campus

The IBA City Campus is situated at Kayani Shaheed Road, Garden Road, and spreads over 3.5 acres. It consists of:

- Aman Tower
- Towfiq H. Chinoy Administration Building
- Faysal Bank Academic Block
- Habib Bank Academic Building
- Library at Aman Tower
- JS Auditorium (seating capacity of 400)
- Gymnasium for males and females (situated in HBL Academic Block)
- Cafeteria Aman Tower, 5th floor
- Pepsi cafeteria (ground floor parking area)

Existing facilities include 16 classrooms, 3 seminar halls, 2 lecture theatres, 1 VC room, 4 executive rooms for workshop and training sessions, and 5 computer/ICT laboratories. The campus houses the Centers for Excellence in Executive Education (CEE), Journalism (CEJ), Information and Communication Technology (CICT), Center for Entrepreneurial Development (CED), Islamic Finance (CEIF), and Office of Research Innovation and Commercialization (ORIC) at Aman Tower. Moreover, the HBL Building houses the incubations of the Center for Entrepreneurial Development (CED), QEC and Alumni Affairs, Resource Mobilization and Corporate Relations (ARC) offices.

Health centre

Martin Dow collaborated with the IBA to provide quality healthare facilities for its students, faculty, and staff. The clinic is accessible 6 days a week and provides the students with high quality medical facilities at the campus.

Cafeterias

Main Campus

The IBA cafeterias at the Main and City campuses cater to the needs of the institute's populace with hygienic meals, snacks, and refreshments that are available at affordable rates. Primary cafeteria facilities at the Main Campus can be found at the Alumni Students' Center in the form of a Pepsi dining hall with an additional food outlet called Raptor. The cafeterias at the Adamjee Academic Center also offer their services to the students and faculty on working days. To facilitate the IBA community, the management arranged some more food outlets:

Main Campus cafeterias

- Coffee shop in the library
- Kiosks (Nawab Dynasty, Kabab Hut, and Soda Voda), a coffee shop inside the Mian Abdullah Library

City Campus cafeterias

- Cafeteria Aman Tower, 5th floor
- Pepsi cafeteria (ground floor parking area)
- Kiosks (The Crepray & Amanat canteen)

ATM and banking facilities

To cater to the banking needs of students, faculty, and staff members, both campuses are equipped with ATM machines installed by HBL. Furthermore, a few prominent bank branches are present within walking distance of both campuses. IBA also installed ATMs for the Girls Hostel and Staff Town to facilitate the community. An ATM for the boys hostel is also in the pipeline.

Library

IBA library promotes teaching, learning, and research by acquiring relevant resources and proactively offering new services essential to foster learning. New learning resources, such as books, case studies, electronic databases, and indigenous research support materials are added to the library's collections regularly, ensuring that the library remains a vital hub for knowledge acquisition and exploration.

Spaces

The libraries on both campuses provide a stimulating environment conducive to learning. The physical library facilities have been designed to accommodate contemporary learning styles, including Collaborative Commons, Individual study spaces, Research Commons, Faculty Commons, and a coffee shop.

Resources

Over 32 electronic databases are a part of subscription, allowing campus-wide and remote access to a diverse collection of full-text multidisciplinary digital materials such as e-Journals, e-Books, case studies, data sets and industry-related research analysis reports. Moreover, around 77,000 print volumes are available in the library's physical holdings, with an average of 1,500 new titles purchased each year. In addition to these digital and printed resources, the library also manages iRepository, the digital repository to showcase the institutional archive, research, history, and accomplishments.

Services

The library strives to offer its patrons a diverse range of innovative, academic, and research support services supported by cutting-edge technologies. The library services are intended to supplement lifelong learning. To learn more about the library services, visit http://library.iba.edu.pk

Information discovery & retrieval

The library utilizes a robust interface that simplifies information retrieval and provides a unified search tool to browse the entire catalog. Its Discovery feature aggregates results from various resources on one page for ease in searching of relevant information sources. Additionally, there is an easy-to-use interface for accessing and exploring all the digital journals the library subscribes to.

Research support, engagement and outreach

The library supports research with referencing consultations, database orientations, and on-demand documents. It engages the academic community through training sessions, an active Research Commons, and events such as documentary screenings, displays for special days, and recognition of top readers. This approach enhances the research environment and strengthens the library's role in academic scholarship at IBA.

Digital literacy

With an active involvement in conducting Information Literacy and Information Management Handling workshops, alongside regular orientation sessions for students and faculty, the library helps our users make informed decisions with all information. These sessions ensure that users are equipped with the necessary skills to navigate the academic resources available to them effectively.

Digital scholarship & publishing

Through IBA's Institutional Repository, iRepository, the library archives, and showcases institutional research, history, student scholarship, faculty publications, and events. It ensures global accessibility to these materials, highlighting the institution's impact. The library also supports digital archiving and publishing for the Business Review journal..

Connect with us:

https://library.iba.edu.pk/
library@iba.edu.pk
https://www.facebook.com/ibalibrary/
https://www.instagram.com/iba_library/

On Campus Accommodation - Hostels for Boys and Girls

Overview

The IBA Karachi provides hostel facilities to its full-time, regular students from outside Karachi. Two hostels, one each for female and male students, are located within the premises of the University of Karachi. Both the hostels are secure spaces, guarded 24/7 by trained security professionals and through CCTV surveillance.

The hostels are spread over an area of 2.5 acres, surrounded by lush green lawns, trees, and gardens. Hostels' design amalgamates the needs of modern urban living with sustainability, while vast and open corridors enable a pleasant, properly ventilated living space.

The IBA hostel life is a testimony to IBA's diversity and inclusivity. Residents come from across Pakistan and other countries and bring with them diverse cultural, economic, social, and religious backgrounds to share a similar bond, which is their association with the prestigious institution and with each other. The IBA hostels provide an atmosphere where students can learn and develop life-long associations while enjoying a comfortable setting.

Residents' security is a top priority for the institute and the hostels are guarded 24/7 by professional security personnel, with the entrance and exit points under constant CCTV surveillance. The IBA Girls hostel is a secure, residential complex for the institute's female students, managed by a female superintendent and a resident warden. The hostel is located near the IBA campus with the facility of a regular shuttle service.

The hostels' residents are encouraged to live like one big family, helping each other wherever required and making hostels a home away from home. The hostel management makes tremendous efforts to provide the residents with a clean, hygienic and congenial environment to facilitate this brief but integral part of their professional journey. Discipline and compassion for fellows are two core values that the hostel management encourages and inculcates among students. The hostels foster a sense of ownership among residents, enabling them to create memories that they cherish for years. The hostel management also encourages the residents to participate in numerous cultural and social activities that are organized by the Hostel Society. Some of these include the annual welcome dinner for the hostel freshman batch, Eid-Milad-un-Nabi, Basant and Diwali celebrations, cricket and football tournaments, and the annual farewell dinner for the hostel graduating batch.

Facilities

All rooms are equipped with a smart wardrobe, study table with drawer, and a single bed with a closet compartment for additional storage. Below are the details of the facilities at the hostels:

1. Air-conditioned common rooms and TV lounges
2. Indoor gyms
3. Game room
4. Badminton court
5. Laundry room
6. Multi-purpose rooms for extra-curricular activities and green spaces for outdoor sports and other activities
7. Air-conditioned dining halls
8. High-speed internet facility
9. Prayer room
10. Subsidized laundry services (for boys hostel)
11. Chilled water dispensers (potable water)
12. 24-hour tuck shop/ vending machine
13. On-campus healthcare facility
14. On-campus mental wellness counselor

Boys hostel	Girls hostel
Capacity: 469	Capacity: 266
Single Rooms: 435	Single Rooms: 06
Shared Rooms: 07	Shared Rooms: 135
Dormitories: 10	

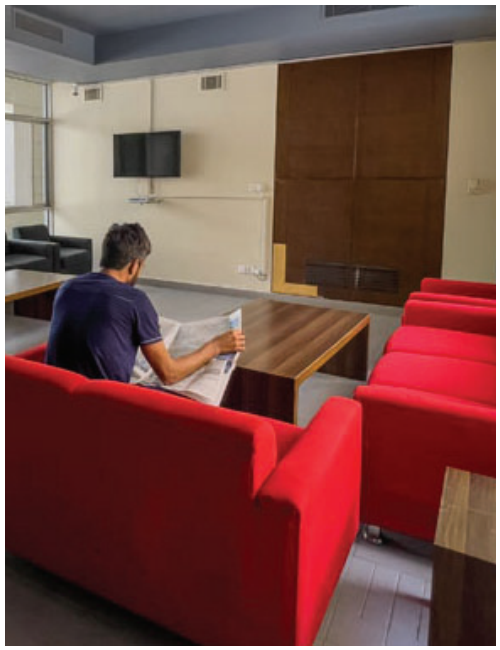
For queries, please contact:

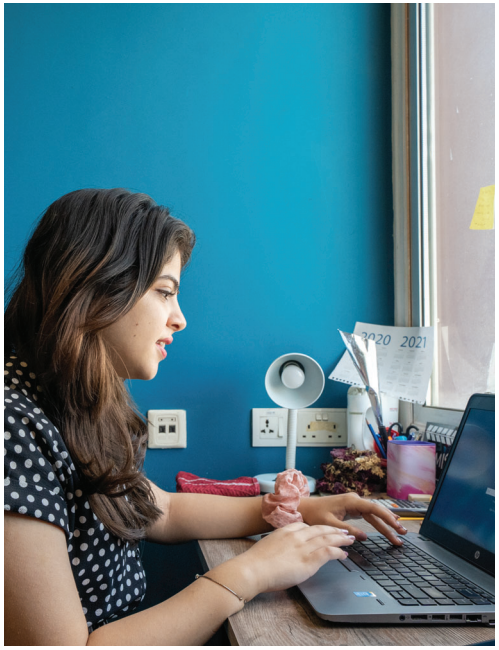
Dr. Mohsin Sadaqat
Superintendent
mohsin@iba.edu.pk
Ext. 3053

Mr. Mujahid Hussain Detho
Warden
mhussain@iba.edu.pk
Ext. 2015

Ms. Mahwish Butt,
Assistant Manager (Admin) Girls hostel
mbutt@iba.edu.pk
Ext: 1817

To apply for accommodation, click here: https://onlineadmission.iba.edu.pk





Student Services

Career Development Centre

The IBA Career Development Center (CDC) is a comprehensive resource centre dedicated to empowering students throughout their academic journey. We provide essential support for career exploration, development, and placement. Our services encompass career counseling, internship facilitation, employability skill enhancement, and graduate school admissions guidance. By forging strong partnerships with industry and academia, the CDC bridges the gap between classroom learning and professional success, helping students identify and pursue fulfilling career paths.

The primary objective of the CDC is to guide members of the IBA community to identify, understand, select, and achieve their career and higher education goals through programs and interventions that provide learning opportunities tailored to their individual needs.

Explore the CDC's suite of services designed to empower IBA students:

1. Personalized Career Guidance: Our career advisors offer one-on-one consultations to help students make informed career decisions and map their ideal career paths. Appointments are scheduled through the job portal.

2. IBA Job Portal: This powerful online platform connects students and alumni with potential employers. It features a graduate directory where students and alumni can create profiles and access job/internship opportunities. Employers can post vacancies, view profiles, and shortlist candidates. Over 1300 companies actively utilize the portal.

3. Corporate Connect Series: Partnering with faculty, the CDC organizes workshops and panel discussions featuring industry guest speakers. These sessions provide students with practical insights, bridging the gap between classroom learning and real-world practices. Faculty can easily request guest speakers through an online system.

4. Career Exploration Excursions: Throughout the year, the CDC organizes field trips to companies, enabling students to learn about different industries, network with employees, explore career opportunities, and tour facilities. Additionally, under 'Study Trips', the CDC facilitates faculty-led industry visits tailored to specific course needs.

5. Learning Resource Hub: This new online platform focuses on experiential learning beyond the classroom. It offers a comprehensive database of seminars, interactive talks, virtual and on-site training, skills-based workshops, and real-time simulation archives, equipping students with essential skills for today's workforce.

6. Social Impact Internships: All undergraduate students complete six weeks of social work through the Responsible Citizen Initiative (RCI) program. Students partner with NGOs, community-based organizations, or charities during their summers. The CDC has established extensive partnerships to facilitate these placements.

7. Corporate Internship Program: A mandatory program for all undergraduate and non-BBA, MBA students. Undergraduates complete internships before their senior year, while MBA students complete them after their first year. The CDC facilitates connections between students and recruiters, while also helping students find suitable opportunities.

8. Streamlined Internship Documentation: Following their internship, students submit required documents (report, certificate, and supervisor evaluation) through a convenient online application system.

9. Online Recommendation Request System: Junior students can request general or customized recommendation letters for internships through the Student Facilitation System.

10. Annual Career Fair: This flagship event connects potential employers with emerging leaders. Students gain valuable networking and career exploration opportunities by interacting with over 150 companies.

11. On-Campus Recruitment: Throughout the year, the CDC hosts multiple recruitment drives where employers visit IBA campuses to conduct company presentations, interviews, assessments, and other activities. These events typically occur from January to May, targeting graduating students.

12. Global Grad Explore Program: The CDC empowers students with information and resources for postgraduate studies. This program includes informative sessions featuring guest speakers, faculty members, and alumni. Sessions cover program options, admission requirements, funding opportunities, and career prospects. The CDC also collaborates with organizations like Education USA and IDP to strengthen its counseling services.

13. Experiential Learning Projects (ELP): A mandatory four-month program for final-semester BBA and BS Accounting & Finance students. Working in groups, students conduct research, analyze issues, and develop solutions, gaining practical industry knowledge and exploring potential organizations. Visit https://elp.iba.edu.pk for more information.

14. Mentorship Programs: IBA leverages its strong alumni network (over 13,000) through two flagship initiatives:

- **Parvaaz Mentorship Program:** A 4-month program pairing final year students with industry experts for personalized guidance.
- **Maverick Mentorship Program:** On-campus events where students can meet and connect with mentors one-on-one. These programs assist students in exploring career options and formulating personalized career plans.

15. Mock Interviews: The CDC provides on-campus mock interviews, tailored simulations of real job interviews. These exercises, facilitated by industry experts, offer students valuable experience, and help them improve interview skills.

16. Graduate Profiles: The CDC publishes annual 'Profile Books' on the IBA Job Portal, showcasing graduating students' profiles to potential employers. Graduates can update their profiles regularly for optimal visibility during recruitment.

17. Digital Media Presence: The CDC maintains active digital platforms (Facebook group and page, LinkedIn page, and program-specific WhatsApp groups) to keep students and alumni updated on career development announcements, internships, jobs, and other relevant information.

To connect with us, visit the following networks:

Facebook Page: https://www.facebook.com/ibacdc.khi/
Facebook Group (restricted to IBA students and alumni): https://www.facebook.com/groups/ibacdc
Email: cdc@iba.edu.pk | teamcdc@iba.edu.pk
Twitter: https://twitter.com/ibacdc
Instagram: https://www.instagram.com/ibacdc/
Website: https://cdc.iba.edu.pk

Office of Student Affairs (OSA)

Dean's Message

As Dean of Student Affairs (DSA), I am delighted to welcome you all to the Institute of Business Administration (IBA), Karachi. I am very excited to have you all on campus and look forward to getting to know you as you get connected to the IBA community. As the DSA, my role is to ensure that your non-academic needs are met during your time here. My Office plays an integral role in community engagement, talent, and skill development, and student leadership development; students are encouraged to participate in student-led clubs, societies, and the IBA Student Government (ISG). The International Resource center (IRC) partners with international universities to provide students with exchange opportunities and other international collaborations to gain international exposure. By providing opportunities for students to get involved, develop new skills, and make a positive impact in their community, our aim is to enhance the overall student experience at the IBA.

We also provide support to students through health and wellness programs and diversity and accessibility services and programs, to foster a safe, welcoming, and inclusive environment at the IBA, where students can grow both academically and personally.

As Dean Student Affairs, I also believe in enriching your university experience by encouraging you to participate in leadership development, coaching, and peer programs to foster learning, growth, and community development. You may face challenges, and that is what the Office of Student Affairs is here for - to support you and connect you to faculty, staff, and campus resources. What is close to my heart is fostering a culture of inclusion, mutual respect, and acceptance amongst the IBA community.

Looking forward to meeting you all for an engaging and diverse experience! Wishing you all the best!

Maheen Ghauri
Dean - Student Affairs

Office of Student Affairs (OSA)

Office of Student Affairs (OSA)

The Office of Student Affairs at IBA is dedicated to creating an engaging and diverse experience for every student at the IBA Karachi. The Office plays an integral role in community engagement, talent and skill development, and student leadership development. It provides students with opportunities to extend their passions, talents, and competencies beyond academia by participating in curricular, co-curricular, and service-oriented activities. The Office proactively responds and is adaptable to student-centric needs, and evolving trends and priorities.

Student Affairs is also committed to fostering a culture of inclusion, mutual respect, and acceptance with respect to diversity. It plays a pivotal role in promoting a safe, welcoming, and inclusive environment and campus life for students, especially for those who may be differently-abled or may have special needs – our job is to support students' individual and group needs and to endorse the value of a diverse society.

The Office of Student Affairs is a one-stop solution to address all student needs and queries, to direct them to the relevant schools and student support offices, including facilitating them with academic, career, mental health, or general counseling as well.

For details, please visit: https://osa.iba.edu.pk/

The student service and support offices that fall under the Student Affairs umbrella are:

Office of Student Societies (OSS)

The Office of Student Societies (OSS) believes in creating a culture of inclusiveness and promoting self-discovery and diversity through multiple student activities. OSS encourages students to try out new things and participate in activities that enrich their lives outside of academics. Through these co-/extracurricular activities, students get involved in campus life and get to know themselves and others. The Office of Student Societies plays an integral part in the holistic development of the students that happens when they participate in different activities happening on and off campus. There are 30+ student run societies that work under the umbrella of the Office of Student Societies. Through these societies, OSS sets a benchmark of commitment, trust, hard work, and leadership for all students to follow. The Office of Student Societies caters to all domains of interests that a student could possibly pursue, and if a club/society is not available, students can request OSS and a committee will look into it.

For details, please visit: https://osa.iba.edu.pk/oss/

IBA Student Government (ISG)

The IBA Student Government (ISG) is a representative body that serves as the voice for the student body. Comprised of elected representatives from each of the three schools at the IBA, the student government plays a crucial role in shaping the student experience by advocating for the needs and concerns of the students to the administration and faculty.

The student government also engages with the student body and organizes various events and initiatives throughout the year, including the graduating batch farewell and incoming students welcome.

For details, please visit: https://osa.iba.edu.pk/oss/isg.php

International Resource Center (IRC)

The International Resource Center (IRC) under the umbrella of the Office of Student Affairs (OSA) provides opportunities to students to extend their learning by complementing their academic experience with international exposure. The IRC team connects and partners with international universities to offer students exchange opportunities to experience globalized classroom content, develop employability and transferable skills, and expand international and cultural networks. The IRC also offers a range of services to facilitate and support students in going abroad for summer and semester exchange programs, conferences, international competitions, and more.

The IRC at IBA also invites students, professionals, and academics from diverse fields to attend IBA courses and programs, conduct research, and be a part of the diverse IBA community. IRC promotes international academic excellence by strengthening transnational education, student, faculty, and staff exchanges, international student recruitment, research and entrepreneurship collaborations.

For further details: https://osa.iba.edu.pk/irc/

Health and Wellness/ Student Counseling

IBA believes that the mental health of its students is just as important as their physical health. The Health and Wellness Center at IBA provides multi-level mental health facilities for our students. For Wellness Counseling, please see the link below and make an appointment with our dedicated team of Clinical Psychologists/Wellness Counselors and Psychiatrist by clicking on the available slots on our website.

Students are encouraged to visit the website: https://healthandwellnesscenter.iba.edu.pk/ or reach out to Health and Wellness Center, Martin Dow.

Office of Student Affairs (OSA)

Office of Diversity, Accessibility, and Inclusion (ODAI)

ODAI believes and works on the premise that every student is unique, belonging to diverse backgrounds. It aims to create an inclusive environment, accepting every individual's different background, characteristics, and differences in perspective and demographics, which include race, age, religion, disability, and gender, as well as skills, experiences, and abilities. It aims to eliminate discrimination, break down barriers, and facilitate and ensure equal opportunities and access for all students.

For further details: https://osa.iba.edu.pk/odai/

Student Leadership, Coaching, and Peer Programs

To enrich the university experience, students can participate in leadership development, coaching or peer programs that foster learning, growth, community development, and peer support. These students can attend workshops, seminars, and programs that will build their skills to motivate, influence, and guide other students at IBA. Students can realize their potential through such programs, and provide support to students experiencing challenges, connecting them to faculty and staff, and to campus resources.

Student Employment and Volunteering

Students are offered opportunities to work part-time on both campuses during the semester and the summer. They can be employed in various departments (administrative, academic, or support service departments). These can be both paid (student employment) or unpaid (volunteering).

The number of work hours per week differs based on the nature of employment. Student Affairs also helps students in search for volunteering opportunities outside IBA as well.

Student employment and volunteering allow students to develop their professional and soft skills and academic expertise. It also teaches them life skills, including building a sense of responsibility and work ethic.

Activities Studio

Activities Studio

School of Business Studies

IBA SBS
School of
Business Studies

School of Business Studies (SBS)

The Institute of Business Administration, (IBA) is one of the most prestigious higher education institutions located in the city of Karachi, the financial hub of Pakistan. The School of Business Studies (SBS) is the largest and flagship School in IBA. SBS is also a leading business school within Pakistan with a state-of-the-art campus that follows the best international standards and offers faculty and students a unique learning and teaching experience along with well-equipped spaces conducive for teamwork and creativity. SBS is actively pursuing AACSB accreditation and has already achieved a key milestone in the AACSB journey. SBS faculty comprises distinguished experts across a variety of business disciplines and hold doctorates from world-renowned universities. The school offers a wide range of programs in different management disciplines to train a new generation of high-potential executives.

Dean's Message

Dr. Abdullah Z. Sheikh

Welcome to the School of Business Studies (SBS), IBA. I am proud to share with you the factors that make our school the right place to receive an unrivaled business education in Pakistan. Our location in Karachi provides us an outstanding backdrop to leverage our distinctively talented student body and world-class faculty to liaise with corporate Pakistan and numerous multinationals, situated in the metropolis. The IBA Karachi has ingrained its mark in the history of Pakistan through its strong alumni network, making it a legacy of the IBA. As Dean, SBS, I feel privileged to lead the school which is on a trajectory of nurturing many more graduates who will leave their mark around the world in all walks of life.

I am filled with great optimism about our future and feel delighted in affirming that we are entering a new era where we are setting out to embark on an ambitious journey. Once SBS secures AACSB accreditation, it will place us among the upper echelon of business schools worldwide. Consolidating that our emphasis would be to secure further prestigious accreditations globally to validate the good things we do. We are also striving for SBS to feature prominently in the global league tables. Furthermore, the SBS will actively pursue international academic collaborations with top business schools which will create meaningful exchange opportunities for students and faculty members.

We live in an era of disruptions, where conventional methods of teaching, research and industry best practices are becoming redundant. Globally and locally, such disruptions are pressing business schools to engage in thoughtful leadership and demand agility to stay relevant. The SBS is very student-centric and provides a holistic student experience.

With a market-driven curriculum across our programs, we differentiate ourselves with a powerful combination of top academic talent from around Pakistan, a vibrant business community at our doorstep and a world-class faculty aiming to make a difference. We aim to engage with our alumni robustly to further deepen our industry linkages. The key focus of the school is on teaching effectiveness and impactful intellectual contributions. The ethos of innovation, entrepreneurship and commercialization remain at the heart of the process where faculty, students and corporate leaders engage purposefully to create unique constellations to solve indigenous and global challenges.

Overview of Departments

Department of Accounting and Law

The programs offered at the Department of Accounting and Law provide conceptual and practical knowledge that enables our graduates to successfully find solutions and navigate their way in today's challenging market. The department's faculty, who are professional accountants, and lawyers with extensive practical experience, focus on imparting contemporary knowledge through practical problems and cases.

Department of Management

With an emphasis on preparing students to attain profound critical thinking and analytical skills in the field of management, the Department of Management endeavors to impart theoretical and practical knowledge in the specialized areas of strategy, organization, operations management, entrepreneurship, and leadership.

Department of Finance

The Department of Finance offers a variety of courses to inculcate financial decision-making skills in students. The department is dedicated to developing and maintaining a curriculum integrating information technology, ethics and sustainability. The diverse faculty of the department contributes to impactful research and regularly engages with the business community for experiential learning of the students, knowledge creation and continuous improvement of the curriculum.

Department of Marketing

Our students are propelled from the basic to more critical and specialist levels at the Department of Marketing. The courses help students learn about the traditional and the most recent advances in marketing using local and international case studies, simulations, and other experiential exercises. Students can connect marketing theory with practice and are prepared for a career across any industry.

