Institute of Business Management

Catalog 2023-2024
VISION / MISSION STATEMENT

Vision

The Institute of Business Management aims to be one of the leading institutes nationally and internationally for imparting knowledge, skills, confidence, and values to its students, thereby, enabling them to become successful professionals globally.

Mission

The mission of the Institute of Business Management is to foster a learning environment where students are motivated to make learning an on-going life-long process. We see ourselves as a multi-dimensional educational institution. Our aim is to:

• Use the best teaching and training methodologies
• Prepare students to excel academically as well as in management skills to function ethically and take effective rational decisions in all endeavors of life
• Pursue leading-edge research
• Engage in the development of innovative ideas and analytical, interpersonal and leadership skills
• Allow freedom of thought and expression
• Encourage both faculty and students to be independent and creative thinkers
• Commit to our students and other stakeholders to create responsible future global leaders
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AN INTRODUCTION TO THE
INSTITUTE OF BUSINESS MANAGEMENT

This catalog will provide you with valuable, up-to-date information about the programs of study and courses offered by the Institute, as well as information about the fee structure, facilities and student services available to students.

The catalog gives an introduction to life at IoBM as well as detailed information on all undergraduate and graduate level programs along with core courses, electives and specialized courses. Every effort is made to update information on courses in the catalog. However, changes in curricula may be necessary as part of a process of continuous improvement and the need to keep each program fully aligned with academic and professional developments. For this reason, the Institute reserves the right to make necessary alterations in courses and/or course structures, after clearing them with the concerned Boards of Studies. Teaching methodology, academic and research programs, assessment procedures and course descriptions also form part of the catalog.

The catalog also lists the facilities at computer labs, library resources, student support services besides providing information relating to and course registration procedures. Information regarding opportunities for financial assistance and stipends for students is also included. The latter part of the catalog contains brief profiles of academic and administrative personnel.

IoBM: 1994 - 2023

The Foundation for Higher Education was established as a non-profit institution in 1994 by a group of dedicated citizens of Karachi, and was registered under the Societies Registration Act of 1860. The Foundation promotes the dissemination of quality education. Its first project was the setting up of a management university designed to serve trade, industry and commerce by producing highly competent and talented business executives. Teaching began at the College of Business Management (CBM), IoBM’s first constituent college, in September, 1995.

In January 1998, a bill was unanimously approved by the Sindh Provincial Assembly for establishing a university known as the Institute of Business Management in the private sector. At present, the Institute has four constituent colleges, the College of Business Management (CBM), the College of Computer Science & Information Systems (CCSIS), the College of Economics & Social Development (CESD) and the College of Engineering and Sciences (CES). Since 2006, the Institute has been ranked as one of the top universities in the private sector, both by the Higher Education Commission of the Federal Government and the Sindh Provincial Government. From 2010 to 2015, we have been honored with prestigious awards of EDUNIVERSAL Palms given for meritorious evaluation and certification of educational institutions around the world. The Institute is a member of the International Association of Universities (IAU), Association to Advance Collegiate Schools of Business (AACSBS) and other international and national organizations.
The Governor of Sindh is an ex-officio Patron and the Chancellor, Mr. M. Bashir Jamnmoonmad is also the Chairman of the Board of Governors and Chancellor of the Institute. The other members of the Board are:

- Mr. Talib Syed Karim, President
- Chairman Higher Education Commission
- Secretary Universities & Boards Department, Government of Sindh
- Mr. Jahangir Siddiqui
- President, Pakistan Stock Exchange
- President, Federation of Pakistan Chambers of Commerce & Industry
- President, Karachi Chambers of Commerce & Industry
- Mr. Justice ® Shahid Anwar Bajwa
- Mr. Muhammad Ali Tabba
- Mr. Muhammad Sharif
- Dr. Zafar Saied Saifee
- Mr. Masood Hashmi
- Mr. Sikandar Sultan
- Ms. Ameena Saiyid
- Dr. Waqar Masood Khan
- Prof. Dr. Noshad A. Shaikh
- Prof. Dr. Tariq Rahim Soomro
- Mr. M. W. Jahangir, Secretary to the Board

The Institute offers, through its College of Business Management (CBM), a four year BBA (Honors) and a two year MBA degree program with specialization in Marketing, Finance, Human Resource Management and Management Information Systems, Health & Hospital Management, Pharmaceutical Administration, Media Management, Industrial Management and Telecommunication Management. BS (Honors) Economic & Finance, Accounting & Finance and BS Social Entrepreneurship and Social Leadership are also offered. A research degree, an MPhil leading to PhD, is offered in Finance, Human Resource Management, Marketing, Education, Psychology and Management Information Systems. A four year Bachelor of Computer Science (Honors), followed by a two years Master of Computer Science and MBA in Finance & Risk Management, BS in Mathematics & Economics and BS Data Science are offered through the College of Computer Science & Information Systems (CCSIS). The College also offers programs in Industrial Engineering & Management, Actuarial Science & Risk Management, Telecommunication Engineering & Management and Financial Mathematics & Statistics. The College of Economics and Social Development (CESD) offers a BS program in Commerce, Media Studies, B.Ed, MBA in Educational Management and MSc leading to MPhil in Economics. College of Engineering and Sciences (CES) offers a program in Electrical Engineering.
The emphasis of IoBM is on research. It publishes the country’s first business policy and research journal, Pakistan Business Review, which is recognized by the HEC as well as internationally recognized as Pakistan’s first business policy and research journal, Pakistan Business Review. Pakistan’s Journal of Engineering Technology and Science is accordingly brought out by the CCSIS whereas the CESD is responsible for yet another publication: the Journal of Education and Educational Development. Students and faculty contribute regularly to its pages. A research seminar is organized on a weekly basis. IoBM is the first business school where foreign language courses, Arabic, French, Spanish, Italian or Chinese were made compulsory in the BBA and BCS programs. The Institute has competent and dedicated faculty with the majority holding foreign degrees. An international seminar funded by the HEC is organized on an annual basis. IoBM Academic programs are up to date and comprehensive in concept and structure, resembling honors programs offered in the UK and graduate programs of US Universities. IoBM has extensive links with a number of global universities. Professors from these universities have served as Chief Academic Officers of IoBM.

Since 1998, more than 9,000 students have graduated from IoBM. Most of them occupy key positions in leading national and multinational firms including Habib Bank, Faysal Bank, Standard Chartered, PIA, Engro, Berger Paints, Geo TV, National Bank of Pakistan, Unilever, IBM, ICI, SmithKline & Beecham, Aga Khan University Hospital, Karachi Stock Exchange and different provincial and federal government departments. Many graduates have proceeded for their post-graduate program to reputable universities in the UK and USA. More than 400 students go for compulsory internships every year to national and multinational organizations.

Office of Research Innovation & Commercialization - Entrepreneurship & Management Excellence Center (ORIC) / (EMEC) and Centre of Information Technology (CIT) of the Institute organizes professional education, training and research programs with a view to serving the corporate sector to enhance both its profitability and contribution to society. Support is provided in the areas of banking and finance, marketing, human resource development and information systems management.

The Institute has come a long way since its inception. There are over 5500 students on our campus which is large, purpose-built and located at Korangi Creek on an 11 acre site and comprises the Business College building, the Administration and Entrepreneurship & Management Excellence Center building, CCSIS building, a Convocation Center, the Student Activity Center, a five-storeyed library building, Industrial Engineering and Management building, a mosque and CESD building. Another nine acre site has been acquired at a distance of 1 km from the present campus. Shahjehan S. Karim Center of Excellence, a basement, ground plus five storeyed building was completed in June 2017.

At the Institute’s fourth convocation in December, 2001, an honorary degree of Doctorate of Philosophy was conferred upon Dr. Nafees Sadik, former Executive Director, United Nations Population Program. At the fifth convocation held in December, 2002, an honorary degree was conferred on our keynote speaker, Mr. Babar Ali, Pro-Chancellor, Lahore University of Management Sciences (LUMS), and at the ninth convocation an honorary degree was conferred on Dr. Goolam Mohamedbhai, President, International Association of Universities (IAU). The sixth convocation was held in December 20, 2003 with Dr. Atta-ur-Rahman, Chairman, Higher Education Commission and Minister for Science & Technology as the Chief Guest and MS Musharaf Hai, Chairperson, Unilever Pakistan Limited as the keynote speaker. The seventh convocation was held on December 18, 2004 with the Governor of Sindh as the Chief Guest and Mr. Hameed Haroon, Chief Executive Dawn Group of Newspapers as the keynote speaker. Over 300 students were awarded BBA (Hons), BCS (Hons), BS (Accounts), MBA and MCS degrees at this convocation.
The eighth convocation was held on December 17, 2005 with the Minister for Education, Sindh, as the chief guest and Syed Ali Raza, President, National Bank of Pakistan, as the keynote speaker. Over 400 students were awarded degrees on the occasion. The ninth convocation of the Institute was held on December 16, 2006 with the Education Minister as the Chief guest and Dr. Goolam Mohamedbhai President, IAU, as the keynote speaker. Over 450 students were awarded degrees. The tenth convocation was held on December 8, 2007, where Mr. Jose Manuel Salazar-Xirinachs, Executive Director of the International Labour Organization, Geneva was the keynote speaker and over 500 students were awarded degrees.

The eleventh convocation was held on December 6, 2008 where the Governor, State Bank of Pakistan was the keynote speaker and Governor Sindh, Dr. Ishrat ul Ebad was the Chief guest. Over 700 degrees were awarded on the occasion. Syed Qaim Ali Shah, Chief Minister of Sindh and Mr. Nisar Ahmed Khuhro, Speaker Sindh Assembly attended the twelfth convocation of the Institute, held on December 05, 2009. The keynote speaker was Mr. Shaharyar Muhammad Khan, former Foreign Secretary and former Chairman of the Pakistan Cricket Board. As many as 927 graduates were awarded degrees. The thirteenth convocation was held on December 4, 2010. The chief guest on the occasion was Dr. Abdul Hafeez Shaikh, Minister for Finance, Revenue, Economic Affairs & Statistics and the keynote speaker was Dr. Javaid R. Laghari, Federal Minister / Chairperson of the Higher Education Commission of Pakistan.

The fourteenth convocation was held on December 10, 2011. Over 983 degrees were awarded to students. The chief guest on the occasion was Dr. Shamsh Kassim-Lakha, Founding President and Trustee of AKU and the keynote speaker was Mr. Javed Jabbar, Chairman and Chief Executive, JJ Media (Pvt.) Ltd. The fifteenth convocation was held on December 08, 2012. Over 825 degrees were awarded to students. The keynote speaker was Mr. Shahid Aziz Siddiqui, Chairman and CEO, State Life Insurance Corporation of Pakistan. The sixteenth convocation was held on December 07, 2013. Over 850 degrees were awarded to students on the occasion. TheChief guest was Mr. Nisar Ahmed Khuhro, Senior Minister for Education, Govt. of Sindh, the keynote speaker was Dr. Kakha Shengelia, President, Caucasus University Republic of Georgia and Mr. Munir Kamal, Chairman National Bank of Pakistan was the guest of honor.

The seventeenth convocation was held on December 07, 2014. Over 850 degrees were awarded to students on the occasion. The chief guest was Mr. Nisar Ahmed Khuhro, Senior Minister for Education, Govt. of Sindh, the keynote speaker was Mr. Muhammad Aliuddin Ansari, President & Chief Executive Officer of Engro Corporation. The eighteenth convocation was held on December 12, 2015. Over 900 degrees were awarded to students. The chief guest was Mr. Muhammad Mian Soomro, Former President of Pakistan and the keynote speaker was Mr. Kamal A. Chinoy, Chief Executive of Pakistan Cables Limited at the event. The nineteenth convocation was held on December 10, 2016. Over 950 degrees were awarded to students. The guest of honor was Mr. Jam Mehtab Hussain Dahar, Minister for Education & Literacy, Government of Sindh, and the keynote speaker was Mr. Sirajuddin Aziz, President Habib Metropolitan Bank Ltd. Dr. Mukhtar Ahmed, Chairman Higher Education Commission (HEC) also attended the convocation. The twentieth convocation was held on December 09, 2017. Over 1000 degrees were awarded to students. The chief guest was Mr. Muhammad Zubair, Governor of Sindh and keynote speaker was Mr. Khalid Nawaz Awan, Chairman of TCS at this Convocation.

The twenty-first Convocation was held on December 08, 2018. Over 1000 degrees were awarded to students. The keynote speaker was Mr. Kimihide Ando, Senior Vice President and CEO, Mitsubishi Corporation. The twenty-second Convocation was held on December 07, 2019. Over 1000 degrees were awarded to students. The keynote speaker was Mr. Shazad Dada, CEO/Executive Director, Standard Chartered Bank, Pakistan. The twenty-third convocation was held on January 30, 2021. This Convocation was hybrid where only PhD, MS/MPhil Graduates and Gold Medalists were invited, over 1450 degrees were awarded to students. Mr. Imran Ismail, Governor Sindh, delivered his recorded speech. The Keynote Speaker was Mr. Mohammad Ali Tabba, CEO, Lucky Cement. The twenty-fourth convocation was held on December 11, 2021. Over 1250 degrees were awarded to students on the occasion. The chief guest was Mr. Imran Ismail, Governor of Sindh, the Guest of Honour was Mr. Muhammad Azfar Ahsan, Minister of State and Chairman of Board of Investment and the Keynote Speaker was Mr. Amir Paracha, Chairman, Unilever Pakistan Limited at this Convocation.

**Shahjehan S. Karim Center of Excellence**

A six storeyed (basement, ground plus five floors) centrally air-conditioned building with a covered area of 152,000 sq.ft and an open area of 15,000 sq.ft. houses 22 classrooms, 68 faculty offices, examination department with two examination halls of 11000 sq.ft, laboratories, media studio of 2,576 sq.ft, seminar rooms, training halls, gymnasium, 8 (food) kiosks with 180 seating capacity and 22 hostel rooms for students and faculty.
WHY CHOOSE IoBM?

IoBM is one of the premier universities of the country. Not only does it offer academic excellence but its peaceful location - part city, part countryside - is ideal for reflection as well as camaraderie. The lay-out of the campus, where the buildings are connected by a leafy and partially winding driveway, has a charm of its own. The buildings themselves, a rich terracotta pink, are spacious and attractively designed. The breezy interior of the CBM building, with its twists and turns and its ‘all-hands-on-deck’ sense, is especially appealing. Tastefully landscaped with the help of nature - and sculpture - the IoBM campus is both homely and gracious. To the many students who form part of its fraternity, it is a home away from home.

The academic laurels IoBM has won are equally impressive. IoBM was rated one of the country’s top universities by the Higher Education Commission of the Federal Government as well as the Government of Sindh. IoBM has also been the proud recipient of two Edunversal Palms, awarded to it at the international convention of Deans of Business Colleges in recognition of its being one of the two best Business Schools since 2010.

In addition, IoBM is an active member of the International Association of Universities (IAU), the International Association of University Presidents (IAUP), the Association to Advance Collegiate Schools of Business (AACSB), the Association of Commonwealth Universities (ACU), besides being associated with other international academic organizations. IoBM has also established links and made a name for itself among reputed foreign business schools in relation to the sharing and contributing of ideas on and insights into business education and research.

The programs we offer include MBA and MBA (Evening) programs in diverse fields. These are held at weekends and lay a special emphasis on the requirements of busy executives and those who, having come to the end of one career, wish to move to a new one. IoBM also offers programs in Health and Hospital Management, Finance and Risk Management, Industrial Management, Telecommunication Management, Environment and Energy Management, Organizational Psychology, Economics and many other disciplines. IoBM faculty excel in their different fields. They transmit their expertise in scholarship and research to students, providing them with a developed understanding of their respective disciplines.

Students have access to excellent facilities and learning resources as IoBM continually invests in its library, gym, sports facilities, computer equipment, Wi-Fi facility, video conferencing, state-of-the-art campus buildings and subsidized transport facilities.

IoBM has earned its reputation through an excellent internship and graduate employment record. Rigorous degree courses enable graduates to acquire depth in their chosen subjects and open up wide career choices. A large number of IoBM graduates join top business schools in Europe, USA and Canada.

Research is a core competence at IoBM and is carried out in diverse fields. IoBM publishes the research quarterly, Pakistan Business Review (PBR) which is recognized by the Higher Education Commission (HEC) as category ‘X’ and ECONLIT, the Journal of Economic Literature, USA.

Annually held, HEC- financed international conferences provide a platform for the presentation of research undertaken at IoBM. The Pakistan Journal of Engineering Technology & Science and the Journal of Education & Educational Development recognized by HEC as Category ‘X’ are also brought out by IoBM. IoBM is connected with PERN2, a high-speed dedicated National Research & Education Network (NREN) for universities and other academic institutions of Pakistan.
IoBM’s Academic Strategies

21st century has seen explosion of knowledge and has forced integration of disparate fields: Social interactions connect with digital networks; philosophy connects with computer science, psychology with clicks and likes, education with virtualization, robotics with medicine, banking with mobile companies, and so on. Environmental future is now linked with social sustainability, which in turn is linked with economic and financial sustainability. These linkages have been created with the exponential growth of IT and communication technologies, that have stimulated multi-dimensional interactions among businesses, industry, social-life and governance. To study these interactions, IoBM as a multi-dimensional educational institution offers cross-disciplinary programs and specializations. These include Business Psychology, Education Management, Finance and Economics, Islamic Finance and Banking, Engineering Management, Accounting and Law, Health and Hospital Management, Environment and Energy Management, Economics and International Relations etc. These and other discipline-based programs in business, computer science, engineering, economics, education and media are offered by the four colleges or faculties of IoBM.

Convergence of previously separate fields is also causing massive disruption and displacement of jobs accompanied by obsolescence of skills and knowledge requirements. Disruption of 20th century life-long career jobs in brick and mortar companies are also creating massive entrepreneurial opportunities for innovative business ventures, social enterprises and rethinking and reorganization of government, industry and society. This is reflected in IoBM’s strategic focus on creativity and innovation through business entrepreneurship, social entrepreneurship and leadership, technology entrepreneurship and entrepreneurial engineering through EMEC.

Knowledge is doubling every 12 months and soon would be doubling every 12 hours. Hence, regurgitation of the knowledge obtained from a traditional classroom lecture is fast becoming obsolete before it is absorbed. Hence, IoBM’s mission focuses on the development of graduates who are life-long self learners, who can quickly learn new knowledge and customize it to meet the fast changing requirements of their careers. Hence, IoBM has a strategic focus on blended, experiential, project based, and case based and other learning technologies.

IoBM’s vision is to be among the leading educational institution locally and internationally. To achieve this vision, IoBM strives to contribute to the development of economy and society through innovative research, faculty development, and impactful engagement with industry and society; nationally and globally. Hence, it is actively pursuing international accreditations such as AACSB and QS Ranking, and its programs are accredited by national accreditation councils such as PEC, NBEAC, NCEAC, NACTE and regulatory bodies such as HEC and CIEC. Its ORIC and incubation centre are duly recognized by HEC.
RESOURCES AND FACILITIES

The Institute of Business Management has a purpose-built twenty acre campus, located in the serene and secure surroundings of Korangi Creek, Karachi. The College of Business Management building, covering an area of 85,000 sq. ft., is equipped with state-of-the-art teaching equipment to enable the Institute to keep pace with the dynamics of the global market. All classrooms are equipped with internet and intranet facilities. IoBM is a Wi-Fi campus. The campus buildings are centrally air-conditioned and have all been self-financed with no outside assistance or donation. A separate centrally air-conditioned modern Administration and Entrepreneurship & Management Excellence Center building, with a covered area of 26,900 sq.ft., was completed in 2001. Another centrally air-conditioned building with a covered area of 31,655 sq.ft., houses the College of Computer Science and Information Systems and has been operational since 2002. The Convocation Center was completed in November, 2002, and the Students Activity Center building in September, 2003 which has a second floor housing 10 faculty residential suites for visiting scholars and was completed in January, 2006. The library building has been operational since January, 2005. A separate building houses the department of Industrial Engineering & Management. A new 150, 000 sq. ft. SSK Center of Excellence has recently been added to the existing buildings on campus. The Institute provides students with subsidized transportation to and from the campus through conveniently located pick and drop points all over Karachi. Girls are provided this facility to and from their homes. The campus also has ample car parking facilities.

Computing Facilities

One of the strengths of the IoBM program is the incorporation of information technology as a key component of the curriculum. The academic programs offered by the Institute require students to obtain hands on experience in computers and develop a high level of expertise in this field. The Information Systems Department (ISD) of the College of Computer Science and Information Systems provides administrative, networking and technical support to faculty and students. The College of Computer Science and Information Systems building includes a number of computer laboratories with around four hundred & twenty workstations. It is fully equipped with satellite/ radio-linked e-mail, Wi-Fi facilities and internet facilities for all students, faculty and staff.

Library

The IoBM library, an ideal setting for learning and research, serves as a repository for a rich array of both traditional and electronic information services. A distinctive strength is its rich spectrum of resources, including a large number of books, journals, periodicals, reference material, audio-visual material, government documents and reports catering to the scholarly needs of students, faculty and researchers. Its pleasant and conducive-to-learning environment accommodates 350 students and 48,851 books. All library books are searchable using OPAC (Online Public Access Catalog) and the newly developed software Library Information and Management System (LIMS), available at the front desk. Students are provided with internet workstations and rooms for group study. Of the many recent initiatives by IoBM are its access to a large number of e-resources through the HEC Digital library and online journals through JSTOR e-database. The library also provides access to print and online journals through subscription to a number of business, marketing, management and HRM journals. In addition to the main library, the Learning Resource Center in the Academic block caters to the scholarly requirements of M Phil and PhD prograMS The library is engaged in numerous projects to expand access to its physical and digital collections. Skill development sessions are conducted for students and faculty from time to time. The library projects in the pipeline include development of a portal of web links, just a click away, on the desktops of faculty and students.
In December 2022, IoBM held its twenty-fifth Silver Jubilee Convocation. The Chief Guest was Mr. Kamran Tessori, Governor of Sindh, the Guest of Honour was Mr. Muhammad Aurangzeb, President and CEO, Habib Bank Limited and the Keynote Speaker was Mr. Abid Vazir, Director and COO, Cherat Packaging Limited at this Convocation.

IoBM conferred 1383 Degrees, 18 gold medals and 38 merit certificates as per the following:

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<td>BS (Economics, Law and International Relations)</td>
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<td>MBA (Industrial Management)</td>
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<td>MBA (Logistics and Supply Chain Management)</td>
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<tr>
<td>BS (Entrepreneurship)</td>
<td>7</td>
<td>MBA (Media Management and Marketing)</td>
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<tr>
<td>BS (Honors) Accountancy, Management and Law</td>
<td>67</td>
<td>MSC (Organizational Psychology and HRM)</td>
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<td>BS (Honors) Accounting and Finance</td>
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<td>MS (Business Management)</td>
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<td>228</td>
<td>MPhil (Organizational Psychology)</td>
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<td>MBA (Weekend)</td>
<td>98</td>
<td>PhD (Business Management)</td>
<td>3</td>
</tr>
</tbody>
</table>
## Gold Medalists

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shahjehan Syed Karim</strong></td>
<td>Gold Medal</td>
</tr>
<tr>
<td><strong>Syed Osama Ali Shah</strong></td>
<td>BBA (Honors)</td>
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<tr>
<td><strong>S. H. Hashmi Memorial</strong></td>
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<tr>
<td><strong>Maryam Farooq</strong></td>
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<tr>
<td><strong>Ghulam Faruque</strong></td>
<td>Gold Medal</td>
</tr>
<tr>
<td><strong>Neusha F. Mondegarian</strong></td>
<td>BBA (Honors)</td>
</tr>
<tr>
<td><strong>Janmohammad Dawood</strong></td>
<td>Gold Medal</td>
</tr>
<tr>
<td><strong>Maria Badar</strong></td>
<td>BS (Honors) Accountancy, Mgmt. &amp; Law</td>
</tr>
<tr>
<td><strong>Meezan Bank</strong></td>
<td>Gold Medal</td>
</tr>
<tr>
<td><strong>Bushra d/o Muhammad Nasir Admani</strong></td>
<td>BS (Honors) Accounting &amp; Finance</td>
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<tr>
<td><strong>Orient McCann</strong></td>
<td>Gold Medal</td>
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<tr>
<td><strong>Aiesha Anees</strong></td>
<td>BS (Honors) Media Studies</td>
</tr>
<tr>
<td><strong>Afeef Packages</strong></td>
<td>Gold Medal</td>
</tr>
<tr>
<td><strong>Ruqaiya Asif</strong></td>
<td>BS (Entrepreneurship)</td>
</tr>
<tr>
<td><strong>Bank Islami Pakistan Limited</strong></td>
<td>Gold Medal</td>
</tr>
<tr>
<td><strong>Qasim Ali</strong></td>
<td>MBA (Weekend)</td>
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<tr>
<td><strong>Future Agritech</strong></td>
<td>Gold Medal</td>
</tr>
<tr>
<td><strong>Yusra Rahat</strong></td>
<td>MBA (Evening)</td>
</tr>
<tr>
<td><strong>Tabba Foundation</strong></td>
<td>Gold Medal</td>
</tr>
<tr>
<td><strong>Syeda Raheela Qadri</strong></td>
<td>BBA (Honors)</td>
</tr>
<tr>
<td><strong>Shan Foods</strong></td>
<td>Gold Medal</td>
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<tr>
<td><strong>Syed Areeb Abbas</strong></td>
<td>BBA (Honors)</td>
</tr>
<tr>
<td><strong>Faizan Steel</strong></td>
<td>Gold Medal</td>
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<tr>
<td><strong>Ali Gohar</strong></td>
<td>BE Electrical (Electronics)</td>
</tr>
<tr>
<td><strong>1Link (Private) Ltd.</strong></td>
<td>Gold Medal</td>
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<tr>
<td><strong>Maheen Hanif</strong></td>
<td>BS (Computer Science)</td>
</tr>
<tr>
<td><strong>EFU Life Assurance</strong></td>
<td>Gold Medal</td>
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<tr>
<td><strong>Ateeb Hasan</strong></td>
<td>BS (Honors) Accounting &amp; Finance</td>
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<tr>
<td><strong>Imam Ali Kazi Memorial</strong></td>
<td>Gold Medal</td>
</tr>
<tr>
<td><strong>Saman Zulfiqar</strong></td>
<td>BS (Social Entrep. &amp; Leadership)</td>
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<tr>
<td><strong>Dr. Essa’s Laboratory</strong></td>
<td>Gold Medal</td>
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<tr>
<td><strong>Sana Saleem</strong></td>
<td>BS (Honors) Business &amp; Psychology</td>
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<tr>
<td><strong>Management Association of Pakistan</strong></td>
<td>Gold Medal</td>
</tr>
<tr>
<td><strong>Faiza d/o Saleem</strong></td>
<td>MBA (Evening)</td>
</tr>
<tr>
<td><strong>Westbury Group of Companies</strong></td>
<td>Gold Medal</td>
</tr>
<tr>
<td><strong>Sana Imran</strong></td>
<td>MBA (Logistics &amp; Supply Chain Mgmt.)</td>
</tr>
</tbody>
</table>
GLOBAL LINKAGES

International Office

The Institute of Business Management (IoBM) has an International Office that works under the supervision of the President of IoBM. The Department is successfully managing the execution of international relations on bilateral and multilateral terms with many universities in Europe, Asia USA and Australia.

Eduniversal Ranking

Eduniversal, based in Paris, France, is a worldwide academic institution ranking organization which ranks the 4,000 best academic institutions from around the world. The expertise of IoBM is distinguished in the 2021 Eduniversal Best Masters’ Ranking in the context of following programs:

Top 200 Best Master’s Programs:

- MBA full time - Ranked 18th in Central Asia
- MBA Human Resource Management - Ranked 8th in Central Asia
- MBA Advertising and Media Management – Ranked 2nd in Corporate Communication in Central Asia
- MBA Executive – Ranked 9th in Executive MBA in Central Asia
- MS Economics – Ranked 5th in Economics in Central Asia
- MBA Finance – Ranked 7th in Corporate Finance in Central Asia
- MBA Environment and Energy Management – Ranked 1st in Energy and Natural Resources in Central Asia
- MBA Industrial Management – Ranked 4th in Industrial and Operations Management in Central Asia
- MPhil in Business Management – Ranked 6th in General Management in Central Asia
- MS Computer Science – Ranked 17th in Information Systems Management in Central Asia
- MS Mathematics & Scientific Computing – Ranked 3rd in Data analytics in Central Asia

Top 100 Best Master’s Programs:

- MBA Supply Chain Management – Ranked 88 in the world
- MBA Health and Hospital Management – Ranked 66 in the world
- MBA Finance and Risk Management – Ranked 100 in the world
- MSc in Business Management – Ranked 37 in the world
- MBA Weekend – Ranked 58 in the world

Bilateral Agreements

IoBM has bilateral agreements under a formally signed Memorandum of Understanding (MoU) with the following universities which provide exchange of students, faculty and staff and promote joint research and consultancy.
<table>
<thead>
<tr>
<th>Country</th>
<th>Partner University</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albania</td>
<td>Eqrem Cabej University</td>
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<tr>
<td>Bangladesh</td>
<td>American International University</td>
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<tr>
<td>Bangladesh</td>
<td>University of Chittagong</td>
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<tr>
<td>Belarus</td>
<td>School of Business of Belarussian State University</td>
</tr>
<tr>
<td>Bhutan</td>
<td>Gedu College of Business Studies</td>
</tr>
<tr>
<td>Bosnia</td>
<td>International Burch University</td>
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<tr>
<td>China</td>
<td>Beijing Jiaotong University</td>
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<tr>
<td>China</td>
<td>Guangxi University of Finance and Economics</td>
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<tr>
<td>China</td>
<td>Guangxi University of Technology (GXUT)</td>
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<td>China</td>
<td>Guilin University of Technology</td>
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<tr>
<td>China</td>
<td>Hebei International Studies University (HISU)</td>
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<td>China</td>
<td>Sias International University</td>
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<tr>
<td>China</td>
<td>University of Electronic Science &amp; Technology of China (UESTC)</td>
</tr>
<tr>
<td>China</td>
<td>Zhejiang University</td>
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<tr>
<td>China</td>
<td>Zhengzhou Xinlian University</td>
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<tr>
<td>China</td>
<td>Sanya University</td>
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<tr>
<td>Cambodia</td>
<td>IIC University of Technology</td>
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<tr>
<td>France</td>
<td>Financia Business School</td>
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<tr>
<td>Georgia</td>
<td>Caucasus University</td>
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<tr>
<td>Germany</td>
<td>Erfurt University of Applied Sciences</td>
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<tr>
<td>Germany</td>
<td>Eurasia Institute for International Education (EIIE)</td>
</tr>
<tr>
<td>Ghana</td>
<td>University of Development Studies</td>
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<tr>
<td>Indonesia</td>
<td>IPMI International Business School</td>
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<td>Indonesia</td>
<td>University of Muhammadiyah Semarang</td>
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<td>Italy</td>
<td>University of Florence</td>
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<td>Lithuania</td>
<td>Vytautas Magnus University</td>
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<td>Malaysia</td>
<td>Multimedia University</td>
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<td>Malaysia</td>
<td>Universiti Malaysia Sarawak (UNIMAS)</td>
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<tr>
<td>Malaysia</td>
<td>University of Kuala Lumpur</td>
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<tr>
<td>Malaysia</td>
<td>Universiti of Malaysia Pahang</td>
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<tr>
<td>Mexico</td>
<td>Universidad Autonoma de Guadalajara</td>
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<td>Morocco</td>
<td>Groupe ISCAE</td>
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<td>Nepal</td>
<td>Kathmandu University School of Management (KUSOM)</td>
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<td>Pokhara University</td>
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<td>North Cyprus</td>
<td>Girne American University</td>
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<td>Poland</td>
<td>Powiślańska Szkoła Wyższa</td>
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<td>Portugal</td>
<td>Instituto Politécnico de Castelo Branco</td>
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<td>Romania</td>
<td>Petre Andrei University of Iasi</td>
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<tr>
<td>Russia</td>
<td>Emas Eurasian Management &amp; Administration School</td>
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<td>Russia</td>
<td>Institute of Business Studies RANPEA</td>
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<td>Russian State University for the Humanities</td>
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<td>South Korea</td>
<td>Hanyang University</td>
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<td>Spain</td>
<td>University of Malaga</td>
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<td>University of Kelaniya</td>
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<td>Srilanka</td>
<td>University of Peradeniya</td>
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<td>Switzerland</td>
<td>International University in Geneva (IUG)</td>
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<td>Taiwan</td>
<td>I-SHOU University</td>
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<td>Naresuan University</td>
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<td>Turkey</td>
<td>Abdullah Gul University (AGU)</td>
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<td>Yeditepe University</td>
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<td>Turkey</td>
<td>Yasar University</td>
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<td>Ukraine</td>
<td>International Institute of Business IIB</td>
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<td>United Arab Emirates</td>
<td>Al Dar University College</td>
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<tr>
<td>USA</td>
<td>Michigan Technological University</td>
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<tr>
<td>Uzbekistan</td>
<td>Tashkent State Transport University</td>
</tr>
<tr>
<td>Vietnam</td>
<td>Institute of Policy &amp; Management IPAM (University of Social Sciences and Humanities - Hanoi)</td>
</tr>
</tbody>
</table>
Student and Faculty Exchange Program

IoBM students regularly go to the following universities on student exchange programs:

• Yasar University, Turkey
• Girne American University, North Cyprus
• Dongseo University, South Korea
• Istanbul Aydin University, Turkey
• Beijing Jiaotong University, China
• Guilin University of Technology, China
• University of Kuala Lumpur, Malaysia
• Sanya University, China
• University of Florence, Italy
• Izmir University of Economics, Turkey
• Groupe ISCEA, Morocco
• Bilkent University, Turkey
• Hanyang University, South Korea
• Abdullah Gul University, Turkey
• Universiti Putra, Malaysia
• Beijing Jiaotong University, China

IoBM has entered into an understanding with these universities for exchange of students on the basis of a waiver of university tuition fees and in some cases, provision of free hostel facilities. IoBM also welcomes students from partner universities to spend a semester at IoBM. More students are expected from different universities in the upcoming semesters through the student exchange program. Experts visit IoBM for a semester from Spain, Germany, China and Nigeria. Exchange of students, faculty members as well as joint research projects are a continuous process involving universities all over the world.