Programs on Offer

School of Business Studies

S. No.	Information	Bachelor of Business Administration (BBA)	Bachelor of Science (BS) Accounting and Finance	Master of Business Administration (MBA)	Executive MBA	Master of Science (MS)			
						Marketing	Islamic Banking and Finance	Management	Finance
1	Admission requirement	Higher secondary school certificate with a minimum of 65% marks or A levels (minimum of 2 'B's and 1 'C') in 3 principal subjects or American high school diploma minimum of 80% or an international baccalaureate (minimum 25/45) **Note:** All international certificate/degree holders must provide an equivalency certificate from IBCC/HEC.	Higher secondary school certificate (any group with 60% marks) or A level (minimum of 1 'B' and 2 'C's) in 3 principal subjects or American high school diploma (minimum of 80%) or An international baccalaureate (minimum 24/45) **Note:** All international certificate/degree holders must provide an equivalency certificate from IBCC/HEC.	A minimum of 16 years of education (Culminating in BS / BBA / BE or Equivalent degree) out of which 4 years should have been spent in an HEC recognized university/degree awarding institute with 2.5 CGPA on a scale of 4.00 or 60% marks in the last degree (whichever is applicable). Percentage is only considered if CGPA is not available. (Candidates with work experience will be preferred). **Note:** All international certificate/degree holders must provide an equivalency certificate from IBCC/HEC.	A minimum of 16 years of qualification out of which 4 years should have been spent in an HEC recognized university/degree awarding institution with: A minimum of 60% aggregate marks (Percentage is only considered if CGPA is not available) or a minimum of 2.50 CGPA on a scale of 4.00 (as applicable) and significant managerial experience is mandatory **Note:** All international certificate/degree holders must provide an equivalency certificate from IBCC/HEC.	A minimum of 16 years of education (culminating in BS / BBA / BE or equivalent degree) out of which 4 years should have been spent in an HEC recognized university/degree awarding institute with 2.5 CGPA on a scale of 4.00 or 60% marks in the last degree (whichever is applicable). Percentage is only considered if CGPA is not available. **Note:** All international certificate/degree holders must provide an equivalency certificate from IBCC/HEC.	A minimum of 16 years of education (culminating in BS / BBA / BE or equivalent degree) out of which 4 years should have been spent in an HEC recognized university/degree awarding institute with 2.5 CGPA on a scale of 4.00 or 60% marks in the last degree (whichever is applicable). Percentage is only considered if CGPA is not available. All equivalency claims shall be evaluated by the HEC. **Note**: All international certificate/degree holders must provide an equivalency certificate from IBCC/HEC.		A minimum of 16 years of education (culminating in BS / BBA / BE or equivalent degree) out of which 4 years should have been spent in an HEC recognized university/degree awarding institute with 2.5 CGPA on a scale of 4.00 or 60% marks in the last degree (whichever is applicable). Percentage is only considered if CGPA is not available. **Note:** All international certificate/degree holders must provide an equivalency certificate from IBCC/HEC.
2	Aptitude test component	▪ English composition (MCQs) ▪ Mathematics (MCQs)	▪ English composition (MCQs) ▪ Mathematics (MCQs)	▪ English composition (MCQs) ▪ English comprehension (essay writing skills) ▪ Mathematics (MCQs)	▪ Business English (MCQs) ▪ Case study ▪ Applied Mathematics (MCQs)	▪ English composition (MCQs) ▪ Mathematics (MCQs) ▪ Essay writing	▪ English composition (MCQs) ▪ Mathematics (MCQs)	▪ English composition (MCQs) ▪ Mathematics (MCQs) ▪ Essay writing	▪ English Composition (MCQs) ▪ Mathematics (MCQs) ▪ Finance (MCQs)
3	Aptitude test - difficulty level	SAT-I	SAT-I	GMAT/GRE	GMAT/GRE	GRE general and GMAT	GRE general and GMAT		GRE General or GMAT exam
4	Aptitude test exemption**	**Refer to the next page**	**Refer to the next page**	Minimum 600 score in GMAT/ 160 in quantitative and 150 in verbal GRE (int'l)	Minimum 600 score in GMAT/ 160 in quantitative and 150 in verbal GRE (int'l)	160 in quantitative and 150 in verbal GRE (int'l)	160 in quantitative and 150 in verbal GRE (int'l) 600 score in GMAT		Minimum score of 650 in the Quantitative GRE General, 160 in Quantitative section of Revised GRE General, OR 600 score in GMAT
5	Student profile	Avg. age: 19	Avg. age: 19	Avg. age: mid 20s	Avg. age: mid 30's Avg. work experience: 7 years	Avg. age: mid 20s	Avg. age: mid 20s		Avg. age: mid 20s
6	Graduation	40 courses, 128 credit hours, responsible citizen initiative (RCI), corporate internship Personal effectiveness course (PE)	40 courses, 126 credit hours, responsible citizen initiative (RCI), corporate internship Personal effectiveness course (PE)	18 courses, 1 project, 60 credit hours, duration 24 months, (corporate internship for non-BBA background	24 courses, 72 credit hours, 1 project, comprehensive exam -	6 core courses, 4 electives, 30 credit hours, thesis/project, 6 credit hours	MS core and elective courses: 12 courses, 36 credit hours, Research thesis or Project Paper*: 6 credit hours	6 core courses 4 electives Thesis/Project	7 courses, 3 electives, (30 credit hours), Thesis/project (6 credit hours)
7	Fees	Click here to view the fee structure https://www.iba.edu.pk/fee structure.php	Click here to view the fee structure https://www.iba.edu.pk/fee structure.php	Click here to view the fee structure https://www.iba.edu.pk/fee structure.php	Click here to view the fee structure https://www.iba.edu.pk/fee-structure.php	Click here to view the fee structure https://www.iba.edu.pk/fee-structure.php	Click here to view the fee structure https://www.iba.edu.pk/fee-structure.php	Click here to view the fee structure https://www.iba.edu.pk/fee-structure.php	Click here to view the fee structure https://www.iba.edu.pk/fee-structure.php
8	Classes start	August	August	August	August and January	August	August and January	August	August
9	Duration	4 years full time	4 years full time	2 years	2.5 years	1.5 years	2 years	1.5 years	1.5 years
10	Campus	main/city	main/city	main	main	Main	city	main	city

***Criteria for IBA Aptitude Test exemptions**	**BBA & BSAF program – SAT I** • A score of 600 (out of 800) in Mathematics • A score of 600 (out of 800) in Evidence-Based Reading and Writing • Total of 1270 is required • Scores of Essays are not required for the purposes of admission, however may preferably be submitted for placement in English courses subsequent to admission
	BBA program – ACT • A Composite Score of 29 (out of 36) • An English / Writing Score of 25 (out of 36)
	BSAF, BSCS, BSECO and BSEM program – ACT • A Composite Score of 28 (out of 36) • Score of English / Writing is not required for the purposes of admission, however, may preferably be submitted for placement in English courses subsequent to admission

Bachelor of Business Administration (BBA)

The Bachelor of Business Administration (BBA) is a full-time 132 credit hours program comprising of four years of rigorous education which allows the student to have a broader view of the business world. The academic program does not only emphasize the essentials of business subjects, but also introduces students to the basic knowledge in Social Sciences, Mathematics and Computer Sciences during their freshman and sophomore years. All BBA students are required to enroll for Personal Effectiveness, a series of mandatory non-credit courses which build and enhance soft skills and help in personality development of students.

Although there are no formally labelled Specializations, students can opt for any combination of electives from Marketing, Business Analytics, Accounting, Finance, Supply Chain, Human Resource Management (HRM), and Entrepreneurship. Based on feedback from the alumni and human resource representatives of major corporations, the IBA has included experiential learning into the curriculum. Students must undergo two internships (one as a responsible citizen initiative in an NGO and another in a corporate organization) and a semester long experiential learning project (ELP), which is in the form of a project awarded by corporate clients, an on-the-job training in the real business environment. This allows the students to network with their future employers and introduces them to the challenges of the real business world.

Program structure

Time to completion	4 years
Semesters	8
Core courses	30 (84 Credit hours)
Elective courses	13 (39 Credit hours)
Experiential Learning Project (ELP)	1 (6 Credit hours)
Corporate Internship (6-8 weeks)	1 (3 Credit hours)
Total courses	43+ELP+Internship
Total Credit Hours	132
Responsible Citizen Initiative (RCI)	1
Personal effectiveness program (Non-Credit)	10 hours

Eligibility criteria

For the eligibility criteria, refer to pages **29-30.**

Program learning competencies

1. Knowledge of Business & Management
Students will be able to demonstrate a foundational understanding of core business functions.

2. Critical Thinking and Problem-Solving
Students will be able to critically analyze and evaluate information in a business context.

3. Communication and Teamwork
Students will be able to communicate effectively and collaborate within teams to achieve desired objectives.

4. Ethical Awareness and Social Responsibility
Students will be able to analyze ethical dilemmas and understand legal and regulatory frameworks in business.

5. Technology and Information Literacy
Students will be able to leverage technology and information resources to analyze data and communicate effectively in a business context.

Breakdown of credit hours

Course category	Courses	Credit hours
General Education Courses	**12**	**30**
Interdisciplinary Courses	**4**	**12**
Business Core Courses	**14**	**42**
Business Elective Courses	**10**	**30**
Free Electives	**3**	**9**
Total Required Coursework	**43**	**123**
Corporate Internship		**3**
Experiential Learning Project		**6**
Total Credit Hours		**132**

Bachelor of Business Administration (BBA)

Semester-wise sequence of courses

Freshman	Semester - 1	Course code	Credit hours	Pre-requisite	Course type
1	Microeconomics	ECO101	3	-	Allied
2	Psychology of Business	BUS101	2	-	General Education
3	Introduction to Computer Applications	CSE103	3	-	General Education
4	Islamic Studies	SSC152	2	-	General Education
5	Speech Communication	HUM201	3	-	General Education
6	Introduction to Statistics	MTS102	3	-	General Education
7	Introduction to Philosophy	HUM102	2	-	General Education

	Semester - 2	Course code	Credit hours	Pre-requisite	Course type
1	Macroeconomics	ECO111	3	-	Allied
2	Introduction to Astronomy	MTS152	3	-	General Education
3	Business Communication	MGT211	3	-	General Education
4	Pakistan History	SSC153	2	-	General Education
5	Calculus 1	MTS101	3	-	Allied
6	Entrepreneurship	BUS103	2	-	General Education
7	Business Ethics	BUS102	2	-	General Education

Sophomore	Semester - 3	Course code	Credit hours	Pre-requisite	Course type
1	Principle of Accounting	ACC111	3	-	Business
2	Organizational Behaviour	MGT221	3	BUS 101	Business
3	Introduction to Business Finance	FIN201	3	-	Business
4	Statistical Inference	MTS202	3	-	General Education
5	Principle of Marketing	MKT201	3	-	Business

	Semester - 4	Course code	Credit hours	Pre-requisite	Course type
1	Business Math and Linear Algebra	MTS212	3	MTS101	Allied
2	Financial Institution and Market	FIN301	3		Business
3	Business Elective 1	-	3	-	Business
4	Business Law	LAW205	3	-	Business
5	Human Resource Management	HRM401	3	MGT-221	Business
6	Financial Accounting	ACC201	3	ACC111	Business

Junior	Semester 5	Course code	Credit hours	Pre-requisite	Course type
1	Management Accounting	ACC381	3	-	Business
2	Methods of Business Research	MKT301	3	MKT201 MKT202	Business
3	Financial Management	FIN401	3	FIN201	Business
4	Production and Operation Management	MGT510	3	FIN506	Business
5	Business Elective 2	-	3	-	Business

	Semester - 6	Course code	Credit hours	Pre-requisite	Course type
1	Marketing Issues in Pakistan	MKT401	3	MKT201	Business
2	Business Elective 3	-	3	-	Business
3	Business Elective 4	-	3	-	Business
4	Managerial Policy	MGT430	3	FIN201, MKT201, ACC201, MGT 221	Business
5	Business Elective 5	-	3	-	Business

	Semester - 7	Course code	Credit hours	Pre-requisite	Course type
1	Business Elective 6	-	3	-	Business
2	Business Elective 7	-	3	-	Business
3	Business Elective 8	-	3	-	Business
4	Business Elective 9	-	3	-	Business
5	Free Elective	-	3	-	-

	Semester - 8	Course code	Credit hours	Pre-requisite	Course type
1	Free Elective	-	3	-	-
2	Free Elective	-	3	-	-
3	Business Elective 10	-	3	-	Business

Business electives

Students select 7 courses as business electives. These may be chosen from any of the courses offered by the Business School that are not core courses for the BBA program or their equivalents. These elective courses therefore include, courses offered by Finance department (usually course codes beginning with FIN), Accounting and Law department (beginning with ACC and LAW), Marketing department (usually beginning with MKT) and the Management department (usually beginning with MGT, HRM, ENT and SCM), subject to fulfillment of pre-requisites. List of course offerings differ semester to semester and students can find the current offerings on the website or with the relevant program offices.

Free electives

Students must choose three electives as free elective courses from any discipline offered by any school at the IBA. These courses must not be the same or equivalents of the core courses in the program. List of course offerings differ semester to semester and students can find the current offerings on the website or with the relevant program offices.

Experiential learning and lifelong learning mindset

The curriculum of the BBA program is enriched with experiential learning opportunities and activities aimed at developing lifelong learning mindset. A full-fledged personal effectiveness seminar series is included as part of the curriculum that every student must complete as a mandatory requirement for graduation. Many courses include guest speaker sessions from industry experts. Some courses also include formal corporate visits. Furthermore, term projects also require students to study, analyze and document a real-life business problem and help them connect with the industry. Some courses in management require students to launch a startup as part of the course project. This helps the students to put theory into practice. There are various success stories as a few of these startups are now working as well-developed businesses.

Internships

To provide students with an early exposure to the business world, a formal corporate internship must be carried out after completing the 6th semester (i.e. after completion of all the courses till 6th semester). However, students joining from the spring semester can be provided an exception to carry out their corporate internships during the subsequent summer after their 5th semester. These internships are a mandatory requirement for graduation. Career Development Center at IBA coordinates for the necessary requirements for the internship.

Experiential Learning Project (ELP)

Experiential Learning Project (ELP) is a mandatory and concluding part of the BBA program. It is a semester long project in a corporate entity, an on-the-job training in a real business environment. The ELP allows the students to network with their future employers and introduces them to the challenges of the real business world. The project is equivalent to 6 credit hours and the grade is also incorporated in the CGPA of the students. Detailed requirements of the ELP program are available with the program coordinator office and are provided to the students during their seventh semester. For more information: https://elp.iba.edu.pk/.

Positive societal impact

Ethical mindset and societal considerations are infused in the BBA curriculum through various avenues including course embedded topics such as Code of Ethics is part of the curriculum in the courses related to Accounting and Auditing, term projects, and social internship. In addition, students enroll in a core course called Introduction to Business Ethics. The course is designed to help students learn about socially responsible ways of engaging with stakeholders.

Social internship program

In undergraduate programs, social internship (called the Responsible Citizen Initiative) is a mandatory requirement of completing the learning cycle.

Students are required to work in Non-Governmental Organization (NGO) or a social enterprise for a period of four to six weeks to get an exposure to the social problems and contribute at ground level. This can be done after the 1st year of studies / 2nd semester and must be completed by the end of the 3rd year of studies / 6th semester. Career Development Center at IBA coordinates for the necessary requirements for the internship.

Term projects with societal impacts

Many courses have the element of term project. Some of these projects also have an objective of social contribution apart from providing an experiential learning avenue. Recent examples include career counselling programs for school students from underprivileged background and organizing events that have positive social impact under the management courses.

Use of technology and innovative pedagogy

The curriculum encourages use of latest technology applications in its courses related to different business functions. These emerging technologies are continuously identified through market trends and are made part of the curricula after certain deliberations through the course review process. Some courses in BBA program integrating software teaching include, Methods in Business Research (SPSS), Financial Management, Financial Modelling (Advanced Excel), Introduction to Marketing Analytics (R and R studio), Data Manipulation and Visualization (Power BI), Accounting Information System with SAP and Financial Econometrics (E views).

Another way the program fosters technology exposure to its students is through the integration of technology in pedagogy. The use of games and simulations, course projects, video case studies and blended learning (online courses like Coursera) require students to keep in constant touch with recent technology platforms.

Bachelor of Science (BS) Accounting and Finance

The Bachelor of Science (BS) in Accounting and Finance is a full-time 132 credit hours program comprising 4-year of rigorous education. The program is designed to provide an exclusive opportunity to students to receive a specialization in Accounting and Finance. The graduates of this program obtain multiple exemptions from the Institute of Chartered Accountants of Pakistan (ICAP) and the Association of Chartered Certified Accountants (ACCA). Furthermore, the Chartered Institute of Management Accountants (CIMA), Institute of Cost and Management Accountants of Pakistan (ICMAP), and Institute of Bankers Pakistan (IBP) also provide exemptions on a case-to-case basis to the program graduates. Details of such exemptions may be found on relevant websites and secretariats of these institutions.

Eligibility criteria

For the eligibility criteria, refer to pages **29-30.**

Program learning competencies

1. Knowledge of Accounting & Finance
Students will be able to prepare and analyze financial statements and build financial models.

2. Critical Thinking and Problem-Solving
Students will be able to critically analyze and evaluate information in a business context.

3. Communication and Teamwork
Students will be able to communicate effectively and collaborate within teams to achieve desired objectives.

4. Ethical Awareness and Social Responsibility
Students will be able to analyze ethical dilemmas and understand legal and regulatory frameworks in business.

5. Technology and Information Literacy
Students will be able to leverage technology and information resources to analyze data and communicate effectively in a business context.

Program structure

		Credit hours
Time to completion	4 years	-
Minimum regular semesters	8	-
Core courses	27	75
Elective courses	16	48
Experiential Learning Project (ELP)	1	6
Corporate internship (6-8 weeks)	1	3
Total	43 + ELP+Internship	132
Responsible Citizen Initiative (RCI) internship	1	-
Personal effectiveness program*		

*Personal effectiveness program is a 10-hour seminar series conducted by industry professionals.

Breakdown of credit hours

Course category	Courses	Credit hours
General Education Courses	12	30
Accounting Core Courses	6	18
Finance Core Courses	5	15
Accounting Elective Courses	6	18
Finance Elective Courses	7	21
Allied Courses	4	12
Free Electives	3	9
Total Required Coursework	43	123
Experiential Learning Project	1	6
Corporate Internship	1	3
Total Credit Hours	-	132

Semester-wise sequence of courses

Freshman	Semester 1	Course code	Credit hours	Pre-requisite	Course type
1	Microeconomics	ECO101	3	-	Allied
2	Introduction to Astronomy	MTS152	3	-	General Education
3	Business Communication	MGT211	3	-	General Education
4	Pakistan History	SSC153	2	-	General Education
5	Calculus 1	MTS101	3	-	Allied
6	Entrepreneurship	BUS103	2	-	General Education
7	Business Ethics	BUS102	2	-	General Education

	Semester 2	Course code	Credit hours	Pre-requisite	Course type
1	Macro Economics	ECO111	3	-	Allied
2	Psychology of Business	BUS101	2	-	General Education
3	Introduction to Computer Applications	CSE103	3	-	General Education
4	Islamic Studies	SSC152	2	-	General Education
5	Speech Communication	HUM201	3	-	General Education
6	Introduction to Statistics	MTS102	3	-	General Education
7	Introduction to Philosophy	HUM102	2	-	General Education

Sophomore	Semester 3	Course code	Credit hours	Pre-requisite	Course type
1	Principle of Accounting	ACC111	3	-	Accounting
2	Introduction to Business Finance	FIN201	3	-	Finance
3	Business Law	LAW205	3	-	Accounting
4	Financial Institute and Market	FIN301	3	-	Finance
5	Free Elective 1	-	3	-	

	Semester 4	Course code	Credit hours	Pre-requisite	Course type
1	Financial Accounting	ACC201	3	ACC111	Accounting
2	Organizational Behavior	MGT221	3	BUS101	Allied
3	Financial Management	FIN401	3	FIN201	Finance
4	Auditing	ACC320	3	ACC201	Accounting
5	Statistical Inference	MTS202	3	-	General Education
6	Free Elective 2	-	3	-	

Junior	Semester 5	Course code	Credit hours	Pre-requisite	Course type
1	Taxation	LAW303	3	ACC201	Accounting
2	Management Accounting	LAW205	3	-	Accounting
3	Financial Modeling	FIN464	3	FIN401	Finance
4	Regulation and Financial Market	FIN465	3	FIN301	Finance
5	Finance Elective 1	-	3	-	Finance

	Semester 6	Course code	Credit hours	Pre-requisite	Course type
1	Accounting Elective 1	-	3	-	Accounting
2	Accounting Elective 2	-	3	-	Accounting
3	Accounting Elective 3	-	3	-	Accounting
4	Finance Elective 2	-	3	-	Finance
5	Finance Elective 3	-	3	-	Finance

Senior	Semester 7	Course code	Credit hours	Pre-requisite	Course type
1	Finance Elective 4	-	3	-	Finance
2	Finance Elective 5	-	3	-	Finance
3	Finance Elective 6	-	3	-	Accounting
4	Accounting Elective 4	-	3	-	Accounting
5	Accounting Elective 5	-	3	-	Accounting

	Semester 8	Course code	Credit hours	Pre-requisite	Course type
1	Accounting Elective 6	-	3	-	Finance
2	Finance Elective 7	-	3	-	Finance
3	Free Elective 3	-	3	-	

Accounting electives (6 to be selected)

Accounting elective courses may constitute any of the courses offered by the Accounting and Law department (subject to fulfilment of pre-requisites) that is not a core course. The relevant courses have the course code in the format of ACCXXX and LAWXXX. The list of course offerings differ semester to semester and students can find the current offerings on the website or with the relevant program offices. A reference list of accounting elective courses is given below.

S. No.	Course title	Course code	Credit hours	Pre-requisite
1	Globalization & International Law	ACC231	3	-
2	Advanced Managerial Accounting	ACC310	3	ACC220
3	Financial Reporting	ACC315	3	ACC201
4	Advanced Auditing	ACC325	3	ACC320
5	Accounting Information System with SAP	ACC330	3	ACC201
6	Advanced Financial Reporting	ACC401	3	ACC315
7	Politics and Law	LAW105	3	-
8	Corporate Law	LAW305	3	LAW205
9	Legal & Regularity Environment	LAW310	3	LAW205
10	Advanced Taxation	LAW401	3	LAW303

Finance electives (7 to be selected)

Finance elective courses may constitute any of the courses offered by the Finance department (subject to fulfillment of pre-requisites). These courses usually have code in the format of FINXXX. The list of course offerings differ semester to semester and students can find the current offerings on the relevant website or with the relevant program offices.

A reference list of finance elective courses is given below (offered in the last year).

S. No.	Course title	Course code	Credit hours	Pre-requisite
1	Fixed Income Investments	FIN424	3	FIN401
2	Investment Banking	FIN451	3	FIN401
3	Security Analysis	FIN453	3	FIN401
4	Corporate Finance	FIN454	3	FIN401
5	Portfolio Management	FIN455	3	FIN401
6	Financial Risk Management	FIN456	3	FIN401
7	Derivatives	FIN457	3	FIN401
8	Treasury and Funds Management	FIN462	3	FIN401
9	Islamic Banking & Finance	FIN463	3	-
10	Marketing of Financial Service	FIN467	3	FIN401
11	Venture Capital & Innovation in Finance	FIN468	3	FIN401

Free electives (3 to be selected)

Students must choose 3 courses as free electives from any undergraduate courses offered by any school at the IBA.

At least one of the NS electives must be from courses offered by the Social Sciences Department. These courses are usually in the format of SSCXX, HUMXXX, HSTXXX, NSCXXX, MCSXXX, POLXXX, PSYXXX, or language courses. The other three electives in this category can be any undergraduate course that is not a core (or equivalent) course and not an accounting or finance elective for the program. These courses may be those offered from any of the three schools at IBA (subject to fulfilment or pre-requisites). ACF Students are not allowed to take Principles of Microeconomics, Principles of Macroeconomics, Principles of Management, or Organizational Behavior as NS electives. The list of course offerings differ semester to semester and students can find the current offerings on the relevant website or with the relevant program offices.

Accounting electives compulsory for CA and ACCA exemption

Course category	Course code
Financial Reporting	ACC315
Corporate Law	LAW305

Experiential learning and lifelong learning mindset

The curriculum of the BSAF program is enriched with experiential learning opportunities and activities aimed at developing a lifelong learning mindset. In addition to the personal effectiveness seminar series, many courses include guest speaker sessions from industry experts. Some courses also include formal corporate visits like the visit to Pakistan Stock Exchange in an undergraduate core course 'Financial Institutions and Markets'.

Internships

To provide students with an early exposure to the business world, a formal corporate internship for 3 credit hours must be carried out after completing the 6th semester (i.e. after completion of all the courses till 6th semester). These internships are a mandatory requirement for graduation. Career Development Center at IBA coordinates the necessary requirements for the internship.

Experiential Learning Project (ELP)

The experiential Learning Project (ELP) is a mandatory and concluding part of the BSAF program. It is a semester-long project in a corporate entity, an on-the-job training in a real business environment. The ELP allows the students to network with their future employers and introduces them to the challenges of the real business world. The project is equivalent to 6 credit hours and the grade is also included in the CGPA of the students. Detailed requirements of the ELP program are available from the program coordinator office and are provided to the students during their seventh semester.

For more information: https://elp.iba.edu.pk/.

Positive societal impact

Ethical mindset and societal considerations are infused in the BSAF curriculum through various avenues including course embedded topics such as the Code of Ethics is part of the curriculum in the courses related to Accounting and Auditing, term projects, and social internship.

Social internship program

In undergraduate programs, social internship (called the Responsible Citizen Initiative) is a mandatory requirement for completing the learning cycle. Students are required to work in Non-Governmental Organization (NGO) or a social enterprise for a period of four to six weeks to get exposure to social problems and contribute at the ground level.

This internship can be carried out after the 1st year of studies / 2nd semester and must be completed by the end of the 3rd year of studies / 6th semester. Career Development Center at IBA coordinates the necessary requirements for the internship.

Use of technology and innovative pedagogy

The curriculum encourages use of the latest technology applications in its courses related to different business functions. These emerging technologies are continuously identified through market trends and are made part of the curricula after certain deliberations through the course review process. Some courses in the BSAF program integrating software teaching include Financial Management, Financial Modelling (Advanced Excel), Accounting Information System with SAP (SAP) and Financial Econometrics (E views).
Another way the program fosters technological exposure to its students is through the integration of technology into pedagogy. The use of games and simulations, course projects, video case studies and blended learning (online courses like Coursera) require students to keep in constant touch with recent technology platforms.

Master of Business Administration (MBA)

MBA is IBA's flagship program. It is a two-year, full-time, rigorous master's program in business administration designed to prepare young graduates from various disciplines for a professional management career in the corporate world. Through this program, students will develop a range of analytical, conceptual, and operational skills that can address the challenges in industry and society. The program attracts talented students through a competitive process and facilitates their transformation into responsible managers and business leaders. Our MBA graduates are trained to think critically and to work with ethical integrity. The program follows an eclectic mix of pedagogical methods, including case method, problem-based learning, simulations and lectures to help students learn the skills, attitudes, and behaviors necessary for their success in contemporary business environment.

Eligibility criteria

For the eligibility criteria, refer to pages **29-30.**

Program learning competencies

1. **Knowledge of business and management**
   Students develop the capability to evaluate the functions of enterprise and their interactions with the local and global environments.
2. **Analytical decision making**
   Students develop competence in the analysis of management problems and creation of effective and efficient solutions.
3. **Effective communication**
   Students develop the ability to effectively present their ideas in oral and written communication.
4. **Ethical leadership and teamwork**
   Students develop the ability to work with and positively influence others, keeping in view the ethical and social implications of their decisions and actions.
5. **Technology in management**
   Students develop competence in the application of technology in various functions of management.

Program structure

		Credit hours
Time for completion *	2 years	-
Business Orientation Program (BOP)	4-6 weeks	-
Core courses	13	39**
Elective courses	15	15
MBA Project	1	6
Total	18+1 Project	60
Corporate internship (6-8 weeks)	1	
Personal effectiveness program** (10 hours)	1	

*Approximate only; actual duration varies based on the course load.
**Personal effectiveness program consists of 5 sessions delivered by industry professionals.

Business Orientation Program	Duration
BOP is based on the essential topics for the subjects of Accounting, Finance, Marketing, and Management.	4-6 weeks program

For the semester-wise sequence of courses, please visit the IBA portal.

Program features

Experiential learning and lifelong learning mindset

The curriculum of the MBA Program is enriched with experiential learning opportunities. The personal effectiveness program consists of several interactive sessions delivered by industry professionals on a range of contemporary topics. Furthermore, guest lectures, field trips, games and simulations, and term projects are also included for experiential learning.

The students are also exposed to various activities to develop a lifelong learning mindset. With faculty mentoring, they are encouraged to participate in industry challenges, competitions, and activities to further develop a learning mindset.

MBA Project

The mandatory MBA Project serves as a tool for experiential learning as it involves data collection and detailed analysis of a specific industry-related issue and presentation of analysis with solutions/ recommendations. Students must engage with the industry and a faculty mentor to complete the project.

Corporate internship

MBA students must also undertake a mandatory 6 – 8-week corporate internship. This provides them with exposure to apply their learning in an actual work environment.

Positive societal impact

In line with the mission of IBA-SBS, MBA program is geared toward creating societal impact by increasing the productivity of enterprises, improving the management and governance, and solving the problems of industry. The program also seeks to develop ethical leadership among its students.

Use of technology and innovative pedagogy

IBA-SBS supports and encourages the use of innovative pedagogical tools by faculty through various faculty training sessions and ensuring access to such resources. For example, IBA-SBS has access to Harvard Business Publishing and uses Harvard cases and simulations in the curriculum.

The MBA program also incorporates modern information and communication technologies to equip with necessary technological skills to be effective managers and leaders.

Executive Master of Business Administration (EMBA)

The Executive MBA program, offered by IBA-SBS, is designed to train experienced functional managers for general management positions in the established enterprises. It presents a distinctive chance for professionals to enhance their expertise and capabilities while maintaining their job responsibilities. The program can typically be finished within a span of approximately 2.5 years, depending on the number of courses undertaken by each student.

This program caters to professionals aspiring to assume leadership positions and strive for the top echelons of the corporate hierarchy, particularly within the C-suite (CEO, CFO, and COO). The program's structure, curriculum, approach, and material are meticulously crafted in collaboration with renowned experts and seasoned faculty members.

Eligibility criteria

For the eligibility criteria, refer to pages **29-30.**

Class schedule

The classes are scheduled on Saturday and Sunday between 10:00 a.m. to 9:00 p.m. depending on the stage of the program and the nature of the course. Students are expected to fully commit both days to the program, attend the classes, and complete the assignments as per schedule announced for the semester.

Program learning competencies

1- **Knowledge of business, society, and global management practice**
Participants develop the capability to evaluate the strategic role and dynamics of enterprises and their interactions with the environments in local and global contexts.

2- **Executive decision making**
Participants develop the skills of systematic thinking and logical reasoning required for effective decision making.

3- **Ethical strategic leadership**
Participants learn to navigate ethical dilemmas and make organizations a force for the good of society.

4- **Executive communication**
Participants learn to communicate effectively to various audiences and using different media.

5- **Technology in management**
Participants develop competence in the application of technology in various functions of management.

Program structure

Description	No. of courses	Credit hours
Time for completion is 2.5 years*	-	-
Core courses	13	39
Capstone (after all core courses)	01	03
Elective courses	8	12
Executive MBA Project	1	6
Total	-	60
*Based on full course load	-	-

For the semester-wise sequence of courses, please visit the IBA portal.

Experiential learning and lifelong learning mindset

The curriculum of the Executive MBA includes different avenues for experiential learning. Guest speaker sessions, simulation exercises, and term projects provide the opportunity to enhance understanding through experiential avenue of learning. Workshops, training sessions, networking events are also regularly arranged to develop a lifelong learning mindset.

Executive MBA Project

The mandatory Executive MBA Project serves as a tool for experiential learning as it involves data collection and detailed analysis of a specific industry-related issue and presentation of analysis with solutions/ recommendations. It is expected that the student will bring a management problem from their employing company and address this problem as part of the project under the supervision of a faculty member.

Positive societal impact

In line with the mission of IBA-SBS, Executive MBA program is geared toward creating societal impact by solving the problems of industry and improving the management and governance of enterprises. The program also seeks to develop ethical leadership among its students.

Use of technology and innovative pedagogy

IBA-SBS supports and encourages the use of innovative pedagogical tools by faculty through various faculty training sessions and ensuring the access to such resources. Many courses at the Executive MBA level use case studies in pedagogy to embed the application of concepts in real life scenarios. The faculty has access to Harvard Business Publishing and uses Harvard cases and simulations in various courses.

Master of Science (MS) Finance

The MS Finance is a 36 credit hours morning program that can be completed in a minimum duration of 1.5 years. The program is designed to provide a solid theoretical, as well as computational skillset for a successful career in the field of finance. Students are prepared for challenges in the domestic and global financial system by imparting comprehensive knowledge of finance and its multidisciplinary aspects. Students will gain an in-depth knowledge with core courses in corporate finance and investments, before they can streamline the degree, to their choice of specialization (Market Finance or Corporate Finance) with a range of optional courses, including a few specifically designed applied courses.

Eligibility criteria

For the eligibility criteria, refer to pages **29-30.**

Class timings

This is a full-time program where some of the classes will be held in the morning, with a possibility of evening/weekend classes.

Program learning competencies

1. **Advanced knowledge of finance disciplines**
   Students will gain in-depth knowledge of areas within the finance field.
2. **Critical analysis skills**
   Students will develop critical thinking skills.
3. **Ethical awareness**
   Students will develop an awareness of ethical issues in the finance field and research.
4. **Plan and execute research.**
   Students will engage with and contribute to knowledge frontiers in the finance field.

Program structure

		Credit hours
Core courses	7	21
Elective courses	3*	9
Thesis / Project	1	6
Total	10 + 1 thesis	36

* Non-BBA/BS ACF students will have to complete a business orientation program (BOP). Successful completion of BOP is necessary for enrolling in the main courses.

** MS students can opt to take the project of 3 credit hours in place of a thesis along with an additional elective course to complete the mandatory credit hours.

semester-wise sequence of courses

Semester-1	Course code	Credit hours	Pre-requisite	Course type
Corporate Finance	FIN555	3	-	Core
Research Methodology	FIN	3	-	Core
Investments	FIN511	3	-	Core
Financial Analysis through Excel and VBA	FIN516	3	FIN555	Core

Semester-2	Course code	Credit hours	Pre-requisite	Course type
Seminars in Finance	FIN577	3	-	Core
Financial Econometrics	FIN569	3	FIN555	Core
Ethics and professional standards in Finance	FIN505	3	-	Core
Elective 1	-	3	-	Elective

Semester-3	Course code	Credit hours	Pre-requisite	Course type
Elective 2	-	-	-	Elective
Elective 3				Elective
Thesis/project	-	-	-	

Important Note: A course and its sequence are subject to potential changes for program enhancement.

*Students can opt for specialization in the fields of Corporate Finance or Market Finance.

Elective courses

Corporate Finance

S. No	Course title	Coursecode	Credit hours	Pre- requisite
1	Mergers and Acquisitions	FIN577	3	FIN555
3	International Finance	FIN551	3	FIN555
4	Applied Security Analysis and Financial Modelling	FIN562	3	FIN555

Market Finance

S. No	Course title	Course code	Credit hours	Pre- requisite
1	Empirical Asset Pricing	FIN575	3	FIN511/FIN516
2	Derivatives and Risk Hedging	FIN568	3	FIN555
3	Mathematical Finance	FIN578	3	FIN555
4	Treasury and Fund Management	FIN565	3	FIN555

General electives

S. No	Course title	Course code	Credithours	Pre- requisite
1	Fintech and Financial Innovation	FIN580	3	FFIN555
2	Behavioral Finance	FIN598	3	FIN555
3	Islamic Finance	FIN559	3	FIN555
4	Risk Management	FIN562	3	FIN555
5	Advanced Econometrics	STA672	3	FIN569
6	Python for Finance	FIN582	3	FIN555

Experiential learning and lifelong learning mindset

Experiential learning is embedded in the MS Finance program through thesis/project and various projects in courses to give students an opportunity to interact with industry professionals, analyze and document a real-life problem and connect with the financial market.

The MS Finance core courses introduce students to basic and advanced level finance courses along with econometrics and financial analysis courses to strengthen students' research and data analysis skills in Finance for lifelong learning. Students then choose their thesis or project as per the specialized area of choice which enables them to apply the relevant research tools to analyze an issue in their selected area.

- **Finance Lab**

A Finance lab is also being developed at the IBA-SBS which will give students an opportunity to apply their learning through various practical approaches. The Finance lab will provide the students with exposure to securities and investment analysis, and portfolio management through real-time market data.

Positive societal impact

Aligned with the IBA-SBS mission, the curriculum embeds social enlightenment and ethics at the core of learning. Most courses include a topic on ethical perspective and conduct and projects are also required to have a necessary component of ethical implications. Moreover, the students are encouraged to pick a topic for their thesis/ project with a positive societal impact and include ethical perspectives in their research work.

Use of technology and innovative pedagogy

The MS Finance program incorporates software in student learning including Advanced Excel, VBA, Stata, R, Python etc. Apart from this, workshops, and multiple training sessions on new software are organized for graduate students to support in their research endeavors.

Master of Science (MS) Islamic Banking and Finance

The MS Islamic Banking and Finance (MS IBF) is a 36 credit hours program which can be completed in a minimum duration of 1.5 years. It is offered for fresh graduates from business and other disciplines, experienced practitioners as well as Shariah scholars. The program is designed to meet the growing needs of the Islamic Finance industry by providing theoretical and applied knowledge of Islamic Finance, Islamic Jurisprudence, Banking and Economics. Graduates of the program will have promising career prospects in academia and in the local and international Islamic Finance industry. The MS IBF program is offered to both full-time and part-time (working) students.

Eligibility criteria
For the eligibility criteria, refer to pages **29- 30.**

Class timings
The classes will be conducted in the evening and at weekends.

Program learning competencies

1. **Advanced knowledge of Islamic finance disciplines**
   Students will gain in-depth knowledge of areas within the Islamic finance field.
2. **Critical analysis skills**
   Students will develop critical thinking skills.
3. **Ethical awareness**
   Students will develop an awareness of ethical issues in the Islamic finance field and research.
4. **Plan and execute research**
   Students will engage with and contribute to knowledge frontiers in the Islamic finance field.

Program structure

		Credit hours
Core courses	7	21
Elective courses	3	9
Thesis / Project	1	6
Total	10 + 1 thesis*	36

* MS students can opt to take a project of 3 credit hours in place of a thesis along with an additional elective course to complete the mandatory credit hours.

Semester-wise sequence of courses

Semester-1 (Fall)	Course code	Credit hours	Pre-requisite	Course type
Islamic Economics	ECO510	3	-	Core
Research Methodology in Finance	ECO536	3	-	Core
Islamic Jurisprudence and Law of Contract	FIN508	3	-	Core
Corporate Finance	FIN513	3	-	Core

Semester-2 (Spring)	Course code	Credit hours	Pre-requisite	Course type
Accounting and Auditing for Islamic Finance	ACC504	3	-	Core
Islamic Capital Market	FIN513	3		Core
Islamic Finance	FIN559	3		Core
Elective-I	-	3	-	Elective

Semester-3 (Fall)	Course code	Credit hours	Pre-requisite	Course type
Elective-II	-	3	-	Elective
Elective-III	-	3	-	Elective

Semester-4 (Spring)	Course code	Credit hours	Pre requisite	Course type
Thesis/project	-	6/3*	ECO536	Thesis/ Project

Important note
**Students opting for a project will have to take an additional elective.
MS IBF students may take up to 2 Finance related electives offered for other degree programs at IBA.

Elective courses

Course Title	Course code	Credit hours	Pre-requisite
Islamic Insurance (Takaful)	FIN512	3	-
Investment Banking and Structuring Financial	FIN550	3	-
International Finance	FIN551	3	FIN510
Islamic Law of Contracts	FIN572	3	-
Islamic Treasury Operations	FIN651	3	-
Islamic Partnership Corporate and Securities Law	-	3	-
Islamic Wealth Planning and Management	FIN579	3	-
Islamic Portfolio Management	-	3	-
Financial Services Marketing	MKT575	3	-
Shariah Issues in Islamic Finance	FIN555	3	-
Commercial Law and Legal Documentation for Islamic Financial	FIN654	3	-
Islamic Entrepreneurship	FIN652	3	-
Advanced Econometrics	FIN581	3	FIN514
Ethics and Corporate Governance	BUS554	3	-
Risk Management for IFIs	FIN578	3	-

Experiential learning and lifelong learning mindset

As a mandatory degree requirement, students are required to work on a thesis or project where they study a certain issue in detail, collect primary and secondary data to analyze the issue, and produce recommendations. Working on these projects entails a high level of involvement of the faculty with the students. Students choose their thesis or project as per the specialized area of choice which enables them to apply the relevant research tools to analyze an issue in their selected area.

Inculcating a lifelong learning mindset, students also get a chance to work as research assistants on various faculty-led research and consultancy projects. They are also encouraged to participate in conferences and seminars with faculty mentoring. Last year, the 3rd World Islamic Finance Forum (WIFF) 2022 was conducted by the IBA Centre for Excellence in Islamic Finance (CEIF) with local and global participation.

Positive societal impact

As a positive impact on society is one of the elements of IBA-SBS's mission statement, it is thus infused throughout the MS IBF program. Students are encouraged to choose research topics that bring positive societal change. Some of the recent thesis topics include Islamic Finance Products for Agricultural Financing, Women Empowerment and Islamic Finance, and Islamic Monetary Policy, and its impacts. In the MS IBF program, understanding Ethical Awareness and Islamic Banking and Finance Principles as applied in different countries, regions, markets, jurisdictions, and their impact on businesses and governments, is an important learning topic that has ethics at its core.

Use of technology and innovative pedagogy

The MS IBF program incorporates software in student learning including Advanced Excel, Strata, E-views, and Data Stream. Apart from this, workshops, and training sessions on new software are organized for graduate students to provide them with support in their research endeavors.

Master of Science (MS) Management

The MS Management is a 36 credit hours morning program that can be completed in a minimum duration of 1.5 years. The program is designed to prepare students for quality research and analysis in the field of Management. A sound theoretical basis is provided in the general area of Management and in the specialized areas of Strategy and Organization and Operations Management. This is complemented by developing research skills through both qualitative and quantitative methods. Students are introduced to various approaches, tools and techniques in research methods which enable them to engage with management-related issues in a scientific manner. The MS Management program is offered to both full-time students and part-time (working) students

Eligibility criteria

For the eligibility criteria, refer to pages **29-30.**

Class timings

The classes will be conducted in the morning/daytime.

Program learning competencies

1. **Advanced knowledge of management disciplines**
   Students will gain in-depth knowledge of areas within the management field.

2. **Critical analysis skills**
   Students will develop critical thinking skills.

3. **Ethical awareness**
   Students will develop awareness of ethical issues in the management field and research.

4. **Plan and execute research**
   Students will engage with and contribute to knowledge frontiers in the management field.

Program structure

		Credit hours
Core courses	6	18
Elective courses	4**	12
Thesis / Project	1	6
Total	10 + 1 thesis	36

* Non-BBA/BS ACF students will have to complete a business orientation program. Successful completion of BOP is necessary for enrolling in the main courses.

** MS students can opt to take the project of 3 credit hours in place of a thesis along with an additional elective course to complete the mandatory credit hours

Semester-wise sequence of courses

Semester-1 (Fall)	Course code		Pre-requisite	Course type
Research & Practice of Operations Management	MGT515	3	-	Core
Foundations of Management& Organization	MGT511	3	-	Core
Organizational Research Method	MGT601	3	-	Core
Elective I		3	-	Elective

Semester -2 (Spring)	Course code	Credit hours	Pre-requisite	Course type
Philosophy of Management and Organization	MGT514	3	MGT511	Core
Research Seminar in Strategy	MGT602	3	MGT511	Core
Qualitative/Quantitative Research Methods	MGT523/ MGT 524	3	-	Core
Elective II		3		Elective

Semester -3 (Fall)	Course code	Credit hours	Pre-requisite	Course type
Elective 3	-	3	-	Elective
Elective 4	-	3	-	Elective
Thesis/project	-	6/3*	-	Thesis/Project

Important note

*Thesis is of 6 credit hours and the project is of 3 credit hours.
Students opting for a project must take an additional elective of 3 credit hours.

Elective courses

Course title	Course code	Credit hours	Pre-requisite
Business Analytics	BUS501	3	-
Innovation and Design	MGT605	3	-
Modeling and Simulation	MGT574	3	-
Supply and Demand Management	MGT528	3	-
Organization Theory	MGT603	3	MGT511
Research Seminar in International Management	MGT604	3	-
Research in Organizational Behavior	MGT572	3	-
Pedagogy for Management	MGT576	3	-
Alternative Management and Organization	MGT573	3	-
Project Management	MGT555	3	-
Business Consulting Lab	MGT 544	3	-
Digital Transformation for Business State and Society	MGT 563	3	-
Process Mining	MGT 543	3	-

Experiential learning and lifelong learning mindset

The core courses in the MS Management program introduce the students to various management and organization theories, research methodologies, and topics in strategy, and operations management. Students then choose their thesis or project and apply the relevant research tools to analyze an issue in their selected area.

Inculcating a lifelong learning mindset, students also get a chance to work as research assistants on various faculty-led research and consultancy projects. They are also encouraged to participate in conferences and seminars with faculty mentoring.

Positive societal impact

Ethics is infused in various courses in the form of explicit topics or part of pedagogy, to discuss the ethical implications such as in the course Philosophy of Management and Organization. Students are also encouraged to choose a topic for their MS thesis/ project which can bring positive societal change.

Use of technology and innovative pedagogy

The MS Management program incorporates software in student learning including SPSS, Stata, AMOS, NVivo. Apart from this, workshops, and training sessions on new software are organized for graduate students to support in their research endeavors.

Master of Science (MS) Marketing

MS Marketing is a 36 credit hours morning program which can be completed in a minimum duration of 1.5 years and the maximum duration is 4 years. The MS Marketing program is meticulously designed to cultivate students' skills and expertise in conducting high-quality research and analysis within the dynamic field of marketing and consumer insights. It offers a comprehensive theoretical foundation in marketing, with specialized emphasis on cutting-edge areas including neuroscience, consumer insights, advertising, social media, and retail analytics. The program is aimed at challenging students intellectually and enabling them to make contributions towards the knowledge and practice of marketing discipline. With a focus on both qualitative and quantitative research methodologies, students will gain proficiency to undertake rigorous research projects, empowering them for various professional roles. Whether aspiring to pursue an academic career as a researcher or faculty member or aiming for roles in industry as a marketing research analyst, consultant, consumer insights specialist, our graduates are equipped to excel. Beyond nurturing foundational knowledge, our curriculum encourages innovative research endeavors, providing a springboard to prestigious PhD programs worldwide. Backed by a rich legacy dating back to our Institute's inception, our Marketing department is committed to guiding students through a transformative journey, from fundamental concepts to advanced marketing philosophies.

Eligibility criteria

For the eligibility criteria, refer to pages **29-30.**

Class timings

The classes will be conducted in the morning/daytime.

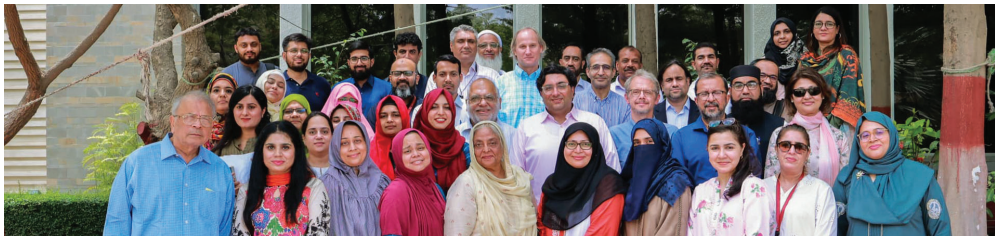
Program Learning Competencies and Objectives

Program Learning Competencies

- Advanced Knowledge of Marketing Disciplines: Students will have an in-depth knowledge of areas within the Marketing field.
- Ethical Awareness: Students will develop awareness of ethical issues in marketing field and research.
- Critical Thinking Skills: Students will demonstrate critical thinking skills.
- Plan and Execute Research: Students will engage with and contribute to knowledge frontier in marketing field.

Program Learning Outcomes:

- Students will be able to understand the main theories and concepts in marketing.
- Students will be able to use different philosophical lenses to understand marketing research.
- Students will be able to evaluate marketing practices from an ethical perspective.
- Students will be able to apply ethical standards in the research process.
- Students will be able to understand marketing issues from multiple perspectives.
- Students will be able to evaluate and synthesize the marketing literature and develop well-reasoned arguments.
- Students will be able to identify gaps in the existing knowledge or issues in marketing practice.
- Students will be able to design research which aims to address gaps in the existing knowledge or offer solutions to a marketing issue.



Program structure

		Credit hours
Business orientation courses*		Depending on student's requirement
Core courses	6	18
Elective courses	4	12
Thesis / Project**	1	6/3
Total credit hours		36 (Minimum)

Graduation requirements:

The minimum degree requirement is 36 credit hours. These include 6 core courses+ 4 elective courses=30 credit hours + Thesis= 6 Credit hours.
*Students with non-business academic background must take Business Orientation courses.
**MS students can opt to take a project of 3 credit hours in place of thesis along with an additional elective course to complete the mandatory credit hours.

Semester-wise sequence of courses

Semester-1 (Fall)	Course code	Credit hours	Pre-requisite	Course type
Research Philosophies	MKT560	3	-	Core
Seminar in Marketing Theory	MKT562	3	-	Core
Consumer Insights	MKT602	3	-	Core
Elective I	-	3	-	Elective

Semester-2 (Spring)	Course code	Credit hours	Pre-requisite	Course type
Advanced Qualitative Research		3	-	Core
Advanced Quantitative Research	MKT584	3	-	Core
Neuro-Marketing	MKT660	3	-	Core
Elective II	-	3	-	Elective

Semester-3 (Fall)	Course code	Credit hours	Pre-requisite	Course type
Elective III and IV		3	-	Elective
Thesis/ Project		6/3***	-	Thesis/Project

***Thesis is of 6 credit hours and project is of 3 credit hours.

Elective Courses

Elective Courses	Course code	Credit hours	Pre- requisite
Marketing Strategy		3	-
Social Media Analytics		3	-
Business to business Marketing and Channel strategy		3	-
Sustainable Marketing	MKT660	3	
Advertising and Society		3	
Retail Analytics (1.5 credit hours) and Research Analytics (1.5 credit hours) are to be taken together	-	3	-

***Note:** Electives from other MS programs can also be obtained, seeking approval from Program director.*

Experiential learning and lifelong learning mindset

The core courses in the MS Marketing program introduce the students to various marketing theories, consumer insights, and research methodologies. Students can then choose their thesis or research project which enables them to apply the relevant research tools to analyze an issue in their selected area, giving exposure to experiential learning and lifelong learning mindset.