Senior Expert Services

A German NGO, Senior Expert Services (SES) has been sending technical experts and faculty to IoBM to give training and assistance in various programs in Health Management, Marketing, Media Management, Industrial Engineering, Corporate Social Responsibility, IT, Human Resource, Supply Chain, Telecommunication, Education, Economics, development of Academics and Vocational Training. SES is also assisting IoBM in setting up a full-fledged academic program in Environment and Energy Management.

Memberships of Professional Bodies

IoBM is an active member of the following international and national professional bodies:

1. International Association of Universities (IAU), UNESCO, France
2. International Association of University Presidents (IAUP)
3. The Association of Commonwealth Universities (ACU), UK
4. Association of Universities of Asia and the Pacific (AUAP), Thailand
5. AACSB International -The Association to Advance Collegiate Schools of Business, USA
6. Asian Media Information and Communication Centre (AMIC), Singapore
7. Management Association of Pakistan (MAP), (Honorary Treasurer)
8. Marketing Association of Pakistan (President)
9. Employers Federation of Pakistan
10. Institute of Corporate Governance
11. International Finance Corporation (IFC), USA
12. Association of University Programs in Health Administration
13. Association of Management Development Institutions in South Asia (AMDISA)
14. OPEN, Karachi (Vice Chairman)
15. Association of Management Development Institutions in Pakistan (AMDIP), (Chairman, Karachi)
COLLEGE OF BUSINESS MANAGEMENT

CBM Vision: To be among the leading business school, recognized for producing ethical, transformational and change leaders and managers, nationally and internationally.

CBM Mission: To provide transformative and change leadership and management for the development of economy and society through excellence in character, professionalism, education and research.

Motivation for CBM Mission: Most of the SMEs and large enterprises are family owned enterprises which constitute over 80% of businesses in Pakistan (and have “seth” family culture). Hence, CBM focuses on developing graduates who are street smart and go-getters who can take on the challenge to create startups and move, change and transform a startup into a small enterprise, a small enterprise to medium enterprise and a medium enterprise to large enterprise. We strive to provide “leadership” skills to affect the “change and transformation” of current culture of existing organizations to a professional growth-oriented organizational culture.

Strategic focus of CBM includes major accreditations such as AACSB, making entrepreneurship as major career choice of our graduates, adoption of experiential and blended learning, mentoring by well reputed industry executives, impactful intellectual contributions and industry and societal engagements as determinants of faculty qualifications, and development of critical skills and innovation through specially designed courses and a lively and thriving culture of student activities.
The Bachelor of Business Administration (Honors) is a professional and comprehensive management degree program that provides conceptual knowledge and in-depth exposure to functional areas in business management including accounting, marketing, finance, human resource management, supply chain management, Islamic banking and finance, entrepreneurship and data analytics along with special emphasis on leadership, social awareness, creativity and innovation. The program employs the latest approaches in experiential learning to develop skills for interpersonal communication, team work, foreign languages and managing diversity. Students learn to think critically and to apply conceptual knowledge to real-world challenges and design solutions. Graduates of the BBA program distinguish themselves with their personal and professional excellence as managers and entrepreneurs in their areas of specialization. They are well-rounded professionals known as “doers” and “go-getters” and are in great demand in the industry. BBA is a four-year program that requires completion of 144 credit hours of course work and an internship of at least nine weeks in a firm approved by the Institute. A student must complete 48 courses of 3 credit hours each to meet the degree requirements. Students must maintain a CGPA of 2.5 for the conferment of the degree. Graduates from this program are usually recruited from reputable companies of the country in various fields.

Students must complete 13 general education in the first four semesters otherwise the student will not be allowed to proceed to the fifth semester. Students also need to do four hours of lab session every week for four semesters in order to complete the requirement to graduate. By the end of the second year students need to decide their major and minor discipline. Students are required to take 11 major elective courses as well as two minor elective courses apart from core courses. Our BBA program offer majors and minors in the following disciplines:

- Accounting*
- Data Sciences
- Finance and Banking
- Human Resource Management
- Islamic Banking and Finance
- Logistics and Supply Chain Management
- Marketing
- Organizational Entrepreneurship

Students need to take two compulsory electives from 11 major elective courses. One compulsory elective course is a capstone project of the discipline, which the student has taken a major.

Courses are divided into general education, business core, distribution courses and electives courses.

**General Education Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSC101</td>
<td>Introduction to Psychology</td>
</tr>
<tr>
<td>SSC301</td>
<td>History of Ideas</td>
</tr>
<tr>
<td>ECO101</td>
<td>Principles of Micro Economics</td>
</tr>
<tr>
<td>ECO102</td>
<td>Principles of Macro Economics</td>
</tr>
<tr>
<td>MTH102</td>
<td>Business Mathematics</td>
</tr>
<tr>
<td>STA104</td>
<td>Quantitative Techniques in Business</td>
</tr>
<tr>
<td>COM107</td>
<td>Academic English</td>
</tr>
<tr>
<td>COM205</td>
<td>Persuasive &amp; Analytical Writing for Business Communication</td>
</tr>
<tr>
<td>COM202</td>
<td>Business &amp; Professional Speech</td>
</tr>
<tr>
<td>REL101</td>
<td>Islamic Studies</td>
</tr>
<tr>
<td>PSC301</td>
<td>Pakistan Studies</td>
</tr>
</tbody>
</table>

*BBA program is recognized by ACCA which offers up to 5-course exemptions (F1 - F5) to BBA students of IoBM.*
LAN 10* Foreign Language I  
LAN 20** Foreign Language II  
*1 = Introduction to Arabic  
*4 = Introduction to German  
*8 = Introduction to Chinese  
**1 = Intermediate Arabic  
**4 = Intermediate German  
**8 = Intermediate Chinese  

*2 = Introduction to French  
*6 = Introduction to Italian  
**2 = Intermediate French  
**6 = Intermediate Italian  

*MTH100 Basic Mathematics ***  
*COM100 Foundation English ***  
(*** Remedial non-credit course to be taken by those students who have not been able to reach the desired level of competence in the admission test.)  

Students must take a minimum load of twelve credit hours (four courses) or a maximum load of eighteen credit hours (six courses) in a semester. To obtain the BBA (Honors) degree in four years, they need to complete twelve courses in a year. A full load of six courses can be taken each in Fall and Spring semesters with an option for fewer courses in the latter and making up for the shortfall in the summer session.

**Business Core Courses**

ACC101 Introduction to Financial Accounting  
ACC201 Intermediate Financial Accounting  
FIN201 Introduction to Business Finance  
FIN202 Financial Management  
MAN302 Organizational Behavior  
HRM301 Human Resource Management  
MIS402 Computer Concepts and Applications  
BDS101 Introduction to Data Sciences  
SCM501 Supply Chain Management  
SCM400 Introduction to ERP  
ISF101 Introduction to Islamic Banking & Finance  
ISF201 Islamic Financial Accounting  
MKT201 Marketing Management (Level 1)  
MKT404 Methods in Business Research  
ENT201 Entrepreneurial Society & Social Impact  
ENT202 Entrepreneurial Business Operations

**Distribution Courses**

MAN101 Principles of Management  
MAN309 Leadership Journey  
ECO402 Pakistan Economic Policy  
MAN405 Strategic Management  
SSC401 Business Ethics  
LAW409 Corporate & Business Law

Major – 11 courses  
Minor – 2 courses
<table>
<thead>
<tr>
<th>Elective Courses</th>
<th>Human Resource Management</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Accounting</strong></td>
<td>HRMS01 Recruitment &amp; Selection (Compulsory elective)</td>
</tr>
<tr>
<td>ACC302</td>
<td>HRMS03 Employee Training &amp; Development</td>
</tr>
<tr>
<td>ACC350</td>
<td>HRMS04 Negotiation Skills</td>
</tr>
<tr>
<td>ACC405</td>
<td>HRMS05 Organization Change &amp; Development</td>
</tr>
<tr>
<td>ACC501</td>
<td>HRMS08 Salary &amp; Compensation</td>
</tr>
<tr>
<td>ACC503</td>
<td>HRMS11 Performance Appraisal &amp; Management</td>
</tr>
<tr>
<td>ACC505</td>
<td>HRMS13 HR Automation (Compulsory elective)</td>
</tr>
<tr>
<td>ACC520</td>
<td>HRMS14 Occupational Health &amp; Safety</td>
</tr>
<tr>
<td>ACC521</td>
<td>HRMS15 Employee Engagement &amp; Wellbeing</td>
</tr>
<tr>
<td>ACC524</td>
<td>HRMS16 Career Planning &amp; Management</td>
</tr>
<tr>
<td>ACC533</td>
<td>HRMS17 Digital Recruitment &amp; Gamification</td>
</tr>
<tr>
<td>ACC534</td>
<td>HRMS18 HR for Startups &amp; SMEs</td>
</tr>
<tr>
<td>ACC535</td>
<td>HRMS19 E Learning Instructional Design</td>
</tr>
<tr>
<td>ACC546</td>
<td>HRMS21 Workforce Planning &amp; Analytics</td>
</tr>
<tr>
<td>ACC591</td>
<td>HRMS22 Employment &amp; Industrial Law</td>
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<td>LAW202</td>
<td>HRMS23 Internal Communication &amp; Employer Branding</td>
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<tr>
<td>LAW203</td>
<td>HRMS91 Capstone Project</td>
</tr>
<tr>
<td></td>
<td><strong>Data Sciences</strong></td>
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<td><strong>Finance &amp; Banking</strong></td>
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<td>BDS510</td>
<td>ISF501 Economics for Islamic Finance</td>
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<td>BDS520</td>
<td>ISF502 Shariah Foundations of Business and Finance (Compulsory elective)</td>
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<td>ISF503 Islamic Banking Deposit Products &amp; Treasury Op.</td>
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<td>ISF506 Shariah Standards</td>
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<td>BDS541</td>
<td>ISF507 Pool Management in Islamic Banking (Compulsory elective)</td>
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<td>BD542</td>
<td>ISF508 Islamic Financial Institutions &amp; Markets</td>
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<td>ISF509 Islamic Law of Sales &amp; Contract</td>
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<td>ISF511 Islamic Wealth Planning &amp; Management</td>
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<td>SC551</td>
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<td>INM203</td>
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<tr>
<td>Methods in Business Research</td>
<td>Major I (compulsory elective)</td>
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<tr>
<td>Introduction to ERP</td>
<td>Major II (compulsory elective)</td>
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<td>Introduction to Data Sciences</td>
<td>Major III</td>
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<td>Islamic Financial Accounting</td>
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<td>Major VI</td>
<td>Major IX</td>
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<td>Major VII</td>
<td>Major X</td>
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<td>Minor I (compulsory elective)</td>
<td>Major XI (Capstone)</td>
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<tr>
<td>Minor II (compulsory elective)</td>
<td>Strategic Management</td>
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<tr>
<td>Business Ethics</td>
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### Marketing
MKT403 Sales Management (compulsory elective)
MKT506 International Marketing
MKT507 Services Marketing
MKT508 Personal Selling
MKT509 Consumer Behavior
MKT510 Direct and Digital Marketing
MKT511 Brand Management (compulsory elective)
MKT513 Media Planning
MKT520 Merchandising and Sales Promotion
MKT521 Distribution and Channel Management
MKT526 Public Relations and Event Management
MKT530 New Product Management
MKT531 Retail Management
MKT532 Principles of Advertising
MKT533 Marketing Strategies for Bottom of Pyramid
MKT537 Customer Relationship Management
MKT539 Entrepreneurial Marketing
MKT540 Artificial Intelligence in Marketing Facing Functions
MKT541 Marketing for Hospitality and Tourism

### Organizational Entrepreneurship
ENT401 Seminar in Org. Entrepreneurship (Compulsory)
ENT402 Intro. to Design Thinking Methodology (Compulsory)
ENT501 Cost Effective Design and Innovation
ENT502 Green Entrepreneurship
ENT503 Competitive Strategies for Startups
ENT504 Scalability & Sustainability in Startups
ENT505 Establishing Startup Ecosystem
ENT506 Innovative Internet Based Business Models
ENT507 Stakeholder Analysis
ENT591 Capstone Project
BS (JOINT) HONORS IN ECONOMICS & FINANCE

BS (Joint) Honors in Economics and Finance is a joint program of CBM and CESD, prepares graduates for professional careers in economics and finance in the corporate sector, financial sector and public sector regulatory and planning organizations. It requires the completion of 144 credit hours of course work and relevant internship of at least nine weeks in an approved firm. The program offers 66 credit hours of business and social sciences courses with an intensive coverage of 78 credit hours of Economics and Finance related courses designed to develop well-rounded professionals regarded as “go-getters” in industry. Graduates of this program are usually recruited as Economists and Financial Analysts in reputable financial institutions across the country.

Students are required to complete 13 general education courses in the first four semesters otherwise student will not be allowed to proceed to the fifth semester. Four hours of lab session are required every week for four semesters to complete the requirement to graduate. BS (Eco and Fin) is a double major program in which students are required to take 6 major elective courses of Economics and 6 major elective courses of Finance.

General Education Courses

SSC101  Introduction to Psychology
SSC301  History of Ideas
SSC401  Business Ethics
LAW409  Corporate & Business Law
MTH102  Business Mathematics
STA203  Probability Theory & Statistics
COM107  Academic English
COM205  Persuasive & Analytical Writing for Business Communication
COM202  Business & Professional Speech
REL101  Islamic Studies
PSC301  Pakistan Studies

LAN 10*  Foreign Language I  
LAN 20** Foreign Language II  
  *1 = Introduction to Arabic  
  *4 = Introduction to German  
  *8 = Introduction to Chinese  
  *2 = Introduction to French  
  *6 = Introduction to Italian

  **1 = Intermediate Arabic  
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  **8 = Intermediate Chinese  
  **2 = Intermediate French  
  **6 = Intermediate Italian

MTH100  Basic Mathematics ***
COM100  Foundation English***

(*** Remedial non-credit course to be taken by those students who have not been able to reach the desired level of competence in the admission test.)

Students must take a minimum load of twelve credit hours (four courses) or a maximum load of eighteen credit hours (six courses) in a semester. To obtain the BBA (Honors) degree in four years, they need to complete twelve courses in a year. A full load of six courses can be taken each in Fall and Spring semesters with an option for fewer courses in the latter and making up for the shortfall in the summer session.
Core Courses

**Economics**
- ECO101 Principles of Micro Economics
- ECO102 Principles of Macro Economics
- ECO301 Managerial Economics
- ECO303 Financial Economics
- ECO316 Macroeconomic Analysis
- ECO304 Introduction to Econometrics
- ECO506 Business Research Project

**Finance**
- FIN201 Introduction to Business Finance
- FIN202 Financial Management
- FIN301 Financial Institution
- FIN503 Corporate Finance
- FIN613 Financial Modeling for Decision Making
- ISF101 Introduction to Islamic Banking & Finance
- FIN537 Business Research Project

**Distribution Courses**
- MAN306 Introduction to Management & Organizational Behavior
- MAN309 Leadership Journey
- ECO402 Pakistan Economic Policy
- MAN405 Strategic Management
- MIS402 Computer Concepts and Application
- MKT201 Marketing Management (Level 1)
- ACC101 Introduction to Financial Accounting
- ACC201 Intermediate Financial Accounting
- STA301 Model and Inferences

Major Elective Courses

**Economics Major Electives 6**
- ECO206 Mathematical Economics
- ECO207 Game Theory
- ECO208 Development Economics
- ECO302 International Trade & Globalization
- ECO307 Monetary Theory & Policy
- ECO311 General Welfare & Equilibrium
- ECO322 Applied Econometrics
- ECO407 Analysis of Pakistani Industries
- ECO411 Islamic Economics
- ECO412 Public Finance

**Finance Major Electives 6**
- FIN504 International Finance
- FIN505 Treasury & Fund Management
- FIN507 Portfolio Management
- FIN509 Financial Derivatives
- FIN511 Analysis of Financial Statements
- FIN513 Project Appraisal
- FIN520 Financial Risk Management
- FIN530 Commercial & Corporate Banking
- FIN534 Retail & Consumer Banking
- FIN541 Technical Analysis
- FIN542 Financial Forecasting & Planning
- FIN544 FINTEH & Digital Finance
- FIN546 Budgeting & Performance Reporting
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<tr>
<td>Business Research Project (Economics)</td>
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BS (JOINT) HONORS IN ACCOUNTING & FINANCE

BS (Joint) Honors in Accounting and Finance prepares graduates for professional careers in finance and accounting in the corporate and financial sectors. It requires the completion of 144 credit hours of course work and relevant internship of at least nine weeks in an approved firm. The program offers 66 credit hours of business and social sciences courses with intensive coverage of 78 credit hours of Finance and Accounting related courses designed to develop well-rounded professionals who are regarded as go-getters in the industry. Graduates of this program are usually recruited in the field in investment, portfolio, debt and equity market, audit, banking, research as well as other fields offered by financial institutions.

Students are required to complete 13 general education courses in first four semesters otherwise the student will not be allowed to proceed to the fifth semester. Four hours of lab session are required every week for four semesters in order to complete the requirement to graduate. BS (ACF) is a double major program in which students are required to take six major elective courses of Accounting and 6 major elective courses of Finance.

Students of this program can avail up to eight module exemption in ACCA from ACCA Accelerated Program with IoBM. The curriculum is also mapped with CFA Institute USA. Students can avail CFA scholarship given under the University Affiliation Program of CFA Institute. Furthermore, ICAP recognizes IoBM as Relevant Degree Awarding Institute (RDA) enabling students to get exemption from all four papers of Assessment of Fundamental Competencies (AFC) and the first four papers of Certificate in Accounting and Finance (CAF).

**General Education Courses**

- SSC101  Introduction to Psychology
- SSC301  History of Ideas
- SSC401  Business Ethics
- LAW409  Corporate & Business Law
- MTH102  Business Mathematics
- STA203  Probability Theory & Statistics
- COM107  Academic English
- COM205  Persuasive & Analytical Writing for Business Communication
- COM202  Business & Professional Speech
- REL101  Islamic Studies
- PSC301  Pakistan Studies

**Foreign Language Courses**

- LAN 10*  Foreign Language I
- LAN 20** Foreign Language II

  *1 = Introduction to Arabic  *2 = Introduction to French
  *4 = Introduction to German  *6 = Introduction to Italian
  *8 = Introduction to Chinese

  **1 = Intermediate Arabic  **2 = Intermediate French
  **4 = Intermediate German  **6 = Intermediate Italian
  **8 = Intermediate Chinese

- MTH100  Basic Mathematics ***
- COM100  Foundation English ***

(* *Remedial non-credit course to be taken by those students who have not been able to reach the desired level of competence in the admission test.)

Students must take a minimum load of twelve credit hours (four courses) or a maximum load of eighteen credit hours (six courses) in a semester. To obtain the BS (Joint) Honors Accounting and Finance degree in four years, they need to complete twelve courses in a year. A full load of six courses can be taken each in Fall and Spring semesters with an option for fewer courses in the latter and making up for the shortfall in the summer session.
Core Courses

**Accounting**
ACC101 Introduction to Financial Accounting
ACC201 Intermediate Financial Accounting
ACC350 Cost & Management Accounting
ACC503 Taxation
ACC530 Financial Regulation & Reporting
ISF201 Islamic Financial Accounting
ACC531 Business Research Project

**Finance**
FIN201 Introduction to Business Finance
FIN202 Financial Management
FIN301 Financial Institution
FIN503 Corporate Finance
FIN613 Financial Modeling for Decision Making
ISF101 Introduction to Islamic Banking & Finance
FIN537 Business Research Project

**Distribution Courses**
MAN306 Introduction to Management & Organizational Behavior
MAN309 Leadership Journey
ECO402 Pakistan Economic Policy
MAN405 Strategic Management
MIS402 Computer Concepts and Application
MKT201 Marketing Management (Level 1)
ECO101 Principles of Micro Economics
ECO102 Principles of Macro Economics
STA301 Model and Inferences

Major Elective Courses

**Accounting Major Electives 6**
ACC302 Accounting and Financial Information Systems
ACC405 Internal Audit and EDP Accounting
ACC501 Advanced Financial Accounting
ACC505 Auditing
ACC520 Managerial Analysis and Decision Making
ACC521 International Financial Reporting Standards
ACC524 Corporate Governance and Reporting
ACC533 Accounting for Specialized Businesses
ACC534 International Financial Reporting Standards II
ACC535 Sustainable Accounting Practices
LAW202 Banking Laws in Pakistan
LAW203 Insurance Laws in Pakistan

**Finance Major Electives 6**
FIN504 International Finance
FIN505 Treasury & Fund Management
FIN507 Portfolio Management
FIN509 Financial Derivatives
FIN511 Analysis of Financial Statements
FIN513 Project Appraisal
FIN520 Financial Risk Management
FIN530 Commercial & Corporate Banking
FIN534 Retail & Consumer Banking
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BS ENTREPRENEURSHIP

The BS Entrepreneurship program is designed to take the students through various stages of the entrepreneurial and intrapreneurial process, the end-product of which would be a functioning enterprise. The program is designed to develop thought leaders with entrepreneurial spirit that can lead to the creation of new ventures within and outside existing enterprises. After completing the program, students would have designed, launched and managed their entrepreneurial ventures through the stages of ideation, networking, experimentation, execution, breakeven, growth, and investment. Students explore each of these stages through multiple courses using the project-based learning approach. Graduates of this program will be expected to become job creators, and would have to practice creativity, innovation and design with real projects, entrepreneurial ventures, and in real-life environments.

It requires completion of 144 credit hours of course work in a total of eight semesters or four years and relevant internship of at least nine weeks in an approved firm. The program offers 66 credit hours of business and social sciences courses with intensive coverage of 78 credit hours of Entrepreneurship and Social Entrepreneurship. Students are required to complete 13 general education courses in first four semesters otherwise the student will not be allowed to proceed to the fifth semester. Four hours of lab session are required every week for four semesters in order to complete the requirement to graduate. The program is based on a stage-wise transition of thematic semesters containing courses and projects that facilitate the entire entrepreneurial process. Each semester represents a stepping-stone, having embedded with courses from various business domains that revolve around an underlying business project.

General Education Courses

SSC101  Introduction to Psychology  
SSC301  History of Ideas  
ECO101  Principles of Microeconomics  
ECO102  Principles of Macroeconomics  
MTH102  Business Mathematics  
STA104  Quantitative Techniques in Business  
COM107  Academic English  
COM202  Persuasive & Analytical Writing for Business Communication  
COM205  Business & Professional Speech  
REL101  Islamic Studies  
PSC301  Pakistan Studies  

LAN 10*  Foreign Language I  
LAN 20**  Foreign Language II
*1 = Introduction to Arabic  
*4 = Introduction to German  
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**1 = Intermediate Arabic  
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Students must take a minimum load of twelve credit hours (four courses) or a maximum load of eighteen credit hours (six courses) in a semester. To obtain the BS (Entrepreneurship) degree in four years, they need to complete twelve courses in a year. A full load of six courses can be taken each in Fall and Spring semesters with an option for fewer courses in the latter and making up for the shortfall in the summer session.
**Entrepreneurship Core Courses**
- ENP113  Effectuation Methods and Attributes Analysis
- ENP114  Startup Garage I: Business Model Generation
- ENP112  Startup Garage II: Affordable Startup Design
- ENP103  System, Disruptive and Exponential Thinking
- ENP206  Startup Garage III: Business Idea Prototyping
- SEL415  Social Advocacy and Change
- ENP305  Process Optimization
- ENP212  Lean Launchpad I: Startup Launch
- SCM501  Supply Chain Management
- ENP306  Lean Launch Pad II: Startup Risk Mitigation
- ENP414  Capstone I: Startup Acceleration & Co-creation
- SEL413  Visual Storytelling
- MKT404  Methods in Business Research
- ENP116  Introduction to Entrepreneurship
- ENP308  Legal Business Structures for Startups

**Distribution Courses**
- MAN101  Principles of Management
- MKT201  Marketing Management (Level 1)
- HRM301  Human Resource Management
- MAN405  Strategic Management
- SSC401  Business Ethics
- SSC104  Principles of Sociology

**Entrepreneurship Major Electives**
- ENP207  Lean Marketing for Startups
- ENP211  Digital Development for Startups
- ENP301  Customer Acquisition for Startups
- ENP210  Gig Economy and Strategy
- ENP307  Growth Hacking Strategies for startups
- ENP407  Advanced Entrepreneurial Strategy
- SEL213  Philosophy of Development
- SEL313  Social Transformation
- SEL314  Creativity & Aesthetics
- SEL414  Human Centricism, Environmental & Surrounding Concerns
- ENP304  Sustainable Family Business
- ENP404  Modes of Exchange

## Course Structure

<table>
<thead>
<tr>
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</tr>
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<tbody>
<tr>
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</tr>
<tr>
<td><strong>Business Mathematics</strong></td>
<td><strong>Quantitative Techniques in Business</strong></td>
</tr>
<tr>
<td><strong>Islamic Studies</strong></td>
<td><strong>Principles of Management</strong></td>
</tr>
<tr>
<td><strong>Principles of Microeconomics</strong></td>
<td><strong>Pakistan Studies</strong></td>
</tr>
<tr>
<td><strong>History of Ideas</strong></td>
<td><strong>Principles of Macroeconomics</strong></td>
</tr>
<tr>
<td><strong>Introduction to Entrepreneurship</strong></td>
<td><strong>Effectuation Methods and Attributes Analysis</strong></td>
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<thead>
<tr>
<th>Semester Three</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Business and Professional Speech</strong></td>
<td><strong>Foreign Language II</strong></td>
</tr>
<tr>
<td><strong>Human Resource Management</strong></td>
<td><strong>Fundamentals of Finance</strong></td>
</tr>
<tr>
<td><strong>Introduction to Psychology</strong></td>
<td><strong>Marketing Management (Level 1)</strong></td>
</tr>
<tr>
<td><strong>Foreign Language I</strong></td>
<td><strong>System, Disruptive and Exponential Thinking</strong></td>
</tr>
<tr>
<td><strong>Fundamentals of Accounting</strong></td>
<td><strong>Introduction to Sociology</strong></td>
</tr>
<tr>
<td><strong>Startup Garage I: Business Model Generation</strong></td>
<td><strong>Startup Garage II: Affordable Startup Design</strong></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Semester Five</th>
<th>Semester Six</th>
</tr>
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<tbody>
<tr>
<td><strong>Social Advocacy and Change</strong></td>
<td><strong>Business Ethics</strong></td>
</tr>
<tr>
<td><strong>Process Optimization</strong></td>
<td><strong>Supply Chain Management</strong></td>
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<tr>
<td><strong>Strategic Management</strong></td>
<td><strong>Elective III</strong></td>
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<tr>
<td><strong>Elective I</strong></td>
<td><strong>Elective IV</strong></td>
</tr>
<tr>
<td><strong>Elective II</strong></td>
<td><strong>Elective V</strong></td>
</tr>
<tr>
<td><strong>Startup Garage III: Business Idea Prototyping</strong></td>
<td><strong>Lean Launchpad I: Startup Launch</strong></td>
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<thead>
<tr>
<th>Semester Seven</th>
<th>Semester Eight</th>
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<tbody>
<tr>
<td><strong>Elective VI</strong></td>
<td><strong>Elective IX</strong></td>
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<tr>
<td><strong>Elective VII</strong></td>
<td><strong>Elective X</strong></td>
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<td><strong>Elective VIII</strong></td>
<td><strong>Elective XI</strong></td>
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<tr>
<td><strong>Legal Structures of Startups</strong></td>
<td><strong>Elective XII</strong></td>
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<tr>
<td><strong>Business Research Methods</strong></td>
<td><strong>Visual Storytelling</strong></td>
</tr>
<tr>
<td><strong>Lean Launch Pad II: Startup Risk Mitigation</strong></td>
<td><strong>Capstone: Startup Acceleration &amp; Co-creation</strong></td>
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</table>
BS INDUSTRIAL MANAGEMENT

The BS Industrial Management degree program is a professional management degree program that prepares graduates to work in the manufacturing and process industries, contributing to the efficiency and streamlining of industrial processes. They study MRP, supply chain management, project management, industrial health, inventory management, quality, safety, and environmental issues. Our graduates will contribute to the growth of industry through various skills such as management, computer applications, supply chain management, project management, industrial health and safety, and so on after completing this program. In addition, students’ entrepreneurial skills are given special attention. Another noteworthy aspect of this program is the continuous provision of hands-on training facilities in industrial units, which blends theory with practical experience.

The BS industrial management program requires 144 credit hours of course work and a minimum of nine weeks of internship in a reputable industrial organization. To fulfill the degree requirements, students must complete 48 courses worth 3 credit hours each. To graduate, students must maintain a CGPA of 2.5.

Students are required to complete 13 general education courses in first four semesters otherwise the student will not be allowed to proceed to the fifth semester. Four hours of lab session are required every week for four semesters in order to complete the requirement to graduate. Apart from core courses, students are required to take six major elective courses and two projects.

General Education Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSC101</td>
<td>Introduction to Psychology</td>
</tr>
<tr>
<td>SSC301</td>
<td>History of Ideas</td>
</tr>
<tr>
<td>INM306</td>
<td>Social and Ethical Aspects in Industrialization</td>
</tr>
<tr>
<td>INM103</td>
<td>Industrial Economics</td>
</tr>
<tr>
<td>MTH103</td>
<td>Calculus for Business Decisions</td>
</tr>
<tr>
<td>STA204</td>
<td>Industrial Applications of Statistics</td>
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<tr>
<td>COM107</td>
<td>Academic English</td>
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<tr>
<td>COM202</td>
<td>Business Speech</td>
</tr>
<tr>
<td>COM205</td>
<td>Persuasive &amp; Analytical Writing for Business Comm.</td>
</tr>
<tr>
<td>PSC301</td>
<td>Pakistan Studies</td>
</tr>
<tr>
<td>REL101</td>
<td>Islamic Studies</td>
</tr>
<tr>
<td>LAN 10*</td>
<td>Foreign Language I</td>
</tr>
<tr>
<td>LAN 20**</td>
<td>Foreign Language II</td>
</tr>
<tr>
<td>*1 = Introduction to Arabic</td>
<td></td>
</tr>
<tr>
<td>*4 = Introduction to German</td>
<td></td>
</tr>
<tr>
<td>*8 = Introduction to Chinese</td>
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</tr>
<tr>
<td>*2 = Introduction to French</td>
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</tr>
<tr>
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<tr>
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<td></td>
</tr>
<tr>
<td>MTH100</td>
<td>Basic Mathematics ***</td>
</tr>
<tr>
<td>COM100</td>
<td>Foundation English ***</td>
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</tbody>
</table>

(*** Remedial non-credit course to be taken by those students who have not been able to reach the desired level of competence in the admission test.)