◆ Neuromarketing Lab

The neuromarketing lab provides students an opportunity to learn and observe the effects of stimuli through eye tracking, skin response, and facial response sensors. The purpose of the neuromarketing lab is to advance knowledge and understanding of neuromarketing and behavioral research.

School of Economics and Social Sciences

IBA SESS
School of Economics and Social Sciences

School of Economics and Social Sciences (SESS)

The School of Economics and Social Sciences (SESS) is an amalgamation of two departments, two research centers, and three labs. Therefore, SESS includes the Department of Economics, the Department of Social Sciences and Liberal Arts (SSLA), the Center for Business and Economic Research (CBER), the Population Research Center (PRC), the Social Inequality Lab, Economic Growth and Forecasting Lab, Psychology Research and Testing Lab, and Karachi Urban Lab (KUL).

Distinguishing SESS features are as following:

- Over 1,000 students are currently enrolled, fostering a vibrant and engaging campus community.
- 48:52 male-female student ratio, promoting a diverse and inclusive learning environment.
- 45+ PhD faculty members, contributing to academic excellence.
- Research seminars with world-leading institutions to promote intellectual growth and collaboration.
- Exchange program opportunities for students allowing them to study abroad.
- Research grants for students to support innovative research initiatives.
- Variety of social events and vibrant campus life.
- 1,200+ alumni community around the globe, spanning the US, Germany, Turkey, the UK, Saudi Arabia, Canada, UAE, Australia, Europe, Africa, Hong Kong, and Japan.
- Over 250 alumni have pursued further education after graduation, many being the recipients of the Fulbright, Erasmus, DAAD, Chevening, and other prestigious scholarships.

Dean's Message

Dr. Asma Hyder

Welcome to the School of Economics and Social Sciences (SESS), where faculty and students engage in holistic, interdisciplinary scholarship in the social sciences to solve complex, real-world problems and improve quality of life in society. SESS houses two scholastic divisions devoted to this mission – Social Sciences & Liberal Arts (SSLA) and Economics.

SSLA is designed to cover a range of disciplines in the Social Sciences and Humanities, comprising of courses in the fields of Social and Cultural Anthropology, Psychology, Sociology, Urban Studies, Media and Culture, English Writing and Rhetoric History among several others. The recently introduced MS Development Studies program has an interdisciplinary approach that enables scholars and practitioners of Development to consider the specificity of societies in terms of history, ecology, culture, technology, politics, etc., and how these differences translate into varied 'local' responses to regional or global significance. MS Journalism is another unique graduate program which allows students to immerse themselves in all forms of journalism - digital, audio and video- and gain practical experience in a newsroom under the guidance of experienced journalists and instructors.

In the department of Economics, we are committed to excellence in research through undergraduate programs of BS Economics and BS Economics and Mathematics. The students learn theory, empirical investigation and policy analysis. We also have PhD and MS Economics programs where students regularly present their on-going research and write on local economic issues.

As the Dean of SESS, I welcome you to this great learning environment and assure you quality learning under the supervision of faculty members of international caliber. I hope that upon graduation from SESS, you become a thoughtful leader and a professional par excellence.

Overview of Departments

Department of Economics

The Department enables its students to learn theory, empirical investigation, and policy analysis. The classroom and on-campus experience help students to be trained as modern-day Economists, Researchers, Policy Analysts, and Academics in national and international institutions.

Visit the website: https://economics.iba.edu.pk/.

Department of Social Sciences and Liberal Arts

The Department adopts a multidisciplinary approach by offering majors in Psychology, Political Science, Media and Culture, and History. The students learn through theoretical and experiential knowledge.

Visit the website: https://ssla.iba.edu.pk/.

Center for Business and Economic Research (CBER)

CBER is the research wing of the School of Economics and Social Sciences (SESS), IBA Karachi. It serves as a platform for researchers to work with the private, public, and non-profit sectors across different disciplines of social sciences and public policy. Its placement within the schools allows it to collaborate with faculty in diverse areas of specialization.

- Carry out rigorous impact evaluation research studies, consultancy assignments, and sponsored research work for national and international agencies.
- Publish a flagship yearly state of the economy report and annual international conference of the School of Economics and Social Sciences (SESS), IBA Karachi; Conference on Tourism Sustainability in the Global South in May 2023 in Karachi.
- Conduct training workshops for students and faculty.
- Distinguished Lecture Series, Brown Bag Seminar Series, fund student research projects.

Visit the website: https://cber.iba.edu.pk.

Population Research Center (PRC)

The Population Research Center (PRC), established at the IBA in collaboration with the Population Council Pakistan, aspires to offer a world-class platform for conducting targeted and in-depth research on population-related issues. The PRC's primary objective is to provide high-quality research on population matters and to undertake public outreach programs aimed at raising awareness and improving policymaking for a stable, and healthy society.

Highlights:

- Population Research Conference 2023.
- Young Researchers' Workshop Series on PSLM Data Analysis and DHS Data Analysis.
- Population Bulletins highlighting various aspects of Demography.

Visit the website: https://prc.iba.edu.pk.

Psychology Lab

The Psychology lab aims to provide training and learning opportunities for our students enrolled in the undergraduate Additionally, the lab will support graduate degree programs in Psychology in the future.

Economic Growth and Forecasting Lab

The lab employs modern data modern data science techniques, big data, and statistical modeling to establish relationships between macroeconomic variables and predict the future path of economy.

Programs on Offer School of Economics and Social Sciences

S. No.	Information	Bachelor of Science (BS)		
		Economics and Mathematics	Economics	Social Sciences and Liberal Arts
1	Admission requirement	Higher secondary school certificate (Pre-engineering or general group with Mathematics) with minimum 60% marks or A levels (Minimum of 1 'B' and 2 'C's) in 3 principal subjects including Mathematics or American high school diploma minimum of 80% or An international baccalaureate (minimum 24/45) **Note:** All international certificate/degree holders must provide an equivalency certificate from IBCC/HEC.		Higher secondary school certificate (any group with 60% marks) or A level (minimum of 1 'B' and 2 'C's) in 3 principal subjects or American high school diploma (minimum of 80%) or An international baccalaureate (minimum 24/45) **Note:** All international certificate/degree holders must provide an equivalency certificate from IBCC/HEC.
2	Aptitude test component	▪ English composition (MCQs) ▪ Mathematics (MCQs)	▪ English composition (MCQs) ▪ Mathematics (MCQs)	▪ English composition (MCQs) ▪ Mathematics (MCQs)
3	Aptitude test - difficulty level	SAT-I and SAT II (Mathematics)	SAT-I	SAT-I
4	Aptitude test exemption**	**- Refer to the next page**	**- Refer to the next page**	**Refer to the next page**
5	Student profile	Avg. age: 19	Avg. age: 19	Avg. age: 19
6	Graduation requirement	40 courses, 128 credit hours, 1 research project, responsible citizen initiative (RCI), corporate internship	40 courses, 126 credit hours, 1 Research project, responsible Citizen initiative (RCI), corporate internship	41 courses, 124 credit hours, Personal Effectiveness (PE) workshops, Capstone, Responsible Citizen Initiative (RCI), Corporate or Research Internship (3 credit hours)
		Personal effectiveness course (PE)	Personal effectiveness course (PE)	Personal effectiveness course (PE)
7	Fees	Click here to view the fee structure https://www.iba.edu.pk/fee-structure.php	Click here to view the fee structure https://www.iba.edu.pk/fee-structure.php	Click here to view the fee structure https://www.iba.edu.pk/fee-structure.php
8	Classes start	August	August	August
9	Duration	4 years full time	4 years full time	4 years full time
10	Campus	Main/City	Main/City	Main/City

***Criteria for IBA Aptitude Test exemptions**	**BSSS & BS ECO program - SAT I**	**BSEM – SAT I**
	▪ A score of 600 (out of 800) in Mathematics ▪ A score of 600 (out of 800) in Evidence-Based Reading and Writing ▪ Scores of Essays are not required for the purposes of admission, however may preferably be submitted for placement in English courses subsequent to admission	▪ A score of 640 (out of 800) in Mathematics ▪ A score of 600 (out of 800) in Evidence-Based Reading and Writing ▪ Scores of Essays are not required for the purposes of admission, however may preferably be submitted for placement in English courses subsequent to admission
	BSSS program – ACT ▪ A Composite Score of 28 (out of 36) ▪ An English / Writing Score of 25 (out of 36)	**BSAF, BSCS, BSECO and BSEM program – ACT** ▪ A Composite Score of 28 (out of 36) ▪ Score of English / Writing is not required for the purposes of admission, however, may preferably be submitted for placement in English courses subsequent to admission

S.No	Information	Master of Science (MS)			Doctor of Philosophy (PhD)
		Economics	Development Studies	Journalism	Economics
		Full time / Part time			
1	Admission requirement	A minimum of 16 years of education (culminating in BS or equivalent degree) out of which 4 years should have been spent in an HEC recognized university/degree awarding institute with 2.5 CGPA on a scale of 4.00 Or 60% marks in the last degree (whichever is applicable). Percentage is only considered if CGPA is not available. **Note:** All international certificate/degree holders must provide an equivalency certificate from IBCC/HEC.	A minimum of 16 years of education (culminating in BS / BBA / BE Or equivalent degree) out of which 4 years should have been spent in an HEC recognized university/degree awarding institute with 2.5 CGPA on a scale of 4.00 or 60% marks in the last degree (whichever is applicable). Percentage is only considered if CGPA is not available. Candidates with work experience are preferred. **Note:** All international certificate/degree holders must provide an equivalency certificate from IBCC/HEC.	A minimum of 16 years of education/ equivalent degree in any discipline from a local or foreign institute recognized by the HEC, with a minimum CGPA of 2.5 out of 4.00 Or 50% marks in their last degree (as applicable). All equivalency claims shall be evaluated by the HEC. Applicants with prior journalism experience are encouraged to apply	MS/MPhil/equivalent in relevant subject from HEC recognized local/foreign university with: minimum 60% aggregate marks (Percentage is only considered if CGPA is not available) in the last degree Or A minimum 3.0 CGPA on a scale of 4.00 in the last degree where applicable also must fulfill specific requirements by the respective departments
2	Aptitude test component	· English composition (MCQs) · Mathematics (MCQs) · Subject specialization	- English Composition (MCQs) - Mathematics (MCQs) - Essay writing	• English composition (MCQs) • Essay writing • GK/Current affairs	- English composition (MCQs) - Mathematics (MCQs) - Subject specialization
3	Aptitude test - difficulty level	GRE general + specialization	GRE general	-	TOEFL or IELTS GRE general + specialization
4	Aptitude test exemption	160 in quantitative and 150 in verbal GRE (int'l)	160 in quantitative and 150 in verbal GRE (int'l)	-	160 in quantitative and 150 in verbal GRE (int'l)
5	Student profile	Avg. age: mid 20s	Avg. age: mid 20s	Avg. age: 20s - 30s	Avg. age: 22-26
6	Graduation requirement	Total credit hours = 30 8 courses = 24 credit hours 1 thesis = 6 credit hours	8 courses (30 credit hours) and 1 thesis (6 credit hours), OR 6 courses (24 credit hours) and 1 thesis (6 credit hours) for students exempted from 2 foundation courses **Note:** (Interview panel will decide which students are exempted from foundation courses.)	12 courses, 39 credit hours, 1 capstone project, 1 internship	Total credit hours = 48 6 courses = 24 credit hours 1 dissertation = 24 credit hours
7	Fees	Click here to view the fee structure https://www.iba.edu.pk/fee-structure.php	Click here to view the fee structure https://www.iba.edu.pk/fee-structure.php	Click here to view the fee structure https://www.iba.edu.pk/fee-structure.php	Click here to view the fee structure https://www.iba.edu.pk/fee-structure.php
8	Classes start	August	August	August	August
9	Duration	2 years	2 years	1.5 years	4 years
10	Campus	Main/City	Main/City	Main/City	Main/City

Bachelor of Science (BS) Economics

Bachelor of Science (BS) Economics program is a 4-year degree program designed to give students a solid foundation in Economics. The program provides a well-coordinated curriculum and prepares the students for entry-level positions in private and public sector corporations, development organizations, banks, education, and research organizations. The wide range of courses offered in this program give students ample opportunities to broaden their knowledge base. The Economics research project in the final year enables students to apply the quantitative tools learned in the program to the economic and financial problems in the public and private sectors.

Eligibility criteria

For the eligibility criteria, refer to pages **51-53.**

Curriculum structure	
Duration	4 years
Semesters	8
Courses	41
Capstone Project	1
Internship	1
Total credit hours (41 courses, 1 project, 1 internship)	127
Personal Effectiveness (non-credit short course)	1
Responsible Citizen Initiative (non-credit social internship)	1

Required courses, internships and project			
Section	Course category	Courses	Credit hours
A	General Education	12	31
B	Economics Core	17	54
C	Economics Elective	6	18
D	Interdisciplinary/Allied	4	12
E	Non-specialization elective	2	6
F	Capstone Project	1	3
G	Internship	1	3
H	Personal Effectiveness (non-credit short course)	1	-
I	Responsible Citizen Initiative (non-credit social internship)	1	-
Total			127

A. GENERAL EDUCATION COURSES

S.No	Course title	Course Code	Credit hours	Pre-requisite
1	Entrepreneurship	BUS103	2	-
2	Civic and Community Engagement	SSC215	2	-
3	Introduction to Computer Applications	MIS103	3	-
4	Islamic Scholarly Tradition/Philosophy Logic	SSC313/HUMXXX	2	-
5	Pakistan History	SSC153	2	-
6	Critical Reading and Speech	SSC108	3	-
7	Introduction to Academic Writing	SSC236	3	-
8	Introduction to Statistics	MTS102	3	-
9	Statistical Inference	MTS202	3	MTS102
10	Introduction to Philosophy	HUM102	2	-
11	Physics/Mechanics/Electricity, Magnetism and Waves**	SCI201/PHYXXX/PHY102	3	-
12	Introduction to Psychology/Anthropology/ Sociology **	SSC218/SSCXXX/SSCXXX	3	-

**All Muslim students are required to register for Islamic Scholarly Tradition (IST), Non-Muslim students may take Philosophy Logic and Ethics (PLE).*

*** Students are required to take any one of these three courses.*

B. ECONOMICS CORE COURSES

S. No.	Course title	Course code	Credit hours	Pre-requisite
1	Principles of Microeconomics	ECO103	3	-
2	Principles of Macroeconomics	ECO104	3	-
3	Intermediate Microeconomics	ECO201	3	ECO103
4	Intermediate Macroeconomics	ECO202	3	ECO104
5	Microeconomic Theory	ECO312	3	ECO201
6	Macroeconomic Theory	ECO313	3	ECO202
7	Applied Econometrics I	ECO343	4	MTS202
8	Applied Econometrics II	ECO344	4	ECO343
9	Research Methods in Economics	ECO411	3	ECO343
10	International Trade	ECO466	3	ECO103
11	Mathematical Economics	ECO303	3	MTS101
12	Data Analytics for Economists	ECO304	3	MTS111, MTS202
13	Essential Software	MTS111	3	-
14	Major Issues in Pakistan Economy	ECO403	3	ECO203
15	Development Economics	ECO301	3	ECO104
16	History of Economic Thought	ECO467	3	ECO104
17	Impact Evaluation Methods	ECO443	4	ECO343

C. ECONOMICS ELECTIVE COURSES

Students are required to take six Economics elective courses. Currently, the following elective courses are being offered:

Course title	Course code	Credit hours	Pre-requisite
Public Economics	ECO401	3	ECO201
Machine Learning for Economists	ECO405	3	MTS111
Public Finance	ECO451	3	ECO104
Monetary Economics	ECO452	3	ECO202
Time Series Econometrics	ECO457	3	ECO343
Climate Change Economics	ECO458	3	ECO103
International Finance	ECO459	3	ECO104
Environmental Economics	ECO450	3	ECO201
Natural Resource and Environmental Economics	ECO461	3	ECO201
Game Theory	ECO464	3	ECO201
Health Economics	ECO471	3	ECO201
Labour Economics	ECO472	3	ECO201
Energy Economics	ECO463	3	-
Energy Systems & Policy	ECO474	3	-
Behavioral Economics	ECO470	3	ECO103
Spatial Economics	ECO477	3	-
Economics of Education	ECO479	3	-

D. INTERDISCIPLINARY/ALLIED COURSES

Students are required to take the following Interdisciplinary/Allied courses. Students must select one Interdisciplinary/Allied elective course from Finance, Social Sciences, Mathematics, Statistics, Data Science, and Computer Science.

Course title	Course Code	Credit hours	Pre-requisite
Calculus I	MTC101	3	-
Calculus II	MTC232	3	MTS101
Linear Algebra	MTC203	3	MTS101
Interdisciplinary/Allied elective -		3	-
College Algebra*	MTS105	Deficiency course for non-math students	-

** College Algebra is offered only for those students who do not have a Mathematics background. This is a deficiency course for non-math students. Students will not be required to pay the fees for this course.*

E. NON-SPECIALIZATION ELECTIVE

Students must select two NS courses (at least six credit hours) from any discipline other than Economics, including Accounting, Finance, Marketing, Management, Social Sciences and Liberal Arts, Mathematics, Statistics, Data Science and Computer Science.

F. CAPSTONE PROJECT

Students must complete one Capstone Project in Economics of 3 credit hours in the final year.

Course title	Course	Credit	Pre-requisite
Capstone Project in Economics	ECO412	3	-

G. INTERNSHIP: Students must engage in an internship of 3 credit hours after completing their 6th semester of the coursework, preferably during the summer break.

H. PERSONAL EFFECTIVENESS: Personal Effectiveness is offered in either the 5th or 6th semester for BS Economics students. This is a non-credit course and is a part of the graduation requirement. It consists of five 2-hour workshops distributed over the whole semester.

I. RESPONSIBLE CITIZEN INITIATIVE (SOCIAL INTERNSHIP): Students must complete their Responsible Citizen Internship (Social Internship) after completing their 2nd semester at IBA and must fulfill this graduation requirement before the end of their 6th semester.

Semester-wise sequence of courses

S. No.	Semester 1	Course code	Credit hours	Pre-requisite	Course type
1	Principles of Microeconomics	ECO103	3	-	Economics core
2	Introduction to Computer	MIS103	3	-	General Education
3	Introduction to Statistics	MTS102	3	-	General Education
4	Critical Reading and Speech Communication	SSC108	3	-	General Education
5	Pakistan History	SSC153	2	-	General Education
6	College Algebra*	MTS105	Deficiency course for non-math students		

S. No.	Semester 2	Course code	Credit hours	Pre-requisite	Course type
1	Principles of Macroeconomics	ECO104	3	-	Economics core
2	Calculus I	MTS101	3	-	Interdisciplinary/Allied
3	Statistical Inference	MTS202	3	-	General Education
4	Introduction to Psychology/Anthropology/Sociology	SSC218/ SSCXXX/ SSCXXX	3	-	General Education
5	Introduction to Philosophy	HUM102	2	-	General Education
6	Islamic Scholarly Traditions (IST)/ Philosophy, Logic, and Ethics **	SSC152	2	-	General Education

S. No.	Semester 3	Course code	Credit hours	Pre-requisite	Course type
1	Intermediate Microeconomics	ECO201	3	ECO103	Economics core
2	Linear Algebra	MTS203	3	MTS101	Interdisciplinary/Allied
3	Calculus II	MTS113	3	MTS101	Interdisciplinary/Allied
4	Introduction to Academic Writing	SSC236	3	-	General Education
5	Fundamentals of Entrepreneurship	MGT103	2	-	General Education
6	Civic and Community Engagement	SSC215	2	-	General Education

S. No.	Semester 4	Course code	Credit hours	Pre-requisite	Course type
1	Intermediate Macroeconomics	ECO202	3	ECO103	Economics core
2	Mathematical Economics	ECO303	3	MTS101	Economics core
3	Essential Software	MTS111	3	-	Economics core
4	Physics/Mechanics/Electricity, Magnetism, Waves	SCI201/ PHYXXX/ PHY102	3	-	General Education
5	Non-specialization Elective	-	-	-	NS Specialization

S. No.	Semester 5	Course code	Credit hours	Pre-requisite	Course type
1	Applied Econometrics I	ECO343	4	MTS202	Economics core
2	Data Analytics for Economists	ECO304	3	MTS111, MTS202	Economics core
3	Microeconomic Theory	ECO312	3	ECO201	Economics core
4	Macroeconomic Theory	ECO313	3	ECO202	Economics core
5	Economics Elective I	ECO	-	-	Economics elective

S. No.	Semester 6	Course code	Credit hours	Pre-requisite	Course type
1	Applied Econometrics II	ECO344	4	ECO343	Economics core
2	Research Methods for Economics	ECO411	3	ECO343	Economics core
3	Major Issues in Pakistan Economy	ECO403	3	ECO203	Economics core
4	International Trade	ECO466	3	ECO103	Economics core
5	Economics Elective II	ECO	3	-	Economics elective
6	Personal Effectiveness	SSC240	-	-	credit mandatory

S. No.	Summer semester	Course code	Credit hours	Pre-requisite	Course type
1	Internship	-	3	-	Internship

S. No.	Semester 7	Course code	Credit hours	Pre-requisite	Course type
1	Impact Evaluation Methods	ECO443	4	ECO343	Economics core
2	History of Economic Thought	ECO467	3	ECO104	Economics core
3	Development Economics	ECO301	3	ECO104	Economics core
4	Economics elective III	ECO	3	-	Economics elective
5	Economics elective IV	ECO	3	-	Non-specialization elective
6	Capstone Project in Economics	ECO412	0	-	Provisional for starting Capstone

S. No.	Semester 8	Course code	Credit hours	Pre-requisite	Course type
1	Economics elective V	ECO	3	-	Economics elective
2	Economics elective VI	ECO	3	-	Economics elective
3	Non-specialization elective II	-	3	-	Non-specialization elective
4	Interdisciplinary/Allied Elective ***	-	3	-	Interdisciplinary/ Allied
5	Capstone Project in Economics	ECO412	3	-	Capstone Project

* College Algebra is a non-credit course and is offered only for those students who do not have a Mathematics background. Students will not be required to pay the fees for this course.

**All Muslim students are required to register for Islamic Scholarly Tradition (IST), Non-Muslim students may take Philosophy Logic and Ethics (PLE).

*** Students must select one Interdisciplinary/Allied elective course from Finance, Social Sciences, Mathematics, Statistics, Data Science, and Computer Science.

Bachelor of Science (BS) Economics and Mathematics

Bachelor of Science (BS) Economics program is a 4-year degree program designed to give students a solid foundation in economics. The program provides a well-coordinated curriculum and prepares the students for entry-level positions in private and public sector corporations, development organizations, banks, education and research organizations. The wide range of courses offered in this program gives students ample opportunities to broaden their knowledge base. The economics research project in the final year enables students to apply the quantitative tools learned in the program to the economic and financial problems in the public and private sectors.