Students must take a minimum load of twelve credit hours (four courses) or a maximum load of eighteen credit hours (six courses) in a semester. To obtain the B.S Industrial Management degree in four years, they need to complete twelve courses in a year. A full load of six courses can be taken each in Fall and Spring semesters with an option for fewer courses in the latter and making up for the shortfall in the summer session.
Subject Foundation Core courses
INM101  Production Process (Pre req NA)
INM102  Industrial Safety & Health (Pre req INM 101)
INM104  Fundamentals of quality (Pre req NA)
INM105  Introduction to Industrial management (Pre req NA)
INM106  Foundation of Industrial Design and thinking (Pre req INM 101)
INM201  Methods Analysis and Time Study (Pre req: INM101 & INM 105)
INM202  Energy Management (Pre req NA)
INM203  Introduction to Production & Operation Management (Pre req: INM105)
INM204  Ergonomics (Pre req: INM201)

Distribution Courses
ACC101  Fundamentals of Accounting
MIS104  Computer Programming & Graphics
FIN201  Fundamentals of Finance
SSC202  Environmental studies
MAN306  Introduction to Management & Organizational Behavior
MAN309  Leadership journey
MKT201  Marketing management (Level 1)
MAN405  Strategic management
SSC401  Business Ethics

Subject Major Core Courses
INM 301  Introduction to Facility Planning & Layout (Pre req: INM203)
INM 303  Introduction to Planning and Scheduling (Pre req: INM203)
INM 304  Introduction to Project Management (Pre req: INM203)
INM 305  Inventory Management and Lean Six Sigma (Pre req: INM203)
INM 307  Business Forecasting & Risk Analysis (Pre req: INM303)
INM 308  Industrial Transformation and Technical Changes (Pre req: INM203)
INM 401  Industrial supply chain management
INM 402  Industrial Quality practices and management (Pre req: INM104)
INM 404  Managing Research and Innovation (Pre req NA)

Industrial Management Electives- (6 Courses)
INM404  Introduction to Enterprise Life Cycle Mgmt.
INM405  Technology Management
INM406  Operation Research
INM407  Enterprise Risk Management
INM408  Procurement Management
INM409  Production Planning & Control
INM412  Integrated Manufacturing Systems
INM413  Manufacturing Processes
INM414  E-Commerce for Manufacturing Industries

Project: 2
INM501  Project I
INM502  Project II
### Course Structure

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<thead>
<tr>
<th>Semester One</th>
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<td>Academic English</td>
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<td>Introduction to Psychology</td>
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<td>Foreign Language I</td>
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<td>Introduction to Industrial Management</td>
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<td>Pakistan Studies</td>
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<td>Industrial Safety &amp; Health</td>
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<td>Elective V</td>
</tr>
<tr>
<td>Elective III</td>
<td>Elective VI</td>
</tr>
</tbody>
</table>
BS (JOINT) HONORS LOGISTICS AND SUPPLY CHAIN

BS (Joint) Honors in Logistics and Supply Chain prepares graduates for professional careers in Logistics and Supply Chain in the corporate sectors. It requires the completion of 144 credit hours of course work and relevant internship of at least nine weeks in an approved firm. The program offers 66 credit hours of business and social sciences courses with intensive coverage of 78 credit hours of Logistics and Supply Chain related courses designed to develop well-rounded professionals who are regarded as go-getters in the industry. Graduates of this program are usually recruited in the fields of supply chain design, supply chain management, supply chain analysis, warehousing, distribution management, data analytics, Logistics management, ERP systems designs, ERP implementation and operations, production and operations, as well as other fields related to Logistics and Supply Chain offered by corporate institutions.

Students are required to complete 13 general education courses in first four semesters otherwise the student will not be allowed to proceed to the fifth semester. Four hours of lab session are required every week for four semesters in order to complete the requirement to graduate. BS (LSCM) is a double major program in which students are required to take six major elective courses of logistics and 6 major elective courses of supply chain.

In a BS (Joint) Honors – Logistics and Supply Chain, students explore multiple aspects of Logistics and Supply Chain activities of various corporations. This program employs the latest approaches in experiential learning to develop skills for interpersonal communication, team work, foreign languages and managing diversity.

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<td>LAW409</td>
<td>Corporate &amp; Business Law</td>
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<tr>
<td>MTH102</td>
<td>Business Mathematics</td>
</tr>
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<td>STA203</td>
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**Supply Chain Core Courses**
- SCM101 Essentials of Supply Chain Management
- SCM250 Introduction to ERP Systems
- SCM251 Supply Chain Design
- SCM312 Supply Chain Analytics
- SCM351 Procurement Management
- SCM355 Supply Chain Project Management
- SCM411 Business Research Project (Supply Chain)

**Logistics Core Courses**
- LOG201 Logistics and Operations Management
- LOG250 Transportation Techniques and Management
- LOG255 Fundamentals in Logistics Research
- LOG300 Storage and Warehouse Techniques
- LOG400 Import Export Management
- LOG410 Distribution Management in Logistics and Supply Chain
- LOG450 Business Research Project (Logistics)

**Distribution Courses**
- MAN306 Principles of Management and Organizational Behavior
- MAN309 Leadership Journey
- ECO402 Pakistan Economic Policy
- MAN405 Strategic Management
- MIS402 Computer Concepts and Application
- MKT302 Marketing Management
- ECO409 Business Economics
- ACC206 Fundamentals of Accounting
- FIN310 Fundamentals of Finance

**Course Structure**

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<td>Logistics and Operations Management</td>
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<tr>
<th>Semester Four</th>
<th>Semester Five</th>
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<td>Marketing Management (Level 1)</td>
<td>Leadership Journey</td>
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<td>Storage and Warehouse Techniques</td>
<td>Procurement Management</td>
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<td>Supply Chain Design</td>
<td>Supply Chain Analytics</td>
<td>Supply Chain Project Management</td>
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<tr>
<td>Transportation Techniques and Mgmt.</td>
<td>Supply Chain Elective I</td>
<td>Supply Chain Elective IV</td>
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<tr>
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<td>Supply Chain Elective II</td>
<td>Supply Chain Elective V</td>
</tr>
<tr>
<td>Fundamentals in Logistics Research</td>
<td>Supply Chain Elective III</td>
<td>Supply Chain Elective VI</td>
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<tr>
<td>Pakistan Economic Policy</td>
<td>Logistics Elective III</td>
</tr>
<tr>
<td>Import Export Management</td>
<td>Logistics Elective IV</td>
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<tr>
<td>Distribution Management in Logistics &amp; Supply Chain</td>
<td>Logistics Elective V</td>
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<td>Logistics Elective I</td>
<td>Logistics Elective VI</td>
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<tr>
<td>Business Research Project (Supply Chain)</td>
<td>Strategic Management</td>
</tr>
<tr>
<td>Logistics Elective II</td>
<td>Business Research Project (Logistics)</td>
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</table>
The BS (Hons) Accountancy, Management, and Law program is an innovative and dynamic qualification that incorporates the disciplines of Accounting, Finance, Business Management, and Law, strengthening the potential and setting up for success in the corporate world. The program designs to provide young graduates with opportunities to acquire academic degrees and professional certification from Accountancy bodies with international and national charters. Two world-renowned accountancy bodies accredited the program: The Institute of Chartered Accountants of Pakistan (ICAP) and the Association of Chartered Certified Accountants (ACCA), United Kingdom.

AML is getting 9 exemptions out of 13 from ACCA with an exceptional condition to attempt the remaining four papers in their last year of the degree program. The Institute of chartered accountants of Pakistan gives exemptions in 5 papers of Pre-Requisite Competencies (PRC) and four papers of Certificate in Accounting & Finance (CAF). The students can pursue Chartered Accountancy alongside their degree program and register in articles.

1. Business and Technology (BT)  
2. Financial Accounting (FA)  
3. Management Accounting (MA)  
4. Corporate and Business Law (LW)  
5. Taxation (TX)  
6. Financial Reporting (FR)  
7. Performance Management (PM)  
8. Financial Management (FM)  
9. Audit and Assurance (AA)

It requires completion of 144 credit hours of course work and internship of at least six weeks in a firm approved by the College. Students may take a maximum of six courses in Fall/Spring semester. This program will lead to an MBA or a professional accountancy qualification.

Career Options
- Auditors/Accountant  - Tax Consultants  - Compliance Managers  - Financial Analysts  - Banking/Treasury

Required Courses

**Accounting**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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</thead>
<tbody>
<tr>
<td>ACC104</td>
<td>Accounting Principles (ICAP-CAF-1, ACCA-F3)</td>
</tr>
<tr>
<td>ACC205</td>
<td>Intermediary Accounting (ICAP-CAF-5, ACCA-F3)</td>
</tr>
<tr>
<td>ACC207</td>
<td>Principles of Taxation (ICAP – CAF-6, ACCA-F6)</td>
</tr>
<tr>
<td>ACC208</td>
<td>Cost Accounting (ICAP – CAF-8, ACCA-F2)</td>
</tr>
<tr>
<td>ACC309</td>
<td>Auditing 1: Conceptual Foundations of Auditing (ICAP – CAF-9, ACCA-F8)</td>
</tr>
<tr>
<td>ACC310</td>
<td>Management Accounting &amp; Decision Making (ICAP – CAF-8, ACCA-F5)</td>
</tr>
<tr>
<td>ACC311</td>
<td>Financial Reporting (ICAP – CAF-5 &amp; CAF-7, ACCA-F3)</td>
</tr>
<tr>
<td>ACC313</td>
<td>Intermediary Financial Reporting (ICAP – CAF-7, ACCA-F7)</td>
</tr>
<tr>
<td>ACC314</td>
<td>Advance Taxation (ICAP – CAF-6, ACCA-F6)</td>
</tr>
<tr>
<td>ACC315</td>
<td>Auditing-II: The Practice of Auditing (ICAP – CAF-9, ACCA-F8)</td>
</tr>
<tr>
<td>ACC403</td>
<td>Strategic Performance Measurement &amp; Evaluation (ACCA-F5)</td>
</tr>
<tr>
<td>ACC404</td>
<td>Islamic Accounting and Reporting</td>
</tr>
<tr>
<td>ACC406</td>
<td>Internal Audit, Control, and governance (ICAP – CAF-9, ACCA-F8)</td>
</tr>
<tr>
<td>ACC408</td>
<td>Advanced Audit and Assurance (ICAP – CAF-9, ACCA-F8)</td>
</tr>
<tr>
<td>ACC409</td>
<td>Strategic financial reporting (ICAP – CAF-7, ACCA-F7)</td>
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</tbody>
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**Civilized Studies**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>REL101</td>
<td>Islamic Studies</td>
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<tr>
<td>PSC301</td>
<td>Pakistan Studies</td>
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**Finance**

<table>
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<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>FIN203</td>
<td>Principles to Business Finance (ACCA-F9)</td>
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<tr>
<td>FIN204</td>
<td>Theory of Business Finance (ACCA-F9)</td>
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<tr>
<td>FIN312</td>
<td>Islamic Finance: Principles and Practice</td>
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<td>FIN405</td>
<td>Applied Business Finance (ACCA-F9)</td>
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**Management**

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<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>MAN306</td>
<td>Intro. to Mgmt. &amp; Org. Behavior (ACCA-BT)</td>
</tr>
<tr>
<td>MAN309</td>
<td>Leadership Journey (ACCA-BT)</td>
</tr>
<tr>
<td>HRM301</td>
<td>Human Resource Management</td>
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<tr>
<td>MAN405</td>
<td>Strategic Management</td>
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</table>

**Marketing**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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</thead>
<tbody>
<tr>
<td>MKT201</td>
<td>Marketing Management (Level-1)</td>
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</table>
### Economics
ECO107  Fundamentals of Microeconomics (ICAP-CAF-2, ACCA-F1)
ECO201  Fundamentals of Macroeconomics (ICAP-CAF-2, ACCA-F1)

### LAW
LAW105  Mercantile Law (ICAP-CAF-3, ACCA-F4)
LAW106  Company Law & Secretarial Practices (ICAP-CAF-3, ACCA-F4)
LAW202  Banking Laws in Pakistan
LAW302  Intellectual Property laws
LAW407  Statutory Compliance
LAW408  Consumer Protection Act & Electronic Crimes Law

### Languages
LAN 10*  Foreign Language I
*1 = Introduction to Arabic  *2 = Introduction to French
*4 = Introduction to German  *6 = Introduction to Italian
*8 = Introduction to Chinese

### Course Structure

<table>
<thead>
<tr>
<th>Semester One</th>
<th>Semester Two</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic English</td>
<td>Persuasive &amp; Analytical Writing for Business Communication</td>
</tr>
<tr>
<td>Business Mathematics</td>
<td>Quantitative Techniques in Business</td>
</tr>
<tr>
<td>Islamic Studies</td>
<td>Pakistan Studies</td>
</tr>
<tr>
<td>Fundamentals of Microeconomics</td>
<td>Fundamentals of Macroeconomics</td>
</tr>
<tr>
<td>Accounting Principles</td>
<td>Intermediary Accounting</td>
</tr>
<tr>
<td>Mercantile Law</td>
<td>Introduction to Management &amp; Organization Behavior</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester Three</th>
<th>Semester Four</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Studies</td>
<td>Cost Accounting</td>
</tr>
<tr>
<td>Introduction to Management &amp; Organizational Behavior</td>
<td>Principle of Marketing</td>
</tr>
<tr>
<td>Principles of Business Finance</td>
<td>Theory of Business Finance</td>
</tr>
<tr>
<td>Behavioral Studies</td>
<td>Computer Concepts and Application</td>
</tr>
<tr>
<td>Company Law and Secretarial Practices</td>
<td>Principle of Taxation</td>
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<tr>
<td>Business &amp; Professional Speech</td>
<td>Business Ethics</td>
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<table>
<thead>
<tr>
<th>Semester Five</th>
<th>Semester Six</th>
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</thead>
<tbody>
<tr>
<td>Auditing 1: Conceptual Foundations of Auditing Banking Laws in Pakistan</td>
<td>Auditing-II: The Practice of Auditing Statutory Compliance</td>
</tr>
<tr>
<td>Management Accounting for Decision making</td>
<td>Intellectual Property Laws</td>
</tr>
<tr>
<td>Human Resource Management</td>
<td>Intermediary Financial Reporting</td>
</tr>
<tr>
<td>Financial Reporting</td>
<td>Islamic Finance: Principles and Practice</td>
</tr>
<tr>
<td>Introduction to a Foreign Language</td>
<td>Advance Taxation</td>
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</table>

<table>
<thead>
<tr>
<th>Semester Seven</th>
<th>Semester Eight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic Performance Measurement and evaluation</td>
<td>Advance Audit and Assurance</td>
</tr>
<tr>
<td>Leadership Journey</td>
<td>Strategic Financial Reporting</td>
</tr>
<tr>
<td>Islamic Accounting and Reporting</td>
<td>Strategic Management</td>
</tr>
<tr>
<td>Internal Audit, Control, and governance</td>
<td>Applied Business Finance</td>
</tr>
<tr>
<td>Consumer Protection Act &amp; Electronic Crimes Law</td>
<td>Final Year Project</td>
</tr>
<tr>
<td>Research Methodology</td>
<td>Introduction to ERP Systems</td>
</tr>
</tbody>
</table>
MBA PROGRAM

MBA program is designed to produce transformational, ethical and change leadership for businesses and industry through an integrated curriculum and experiential learning and prepares graduates for business challenges emerging from globalization, connectivity and technology driven innovations. The program is designed to produce a skilled pool of business leaders possessing multidisciplinary expertise.

A distinguishing feature of the program is the academic ecosystem of experiential learning which immerses the student in a cycle of “learning by doing” through reflection. Case studies and project work are among the pedagogies used for delivery of the curriculum content. A significant value adding feature is the 6 credit hours of a Graduate Capstone Project divided into two 3 credit hour components. Students undertake, individually or in small groups, a real life project with a company that addresses a real life issue which, through the application of multidisciplinary knowledge and skills acquired during MBA studies, helps in more profitable and competitive decision making and implementation in the organization. This project is jointly supervised and evaluated by a faculty member with aligned skills and interest and an industry mentor and is evaluated in an open exhibition by executives and faculty. A Capstone Project report has to be converted into a publishable case study as a part of the degree requirement.

Structure of MBA program

CBM’s MBA program is a 72 credit-hour program that most students can complete in two years. It is designed for students with a minimum of 16 years of education with degrees in a wide range of disciplines such as business, commerce, engineering, law, science, medicine, the arts and pharmacy. CBM MBA programs share a unified structure consisting of a foundation stage followed by the specialization stage. The foundation stage of the MBA program fulfills the minimum eligibility requirements of HEC to switch from a non-business major at the bachelor stage to a master level program in business as per PQF, Pakistan Qualification Framework. It consists of 30 credit hours.

The foundation stage consists of 30 credit hours of coursework from areas such as Communication, Economics, Quantitative Analysis, Behavior/ Psychology, Accounting, Finance, Law/Ethics, Management, HRM, Entrepreneurship, Marketing, and Research.

The specialization stage consists of 36 - 42 credit hours of coursework covering strategic and operational areas of functional and domain-based specializations. The courses are in areas related to Marketing Strategy, Strategic Finance, Strategic Management, Leadership, Technology/Operations, Entrepreneurship, Organizational Processes, Analytics for Decision Making, etc. Students select two real life Capstone Projects in their area of specialization during their final year. MBA students must select, at the time of admission, from one of the following shifts for their entire program; morning week-days, evening week-days and week-ends. Functional area specializations are available in all three shifts. Domain based specializations are only available during weekends.

- MBA students, who have completed their business relevant bachelor program from IoBM, are exempted from the 30 credit hours of the Foundation Stage of the standardized 72 credit hours MBA Program.
- Applicants with 4 year bachelor degree from IoBM in a non-business discipline can claim up to 6 course exemption from the foundation stage for the equivalent courses completed in the bachelor program.

Foundation Stage

The foundation stage covers areas such as accounting, finance, marketing, economics and management in addition to other preparatory course work necessary for applicants coming from background unrelated to business studies. The foundation stage prepares the students for the higher level MBA courses. The program is divided into a foundation stage of 30 credit hours followed by the 36-42 credit hours of rigorous MBA level courses and the capstone project dealing with strategy and business transformation.

Students joining CBM for the first time are expected to have qualified the MBA Boot Camp (Details on Page No. 46).
Foundation Courses

**Accounting**
ACC419  Financial Accounting

**Economics**
ECO409  Business Economics

**Statistics**
STA411  Quantitative Analysis for Decision Making

**Law**
LAW409  Corporate and Business Law

**Marketing**
MKT402  Marketing Management
MKT404  Methods in Business Research

1. *Digital Business Communication (MMM) / Academic Writing, Seminar Skills (EdM)*
2. *Economics of Energy and Environment (EEM) / Business and Health Economics (MHM) / Micro and Macroeconomics / (FRM)*
3. *Statistics and Mathematics (EdM) / Model and Inferences, (FRM)*
4. *Health Ethic, Law and Jurisprudence (MHM) / Environmental Rules, Laws and Regulations (EEM) / Business Law (IM) / Educational Philosophy and Ethics (EdM) / Business and Insurance Law / (FRM)*
5. *Research and Survey Methodology (EEM) / (MHM), Research Methods I & II (EdM)*

**MBA Structure** (72 Credit Hours)

<table>
<thead>
<tr>
<th>Semester One</th>
<th>Semester Two</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Accounting (ACC419)</td>
<td>Quantitative Analysis for Decision Making* (STA411)</td>
</tr>
<tr>
<td>Business Communication (COM402)</td>
<td>Consumer Behavior¹ (MKT509)</td>
</tr>
<tr>
<td>Business Economics (ECO409)</td>
<td>Methods in Business Research² (MKT404)</td>
</tr>
<tr>
<td>Marketing Management (MKT402)</td>
<td>Entrepreneurial and Small Business Management³ (ENT403)</td>
</tr>
<tr>
<td>Managing Human Capital (HRM410)</td>
<td>Theory and Practice of Financial Management (FIN408)</td>
</tr>
<tr>
<td>Management and Organizational Dynamics (MAN418)</td>
<td>Corporate and Business Law⁴ (LAW409)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester Three</th>
<th>Semester Four</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Analytics for Decision Making⁵ (MAN606)</td>
<td>Strategic Management⁶ (MAN612)</td>
</tr>
<tr>
<td>Strategic Financial Analysis and Design⁶ (FIN601)</td>
<td>Technology Operations and Innovation⁷ (MAN608)</td>
</tr>
<tr>
<td>Marketing Strategies and Value Innovation¹⁵ (MKT610)</td>
<td>Leadership, Ethics and Change¹¹ (HRM606)</td>
</tr>
<tr>
<td>Elective 1**</td>
<td>Elective 3¹²</td>
</tr>
<tr>
<td>Elective 2⁷</td>
<td>Elective 4¹³</td>
</tr>
<tr>
<td>Capstone I⁸</td>
<td>Capstone II¹⁴</td>
</tr>
</tbody>
</table>

Please refer to the list of courses and select courses according to your specialization area.

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¹Quantitative Methods for Logistics and SCM (MBA Logistics and Supply chain Management), Quantitative Research and Statistical Analysis (MBA Educational Management), Quantitative Analysis (Bio-Stats) MHM-530

²Environmental Impact Assessment and Management (MBA Industrial Management), Industrial & Municipal Waste Management (MBA Environment and Energy Management)

³Health Psychology (MBA MHM), Educational Philosophy and Ethics (MBA Educational Management), Supply chain management (MBA Logistics and Supply chain Management), Media and Social Change (MBA Media Management and Marketing), Supply Chain management (MBA Industrial Management), Environmental Issues and Management (MBA Environment and Energy Management), Analysis of Finance Statement (MBA Finance & Risk Management).

⁴Research and Survey Methodology (MBA MHM), Research and Survey Methodology (MBA Environment and Energy Management), Qualitative Methods in Research (MBA Educational Management), Applied Financial Economics (MBA Finance & Risk Management).

Health Ethics, Law and Jurisprudence (MBA MHM), Environmental Rules, Laws and Regulations (MBA Environment and Energy Management)

Health Policy and Analytics for Decision Making (MBA MHM), Business Process re-engineering (MBA Industrial Management), Computational Methods in Risk (MBA Finance & Risk Management).


Innovation Management in Supply Chain (MBA Logistics and Supply chain Management), Seminar in Media Marketing (MBA Media Management and Marketing), Environmental Impact Assessment and Management (MBA Environment and Energy Management)


Theoretical Management in Supply Chain (MBA Logistics and Supply chain Management), Seminar in Media Marketing (MBA Media Management and Marketing), Environmental Impact Assessment and Management (MBA Environment and Energy Management)


Strategic Management of Health Services (MBA MHM), Strategic Supply Chain Management (MBA Logistics and Supply chain Management)

Health Service Delivery and Operation Management (MBA MHM), Introduction to ERP (MBA Logistics and Supply chain Management), Media and Public Opinion (MBA Media Management and Marketing), Production and Operations Management (MBA Industrial Management), Innovations and Technology in Education (MBA Educational Management), Advanced Financial Risk Management (MBA Finance & Risk Management).

Healthcare Leadership (MBA MHM), Project Management (MBA Industrial Management)

Production and Operations Management (MBA Logistics and Supply chain Management), Role of Media in World Affairs (MBA Media Management and Marketing), Enterprise Asset Management and Financial Analysis (MBA Industrial Management), Safety Health & Environmental management (MBA Environment and Energy Management)

Curriculum Management and Planned Change (MBA Educational Management), Risk Management in Supply Networks (MBA Logistics and Supply chain Management), Integrated Marketing Communication (MBA Media Management and Marketing)

Thesis Writing-Capstone Project II* (MBA Educational Management), Corporate Consultancy Project in Logistics (MBA Logistics and Supply Chain Management), Introduction to Financial Risk Management (MBA Finance & Risk Management).

Risk Financing Techniques (MBA Finance & Risk Management).

MBA after Bachelors in Business Discipline (36 Credit Hours)

<table>
<thead>
<tr>
<th>Semester One</th>
<th>Semester Two</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emerging Organizational Models for Dynamic Change</td>
<td>Technology, Operations and Innovation Strategic Financial Analysis and Design</td>
</tr>
<tr>
<td>Marketing Strategies and Value Innovation</td>
<td>Elective III</td>
</tr>
<tr>
<td>Elective I</td>
<td>Elective IV</td>
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</table>

<table>
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<tr>
<th>Semester Three</th>
<th>Semester Four</th>
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<tbody>
<tr>
<td>Business Analytics for Decision Making</td>
<td>Capstone Project II</td>
</tr>
<tr>
<td>Leadership, Ethics and Change</td>
<td></td>
</tr>
<tr>
<td>Capstone Project I</td>
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</tbody>
</table>
## Elective Courses

### Majors in Accounting
- ACC602 Advanced Managerial Accounting
- ACC605 Financial Legal Framework
- ACC607 Introduction to Forensic Accounting
- ACC608 Audit, Taxation and Accounting Policy
- ACC609 Cases in Corporate Reporting

### Majors in Marketing
- MKT501 Strategic Marketing and Planning
- MKT602 Marketing Analytics
- MKT605 Pricing Models and Strategies
- MKT611 Integrated Marketing Communications
- MKT613 Marketing of Financial Services
- MKT615 Brand Management
- MKT618 Advertising Management and Strategy
- MKT621 Marketing Strategies for Emerging Economies
- MKT622 Marketing Strategies for Bottom of the Pyramid (BOP)
- MKT623 Pharmaceutical Marketing & Quality Assurance
- MKT625 Business to Business Marketing
- MKT626 Marketing for Social Impact
- MKT627 Future Marketing Technologies
- MKT628 Competitive Strategies
- MKT629 B2B Sales by Simulation/Gamification
- MKT630 Growth Marketing

### Majors in Finance and Banking
- FIN506* Investment Banking and Security Analysis
- FIN514* Asset and Liability Management
- FIN612* SME and Micro-Financing
- FIN633* Mergers, Acquisitions and Restructuring
- FIN634* Enterprise Risk Management
- FIN602** Behavioral Finance
- FIN603** Entrepreneurial Finance
- FIN610** Debt and Equity Markets
- FIN613** Financial Modeling for Investment Decisions

*Choose two courses
** Choose two courses

### Majors in Human Resource Management
- HRM612 Strategic Human Resource Management
- HRM617 HR Analytics
- HRM618 Managing Diversity & Inclusion in Organization
- HRM619 Talent Acquisition
- HRM620 Labour Studies and Employee Relations
- HRM621 Learning and Organizational Development
- HRM622 Negotiations and Conflict Resolution Skills
- HRM623 Managing Organizational Change
- HRM624 Talent Management and Performance Development
- HRM625 Total Rewards Management

### Majors in Management
- MAN501 Total Quality Management
- MAN502 Business Process Re-engineering
- MAN611 Project Management
- MAN613 Corporate Governance
- MAN619 Emerging Organizational Models for Dynamic Change

### Majors in Logistics and Supply Chain Management
- SCM600 Introduction to ERP Systems
- SCM601 Quantitative Methods in Production and Logistics
- SCM602 Business Process Mgmt. in Supply Chain & Logistics
- SCM603 IT Applications in Logistics
- SCM604 Packaging Design and Environmental Aspects
- SCM605 Supply Chain Management
- SCM606 ERP Systems Design and Implementation
- SCM607 Strategic Supply Chain Management
- SCM608 Procurement and Inventory Management
- SCM609 Storage and Warehouse Techniques
- SCM610 Transportation Techniques and Management
- SCM611 Sustainability & Env. Aspects in Managing Supply Chains
- SCM612 Risk Management in Supply Networks
- SCM613 Innovation Management in Supply Chain and Logistics
- SCM614 Corporate Consultancy Project in Logistics
- SCM615 Contract Management for Supply Chain & Negotiations
- SCM616 Life Cycle Enterprise Asset Management
- SCM617 Mobile Commerce and Mobile Logistics
- SCM618 Aviation Logistics Supply Chain Management
- SCM619 Humanitarian Logistics Supply Chain Management
- SCM620 Supply Chain Project Management
- SCM621 Lean Construction Supply Chain Management
- SCM625 Import Export Management
- SCM508 Design of Business Process - Workflow Management

### Majors in Islamic Banking and Finance
- ISF601 Economics for Islamic Finance
- ISF602 Islamic Banking Practices
- ISF603 Accounting for Islamic Finance
- ISF604 Islamic Financial Services Marketing
- ISF605 Islamic Capital Markets
- ISF606 International Islamic Finance Standards
- FRM514 Takaful and Risk Management in Islamic Products

### Majors in Entrepreneurship
- ENT503 Competitive Strategies for Startup
- ENT504 Technology Support for Small Business
- ENT505 Innovative Internet Based Business Models
- ENT506 Guerrilla Strategies in Business
- ENT507 Affordable Design and Frugal Innovation
- ENT508 Commercializing and Monetizing Ideas
- ENT509 Building and Managing Start-Up Teams
- ENT510 New Venture Finance
- ENT511 Managing Family Business
- ENT512 Growth Hacking Strategies
- ENT513 Design Thinking and Strategy
### Elective Courses for MBA Health and Hospital Mgmt.
- MHM605 Financial Management of Health Services
- MHM606 Concepts of Primary Healthcare
- MHM607 Introduction to Epidemiology
- MHM608 Pharmaceutical Marketing and Quality Assurance
- MHM609 Marketing of Health Services
- MHM610 Population and Health
- MHM611 Environmental Health Assessment & Management
- MHM612 Hospital Administration
- MHM613 Regulatory Affairs at Healthcare Industries
- MHM614 Product Management
- MHM615 Pharmaceutical Sales Management
- MHM616 Project Management of Health Services
- MHM617 Seminar in Health Policy Management
- MHM618 Health Communications
- MHM619 Healthcare Human Resource Management
- MHM621 Supply Chain & Prod. Mgmt. in Pharma. Inds.
- MHM622 Quality Management in Healthcare
- MHM623 Pharmaceutical Branding
- MHM624 Occupational Health and Safety
- MHM625 Knowledge Management for Health Managers
- MHM626 Workplace Well-being for Healthcare Managers
- MHM627 Global and local Public Health Challenges and Practices
- MHM628 Pharmacovigilance

### Elective Courses for MBA Finance and Risk Mgmt.
#### Finance and Banking
- FIN403 Islamic Banking and Finance

#### Finance and Risk Management
- FRM503 Corporate Risk Management
- FRM504 Theory of Risk and Insurance
- FRM505 Corporate Treasury and Risk Management
- FRM506 Financial Regulation for Risk Management
- FRM508 Financial Market Issues and Crisis
- FRM510 Energy Risk Management
- FRM512 International Risk and Financial Reporting
- FRM513 Project Risk Management
- FRM514 Takaful and Risk Management in Islamic Products
- FRM516 International Financial Reporting and Standards
- FRM517 Property Risk Management
- FRM518 Management of Insurance Institutions

### Elective Courses for MBA Educational Management
- EDM624 Innovations and Technology in Education
- EDM621 Edupreneurship in the Changing World
- EDM654 Lifelong Learning in Changing Contexts
- EDM656 Teacher Education
- EDM625 Distance Learning in the 21st Century
- EDM606 Global Trends in Education

### Elective Courses for MBA Industrial Management
- INM601 Facilities Planning
- INM602 Maintenance Management
- INM603 Industrial Safety, Health, and environment
- INM604 Enterprise Life Cycle Management
- INM605 Industrial Technology Management
- INM606 Operation Research
- INM607 Enterprise Risk Management
- INM608 Logistic and Inventory control
- INM609 Advance Production Planning & Control
- INM610 Integrated Manufacturing Systems
- INM611 Advance Manufacturing Processes
- INM612 Industrial Supply Chain Management
- INM613 Total Quality Management
- INM614 Project Management
- INM615 Operation Management

### Elective Courses for MBA Media Mgmt. & Marketing
- MKT620 Digital Marketing
- MAN616 Entrepreneurship and Ecommerce
- MMM401 Media & Social Change
- MMM603 Seminar in Strategic Media Marketing
- MMM604 Screenwriting for TV & Cinema
- MMM605 Advanced Documentary Filmmaking
- MMM606 Media Psychology
- MMM607 Media and Public Opinion

### Elective Courses for Environmental & Energy Mgmt.
- EEM603 Air and Noise Pollution Management
- EEM604 Coastal Environment and Management
- EEM605 Climatic Changes and its Impact
- EEM606 Natural Resources Management
- EEM607 Hospital Waste Management
- EEM608 Solid and Hazardous Waste Management
- EEM609 Energy Audit
- EEM610 Energy Conservation
- EEM611 Energy Planning
- EEM612 Environmental Ethics
- EEM613 Public Awareness for Environment and Energy Sector
- EEM615 Risk and Disaster Management
Students selecting a functional area specialization major given below are expected to have completed the 30 credit hours of foundation stage (Page No. 39) of the MBA program. The specialization stage consists of 42 credit hours of course work covering strategic and operational areas. They specialize in one of the following functional areas to complete their degree requirements:

- **Marketing**: Aims to empower students to use critical thinking, experiential and active learning to become leaders in a challenging and demanding environment

- **Management**: Aims to instill in each student a desire to learn, accept challenges, and develop an enquiring mind essential for making a difference in the dynamic global business scenario; in fact in all facets of their lives and communities they become part of

- **Finance**: Offers courses in finance, incorporating the latest concepts and theories in the related fields and their practical applications to the business world. The program aims to develop fully equipped professionals to face challenges of the industry. Students may also elect courses from Islamic Banking and Finance major.

- **Accounting**: Specialization in accounting will expand the breadth of your understanding of accounting concepts and prepare you for application of modern accounting practices opening new job avenues.

- **Human Resource Management**: The Human Resource Management concentration will provide you with a comprehensive overview of the strategic HR management techniques that will help you take on senior management responsibility in the field. The program covers the whole spectrum of HR-related issues, from workforce leadership and performance evaluation to organizational behavior and change management.

- **Logistics and Supply Chain Management**: The program aims to develop supply chain professionals and innovative leaders with research capabilities & entrepreneurial skills who can improve the world and advance management practices.