Eligibility criteria

For the eligibility criteria, refer to pages **51-53.**

Curriculum structure	
Duration	4 years
Semesters	8
Courses	42
Capstone Project	1
Internship	1
Total credit hours (41 courses, 1 project and 1 internship)	129
Personal Effectiveness (non-credit short course)	1
Responsible Citizen Initiative (non-credit social internship)	1

Required courses, internships and project			
Section	Course category	Courses	Credit
A	General Education	12	31
B	Economics Core	11	35
C	Economics Elective	2	6
D	Mathematics Core	11	33
E	Mathematics Elective	2	6
F	Interdisciplinary/Allied	4	12
G	Capstone Project	1	3
H	Internship	1	3
I	Personal Effectiveness (non credit short course)	1	-
J	Responsible Citizen Initiative (non credit social internship)	1	-
Total			129

A. GENERAL EDUCATION COURSES

	Course title	Course code	Credit hours	Pre-requisite
1	Entrepreneurship	BUS103	2	-
2	Civic and Community Engagement	SSC215	2	-
3	Introduction to Computer Applications	MIS103	3	-
4	Islamic Scholarly Tradition/Philosophy Logic and Ethics*	SSC313/HUMXXX	2	-
5	Pakistan History	SSC153	2	-
6	Critical Reading and Speech Communication	SSC108	3	-
7	Introduction to Academic Writing	SSC236	3	-
8	Introduction to Statistics	MTS102	3	-
9	Statistical Inference	MTS202	3	MTS102
10	Introduction to Philosophy	HUM102	2	-
11	Physics/Mechanics/Electricity, Magnetism and Waves**	SCI201/PHYXXX/PHY102	3	-
12	Introduction to Psychology/Anthropology/Sociology **	SSC218/SSCXXX/SSCXXX	3	-

**All Muslim students are required to register for Islamic Scholarly Tradition (IST), Non-Muslim students may take Philosophy Logic and Ethics (PLE).*
*** Students are required to take any one of these three courses.*

B. ECONOMICS CORE COURSES

S.No.	Course title	Course code	Credit hours	Pre-requisite
1	Principles of Microeconomics	ECO103	3	-
2	Principles of Macroeconomics	ECO104	3	-
3	Intermediate Microeconomics	ECO201	3	ECO103
4	Intermediate Macroeconomics	ECO202	3	ECO104
5	Microeconomic Theory	ECO312	3	ECO201
6	Macroeconomic Theory	ECO313	3	ECO202
7	Applied Econometrics I	ECO343	4	MTS202
8	Applied Econometrics II	ECO344	4	ECO343
9	Research Methods in Economics	ECO411	3	ECO343
10	Development Economics	ECO301	3	ECO104
11	International Trade	ECO466	3	ECO103

C. ECONOMICS ELECTIVE COURSES

Students are required to take two economics elective courses. Currently, the following elective courses are being offered:

S.No.	Course title	Course code	Credit hours	Pre-requisite
1	Public Economics	ECO401	3	ECO201
2	Machine Learning for Economists	ECO405	3	MTS111
3	Public Finance	ECO451	3	ECO104
4	Monetary Economics	ECO452	3	ECO202
5	Time Series Econometrics	ECO457	3	ECO343
6	Climate Change Economics	ECO458	3	ECO103
7	International Finance	ECO459	3	ECO104
8	Environmental Economics	ECO450	3	ECO201
9	Natural Resource and Environmental Economics	ECO461	3	ECO201
10	Game Theory	ECO464	3	ECO201
11	Health Economics	ECO471	3	ECO201
12	Labour Economics	ECO472	3	ECO201
13	Energy Economics	ECO463	3	-
14	Energy Systems & Policy	ECO474	3	-
15	Behavioral Economics	ECO470	3	ECO103
16	Spatial Economics	ECO477	3	-
17	Economics of Education	ECO479	3	-

D. MATHEMATICS CORE COURSES

S. No.	Course title	Course code	Credit hours	Pre-requisite
1	Calculus-I	MTS101	3	-
2	Calculus-II	MTS232	3	MTS101
3	Multivariable Calculus	MTS424	3	MTS232
4	Linear Algebra	MTS203	3	MTS101
5	Discrete Mathematics	MTS211	3	-
6	Introduction to Differential Equations	MTS241	3	MTS101
7	Stochastic Process	MTS304	3	MTS231
8	Optimization Techniques	MTS330	3	MTS101, MTS203
9	Partial Differential Equations	MTS436	3	MTS241
10	Real Analysis I	MTS341	3	MTS232
11	Probability Theory	MTS231	3	-

E. MATHEMATICS ELECTIVE COURSES

Students are required to take two mathematics elective courses. Currently, the following elective courses are being offered:

S. No.	Course title	Course code	Credit hours	Pre-requisite
1	Complex Analysis	MTS302	3	MTS341
2	Abstract Algebra I	MTS305	3	MTS203
3	Numerical Analysis	MTS306	3	MTS232
4	Functional Analysis I	MTS411	3	MTS341
5	Functional Analysis II	MTS412	3	MTS411
6	Abstract Algebra II	MTS413	3	MTS305
7	Numerical Solutions of PDE	MTS431	3	MTS414
8	Integral Equations	MTS432	3	MTS303
9	Advanced Numerical Analysis I	MTS433	3	MTS414
10	Advanced Numerical Analysis II	MTS434	3	MTS433
11	Differential Geometry	MTS435	3	MTS204,
12	Fluid Dynamics I	MTS437	3	-
13	Fluid Dynamics II	MTS438	3	-
14	Financial Mathematics with a Computational Approach	MTS441	3	-
15	Computational Finance	MTS442	3	-
16	Topology I	MTS451	3	MTS341
17	Scientific Computing for Linear	MTS414	3	MTS413
18	Modern Algebra I	MTS443	3	MTS413
19	Modern Algebra II	MTS444	3	MTS413
20	Measure Theory I	MTS445	3	-
21	Measure Theory II	MTS446	3	-
22	Operations Research I	MTS447	3	-
23	Operations Research II	MTS448	3	-
24	Introduction to Differential Topology	MTS452	3	MTS451
25	Financial Engineering	MTS453	3	MTS441

F. INTERDISCIPLINARY/ALLIED COURSES

Students are required to take the following Interdisciplinary/Allied courses. Students must select two Interdisciplinary/Allied elective courses from Finance, Social Sciences, Data Science, and Computer Science.

S. No.	Course title	Course code	Credit hours	Pre-requisite
1	Essential Software	MTS111	3	-
2	Data Analytics for Economists	ECO304	3	ECO304
3	Interdisciplinary/Allied Elective I	-	3	-
4	Interdisciplinary/Allied Elective II	-	3	-

G. CAPSTONE PROJECT

Students must complete one Capstone project of 3 credit hours in the final year.

S. No.	Course title	Course code	Credit hours	Pre-requisite
1	Capstone Project in Economics / Capstone Project in Economics Mathematics	ECO412/ MTS439	3	-

H. INTERNSHIP: Students must engage in an internship of 3 credit hours after completingtheir 6th semester of the coursework, preferably during the summer break.

I. PERSONAL EFFECTIVENESS: Personal Effectiveness is offered in either the 5th or 6th semester for BS Economics and Mathematics students. This is a non-credit course and is a part of the graduation requirement. It consists of five 2-hour workshops distributed over the whole semester.

J. RESPONSIBLE CITIZEN INITIATIVE (SOCIAL INTERNSHIP): Students must complete their Responsible Citizen Internship (Social Internship) after completing their 2nd semester at IBA and fulfill this graduation requirement before the end of their 6th semester.

Semester-wise sequence of courses

S. No.	Semester 1	Course code	Credit hours	Pre-requisite	Course type
1	Principles of Microeconomics	ECO103	3	-	Economics Core
2	Calculus I	MTS101	3	-	Mathematics Core
3	Introduction to Computer Applications	MIS103	3	-	General Education
4	Introduction to Statistics	MTS102	3	-	General Education
5	Critical Reading and Speech Communication	SSC108	3	-	General Education

S. No.	Semester 2	Course code	Credit hours	Pre-requisite	Course type
1	Principles of Macroeconomics	ECO104	3	-	Economics Core
2	Calculus II	MTS113	3	-	Mathematics Core
3	Statistical Inference	MTS202	3	MTS102	General Education
4	Introduction to Psychology/Anthropology/Sociology	SSC218	3	-	General Education
5	Pakistan History	SSC153	2	-	General Education
6	Islamic Scholarly Traditions (IST)/ Philosophy, Logic, and Ethics *	SSC152	2	-	General Education

S. No.	Semester 3	Course code	Credit hours	Pre-requisite	Course type
1	Intermediate Microeconomics	ECO201	3	ECO103	Economics Core
2	Discrete Mathematics	MTS211	3	-	Mathematics Core
3	Multivariable Calculus	MTS242	3	MTS232	Mathematics Core
4	Introduction to Academic Writing	SSC236	3	-	General Education
5	Fundamentals of Entrepreneurship	MGT103	2	-	General Education
6	Civic and Community Engagement	SSC215	2	-	General Education

S. No.	Semester 4	Course code	Credit hours	Pre-requisite	Course type
1	Intermediate Macroeconomics	ECO202	3	ECO103	Economics Core
2	Linear Algebra	MTS203	3	MTS101	Mathematics Core
3	Probability Theory	MTS231	3	MTS102	Mathematics Core
4	Essential Software	MTS111	3	-	Interdisciplinary/ Allied
5	Physics/Mechanics/Electricity, Magnetism, Waves	SCI201/ PHYXXX/ PHY102	3	-	General Education
6	Intro to Philosophy	SSC102	2	-	General Education

S. No.	Semester 5	Course code	Credit hours	Pre-requisite	Course type
1	Applied Econometrics I	ECO343	4	MTS202	Economics Core
2	Microeconomic Theory	ECO312	3	ECO201	Economics Core
3	Macroeconomic Theory	ECO313	3	ECO202	Economics Core
4	Introduction to Differential Equations	MTS241	3	MTS101	Mathematics Core
5	Real Analysis I	MTS341	3	MTS232	Mathematics Core

S. No.	Semester 6	Course code	Credit hours	Pre-requisite	Course type
1	Applied Econometrics II	ECO344	4	ECO343	Economics Core
2	Research Methods for Economics	ECO411	3	ECO343	Economics Core
3	International Trade	ECO466	3	ECO103	Economics Core
4	Partial Differential Equations	MTS436	3	MTS241	Mathematics Core
5	Data Analytics for Economics	ECO304	3	-	Interdisciplinary/ Allied
6	Personal Effectiveness	SSC240	-	-	Non-credit mandatory

S. No.	Summer semester	Course code	Credit hours	Pre-requisite	Course type
1	Internship	-	3	-	Internship

S. No.	Semester 7	Course code	Credit hours	Pre-requisite	Course type
1	Development Economics	ECO301	3	ECO104	Economics core
2	Economics elective I	ECO	3	-	Economics elective
3	Stochastic Processes	MTS304	3	MTS231	Mathematics core
4	Mathematics elective I	MTS	3	-	Mathematics elective
5	Interdisciplinary/Allied elective I **	-	3	-	Interdisciplinary/Allied
6	Capstone Project in Economics/ Capstone Project in Mathematics	ECO412/ MTS439	0	-	Provisional for starting Capstone

S. No.	Semester 8	Course code	Credit hours	Pre-requisite	Course type
1	Optimization Techniques	MTS330	3	MTS101/ MTS203	Mathematics core
2	Mathematics elective II	MTS	3	-	Mathematic elective
3	Economics elective II	ECO	3	-	Economics elective
4	Interdisciplinary/Allied Elective II **	-	3	-	Interdisciplinary/Allied
5	Capstone Project in Economics/ Capstone Project in Mathematics***	ECO412/ MTS439	3	-	Capstone Project

** All Muslim students are required to register for Islamic Scholarly Tradition (IST), Non-Muslim students may take Philosophy Logic and Ethics (PLE).*

*** Students must select two Interdisciplinary/Allied elective courses from Finance, Social Sciences, Data Science, and Computer Science.*

**** Students can take either the Capstone Project in Economics (ECO412) or the Capstone Project in Mathematics (MTS439).*

Bachelor of Science (BS) Social Sciences and Liberal Arts

The Bachelor of Science (BS) in Social Sciences and Liberal Arts (SSLA) is a 4-year program which introduces students to a range of academic disciplines in Social Sciences and Humanities. The combination of core and elective courses in the SSLA degree allows students to develop comprehensive skills in reading and writing, quantitative thinking, problem solving, critical inquiry, and research. The program offers majors in Psychology, Political Science, Media and Culture, and History, along with minors in Literary Studies and Urban Studies. As part of the program, final year students get the opportunity to complete an independent research project (called 'Culminating Experience' or CE), provided their CGPA is 3.0 or higher. SSLA students are also required to study a foreign language over a period of two semesters. Languages offered by the department include Arabic, French, German, Italian, Spanish, Persian or Mandarin. Lastly, to enable students to apply their knowledge of Social Sciences and Humanities in diverse work environments, SSLA students complete two summer internships, one focusing on research skills and the other on social service.

Eligibility criteria

For the eligibility criteria, refer to pages **51-53.**

Curriculum structure	
Duration	04 years
Semesters	08
Courses	44
Capstone Project	01
Corporate/Research Internship	01
Personal Effectiveness	01
Responsible Citizen Initiative (Social internship)	01

Required courses, internships and project			
Section	**Course category**	**Courses**	**Credit hours**
A	General Education	12	32
B	Supporting Courses	7	21
C	SSLA Core + Electives	8	24
D	Major Core + Electives	10	30
E	Interdisciplinary/Allied Core and Elective	04	14
F	Corporate/Research Internship	01	03
G	Personal Effectiveness	01	-
H	Responsible Citizen Initiative (Social internship)	01	-
Total			**124**

A. GENERAL EDUCATION COURSES

Course tittle	Credit hours
General Education Core	
Entrepreneurship	02
Civic and Community Engagement	02
Applications of Information, Communication and Technology	03
Islamic Scholarly Tradition/Philosophy Logic and Ethics (Islamic Studies/Ethics)	02
Pakistan History (Ideology and Constitution of Pakistan)	02
Critical Reading and Writing (Expository English)	03
Speech Communication (Functional English)	03
Introduction to Statistics (Quantitative Reasoning)	03
Statistical Inference (Quantitative Reasoning)	03
Fundamentals of Sociology (Social Sciences)	03
South Asian History (Arts and Humanities)	03
General Education Elective	
Natural Sciences – Select from the pool of Natural Science courses	03

**All Muslim students are required to register for Islamic Scholarly Tradition (IST), Non-Muslim students may take Philosophy Logic and Ethics (PLE).*

NATURAL SCIENCE (NSc) COURSE

The following NSc courses have been offered by SSLA department in the past. A combination of old and new courses is made available every semester.

Natural Science	Course code	Pre-requisite	Credit hours
Are We Becoming Post human? Technology, Society, Ethics	HUM377	3	-
An Introduction to the Philosophy of Mathematics	HUM382	3	-
Environmental Anthropology	HUM455	3	-
History of Science	NSC351	3	-
Introduction to Environmental Sciences	NSC354	3	-
Sustainable Cities and Communities	NSC358	3	-
An Introduction to the Philosophy of Physics	NSC359	3	-
Climate Change and Us	NSC360	3	-
Science and Medicine in Islamic Societies 700 – 1700	NSC361	3	-
Art and Science	NSC364	3	-
Astronomy	AST 251	3	
Social and Political History of Medicine	NSC 363	3	-

Students may choose an NSc course offered by another department.

B. SUPPORTING CORE

Course title	Course(s)	Credit hours
Rhetorical Modes of Writing	1	3
History of Ideas I	1	3
History of Ideas II	1	3
Computational Research Methods	1	3

C. SUPPORTING ELECTIVES

Students must select 1 VS elective and 2 HUM electives from the list of available courses.

Course title	Course(s)	Credit hours
Visual Studies Elective (VS)	1	3
Humanities Electives (HUM)	2	6

The following courses have been offered in the past. A combination of old and new courses is made available every semester.

Visual Studies	Course code	Credit hours	Pre-requisite
Museum, Heritage, and Visual Culture	HUM-473	3	-
Watching Films	MCS359	3	-
Introduction to Photojournalism	MCS386	3	-
Art of The Islamic World	HUM366	3	-
History of Art: Foundational Survey	HUM 364	3	-
The Making of the Suspense Thriller: Hitchcock's Obsessions & Cinematic Craft	MCS-388	3	-
Islamic Book Arts 1200-1800	HUM450	3	-
Modern and Contemporary Women Visual Artists of Pakistan	HUM 391	3	-

Natural Science	Course code	Credit hours	Pre-requisite
Art and Science	NSC364	3	
From Baghdad to Cordoba: History of Science, Medicine, and Technology in Islamicate Societies, 700-1900	NSC 351	3	
Physiological Psychology	PSY371	3	SSC218, PSY301
Environmental Anthropology	HUM455	3	
Social and Political History of Medicine	NSC 363	3	
Energy and Environment	NSC-366	3	

Humanities	Course code	Credit hours	Pre-requisite
Art of The Islamic World	HUM366	3	-
Calligraphy	HUM462	3	-
Body as Object, Subject and Home	HUM344	3	-
Feminist Legal Theory and Practice	HUM396	3	-
Anglo-Indian Narrative and the Post-Colonial Subject	HUM355	3	-
Art and Science	NSC364	3	-
Democracy and Digital Activism	POL406	3	-
Technology ethics and society	HUM377	3	-
The Ottoman, Safavid, and Mughal Empires	HST354	3	-
Analyzing the News	MCS355	3	-
Life Span Development	HUM494	3	-
Introduction to Philosophy of Religion	HUM-103	3	-
Sufi Trends and Reform in South Asia	HUM490	3	-
Are we becoming post humans, technology, ethics and society	HUM377	3	-
Ghazalian Self and Good Life	HUM 387	3	-
History of Anthropological Thought	HUM372	3	-
Food, Self and Society	HUM460	3	-
Topics in Medieval Muslim Culture	HUM460	3	-
Ethnomusicology: Music and Culture course	HUM457	3	-
Spirituality in Islam: Classical Texts and Themes	HUM453	3	-
Remote Sensing and GIS Applications	HUM-477	3	-
Journalism and Society	MCS-387	3	-
An Intellectual and Cultural History of Muslim Spain	HUM369	3	-

1. Literary Studies and Urban Studies courses can be taken as Humanities courses.
2. Some major electives are crosslisted as Humanities. Students will be informed about these electives at the start of each semester.

D. SSLA CORE

Course title	Credit hours
Introduction to Historical Methods	03
Introduction to Psychology	03
Introduction to Social and Cultural Anthropology	03
Introduction to Media and Culture	03
Introduction to Political Science	03
Introduction to Urban Studies/Introduction to Literary Studies	03

E. SSLA ELECTIVES

Students with CGPA 3.0 or higher will decide whether they wish to carry out a research project (spread over two semesters) or take two electives from within the SSLA department. They can choose electives outside their major.

Students with a CGPA below 3.0 will not be eligible to pursue research. They will be required to take two SSLA electives. They can choose electives outside their major.

From next year, in addition to CGPA, a student's Capstone grade will also be considered while determining their eligibility for pursuing research.

Course title	Credit hours
Culminating Experience/SSLA Elective I	3
Culminating Experience/SSLA Elective II	3

F. MAJOR CORE

Course title	Credit hours
Major Core I	03
Major Core II	03
Major Core III	03
Capstone/Research Methods Course	03

The following core courses are offered in each major:

History	Course code	Credit hours	Pre-requisite
From Empires to Nation-States: A History of thePre-20th Century World	HST301	3	SSC232
Topics in Historiography	HST302	3	SSC232
Twentieth Century Global History	HST303	3	SSC232
Research Methods in History: Primary Source Genres	HST304	4	SSC232

Psychology	Course code	Credit hours	Pre-requisite
Research Methods in Psychology	MTS20	4	SSC218
Human Development	SSC221	3	SSC218
History and Systems of Psychology	SSC238	3	SSC218
Introduction to Social Psychology	SSC239	3	SSC218

Media and Culture	Course code	Credit hours	Pre-requisite
Critical Theories and Methods	MCS340	4	SSC216
Media Aesthetics and History: Film, TV and Digital Media	MCS310	3	SSC216
Critical Media Practice I: Digital Image, Sound, and Story	MCS311	3	SSC216
Critical Media Practice II: Multimodal Publication and Design	MCS312	3	SSC216

Political Science	Course code	Credit hours	Pre-requisite
Research Methods in Political Science	POL301	4	SSC217
History of Political Thought	POL302	3	SSC217
Comparative Politics	POL303	3	SSC217
International Relations	SSC111	3	-

G. MAJOR ELECTIVES

Course title	Credit hours
Major Elective I	3
Major Elective II	3
Major Elective III	3
Major Elective IV	3
Major Elective V	3
Major Elective VI	3

The following courses have been offered in the past. A combination of old and new courses is made available every semester.

History	Course code	Credit hours	Pre-requisite
From Baghdad to Cordoba: History of Science, Medicine, and Technology in Islamicate Societies, 700-1900	NSC 351	3	-
Women and Gender in South Asian History	HST360	3	-
The Ottoman, Safavid, and Mughal Empires	HST 354	3	-
Law colonialisms and violence	HUM 472	3	-
Labour Capitalism and Colonialism: the making of modern South Asia	HST-355	3	-
Lights Camera History! Representations of Medieval South Asia in Bollywood	MCS-350	3	-
Sufi Trends and Reform in South Asia	HUM490	3	-
Constitutional Development in Pakistan	POL-382	3	-
Making of the Mughal Empire: An Intellectual and Cultural History	HUM369	3	-
1947/1971: Interrogating Partitions, Narrative Selves	HUM376/ HST356	3	-
A History of the Fable in its Greek, Arabic and Indic Traditions	HUM378	3	-
Social and Political History of Medicine	NSC 363	3	-
Indian Oceans History	HST361	3	
Topics in Medieval Muslim Culture	HUM 398	3	-
Spirituality in Islam: Classical Texts and Themes	HUM453	3	-
History of Science	NSC351	3	-

Psychology	Course code	Credit hours	Pre-requisite
Positive Psychology	PSY369	3	SSC218, PSY301
Personality Psychology	PSY368	3	SSC218, PSY301
Child and adolescent mental health	PSY-380	3	SSC218, PSY301
Applications of Psychology to Public Health	PSY 381	3	SSC218, PSY301
Urban Mental Health	PSY378	3	SSC218, PSY301
Educational Psychology	PSY368	3	-
Physiological Psychology	PSY371	3	SSC218, PSY301
Organizational Psychology	PSY352	3	-
Behavior Modification	PSY383	3	SSC218, PSY301
Mind, Matter, Media: A Socio-Cognitive Approach'	PSY385	3	-
Cognitive Psychology	PSY359	3	SSC218, PSY301
Introduction to Testing	PSY379	3	SSC218,PSY301
Clinical Psychology	PSY370	3	SSC218, PSY301
Counselling Psychology	PSY365	3	SSC218, PSY301
From Gestures to Fluency: The Miracle of Language Development	PSY382	3	-
Forensic and Criminal Psychology	PSY376	3	SSC218, PSY301
Management and Organizational Behavior	MGT221/MGT231	3	-
Human Resource Management	HRM401/HRM464	3	-

Media and Culture	Course code	Credit hours	Pre-requisite
Visualization & Storytelling	MCS385	3	-
Introduction to Photojournalism	MCS386	3	-
Watching Films	MCS359	3	-
Analyzing the News	MCS355	3	-
Democracy and Digital Activism	MCS366	3	-
Political Communication	MCS372	3	-
Museum, Heritage, and Visual Culture	MCS 385	3	-
Lights, Camera, History! Representations of Medieval South Asia in Bollywood	MCS 350	3	-
Environmental Journalism	MCS452	3	-
The Making of the Suspense Thriller: Hitchcock's Obsessions & Cinematic Craft	MCS-388	3	-
Feminist Technology and Media	MCS 380	3	-
Media, Law and Ethics	MCS352	3	-
New Media and Citizen Journalism	MCS 383	3	-
Documentary Craft and Practice	SSC-350	3	-
Journalism and Society	MCS-387	3	-
Introduction to Citizen Journalism	MCS 383	3	-
Visual Methods in Urban Research	HUM-484	3	-
Social Media Marketing	MKT468	3	-

Political Science	Course code	Credit hours	Pre-requisite
China contemporary security environment	POL-378	3	-
The National Security Process	POL-340	3	-
Transnational Islamic Politics	POL451	3	-
Democratization	POL381	-	-
Political Communication	MCS372	3	-
Law colonialisms and violence	HUM 472	3	-
Cities, Gender and Climate Change	DEV-538	3	-
Constitutional Development in Pakistan	POL-382	3	-
Political Violence, Civil War and Terrorism	POL 350	3	-
Political Sociology of Modern Sindh	POL 380	3	-
War: Conceptual Underpinnings	POL 354	3	-
Law and Human Rights	POL355	3	-
Pakistan's Foreign Policy	POL362	3	-

H. INTERDISCIPLINARY/ALLIED CORE

Course title	Credit hours
Calculus I	03
Foreign Language I	04
Foreign Language II	04

I. INTERDISCIPLINARY/ALLIED ELECTIVE

Students must select one Interdisciplinary Elective course from outside the Department of SSLA. Interdisciplinary courses are offered in complementary disciplines to reinforce the notion of interdisci-plinary competency and to support the major's horizon.

Course title	Credit hours
Interdisciplinary/Allied Elective	03

J. MINOR CORE

Students can opt for a minor in Literary Studies or Urban Studies. Students will take one required core and then choose three electives from the list of courses in Literary Studies and Urban Studies that can also be counted as minor electives.

Course title	Course code	Credit hours
Intro to Urban Studies/Intro to Literary Studies	SSC234/SSC214	03

K. MINOR ELECTIVE

Students choosing the minor track are required to take at least three minor electives after studying the minor core course in their 4th semester. A combination of old and new courses is offered each term.