During the specialization stage, students take 12 credit hours of strategy courses, 9 credit hours of operational level courses, and 12 credit hours of elective courses. In addition, students select two real life Capstone Projects (6 credit hours) in their area of specialization during their final year.

The functional area specialization track is available in three mutually exclusive shifts: weekends, weekday mornings, or weekday evenings. The candidate must select a shift at the time of filing the application. Students are expected to complete all the courses of their program in their designated shift.
MBA’s domain specialization is designed for building careers in specific field such as Health & Hospital Management, Media Management & Marketing, Environment & Energy Management, Logistics & Supply Chain Management etc.

Students selecting the domain based specialization are expected to have completed the 30 credit hours of foundation stage (page No. 39) of the MBA program. Specialization stage consists of 42 credit hours of course work covering strategic and operational areas. These include courses in the area of Marketing Strategy, Strategic Finance, Strategic Management, Leadership, Technology/Operations, Entrepreneurship, Organizational Processes, Analytics of Decision Making, etc. During the specialization stage, students take 12 credit hours of strategy courses, 9 credit hours of operational level courses, and 12 credit hours of elective courses.

• **Health & Hospital Management**: is designed for building careers as healthcare leaders, managers and decision makers in hospitals, pharmaceutical industry, NGOs, and other allied healthcare institutions. The specialization of Health and Hospital Management provides an environment of continual learning for its faculty and students, and focuses on development of the leadership skills like creative and critical thinking, decision making, team building and entrepreneurial expertise among the students so that they can generate market driven results. It continuously refines and caters to the needs, demands and expectations of the healthcare industry. The department uses state of the art teaching methodologies for capacity-building of the future healthcare leaders who are trained to be sensitive to the needs of society, and to promote ethical practices in the healthcare businesses with the objectives of serving the community and the nation.

• **Media Management & Marketing**: program seeks to develop quality human resource, capable of playing strategic leadership roles across a variety of mainstream traditional and new media organizations, as well as top-level consumer marketing companies.

• **Environment & Energy Management**: aims to prepare future decision-makers in companies, government and non-governmental organizations for analyzing and acting in an environmentally proactive and energy efficient way when making decisions about policy, production and resource utilization in energy generation, transmission and load management.

• **Logistics & Supply Chain Management**: specialization addresses strategic economic and process-oriented technical problems in logistics, supply chain management across industries and across countries. It covers complexities of moving goods across regions with diverse compliance requirements.

• **Industrial Management**: focuses on real life problems relating to industrial processes and discrete manufacturing. It focuses on project management, quality management, manufacturing effectiveness, logistics, warehousing and supply chain management.

• **Finance and Risk Management**: is designed to cover financial decision making with special emphasis on Risk Management including recent development in Corporate Risk Management, Sustainable Risk Management and Risk Financing techniques.

• **Educational Management**: provides knowledge, skills and tools required for 21st century leadership and management for educational institutions in the fast-changing economy. Students selecting the domain-based specialization in MBA Educational Management program are expected to have completed 30 credit hours of foundation stage of the MBA program.
CBM challenges its incoming MBA students by offering a rigorous boot camp of orientation courses which fulfill the pre-requisite requirement to undertake first year foundation stage courses of the MBA program. Students with a four-year bachelor in commerce or business management are exempted from attending the camp. The exemption includes students with 2 years of B.Com plus 2 years of M.Com. The camp helps students from disparate backgrounds to bond quickly and prepare them for the intellectual challenge that they are going to encounter in the MBA program. They get a head-start with pre-requisite knowledge which acclimatizes them with the rigor and culture of CBM. This is an intensive 126-hour program which is spread over five weeks and conducted during evenings and weekends. Its objectives are:

1. To develop technical skills in statistical and IT tools
2. To develop a shared knowledge base in core areas of business
3. To bring their communication and presentation skills to the desired level
4. To provide orientation for personal organization and effectiveness
5. To familiarize them with pedagogies of case study, and experiential learning

<table>
<thead>
<tr>
<th>Modules</th>
<th>Number of Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1    Business English</td>
<td>12 hrs</td>
</tr>
<tr>
<td>2    Economics</td>
<td>12 hrs</td>
</tr>
<tr>
<td>3    Personal Effective and Leadership</td>
<td>12 hrs</td>
</tr>
<tr>
<td>4    Introduction to Management and Case Method</td>
<td>12 hrs</td>
</tr>
<tr>
<td>5    Introduction to Marketing and Case method</td>
<td>12 hrs</td>
</tr>
<tr>
<td>6    Business Finance</td>
<td>12 hrs</td>
</tr>
<tr>
<td>7    Business Accounting</td>
<td>12 hrs</td>
</tr>
<tr>
<td>8    Excel for Business Decision Making</td>
<td>18 hrs</td>
</tr>
<tr>
<td>9    Research Tools and Techniques</td>
<td>12 hrs</td>
</tr>
<tr>
<td>10   Business Mathematics and Statistics</td>
<td>12 hrs</td>
</tr>
</tbody>
</table>
The MS in Business Management program has been designed considering the needs of the corporate sector as well as academia. This program offers a blend of relevant industry-related skills and equips the students with up-to-date research knowledge. MS program in Business Management is a research route for a PhD in Business Management. The career path for the MS in Business Management graduates is faculty, independent researcher, research associate, and management consultant.

Learning Outcomes
- Demonstrate an effective blend of theory and practice
- Evaluate the functional aspects of business management
- Apply concepts to solve business problems
- Ability to undertake research projects as an independent researcher
- Exhibit multidisciplinary focus of management through scholarly insights towards business and social issues.

Program Structure
MS in Business Management is a 30-credit-hour program with 08 courses and one thesis of 06 credit hours. Each of the eight courses is of 03 credit hours. After successful completion of course work, students are required to carry out a research study for the thesis under the guidance of a research supervisor assigned by the college.

Eligibility
- A minimum CGPA of 2.5 on a scale of 4.00 (or overall 60% marks) or equivalent
- A minimum of 16 years of schooling in a relevant field from HEC recognized university/institution.
- GAT general test conducted by the NTS is required with a minimum of 50% marks.
- An interview conducted by the Institute
- Any other HEC stipulated requirement

Course Structure
MPM605 Survey of Current Research Literature in Management
MPM607 Corporate Governance and Strategy
MPM609 Seminar in Human Resource Management
MPM611 Advanced Corporate Finance
MPM614 Advanced Marketing Strategy
MPM616 Econometrics
MPM626 Qualitative Research
MPM625 Quantitative Research

Thesis (06 Credit hours)

Duration: Minimum 2 years, Maximum 4 years

It is mandatory for research students of MS and Ph.D. programs to attend the Multi-Disciplinary Research Seminar Series (MRSS) sessions on Saturdays (12:00 to 2:00 PM) each semester. At least 60% attendance is required.
PhD IN BUSINESS MANAGEMENT

The mission of the PhD program in Business Management is to develop scholars with the ability to create and impart knowledge through rigorous research, be independent thinkers, contribute to industry and society while adhering towards ethical and sustainable practices.

Eligibility

MS/MPhil. or equivalent graduates from HEC-recognized institutes meeting the following criteria:

- A minimum CGPA of 3.00 on a scale of 4.00 or equivalent.
- A minimum of 18* years of schooling that corresponds to MS/MPhil or Equivalent degree from HEC recognized institutions in a relevant discipline.
- GAT subject test conducted by the NTS with a minimum of 60% marks or a Minimum of 70% marks in the IoBM test.
- An interview conducted by the Institute.
- Any other HEC stipulated requirements.

*HEC equivalency is required. The candidate may have to undergo additional deficiency courses wherever required.

Program Requirements:

A. Course Structure

Pre-requisites:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPM612</td>
<td>Advanced Research Methodology</td>
</tr>
<tr>
<td>MPM616</td>
<td>Econometrics</td>
</tr>
<tr>
<td>MPM625</td>
<td>Quantitative Research</td>
</tr>
<tr>
<td>MPM626</td>
<td>Qualitative Research</td>
</tr>
</tbody>
</table>

Note: Pre-requisites may be assigned according to the level of previous work and academic credentials.

Courses of PhD Business Management (18-Credit Hours)

1. PBM711 Advanced Qualitative Research & Philosophy
2. PBM712 Advanced Quantitative Research
3. PBM713 Research Writing & Techniques
4. PBM714 Independent Research Study
5. PBM715 Theories in Business Management
6. Elective(s)

Electives in the area of specialization

1. Advanced Topics in Finance
2. Corporate Governance and Strategy
3. Advanced Topics in Management and HRM
4. Organizational Behavior and Strategy
5. Marketing Theories
6. Strategic Marketing Decisions
7. Seminar in Supply Chain and Logistics Management
B. Comprehensive Exam

After Completion of the course work, a PhD student has to pass a written comprehensive exam, and viva-voce in front of a doctoral committee.

C. Dissertation (30-credit Hours)

After completing the courses and successfully passing the comprehensive exam, a student has to register for research thesis and complete the following requirements:

- Proposal Development
- Proposal Defense (Within first 03 semesters OR on or before completion of 15 Credit hours of dissertation)
- Continuous enrollment in supervised research is necessary during the thesis stage
- Semester-wise progress review is necessary for continuous enrollment during thesis stage**
- Completion of Ph.D. Dissertation/Thesis
- Publication or official acceptance of at least one paper in an HEC recognized (Impact Factor) journal
- Open defense of Ph.D. dissertation
- Final Dissertation/Thesis submission to BASR
- Any other HEC requirement

**students may register in PBM921 Research Thesis (3 Units), PBM922 Research Thesis (6 Units), PBM923 Research Thesis (9 Units) based on the satisfactory semester-wise progress review. Further, the registration in the subsequent semester would be subject to the satisfactory comments of semester progress review committee.

D. Duration

- Minimum 3 Years, Maximum 8 Years

It is mandatory for research students of MS and PhD programs to attend research proposal/ thesis defense and multi-disciplinary research seminar sessions in each semester on Saturdays (12:00 to 2:00 PM). At least 60% attendance is required.
PhD IN ENVIRONMENT AND ENERGY MANAGEMENT

CBM’s PhD program in Environment and Energy Management is a rigorous, interdisciplinary research program focusing on building theoretical models in the area of energy and/or environment. The research develops models relating to areas such as energy supply, sufficiency, and security for meeting future energy requirements. The models may also focus on environmental sustainability, impact models and trends relating to water supply, air quality, waste, etc.

Eligibility

MS or equivalent graduates from HEC recognized institutions meeting the following criteria:

- A minimum CGPA of 3.00 on a scale of 4.00 (or overall 60% marks) or equivalent
- A minimum of 18 years of schooling that corresponds to MS / MPhil or equivalent degree from HEC recognized institutions in a relevant discipline
- GRE subject specific or GAT subject test conducted by the NTS, HAT subject test of HEC or equivalent in the relevant discipline. A minimum of 60% (percentage) marks are required or a minimum of 70% marks in IoBM test
- An interview conducted by the Institute
- All other HEC stipulated requirements
- Complete deficiency courses

Program Requirements

PhD requires completion of course work and dissertation/thesis. Minimum duration is 3 years and maximum is 5 years:

- PhD course work requirements consist of six graduate level courses (18 credit hours)
- Student are awarded 30 credits on completion of dissertation/thesis

A PhD student must additionally complete the following requirements:

- Comprehensive Exam
- PhD proposal/synopsis development
- PhD proposal/synopsis defense
- BASR approval of PhD proposal/synopsis
- Continuous enrollment in supervised research courses is necessary during the research thesis stage
- Completion of PhD dissertation/thesis
- Selection of external evaluators by BASR
- Publication of at least one paper in an ISI indexed or an HEC recognized journal or an official acceptance of the paper
- Evaluation of PhD Dissertation by two foreign faculty members from developed countries as per HEC criteria
- Dissertation/thesis finalization
- Open defense of PhD dissertation
- Any other HEC requirement
- Final dissertation/thesis submission to BASR

Research Publication requirement for intake from Fall-2021: Each PhD scholar shall be required to publish at least one research paper based on dissertation as a first author along with his/her supervisor/co-supervisor in Clarivate Analytics Impact Factor Journal listed in Journal Citation Reports (Web of Science Group).

Pre-Requisite Courses

The interview committee may prescribe certain pre-requisite courses.
Course Structure

**Semester One**
- EEM701 Methods and Issues in Advanced Qualitative Research
- EEM702 Methods and Issues in Advanced Quantitative Research

**Semester Two**
- EEM703 Current Advancement and Trends in Environment and Energy Management
- EEM704 Independent Study in Environment and Renewable Energy Management

**Semester Three**
- Elective Courses (any two)
  - EEM801 Advanced Environment Toxicology & Epidemiology
  - EEM802 Advanced Pollution Control Technologies and Mitigation Options
  - EEM803 Advances in Green Technology Mechanism
  - EEM804 Disaster Risk Management and Mitigation Strategies
  - EEM805 Trade and Environment
  - EEM806 Sustainability and Conservation of Major Ecosystems

**Semester Four to Nine**
- EEM921 Research thesis
- EEM922 Research thesis
- EEM923 Research thesis

*It is mandatory for research students of MPhil and PhD programs to attend research proposal / thesis defense / multi-disciplinary research seminars in each semester. Students must dedicate Saturdays (12:00 to 2:00 PM) for this attendance.*
COLLEGE OF COMPUTER SCIENCE AND INFORMATION SYSTEMS

Vision Statement

The College of Computer Science and Information System (CCSIS) is committed to emerge as one of the leading college, nationally and internationally, in computing and analytics by focusing on learning, research, technological innovation and enhancing value to society.

Mission Statement

The mission of Computer Science and Information System (CCSIS) is to empower learners and aspirants with technological and analytical tools & techniques following the local and global teaching paradigms so that they could explore new spectrums within a competitive world of technology by innovating in research activities, which will enable their personal, professional, social and intellectual capabilities for economic wellbeing.
BS COMPUTER SCIENCE (BS CS)

The graduates of this program would have the confidence and skills to design ICT solutions and become technology entrepreneurs. The graduates may also join careers as software engineers and may move on to become analysts, designers, and architects in software houses or be freelance solution providers. They may also go into management careers that require strong analytical skills.

The program emphasizes the need for overall development including exposure to an integrated series of courses in technology, methodology, social sciences, liberal arts, and management. Project-based software development along with research assignments are also emphasized. These courses seek to impart a broad and deep knowledge of the theory, design, and application of digital computers and information processing techniques. The curriculum has been designed to prepare students to serve the productive needs of Pakistan’s software industry. It requires completion of 138 credit hours of coursework. Students are required to take 44 courses (including Final Year Project and relevant labs) & internship, approved by the Institute, in order to complete their degree requirements. Students must maintain a CGPA of 2.5 for the conferment of the degree.

Students from pre-medical background are required to additionally complete the following two mathematics courses:
MTH011 Basic College Mathematics
MTH012 Intermediate College Mathematics

Eligibility Criteria: The eligibility criteria for admission into BS Computer Science is given on Page No. 156.

BS Computer Science students learn:
• To apply knowledge gained during the program effectively and efficiently in the software industry
• To contribute, manage, and lead, computer science and software development teams
• To actively pursue lifelong learning and innovation skills
• To equip themselves with latest software tools and techniques
• To groom so as to occupy senior technical and managerial positions
• To successfully bring innovation in IT technology as a whole

Learning Outcomes for BS Computer Science Students include:
1. Successfully bring innovation in IT technology
2. To analyze, identify computing requirements appropriate to solution
3. Appreciate the challenges of IT industry with global changes
4. An ability to apply knowledge of computing and mathematics in IT
5. To design, implement, and evaluate a computer-based system

Career Path:
1. Software Engineer
2. Web/Software Developer
3. Computer Scientist
4. Computer Programmer
5. Network Security Expert
6. Database Administrator
7. Computer Systems Analyst
8. Computer Network Architect
9. Information Security Analyst
10. Computer and Information Research Scientists

Prospective Employers:
1. Cyber Internet Services
2. Internet Service Providers
3. Real Estate Sector
4. Banking Sectors
5. Hospital Sector
6. Industrial Sector
7. Software Houses
8. Communication & Transportation Sector
9. Government & Private Sector
BS Computer Science: Course Distribution

<table>
<thead>
<tr>
<th>Area</th>
<th>Credit Hours</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computing Core [CC]</td>
<td>51</td>
<td>14</td>
</tr>
<tr>
<td>Domain Core [DC]</td>
<td>18</td>
<td>6</td>
</tr>
<tr>
<td>Domain Elective [DE]</td>
<td>21</td>
<td>7</td>
</tr>
<tr>
<td>Mathematics &amp; Supporting Courses [MSC]</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>Elective Supporting Courses [ESC]</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>General Education Requirements [GER]</td>
<td>33</td>
<td>12</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>138</strong></td>
<td><strong>44</strong></td>
</tr>
</tbody>
</table>

Program Structure (Semester Wise)

**Semester I**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
<th>Pre-requisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC111</td>
<td>Intro to Info. &amp; Comm. Technology [GER]</td>
<td>2+0</td>
<td>-</td>
</tr>
<tr>
<td>CSC111</td>
<td>Intro to Info. &amp; Comm. Technology Lab</td>
<td>0+1</td>
<td>-</td>
</tr>
<tr>
<td>CSC113</td>
<td>Programming Fundamentals [CC]</td>
<td>3+0</td>
<td>-</td>
</tr>
<tr>
<td>CSC113</td>
<td>Programming Fundamentals Lab</td>
<td>0+1</td>
<td>-</td>
</tr>
<tr>
<td>COM107</td>
<td>Academic English [GER]</td>
<td>3+0</td>
<td>-</td>
</tr>
<tr>
<td>PHY111</td>
<td>Applied Physics [GER]</td>
<td>2+0</td>
<td>-</td>
</tr>
<tr>
<td>PHY111</td>
<td>Applied Physics Lab</td>
<td>0+1</td>
<td>-</td>
</tr>
<tr>
<td>MTH107</td>
<td>Calculus and Analytical Geometry [GER]</td>
<td>3+0</td>
<td>-</td>
</tr>
</tbody>
</table>

**Semester Total Credit Hours** 16 (13+3)

**Semester II**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
<th>Pre-requisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC213</td>
<td>Object Oriented Programming [CC]</td>
<td>3+0</td>
<td>CSC113</td>
</tr>
<tr>
<td>CSC213</td>
<td>Object Oriented Programming Lab</td>
<td>0+1</td>
<td>-</td>
</tr>
<tr>
<td>COM205</td>
<td>Persuasive &amp; Analytical Writing for Business Communication [MSC]</td>
<td>3+0</td>
<td>COM107</td>
</tr>
<tr>
<td>CSC231</td>
<td>Discrete Structure [GER]</td>
<td>3+0</td>
<td>-</td>
</tr>
<tr>
<td>CSC115</td>
<td>Digital Logic and Design [CC]</td>
<td>3+0</td>
<td>PHY111</td>
</tr>
<tr>
<td>CSC115</td>
<td>Digital Logic and Design Lab</td>
<td>0+1</td>
<td>-</td>
</tr>
<tr>
<td>MTH224</td>
<td>Multivariable Calculus [MSC]</td>
<td>3+0</td>
<td>MTH107</td>
</tr>
</tbody>
</table>

**Semester Total Credit Hours** 17 (15+2)
### Semester III

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
<th>Pre-requisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC215</td>
<td>Data Structures and Algorithms [CC]</td>
<td>3+0</td>
<td></td>
</tr>
<tr>
<td>CSC215</td>
<td>Data Structures and Algorithms Lab</td>
<td>0+1</td>
<td></td>
</tr>
<tr>
<td>COM202</td>
<td>Business and Professional Speech [GER]</td>
<td>3+0</td>
<td>COM107</td>
</tr>
<tr>
<td>CSC211</td>
<td>Comp. Organization &amp; Assembly Lang. [CC]</td>
<td>[3+0]</td>
<td></td>
</tr>
<tr>
<td>CSC211</td>
<td>Comp. Organization &amp; Assembly Lang. Lab</td>
<td>0+1</td>
<td></td>
</tr>
<tr>
<td>MTH204</td>
<td>Linear Algebra [MSC]</td>
<td>3+0</td>
<td>MTH107</td>
</tr>
<tr>
<td>REL101</td>
<td>Islamic Studies [GER]</td>
<td>3+0</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Semester Total Credit Hours</strong></td>
<td><strong>17 (15+2)</strong></td>
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</table>

### Semester IV

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
<th>Pre-requisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC217</td>
<td>Introduction to Database Systems [CC]</td>
<td>3+0</td>
<td>CSC215</td>
</tr>
<tr>
<td>CSC217</td>
<td>Introduction to Database Systems Lab</td>
<td>0+1</td>
<td></td>
</tr>
<tr>
<td>CSC317</td>
<td>Introduction to Software Engineering [CC]</td>
<td>3+0</td>
<td>-</td>
</tr>
<tr>
<td>STA203</td>
<td>Probability Theory and Statistics [MSC]</td>
<td>3+0</td>
<td>-</td>
</tr>
<tr>
<td>CSC313</td>
<td>Operating Systems [CC]</td>
<td>3+0</td>
<td>CSC215</td>
</tr>
<tr>
<td>CSC313</td>
<td>Operating Systems Lab</td>
<td>0+1</td>
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</tr>
<tr>
<td>CSC315</td>
<td>Design &amp; Analysis of Algorithms [CC]</td>
<td>3+0</td>
<td>CSC215</td>
</tr>
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<td></td>
<td><strong>Semester Total Credit Hours</strong></td>
<td><strong>17 (15+2)</strong></td>
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### Semester V

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<th>Credit Hours</th>
<th>Pre-requisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC347</td>
<td>Advance Database Management Systems [DC]</td>
<td>2+0</td>
<td>CSC217</td>
</tr>
<tr>
<td>CSC347</td>
<td>Advance Database Management Systems Lab</td>
<td>0+1</td>
<td></td>
</tr>
<tr>
<td>CSC319</td>
<td>Computer Networks [CC]</td>
<td>3+0</td>
<td></td>
</tr>
<tr>
<td>CSC319</td>
<td>Computer Networks Lab</td>
<td>0+1</td>
<td>-</td>
</tr>
<tr>
<td>MAN306</td>
<td>Introduction to Management &amp; Organizational Behavior [GER]</td>
<td>2+0</td>
<td>-</td>
</tr>
<tr>
<td>CSC219</td>
<td>Professional Practices [GER]</td>
<td>2+0</td>
<td>-</td>
</tr>
<tr>
<td>CSC311</td>
<td>Theory of Automata &amp; Formal Lang. [DC]</td>
<td>3+0</td>
<td>CSC231</td>
</tr>
<tr>
<td>CSC413</td>
<td>Artificial Intelligence [CC]</td>
<td>3+0</td>
<td>STA203</td>
</tr>
<tr>
<td>CSC413</td>
<td>Artificial Intelligence Lab</td>
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</tr>
<tr>
<td></td>
<td><strong>Semester Total Credit Hours</strong></td>
<td><strong>18 (15+3)</strong></td>
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</table>
### Semester VI

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
<th>Pre-requisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCxxx</td>
<td>CS Elective 1 [DE]</td>
<td>3*</td>
<td>-</td>
</tr>
<tr>
<td>CSCxxx</td>
<td>CS Elective 2 [DE]</td>
<td>3*</td>
<td>-</td>
</tr>
<tr>
<td>CSC378</td>
<td>HCI and Computer Graphics [DC]</td>
<td>2+0</td>
<td>-</td>
</tr>
<tr>
<td>CSC378</td>
<td>HCI and Computer Graphics Lab</td>
<td>0+1</td>
<td>-</td>
</tr>
<tr>
<td>CSC411</td>
<td>Compiler Constructions [DC]</td>
<td>3+0</td>
<td>CSC311</td>
</tr>
<tr>
<td>CSC379</td>
<td>Computer Architecture [DC]</td>
<td>3+0</td>
<td>CSC211</td>
</tr>
<tr>
<td>CSC379</td>
<td>Computer Architecture Lab</td>
<td></td>
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</tr>
<tr>
<td>CSC380</td>
<td>Entrepreneurship [GER]</td>
<td>2+0</td>
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<td></td>
<td><strong>Semester Total Credit Hours</strong></td>
<td>*<em>17 (15+2</em>)**</td>
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</table>

### Semester VII

<table>
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<th>Credit Hours</th>
<th>Pre-requisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCxxx</td>
<td>CS Elective 3 [DE]</td>
<td>3*</td>
<td>-</td>
</tr>
<tr>
<td>CSCxxx</td>
<td>CS Elective 4 [DE]</td>
<td>3*</td>
<td>-</td>
</tr>
<tr>
<td>MKT201</td>
<td>Marketing Management [ESC]</td>
<td>3+0</td>
<td>-</td>
</tr>
<tr>
<td>LAN10*</td>
<td>Foreign Language-I [GER]</td>
<td>3+0</td>
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</tr>
<tr>
<td>CSC418</td>
<td>Parallel and Distributed Computing [DC]</td>
<td>3+0</td>
<td>CSC313</td>
</tr>
<tr>
<td>CSC491</td>
<td>Final Year Project I [CC]</td>
<td>0+3</td>
<td>CSC317</td>
</tr>
<tr>
<td></td>
<td><strong>Semester Total Credit Hours</strong></td>
<td>*<em>18 (15+3</em>)**</td>
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</tr>
</tbody>
</table>

### Semester VIII

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
<th>Pre-requisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCxxx</td>
<td>CS Elective 5 [DE]</td>
<td>3*</td>
<td>-</td>
</tr>
<tr>
<td>CSCxxx</td>
<td>CS Elective 6 new [DE]</td>
<td>3*</td>
<td>-</td>
</tr>
<tr>
<td>CSCxxx</td>
<td>CS Elective 7 new [DE]</td>
<td>3*</td>
<td>-</td>
</tr>
<tr>
<td>CSC419</td>
<td>Information Security [CC]</td>
<td>3+0</td>
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<tr>
<td>PSC301</td>
<td>Pakistan Studies [GER]</td>
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<tr>
<td>CSC492</td>
<td>Final Year Project II [CC]</td>
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<td>CSC491</td>
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<tr>
<td></td>
<td><strong>Semester Total Credit Hours</strong></td>
<td>*<em>18 (15+3</em>)**</td>
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</tr>
</tbody>
</table>

Total 138 Credit Hours

*Lab depends on selection of elective courses by students*
## Domain Elective

<table>
<thead>
<tr>
<th>Course</th>
<th>Stream</th>
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</thead>
<tbody>
<tr>
<td>BDS404 Machine Learning</td>
<td>Artificial Intelligence</td>
</tr>
<tr>
<td>BDS421 Deep Learning</td>
<td>Artificial Intelligence</td>
</tr>
<tr>
<td>CSC420 Reinforcement Learning</td>
<td>Artificial Intelligence</td>
</tr>
<tr>
<td>CSC469 Computer Vision</td>
<td>Artificial Intelligence</td>
</tr>
<tr>
<td>CSC487 Neural Network</td>
<td>Artificial Intelligence</td>
</tr>
<tr>
<td>CSC488 Fuzzy Logic</td>
<td>Artificial Intelligence</td>
</tr>
<tr>
<td>SEC473 Natural Language Processing</td>
<td>Artificial Intelligence</td>
</tr>
<tr>
<td>CSC373 Web Engineering</td>
<td>Software Engineering</td>
</tr>
<tr>
<td>CSC374 Mobile Application Development</td>
<td>Software Engineering</td>
</tr>
<tr>
<td>CSC473 Enterprise Systems</td>
<td>Software Engineering</td>
</tr>
<tr>
<td>CSC476 E-Commerce</td>
<td>Software Engineering</td>
</tr>
<tr>
<td>CSC481 Software Quality Assurance</td>
<td>Software Engineering</td>
</tr>
<tr>
<td>CSC489 Software Project Management</td>
<td>Software Engineering</td>
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<td>SEC475 DevOps</td>
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<td>CSC477 IT Infrastructure</td>
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<td>CSC468 Internet of Things</td>
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<td>CSC483 Information Security Audit</td>
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<td>SEC481 Cloud Computing</td>
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<td>BDS102 Introduction to Data Science</td>
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<td>BDS301 Data Mining</td>
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<td>BDS420 Information Retrieval</td>
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<tr>
<td>BDS429 Topics in Data Science</td>
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<td>BDS481 Social Network Analysis</td>
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<td>CSC474 Data Warehousing</td>
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<tr>
<td>CSC475 Big Data Analytics</td>
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</table>
BS ACTUARIAL SCIENCE AND RISK MANAGEMENT

BS in the Actuarial Science and Risk Management equips graduates with mathematical and statistical skills and expertise of tools that help in assessing risk in insurance, finance and other relevant industries and professions.

A BS in the Actuarial Science and Risk Management program is intended to provide students with the tools of risk analysis, transfer and financing that are critical to the operation of private and public institutions, and to prepare them for careers in risk management and insurance. As a risk management major, a student will gain a broad business background with an emphasis on accounting, finance and law, as well as a thorough knowledge of all types of insurance. BS in Actuarial Science and Risk Management is a four-year degree program. It requires completion of 144 credit hours of course work and 2 credit hours of internship of at least six weeks in an organization approved by the Institute. Students graduating with a CGPA of 2.5 on the scale of 4 are eligible to apply for MBA program offered by the Institute.

Required Courses

**Accounting**
ACC101 Introduction to Financial Accounting

**Communication**
COM107 Academic English
COM205 Persuasive & Analytical Writing for Bus. Com.

**Economics**
ECO101 Principles of Microeconomics
ECO102 Principles of Macroeconomics
ECO304 Introduction to Econometrics

**Finance and Risk Management**
FRM201 Principles of Risk Management
FRM202 Life and Other Contingencies
FRM204 Enterprise Risk Management
FRM206 Institutional Investments
FRM302 Computational Methods in Risk
FRM304 Risk Financing Techniques
FRM310 Project

**Management**
MAN101 Principles of Management

**Marketing**
MKT301 Principles of Marketing
MKT404 Methods in Business Research

**Actuarial Science**
ARM201 Introduction to Actuarial Science
ARM501 Stochastic Process/Modeling
ARM601 Models of Financial Economics-I
ARM602 Models of Financial Economics - II

**Finance**
FIN201 Introduction to Business Finance
FIN406 Financial Econometrics
FIN503 Corporate Finance
FIN507 Portfolio Management
FIN509 Financial Derivatives

**Language**
LAN 10* Foreign Language I
*1 = Introduction to Arabic
*2 = Introduction to French
*4 = Introduction to German
*6 = Introduction to Italian
*8 = Introduction to Chinese

**LAW**
LAW401 Business Law
### Mathematics
- MTH104 Calculus I
- MTH105 Calculus II
- MTH204 Linear Algebra
- MTH209 Financial Mathematics I
- MTH210 Financial Mathematics II
- MTH211 Actuarial Mathematics
- MTH405 Numerical Analysis

### Political Sciences
- PSC301 Pakistan Studies

### Religious Studies
- REL101 Islamic Studies

### Statistics
- STA203 Probability Theory and Statistics
- STA210 Sampling Theory
- STA302 Methods of Data Analysis
- STA305 Applied Regression Analysis
- STA309 Loss Models I

### STA205 Probability Theory and Statistics II
- STA301 Model and Inferences
- STA303 Time Series Analysis and Forecasting
- STA307 Decision Theory
- STA310 Loss Models II

### Elective Courses

#### Finance and Risk Management
- FRM503 Corporate Risk Management
- FRM505 Corporate Treasury and Risk Management
- FRM508 Financial Market Issues and Crisis
- FRM512 International Risk and Financial Reporting
- FRM514 Takaful and Risk Management in Islamic Products
- FRM517 Property Risk Management

#### FRM518 Management of Insurance Institutions

#### Computer Sciences
- CSC103 Structured Programming Language

### Course Structure

#### Semester One
- Academic English (3+0) [Pre req NA]
- Principles of Microeconomics
- Probability Theory and Statistics
- Calculus I
- Islamic Studies
- Introduction to Actuarial Science

#### Semester Two
- Introduction to Financial Accounting
- Probability Theory and Statistics II
- Calculus II
- Principles of Macroeconomics
- Financial Mathematics I
- Foreign Language I

#### Semester Three
- Principles of Marketing
- Linear Algebra
- Model and Inferences
- Introduction to Business Finance
- Persuasive & Analytical Writing for Bus. Com.
  (3+0) [Pre Req. COM107]
- Financial Mathematics II

#### Semester Four
- Numerical Computing
- Business Law
- Introduction to Econometrics
- Principles of Management
- Pakistan Studies
- Method of Data Analysis

#### Semester Five
- Financial Derivatives
- Actuarial Mathematics
- Principles of Risk Management
- Stochastic Processes
- Financial Econometrics
- Corporate Finance

#### Semester Six
- Portfolio Management
- Life and Other Contingencies
- Enterprise Risk Management
- Sampling Theory
- Models in Financial Economics I
- Methods in Business Research

#### Semester Seven
- Institutional Investments
- Models in Financial Economics II
- Applied Regression Analysis
- Computational Methods in Risk Mgmt.
- Loss Models I
- Elective I

#### Semester Eight
- Decision Theory
- Loss Models II
- Risk Financing Techniques
- Time Series Analysis & Forecasting
- Project
- Elective II
BS MATHEMATICS AND ECONOMICS

BS (Mathematics & Economics) is an interdisciplinary undergraduate joint program of CCSIS and CESD, for students with robust mathematical skills and a keen interest in economics. This program is a perfect blend of pure and applied mathematics which does not only ensure a solid quantitative foundation for both disciplines but also provides phenomenal coverage of Statistics, Actuarial Sciences, and Finance.