Minor in Literary Studies	Course code	Pre-requisite	Credit hours
Creative Writing	HUM360	3	-
Literary Movements: From Romanticism to Postmodernism	HUM 467	3	-
Shakespeare's Antony and Cleopatra	MCS 342	3	-
Borders and Boundaries: South Asian and Middle Eastern Feminist Fiction	HUM367	3	-
English over the Ages: History and Reception	HUM 464	3	-
Female Friendship in World Literature	HUM458	3	-
Pakistani Contemporary Literature in English	HUM463	3	-
Decolonizing Narratives: African Literature and the Politics of Identity	HUM491	3	-
Fragments, footnotes, and other forms in Fiction	HUM-481	3	-
World Literature and the Indian Subcontinent	HUM489	3	-
“All the World’s a Stage:” Players and Spectators in Modern Drama	HUM488	3	-
Freaks, Geeks and Monsters: Exploring the Role of Other in Fiction	HUM341	3	-
The Poetics of Iqbal’s Urdu Verse	HUM 388	3	-
Inhiraf-e-Jadeed: Urdu Nasri Nazm	HUM390	3	-
Resistance and Representation in Pakistani Literature	HUM386	3	-
Dystopian Fiction: Visions of (Dis)Order	HUM-483	3	-
Poetry Makes Nothing Happen': Poetry in the Age of Artificial Intelligence	HUM-482	3	-

Minor in Urban Studies	Course code	Pre-requisite	Credit hours
Cities, Gender and Climate Change	DEV-538	3	-
The City	HST358	3	-
Climate, Architecture and Urban Environments in cities of the Global South	HUM-487	3	-
Reading Karachi: History and Urban Transformations	HUM 471	3	-
Environment, Climate Change and Development	HUM-476	3	-
Urban Sociology	HUM 475	3	-
Urban Studio	HUM-493	3	-
Environmental Anthropology	HUM455	3	-
Sustainable Urban Development	HUM-479	3	-
Urban Infrastructure	HUM480	3	-
Urban Planning Theories and Paradigms	HUM478	3	-
Urban Mental Health	PSY378	3	-

SEMESTER-WISE SEQUENCE OF COURSES

	Semester 1	Course code	Credit hours	Pre-requisite	Course category
1	Calculus	MTS104	3	-	Interdisciplinary Core
2	Critical Reading and Writing	SSC101	3	-	General Education
3	Fundamentals of Sociology	SSC231	3	-	General Education
4	Introduction to Historical Methods	SSC232	3	-	SSLA Core
5	History of Ideas I	SSC239	3	-	Supporting Core
6	College Algebra*		Deficiency course for non-math students		

** College Algebra is a non-credit course and is offered only for those students who do not have a Mathematics background. Students will not be required to pay the fees for College Algebra.*

	Semester 2	Course code	Credit hours	Pre-requisite	Course category
1	Intro to Statistics	MTS102	3	-	General Education
2	Rhetorical Modes of Writing	SSC106	3	SSC101	Supporting Core
3	Intro to Psychology	SSC218	3	-	SSLA Core
4	South Asian History	SSC221	3	-	General Education
5	History of Ideas II	SSC238	3	SSC239	Supporting Core

	Semester 3	Course code	Credit hours	Pre-requisite	Course category
1	Speech Communication	HUM201	3	-	General Education
2	Statistical Inference	MTS202	3	MTS102	General Education
3	Pakistan History	SSC151	2	-	General Education
4	Islamic Scholarly Traditions (IST)/Philosophy Logic and Ethics (PLE)	SSC301/ HUM	2	-	General Education
5	Natural Science Elective		3	-	General Education
6	Introduction to Social and Cultural Anthropology	SSC233	3	-	SSLA Core

	Semester 4	Course code	Credit hours	Pre-requisite	Course category
1	Entrepreneurship		2	-	General Education
2	Civic and Community Engagement		2	-	General Education
3	Introduction to Media and Culture	SSC216	3	-	SSLA Core
4	Introduction to Political Science	SSC217	3	-	SSLA Core
5	Introduction to Urban Studies/Introduction to Literary Studies	SSC234/ SSC214	3	-	SSLA Core
6	Information and Communication Technology		3	-	General Education

	Summer semester	Credit hours	Course category
	Responsible Citizen Initiative (Social Internship)		Internship

RESPONSIBLE CITIZEN INITIATIVE

Responsible Citizen Initiative, commonly known as Social Internship, is a 6-week mandatory social internship required for all students enrolled in their undergraduate programs. The students need to work in a social sector organization, NGO, community-based organization, or any charitable institute in Pakistan ideally during the summer break or during their study.

	Semester 5	Course code	Credit hours	Pre-requisite	Course category
1	Major Core I	-	3	-	Major core
2	Major Core II	-	3	-	Major core
3	Foreign Language I*	SSC201/205/ 209/330	4	-	Interdisciplinary /Allied Core
4	Computational Research Methods	SSC302	3	MTS202	Supporting Core
5	Humanities Elective I	-	3		Supporting Elective

*Students may select from a range of languages offered each term, including Persian, Arabic, French, German, Italian, Spanish, and Mandarin.

	Semester 6	Course code	Credit hours	Pre - requisite	Course category
1	Major Core III	-	3	-	Major Core
2	Research Methods Course	HST/PSY/ POL301 & MCS340	3	-	Capstone
3	Major Elective I	-	3	-	Major Elective
4	Foreign Language II	SSC202/206/ 210/331/	4	SSC201/205/ 209/330	Interdisciplinary/Allied Core
5	Interdisciplinary Elective	-	3	-	Interdisciplinary/Allied Elective
6	Personal Effectiveness Workshops		-		

PERSONAL EFFECTIVENESS WORKSHOPS

Personal Effectiveness is offered in the 6th semester for BS SSLA students. This is a non-credit course and is a graduation requirement. It consists of five 2-hour workshops distributed over the whole semester.

	Summer semester	Credit hours	Course category
	Corporate/Research Internship	3	Internship

CORPORTE/RESEARCH INTERNSHIP

Students must engage in a Corporate or Research internship of 03 credit hours after completing their 6th semester of the coursework, preferably during the summer break. They will be supervised by a faculty member from SSLA.

	Semester 7	Course code	Credit hours	Pre-requisite	Course category
1	Major Elective II	-	3	-	Major Elective
2	Major Elective III	-	3	-	Major Elective
3	Major Elective IV	-	3	-	Major Elective
4	Visual Studies Elective	-	3	-	Supporting Elective
5	SSLA Elective/Culminating Experience	SSC491	3	HST/PSY/ POL301 & MCS340	SSLA Elective

	Semester 8	Course code	Credit hours	Pre-requisite	Course category
1	Major Elective V	-	3	-	Major Elective
2	Major Elective VI	-	3	-	Major Elective
3	Humanities Elective II	-	3	-	Supporting Elective
4	SSLA Elective/Culminating Experience	SSC492	3	HST/PSY/ POL301/ MCS 340 & SSC491	SSLA Elective

Master of Science (MS) Development Studies

MS Development Studies (Dev. Studies) is a multi and interdisciplinary program that explores critical topics of development theory and practices, introducing development as a process of evolution of societies. Development Studies is also a policy debate that considers the specificity of societies in terms of history, ecology, culture, technology, politics, etc., and how these differences both can and often should translate into varied 'local' responses to regional or global processes and varied strategies of development.

MS Development Studies provides high-quality and rigorous training needed to understand the methods, policy, and practices of development. The program offers a solid multi-disciplinary social science formation in theory, mix-methods, and applications employed in various fields of development. The program is offered by the Department of Social Sciences & Liberal Arts jointly.

This program emphasizes understanding the historical perspectives and recent advances in development and caters to the growing market for analysts and policymakers. Graduates from this program will be prepared for careers in research institutions, government entities, development agencies, international organizations, and policy-related think tanks.

Distribution of credit hours

	Courses	Credit hours
Core courses	4	12
Elective courses	4	12
MS Thesis	1	6
Total	9	30

MS Thesis may be replaced with a project along with an additional course of three credit hours.

Eligibility criteria

For the eligibility criteria, refer to pages **51-53.**

Duration

The program is designed as a 2-year full-time program and students will be admitted as full-time only during the coursework.

Course requirements

MS courses: 24 credit hours (8 courses)

MS thesis: 6 credit hours. Students who do not wish to opt for writing a thesis can replace it with an MS Project (3 credit hours) and an additional course of 3 credit hours.

Course category

Course title	Course code	Credit hours	Pre-requisite
Theories and Critical Approaches in Development	DEV533	3	-
Anthropology & Development	DEV534	3	-
Policy Analysis: Theory & Practice	DEV535	3	-
Research Methods in Development	DEV536	3	-
Core elective	**Course code**	**Credit hours**	**Pre-requisite**
Elective I	ECO631	3	ECO531
Elective II	-	3	-
Elective III	-	3	-
Elective IV	-	3	-
Thesis	**Course code**	**Credit hours**	**Pre-requisite**
MS thesis*	DEV591	6	-

*The grade on the MS thesis and MS research project would be pass/fail and will not be counted in the CGPA.

Semester-wise offerings of the courses

S. No.	Semester 1 – Fall	Course code	Course type
1	Theories and Critical Approaches in Development	DEV533	Core
2	Research Methods in Development	DEV536	Core
3	Elective I	DEV566	Elective
4	Elective II	DEV551	Elective
S. No.	**Semester 2 – Spring**	**Course code**	**Course type**
1	Policy Analysis: Theory & Practice	DEV535	Core
2	Anthropology & Development	DEV534	Core
3	Elective III		Elective
4	Elective IV		Elective

1. End of Year 1 – Summer: - Students will choose an area of interest, a broad research topic and a potential supervisor for their research and must have it approved by the relevant department before the start of the next Fall semester.
- Applied field study module (zero credit hours but compulsory).
2. End of Year 2 – Summer: Thesis must be completed by the end of summer for eligibility towards graduation.

Elective courses

Course category	Course title	Course code	Credit hours
Physical Resources	Conflict Studies	DEV551	3
	Agrarian Development, Food Policy & Rural Poverty	DEV552	3
	Environment, Climate Change and Sustainability	DEV553	3
	Cities & Urban Development	DEV554	3
	Data Science and Development	DEV555	3
	Entrepreneurship in Development	DEV556	3
Human Resources	Gender Studies	DEV561	3
	Migration and Mobility	DEV562	3
	Poverty and Inequality	DEV563	3
	Population Studies	DEV564	3
	Health & Development	DEV565	3
	Labor and Social Movements	DEV566	3
	Political Ecology	DEV567	3
	Leadership in Development	DEV568	3
Society & Economy	Public Financial Management	DEV571	3
	Aid & Development	DEV572	3
	Technology, Culture and Development	DEV573	3
	Communication and Social Change	DEV574	3
	Decolonizing Methods	DEV575	3
	Nature of Inquiry and Survey Design	DEV576	3

Master of Science (MS) Economics

The MS Economics program offers a comprehensive foundation in economic theory, quantitative methods, and practical applications tailored for economists engaged in policy planning, analysis, and forecasting across public and private sectors. Aligned with international benchmarks, its curriculum emphasizes applied economics, addressing the rising demand for skilled economic analysts. Graduates will get the expertise to embark on careers in academia, research institutions, corporate entities, governmental bodies, and multinational corporations

Eligibility criteria

For the eligibility criteria, refer to pages **51-53.**

Duration

The minimum duration of the program is 2 years.

Class timings

MS Economics is offered for full-time students as well as for part-time students. Classes in MS Economics are scheduled only in evenings (6:00-9:00 pm) on weekdays or any time (between 9:00 am - 9:00 pm) on Saturdays.

Teaching/research assistant positions

Teaching/research assistant positions are available in the department for full-time MS students. These positions are offered only to those students who maintain a cumulative GPA of 3.00 in each semester in the MS program. Teaching/research assistants must not work elsewhere.

Requirements for MS Economics

Course requirements

MS courses: 30 credit hours (courses)
MS thesis: 6 credit hours

Required courses

Course category	Courses	Credit hours
Core courses	6	18
Elective courses	2	6
Thesis	1	6
Total	**9**	**30**

Foundation/Refresher courses in summer semester

Two foundation/refresher courses of 3 credit hours each will be offered during the summer semester. BS Economics and BS Economics & Mathematics graduates from IBA are exempted from the 2 foundation courses. For other candidates, the admission interview panel will decide which foundation courses are exempted.

S.No.	Courses	Credit hours	Course code
1	Economics	3	EC-547
2	Mathematics and Statistics	3	ECO545

- These two courses will be offered during the summer semester.
- The student will have to obtain at least 60% marks (Grade-C minus).
- Admission in MS Economics will be confirmed after passing thesecourses with at least a B- grade.
- The courses and grades will not be counted in the transcript and CGPA.
- Students will have to attend classes with at least 75% attendance to be eligible to appear in the final exam.
- Half of the full course fee will be charged for each foundation course.

Semester-wise sequence of courses

S. No.	Courses	Credit hours	Course code
Fall semester			
1	Advanced Microeconomics	3	ECO631
2	Advanced Macroeconomics	3	ECO632
3	Econometrics I	3	ECO537
4	Elective I	3	-
Spring semester			
5	Econometrics II	3	ECO538
6	Research Methodology	3	ECO591
7	Development Economics	3	ECO534
8	Elective II	3	-
Fall/Spring semester			
9	MS Thesis*	6	-

**Students have the option to take 1 additional elective course and an MS research project (ECO698) in place of MS thesis. The grade on MS thesis and MS research project would be pass/fail and will not be counted in the CGPA.*

List of elective courses

Course title	Course code	Credit hours	Pre-requisite
Financial Economics	ECO562	3	ECO531
International Trade	ECO539	3	ECO531
Issues in Pakistan's Economy	ECO544	3	ECO532
Climate Change Economics	ECO551	3	ECO531
Behavioural Economics	ECO554	3	ECO531
Economic Forecasting	ECO555	3	MTS536
Public Policy Analysis: Theory and Practice	ECO560	3	ECO531/ECO501
Environmental and Resource Economics	ECO561	3	ECO531
Combinatorial Optimization	CSE654	3	
Health Economics	ECO563	3	ECO531
History of Economic Thought	ECO564	3	ECO532
Monetary Economics	ECO566	3	ECO532
Public Economics	ECO567	3	ECO531
Time Series Modelling	ECO570	3	MTS5366
Industrial Economics	ECO571	3	ECO531
Game Theory and Competitive Strategy	ECO573	3	ECO531/ECO501
Water Economics and Policy	ECO574	3	ECO531/ECO501
Microeconomics of Public Policy Analysis	ECO575	3	ECO531/ECO501
Social Impact Evaluation	ECO577	3	ECO531/ECO501
Behavioural and Experimental Economics	ECO578	3	ECO531
Labour Economics	ECO654	3	ECO531
For further details, visit: www.economics.iba.edu.pk			

Master of Science (MS) Journalism

The Master of Science (MS) in Journalism is the flagship degree program in Journalism at the School of Economics and Social Sciences at IBA. The 1.5-year program allows students to immerse themselves in all forms of Journalism – digital, audio and video – and gain practical experience in a newsroom under the guidance of experienced instructors. The Centre for Excellence in Journalism at IBA, provides support to this program through its state-of-the-art facilities and strong linkages with the industry. This is an opportunity for students to learn cutting-edge skills to enable them to find employment in reporting and production across various media platforms. They can also explore the intersection of technology and media and its impact on the journalism industry in Pakistan.

Learning outcomes

- Critical thinking
- Media and information literacy
- Foundational knowledge of Pakistan and the world
- Industry-specific concepts, skills and issues
- Independent thinking and innovation
- Leadership skills
- Apply knowledge in the real-world context

Required courses

Course category	Courses	Credit hours
Seminars	3	9
Skills courses	4	12
Labs	5	15
Capstone project	1	3
Total	**13**	**39**

- **Eligibility criteria**
  For the eligibility criteria, refer to pages **51-53.**

- **Duration**
  The minimum duration of the program is 1.5 years.

Semester-wise sequence of courses

Semester - 1	Course code	Credit hours	Pre-requisite	Course type
CEJ Newsroom 1	JOU504	3	-	Core
Digital News Reporting	JOU502	3	JOU506	Core
Governance and Society in Pakistan	JOU503	3	-	Core
News Writing and Reporting	JOU501	3	JOU508	Core
The Profession of Journalism	JOU500	3	JOU507	Core

Semester - 2	Course code	Credit hours	Pre-requisite	Course type
CEJ Newsroom II	JOU509	3	-	Core
Current Affairs TV Lab	JOU508	3	-	Core
International Affairs	JOU505	3	-	Core
Multimedia Journalism	JOU506	3	-	Core
Specialized Journalism I	JOU507	3	-	Core

Semester - 3	Course code	Credit hours	Pre-requisite	Course type
CEJ Newsroom (Summer)	JOU511	3	-	Core
Specialized Journalism II	JOU512	3	-	Core

Semester - 4	Course code	Credit hours	Pre-requisite	Course type
Capstone Project	JOU600	3	-	Core
Internship	-	-	-	

Internship

The three-month internship aims to embed students in a conventional newsroom in Pakistan's dynamic media industry. Students will be expected to carry out the internship at a media house/ publication of their choosing after the completion of their coursework in semester 4. This internship does not carry any weightage in terms of credit hours but is a mandatory requirement for graduation. Students will be assisted in placements to newsrooms by the MSJ faculty.

PhD Economics

The PhD Economics is a fully-funded program which offers a robust foundation in economic theory, quantitative methodologies, and practical applications, tailored to meet the demands of economists engaged in policy planning, analysis, and forecasting across both public and private sectors. With a focus on Applied Economics, this program responds to the escalating need for skilled economic analysts. Its curriculum adheres to international standards, promising students an intellectually stimulating and personally fulfilling experience. Graduates will spearhead high-quality research in their specialized fields and be well-equipped for diverse career paths spanning academia, research institutions, corporate entities, governmental bodies, and multinational corporations.

Eligibility criteria

For the eligibility criteria, refer to pages **51-53.**

Duration

Minimum duration of the program is 4 years and the maximum time allowed is 8 years.

Teaching/research assistant positions

PhD program is a full-time morning program. IBA will offer Teaching/Research assistant positions to PhD students along with a tuition fee waiver. Teaching/research assistants must not work elsewhere. A PhD student must spend at least the first two years of the degree in IBA as a full-time student. The provision of a stipend will be conditional on the satisfactory performance of students. The maximum duration for the stipends will be six years.

Required courses		
Course category	**Courses**	**Credit hours**
Core courses	4	16
Elective courses	2	8
Thesis	1	24
Total	7	48

List of core and elective courses for the Fall semester

Course title	Course code	Credit hours	Pre-requisite
Topics in Microeconomic Theory	ECO644	4	-
Topics in Macroeconomic Theory	ECO645	4	-
Econometric Analysis	ECO646	4	-

Spring semester

Course title	Course code	Credit hours	Pre-requisite
Topics in Research Methods	ECO650	4	-
Elective I	-	4	-
Elective II	-	4	-

Dissertation			
Course title	**Course code**	**Credit hours**	**Pre-requisite**
PhD Dissertation	ECO799	24	-

Elective courses

Course title	Course code	Credit hours	Pre-requisite
Macroeconomics Modelling and Public Policy Analysis	ECO655	4	-
Topic in Environmental Economics	ECO649	4	-
Topics in International Trade	ECO653	4	-
Advanced Financial Economics	ECO643	4	-
Topics in Monetary Economics	ECO656	4	-
Institutions and Development	ECO659	4	-
Advanced International Trade	ECO660	4	-

Comprehensive examinations

A comprehensive examination will consist of microeconomics and macroeconomics. In case of failing one part of the examination, the candidate will have to give the complete comprehensive examination again. Students will be allowed two attempts to qualify for the comprehensive examination. Students are, however, expected to pass it within two years from the commencement of the PhD program.

Oral defense of dissertation proposal

At the end of the 2nd year, students are expected to present and defend their PhD dissertation proposal.

Dissertation defense

Students are expected to submit and defend their dissertation in two years after successful completion of their coursework.

For further details, visit: economics.iba.edu.pk

School of Mathematics and Computer Science

IBA SMCS

School of Mathematics and Computer Science

School of Mathematics and Computer Science (SMCS)

The School of Mathematics and Computer Science (SMCS) of IBA is one of the fastest-growing schools for excellence in teaching and research of computer science in Pakistan. The SMCS has a qualified faculty comprising of experienced practitioners and researchers that enrich teaching, provide business consultancies, support startups, and prepare students for higher education and industry. The school has state-of-the-art facilities focusing on undergraduate and graduate education. The research labs for Artificial Intelligence, Web Science, Big Data and Telecommunications allow computer science students to delve deep into the technological realm. In contrast, the mathematics programs offer a thorough background in pure and applied mathematics ranging from high-performance computing to commutative algebra.

Dean's Message

Dr. Shakeel Ahmed Khoja

I am greatly honored to share the Dean's message with my faculty members who have contributed with their hard work, vision, and leadership, to make this school one of the best science schools in the country.

The history of science programs in IBA dates to 1983 when it started offering a diploma program in Computer Science to overcome the shortage of information and system analysts in the country. Since then, the venture has matured and now offers BS, MS, and PhD programs in Mathematics and Computer Science. We have established research labs for Artificial Intelligence, Web Science, Big Data, and Telecommunication, supporting the MS and PhD programs in the diverse domains of Computer Science. Likewise, the MS and PhD programs in Mathematics aim to provide a thorough background in theory, quantitative methods, and applications commensurate with international standards, offering the opportunity of highly specialized training in selected areas of pure and applied mathematics.

As IBA moves into the new system of schools, the newly established SMCS must continue to incubate and stay poised toward cutting-edge research and development in science and technology. In the coming years, we plan to enhance our academic programs by investing in our star faculty, establishing strong research and industrial ties across the globe, and bringing new specializations in Mathematics, Computer Science and allied fields. Our mission is to impart quality education to students selected purely on merit, irrespective of ethnicity, gender, religion or financial means.

The foremost aim of SMCS will be to establish academic linkages with leading science schools of the world so that we can enhance our teaching and research. This would assist innovations through joint research projects, focused on bringing new knowledge to the classrooms, thereby enriching academic transactions at IBA. The second aim is to offer more streams of specializations. We have introduced an MS program in Data Science and also plan to offer more programs in Mathematics and Computer Science. This will help diversify our portfolio to attract brilliant students, as well as high-caliber researchers and faculty. We envisage more productive and society-driven research in the new school. A new BS program in Mathematics is also a step in this direction.

With the IBA's mission to undertake consultancy and applied research to enrich teaching and influence thinking on important issues of business and public policy, we believe that SMCS will play a pivotal role in bringing a significant contribution to the global challenges that science and technology can solve.

Overview of Departments

Department of Computer Science

The Department of Computer Science is one of the two departments at the School of Mathematics and Computer Science (SMCS), the Institute of Business Administration (IBA) Karachi. The department offers bachelor, master, and doctoral degree programs in Computer Science. The department has recently launched a long-awaited master's program in Data Science as well.

The full-time faculty members of the department teach a variety of courses over a wide range of the entire computer science spectrum. Some of the areas of specialization of full-time faculty members are theory, machine learning/AI, quantum computation, computer vision, text analytics, robotics, computer architecture, and human-computer interaction.

Some of the many strengths of the department include its high faculty-to-student ratio, the state-of-the-art facilities, the renowned visiting faculty from the industry to teach industry-specific courses, the strong focus on undergraduate education, and research. The faculty emphasizes interdisciplinary and encourages students to work with them as well as the faculty of other departments and schools.

Graduates from the department join the computing industry, multinational organizations, startups, consulting companies, government services, and nonprofit organizations. The tech industry in Pakistan is quick to offer jobs and internships to the students of the program and often offers them better opportunities for personal and professional growth. Many of our students get enrolled in the graduate programs of the leading universities around the world as well. Moreover, the alumni network of our department is very strong and they provide continuous support to our existing student body in terms of guidance and mentoring.

Visit website: https://cs.iba.edu.pk.

Department of Mathematical Sciences

The Department of Mathematical Sciences is the other department under the umbrella of the School of Mathematics and Computer Science at IBA-Karachi. The department offers undergraduate, graduate, and doctoral programs in mathematics, besides offering teaching services to other departments for basic undergraduate mathematics.

The faculty at the Department of Mathematical Sciences represents a diverse team of mathematicians, statisticians, and physicists, having skills in many different areas of mathematics; these include algebra, analysis, topology, statistics, econometrics, partial differential equations & scientific computing, quantum field theory, gravitation, discrete mathematics, and data analytics.

The department is currently housed in the south wing of the Tabba Academic Center at the main campus of IBA. We have state-of-the-art facilities including classrooms, labs, and seminar lounges. Our computational infrastructure includes modern scientific computing server hardware-based and distributed memory multiprocessing in combination with computational and visualization software libraries for numeric and symbolic computing.

Mathematical Sciences has good local outreach in that we frequently collaborate with local NGOs promoting STEAM (Science, technology, Engineering, Arts, and Mathematics) activities for aspiring young students of all age groups - in addition to carrying out our university research and teaching activities.

The Department of Mathematical Sciences is an exciting place to visit, for more details: mathematics.iba.edu.pk.