Graduates with this degree are increasingly valued by employers because of their critical reasoning and sound knowledge as much of the economic theory is currently presented in terms of mathematical models. This opens more career options than the ones traditionally available to either mathematics or economics majors. This degree is also a paragon for those who aim for Master’s/Doctoral degree in Economics, Finance, Mathematics, Statistics, Actuarial Sciences or other related fields.

The BS (Mathematics & Economics) is a four-year program. Applicants who have successfully completed H.Sc with minimum 50% marks in Pre-Engineering or in General Group (with Mathematics) or A-Levels with a maximum 2 ‘C’s in three principal subjects (with Mathematics) are eligible to apply for admission. The graduation requirement is the completion of 138 credit hours of course work and 6 credit hours of a project approved by the college. Students must take a minimum load of 12 credit hours (four courses) or a maximum load of 18 credit hours (six courses) in a semester. In order to obtain a BS degree in four years, a student is required to cover twelve courses in a year. Full load of six courses can be taken each in the Fall and Spring semesters with an option of four courses in the latter and making up the shortfall in the summer session. Students must maintain a CGPA of 2.5 for the conferment of the degree.

BS Mathematics and Economics students learn to:

• Develop mathematical thinking, evolving from a computational / procedural understanding of mathematics to a broad understanding that involves logical reasoning, generalization, inference and formal proof.
• Explore the fundamental aspects of economics, formulation and use of qualitative models arising in social science, business and other contexts.
• Acquire an understanding of basic pure mathematics, and of the role of logical argument in mathematics.
• Use basic econometric methods to quantify uncertainty with confidence intervals; use regression to infer causal relationships; and use regressions for prediction.

Learning Outcomes for BS Mathematics & Economics Students include:

1. An ability to communicate effectively with the educational and business community and with society at large about mathematical and economical principles, concepts, and solution to problems with precision and adherence in written, oral and graphical form about concrete questions and to prepare well-organized written arguments that clearly state assumptions/hypotheses supported by evidence.
2. An ability to optimally apply economic analysis to everyday economic problems in the real world. This shall allow them to understand current events and evaluate potential policy proposals. Moreover, an appreciation shall be developed to evaluate the role played by assumptions in situations that reach various conclusions to a specific economic or policy problem.
3. Be equipped with skills to apply optimization models to consumer, producer, and market theories and to use game theory to analyze the strategic behavior of individuals and firms.
4. Be equipped with the investigative skills necessary for conducting original economic research and participating effectively in project teams.

Eligibility Criteria

The BS (Mathematics & Economics) is a four-year program. Applicants who have successfully completed H.Sc with minimum 50% marks in Pre-Engineering or in General Group (with Mathematics) or A-Levels with a maximum 2 ‘C’s in three principal subjects (with Mathematics) are eligible to apply for admission.
Required Courses

Communication (3 courses, 9 credit hours)
COM107 Academic English
COM202 Business and Professional Speech
COM205 Persuasive & Analytical Writing for Business Comm.

Economics
ECO101 Principles of Microeconomics
ECO102 Principles of Macroeconomics
ECO301 Managerial Economics
ECO302 International Trade
ECO303 Financial Economics
ECO304 Econometrics I
ECO307 Monetary theory and Policy
ECO316 Macroeconomics Analysis
ECO323 Development Economics
ECO402 Pakistan Economic Policy
ECO412 Econometrics II
ECOXXX Elective I
ECOXXX Elective II

Economics
ECO101 Principles of Microeconomics
ECO102 Principles of Macroeconomics
ECO301 Managerial Economics
ECO302 International Trade
ECO303 Financial Economics
ECO304 Econometrics I
ECO307 Monetary theory and Policy
ECO316 Macroeconomics Analysis
ECO323 Development Economics
ECO402 Pakistan Economic Policy
ECO412 Econometrics II
ECOXXX Elective I
ECOXXX Elective II

Mathematics (15 courses, 45 credit hours)
MTH104 Calculus I
MTH105 Calculus II
MTH203 Introduction to Formal Mathematics
MTH204 Linear Algebra
MTH224 Multivariable Calculus
MTH303 Real Analysis I
MTH304 Real Analysis II
MTH344 Ordinary Differential Equations
MTH346 Partial Differential Equations
MTH350 Topics in Mathematical Economics
MTH403 Numerical Analysis
MTH427 Topology
MTH401 Complex Analysis
MTH433 Optimization Techniques
MTHXXX Elective I
MTHXXX Elective II

Language (1 course, 3 credit hours)
LAN 10* Foreign Language I
*1 = Introduction to Arabic   *2 = Introduction to French
*4 = Introduction to German   *6 = Introduction to Italian
*8 = Introduction to Chinese

Political Sciences (1 course, 3 credit hours)
PSC301 Pakistan Studies

Social Sciences (1 course, 3 credit hours)
SSC301 History of Ideas

Elective Courses

Mathematics
MTH406 Finite Element Analysis
MTH411 Modelling and Simulation
MTH421 Abstract Algebra
MTH430 Operational Research
MTH437 Functional Analysis
MTH439 Introduction to Dynamical Systems
MTH451 Number Theory
MTH456 Statistical Machine Learning
MTH457 Deep Learning
MTH214 Game Theory

Programming (3 courses, 12 credit hours)
CSC113 Programming Fundamentals
CSC213 Object Oriented Programming
CSC215 Data Structure and Algorithms

Religious Studies (1 course, 3 credit hours)
REL101 Islamic Studies

Statistics (4 courses, 12 credit hours)
STA203 Probability Theory and Statistics
STA301 Model and Inference
STA302 Methods of Data Analysis
STA303 Time Series Analysis

Natural Science Courses (2 courses, 6 credit hours)
PHY111 Applied Physics
SSC202 Environmental Studies

Economics
ECO314 Contemporary Issues in Macroeconomics
ECO411 Islamic Economics
ECO416 Growth Theories
ECO418 Resource & Environmental Economics
ECO526 Energy Economics
ECO442 Public Finance
ECO444 Economics of Logistics
ECO415 WTO, Disputes and Settlements
ECO419 Agriculture and Food Security
ECO407 Analysis of Pakistani Industries
ECO321 General Equilibrium and Welfare Economics
ECO310 History of Economic Thoughts
ECO528 Economics and Social Equilibrium
### Natural Science Courses Pool (Courses 03, Credit Hours 06)
- NSC301  Everyday Science
- PHY111  Applied Physics
- NSC302  Environmental studies

### General Education (Courses 04, Credit Hours 06)
- SSCXXX  Introduction to Philosophy
- SSCXXX  Video Production (ELE625 / ECE626 Image and Video Processing)
- SSCXXX  Teaching of Mathematics
- SSC310  History of Economic Thought

### Course Structure

#### Semester One (19 Credit Hours)
- Islamic studies (3+0) [Pre req NA]
- Academic English (3+0) [Pre req NA]
- Applied Physics (3+0) [Pre req NA]
- Principles of Microeconomics (3+0) [Pre req NA]
- Calculus I (3+0) [Pre req NA]
- Programming Fundamentals (3+1) [Pre req NA]

#### Semester Two (19 Credit Hours)
- Persuasive. & Analytical Writing for Business Communication (3+0) [COM107]
- Foreign Language I (3+0) [Pre req NA]
- Probability theory & Statistics (3+0) [Pre req MTH104]
- Principles of Macroeconomics (3+0) [Pre req NA]
- Calculus II (3+0) [Pre req MTH104]
- Object Oriented Programming (3+1) [Pre req CSS113]

#### Semester Three (19 Credit Hours)
- Managerial Economics (3+0) [Pre req ECO101, ECO102]
- Multivariable Calculus (3+0) [Pre req MTH105]
- Model and inference (3+0) [Pre req STA203]
- Introduction to Formal Mathematics (3+0) [Pre req NA]
- Business and Professional Speech (3+0) [Pre req COM202]
- Data Structure and Algorithms (3+1) [Pre Req CSC213]

#### Semester Four (18 Credit Hours)
- Macroeconomics Analysis (3+0) [Pre req ECO102]
- Real Analysis I (3+0) [Pre req MTH203]
- Methods of Data Analysis (3+0) [Prereq STA301]
- Linear Algebra (3+0) [[Pre req NA]
- Pakistan Studies (3+0) [Pre req NA]
- Topics in Mathematical Economics (3+0) [Prereq MTH104, ECO 101]

#### Semester Five (18 Credit Hours)
- Development Economics (3+0) [Pre req ECO103 & ECO316]
- International Trade (3+0) [Pre req ECO103 & ECO316]
- Real Analysis II (3+0) [Pre req MTH301]
- Environmental Studies (3+0) [Pre req NA]
- Ordinary Differential Equations (3+0) [Pre req MTH224]
- History of Ideas (3+0) [Pre req NA]

#### Semester Six (18 Credit Hours)
- Numerical Analysis (3+0) [Pre req MTH105, MTH204 & MTH344]
- Complex Analysis (3+0) [Pre req MTH303 & MTH304]
- Econometrics I (3+0) [Pre req STA301]
- Financial Economics (3+0) [Pre req ECO102]
- Partial Differential Equations (3+0) [Pre req MTH 344]
- Monetary theory & Policy (3+0) [Pre req ECO316]

#### Semester Seven (18 Credit Hours)
- Econometrics II (3+0) [Pre req ECO304]
- Topology (3+0)
- Optimization Techniques (3+0)
- Economics Elective I (3+0)
- Mathematics Elective I (3+0)
- Final Year Project I (0+3)

#### Semester Eight (15 Credit Hours)
- Pakistan Economic Policy
- Time Series Analysis (3+0) [Pre req STA302]
- Economics Elective II (3+0)
- Mathematics Elective II (3+0)
- Final Year Project II (0+3)
BS DATA SCIENCE

BS (Data Science) focuses on statistical analysis and theoretical computer science to develop solutions that employ robust mathematical models. These models help AI (Artificial Intelligence) and other predictive tools for data mining and reaching closer to the solution.

This program has a dual emphasis on the basic principles of statistics and computer science, with foundational training in statistical and mathematical aspects of data analysis. This program is, additionally, based on broad computer science principles, including algorithms, data structures, data management, and machine learning. The program is suitable for students interested either in a career in industry or more specialized graduate study. This program will prepare students for a career in data analysis, combining foundational statistical concepts with computational principles from computer science. A major component of this degree is the final year two-semester project that teaches students how to apply Data Science principles for solving large-scale, real-world data analysis problems.

BS (Data Science) is a four-year degree program. It requires completion of 138 credit hours of coursework and compulsory internship of at least six weeks at an organization approved by the Institute.

Students from pre-medical background are required to additionally complete the following two mathematics courses:
MTH011 Basic College Mathematics
MTH012 Intermediate College Mathematics

Eligibility Criteria: The eligibility criteria for admission into BS Data Science is given on Page No. 156.

Data Science students learn to:
• Define information needs of individuals and organizations;
• Select and transform data to increase usefulness for solving particular problems;
• Analyze and synthesize unstructured data to create actionable information;
• Create information visualizations for data exploration and presentation;
• Manage very large volume data sources from acquisition through disposal;
• Secure and preserve data in ways consistent with legal and organizational considerations.

Learning Outcomes for Data Science students include:
1. Knowledge of how to apply analytic techniques and algorithms (including statistical and data mining approaches) to large data sets to extract meaningful insights.
2. Acquisition of hands-on experience with relevant software tools, languages, data models, and environments for data processing and data visualization.
3. Ability to communicate results of analysis effectively (visually and verbally) to a broad audience.

Career Path
1. Data Architect
2. Infrastructure Architect
3. Data Scientist
4. Data Analyst
5. Data Engineer

Prospective Firms/Companies
1. Real Estate Industry
2. Hospital Industry
3. Social Media Data Analytics Firms
4. Food and Supply Industry
5. Banking Sector
6. Airline Industry
7. Communication & Transportation Industry
8. Government & Private Sector
9. Insurance Industry
## BS Data Science: Course Distribution

<table>
<thead>
<tr>
<th>Area</th>
<th>Credit Hours</th>
<th>Courses</th>
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<tbody>
<tr>
<td>Computing Core [CC]</td>
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<td>Domain Core [DC]</td>
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<td>Domain Elective [DE]</td>
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<tr>
<td>Mathematics &amp; Supporting Courses [MSC]</td>
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<td>Elective Supporting Courses [ESC]</td>
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<td><strong>Total</strong></td>
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</table>

## Program Structure (Semester Wise)

### Semester I

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Hours</th>
<th>Pre-requisite</th>
</tr>
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<tbody>
<tr>
<td>CSC111</td>
<td>Introduction to Information &amp; Comm. Technology [GER]</td>
<td>2+0</td>
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<tr>
<td>CSC111</td>
<td>Introduction to Information &amp; Comm. Technology Lab</td>
<td>0+1</td>
<td>-</td>
</tr>
<tr>
<td>CSC113</td>
<td>Programming Fundamentals [CC]</td>
<td>3+0</td>
<td>-</td>
</tr>
<tr>
<td>CSC113</td>
<td>Programming Fundamentals Lab</td>
<td>0+1</td>
<td>-</td>
</tr>
<tr>
<td>COM107</td>
<td>Academic English [GER]</td>
<td>3+0</td>
<td>-</td>
</tr>
<tr>
<td>PHY111</td>
<td>Applied Physics [GER]</td>
<td>2+0</td>
<td>-</td>
</tr>
<tr>
<td>PHY111</td>
<td>Applied Physics Lab</td>
<td>0+1</td>
<td>-</td>
</tr>
<tr>
<td>MTH107</td>
<td>Calculus and Analytical Geometry [GER]</td>
<td>3+0</td>
<td>-</td>
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</table>

**Semester Total Credit Hours**  
16 (13+3)

### Semester II

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Pre-requisite</th>
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<tbody>
<tr>
<td>CSC213</td>
<td>Object Oriented Programming [CC]</td>
<td>3+0</td>
<td>CSC113</td>
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<tr>
<td>CSC213</td>
<td>Object Oriented Programming Lab</td>
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</tr>
<tr>
<td>COM205</td>
<td>Persuasive &amp; Analytical Writing for Business Communication [MSC]</td>
<td>3+0</td>
<td>COM107</td>
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<tr>
<td>CSC231</td>
<td>Discrete Structure [GER]</td>
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<td>Digital Logic and Design [CC]</td>
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<td>Digital Logic and Design Lab</td>
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<tr>
<td>MTH224</td>
<td>Multivariable Calculus [MSC]</td>
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**Semester Total Credit Hours**  
17 (15+2)
### Semester III

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<tr>
<td>CSC215</td>
<td>Data Structures and Algorithms [CC]</td>
<td>3+0</td>
<td>CSC213</td>
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<tr>
<td>CSC215</td>
<td>Data Structures and Algorithms Lab</td>
<td>0+1</td>
<td></td>
</tr>
<tr>
<td>COM202</td>
<td>Business and Professional Speech [GER]</td>
<td>3+0</td>
<td>COM107</td>
</tr>
<tr>
<td>CSC211</td>
<td>Comp. Organization &amp; Assembly Lang. [CC]</td>
<td>3+0</td>
<td></td>
</tr>
<tr>
<td>CSC211</td>
<td>Comp. Organization &amp; Assembly Lang. Lab</td>
<td>0+1</td>
<td></td>
</tr>
<tr>
<td>MTH204</td>
<td>Linear Algebra [MSC]</td>
<td>3+0</td>
<td>MTH107</td>
</tr>
<tr>
<td>REL101</td>
<td>Islamic Studies [GER]</td>
<td>3+0</td>
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</table>

**Semester Total Credit Hours** 17 (15+2)

### Semester IV

<table>
<thead>
<tr>
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<th>Course Name</th>
<th>Credit Hours</th>
<th>Pre-requisite</th>
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<tbody>
<tr>
<td>CSC217</td>
<td>Introduction to Database Systems [CC]</td>
<td>3+0</td>
<td>CSC215</td>
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<tr>
<td>BDS102</td>
<td>Introduction to Data Science [DC]</td>
<td>2+0</td>
<td></td>
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<tr>
<td>STA203</td>
<td>Probability Theory and Statistics [MSC]</td>
<td>3+0</td>
<td></td>
</tr>
<tr>
<td>CSC313</td>
<td>Operating Systems [CC]</td>
<td>3+0</td>
<td>CSC215</td>
</tr>
<tr>
<td>CSC315</td>
<td>Design &amp; Analysis of Algorithms [CC]</td>
<td>3+0</td>
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**Semester Total Credit Hours** 17 (14+3)

### Semester V

<table>
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<td>BDS350</td>
<td>Advanced Statistics [DC]</td>
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<td>Advanced Statistics Lab</td>
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<tr>
<td>CSC319</td>
<td>Computer Networks [CC]</td>
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<tr>
<td>MAN306</td>
<td>Introduction to Management &amp; Organizational Behavior [GER]</td>
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<tr>
<td>CSC219</td>
<td>Professional Practices [GER]</td>
<td>2+0</td>
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<tr>
<td>BDS301</td>
<td>Data Mining [DC]</td>
<td>3+0</td>
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<td>BDS301</td>
<td>Data Mining Lab</td>
<td>0+1</td>
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<tr>
<td>CSC413</td>
<td>Artificial Intelligence [CC]</td>
<td>3+0</td>
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<tr>
<td>CSC413</td>
<td>Artificial Intelligence Lab</td>
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**Semester Total Credit Hours** 18 (14+4)
### Semester VI

<table>
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<tr>
<td>BDSxxx</td>
<td>DS Elective 1 [DE]</td>
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<tr>
<td>CSC317</td>
<td>Introduction to Software Engineering [CC]</td>
<td>3+0</td>
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<tr>
<td>BDS401</td>
<td>Data Visualization [DC]</td>
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<tr>
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<td>Data Visualization Lab</td>
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<td>Data Warehouse and Business Intelligence [DC]</td>
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<td>Data Warehouse and Business Intelligence Lab</td>
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### Semester VII

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<td>DS Elective 3 [DE]</td>
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<tr>
<td>MKT201</td>
<td>Marketing Management [ESC]</td>
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<td>LAN10*</td>
<td>Foreign Language-I [GER]</td>
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<td>CSC418</td>
<td>Parallel and Distributed Computing [DC]</td>
<td>3+0</td>
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<tr>
<td>CSC491</td>
<td>Final Year Project I [CC]</td>
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### Semester VIII

<table>
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<td>BDSxxx</td>
<td>DS Elective 5 [DE]</td>
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<tr>
<td>BDSxxx</td>
<td>DS Elective 6 new [DE]</td>
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<tr>
<td>BDSxxx</td>
<td>DS Elective 7 new [DE]</td>
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<tr>
<td>CSC419</td>
<td>Information Security [CC]</td>
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<td>PSC301</td>
<td>Pakistan Studies [GER]</td>
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<tr>
<td>CSC492</td>
<td>Final Year Project II [CC]</td>
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**Total 138 Credit Hours**

*Lab depends on selection of elective courses by students*

### Domain Elective

<table>
<thead>
<tr>
<th>BDS201</th>
<th>Business Process Analysis</th>
<th>BDS481</th>
<th>Social Network Analysis</th>
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<tbody>
<tr>
<td>BDS404</td>
<td>Machine Learning</td>
<td>BDS482</td>
<td>Information Extraction</td>
</tr>
<tr>
<td>BDS417</td>
<td>Artificial Neural Networks</td>
<td>CSC311</td>
<td>Theory of Automata &amp; Formal Lang.</td>
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<tr>
<td>BDS420</td>
<td>Information Retrieval</td>
<td>CSC347</td>
<td>Adv. Database Management Systems</td>
</tr>
<tr>
<td>BDS422</td>
<td>Platform &amp; Architecture for Data Science</td>
<td>CSC378</td>
<td>HCI &amp; Computer Graphics</td>
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<tr>
<td>BDS424</td>
<td>Speech Processing</td>
<td>CSC473</td>
<td>Big Data Analytics</td>
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<td>BDS425</td>
<td>Text Mining</td>
<td>SEC473</td>
<td>Natural Language Processing</td>
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<td>BDS429</td>
<td>Topics in Data Science</td>
<td>SEC481</td>
<td>Cloud Computing</td>
</tr>
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</table>
The BS in Mathematics and Computational Finance is an applied Mathematics program with a well-developed application in Finance structured for the students who might be interested in Mathematics and desire for a career in Business. BS Mathematics and Computational Finance program offers a comprehensive variety of modules across mathematics, statistics, finance, and programming. The program will empower the student to cultivate expertise in creative problem-solving and logical reasoning, to analyze market forces, minimize risk and maximize profitability, which are in great demand in a wide range of career sectors.

BS in Mathematics and Computational Finance will be a 4-year degree program with two semesters in each year. It will require the completion of 138 credit hours of course work, 6 credit hours of the project approved by the college and compulsory computational finance internship of at least 6 weeks in an approved firm. Students must take a minimum load of 12 credit hours (four courses) or a maximum load of 18 credit hours (six courses) in a semester. In order to obtain a BS degree in four years, a student is required to cover twelve courses in a year. Full load of six courses can be taken each in the Fall and Spring semesters with an option of four courses in the latter and making up the shortfall in the summer session. Students must maintain a CGPA of 2.5 for the conferment of the degree.

BS Mathematics and Computational Finance students learn to:
- Learn the computational and modelling techniques used to price tradable assets such as bonds, securities, loans, energy and associated derivatives.
- Learn to generate, model, value, hedge and trade ingenious financial products.
- Acquire an analytical and strategic judgement for controlling the risk connected with complex financial transactions.
- Be equipped with the engineering-driven approaches widely used to construct and deploy the financial transactions and processes that, in their context, function as the international financial system and capital markets.
- Be provided with the educational background to pursue increasingly responsible management roles in industry.
- Be prepared to enter leadership positions in the financial industry and government where they will use their quantitative skills and creativity to provide innovative solutions and develop new or improved products and services.

Learning Outcomes for Business Analytics Students include:
1. Ability to apply knowledge of mathematics and mathematical methods to the pricing and hedging of financial derivative securities.
2. An ability to use empirical evidence to assess the validity of mathematical and financial argument. This shall involve the use of financial data and mathematical methodology, ability to interpret results and conduct appropriate mathematical analysis.
3. Ability to work effectively, both independently and as part of an interdisciplinary group.
4. A recognition of the need for and an ability to engage in lifelong learning.

Eligibility Criteria
The BS (Mathematics and Computational Finance) is a four-year program. Applicants who have successfully completed HSc with minimum 50% marks in Pre-Engineering or in General Group (with Mathematics) or A-Levels with a maximum 2 ‘C’s in three principal subjects (with Mathematics) are eligible to apply for admission.

Required Courses

<table>
<thead>
<tr>
<th>Communication</th>
<th>Economics</th>
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<tbody>
<tr>
<td>COM107 Academic English (3+0)</td>
<td>ECO101 Principles of Microeconomics (3+0)</td>
</tr>
<tr>
<td>COM202 Business and Professional Speech (3+0)</td>
<td>ECO102 Principles of Macroeconomics (3+0)</td>
</tr>
<tr>
<td>COM205 Persuasive &amp; Analytical Writing for Business Comm.</td>
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</tr>
</tbody>
</table>
Finance
FIN201  Introduction to Business Finance (3+0)
FIN202  Financial Management (3+0)
FIN503  Corporate Finance (3+0)
FIN509  Financial Derivatives (3+0)
FIN613  Financial Modeling (3+0)
FIN***  FinTech (3+0)
FIN***  Finance Elective I (3+0)
FIN***  Finance Elective II (3+0)

Language
LAN10*  Foreign Language I
*1 = Introduction to Arabic  *2 = Introduction to French
*4 = Introduction to German  *6 = Introduction to Italian
*8 = Introduction to Chinese

Religious Studies
REL101  Islamic Studies

Political Sciences
PSC301  Pakistan Studies

Statistics
STA203  Probability Theory and Statistics (3+0)
STA207  Qualitative Data Analysis (3+0)
STA301  Model and inference (3+0)
STA304  Quantitative Data Analysis (1+2)
STA306  Applied Econometrics (2+1)

Social Sciences
SSC301  History of Ideas

Internship
Internship related to Financial Mathematics

Elective Courses

Mathematics
MTH102  Calculus I (3+0)  MTH106  Calculus II (3+0)
MTH204  Linear Algebra (3+0)
MTH224  Multivariable Calculus (3+0)
MTH203  Introduction to Formal Mathematics (3+0)
MTH303  Real Analysis I (3+0)
MTH304  Real Analysis II (3+0)
MTH309  Stochastic Processes (3+0)
MTH344  Differential Equations (3+0)
MTH346  Partial Differential Equations (3+0)
MTH403  Numerical Analysis (3+0)
MTH310  Discrete Time Finance (3+0)
MTH410  Continuous Time Finance (3+0)
MTH***  Mathematics Elective I (3+0)
MTH***  Mathematics Elective II (3+0)

Finance and Risk Management
FRM201  Principles of Risk Management (3+0)
FRM401  Advance Financial Risk Management (3+0)

Programming
CSC113  Programming Fundamentals
CSC213  Object Oriented Programming
CSC215  Data Structure and Algorithms

Natural Science
PHY111  Applied Physics
SSC202  Environmental Studies

Project
Computational Finance Project I (0+3)
Computational Finance Project II (0+3)

Mathematics
MTH430  Operations Research (3+0)
MTH439  Introduction to Dynamical Systems
MTH437  Functional Analysis
MTH406  Finite Element Methods
MTH456  Statistical Machine Learning
MTH457  Deep Learning
MTH440  Advanced Methods for Data Analysis
MTH452  Convex and Non-Linear Analysis
MTH451  Number Theory

Finance
FIN403  Islamic Banking and Finance
FIN506  Investment Banking and Security Analysis
FIN507  Portfolio Management
FIN511  Analysis of Financial Statement
FIN512  Money and Capital Market
FIN515  Foreign Trade and Banking
# Course Structure

## Semester One (19 Credit Hours)
- Islamic studies (3+0) [Pre req NA]
- Academic English (3+0) [Pre req NA]
- Principles of Microeconomics (3+0) [Pre req NA]
- Calculus I (3+0) [Pre req NA]
- Applied Physics (3+0) [Pre req NA]
- Programming Fundamentals (3+1) [Pre req NA]

## Semester Two (19 Credit Hours)
- Probability Theory and Statistics (3+0) [Pre req MTH102]
- Persuasive & Analytical Writing for Business Communication (3+0) [Pre req COM107]
- Principles of Macroeconomics (3+0) [Pre req NA]
- Calculus II (3+0) [Pre req MTH102]
- Environmental Studies (3+0) [Pre req NA]
- Object Oriented Programming (3+1) [Pre req CSS113]

## Semester Three (19 Credit Hours)
- Introduction to Business Finance (3+0) [Pre req ACC201]
- Introduction to Formal Mathematics (3+0) [Pre req NA]
- Model and Inference (3+0) [Pre req STA203] Multivariable Calculus (3+0) [Pre req MTH106]
- Business and Professional Speech (3+0) [Pre req COM107]
- Data Structure and Algorithms (3+1) [Pre Req CSC213]

## Semester Four (18 Credit Hours)
- Financial Management (3+0) [Pre req MCF201]
- Real Analysis I (3+0) [Pre req MTH203]
- Qualitative Data Analysis (3+0) [Pre req STA301]
- Linear Algebra (3+0) [Pre req NA]
- Foreign Language I (3+0) [Pre req NA]
- Pakistan Studies (3+0) [Pre req NA]

## Semester Five (18 Credit Hours)
- Principal of Risk Management (3+0)
- Real Analysis II (3+0) [Pre req MTH301]
- Quantitative Data Analysis (1+2) [Pre req STA301]
- Applied Econometrics (2+1) [Pre req STA301]
- Introduction to Differential Equations (3+0) [Pre req MTH224]
- Financial Modeling (3+0) [Pre req MCF202]

## Semester Six (18 Credit Hours)
- Numerical Analysis (3+0) [Pre req MTH105, MTH204 & MTH344]
- Probability and Measure Theory (3+0) [Pre req MTH304]
- Stochastic Process (3+0) [Pre req 304]
- Corporate Finance (3+0) [Pre req MCF202]
- Financial Derivatives (3+0) [Pre req MCF202]
- History of Ideas (3+0) [Pre req NA]

## Semester Seven (18 Credit Hours)
- Advance Financial Risk Management (3+0) [Pre req FRM201]
- Discrete Time Finance (3+0) [Pre req STA309]
- Finance Elective I (3+0) Mathematics Elective I (3+0)
- Partial Differential Equations (3+0) [Pre req MTH344]
- Computational Finance Project I (0+3)

## Semester Eight (15 Credit Hours)
- Fintech (3+0) [Pre req MCF201 & MCF202]
- Continuous Time Finance (3+0) [Pre req MTH310]
- Finance Elective II (3+0)
- Mathematics Elective II (3+0)
- Computational Finance Project II (0+3)
This program is devised to gear students in acquiring skills to undertake the issues of designing and developing reliable software with a clear understanding of problem-solving techniques, software quality, software testing, and management practices.

The graduates of this program would have the confidence and skills to become technology entrepreneurs. They may also join careers as software engineers and may move on to become analysts, designers, and architects in software houses or freelance solution providers. The program is designed to satisfy general requirements and meets the criteria adopted by the Higher Education Commission (HEC) of Pakistan. The aim is to prepare students to serve the productive needs of Pakistan’s software industry. It requires completion of 138 credit hours of coursework. Students are required to take 44 courses (including Final Year Project and relevant labs) & internship, approved by the institute, in order to complete their degree requirements. Students must maintain a CGPA of 2.5 for the conferment of the degree.

Students from pre-medical background are required to additionally complete the following two mathematics courses:
- MTH011 Basic College Mathematics
- MTH012 Intermediate College Mathematics

Eligibility Criteria: The eligibility criteria for admission into BS Software Engineering is given on Page No. 156.

BS Software Engineering students learn:
- To enable the graduates to apply knowledge gained during the program effectively and efficiently in software industry
- To contribute, manage and lead, computer science and software development teams
- To actively pursue lifelong learning and innovation skills
- To equip graduates with latest software tools and techniques
- To groom graduates to occupy senior technical and managerial positions
- To successfully bring innovation in IT technology as a whole

Learning Outcomes for BS Software Engineering Students include:
1. Equip themselves with latest software tools
2. Successfully bring innovation in Information technology
3. An ability to function effectively on teams to accomplish a common goal
4. An understanding of professional, legal, security and social issues of it
5. An ability to communicate effectively with a range of audiences
6. An ability to develop software systems of varying complexity
7. Will develop logical thinking process

Career Path:
1. Web Developer
2. Software Engineer / Developer
3. System Analyst
4. Front End Developer
5. Software Project Manager
6. Software-Trainee Engineer
7. SQL Developer
8. Software QA Engineer
9. Data Engineer
10. Technical Writer

Prospective Employers:
1. Cyber Internet Services
2. Internet Service Providers
3. Banking Sector
4. Real Estate Industry
5. Hospital Industry
6. Software Houses
7. Communication Industry
8. Transportation Sector
9. Government & Private Sector
## BS Software Engineering: Course Distribution

### Area
<table>
<thead>
<tr>
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<th>Courses</th>
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<tbody>
<tr>
<td>Computing Core [CC]</td>
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### Program Structure (Semester Wise)

#### Semester I

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<tbody>
<tr>
<td>CSC111</td>
<td>Introduction to Information &amp; Comm. Technology [GER]</td>
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<td>CSC111</td>
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<td>CSC113</td>
<td>Programming Fundamentals [CC]</td>
<td>3+0</td>
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<td>Programming Fundamentals Lab</td>
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<tr>
<td>COM107</td>
<td>Academic English [GER]</td>
<td>3+0</td>
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<tr>
<td>PHY111</td>
<td>Applied Physics [GER]</td>
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<td>Applied Physics Lab</td>
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<tr>
<td>MTH107</td>
<td>Calculus and Analytical Geometry [GER]</td>
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**Semester Total Credit Hours**  
16 (13+3)

#### Semester II

<table>
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<th>Course Code</th>
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<td>CSC213</td>
<td>Object Oriented Programming [CC]</td>
<td>3+0</td>
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<td>COM205</td>
<td>Persuasive &amp; Analytical Writing for Business Communication [MSC]</td>
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<td>Discrete Structure [GER]</td>
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<td>CSC115</td>
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<td>MTH224</td>
<td>Multivariable Calculus [MSC]</td>
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**Semester Total Credit Hours**  
17 (15+2)

#### Semester III

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<tbody>
<tr>
<td>CSC215</td>
<td>Data Structures and Algorithms [CC]</td>
<td>3+0</td>
<td>CSC213</td>
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<tr>
<td>CSC215</td>
<td>Data Structures and Algorithms Lab</td>
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<tr>
<td>COM202</td>
<td>Business and Professional Speech [GER]</td>
<td>3+0</td>
<td>COM107</td>
</tr>
<tr>
<td>CSC211</td>
<td>Comp. Organization &amp; Assembly Lang. [CC]</td>
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<td>Comp. Organization &amp; Assembly Lang. Lab</td>
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<tr>
<td>MTH204</td>
<td>Linear Algebra [MSC]</td>
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<tr>
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<td>Islamic Studies [GER]</td>
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**Semester Total Credit Hours**  
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### Semester IV

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<td>CSC217</td>
<td>Introduction to Database Systems [CC]</td>
<td>3+0</td>
<td>CSC215</td>
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<tr>
<td></td>
<td>Introduction to Database Systems Lab</td>
<td>0+1</td>
<td></td>
</tr>
<tr>
<td>CSC317</td>
<td>Introduction to Software Engineering [CC]</td>
<td>3+0</td>
<td>-</td>
</tr>
<tr>
<td>STA203</td>
<td>Probability Theory and Statistics [MSC]</td>
<td>3+0</td>
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<tr>
<td>CSC313</td>
<td>Operating Systems [CC]</td>
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<tr>
<td>CSC315</td>
<td>Design &amp; Analysis of Algorithms [CC]</td>
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### Semester V

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<th>Credit Hours</th>
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<tbody>
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<td>SCE311</td>
<td>Software Construction and Development [DC]</td>
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<td>STA203</td>
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<td>Software Construction and Development Lab</td>
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<tr>
<td>CSC319</td>
<td>Computer Networks [CC]</td>
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<td>Computer Networks Lab</td>
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<td>MAN306</td>
<td>Introduction to Management &amp; Organizational Behavior [GER]</td>
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<td>CSC219</td>
<td>Professional Practices [GER]</td>
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<tr>
<td>SEC211</td>
<td>Software Design &amp; Architecture [DC]</td>
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### Semester VI

<table>
<thead>
<tr>
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<th>Credit Hours</th>
<th>Pre-requisite</th>
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<tr>
<td>SECxxx</td>
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<td>Software Quality Engineering Lab</td>
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<tr>
<td>MKT201</td>
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<tr>
<td>CSC380</td>
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<td><strong>Semester Total Credit Hours</strong></td>
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## Semester VII

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<tr>
<td>SECxxx</td>
<td>SE Elective 4 [DE]</td>
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<tr>
<td>CSC418</td>
<td>Parallel and Distributed Computing [DC]</td>
<td>3+0</td>
<td>CSC313</td>
</tr>
<tr>
<td>LAN10*</td>
<td>Foreign Language-I [GER]</td>
<td>3+0</td>
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<tr>
<td>SEC323</td>
<td>Software Project Management [DC]</td>
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<td>Software Project Management Lab</td>
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<tr>
<td>CSC491</td>
<td>Final Year Project I [CC]</td>
<td>0+3</td>
<td>CSC317</td>
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**Semester Total Credit Hours: 18 (15+3*)**

## Semester VIII

<table>
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<tr>
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<td>SEC xxx</td>
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<td>SEC xxx</td>
<td>SE Elective 7 new [DE]</td>
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<td>CSC419</td>
<td>Information Security [CC]</td>
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<tr>
<td>PSC301</td>
<td>Pakistan Studies [GER]</td>
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<tr>
<td>CSC492</td>
<td>Final Year Project II [CC]</td>
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</table>

**Semester Total Credit Hours: 18 (15+3*)**

**Total 138 Credit Hours**

*Lab depends on selection of elective courses by students*

### Domain Elective

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Pre-requisite</th>
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<tbody>
<tr>
<td>BDS102 Intro. To Data Science</td>
<td>SEC472 Semantic Web</td>
<td>SEC473 Natural Language Processing</td>
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<tr>
<td>CSC311 Theory of Automata &amp; Formal Languages</td>
<td>SEC473 Natural Language Processing</td>
<td></td>
</tr>
<tr>
<td>CSC347 Advanced Database Management</td>
<td>SEC474 Real-Time Systems</td>
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<tr>
<td>CSC373 Web Engineering</td>
<td>SEC481 Cloud Computing</td>
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</tr>
<tr>
<td>CSC378 HCI &amp; Computer Graphics</td>
<td>SEC482 Big Data Analytics</td>
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<tr>
<td>CSC379 Computer Architecture</td>
<td>SEC483 Multimedia Communication</td>
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<tr>
<td>CSC473 Enterprise Systems</td>
<td>SEC488 Software Verification and Validation</td>
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</tr>
<tr>
<td>SEC462 Visual Programming</td>
<td>SEC489 Object Oriented Analysis &amp; Design</td>
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</tr>
<tr>
<td>SEC463 E-Commerce</td>
<td>SEC491 Management Information Systems</td>
<td></td>
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<tr>
<td>SEC464 Systems Programming</td>
<td>SEC493 Information Systems Audit</td>
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<tr>
<td>SEC465 Game Application Development</td>
<td>SEC494 Global Software Development</td>
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<tr>
<td>SEC466 Mobile Application Development</td>
<td>SEC499 Topics in Software Engineering</td>
<td></td>
</tr>
<tr>
<td>SEC471 Agent Based Software Engineering</td>
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</tbody>
</table>
BS STATISTICS & BUSINESS ANALYTICS

BS (Statistics and Business Analytics) is designed to give you substantial hands-on digital skills, teaching you statistical theory and data analysis techniques with the perspective of business analytics. You will learn how to use these skills to solve business problems, applying them to specific areas in marketing, finance, and economics. In addition, you will learn international and sustainable business management from both theoretical and experiential viewpoints. The latest developments in Business Analytics’ technology are playing a crucial role in automating the analysis process. It is also enabling both data analysis experts and business users to interpret data more easily and quickly. Business analytics are key differentiators, which provide a competitive edge to companies across industries.

BS (Statistics and Business Analytics) is a four-year degree program. It requires completion of 141 credit hours of course work, 6 credit hours of the project approved by the college and compulsory internship of at least six weeks in an organization approved by the Institute. A major component of this degree is the final year two-semester project that teaches students how to apply statistical and computational principles to solve large-scale, real-world data analysis problems.

Statistics and Business Analytics students learn to:
- Apply knowledge of Computing, Mathematics, and Statistics and integrate it with the business that is appropriate for the program.
- Get a thorough understanding of tools and methods and enhance their ability to do in-depth research.
- Analyze the data pertinent to business problems to explore solutions.
- Acquire the knowledge and skills to get a greater insight regarding the day-to-day challenges that businesses face.
- Use knowledge of data analytics to apply in the important branches of business management such as Marketing, Human Resource Management, Finance and Risk Management, Supply Chain Management.
- Change the world for the better – in areas like healthcare, transportation, and education, etc.

Learning Outcomes for Statistics and Business Analytics Students include:
1. Design, implement and evaluate a computer-based system, process, component or program to meet desired needs.
2. Communicate effectively with different audiences.
3. Improve business-related decision-making skills by exploring and mining data from various aspects.

Career Path
1. Marketing Analyst
2. Financial Analyst
3. CRM Analyst
4. Supply Chain Analyst
5. Funds and Security Analyst
6. Research Scientist

Prospective Firms/Companies
1. Banking Sector
2. Real Estate Sector
3. Business Industry
4. Communication Industry
5. Transportation & Supply Chain Sector
6. Government and Private Sector

Eligibility Criteria
The BS (Statistics and Business Analytics) is a four-year program. Applicants who have successfully completed H.Sc with minimum 50% marks in Science Group (Pre-Engineering) or in General Group (with Mathematics/Statistics/Computer Science) or A-Levels with a maximum 2 ‘Cs in three principal subjects (with Mathematics/Statistics/Computer Science) are eligible to apply for admission.
Required Courses

Accounting
ACC101 Introduction to Financial Accounting
ACC201 Intermediate Financial Accounting

Finance
FIN201 Introduction to Business Finance
FIN202 Financial Management

Management
MAN101 Principles of Management
MAN302 Organizational Behavior
MAN303 Production and Operations Management

Communication
COM107 Academic English
COM202 Business and Professional Speech
COM205 Persuasive & Analytical Writing for Bus. Communication

Marketing
MKT301 Principles of Marketing
MKT302 Marketing Management
MKT404 Methods in Business Research

Political Sciences
PSC301 Pakistan Studies

Social Sciences
SSC301 History of Ideas

Language
LAN 10* Foreign Language I
*1 = Introduction to Arabic
*2 = Introduction to French
*4 = Introduction to German
*6 = Introduction to Italian
*8 = Introduction to Chinese

Elective Courses

Statistics
STA315 Design of Experiment II
STA316 Operations Research I
STA317 Operations Research II
STA309 Loss Models I
STA310 Loss Models II
STA319 Statistical Quality Control
FRM201 Principles of Risk Management

Economics
ECOXXX Introduction Micro and Macroeconomics
ECO103 Intermediate Micro and Macroeconomics
ECO304 Introduction to Econometrics
ECO402 Pakistan Economic Policy

Management Information Systems
MIS401 Computer Applications

Human Resource Management
HRM301 Human Resource Management

Religious Studies
REL101 Islamic Studies

Mathematics
MTH100 Mathematics for Business MTH104 Calculus I
MTH105 Calculus II
MTH204 Linear Algebra
MTH403 Numerical Analysis

Statistics
STA203 Probability Theory and Statistics I
STA205 Probability Theory and Statistics II
STA210 Sampling Theory
STA301 Model and Inferences
STA302 Methods of Data Analysis
STA305 Applied Regression Analysis
STA307 Decision Theory
STA311 Design of Experiment I
STA313 Applied Multivariate Analysis
STA303 Time Series Analysis and Forecasting

Natural Science
PHY111 Applied Physics
SSC202 Environmental studies

Final Year Project
STA491 Final Year Project I
STA492 Final Year Project II
## Course Structure

### Semester One (18 Credit Hours)
- Islamic Studies (3+0) [Pre Req. NA]
- Mathematics for Business (3+0) [Pre Req. NA]
- Principles of Management (3+0) [Pre Req. NA]
- Introduction to Micro and Macroeconomics (3+0) [Pre Req. ECO102]
- Probability Theory and Statistics I (3+0) [Pre Req. NA]
- Academic English (3+0) [Pre Req. NA]

### Semester Two (18 Credit Hours)
- Persuasive and Analytical Writing for Bus. Comm. (3+0) [Pre Req. COM107]
- Pakistan Studies (3+0) [Pre Req. NA] Calculus I (3+0) [Pre Req. NA]
- Probability Theory and Statistics II (3+0) [Pre Req. STA203]
- Principles of Marketing (3+0) [Pre Req. NA]
- Foreign Language I [Pre Req. NA]

### Semester Three (18 Credit Hours)
- Computer Applications (2+1) [Pre Req. NA]
- Intermediate Micro and Macroeconomics (3+0) [Pre Req. ECOXXX]
- Calculus II (3+0) [Pre Req. MTH104]
- Introduction to Financial Accounting (3+0) [Pre Req. NA]
- Model and Inferences (3+0) [Pre Req. STA205]
- Business and Professional Speech (3+0) [Pre Req. COM107]

### Semester Four (18 Credit Hours)
- Linear Algebra (3+0) [Pre Req. NA]
- Organizational Behavior (3+0) [Pre Req. MAN101]
- Intermediate Financial Accounting (3+0) [Pre Req. ACC101]
- Marketing Management (3+0) [Pre Req. MKT301]
- Methods of Data Analysis (2+1) [Pre Req. STA301]
- Applied Physics (3+0) [Pre Req. NA]

### Semester Five (18 Credit Hours)
- Human Resource Management (3+0) [Pre Req. MAN302]
- Introduction to Econometrics (2+1) [Pre Req. ECO102]
- Introduction to Business Finance (3+0) [Pre Req. NA]
- Methods in Business Research (3+0) [Pre Req. MKT302]
- Applied Regression Analysis (2+1) [Pre Req. STA302]
- Environmental studies (3+0) [Pre Req. NA]

### Semester Six (18 Credit Hours)
- Financial Management (3+0) [Pre Req. FIN201]
- Sampling Theory (2+1) [Pre Req. STA302]
- Numerical Analysis (3+0) [Pre Req. MTH204]
- Elective I (STATISTICS) (3+0) [Pre Req. NA]
- Pakistan Economic Policy (3+0) [Pre Req. ECO103]
- History of Ideas

### Semester Seven (18 Credit Hours)
- Decision Theory (3+0) [Pre Req. STA301]
- Design of Experiment I (2+1) [Pre Req. STA305]
- Production and Operations Management (3+0) [Pre Req. NA]
- Elective I (BUSINESS ANALYTICS) (3+0) [Pre Req. NA]
- Elective II (STATISTICS) (3+0) [Pre Req. NA]
- Final Year Project I (0+3) [Pre Req. MKT404, STA305]

### Semester Eight (15 Credit Hours)
- Applied Multivariate Analysis (2+1)
- Time Series Analysis and Forecasting (2+1) [Pre Req. STA305]
- Elective III (STATISTICS) (3+0) [Pre Req. NA]
- Elective II (BUSINESS ANALYTICS) (3+0) [Pre Req. NA]
- Final Year Project II (0+3) [Pre Req. STA491]
The Master of Science program in Computer Science provides intensive preparation in the concepts and techniques related to the design, programming, and application of computing systems. The program requires students to take a broad spectrum of courses and simultaneously allows for emphasis on the desired areas of specialization. The program is based on HEC guidelines. The program comprises two years of study over at least four semesters. It requires the completion of 33 credit hours of course work. Students are required to complete 9 courses and a thesis of an equivalent of 6 credit hours equivalent of two courses to fulfill degree requirements. Students must maintain a CGPA of 3.0 for the conferment of the degree.

MS Computer Science students learn to:

- To impart a breadth of knowledge in core areas of Computer Science which include theoretical foundations and fundamentals of systems.
- Instill opportunities for a research-oriented program, in preparation for the PhD program in computer science.
- Link theory with practice and demonstrate analytical and proper decision-making abilities while developing computer systems or solutions.
- Use their knowledge and critical independent thinking skills while working independently and/or in team environments.

Learning Outcomes for MS Computer Science students include:

1. Acquisition of hands-on experience with relevant software tools, languages, data models, and environments for data processing.
2. Ability to communicate results of analysis effectively (visually and verbally) to a broad audience in the fields of biology, environment, finance and risk management, data science, business management, and other disciplines.
3. An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution.
4. An ability to design, implement and evaluate a computer-based system, process, component, or program to meet desired needs.
5. Be well-prepared for research and development in Computer Science in industry or academia.
6. Deal with the challenges of the IT industry with global changes.
7. Develop logical thinking process.

Career Path:

1. Application Analyst
2. Applications Developer
3. Data Analyst
4. UX Designer
5. IT Consultant
6. Cybersecurity Consultant
7. Information Systems Manager
8. Multimedia Programmer
9. Systems Analyst
10. Games Developer

Prospective Employers:

1. Cyber Internet Services
2. Internet Service Providers
3. Banking Sectors
4. Industrial Sectors
5. Software Houses
6. Real Estate Sector
7. Communication & Transportaion Sector
8. Colleges & Universities
9. Govt. & Private Sector

Eligibility

BS(CS) / MCS / BE in Computer Engineering candidates are required to fulfill the requirement as proposed by the Department Board of Studies. Minimum CGPA of 2.5 (on a scale of 4.0). MS (Computer Science) program consists of two groups of courses, core and elective. The following core courses are recommended to be completed before entering the MS (CS) program.

1. Analysis of Algorithms
2. Assembly Lang. / Computer Architecture
3. Computer Networks
4. Computer Programming
5. Data Structures
6. Database Systems
7. Operating Systems
8. Software Engineering
9. Theory of Automata

Eligibility

BS(CS) / MCS / BE in Computer Engineering candidates are required to fulfill the requirement as proposed by the Department Board of Studies. Minimum CGPA of 2.5 (on a scale of 4.0). MS (Computer Science) program consists of two groups of courses, core and elective. The following core courses are recommended to be completed before entering the MS (CS) program.
A student selected for admission having a deficiency in the above-stated courses may be required to study a maximum of FOUR courses, which must be passed in the first two semesters. A student cannot register in MS courses unless all specified deficiency courses have been passed.

Program Requirements
MS requires completion of course work and dissertation/thesis. The minimum duration is two years and the maximum is four years:

- MS course work requirements consist of nine graduate-level courses (27 credit hours)
- On completion of the dissertation/thesis, the student is awarded 6 credits

An MS student must additionally complete the following requirements:
- MS proposal/synopsis development
- MS proposal/synopsis defense
- BASR approval of MS proposal/synopsis
- Continuous enrollment in supervised research courses for meeting the full-time residency requirements
- Completion of MS dissertation/thesis
- Selection of external evaluators by BASR
- Evaluation of MS dissertation by two external faculty members as per HEC criteria
- Dissertation/thesis finalization
- Open defense of MS dissertation
- Any other HEC requirement
- Final dissertation/thesis submission to BASR

Core Courses
CSC540 Research Methodology
CSC543 Advanced Computer Architecture
CSC548 Advanced Analysis of Algorithm
CSC547 Advanced Operating Systems
CSC549 Theory of Programming Languages
CSC591 MS Thesis-I
CSC592 MS Thesis-II

Elective Courses
CSC561 Advanced Software Engineering
CSC563 Software Quality Assurance
CSC565 Software Testing Strategies
CSC572 Data Warehousing
CSC574 Distributed Systems
CSC578 Communication and Information Policy
CSC582 Pattern Recognition
CSC584 Artificial Intelligence
CSC586 Deep Learning
CSC562 Object-Oriented Software Engineering
CSC564 Software Requirement Engineering
CSC571 Advanced Database Management Systems
CSC573 Data Mining
CSC575 Parallel and Distributed Algorithms
CSC581 Neural Networks
CSC583 Fuzzy Systems
CSC585 Machine Learning

Course Structure

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<thead>
<tr>
<th>Semester One</th>
<th>Semester Two</th>
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<tr>
<td>Research Methodology (3+0)</td>
<td>Advanced Operating Systems (3+0)</td>
</tr>
<tr>
<td>Advanced Computer Architecture (3+0)</td>
<td>Theory of Programming Languages (3+0)</td>
</tr>
<tr>
<td>Advanced Analysis of Algorithm (3+0)</td>
<td>Elective I (3+0)</td>
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<table>
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<tr>
<th>Semester Three</th>
<th>Semester Four</th>
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<tbody>
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<td>Elective II (3+0)</td>
<td>Elective IV (3+0)</td>
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<td>Elective III (3+0)</td>
<td>MS Thesis-II (0+3)</td>
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<tr>
<td>MS Thesis-I (0+3)</td>
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MS MATHEMATICS AND SCIENTIFIC COMPUTING

The MS program in Mathematics & Scientific Computing develops rigorous foundational mathematical tools that help in careers as researchers and solution providers.

The MS program in Mathematics & Scientific Computing prepares students for careers in research, applications, and teaching. Students choose courses from two areas of concentration for their course work: Mathematics and Computations. Students are required to qualify successfully for nine courses (5 compulsory and 4 electives) each of 3 credit hours’ duration. On successful completion of MS, course work students will be allowed to work on a 6 credit hour thesis on a subject of their interest depending on the availability of the faculty. The program comprises two years of study over at least four semesters. It requires completion of 33 credit hours of course work. Students must maintain a CGPA of 3.0 for the conferment of the degree.

MS Mathematics & Scientific Computing students learn to:
• Develop a thorough understanding of mathematical methods before going to apply analytical skills to solve real-life problems
• Apply rigorous mathematical and computational skills used to handle problems to get meaningful results
• Establish and understand a connection between the techniques of mathematical analysis and scientific computing and their link with the real-life problems

Learning Outcomes for MS Mathematics & Scientific Computing students include:
1. Use knowledge to apply mathematical and scientific computing techniques and algorithms to real-life problems to extract meaningful insights
2. Acquisition of hands-on experience with relevant software tools, languages, data models, and environments for data processing
3. Ability to communicate results of analysis effectively (visually and verbally) to a broad audience in the fields of biology, environment, finance and risk management, data science, business management, and other disciplines

Eligibility
16 Years of education in Computer Science, Engineering, Mathematics, Statistics or any other relevant field. Minimum CGPA of 2.5 (on a scale of 4.0)

Program Requirements
MS requires completion of course work and dissertation/thesis. Minimum duration is two years and the maximum is four years:
• MS course work requirements consist of nine graduate-level courses (27 credit hours)
• On completion of the dissertation/thesis, the student is awarded 6 credits

A MS student must additionally complete the following requirements:
• MS proposal/synopsis development
• MS proposal/synopsis defense
• BASR approval of MS proposal/synopsis
• Continuous enrollment in supervised research courses for meeting the full-time residency requirements
• Completion of MS dissertation/thesis
• Selection of external evaluators by BASR
• Evaluation of MS dissertation by two external faculty members as per HEC criteria
• Dissertation/thesis finalization
• Open defense of MS dissertation
• Any other HEC requirement
• Final dissertation/thesis submission to BASR
Required Courses

Compulsory Courses (15 credit hours)
MTS609  Research Methodology
MTS616  Advanced Real Analysis
MTS617  Advanced Numerical Analysis
MTS618  Statistical Modeling and Computing
MTS638  Advanced Topics in Algebra

Elective Courses

Mathematics Concentration* (6 credit hours)
MTS612  Numerical Methods for ODEs and PDEs
MTS615  Dynamical System
MTS634  Advanced Numerical Linear Algebra
MTS644  Computational Fluid Dynamics
MTS646  Financial Mathematics
MTS654  Advance Functional Analysis
MTS663  Numerical Computing and Optimization
MTS664  Special Topics in Mathematics
* or any other elective subjects approved in BoS and published in previous Catalogues.

Computer Concentration* (6 credit hours)
MTS622  Fundamental of Algorithms
MTS635  Information Retrieval and Data Mining
MTS655  Special Topics in Computing
MTS656  Advance design analysis and Algorithm
MTS657  Machine Learning
*or any other elective subjects approved in BoS and published in previous Catalogues.

Thesis
MTS691  Thesis I
MTS692  Thesis II

Course Structure

<table>
<thead>
<tr>
<th>Semester One (9 credit hours)</th>
<th>Semester Two (9 credit hours)</th>
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<tbody>
<tr>
<td>Research Methodology</td>
<td>Statistical Modeling &amp; Computing</td>
</tr>
<tr>
<td>Advanced Numerical Analysis</td>
<td>Advanced Topics in Algebra</td>
</tr>
<tr>
<td>Advanced Real Analysis</td>
<td>Mathematics Concentration I</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester Three (9 credit hours)</th>
<th>Semester Four (6 credit hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics Concentration II</td>
<td>Computation Concentration II</td>
</tr>
<tr>
<td>Computation Concentration I</td>
<td>Thesis II</td>
</tr>
<tr>
<td>Thesis I</td>
<td></td>
</tr>
</tbody>
</table>
The MS program in Statistics & Scientific Computing develops rigorous foundational mathematical and statistical tools that help in careers as researchers, and solution providers. It prepares students for careers in research, applications, and teaching. Students choose courses from two areas of concentration for their course work: Statistics and Computations. Students are required to qualify successfully for nine courses (five compulsory and four electives) each of 3 credit hours duration. On successful completion of MS course work students will be allowed to work on a 6 credit hour thesis on a subject of their interest depending on the availability of the faculty. The program comprises two years of study over at least four semesters. It requires completion of 33 credit hours (27 credit hours of course work and 06 credit hours of the dissertation/thesis). Students must maintain a CGPA of 3.0 for the conferment of the degree.

MS Statistics & Scientific Computing students learn to:
- Develop a thorough understanding of statistical methodology before going to apply statistical skills to solve real-life problems
- Apply rigorous statistical techniques used to handle data to get meaningful results
- Select and transform data to increase usefulness for solving particular problems
- Create information visualizations for data exploration and presentation
- Establish and understand a connection between the techniques of data analysis and scientific computing and their link with the real-life data

Learning Outcomes for Data Science students include:
1. Knowledge of how to apply statistical and scientific computing techniques and algorithms to real-life data sets to extract meaningful insights.
2. Acquisition of hands-on experience with relevant software tools, languages, data models, and environments for data processing.
3. Ability to communicate results of analysis effectively (visually and verbally) to a broad audience in the fields of biology, environment, finance and risk management, data science, business management, and other disciplines.

Eligibility
16 Years of education in Computer Science, Engineering, Mathematics, Statistics or any other relevant field. Minimum CGPA of 2.5 (on a scale of 4.0).

Program Requirements
MS requires completion of course work and dissertation/thesis. Minimum duration is two years and the maximum is 4 years:
- MS course work requirements consist of nine graduate-level courses (27 credit hours)
- On completion of the dissertation/thesis, the student is awarded 6 credits

A MS student must additionally complete the following requirements:
- MS proposal/synopsis development
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- Selection of external evaluators by BASR
- Evaluation of MS dissertation by two external faculty members as per HEC criteria
- Dissertation/thesis finalization
- Open defense of MS dissertation
- Any other HEC requirement
- Final dissertation/thesis submission to BASR
Required Courses

Compulsory Courses (15 credit hours)
MSS609 Research Methodology
MSS611 Advanced Statistical Inference
MSS614 Mathematical Statistics
MSS617 Advanced Numerical Computing
MSS618 Statistical Modeling & Computing

Elective Courses

Statistics Concentration (6 credit hours)
MSS647 Advanced Design of Experiments
MSS648 Time Series Analysis
MSS649 Stochastic Processes
MSS650 Applied Regression Models
MSS651 Theory & Practice of Forecasting
MSS652 Statistical Quality Control
MSSXXX Survey Sampling

Computer Concentration (6 credit hours)
MSS622 Fundamental of Algorithms
MSS635 Information Retrieval & Data Mining
MSS645 Decision Theory
MSS657 Machine Learning
MSS658 Pattern Recognition
MSS661 Simulation & Modeling
MSS663 Artificial Intelligence

Thesis
MSS691 Thesis I
MSS692 Thesis II

Course Structure

<table>
<thead>
<tr>
<th>Semester One</th>
<th>Semester Two</th>
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<tr>
<td>Research Methodology</td>
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</tr>
<tr>
<td>Mathematical Statistics</td>
<td>Advanced Statistical Inference</td>
</tr>
<tr>
<td>Advanced Numerical Computing</td>
<td>Statistics Concentration I</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester Three</th>
<th>Semester Four</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statistics Concentration II</td>
<td>Computation Concentration II</td>
</tr>
<tr>
<td>Computation Concentration I</td>
<td>Thesis I</td>
</tr>
<tr>
<td>Thesis I</td>
<td>Thesis II</td>
</tr>
</tbody>
</table>
PhD (COMPUTER SCIENCE)
PhD (STATISTICS & SCIENTIFIC COMPUTING)

PhD programs will connect knowledge of three disciplines mathematics, statistics and computer science to policy-relevant decision-making in business and government. The program aims to train researchers to contribute to theory, develop inventive and useful models and methods, and conduct applied scientific investigations. Although individual researchers will vary in their emphases, the field includes all these aspects. This program emphasizes rigorous course work and high-quality research that should be published in international conferences and HEC recognized journals. Course and research work are designed as per HEC criteria.

Learning Outcomes:
1. In-depth understanding of academic theory and the preparation of high-quality research
2. Lead and manage research projects
3. Support and participate in academic, government, and industrial projects
4. Apply theories and models to solve real problems

Career Path:
1. IT Consultant
2. Data Scientists
3. Cyber-security Consultant
4. Information Systems Manager
5. Machine Learning Expert
6. Technical Writer
7. Software Development Manager
8. Security Architect
9. Educationist

Prospective Employers:
1. Cyber Internet Services
2. Internet Service Providers
3. Real Estate Sector
4. Banking Sectors
5. Hospital Sector
6. Communication & Transportation Sector
7. Colleges & Universities
8. Government & Private Sector

Eligibility
BS/ BBA/ BE / MS /ME/ MPhil or equivalent degree from HEC recognized institutions meeting the following criteria:
- A minimum CGPA of 3.00 on a scale of 4.00 in Bachelors (16 years)
- A minimum CGPA of 3.00 on a scale of 4.00 (or overall 60% marks) or equivalent in Masters (18 years)
- An interview conducted by the Institute
- Any other requirements as communicated by the HEC from time to time.

Program Requirements
PhD requires completion of course work and dissertation/thesis. In addition, each PhD scholar shall be required to publish at least one research paper based on dissertation as a first author along with his/her supervisor/co-supervisor in Clarivate Analytics Impact Factor Journal listed in Journal Citation Reports (Web of Science Group). Minimum duration is three years and the maximum is seven/ten years:

1) Masters (18 years) in CS/ SE/ IT or relevant field
   18 Credit Hours of PhD Courses plus 30 Credit Hours of PhD Thesis
2) Masters (18 years) with irrelevant field
   Maximum 12 Credit Hours of deficiency courses (from MS CS program approved by Doctoral Committee) plus 18 Credit Hours of PhD Courses plus 30 credit hours of PhD Thesis
3) Bachelors (16 years) in CS/ SE / IT or relevant field
   30/33 credit hours of courses of MS Program (instead of thesis two Independent Studies of 3 credit hours each) plus 18 Credit hours of PhD courses plus 30 credit hours of PhD thesis
4) Bachelors (16 years) with irrelevant field
   Maximum 12 credit hours of deficiency courses (from BS CS program approved by Doctoral Committee) plus 30/33 Credit Hours of courses of MS Program (instead of thesis two Independent Studies of 3 credit hours each) plus 18 credit hours of PhD Courses plus 30 credit hours of PhD Thesis
A PhD student must additionally complete the following requirements:

- Comprehensive exam
- PhD proposal/synopsis development
- PhD proposal/synopsis defense
- BASR approval of PhD proposal/synopsis
- Continuous enrollment in supervised research courses for meeting the full-time residency requirements
- Completion of PhD dissertation/thesis
- Selection of external evaluators by BASR
- Publication or an official acceptance of at least one paper in an ISI impact factor journal as a first author
- Evaluation of PhD dissertation by two foreign faculty members from developed countries as per HEC criteria
- Dissertation/thesis finalization
- Open defense of PhD dissertation
- Any other HEC requirement
- Final dissertation/thesis submission to BASR

Course Structure
Select Six courses

**PhD (Computer Science)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCS701</td>
<td>Big Data Analytics and Knowledge Discovery</td>
</tr>
<tr>
<td>PCS703</td>
<td>Natural Language Processing Information Retrieval</td>
</tr>
<tr>
<td>PCS705</td>
<td>Advance Theory of Computation</td>
</tr>
<tr>
<td>PCS707</td>
<td>Advances in Machine Learning</td>
</tr>
<tr>
<td>PCS709</td>
<td>Computational Intelligence</td>
</tr>
<tr>
<td>PCS711</td>
<td>Heuristic Search Theory &amp; Methods</td>
</tr>
<tr>
<td>PCS713</td>
<td>Advanced Neural Network</td>
</tr>
<tr>
<td>PCS715</td>
<td>Intelligent Web Technologies</td>
</tr>
<tr>
<td>PCS717</td>
<td>Parallel and Distributed Systems</td>
</tr>
<tr>
<td>PCS719</td>
<td>Formal Research Methods</td>
</tr>
<tr>
<td>PCS723</td>
<td>Computer Vision and Robotics</td>
</tr>
<tr>
<td>PCS725</td>
<td>Temporal and Spatial Database Management System</td>
</tr>
<tr>
<td>PCS731</td>
<td>Advanced Digital Signal Processing</td>
</tr>
<tr>
<td>PCS733</td>
<td>Advanced Decision Support System</td>
</tr>
<tr>
<td>PCS739</td>
<td>Advances in Simulation and Modeling</td>
</tr>
<tr>
<td>PCS743</td>
<td>Fuzzy Topologies with Human Centric Computing</td>
</tr>
<tr>
<td>PCS745</td>
<td>Advanced Algorithm Analysis</td>
</tr>
<tr>
<td>PCS749</td>
<td>Seminar on Logic and Scientific Computing</td>
</tr>
<tr>
<td>PCS751</td>
<td>Seminar on Emerging Computing Technologies</td>
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<tr>
<td>PCS753</td>
<td>Advances in Artificial Intelligence</td>
</tr>
<tr>
<td>PCS755</td>
<td>Advances in Deep Learning</td>
</tr>
<tr>
<td>PCS921</td>
<td>Research Thesis (3 Units)</td>
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<tr>
<td>PCS922</td>
<td>Research Thesis (6 Units)</td>
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<tr>
<td>PCS923</td>
<td>Research Thesis (9 Units)</td>
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</table>

**PhD (Statistics & Scientific Computing)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>PST701</td>
<td>Advanced Statistical Computing and Graphics</td>
</tr>
<tr>
<td>PST703</td>
<td>Regression Modeling and Computing</td>
</tr>
<tr>
<td>PST705</td>
<td>Advanced Mathematical Statistics</td>
</tr>
<tr>
<td>PST707</td>
<td>Advanced Bayesian Inference and Stochastic Modeling</td>
</tr>
<tr>
<td>PST713</td>
<td>Nonlinear and Integer Programming</td>
</tr>
<tr>
<td>PST715</td>
<td>Advanced Design and Analysis of Experiments</td>
</tr>
<tr>
<td>PST717</td>
<td>Advances in Time Series Analysis</td>
</tr>
<tr>
<td>PST719</td>
<td>Advances in Bioinformatics &amp; Biostatistics</td>
</tr>
<tr>
<td>PST721</td>
<td>Statistical Quality Control</td>
</tr>
<tr>
<td>PST723</td>
<td>Stochastic Modeling in Finance</td>
</tr>
<tr>
<td>PST725</td>
<td>Special topics in Statistics</td>
</tr>
<tr>
<td>PST850</td>
<td>Research Thesis (30 Credit Hours)</td>
</tr>
</tbody>
</table>
College of Engineering and Sciences (CES) was established to realize IoBM’s mission of creating an impact as a multidimensional institution of higher learning. The college strives to develop entrepreneurial engineers who have the technical skills and confidence to create new engineering technologies and design innovative engineering products and processes.