Programs on Offer

School of Mathematics and Computer Science

S. No.	Information	Bachelor of Science (BS)	
		Computer Science	**Mathematics**
1	Admission requirement	Higher secondary school certificate (Pre-engineering or general group with mathematics) with minimum 60% marks or A levels (Minimum of 1 'B' and 2 'C's) in 3 principal subjects including Mathematics or American high school diploma minimum of 80% or An international baccalaureate (minimum 24/45) **Note:** All international certificate/degree holders must provide an equivalency certificate from IBCC/HEC.	BS-Mathematics applicants must possess a mathematics background at the high school level. Applicants must have completed: Higher secondary school certificate (Pre-engineering or General group with mathematics) with minimum 60% marks or A level (minimum of 1 'B' and 2 'C's) in 3 principal subjects including Mathematics or American high school diploma minimum of 80% or An international baccalaureate (minimum 24/45) **Note:** All international certificate/degree holders must provide an equivalency certificate from IBCC/HEC.
2	Aptitude test component	• English composition (MCQs) • Mathematics (MCQs)	• English composition (MCQs) • Mathematics (MCQs)
3	Aptitude test - difficulty level	SAT-I and SAT-II (Mathematics)	SAT-I
4	Aptitude test exemption**	**- Refer to the next page**	**- Refer to the next page**
5	Student profile	Avg. age: 19	Avg. age: 19
6	Graduation requirement	41 courses, 131 credit hours, 1 research project, responsible citizen initiative (RCI), corporate internship Personal effectiveness course (PE)	40 courses, 128 credit hours, 1 research project
7	Fees	Click here to view the fee structure https://www.iba.edu.pk/fee-structure.php	Click here to view the fee structure https://www.iba.edu.pk/fee-structure.php
8	Classes start	August	August
9	Duration	4 years full time	4 years full time
10	Campus	main/city	main/city

***Criteria for IBA Aptitude Test exemptions**	**BSCS & BS Mathematics Program – SAT I** ⊙ A score of 670 (out of 800) in Mathematics ⊙ A score of 600 (out of 800) in Evidence-Based Reading and Writing ⊙ Scores of Essays are not required for the purposes of admission, however, may preferably be submitted for placement in English courses subsequent to admission
	BSAF, BSCS, BSECO and BSEM program – ACT ⊙ A Composite Score of 28 (out of 36) ⊙ Score of English / Writing is not required for the purposes of admission, however, may preferably be submitted for placement in English courses subsequent to admission

S. No.	Information	Master of Science (MS)				Doctor of Philosophy (PhD)	
		Computer Science	Data Science	Mathematics		Computer Science	Mathematics
				full time	part time		
1	Admission requirement	A minimum of 16 years of education (culminating in BS or equivalent degree) out of which 4 years should have been spent in an HEC recognized university/degree awarding institute with 2.5 CGPA on a scale of 4.00 Or 60% marks in the last degree (whichever is applicable). Percentage is only considered if CGPA is not available. **Note:** All international certificate/degree holders must provide an equivalency certificate from IBCC/HEC.	A minimum of 16 years of education culminating in degree (such as Computer Science, Statistics, Economics, Mathematics, Accounts & Finance, Physics, etc.) and Engineering (Electrical Engineering, Electronics Engineering, etc.) out of which 4 years should have been spent in an HEC recognized university/degree awarding institute with 2.5 CGPA on a scale of 4.00 or 60% marks in the last degree (whichever is applicable). Percentage is only considered if CGPA is not available. **Note:** All international certificate/degree holders must provide an equivalency certificate from IBCC/HEC.	A minimum of 16 years of education (culminating in BS/MSc - Mathematics, Physics, Computer Science, Or Statistics) out of which 4 years should have been spent in an HEC recognized university/degree awarding institute with 2.5 CGPA on a scale of 4.00 Or 60% marks in the last degree (whichever is applicable). Percentage is only considered if CGPA is not available. Note: All international certificate/degree holders must provide an equivalency certificate from IBCC/HEC.		MS/MPhil/equivalent in relevant subject from HEC recognized local/foreign university with: minimum 60% aggregate marks (Percentage is only considered if CGPA is not available) in the last degree or A minimum 3.0 CGPA on a scale of 4.00 in the last degree where applicable also must fulfill specific requirements by the respective departments	
2	Aptitude test component	· English composition (MCQs) · Mathematics (MCQs) · Subject specialization	**Fall Semester (for NON-CS stream only)** - English (MCQs) - Mathematics (MCQs) **Spring Semester (for CS stream only)** - English (MCQs) - Mathematics (MCQs) - Computer Science (MCQs)	- English composition (MCQs) - Mathematics (MCQs)		- English composition (MCQs) - Mathematics (MCQs) - Subject specialization	- English composition (MCQs) - Mathematics (MCQs)
3	Aptitude test - difficulty level	GRE general + specialization	GRE general	TOEFL or IELTS GRE (int'l) math subjective test		CS subject test	TOEFL or IELTS GRE Math subjective test
4	Aptitude test exemption	160 in quantitative and 150 in verbal GRE (int'l)	Minimum 600 scores in GMAT / 160 in Quantitative & 150 in the Verbal section of GRE required	60 percentile in GRE (int'l) Maths subjective test		160 in quantitative and 150 in verbal GRE (int'l)	60 percentile in GRE (int'l) Maths subjective test
5	Student profile	Avg. age: mid 20s	Avg. age: mid 20s	Avg. age: mid 20s		Avg. age: 26	
6	Graduation requirement	MS without Thesis 9 courses (27 credit hours) and a MS Project (3 credit hours), or MS with Thesis: 8 courses (24 credit hours), MS Thesis-I (3 credit hours) and MS Thesis-II (3 credit hours)	MS without Thesis 9 courses (27 credit hours) and a MS Project (3 credit hours), or MS with Thesis: 8 courses (24 credit hours), MS Thesis-I (3 credit hours) and MS Thesis-II (3 credit hours)	6 core courses, 2 electives, 24 credit hours, thesis 6 credit hours		8 courses, 18 credit hours, comprehensive exam, Proposal Defense, and Dissertation, 12 credit hours	6 courses, 18 credit hours, comprehensive exam, dissertation
7	Fees	**Click here to view the fee structure**	**Click here to view the fee structure**	**Click here to view the fee structure**		**Click here to view the fee structure**	**Click here to view the fee structure**
8	Classes start	August	August	August		August	August & January
9	Duration	2 years	2 years	2 years		4 years	
10	Campus	city	main	main/city		main/city	

Bachelor of Science (BS) Computer Science

The Bachelor of Science (BS) in Computer Science is a comprehensive 4-year degree designed to develop skilled professionals with strong problem-solving capabilities in Computer Science (CS) and related fields. This program also prepares students for roles in research and development. The curriculum consists of 135 units, distributed as follows: general education (19 units), CS core courses (56 units), CS electives (21 units), program core courses (21 units), and general electives (9 units).

The program's core and general elective courses are drawn from supporting disciplines such as Mathematics, Statistics, Physics, Accounting, Economics, Finance, Human Resource Management, Marketing, Management, and Social Sciences & Liberal Arts. This diverse selection of core and elective courses is carefully structured to provide students with the flexibility to pursue a professional career path that aligns with their interests.

Graduates of the CS program have successfully launched entrepreneurial start-ups and secured positions in esteemed software houses, ICT companies, financial institutions, business solution providers, and multinational corporations.

Eligibility criteria
For the eligibility criteria, refer to pages **83-85.**

Curriculum structure	
Duration	4 years
Semesters	8
Courses	45
Final Year Project	1
Internship	1
Personal Effectiveness	1

Required courses, internships and project			
Section	Course category	Courses	Credit hours
A	General Education	08	19
B	CS Core	16	56
C	CS Electives	07	21
D	Program Core	07	21
E	General Electives	03	09
F	Final Year Project	01	06
G	Internship	01	03
H	Personal Effectiveness	01	-
Total			**135**

A. GENERAL EDUCATION COURSES

Course title	Credit hours
General Education	
Entrepreneurship	02
Civic and Community Engagement	02
Applications of Information, Communication and Technology	03
Islamic Scholarly Tradition/Philosophy Logic and Ethics (Islamic Studies/Ethics)	02
Pakistan History (Ideology and Constitution of Pakistan)	02
Art and Humanities	02
Speech Communication	03
Business Communication	03
Social Science Elective– Select from a pool of Social Science courses	03

**All Muslim students are required to register for Islamic Scholarly Tradition (IST), Non-Muslim students may take Philosophy Logic and Ethics (PLE).*

B. CS CORE COURSES

Course code	Course title	Credit hours
CSE101	Introduction to Computing	3
CSE141	Introduction to Programming	4
CSE142	Object Oriented Programming Techniques	4
CSE341	Database Systems	4
CSE241	Digital Logic Design	4
CSE247	Data Structures	4
CSE468	Information Security and Ethics	3
CSE307	Introduction to Artificial Intelligence	3
CSE248	Computer Communication & Networking	4
CSE312	Software Engineering	3
CSE345	Computer Architecture & Assembly Language	4
CSE331	Operating Systems	3
CSE317	Design & Analysis of Algorithm	3
CSE309	Theory of Automata	3
CSE407	Human Computer Interaction	3
CSE467	Parallel and Distributed Computing	4

C. CS ELECTIVE COURSES

Students can select any of the seven CS elective courses. Currently, the following elective courses are being offered:

Course code	Course title	Credit hours	Pre-requisite
CSE308	Web Based Application Development	3	CSE341
CSE450	Application Development for Mobile Devices	3	-
CSE466	Technology Product Development	3	CSE312
CSE475	Compiler Construction	3	-
CSE465	Competitive Programming	3	CSE247
CSE356	Rust Programming	3	CSE142
CSE318	Design Patterns	3	CSE247
CSE476	Software Architecture & Design	3	-
CSE474	Introduction to DevOps	3	-
CSE343	Data Warehousing	3	CSE341
CSE459	Business Intelligence	3	CSE307
CSE454	Introduction to Computer Vision	3	CSE248
CSE462	Introduction to Image Processing	3	CSE247
CSE472	Introduction to Machine Learning	3	-
CSE471	Neural Networks and Deep Learning	3	CSE307
CSE473	Introduction to Text Analytics	3	-
CSE469	Introduction to Network Data Analysis	3	-
CSE460	Robotics	3	CSE307
CSE355	Introduction to Blockchain	3	-
CSE352	Computer Graphics	3	-
CSE353	Game Design and Development	3	-
CSE358	Elements of Game Design	3	-
CSE470	Introduction to Cryptography	3	-
CSE357	Computer Security	3	-
CSE455	Network Security	3	CSE341
CSE463	Introduction to Bioinformatics	3	CSE247

D. PROGRAM CORE

Course code	Course title	Credit hours
MTS101	Calculus I	3
MTS113	Calculus II	3
MTS211	Discrete Mathematics	3
MTS102	Introduction to Statistics	3
MTS203	Linear Algebra	3
MTS306	Numerical Analysis	3
SCI102	Physics	3

E. GENERAL ELECTIVE

Students must select three general courses (at least nine credit hours) from any discipline other than Computer Science, including: Mathematics, Statistics, Accounting, Economics, Finance, Marketing, Management, Social Sciences & Liberal Arts.

F. FINAL YEAR PROJECT

Students must complete a final year project of 06 credit hours as a compulsory degree requirement.

G. INTERNSHIP

Students must engage in a corporate internship of 03 credit hours after completing their 6th semester of the coursework, preferably during the summer break.

H. PERSONAL EFFECTIVENESS

Personal Effectiveness is offered in the 6th semester for BS Computer Science students. This is a non-credit course and is a part of the graduation requirement. It consists of five 2-hour workshops distributed over the whole semester.

SEMESTER-WISE SEQUENCE OF COURSES

Semester 1				
Code	**Title**	**Credit hours**	**Pre-requisite**	**Category**
CSE101	Introduction to Computing	3	-	CS Core
CSE141	Introduction to Programming	4	-	CS Core
MTS101	Calculus-I	3	-	Program Core
MTS102	Introduction to Statistics	3	-	Program Core
SSC301	Islamic Scholarly Tradition	2	-	General Education
-	Civics and Community Engagement	2	-	General Education

Semester 2				
Code	**Title**	**Credit hours**	**Pre-requisite**	**Category**
CSE142	Object Oriented Programming Techniques	4	CSE141	CS Core
HUM20	Speech Communication	3	-	General Education
SCI102	Physics	3	-	Program Core
MTS211	Discrete Mathematics	3	MTS101	Program Core
MTS113	Calculus-II	3	MTS101	Program Core
-	Arts and Humanities	2	-	General Education

Semester 3				
Code	**Title**	**Credit hours**	**Pre-requisite**	**Category**
CSE142	Digital Logic Design	4	CSE101, MTS211	CS Core
HUM20	Data Structures	4	CSE142, MTS211	CS Core
SCI102	Linear Algebra	3	MTS101	Program Core
MTS211	Numerical Analysis	3	MTS113	Program Core
-	Social Science Elective	3	-	General Education

Semester 4				
Code	**Title**	**Credit hours**	**Pre-requisite**	**Category**
CSE307	Introduction to Artificial Intelligence	3	CSE247	CS Core
CSE248	Computer Communication & Networking	4	CSE101, CSE142	CS Core
CSE309	Theory of Automata	3	CSE141, MTS211	CS Core
CSE345	Computer Architecture & Assembly Language	4	CSE241, CSE247	CS Core
SSC151	Pakistan History	2	-	General Education
-	Entrepreneurship	2	-	General Education

Semester 5				
Code	**Title**	**Credit hours**	**Pre-requisite**	**Category**
CSE312	Software Engineering	3	CSE247	CS Core
CSE331	Operating Systems	3	CSE345	CS Core
CSE341	Database Systems	4	CSE247	CS Core
MGT211	Business Communication	3	HUM201	General Education
CSE-	CS Elective-I	3	-	CS Elective

Semester 6				
Code	**Title**	**Credit hours**	**Pre-requisite**	**Category**
CSE317	Design & Analysis of Algorithm	3	CSE247	CS Core
CSE467	Parallel and Distributed Computing	4	CSE331	CS Core
CSE-	CS Elective-II	3	-	CS Elective
CSE-	CS Elective-III	3	-	CS Elective
-	General Elective-I	3	-	General Elective
SSC240	Personal Effectiveness	-	-	-

Summer Semester		
Code	**Title**	**Credit hours**
-	Internship	3

Semester 7				
Code	**Title**	**Credit hours**	**Pre-requisite**	**Category**
CSE407	Human Computer Interaction	3	CSE312	CS Core
CSE493	Final Year Project - CS	-	CSE312, CSE341	-
CSE-	CS Elective-IV	3	-	CS Elective
CSE-	CS Elective-V	3	-	CS Elective
-	General Elective-II	3	-	General Elective

Semester 8				
Code	**Title**	**Credit hours**	**Pre-requisite**	**Category**
CSE468	Information Security and Ethics	3	MGT211	CS Core
CSE494	Final Year Project - II	6	CSE493	-
CSE-	CS Elective-VI	3		CS Elective
CSE-	CS Elective-VII	3		CS Elective
-	General Elective-III	3		General Elective

New Minor Programs

The department of Computer Science is offers minors in the following areas:

- Data Science
- Computer Science
- Software Engineering

General Requirements for a Minor

The minor programs consist of a set of courses that students must complete to earn the minor. The general requirements for a minor are as follows:

- Students opting for a minor must have a minimum CGPA of 3.0/4.0.
- Students opting for a minor must have done following courses (in computing and mathematics) with a minimum grade point of 3.0/4.0:

S. No	Course	Course code
1	Introduction to Computer Applications	MIS103*
2	Calculus - I	MTS101
3	Calculus - II	MTS113
4	Linear Algebra	MTS203
5	Introduction to Statistics	MTS102

*The revised curriculum, as of Fall 2023.

- The minor will consist of 5 courses (≥ 15 credit hours).

These minor programs are mainly designed for students of IBA who are interested in computing but are not majoring in computer science. The minors will provide them with a foundational understanding of computing concepts and skills, which can complement their major field of study. Since all students at IBA go through a rigorous training in quantitative methods, the minors will build on this foundation and provide students with a more in-depth understanding of computing and its applications.

Core and Elective Courses for Data Science Minor

Students opting for a minor in data science must complete the following courses:

Core Courses for Data Science Minor

S. No	Course	Course code
1	Data Structures	CSE247
2	Database Systems	CSE341
3	Introduction to Machine Learning	CSE472
4	Business Intelligence / Data Warehousing	CSE343

Note: The other course can be taken as an elective.

Elective Courses for Data Science Minor

Student must choose one course from the following list (subject to availability)

S. No	Course	Course code
1	Introduction to Computer Vision	CSE454
2	Neural Networks and Deep Learning	CSE471
3	Introduction to Text Analytics	CSE473
4	Any other program approved 3xx/4xx level course in computer science	-

Core and Elective Courses for Computer Science Minor

Students opting for a minor in computer science must complete the following courses:

Core Courses for Computer Science Minor

S. No	Course	Course code
1	Data Structures	CSE 247
2	Design and Analysis of Algorithms	CSE 317
3	Database Systems	CSE 341

Elective Courses for Computer Science Minor

Student must choose two courses from the following list (subject to availability):

S. No	Course	Course code
1	Computer Communication and Networking	CSE 248
2	Web Based Application Development	CSE 308
3	Theory of Automata	CSE 309
4	Software Engineering	CSE 312
5	Operating Systems	CSE 331
6	Application Development for Mobile Devices	CSE 450
7	Introduction to Cryptography	CSE 470
8	Introduction to Machine Learning	CSE 472
9	Cloud Computing	CSE 584
10	Any other program approved 3xx/4xx level course in computer science	-

Core and Elective Courses for Software Engineering Minor

Students opting for a minor in software engineering must complete the following courses:

Core Courses for Software Engineering Minor

S. No	Course	Course code
1	Data Structures	CSE247
2	Software Engineering	CSE312
3	Database Systems	CSE341

Elective Courses for Software Engineering Minor

Student must choose two courses from the following list (subject to availability):

S. No	Course	Course code
1	Web Based Application Development	CSE 308
2	Application Development for Mobile Devices	CSE 450
3	Introduction to DevOps	CSE 474
4	Software Architecture	CSE 476
5	Software Project Management	CSE 503
6	Software Quality Assurance	CSE 566
7	Any other program approved 3xx/4xx level course in computer science	-

Bachelor of Science (BS) Mathematics

Bachelor of Science (BS) Mathematics at IBA is a 4-year degree program. Its uniqueness lies in the offer of earning concentrations in allied areas of sciences while adhering to the mathematics core. The flexibility and diversity that this scheme offers to students in studying mathematics aligned with the current common structure of the BS-Math programs worldwide while keeping in line with HEC guidelines. Regular academic, as well as professional career development guidance is also available to students to help them cope with challenges more effectively.

This program prepares graduates with diverse skills, attributes, and field knowledge, which are critical ingredients for a successful applied sciences career.

The program aims to equip students with sufficient analytical and computational skills for a successful corporate career, a career in education, or a career in industry. A diverse skillset will also enable students to seek promising careers in research and development in mathematics and related fields, applied sciences, engineering sciences, actuarial sciences, economics, data sciences, quantitative finance, computing, banking, and statistics, and post-graduate study in mathematics, and theoretical physics as well as university teaching.

Eligibility criteria

For the eligibility criteria, refer to pages **83-85.**

Curriculum structure	
Duration	4 years
Semesters	8
Courses	45
Research Project	1
Total credit hours	134

Program structure

Course category	Courses	Credit hours
University Core	4	12
Mathematics Core	17	51
Mathematics Elective	4	12
Restricted Elective	3	9
Science Core	6	21
University Breadth	4	10
Free Elective	3	9
Final Year Project	1	3
Internship	1	3
Entrepreneurship	1	2
Civic and community engagement	1	2
Total	45	134

Restricted elective courses:

Mathematical Physics electives

- Quantum Mechanics II
- Advanced Quantum Mechanics
- Introduction to Quantum Field Theory
- Electrodynamics and Special Relativity
- Quantum Information - Statistical Mechanics
- Algebraic Quantum Theory
- General Relativity
- Computational Physics
- Stochastic Processes in Physics

Computational Mathematics electives

- Introduction to Scientific Computing
- Numerical Solutions of PDE
- Scientific Computing for Linear PDE's
- Computational Physics
- Computational Quantum Field Theory
- Monte-Carlo Methods
- Financial Mathematics with a computational approach
- Scientific Computing for Linear PDE's
- Computational Physics
- Computational Quantum Field Theory
- Monte-Carlo Methods
- Financial Mathematics with a computational approach
- Financial Mathematics
- Operations Research
- Computational Finance

Data and Statistics electives

- Introduction to Data Science
- Introduction to Data Mining
- Bayesian Statistics
- Stochastic Processes
- Time Series Analysis
- Econometrics
- Applied Multivariate Statistics
- Simulation and Computational Statistics
- Statistical Machine Learning
- Neural Networks
- Financial Econometrics

Semester-wise sequence of courses

Freshman	Semester - 1	Course code	Credit hours	Course type	Pre-requisite
1	Calculus-1	MTS101	3	Mathematics Core	-
2	Discrete Mathematics	MTS211	3	Mathematics Core	-
3	Introduction to Programming	CSE141	4	Science Core	-
4	Critical Reading and writing	SSC101	3	University Core	-
5	Islamic Scholarly Tradition or Philosophy, Logic, and Ethics*	SSC301 / HUM357	3	University Core	-

	Semester - 2	Course code	Credit hours	Course type	Pre-requisite
1	Calculus- II	MTS232	3	Mathematics Core	-
2	Linear Algebra	MTS203	3	Mathematics Core	-
3	Object Oriented Programming Techniques	-	4	Science Core	-
4	Speech Communication	HUM203	3	University Core	-
5	Entrepreneurship	-	2	-	-

Sophomore	Semester - 3	Course code	Credit hours	Course type	Pre-requisite
1	Multivariable Calculus	MTS242	3	Mathematics Core	MTS232
2	Introduction to differential Equations	MTS241	3	Mathematics Core	MTS101
3	Fundamentals of Statistics	-	3	Mathematics Core	-
4	Mechanics	PHY101	3	Science Core	-
5	Civic and Community Engagement	-	2		-
6	-	-	2	University Breadth	-

	Semester – 4	Course code	Credit hours	Course type	Pre-requisite
1	Probability Theory	-	3	Mathematics Core	
2	Electricity, Magnetism & waves	PHY102	3	Science Core	
3	Differential Geometry	MTS435	3	Mathematics Core	MTS203, MTS204
4	Ideas in Mathematics	-	3	Mathematics Core	
5	Pakistan History	SSC151	3	University Core	-
6	-	-	2	University Breadth	

Junior	Semester - 5	Course code	Credit hours	Course type	Pre-requisite
1	Real Analysis	-	3	Mathematics Core	-
2	Statistical Modeling	MTS202	3	Mathematics Core	MTS102
3	Numerical Analysis	MTS306	3	Mathematics Core	MTS232
4	Introduction to Quantum Mechanics	PHY4xx	3	Science Core	-
5	Data Structures	CSE247	4	Science Core	CSE141

	Semester - 6	Course code	Credit hours	Course type	Pre-requisite
1	Topology I	MTS451	3	Mathematics Core	-
2	Abstract Algebra	MTS305	3	Mathematics Core	MTS203
3	Mathematical Methods	MTS3xx	3	Mathematics Core	-
4	Partial Differential Equations -		3	Mathematics Core	-
5	Restricted Elective -		3	Mathematical Physics elective (Restricted Elective)	-
6	Restricted Elective -		3	Computational Mathematics Elective (Restricted Elective)	-

Summer Semester

1	Internship	Internship	Internship	3

Senior	Semester - 7	Course code	Credit hours	Course type	Pre-requisite
1	Restricted Elective	-	3	Data and Statistics elective (Restricted Elective)	-
2	Math Elective I	-	3	Math Elective I	-
3	Math Elective II	-	3	Math Elective II	-
4	University Breadth	-	3	University Breadth	-
5	Free Elective	-	3	Free Elective	-
6	Final Year Project	-	3	FYP	-

	Semester - 8	Course code	Credit hours	Course type	Pre-requisite
1	Math Elective III	-	3	Math Elective III	-
2	Math Elective IV	-	3	Math Elective IV	-
3	University Breadth	-	3	University Breadth	-
4	Free Elective	-	3	Free Elective	-
5	Free Elective	-	3	Free Elective	-

	No. of courses	Credit hours
General	12	33
Major	24	72
Interdisciplinary	4	14
Capstone Project	1	3
Internship	1	3
Minor*	3	9
Total	45	134

* Free electives/concentration/minor declaration policy in BS (Mathematics) program. Free elective courses facilitate interdisciplinary study and provide a broader vision to the students. In the BS (Mathematics) program, students can (optionally) earn a concentration on their transcripts according to the following plan.

Computer Science (3 additional courses with CS code, 300 level and beyond, apart from the CS required courses that are part of the core).

Data Analytics (3 additional courses from Data and Statistics Stream, 300 level and beyond, apart from the one required course from this stream that is counted as a restricted elective).

Physics (3 additional courses from Mathematical Physics Stream, 300 level and beyond, apart from the one required course from this stream that is counted as a restricted elective) Concentration / minor will not be mentioned on the degree; however, they will be shown on the mark sheet.

Master of Science (MS) Computer Science

The Department of Computer Science at IBA, under the School of Mathematics and Computer Science (SMCS) is an exciting place to learn about the latest developments in Computer Science as well as to perform research with a high social impact. The MS program comprises of 4 tracks, each completely aimed at a particular field of specialization in Computer Science. The diverse backgrounds of students that come from various fields of study into this program require a customized and tailored approach towards building the relevant fundamentals for each track. Moreover, the curriculum has been designed so that it is at par with IEEE/Association for Computing Machinery (ACM) guidelines. This ensures that the tracks do not lose relevance in the wake of a rapidly changing landscape of computing technologies. The potential of this program in terms of imparting useful advanced computing skills and professional growth is measured by the readiness of the job market and advanced learning schools in absorbing graduates. The curriculum design ensures that the graduates can creatively find technology-based solutions, think critically and analyze systems and emerging problems independently.

Eligibility criteria

For the eligibility criteria, refer to pages **83-85.**

Duration

The minimum duration of the program is 2 years, comprising 4 semesters. Total credit hours are 30.

Required courses

The Master of Science Computer Science (MSCS) program has two basic categories: MS with Thesis and MS without Thesis. In both categories, the student should complete 30 credit hours. In MS with Thesis, the student needs to complete 18 credit hours to be eligible for taking MS Thesis I (research work) and MS Thesis II (thesis work) of 3 credit hours each over two semesters. In MS without Thesis, the student needs to complete 24 credit hours to register for the MS Project, which is a one semester, 3 credit hour implementation of a solution to solve an industrial problem related to any domain of computer science.

In the MS Thesis, the student is required to discover an innovative algorithm, methodology, framework, entity, or an application, which is clearly distinguishable from the state-of-the-art research. Then, the student implements this innovation and attempts to demonstrate that it works or performs better or at least at par with current research trends. Finally, the student will attempt to publish these findings in a conference, workshop, symposium or journal paper. In the MS Project, the student implements a small-scale product, software, API, solution or similar entity to preferably address a current industrial need or requirement. The MS Project can also implement an innovative and unique idea of the student or supervisor which might become useful for the industry later. For more information, visit: HTTPs://cs.iba.edu.pk/msthesisproject/.

The coursework may be taken from more than one of the 4 specialization tracks, with a student required to take a minimum of one course from each track with no limit on the maximum number of courses per track. Each track has its own set of prerequisites which are usually BS-level Computer Science courses. MS students may also take courses at the PhD (600) level for credit.

The breakdown of credit hours for both MSCS is as follows:

MS with Thesis

	Course category	Course	Credit hours	Total
1	CS electives	8	3	24
2	MS Thesis-I	Equivalent to 1 course	3	3
3	MS Thesis-II	Equivalent to 1 course	3	3
	Total	10	-	30

MS without Thesis

	Course category	Course	Credit hours	Total
1	CS electives	9	3	27
2	MS Project	Equivalent to 1 course	3	3
	Total	10	30	30

MSCS has the following 4 tracks, respective courses in each track are listed below (each course has its pre-requisites and is subject to the instructor's consent).

List of specialization tracks

Tracks	Specialization	Criteria
1	AI/Intelligent Systems (Track-AI)	Required to take minimum one course - no limit on maximum courses
2	Information Systems and Software Engineering (Track-ISSE)	Required to take minimum one course - no limit on maximum courses
3	Network Centric Computing/ Systems (Track-NCC)	Required to take minimum one course - no limit on maximum courses
4	Theory (Track-Theory)	Required to take minimum one course - no limit on maximum courses

Track-AI courses

Tracks	Course code	Course title
1	MIS552	Advanced Data Warehousing
2	CSE668	Big Data Analytics
3	CSE607	Bioinformatics Algorithms
4	CSE659	Computational Intelligence
5	CSE660	Computer Vision
6	CSE510	Data and Information Visualization
7	CSE679	Data Science Product Development
8	CSE669	Deep Learning
9	CSE559	Image Processing
10	CSE602	Machine Learning-I
11	CSE603	Machine Learning-II
12	CSE601	Mathematics for Data Science
13	CSE574	Natural Language Processing
14	CSE655	Probabilistic Reasoning
15	CSE661	Semantic Web
16	CSE670	Social Network Analysis
17	CSE674	Text Analytics

Track-ISSE courses

Tracks	Course code	Course title
1	CSE575	Advance Human Comp Interaction
2	MIS565	Advanced E-Commerce
3	CSE570	Digital Business Transformation
4	MIS503	Enterprise Integration
5	MIS513	Information Industry Structure and Competitive Strategy
6	CSE665	Information Retrieval and Web Search - I
7	CSE666	Information Retrieval and Web Search - II
8	CSE658	Knowledge Management and e-learning Systems
9	MIS550	Logistics and Supply Chain Management
10	MIS553	Mobile Marketing Strategies
11	MIS502	Operations and Technology Management
12	CSE567	Requirements Engineering
13	CSE640	Research Methodology
14	MIS601	Research Methods in IS
15	CSE503	Software Project Management
16	CSE566	Software Quality Assurance
17	CSE564	Software Systems Engineering
18	CSE576	Usability Engineering

Track-NCC courses

	Course code	Course title
1	ICT511	Advanced Computer Networks
2	CSE550	Cloud Security
3	ICT651	Computer Comm Network & Simulation
4	CSE582	Cyber Security Operations
5	CSE580	Essentials of Information Security
6	CSE565	Internet of Things
7	CSE675	Software Defined Networking
8	ICT659	Wireless Sensor Networks
9	ICT662	WSN Protocols and Applications

Track-Theory courses

	Course code	Course title
1	CSE607	Bioinformatics Algorithms
2	CSE654	Combinatorial Optimization
3	CSE581	Computational Complexity Theory
4	CSE657	Essentials of Theoretical Computer Science
5	CSF501	Introduction to Algorithms
6	CSE662	Parallel Processing
7	CSE527	Programming Quantum Computers
8	CSE517	Quantum Computer Science
9	CSE680	Research Topics in Quantum Computing
10	MIS651	Theoretical Foundations of IS

Master of Science (MS) Data Science

The field of data science lies at the intersection of machine learning, probability, statistics, linear algebra and big data analytics. Offered by the School of Mathematics and Computer Science (SMCS), the MS in Data Science (MSDS) program prepares students to extract valuable insights from data through a unique and comprehensive methodology. The program is designed for students who want to begin or advance their careers in the field of data science. It provides a powerful base in subjects including statistical modeling, probabilistic reasoning, machine learning, management of massive data sets, data visualization, and software engineering. The program targets both CS and STEM (Science, Technology, Engineering and Mathematics) students and prepares them to apply the knowledge of data science to a wide range of corporate domains. Non-CS/SE/IT students are required to take non-credit foundation-level courses in algorithms, data management and application development. These courses prepare them for the core and more advanced data science courses alongside students with a CS, IT or SE background. The MSDS core courses strengthen the students' understanding of mathematical concepts that form the basis of machine learning and statistical modeling along with both theoretical and hands-on skills in big data management and analytics. Students can opt from a range of electives including, but not limited to deep learning, text analytics, computer vision, business intelligence, time series analysis, information retrieval and social network analysis. The potential of this program in terms of imparting useful and advanced data science skills and professional growth is measured by the readiness of the job market and advanced learning schools in absorbing graduates. The curriculum design ensures that the graduates can creatively find technology-based solutions, think critically and analyze systems and emerging problems independently. Hence, the vision of MSDS is to train students to create an impact of data science in the local and international industries.

Eligibility criteria.

For the eligibility criteria, refer to pages **83-85.**

Duration

For the non-CS/IT/SE students who take the foundation-level courses, the total minimum duration is 2.5 years (with a total of 5 semesters). For the CS/IT/SE students, the total minimum duration is 2 years (with a total of 4 semesters). MSDS courses are not offered in the two-month long summer semester.

Required courses

The MSDS program has two basic categories: MS with Thesis and MS without Thesis. In MS with Thesis, the student needs to complete 18 credit hours to take MS Thesis I (research work) and MS Thesis II (thesis work) of 3 credit hours each over two semesters. In MS without Thesis, the student needs to complete 24 credit hours to implement the MS Project, a one semester, 3 credit hour implementation of an industrial solution to solve a data science problem.

In the MS Thesis, the student is required to discover an innovative algorithm, methodology, framework, entity, or an application, which is clearly distinguishable from the state-of-the-art research. Then, the student implements this innovation and attempts to demonstrate that it works or performs better or at least at par with current research trends. Finally, the student will attempt to publish these findings in a conference, workshop, symposium or journal paper. In the MS Project, the student implements a small-scale product, software, API, solution or similar entity to preferably address some current industrial need or requirement. The MS Project can also implement some innovative and unique ideas of the student or supervisor which might become useful for the industry later. For more information, visit: https://cs.iba.edu.pk/msthesisproject/.

Program Structure

The MSDS program is for 4 semesters with a total of 39 credit hours. The following structure will be followed for MS with Thesis and MS without Thesis:

MS with Thesis

Section	Course title	Course	Credit hours
A	Foundation courses	3	9
B	Core courses	3	9
C	Electives	5	15
D	Thesis (MS Thesis I and MS Thesis II)	2	6
	Total	13	39

MS without Thesis

Section	Course title	Course	Credit hours
A	Foundation courses	3	9
B	Core courses	3	9
C	Electives	6	18
D	MS Project	1	3
	Total	13	39

The breakdown of foundation and core courses is as follows:

Section	Foundation courses (For students with non-CS background)	Course code	Credit hours	Pre-requisite
1	Introduction to Algorithms	CSF501	3	-
2	Database Management	CSF505	3	-
3	Application Development	CSF510	3	-

	Core courses			
1	Mathematics for Data Science	CSE601	3	Clear all foundation courses/ CS-background
2	Machine Learning - I (Supervised Learning)	CSE602	3	Clear all foundation courses/ CS-background
3	Big Data Analytics	CSE668	3	Clear all foundation courses/ CS-background

The potential list of offered electives is as follows:

	Electives (More courses may be added to this list)	Course code	Credit hours	Pre-requisite
1	Probabilistic Reasoning	CSE655	3	Maths forDS, ML-1
2	Computational Intelligence	CSE659	3	Maths forDS, ML-1
3	Computer Vision	CSE660	3	Maths forDS, ML-1
4	Computational Intelligence	CSE659	3	Maths forDS, ML-1
5	Information Retrieval	CSE665	3	Maths forDS, ML-1
6	Deep Learning	CSE669	3	Maths forDS, ML-1
7	Social Network Analysis	CSE670	3	Maths forDS, ML-1
8	Deep Learning	CSE673	3	Maths forDS, ML-1
9	Text Analytics	CSE674	3	Maths forDS, ML-1
10	Machine Learning-II (Unsupervised Learning)	CSE603	3	Maths forDS, ML-1
11	Data and Information Visualization	CSE510	3	Completion of all core courses
12	Internet of Things	CSE565	3	Completion of all core courses
13	Cyber Security Operations	CSE582	3	Completion of all core courses
14	Cloud Security	CSE550	3	Completion of all core courses

Note:

- BS (CS/SE/IT) graduates are exempted from the foundation courses. For other candidates, the interview panel will decide which foundation courses they will be exempted from.
- In each academic year, students with non-CS backgrounds will be inducted only in the Fall semester, and students with a CS background with be inducted only in the Spring semester.

The semester-wise breakup along with credit hours as follows:

	Semester 0 (Foundation courses)	Credit hours	Course type
1	Introduction to Algorithms	3	Foundation
2	Database Management	3	Foundation
3	Application Development	3	Foundation

	Semester 1	Credit hours	Course type
1	Mathematics for Data Science	3	Core
2	Machine Learning - I (Supervised Learning)	3	Core
3	Big Data Analytics	3	Core

	Semester 2	Credit hours	Course type
1	Elective 1	3	Elective
2	Elective 2	3	Elective
3	Elective 3	3	Elective

	Semester 3	Credit hours	Course type
1	Elective 4	3	Elective
2	Elective 5	3	Elective
3	Elective 6 or MS Thesis-I	3	Elective / Thesis

	Semester 4	Credit hours	Course type
1	MS Project or MS Thesis-II	3	Project / Thesis

For further details, please email at: msds-queries@iba.edu.pk or msds@iba.edu.pk

Master of Science (MS) Mathematics

MS in Mathematics aims to provide a thorough background in theory, quantitative methods, and applications commensurate with international standards, offering the opportunity for a more specialized training in selected areas of pure and applied mathematics.

Eligibility criteria

For the eligibility criteria, refer to pages **83-85.**

Duration

The minimum duration of the program is 2 years.

Teaching/research assistant positions:

Teaching/research assistant positions are available in the department for full-time MS students. These positions are offered only to those students who maintain a cumulative GPA of 3.00 in each semester in the MS program. Teaching/research assistants must not work elsewhere.

Part-time students

Students can also join the program on a part-time basis (i.e., those students who are not offered or opting for financial assistance) on the condition that they cannot register in more than 3 courses in semesters.

Requirements for the award of MS Mathematics degree

a) Complete 30 credit hours that include 24 credit hours (8 courses) of coursework and 6 credit hours of thesis.

b) Six courses (mentioned in the list) at the 500 level are core courses that every student must do.

c) In addition, a student must do two electives to be chosen from the list given at the 500 level. A student can also choose a PhD Mathematics course as an elective by acquiring approval from the Board of Studies Mathematical Sciences.

d) The eligibility for doing an MS thesis is a CGPA of 3.00.

e) Students who do not qualify for the eligibility criteria for doing an MS thesis will be required to do two additional courses (6 credit hours in addition) and graduate with an MS degree (without thesis). Such MS graduates would not be eligible for doing a PhD Mathematics in the future from IBA.

f) Public defense of the MS thesis and completion of the degree will be governed as per IBA's policy.

For further details, visit: www.mathematics.iba.edu.pk

Required courses

Course category	Courses	Credit hours
Core units	6	18
Elective units	2	6
Literature survey	1	3
MS Thesis	1	3
Total	10	30

MS without Thesis

Course category	Courses	Credit hours
Core units	6	18
Elective units	4	12
Literature survey	0	0
Research work units	0	0
Total	10	30

Semester-wise sequence of courses

	Spring semester	Course code	Credit hours	Pre-requisite	Course type
1	Advanced Real Analysis	MTS511	3	-	Core
2	Topics in Algebra	MTS513	3	-	Core
3	Probability and Mathematical Statistics	MTS508	3	-	Core
4	Elective I	MTSxxx	3	-	Elective

S. No	Fall semester	Course code	Credit hours	Pre-requisite	Course type
1	Scientific Computing I of PDE's	MTS576	3	-	Core
2	Topics in Number Theory	MTS562	3	-	Core
3	Topology and Geometry	MTS575	3	-	Core
4	Elective II	MTSxxx	3	-	Elective
	Semester 3 and 4	**Course code**	**Credit hours**	**Pre-requisite**	**Course type**
1	Literature Survey	MTS699	3	-	Elective
2	MS Thesis		3	-	Elective

Elective courses

S. No	Courses	Course code	Credit hours	Pre-requisite
1	Non-Linear Dynamics and Chaos	MTS507	3	MTS203, MTS 241
2	Measure Theory and Integration	MTS512	3	MTS512
3	Topics in Commutative Algebra	MTS514	3	MTS513
4	Scientific Computing	MTS521	3	-
5	Stochastic Processes II	MTS525	3	MTS304
6	Stochastic Differential Equations	MTS529	3	MTS304
7	Topics in Commutative Algebra	MTS514	3	MTS513
8	Integral Equations-I	MTS533	3	-
9	Mathematical Astronomy	MTS537	3	-
10	Homological Algebra	MTS539	3	MTS513
11	Computational Algebraic Geometry	MTS541	3	MTS513
12	Applicable Modern Geometry I	MTS545	3	MTS511, MTS513, MTS616
13	Algebraic Geometry I	MTS549	3	MTS514
14	Scientific Computing and Software	MTS551	3	MTS521
15	Algebraic Cycles I	MTS553	3	MTS513
16	Arithmetic Algebraic Geometry	MTS557	3	MTS513
17	Exploratory Data Analysis	MTS561	3	-
18	Mathematical Physics I -	MTS565	3	-
19	Statistical Data Mining and Knowledge Discovery	MTS569	3	-
20	Statistical Machine Learning	MTS573	3	-
21	Galois Theory	MTS577	3	MTS513
22	Smooth Manifolds	MTS581	3	MTS510

*The Board of Studies Mathematical Sciences is authorized to introduce any new course added to the above list as and whenrequired. Note: Any course of 600 level of Mathematics can be treated as an MS Mathematics elective.

PhD Computer Science

PhDs in Computer Science are empowered to conduct cutting-edge research, gain recognition, and maintain professional and academic networks. The IBA Department of Computer Science offers PhD programs in various areas, including Artificial Intelligence, Machine Learning, Text Analytics, Computer Vision, Algorithms, Quantum Computing, Wireless and Mobile Communications, Multimedia and Web, and Human-Computer Interaction.

The PhD-CS program aims to encourage graduate students to make significant contributions to their field through original research. Participants in this program will have the opportunity to collaborate with international researchers, publish scholarly articles, and attend prestigious conferences worldwide. The program will enhance students' quantitative and qualitative research skills and promote interdisciplinary research and interaction with the local industry.

The PhD-CS program fosters independence and originality in the research process. It requires residency of at least two years, during which students must complete a specially designed curriculum of advanced courses. Throughout the residency, students are expected to collaborate closely with a supervisor in their field of specialization.

Eligibility criteria

For the eligibility criteria, refer to pages **83-85.**

	Program	Courses	Credit hours
A	Course Work [1,2]	6	18
B	Dissertation	-	12

Rules:

- It is recommended that the coursework should be completed during the first 3 semesters after admission.
- Students can take a maximum of 4 courses (12 credit hours) in each semester.

Courses*

Course title	Course code	Credit hours	Pre-requisite
Machine Learning – I	CSE602	3	
Machine Learning – II	CSE603	3	
Bioinformatics Algorithms	CSE607	3	-
Advanced Analysis of Algorithms	CSE651	3	-
Combinatorial Optimization	CSE654	3	-
Probabilistic Reasoning	CSE655	3	-
Computational Intelligence	CSE659	3	-
Semantic Web	CSE661	3	CSE665
Parallel Processing	CSE662	3	-
Information Retrieval and Web Search-I	CSE665	3	-
Information Retrieval and Web Search-II	CSE666	3	-
Big Data Analytics	CSE668	3	CSE248, MTS102
Deep Learning	CSE669	3	ICT651
Social Network Analysis	CSE670	3	CSE141, CSE248, MTS102
Computer Communication Network and Simulation	ICT651	3	ICT659
Computer Communication Network and Simulation II	ICT654	3	CSE248
Wireless Sensor Networks	ICT659	3	-
Advanced Topics In Wireless Sensor Networks	ICT660	3	-
WSN Protocols And Applications	ICT662	3	MIS651
Theoretical Foundations of IS	MIS651	3	-
Advanced Research Topics In IS	MIS652	3	-
Advanced Theoretical Concepts in IS	MIS653	3	-

***It is a partial list of courses**

PhD Mathematics

PhD in Mathematics aims to polish an individual's skills of using Mathematics as a compact language to describe problems in any area. This enables them to theoretically expand the frontiers to create new and formerly unknown avenues in this discipline.

Eligibility criteria

For the eligibility criteria, refer to pages **83-85.**

Duration

The minimum duration of the program is 4 years and the maximum time allowed is 8 years.

Other rules

- A PhD student must spend at least the first two years at the IBA as a full-time PhD scholar. Failing to do so will result in termination from the program.
- PhD students will be required to do six courses (chosen from the list below) at 600 level as suggested by the research supervisor and/or Board of Studies Mathematical Sciences.

Courses

The Board of Studies Mathematical Sciences is authorized to introduce any new courses added to the following list as and when required. On successful completion of the course work with a CGPA of at least 3.00, the candidate qualifies to take a comprehensive examination. Failing to achieve this qualification, the candidate would be allowed to improve his/her CGPA by doing two of their courses again. In view of the candidate's request and recommendation of the Board of Studies Mathematical Sciences, the candidate may do any other two course to bring their CGPA to the required level.

Comprehensive exam

After completing the course work, the comprehensive examination would be taken in the second year of PhD. On Successful completion of comprehensive examination, the candidate qualifies to work on a PhD Dissertation.

Defense of PhD thesis proposal and thesis

PhD thesis proposal would have to be defended in front of two national examiners (selected and approved by BOS and BASR). Public defense of the PhD thesis and completion of the degree will commence after the thesis has been examined by two foreign external examiners (who will be selected as per the HEC policy).

For further details, visit:

List of courses

	Courses	Course code	Credit hours	Pre-requisite
1	Numerical Treatment of P.D.E.	MTS621	3	MTS515
2	Financial Mathematics	MTS625	3	MTS537
3	Computational Astronomy	MTS637	3	MTS545
4	Applicable Modern Geometry II	MTS645	3	MTS549
5	Algebraic Geometry II	MTS649	3	MTS553
6	Algebraic Cycles II	MTS653	3	MTS366
7	Algebraic Curves	MTS655	3	MTS557
8	Iterative Methods for Sparse Linear Systems	MTS656		MTS525

S. No	Courses	Course code	Credit hours	Pre-requisite
1	Numerical Treatment of P.D.E.	MTS621	3	MTS515
2	Financial Mathematics	MTS625	3	MTS537
3	Computational Astronomy	MTS637	3	MTS545
4	Applicable Modern Geometry II	MTS645	3	MTS549
5	Algebraic Geometry II	MTS649	3	MTS553
6	Algebraic Cycles II	MTS653	3	MTS366
7	Algebraic Curves	MTS655	3	MTS557
8	Iterative Methods for Sparse Linear Systems	MTS656	3	MTS525
9	Poly logarithms	MTS657	3	MTS565
10	Timescale calculus	MTS658	3	MTS451
11	Computational Fluid Dynamics	MTS659	3	MTS514
12	Multivariate Statistical Analysis	MTS661	3	MTS539
13	Analysis on Manifolds	MTS662	3	MTS242, MTS203
14	Plane Curves and Singularities	MTS664	3	MTS515
15	Mathematical Physics II	MTS665	3	MTS537
16	Advanced Topology	MTS666	3	MTS545
17	General Relativity and Cosmology	MTS667	3	MTS549
18	Scientific Programming	MTS668	3	MTS553
19	Convex Analysis	MTS669	3	MTS366
20	Algebraic Number Theory	MTS670	3	MTS557
21	Monomial Algebra	MTS671	3	MTS525
22	Topics in Homological Algebra	MTS672	3	MTS565
23	Computational Continuum Mechanics	MTS673	3	MTS451
24	Algebraic Topology	MTS674	3	MTS514
25	Category Theory	MTS606	3	MTS539
26	Quantum Mechanics I	MTS675	3	MTS 242, MTS 203
27	Special Relativity	MTS676	3	MTS515
28	De Rham Cohomology	MTS677	3	MTS537
29	Topics of Special Interest I	MTS691	3	MTS545
30	Topics of Special Interest II	MTS692	3	MTS549
31	Topics in Homological Algebra	MTS621	3	MTS553
32	Computational Algebraic Topology	MTS681	3	-
33	Topology and Category Theory	MTS 686	3	-

Students enrolled in Spring 2024

Undergraduate

Programs	Enrollments	Male Students	Female Students
Bachelor of Business Administration	1120	641	479
BS Accounting and Finance	1054	709	345
BS Computer Science	639	455	184
BS Economics	480	269	211
BS Economics & Mathematics	203	112	91
BS Mathematics	52	28	24
BS Social Sciences & Liberal Arts	353	103	250
Total	3901	2317	1584

Undergraduate Programs		Graduate Programs		Doctoral Programs		Total
3901		773		54		
Male	Female	Male	Female	Male	Female	
2317	1584	540	233	28	26	4728
Total male Students		**2885**	**Total Female Students**	**1843**		
Male Students		**61%**	**Female Students**	**39%**		

Graduate

Programs	Enrollments	Male Students	Female Students
MBA - Evening	239	188	51
MBA - Morning	97	58	39
Executive MBA	156	121	35
MS Computer Science	53	40	13
MS Development Studies	18	8	10
MS Data Science	79	50	29
MS Economics	22	17	5
MS Finance	12	8	4
MS Islamic Banking & Finance	39	31	8
MS Journalism	5	2	3
MS Management	21	7	14
MS Marketing	17	2	15
MS Mathematics	15	8	7
Total	**773**	**540**	**233**

Postgraduate

Programs	Enrollments	Male Students	Female Students
PhD Economics	20	10	10
PhD Mathematics	16	9	7
PhD Computer Science	18	9	9
Total	**54**	**28**	**26**

Calendar of Holidays

Gazetted/Public holiday 2024

Independence Day	August 14, 2024
Eid Milad-un-Nabi*	September 16, 2024
Iqbal Day	November 09, 2024
Birth anniversary of Quaid-e-Azam/Christmas	December 25, 2024

Local/Optional holidays 2024

Urs of Shah Abdul Latif Bhittai (14 Safar)**	August 20, 2024
Death anniversary of late Benazir Bhutto**	December 27, 2024

Gazetted/Public holiday 2025

Kashmir day	February 05, 2025
Pakistan day	March 23, 2025
Eid-ul-Fitr*	March 31 to April 2, 2025
Labour day	May 01, 2025
Eid-ul-Azha*	June 07 to June 09, 2025
Independence Day	August 14, 2025
Ashura*	July 5 & 6, 2025
Eid Milad-un-Nabi*	September 06, 2025
Birth anniversary of Quaid-e-Azam/Christmas	December 25, 2025

Local/Optional holidays 2025

Death anniversary of late Zulfiqar Ali Bhutto**	April 04, 2025
Urs of Shah Abdul Latif Bhitai (14 Safar)**	August 09, 2025
Death anniversary of late Benazir Bhutto**	December 27, 2025

* Subject to moon sighting
** Subject to receiving notification from the Government of Sindh

Excerpts of the academic calendar 2024-25

Orientation Fall 2024	August 16 to 18, 2024
Fall Semester 2024	August 19 to December 14, 2024
Convocation 2024	December 07, 2024
Orientation Spring 2025	January 19, 2025
Spring Semester 2025	January 20 to May 19, 2025
Summer Semester 2025	June 19 to August 02, 2025
Orientation Fall 2025	August 15 to 17, 2025
Fall Semester 2025	August 18, 2025

Institute of
Business Administration
Karachi

Leadership and Ideas for Tomorrow

Main Campus

University Enclave, University Road,
Karachi - 75270 Pakistan
UAN: 111-422-422

City Campus

Plot # 68 and 88 Garden / Kiyani Shaheed Road,
Karachi - 74400 Pakistan
UAN: 111-422-422

info@iba.edu.pk
www.iba.edu.pk

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