“Entrepreneurial Engineering with Excellence”
BS TECHNOLOGY MANAGEMENT

BS in Technology Management is inspired to combine the advancements in technology with a hands-on management approach to solve the problems of 21st Century.

The focus of this program is to produce graduates that can ensure sustainable digital future. The key for which is automation and digital transformation. This program aims to produce graduates that can identify, plan, and execute the conversion of an existing organization. Students, by the end of the program, will be able to enter an Industry 4.0 enabled company and optimize the process and streamline the workflow and to improve efficiency productivity.

1. Apply knowledge of strategy, marketing, digital technology, and big data analysis to complex Industry 4.0 based problems / situations / scenarios including 3D printer, AI, Block chain and Cyber Physical Systems
2. Develop expertise in mapping processes of an industry and strategize the conversion to digital platform
3. Identify operations that can be automated to reduce resources (time, raw material, people etc.)

Career Prospects:
1. Technology Managers
2. System Analysts
3. Management Analyst
4. Management Consultants
5. Computer Network Architect
6. Engineering Managers

Main Features:

a. Name of the proposed Program: Bachelor of Science in Technology Management
b. Total Credit Hours for completion of the program: 144
c. Program duration: eight semester / four years
d. Proposed initial date for implementation of the program: Spring 2022

Eligibility:
Applicants who have successfully completed HSC with minimum 50% marks in pre-engineering, pre-medical or in General Group (with Mathematics/ Statistics/ Computer Science) or A-Levels with a maximum of 2-Cs in three principal subjects are eligible to apply for admission.

Degree Requirements:

<table>
<thead>
<tr>
<th>Minimum duration:</th>
<th>4 years</th>
<th>Number of semesters:</th>
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<tr>
<td>Number of weeks per semester:</td>
<td>16-18</td>
<td>Total number of credit hours:</td>
<td>144</td>
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<tr>
<td>Number of credit hours per semester:</td>
<td>17-19</td>
<td>Technology courses:</td>
<td>41 %</td>
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<tr>
<td>Non Tech &amp; Management courses:</td>
<td>59 %</td>
<td>Laboratory work:</td>
<td>03 hrs.</td>
</tr>
<tr>
<td>Total number of courses:</td>
<td>46 Courses + 9 weeks Internship</td>
<td>Total credit hours:</td>
<td>144</td>
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Required Courses

Core Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTM101</td>
<td>Introduction to Computing</td>
<td>BTM102</td>
<td>Basic Electrical Circuits</td>
</tr>
<tr>
<td>BTM103</td>
<td>Information and Communications Technology</td>
<td>CME104</td>
<td>Computer Programming &amp; Problem Solving</td>
</tr>
<tr>
<td>ELE201</td>
<td>Digital Logic Design</td>
<td>EPE201</td>
<td>CAD/CAM</td>
</tr>
<tr>
<td>BTM202</td>
<td>Operating Systems</td>
<td>CME203</td>
<td>Data Structure &amp; Algorithms</td>
</tr>
<tr>
<td>TCE205</td>
<td>Signals and Systems</td>
<td>CME205</td>
<td>Microprocessor &amp; Microcontroller Systems</td>
</tr>
<tr>
<td>BTM301</td>
<td>Data Communication &amp; Networks</td>
<td>ELE419</td>
<td>Linear Control System</td>
</tr>
<tr>
<td>BTM304</td>
<td>Sensors and Transducers</td>
<td>IDE401</td>
<td>Principles of Applied Mechatronics</td>
</tr>
<tr>
<td>BTM401</td>
<td>Big Data and Cloud Computing</td>
<td>BTM402</td>
<td>Emerging Trends in Connected Systems</td>
</tr>
<tr>
<td>BTM403</td>
<td>Artificial Intelligence &amp; Machine Learning</td>
<td>BTM404</td>
<td>Cyber physical Systems</td>
</tr>
<tr>
<td>MTH216</td>
<td>Complex Variable and Transforms</td>
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Management
MAN101 Principles of Management
ACC101 Introduction to Financial Accounting
HRM301 Human Resource Management
BTM302 Technology Management
IDE400 Introduction to Enterprise Resource Planning
FIN202 Digital Financial Management
BTM305 Total Quality Management
ENT403 Small Business & Entrepreneurship

Natural Sciences
GSC103 Applied Physics
BTM201 Renewable Energy

Expository Writing
COM117 Functional English
COM119 Communication Skills
COM 208 Technical Report Writing

Elective Courses
Digital Technology Transformation (3+0)
IDE404 Design Thinking
IDE409 Philosophy of Technology
IDE405 Business and Technology Strategy
CME415 Management Information System
CME416 IoT System Development
CME417 UI/UX Design Development
CME418 IoT Business Case
BTM405 Nano Technology Fundamentals
ELE432 Introduction to Internet of Things
EPE432 Wireless Power Transmission
BTM406 Wireless Sensor Networks
BTM407 Information Theory and Coding

E-Business (3+0)
BTM410 Auditing & Taxation
BTM411 Industrial Relations
BTM412 Business Transformation
BTM413 Digital Business Law
BTM414 Supply Chain Fundamentals & Inventory Mgmt.
IDE406 Production Planning & Control
IDE407 Software Project Management
IDE408 Professional Practices
ELE435 Technology and Society

Arts and Humanities
LAN 10* Foreign Language I
LAN 20** Foreign Language II
*1 = Introduction to Arabic  *2 = Introduction to French
*4 = Introduction to German  *6 = Introduction to Italian
*8 = Introduction to Chinese
**1 = Intermediate Arabic  **2 = Intermediate French
**4 = Intermediate German  **6 = Intermediate Italian
**8 = Intermediate Chinese

Social Sciences
ENG203 Engineering Economics
BTM303 Organizational Behavior

Quantitative Reasoning
MTH107 Calculus & Analytical Geometry
MTH204 Linear Algebra

Civilized Courses
REL101 Islamic Studies
PSC301 Pakistan Studies

Emerging Trends in Technology (3+1)
BTM415 Real time Embedded System
BTM416 Opto Electronics
BTM417 Smart Grid Technology
BTM418 Digital Image Processing
BTM419 Industrial Electronics
BTM420 Robotics Design Lab (modular)
BTM421 Underwater Internet of Things
BTM422 VLSI Basics
BTM423 Optical Fiber Communication
BTM424 Digital Communication Systems
BTM425 Network Communication Protocols
BTM426 Power Electronics
BTM427 Internet of Robotic Things (IoRT)
## Course Structure

<table>
<thead>
<tr>
<th>Semester One</th>
<th>Semester Two</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional English (3+0)</td>
<td>Basic Electrical Circuits (2+1)</td>
</tr>
<tr>
<td>Applied Physics (3+1)</td>
<td>Principles of Management (3+0)</td>
</tr>
<tr>
<td>Islamic Studies (3+0)</td>
<td>Linear Algebra (3+0)</td>
</tr>
<tr>
<td>Introduction to Computing (2+1)</td>
<td>Communication Skills (3+0)</td>
</tr>
<tr>
<td>Calculus &amp; Analytical Geometry (3+0)</td>
<td>Pakistan Studies (3+0)</td>
</tr>
<tr>
<td>Computer Aided Engineering Design (0+1)</td>
<td>Information &amp; Communications Technology (2+1)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester Three</th>
<th>Semester Four</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Programming &amp; Problem Solving (2+1)</td>
<td>Data Structure &amp; Algorithms (3+1)</td>
</tr>
<tr>
<td>Digital Logic Design (3+1)</td>
<td>Signals and Systems (3+1)</td>
</tr>
<tr>
<td>Complex Variables &amp; Transforms (3+0)</td>
<td>Foreign Language II (3+0)</td>
</tr>
<tr>
<td>Foreign Language I (3+0)</td>
<td>Microprocessor &amp; Microcontroller Systems (3+1)</td>
</tr>
<tr>
<td>Renewable Energy (3+0)</td>
<td>Technical Report Writing (3+0)</td>
</tr>
<tr>
<td>Operating Systems (2+1)</td>
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<table>
<thead>
<tr>
<th>Semester Five</th>
<th>Semester Six</th>
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<tbody>
<tr>
<td>Introduction to Financial Accounting (3+0)</td>
<td>Organizational Behavior (3+0)</td>
</tr>
<tr>
<td>Data Communication &amp; Networks (2+1)</td>
<td>Introduction to Enterprise Resource Planning (3+0)</td>
</tr>
<tr>
<td>Human Resource Management (3+0)</td>
<td>Sensors and Instrumentation (2+1)</td>
</tr>
<tr>
<td>Engineering Economics (3+0)</td>
<td>Digital Financial Management (3+0)</td>
</tr>
<tr>
<td>Linear Control System (3+1)</td>
<td>Total Quality Management (3+0)</td>
</tr>
<tr>
<td>Technology Management (2+0)</td>
<td>Elective I (2+1)</td>
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</table>

<table>
<thead>
<tr>
<th>Semester Seven</th>
<th>Semester Eight</th>
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</thead>
<tbody>
<tr>
<td>Elective II (2+1)</td>
<td>Emerging Trends in Connected Systems (3+1)</td>
</tr>
<tr>
<td>Elective III (3+0)</td>
<td>Artificial Intelligence &amp; Machine Learning (3+1)</td>
</tr>
<tr>
<td>Principles of Applied Mechatronics (2+1)</td>
<td>Final Year Project II (0+3)</td>
</tr>
<tr>
<td>Big Data and Cloud Computing (2+1)</td>
<td>Cyber Physical Systems (3+0)</td>
</tr>
<tr>
<td>Small Business &amp; Entrepreneurship (3+0)</td>
<td>Elective IV (3+0)</td>
</tr>
<tr>
<td>Final Year Project I (0+3)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester Eight</th>
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</thead>
<tbody>
<tr>
<td>Emerging Trends in Connected Systems (3+1)</td>
<td>Artificial Intelligence &amp; Machine Learning (3+1)</td>
</tr>
<tr>
<td>Final Year Project II (0+3)</td>
<td></td>
</tr>
<tr>
<td>Cyber Physical Systems (3+0)</td>
<td></td>
</tr>
<tr>
<td>Elective IV (3+0)</td>
<td></td>
</tr>
</tbody>
</table>
The MS in Engineering Management degree bridges the gap between engineering potential and its gainful exploitation for business and economic advantage by focusing on efficiency, productivity and effectiveness.

The need for engineering management is felt at all managerial levels, particularly in the professional management work environment. Also, management is applicable to every aspect of an organization’s functions and at all levels of top management, middle and lower management. Basic and specialized knowledge in the field of engineering management is a crucial need for every engineer and a profitable business.

Engineering management entails planning, organizing, allocating resources, and directing and controlling activities that have a technological component. The course has been designed by engineers and business experts with experience at the International level, keeping in view the requirements of the country.

This is a weekend program with a minimum load of 6 credit hours (2 courses) and a maximum of 9 credit hours (three courses) in each of the three sessions (Fall, Spring and Summer).

**Program Objectives**

- To exemplify excellence in engineering management through in depth knowledge and skills in the field of engineering management and applied sciences
- To engage in continuous professional development and exhibit quest for lifelong learning
- To demonstrate professional integrity and commitment to social and ethical responsibilities required of them as leaders and entrepreneurs.

**Course Contents**

**Duration:** Minimum 02 - Maximum 04 years  
**Total credit hours:** 30
- **Teaching:** 24  
- **Thesis:** 6

A minimum of eight courses (500 Level) of 3 credit hours each with individual research project / thesis of 6 credit hours in a relevant area shall be required for the completion of the MS degree in the discipline of Engineering Management.

**Entry Test Policy**

The admission for MS Program would be based on the following:

**Eligibility for entrance to MS-Engineering Management Program:**

It is based on the following:
- Sixteen years of education in any engineering discipline with minimum 55% marks in overall academic career in annual system and CGPA 2.5 in a semester system or equivalent from HEC recognized Institutes/Universities having PEC registration status.
In addition:

- All admissions to MS are subject to Higher Education Commission (HEC) based testing services such as National Testing Services (NTS) or Education Testing Council (ETC), etc.

**Course Structure**

MEM501 Project Management (3+0)
MEM502 Designs, Patents, Contract and Legal Engineering (3+0)
MEM504 Research Methodology (3+0)
MEM514 Technology Management (3+0)
MEM516 Marketing Management (3+0)

<table>
<thead>
<tr>
<th>Elective Stream I</th>
<th>Elective Stream II</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEM505 Applied Engineering Analysis (3+0)</td>
<td>MEM604 Financial and Managerial Accounting (3+0)</td>
</tr>
<tr>
<td>MEM506 Production System Design and Analysis (3+0)</td>
<td>MEM605 Operation Management and Supply Chain (3+0)</td>
</tr>
<tr>
<td>MEM507 Operations Analysis &amp; Resource Allocation (3+0)</td>
<td>MEM606 Organization and Strategic Management (3+0)</td>
</tr>
<tr>
<td>MEM508 Operation Management (3+0)</td>
<td>MEM517 Global Business Strategy (3+0)</td>
</tr>
<tr>
<td>MEM509 Simulation Modeling (3+0)</td>
<td>MEM518 Leadership, Innovation &amp; Entrepreneurship (3+0)</td>
</tr>
<tr>
<td>MEM510 Production Planning and Control (3+0)</td>
<td>MEM519 Financial Statement Analysis (3+0)</td>
</tr>
<tr>
<td>MEM511 Advanced Practices in Engineering Management (3+0)</td>
<td>MEM520 Engineering Economics (3+0)</td>
</tr>
<tr>
<td>MEM512 Environmental and Safety Management (3+0)</td>
<td>MEM521 Problem Solving &amp; Decision Making (3+0)</td>
</tr>
<tr>
<td>MEM513 Industrial Costing Management (3+0)</td>
<td>MEM523 Supply Chain Management (3+0)</td>
</tr>
<tr>
<td>MEM515 Lean Six Sigma &amp; Lean Manufacturing (3+0)</td>
<td>MEM524 Management of Organizations (3+0)</td>
</tr>
<tr>
<td>MEM516 Marketing Management (3+0)</td>
<td>MEM525 Advanced Topics in Project Management (3+0)</td>
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</table>

**Thesis (06 Credit hours)**

<table>
<thead>
<tr>
<th>Semester One</th>
<th>Semester Two</th>
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</thead>
<tbody>
<tr>
<td>Project Management (3+0)</td>
<td>Design, Patents, Contract and Legal Engineering (3+0)</td>
</tr>
<tr>
<td>Research Methodology (3+0)</td>
<td>Technology Management (3+0)</td>
</tr>
<tr>
<td>Marketing Management (3+0)</td>
<td>Elective I (3+0)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester Three</th>
<th>Semester Four</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective II (3+0)</td>
<td>Final Thesis (0+3)</td>
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<tr>
<td>Elective III (3+0)</td>
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</tr>
<tr>
<td>Thesis Proposal (0+3)</td>
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</tr>
</tbody>
</table>

**Note:**

_It is mandatory for research students of MS and Ph.D. programs to attend the Multi-Disciplinary Research Seminar Series (MRSS) sessions on Saturdays (12:00 to 2:00 PM) each semester._
The Institute of Business Management’s Masters of IoT Systems Management (ISM) is a multidisciplinary degree that bridges academic disciplines of IoT, Systems Engineering and Management to facilitate degree completion. This degree offers students the opportunity to select two focus areas of study (a primary related to IoT Systems and a secondary related to its Management). Each student will be assigned an advisor in the college that fields their primary focus area. This degree is also designed for non-traditional students, returning students, students who arrive at IoBM with 16 years of teaching. Intake is from Engineering, Medical, Computing and other relevant disciplines.

**Scope of Program**

In Pakistan, shift is focused towards rapid growth of data networks, as well as towards electronically facilitated services particularly in the public sector. IoT System Managers design develop test and supervise deployment of electrical systems and electric devices. They are expected to work on the design of sub-micron Digital and Analogue Integrated Circuits, Digital Signal Processors, Control System Design and Testing services. The Master of Science (MS) program in IoT Systems Management is designed to prepare students for technically demanding careers in industry as well as for research career in IoT and related fields. More specifically:

- It requires students to build depth in an IoT Systems Management specialization, selected from areas such as signal processing and communication, systems and control, electromagnetics and photonics, and material circuits and devices.
- It affords students the opportunity to flexibly choose graduate electives to explore technical or professional interests within engineering.

This requires an ability to apply reasoning informed by contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to professional engineering practice and solution to IoT Systems Management problems. These are:

i. an ability to understand the impact of professional solutions in societal and environmental contexts and demonstrate knowledge of and need for sustainable development;

ii. commitment to professional ethics and responsibilities and norms of engineering practice;

iii. an ability to work effectively, as an individual or in a team, in multifaceted and/or multidisciplinary settings;

iv. an ability to communicate effectively, orally as well as in writing, with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions;

v. an ability to demonstrate management skills and apply engineering principles to one’s own work, as a member and/or leader in a team, to manage projects in a multidisciplinary environment;

vi. an ability to recognize importance of, and pursue lifelong learning in the broader context of innovation and technological developments;

vii. knowledge of contemporary issues.

With the challenges faced on a global level (Sustainability, health, environmental protection) there is a new need for companies and organizations to integrate technical and business skills to solve these difficult problems.
Program Objectives

The program objectives are to provide expertise in the areas of hardware-software in wireless communications and IoT end terminals including the following:

1. Apply knowledge of strategy, marketing, digital technology, and big data analytics to complex Industry 4.0 & beyond challenges, including 3D Printing, Artificial Intelligence (AI), Machine Learning (ML), Blockchain and Cybersecurity.
2. Develop expertise in mapping processes of industry and strategizing the conversion to a digital platform.
3. Identify operations that can be automated to maximize efficiency and optimize resources (people, process, technology) using IoT-based infrastructure.

In general following are the prime objectives of MS program:

(i) To understand the operating principles of IOT Systems Management.
(ii) To meet all HEC requirements for the MS program including thesis proposal and implementation.
(iii) Solve real world research problems related to IoT Systems Management according to the international standards.
(iv) To simulate, design, analyze and implement IoT Systems Management research projects.
(v) To communicate effectively in a team and with stakeholders.
(vi) To work independently and conduct lifelong learning and adapt readily to changing situations and manage to demonstrate consistent professional ethics with high integrity.
(vii) To adapt the research ethics and methodologies to carry out high quality research work.

Entry Test Policy

Engineering/Computing Graduates holding BS / 16 years of education in Engineering/Computing subjects from HEC recognized institutions with minimum 50% marks in overall academic career or equivalent:

• Meet all HEC stipulated requirements including:
• Sixteen years of education in any discipline with minimum 55% marks in overall academic career in annual system and CGPA 2.5 in a semester system or equivalent from HEC recognized Institutes/Universities.
• All admissions to MS are subject to Higher Education Commission (HEC) based testing services such as National Testing Services (NTS) or Education Testing Council (ETC), etc.

In addition, for Non-Computing and Non-Engineering background, following four project-based courses are mandatory (as deficiency courses)

i. Fundamentals of Programming
ii. Data Structures and Algorithm
iii. Microprocessor & Microcontroller Fundamentals
iv. Computer Networks

Courses:

Compulsory Courses (3 Credit Hours)

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Course ID</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>IOT501</td>
<td>Research Methodology</td>
<td>3+0</td>
</tr>
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</table>
### Domain Core Courses (12 Credit Hours)

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Course ID</th>
<th>Course Name</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>IOT511</td>
<td>IoT Systems Architecture &amp; Design</td>
<td>3+0</td>
</tr>
<tr>
<td>2</td>
<td>IOT513</td>
<td>IoT Network Management</td>
<td>3+0</td>
</tr>
<tr>
<td>3</td>
<td>IOT515</td>
<td>Sensors, Actuators and Instrumentation for Automation2 (ADAPTED)</td>
<td>3+0</td>
</tr>
<tr>
<td>4</td>
<td>IOT517</td>
<td>Management of Disruptive Technologies</td>
<td>3+0</td>
</tr>
</tbody>
</table>

### Domain Electives Courses (12 Credit Hours)

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Course ID</th>
<th>Course Name</th>
<th>Credit Hours</th>
<th>Pre-Requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>IOT561</td>
<td>Artificial Intelligence</td>
<td>3+0</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>IOT562</td>
<td>System Fault Management</td>
<td>3+0</td>
<td></td>
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<tr>
<td>3</td>
<td>IOT563</td>
<td>System Financial Management</td>
<td>3+0</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>IOT564</td>
<td>IoT Analytics and Data Visualization with Cloud Services</td>
<td>3+0</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>IOT565</td>
<td>Cyber Security for IoT Systems2</td>
<td>3+0</td>
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</tr>
<tr>
<td>6</td>
<td>IOT566</td>
<td>Industrial Control and Programming</td>
<td>3+0</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>IOT567</td>
<td>Industrial Maintenance and Safety for IoT Systems</td>
<td>3+0</td>
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</tr>
<tr>
<td>8</td>
<td>IOT568</td>
<td>Management of Cyber-Physical Systems</td>
<td>3+0</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>IOT661</td>
<td>System Configuration Management</td>
<td>3+0</td>
<td>IOT515</td>
</tr>
<tr>
<td>10</td>
<td>IOT662</td>
<td>Programmable Logic Embedded System Design4</td>
<td>3+0</td>
<td>IOT515</td>
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<tr>
<td>11</td>
<td>IOT663</td>
<td>System Performance Management</td>
<td>3+0</td>
<td>IOT513</td>
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<tr>
<td>12</td>
<td>IOT664</td>
<td>Constraints Aware Computing1 (adapted)</td>
<td>3+0</td>
<td>IOT511</td>
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<tr>
<td>13</td>
<td>IOT665</td>
<td>High Speed Digital Design4</td>
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<tr>
<td>14</td>
<td>IOT667</td>
<td>Developing Industrial Internet of Things3</td>
<td>3+0</td>
<td>IOT517</td>
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<tr>
<td>15</td>
<td>IOT668</td>
<td>Mobile Application Development for IoT</td>
<td>3+0</td>
<td>IOT517</td>
</tr>
<tr>
<td>16</td>
<td>IOT669</td>
<td>Digital Supply Chain Management</td>
<td>3+0</td>
<td>IOT517</td>
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<tr>
<td>17</td>
<td>IOT671</td>
<td>Human Computer Interaction for IoT</td>
<td>3+0</td>
<td>IOT561</td>
</tr>
<tr>
<td>18</td>
<td>IOT672</td>
<td>IoT Applied Machine Learning1</td>
<td>3+0</td>
<td>IOT561</td>
</tr>
<tr>
<td>19</td>
<td>IOT681</td>
<td>Sensor Big Data Analytics1</td>
<td>3+0</td>
<td>IOT661</td>
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</table>

### Project-Based Thesis (6 Credit Hours)

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Course ID</th>
<th>Course Name</th>
<th>Credit Hours</th>
<th>Pre-Requisites</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>IOT691</td>
<td>Project-Based Thesis - I</td>
<td>0+3</td>
<td>IOT501</td>
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<tr>
<td>2</td>
<td>IOT692</td>
<td>Project-Based Thesis - II</td>
<td>0+3</td>
<td>IOT691</td>
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</table>
## Course Structure

<table>
<thead>
<tr>
<th>Semester One</th>
<th>Semester Two</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Methodology (3+0)</td>
<td>IoT Network Management (3+0)</td>
</tr>
<tr>
<td>IoT Systems Architecture &amp; Design (3+0)</td>
<td>Elective-I</td>
</tr>
<tr>
<td>Sensors, Actuators and Instrumentation for Automation (3+0)</td>
<td>Management of Disruptive Technologies (3+0)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester Three</th>
<th>Semester Four</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective-II</td>
<td>Elective-IV</td>
</tr>
<tr>
<td>Elective-III</td>
<td>Project Based Thesis 2 (0+3)</td>
</tr>
<tr>
<td>Project Based Thesis 1 (0+3)</td>
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</table>

### Program Summary

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Duration</td>
<td>2 years</td>
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<tr>
<td>Total Credit hours</td>
<td>33 cr.</td>
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<tr>
<td>Course work</td>
<td>27 cr.</td>
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<tr>
<td>Thesis</td>
<td>6 cr.</td>
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</table>

**Notes:**

*It is mandatory for research students of MS and PhD programs to attend the Multi-Disciplinary Research Seminar Series (MRSS) sessions on Saturdays (12:00 to 2:00 PM) each semester.*
The College of Economics and Social Development (CESD) is a social science and liberal arts college with graduate and undergraduate programs in areas such as economics, psychology, education, media, law and international relations. Mission of the College is to contribute to the social and economic development by focusing on creative, professional and research-based interventions.
BS (HONORS) MEDIA STUDIES

BS (Honors) Media Studies is a hands-on multidisciplinary program, designed to provide students with a strong grounding in, and a broad academic base for, pursuing a professional career - institutional or entrepreneurial - in the wider field of media and film arts. Although the program has been progressively strengthened since its inception in Fall-2010, by refining the curriculum and pedagogy backed by investments in infrastructure upgrades, major curricular changes incorporated over the last couple of years, now allow students to delve deeper into the realm of new media and arts, and acquire the skillsets necessary for success in the emerging world of media and visual communication.

Students have the option to major in either one of two streams i.e. Journalism and Filmmaking offered in the program. However, they share common foundation courses in the first four semesters, before branching out towards their chosen major to concentrate on their mandatory core courses and electives. A total of 144 credit hours of coursework needs to be undertaken for completing the degree requirement under both majors, along with a compulsory 6-week internship to be completed after the sixth semester.

The program owes its success to the support it has received over the years from media experts, practitioners, and specialists from the field of journalism and filmmaking who still contribute toward the department’s work, as well as from media organizations, digital marketing agencies, and production studios among others.

Foundation Courses

<table>
<thead>
<tr>
<th>Communication</th>
<th>Islamic Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM107  Academic English</td>
<td>REL101   Islamic Studies</td>
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<table>
<thead>
<tr>
<th>Language</th>
<th>Law</th>
<th>Pakistan Studies</th>
<th>Social Sciences</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAN112  Urdu I</td>
<td>LAW405 Media Law &amp; Business Ethics</td>
<td>PSC301 Pakistan Studies</td>
<td>MMM398 Social Sciences for Media</td>
</tr>
</tbody>
</table>

Core Course (All Students)

| MMM344  Screenplay I   | MMM354  Intro to Sound Design |
| MMM360  Introduction to Photography | MMM362  History of Filmmaking |
| MMM363  Intro to Design Tools | MMM374  Introduction to Journalism |
| MMM376  Intro to Performing Arts | MMM383  Introduction to Video Production |
| MMM394  Introduction to Creative Arts | MMM395  Media History |
| MMM396  Concept Art | MMM405  Cinematography |
| MMM406  Public Relations & Corporate Communication | |

Core Courses (Production Major)

| MMM342  Filmmaking – The Art & Craft: Thesis I (6C) | MMM345  Screenplay II |
| MMM351  Production Management | MMM366  Filmmaking – The Art & Craft: Thesis II (6C) |
| MMM369  Production Design | MMM373  Content Creation |
| MMM375  Advanced Sound Design | MMM377  Direction |
| MMM382  Editing & Post Production III (6C) | MMM402  Introduction to Unreal Engine |
Core Courses (Journalism Major)
MMM301 Photojournalism
MMM318 Business Journalism
MMM333 Sports Journalism
MMM336 Human Rights & Gender Reporting
MMM367 Digital Journalism
MMM372 Environmental Journalism
MMM403 Investigative Journalism: Thesis I (6C)
MMM392 Investigative Journalism: Thesis II (6C)

Elective Courses (Production Major)
MMM301 Photojournalism
MMM367 Digital Journalism
MMM384 Design Thinking
MMM386 Introduction to Podcast & Audio Journalism
MMM387 Introduction to 3D Animation & Motion Graphics
MMM399 New Media Technologies: Tools & Applications
MMM402 Introduction to Unreal Engine
MMM555 Discovering Film
ENT403 Entrepreneurship & Small Business

Elective Courses (Journalism Major)
MMM386 Intro to Podcast & Audio Journalism
MMM384 Design Thinking
MMM396 Concept Art
MMM399 New Media Technologies: Tools & Applications
MMM555 Discovering Film
ENT403 Entrepreneurship & Small Business

Special Summer Course offered to all BS/BBA students
MMM555 Discovering Film
MMM399 New Media Technologies: Tools & Applications

Course Structure

<table>
<thead>
<tr>
<th>Semester One</th>
<th>Semester Two</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic English</td>
<td>Introduction to Photography</td>
</tr>
<tr>
<td>Introduction to Design Tools</td>
<td>Introduction to Journalism</td>
</tr>
<tr>
<td>Urdu I</td>
<td>Introduction to Video Production</td>
</tr>
<tr>
<td>Intro to Creative Arts</td>
<td>Intro to Performing Arts</td>
</tr>
<tr>
<td>Pakistan Studies</td>
<td>Islamic Studies</td>
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<tr>
<td>Media History</td>
<td>History of Filmmaking</td>
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<tr>
<td>Screenplay I</td>
<td>Introduction to 3D Animation &amp; Motion Graphics</td>
</tr>
<tr>
<td>Cinematography</td>
<td>UI/UX for Interactive Media</td>
</tr>
<tr>
<td>Concept Art</td>
<td>Introduction to Advertising &amp; PR</td>
</tr>
<tr>
<td>Edit &amp; Post Production</td>
<td>Writing for Digital Media</td>
</tr>
<tr>
<td>Urdu II</td>
<td>Digital Journalism</td>
</tr>
<tr>
<td>Introduction to Sound Design</td>
<td>Intro to Podcast &amp; Audio Journalism (J)</td>
</tr>
</tbody>
</table>

Semester Three:
- Screenplay I
- Cinematography
- Concept Art
- Edit & Post Production
- Urdu II
- Introduction to Sound Design

Semester Four:
- Intro to 3D Animation & Motion Graphics
- UI/UX for Interactive Media
- Introduction to Advertising & PR
- Writing for Digital Media
- Digital Journalism
- Intro to Podcast & Audio Journalism (J)
<table>
<thead>
<tr>
<th>Semester Five</th>
<th>Semester Six</th>
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</thead>
<tbody>
<tr>
<td>Studio Production</td>
<td>Production of Documentary</td>
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<tr>
<td>Digital Marketing Basics</td>
<td>Direction</td>
</tr>
<tr>
<td>Social Sciences in Media</td>
<td>New Media Technologies: Tools &amp; Applications</td>
</tr>
<tr>
<td>Creative Portfolio Management</td>
<td>Content Creation</td>
</tr>
<tr>
<td>Production Design (P)</td>
<td>Production Management (P)</td>
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<tr>
<td>Screenplay II (P)</td>
<td>Direction (P)</td>
</tr>
<tr>
<td>Sports Journalism (J)</td>
<td>Business Journalism (J)</td>
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<tr>
<td>Photojournalism (J)</td>
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<tr>
<th>Semester Seven</th>
<th>Semester Eight</th>
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<tbody>
<tr>
<td>Methods in Media Research</td>
<td>Content Distribution &amp; Promotion</td>
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<tr>
<td>Media Law &amp; Ethics</td>
<td>Entrepreneurship &amp; Small Business</td>
</tr>
<tr>
<td>Creative Portfolio Management</td>
<td>Human Rights &amp; Gender Reporting (J)</td>
</tr>
<tr>
<td>Public Relations &amp; Corporate Communication</td>
<td>Filmmaking – The Art &amp; Craft: Thesis II (6C)</td>
</tr>
<tr>
<td>Filmmaking – The Art &amp; Craft: Thesis I (P) (6C)</td>
<td>Editing &amp; Post Production III (6C)</td>
</tr>
<tr>
<td>Investigative Journalism: Thesis I (J) (6C)</td>
<td>Investigative Journalism: Thesis II (6C)</td>
</tr>
<tr>
<td>Elective I</td>
<td>Elective II</td>
</tr>
</tbody>
</table>

*(6C) = 6 Credit Hours  
(P) = Production  
(J) = Journalism

*Internship (2 credit hours)*
BS Economics with Double Minors  
(Law, Media, and IR)

This program focuses on international negotiations for trade and commerce for business and economic advantage. Graduates of this program can evaluate the comparative advantage of trading with businesses and countries. They can evaluate the economic implications of policies related to GMOs, geopolitical dynamics, trade routes, and economic corridors such as CPEC. The graduates can help large importers, exporters, and logistic organizations design their business strategies. They can also help government bodies in evaluating and designing bilateral and multilateral agreements.

The professional development of economists is a pivotal factor in building the human capital index. IoBM has always taken the lead in providing much-needed human capital to Pakistan’s business industry. Keeping in view the dire need for a dynamic and enterprising industry IoBM offers a 4-year BS in Economics with double minors in Law, IR, or Media program to contribute towards building the backbone of the economy. This 4-year program has been particularly developed to fill the niche in Pakistan’s industrial, banking, civil service, and media sectors. The program’s purpose is to provide a strong foundation in the field of economics and integrate the core principles of effective management of organizations and the economy. This 144 credit hours program will be offered during the weekdays.

It is a 144 credit hour program with 22 compulsory courses (3 credit hours each), 8 elective courses (3 credit hours each), 5 aligned courses (3 credit hours each), and 13 other courses (3 credit hours each). The time limit to complete the BS degree is four years.

Eligibility Criteria:
Intermediate (any group)/A-Levels with at least 50% marks CGPA 2.0 out of 4 from a recognized university/institution.

Learning Outcomes
- Students should get not only well familiar with economic theories and laws but also with applied economics.
- They should be able to enhance their contribution towards the growth of the whole country/economy.
- Students should be able to apply quantitative techniques and modeling to analyze key economic indicators for the performance of an organization.
- Students should be well equipped with mathematical/statistical/economic tools to demonstrate strong analytical and problem-solving skills.
- They should be well equipped with software such as E-Views and SPSS.
- Students should be able to produce a research paper or article independently in any journal of international repute.
- They should develop a thirst for research-based studies like going for M.Phil. or Ph.D.
- They can further set an example by getting success in their lives for their juniors to go for research-based studies
- Students should be prepared for future careers in our interconnected society, whether in mass media or advanced study
- Students should be able to analyze financial documents, like budgets, critically.
- They should be capable of analyzing fiscal policy, monetary policy, and trade policy to provide problem-solving solutions.
- Students should be able to get admission to institutes of international repute.
- They should get international or national scholarships.
- Understanding of the institutions, processes, constitutional background, and policy outcomes of the Pakistani government and the ability to compare the Pakistani government to other countries around the world
- Knowledge of key theories and concepts, historical developments, organizations, and modern issues in international relations.

Career Path
- Policy analyst/Research Economist
- Business Journalist/Content Developer
- Domestic and International Financial institutions
- NGOs/Development Sector
- Banking Sector/Financial Analyst
- Portfolio Manager/Quantitative Risk Analyst
- Public Sector/Civil Service
Foundation Courses
COM107 Academic English
COM119 Communication Skills
COM205 Persuasive & Analytical Writing for Business Comm.
PSC301 Pakistan Studies
REL101 Islamic Studies
BED101 General Science
SSC202 Environmental Studies
SSC104 Principles of Sociology
PSY300 Introduction to Psychology
MTH100 Mathematical Economics
MTH104 Calculus I
MTH105 Calculus II
STA203 Probability Theory & Statistics
STA301 Models of Inferences
STA302 Methods of Data Analysis
SSC301 History of Ideas
LAN 10* Foreign Language I
LAN 20** Foreign Language II
*1 = Introduction to Arabic
*2 = Introduction to French
*4 = Introduction to German
*6 = Introduction to Italian
*8 = Introduction to Chinese
**1 = Intermediate Arabic
**2 = Intermediate French
**4 = Intermediate German
**6 = Intermediate Italian
**8 = Intermediate Chinese

Core Courses
Economics (Core Courses)
ECO101 Principles of Microeconomics
ECO102 Principles of Macroeconomics
ECO315 Microeconomics Analysis
ECO316 Macroeconomics Analysis
ECO304 Econometrics-1
ECO323 Development Economic
ECO412 Econometrics-2
ECO302 International Trade
ECO307 Monetary Theory & Policy
ECO402 Pakistan Economic Policy

Media (Core Courses)
MMM318 Business Journalism
MMM367 Digital Journalism
MMM374 Introduction to Journalism
MMM384 Design Thinking
MMM385 Writing for Digital Media
MMM395 Media History

International Relations (Core Courses)
BIR301 Introduction to IR
BIR302 Political Geography
BIR303 World Politics
BIR305 Religion, Culture & IR
BIR308 Peace Building and Conflict Zones
BIR312 Globalization

Law (Core Courses)
LAW105 Mercantile Law
LAW106 Company Law
LAW202 Banking Law in Pakistan
LAW203 Insurance Law in Pakistan
LAW301 Intellectual Property Patents, Copyrights
LAW400 Company Secretarial Practices

Elective Courses
Economics (Electives)
ECO407 Analysis of Pakistan Industry
ECO410 Issues in Political Economy
ECO411 Islamic Economics
ECO418 Resources & Environmental Economics
ECO442 Public Finance
ECO518 Governance & Public Policy
ECO310 History of Economics Thought
ECO321 General Equilibrium and Welfare Economics
ECO207 Game Theory
ECO314 Contemporary Issues in Macroeconomics
ECO444 Economics of Logistics
ECOXXX Agronomics
ECOXXX Merger, Acquisition & Restructuring

International Relations (IR) (Electives)
BIR314 Confidence Building Measures
BIRXXX Introduction to Political Science
BIRXXX Global Governance
BIRXXX Muslim Political Thought

Media (Electives)
MMM308 Contemporary World Media
MMM555 Discovering Film
MMM405 Media, Law and Ethics
## Course Structure

### Possible Options for Minors:

#### I. Law & International Relations (LI)

<table>
<thead>
<tr>
<th>Semester One</th>
<th>Semester Two</th>
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<tbody>
<tr>
<td>Principles of Microeconomics</td>
<td>Principles of Macroeconomics</td>
</tr>
<tr>
<td>Islamic Studies</td>
<td>Foreign Language-1</td>
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<tr>
<td>Academic English</td>
<td>General Science</td>
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<tr>
<td>Introduction to Psychology</td>
<td>Persuasive &amp; Analytical Writing for Business Communication</td>
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<td>Principles of Sociology</td>
<td>Calculus II</td>
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<td>Calculus I</td>
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<table>
<thead>
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<th>Semester Four</th>
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<tbody>
<tr>
<td>Microeconomic Analysis</td>
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<tr>
<td>Foreign Language-2</td>
<td>Company Law</td>
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<tr>
<td>Introduction to IR</td>
<td>Pakistan Studies</td>
</tr>
<tr>
<td>Mercantile Law</td>
<td>History of Ideas</td>
</tr>
<tr>
<td>Probability theory &amp; Statistics</td>
<td>Communication Skills</td>
</tr>
<tr>
<td>Mathematical Economics</td>
<td>Models and Inferences</td>
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<table>
<thead>
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<tbody>
<tr>
<td>Econometrics-1</td>
<td>Econometrics-2</td>
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<tr>
<td>Development Economics</td>
<td>International Trade</td>
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<tr>
<td>Methods of Data Analysis</td>
<td>Insurance Law in Pakistan</td>
</tr>
<tr>
<td>Banking Law in Pakistan</td>
<td>Intellectual Property, Patents and Copyright</td>
</tr>
<tr>
<td>World Politics</td>
<td>Globalization</td>
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<tr>
<td>Peacebuilding &amp; Conflict Zone</td>
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#### II. Media & International Relations (MI)

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BS JOINT (HONORS) IN BUSINESS & PSYCHOLOGY

The BS Joint (Hons) in Business and Psychology program is designed to provide a strong foundation in business and to integrate core psychological principles. The main goal of this program is to produce graduates who have the ability to apply the science of human behavior to practical business problems. Students learn to apply theories in psychology to business challenges. They learn to analyze business problems through a psychological approach, utilizing research skills and developing effective solutions.

This four-year program requires completion of 126 credit hours of coursework. Students can take a minimum load of 12 credit hours (4 courses per semester) or a maximum load of 18 credit hours (6 courses per semester).

Entry Requirement: HSSC/FSc/FA/A’ Level

General Education Courses

LAN 10* Foreign Language I
LAN 20** Foreign Language II
*1 = Introduction to Arabic
*4 = Introduction to German
*8 = Introduction to Chinese
**1 = Intermediate Arabic
**4 = Intermediate German
**8 = Intermediate Chinese

COM107 Academic English
COM202 Business and Professional Speech
COM205 Persuasive & Analytical Writing for Business Communication
MTH102 Business Mathematics
STA104 Quantitative Techniques in Business
SSC104 Principles of Sociology
BED101 General Science
SSC202 Environmental Studies
PSC301 Pakistan Studies
REL101 Islamic Studies
PSY300 Introduction to Psychology

MTH100 Basic Mathematics***
COM100 Foundation English***

***Remedial non-credit course to be taken by those students who have not been able to reach the desired level of competence in the admission test.

Psychology Core Courses

PSY301 Research Methods in Business Psychology
PSY302 Writing Business Psychology Research
PSY303 Introduction to Psychological Testing
PSY304 Experimental Psychology
PSY305 Contemporary Social Psychology
PSY309 Developmental Psychology
PSY311 Consumer Psychology
### Business Core Courses
- ACC101 Introduction to Financial Accounting
- FIN201 Introduction to Business Finance
- SEL415 Social Advocacy and Change
- ENT202 Entrepreneurial Business Operations
- LAW409 Corporate and Business Law
- SCM501 Supply Chain Management
- MKT511 Brand Management

### Elective Courses
#### Elective Psychology
- PSY310 Positive Psychology (Compulsory Elective)
- PSY306 Understanding Individual: Personal Construct
- PSY307 Psychology of Organizational Change
- PSY308 Psychological Aspects of Advertising
- PSY501 Work Motivation and Attitude
- PSY515 Projective Methods
- PSY507 Cyber Psychology, Behavior and Social Networking
- PSY508 Health Promotion in Corporate Setting

#### Elective Business
- HRM513 HR Automation (Compulsory Elective)
- HRM505 Organizational Change & Development
- HRM514 Occupational Health and Safety
- HRM515 Employees Engagement & Wellbeing
- MKT507 Services Marketing
- MKT508 Personal Selling
- ENT502 Green Entrepreneurship
- ENT503 Competitive Strategies for Startups

### Distribution Courses
- ECO101 Principles of Microeconomics
- ECO102 Principles of Macroeconomics
- MKT302 Marketing Management
- MAN306 Intro. to Management & Organizational Behavior
- MAN309 Leadership Journey
- SSC401 Business Ethics
- MAN405 Strategic Management

### Course Structure

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<td>Principles of Sociology</td>
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<td>Introduction to Business Finance</td>
<td>Introduction to Management &amp; Organizational Behavior</td>
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<td>Contemporary Social Psychology</td>
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<td>Brand Management</td>
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<td>HR Automation (Compulsory Elective II)</td>
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<td>Positive Psychology (Compulsory Elective I)</td>
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<td>Strategic Management</td>
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<td>Elective V</td>
<td>Elective VIII</td>
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<tr>
<td>Elective VI</td>
<td>Capstone / Final Year Project</td>
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<tr>
<td>Internship (non-credit)</td>
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BS PSYCHOLOGY

The program offers an opportunity to learn about the subject, conventionally, and to see how the notions /theories /models work in the social ecology. Courses like: Psychological crises management; Forensic psychology; Psychology of diversity; Human promotion in corporate settings; Cyber psychology, behavior, and social networking; Work motivation and attitude; Projective methods; Health psychology; Consumer psychology – are phenomenal in imparting knowledge [along with conventional courses] and developing understanding to incorporate the learned ideas in the living situations.

This four years program requires completion of 129 credit hours of course-work [43 courses]. Student can take a minimum load of 12 credit hours (four courses per semester) or a maximum load of 18 credit hours (six courses per semester).

Entry Requirement: HSSC /FSc /FA /A level

General Education Courses

LAN 10*  Foreign Language I
LAN 20** Foreign Language II
*1 = Introduction to Arabic  *2 = Introduction to French  
*4 = Introduction to German  *6 = Introduction to Italian  
*8 = Introduction to Chinese

**1 = Intermediate Arabic  **2 = Intermediate French
**4 = Intermediate German  **6 = Intermediate Italian
**8 = Intermediate Chinese

COM202 Business and Professional Speech
COM205 Persuasive & Analytical Writing for Business Communication
COM107 Academic English
MTH102 Business Mathematics
STA104 Quantitative Techniques in Business
SSC104 Principles of Sociology
SSC401 Business Ethics
BED101 General Science
SSC202 Environmental Studies
PSC301 Pakistan Studies
REL101 Islamic Studies

MTH100 Basic Mathematics ***
COM100 Foundation English***  
(*** Remedial non-credit course to be taken by those students who have not been able to reach the desired level of competence in the admission test.)
### Core Courses

- PSY300 Introduction to Psychology
- PSY303 Introduction to Psychological Testing
- PSY304 Experimental Psychology
- PSY305 Contemporary Social Psychology
- PSY306 Understanding Individual: Personal Construct
- PSY308 Psychological Aspects of Advertising
- PSY309 Developmental Psychology
- PSY310 Positive Psychology
- PSY311 Consumer Psychology
- PSY313 History of Psychology
- PSY314 Psychopathology
- PSY315 Statistics in Psychology

### Elective Courses [opt for any 6]

- PSY501 Work Motivation and Attitude
- PSY515 Projective Methods
- PSY507 Cyber Psychology, Behavior and Social Networking
- PSY508 Health Promotion in Corporate Setting
- PSY502 School Psychology
- PSY503 Psychology of Diversity
- PSY504 Forensic Psychology
- PSY505 Psychological Crisis Management

### Course Structure

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<td>Introduction to Psychology</td>
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<td>History of Psychology</td>
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<td>Writing Psychological Research</td>
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<td>Psychological Aspects of Advertising</td>
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<td>Elective VI</td>
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B.Ed (HONORS) 2.5 Year

B.Ed. honors (2.5 years) degree program is offered to pre-service and in-service teachers, enterprising educational entrepreneurs, potential and current administrators of schools and other educational organizations.

Professional development of school teachers and administrators is a pivotal factor for building the human capital index. IoBM has always taken the lead in providing the much-needed human capital to Pakistan’s business industry. Keeping in view the dire need of dynamic and enterprising teachers and administrators in schools and educational organizations, IoBM offers B.Ed (honors) 2.5 year program to contribute towards building the backbone of the educational sector. This 2.5-year program has been particularly developed to fill in the niche in Pakistan’s educational milieu. The purpose of the program is to provide a strong foundation in the field of education and integrate the core principles of effective teaching and managing educational organizations. The main goal of this program is to produce graduates, who have the ability to apply the science of learning to practical educational problems. The program not only meets the basic criteria of effective skills based pedagogy and foundations for solid administration in public and private schools, but also provides a clear path to pursue higher studies in Education (MPhil/PhD).

This is a 90 credit hours weekend program.

Areas of Specialization: School Leadership & Management, Early Childhood Development, English Language Teaching, Teaching of Science, Teaching of Mathematics, Teaching of Social Sciences

Eligibility Criteria:
- BA / BSc. / B.Com or equivalent degree (14 years of education) with minimum 45%/ 2.00 CGPA Division from a university recognized by HEC
- Success in aptitude test and interview conducted by IoBM

Foundation Courses (6 Course)
BED120 Academic Writing and Seminar Skills
BED203 Foundation and history of Education
BED301 Curriculum Development
BED233 Evaluation and Assessment
BED421 Sociology of Education
BED206 Educational Psychology
SED102 Philosophy of Education and its Psychological Roots
BED231 Educational Policy and Economics

Content courses (4 Courses)
BED205 Early Childhood Education
BED401 Area of Specialization 1
BED403 Area of Specialization 2
BED405 Area of Specialization 3
**Professional courses (13 Courses)**
BED341  Teacher Education  
BED337  Educational Counseling  
BED352  Strategic Management of Schools  
BED363  Research Methods in Education  
BED357  Critical Thinking and Reading  
BED407  Innovations and Technology in Education  
BED405  Inclusive Education  
BED426  Comparative Education System  
BED238  Interpersonal Communication Skills in Educational Settings  
BED415  Lifelong Learning  
BED359  School Management  
BED351  Edupreneurship  

**BED491  Research Project: 6 Credit hours**
BED281  Teaching Practicum - I  
BED381  Teaching Practicum - II  
BED383  Teaching Practicum – III  

**Course Structure**

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<td>Teacher Education</td>
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<tr>
<td>Evaluation &amp; Assessment</td>
<td>Critical Thinking and Reading</td>
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<td>Sociology of Education</td>
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<tr>
<td>Academic Writing and Seminar Skills</td>
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<td>Educational Policy and Economics</td>
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<td>Research Project (6 credit hours)</td>
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B.Ed (HONORS) 1.5 Year

B.Ed. honors (1.5 years) degree program is offered to pre-service and in-service teachers, enterprising educational entrepreneurs, potential and current administrators of schools and other educational organizations.

Professional development of school teachers and administrators is a pivotal factor for building the human capital index. IoBM has always taken the lead in providing the much needed human capital to Pakistan’s business industry. Keeping in view the dire need of dynamic and enterprising teachers and administrators in schools and educational organizations, IoBM offers B.ED (honors) 1.5-year program to contribute towards building the backbone of the educational sector. This 1.5-year program has been particularly developed to fill in the niche in Pakistan’s educational milieu. The purpose of the program is to provide a strong foundation in the field of education and integrate the core principles of effective teaching and managing educational organizations. The main goal of this program is to produce graduates, who have the ability to apply the science of learning to practical educational problems. The program not only meets the basic criteria of effective skills based pedagogy and foundations for solid administration in public and private schools, but also provides a clear path to pursue higher studies in Education (MPhil/PhD).

This is a 54 credit hours program is offered during the weekends.

Areas of Specialization: School Leadership & Management, Early Childhood Development, English Language Teaching, Teaching of Science, Teaching of Mathematics, Teaching of Social Sciences

Eligibility Criteria

- 16-years of Education (MA, MSc., MCom or equivalent) in any discipline like Sciences, Social Sciences, Humanities and others, with at least 45%/2.00 CGPA from a university recognized by HEC.
- Success in aptitude test and interview conducted by IoBM

Foundation courses (3 Course)
BED203  Foundation and history of Education
BED301  Curriculum Development
BED233  Evaluation and Assessment

Content courses (3 Courses)
BED401  Area of Specialization 1
BED403  Area of Specialization 2
BED405  Area of Specialization 3

Professional courses (8 courses)
BED341  Teacher Education
BED337  Educational Counseling
BED359  School Management
BED363  Research Methods in Education
BED357  Critical Thinking and Reading
BED407  Innovations and Technology in Education
BED405  Inclusive Education
BED351  Edupreneurship
BED481  Teaching Practicum
BED491  Research Project
### Course Structure

<table>
<thead>
<tr>
<th><strong>Semester One</strong></th>
<th><strong>Semester Two</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Foundations and History of Education</td>
<td>Critical Thinking and Reading</td>
</tr>
<tr>
<td>Curriculum Development</td>
<td>Educational Counselling</td>
</tr>
<tr>
<td>Evaluation &amp; Assessment</td>
<td>Inclusive Education</td>
</tr>
<tr>
<td>Innovations and Technology in Education</td>
<td>Teacher Education</td>
</tr>
<tr>
<td><strong>Semester Three</strong></td>
<td><strong>Semester Four</strong></td>
</tr>
<tr>
<td>Area of Specialization – I *</td>
<td>School Management</td>
</tr>
<tr>
<td>Area of Specialization – II *</td>
<td>Edupreneurship</td>
</tr>
<tr>
<td>Area of Specialization – III *</td>
<td>Teaching Practicum (6 credit hours)</td>
</tr>
<tr>
<td>Research Methods in Education</td>
<td>Research Project (6 credit hours)</td>
</tr>
</tbody>
</table>

* Areas of Specialization: School Leadership & Management, Early Childhood Development, English Language Teaching, Teaching of Science, Teaching of Mathematics, Teaching of Social Sciences
The program is intended for professionals; looking for a better understanding of the organization they work for. It is concerned with the social and psychological processes operating in organizations, and how these processes relate to organizational systems and structures.

This two-year weekend program requires successful completion of 84 credit hours of course work – 28 courses including a research project of 3 credit hours. Students are expected to maintain a CGPA of 3.0 and successfully complete research projects for conferment of the degree. This program combines study in psychology with courses in human resource management, workplace relations, leadership, team dynamics, and management strategy.

Students can take a minimum load of 6 credit hours (two courses) or maximum of 12 credit hours (four courses) in each of the semesters.

Foundation Courses

Psychology
PSY400 Introduction to Organizational Psychology

Management
MAN418 Management and Organizational Dynamics

Human Resource Management
HRM410 Managing Human Capital

Statistics
STA410 Introduction to Behavioral Statistics

Core Courses

Psychology
PSY402 Counseling Psychology
PSY405 Group Dynamics
PSY406 Research Methods in Organizational Psychology
PSY407 Personnel Psychology
PSY408 Consumer Psychology
PSY430 Psychological Testing-I
PSY431 Psychological Testing-II
PSY432 Behavior Modification in Industry
PSY433 Leadership and Strategic Change
PSY434 Personality Theories
Human Resource Management
HRM617 HR Analytics
HRM619 Talent Acquisition
HRM621 Learning and Organizational Development
HRM408 Human Resource Issues in Pakistan
HRM409 Organizational Consulting Skills
HRM530 Research Practicum in HRM
HRM620 Labor Studies and Employee Relations
HRM622 Negotiations and Conflict Resolution Skills
HRM623 Managing Organizational Change
HRM624 Talent Management and Performance Development

Elective Courses Courses

Psychology
PSY501 Work Motivation Attitude
PSY506 Quality of Work Life
PSY515 Projective Methods

Human Resource Management
HRM618 Managing Diversity and Inclusion in Organization
HRM612 Strategic Human Resource Management

Course Structure

<table>
<thead>
<tr>
<th>Semester One</th>
<th>Semester Two</th>
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<tbody>
<tr>
<td>Introduction to Organizational Psychology</td>
<td>Group Dynamics</td>
</tr>
<tr>
<td>Management and Organizational Dynamics</td>
<td>Organizational Consulting Skills</td>
</tr>
<tr>
<td>Managing Human Capital</td>
<td>Psychological Testing-I</td>
</tr>
<tr>
<td>HR Analytics</td>
<td>Talent Acquisition</td>
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<tr>
<td>Introduction to Behavioral Statistics</td>
<td>Human Resource Issues in Pakistan</td>
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<table>
<thead>
<tr>
<th>Semester Three</th>
<th>Semester Four</th>
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</thead>
<tbody>
<tr>
<td>Research Methods in Organizational Psychology</td>
<td>Consumer Psychology</td>
</tr>
<tr>
<td>Counseling Psychology</td>
<td>Personality Theories</td>
</tr>
<tr>
<td>Negotiations and Conflict Resolution Skills</td>
<td>Learning and Organizational Development</td>
</tr>
<tr>
<td>Labor Studies and Employee Relations</td>
<td>Leadership and Strategic Change</td>
</tr>
<tr>
<td>Managing Organizational Change</td>
<td>Talent Management and Performance Development</td>
</tr>
</tbody>
</table>

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<tr>
<th>Semester Five</th>
<th>Semester Six</th>
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</thead>
<tbody>
<tr>
<td>Psychological Testing-II</td>
<td>Elective I</td>
</tr>
<tr>
<td>Behavior Modification in Industry</td>
<td>Elective II</td>
</tr>
<tr>
<td>Personnel Psychology</td>
<td>Elective III</td>
</tr>
<tr>
<td>Research Practicum in HRM</td>
<td>Elective IV</td>
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</tbody>
</table>

*Note: For the 6th Semester students are required to choose 2 Psychology electives and 2 HRM electives.*
MPhil in Organizational Psychology

The MPhil program in Organizational Psychology is designed specifically for the training of professional industrial-organizational psychologists. Students will receive comprehensive training in utilizing psychological knowledge for improving organizational effectiveness and employee satisfaction.

Eligibility

Candidates with 16 years of education holding a master’s degree in Psychology with 1st division/CGPA with at least 3 on a scale of 4 from an HEC recognized university are eligible for admission to the MPhil program at IoBM.

Program Structure

MPhil is a 30 credit hour program with 8 courses and one thesis of 6 credit hours. Each of the eight courses will be of 3 credit hours. After successful completion of course work, students are required to undertake research for a thesis under the guidance of a research supervisor assigned by IoBM.

Course Structure

Semester One
MPP601 Qualitative Research Methods in Psychology
MPP603 Quantitative Research Methods in Psychology
MPP605 Psychological Testing and Measurement

Semester Two
MPP607 Independent Study in Organizational Psychology
MPP609 Personnel Psychology at Workplace
MPP611 Human Factors in Work Environment

Semester Three
MPP613 Organizational Conflict & Management
MPP615 Project Practicum in Organizational Psychology

Semester Four
MPP620 MPhil Thesis (6 credit hours)

It is mandatory for research students of MPhil programs to attend at least five sessions of the Psychology Research Seminar Series in each semester.
MS ECONOMICS

This program is proposed for students with 16 years of education as well as for in-house BS Economics and Finance students of IoBM and those with equivalent qualifications. The students enrolled will complete one year of course work of 24 credit hours and six credit hours of thesis writing.

Required Courses

Economics
ECO601  Microeconomics
ECO602  Macroeconomics
ECO603  Econometrics and Research Methods
ECO607  Development Economics
ECO606  Financial Econometrics
ECO608  Theory and Practice of Economic Policy

Elective Courses

Economics
ECO706  Monetary Economics
ECO708  Mathematical Economics
ECO709  Industrial Economics
ECO710  Mergers, Acquisitions and Restructuring
ECO711  Taxation and Business Strategy
ECO712  Trade and Globalization

Thesis writing (6 credit hours)

Course Structure

Semester One
Microeconomics
Macroeconomics
Econometrics and Research Methods

Semester Two
Theory and Practice of Economic Policy
Development Economics
Financial Econometrics

Semester Three
Elective I
Elective II
Thesis Writing (6 credit hours)

It is mandatory for research students of MPhil and PhD programs to attend at least five sessions of the Multi-disciplinary Research Seminar Series in each semester.
MPhil EDUCATION

MPhil in Education is specially designed for educators at all levels in private and public sector institutions as well as administrators who have an interest in research. The program provides a strong foundation in the field of educational research and integrates the core principles of research and development backed by innovative practices.

Eligibility
- As per HEC policy, 16 years of education with 2.5 CGPA or C-Grade.
- Candidates from relevant degree background are required to do coursework of 24 credit hours.
- Candidates from other disciplines are required to take six deficiency courses* as a pre-requisite to the MPhil program.
- Candidates must have cleared GAT General (NTS) test at the time of admission.

Program Requirements
- MPhil requires completion of course work of 24 credit hours and a 6 credit hour thesis.
- Minimum duration is 1.5 years and maximum are 4 years.

Core Courses
- MPE604 Developing a Research Project
- MPE610 Philosophical Foundations in Education
- MPE615 Qualitative Research Methods in Education
- MPE617 Statistical Testing and Inferences in Education
- MPE620 Analysis of Educational Policies
- MPE625 Authentic Assessment in Education

Thesis
- MPE790 Research Thesis (6 credit hours)

Electives
- MPE706 Global Trends in Education
- MPE711 Readings and Critical Analysis in Education
- MPE714 Innovations and Technology in Education
- MPE717 Teacher Education
- MPE721 Edupreneurship in the Changing World
- MPE725 Distance Learning in 21st Century
- MPE727 Lifelong Learning in Changing Contexts
- MPE730 Planning Developing and Evaluating Curriculum
PhD IN EDUCATION

The aim of PhD in Education program is to promote scholarship, research and service at national and international levels. The research-oriented doctoral program is the highest academic degree facilitating candidates to remain updated in research literature and conducting socially relevant and intellectually competent research studies in specialized areas. The program offers a range of courses in contemporary topics of education and development, assisting the scholars to compete for leadership positions.

Eligibility:

MS/MPhil. or equivalent graduates from HEC-recognized institutes meeting the following criteria:

- A minimum CGPA of 3.00 on a scale of 4.00 or equivalent.
- A minimum of 18* years of schooling that corresponds to MS/MPhil or Equivalent degree from HEC recognized institutions in a relevant discipline.
- GAT subject test conducted by the NTS with a minimum of 60% marks
- An interview conducted by the Institute.
- Any other HEC stipulated requirements.

Testing Requirement:

The Graduate Record Examination (GRE) test administered by the Education Testing Service or a Subject Specific Graduate Admission Test (GAT Subject) administered by the Education Testing Council.

Statement of Purpose:

Required as part of the application to admission in PhD program

Program Requirements:

PhD requires completion of course work and dissertation/thesis. Minimum duration is three years and maximum are eight years:

- Course work of 24 credit hours (4 core courses and 4 electives)
- The student must publish one research paper during his/her PhD studies
- On completion of dissertation/thesis the student is awarded 30 credit hours
- Any other HEC requirement

Program Structure

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Semester 2</th>
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<tbody>
<tr>
<td>Methods and Issues in Advanced Qualitative Research</td>
<td>Elective 1</td>
</tr>
<tr>
<td>Methods and Issues in Advanced Quantitative Research</td>
<td>Elective 2</td>
</tr>
<tr>
<td>Ways of Knowing</td>
<td>Elective 3</td>
</tr>
<tr>
<td>Designing and Developing a Research Framework</td>
<td>Elective 4</td>
</tr>
</tbody>
</table>
Courses

Core Courses
PED701 Methods and Issues in Advanced Qualitative Research
PED703 Methods and Issues in Advanced Quantitative Research
PED705 Ways of Knowing
PED733 Designing and Developing a Research Framework

Elective Courses
PED741 Application of Research Methods in Education
PED831 Writing Proposals for Grants
PED833 Independent Research Study
PED835 Global Insights in Teacher Education
PED837 Research & Innovation in Educational Leadership
PED820 Innovations & Pedagogies in Teacher Education
PED839 Designing & Conducting Action Research in Education

Thesis
PED991 Research Thesis (3 credit-hour)
PED992 Research Thesis (6 credit-hour)
PED993 Research Thesis (9 credit-hour)

*It is mandatory for students to attend defense sessions given by MPhil and PhD candidates*
The PhD in Economics focuses on providing state-of-the-art teaching and research skills within the broader economics discipline. This program aims to produce scholars with thorough knowledge of economic theory, technical and quantitative skills and the ability to apply these to study economic problems. These goals are achieved through teaching, workshops, research seminars, term papers and thesis writing.

Eligibility

BS or equivalent graduates from HEC recognized institutions meeting the following criteria:

- A minimum CGPA of 3.00 on a scale of 4.00 (or overall 60% marks) or equivalent
- A minimum of 16 years of schooling that corresponds to BS or MS/MPhil equivalent degree from HEC recognized institutions in a relevant discipline
- GRE subject specific or GAT subject test conducted by the NTS, or equivalent in the relevant discipline. A minimum of 60% (percentage) marks is required
- Pass interview conducted by the Institute
- Meet all other HEC stipulated requirements

Program Requirements

PhD requires completion of coursework and dissertation/thesis. Minimum duration is three years and maximum is eight years.

PhD course work requirements for MS/MPhil degree with Economics background consist of six graduate level courses (18 credit hours). For BS/MS/MPhil degree with non-economics background completion of four deficiency courses (12 credit hours) is also required. BS with Economics background are required to complete 11 additional graduate level courses (33 credit hours).

On completion of dissertation/thesis the student is awarded 30 credit hours.

A PhD student must additionally complete the following requirements:

- Comprehensive exam
- PhD proposal/synopsis development
- PhD proposal/synopsis defense
- BASR approval of PhD proposal/synopsis
- Continuous enrollment in supervised research courses for meeting the full-time residency requirements
- Completion of PhD dissertation/thesis
- Selection of external evaluators by BASR
- Publication of at least one paper in an ISI indexed or an HEC recognized journal or an official acceptance of the paper
- Evaluation of PhD dissertation by two foreign faculty members from developed countries as per HEC criteria
- Dissertation/thesis finalization
- Open defense of PhD dissertation
- Any other HEC requirement
- Final dissertation/thesis submission to BASR

PhD Course Structure

Deficiency Courses

BS (Without Economics background) (Maximum 12 Credit hours)

Four Economics courses to be selected from BS (Economics) courses by a Doctoral Committee of the department

MS (Without Economics background) (Maximum 12 Credit hours)

ECO601 Microeconomics
ECO602 Macroeconomics
ECO603 Econometrics and Research Methods
ECO611 Mathematics for Economists
BS degree/Background (33 Credit hours)

Core Courses
ECO601 Microeconomics
ECO602 Macroeconomics
ECO603 Econometrics and Research Methods
ECO607 Development Economics I
ECO608 Theory and Practice of Economic Policy
ECO609 Mathematics for Economists
ECO611 Applied Econometrics
ECO612 Qualitative Research Methods
ECO613 International Trade & Globalization
ECO651 Independent Study I
ECO652 Independent Study II

PhD (18 Credit hours)

Core Courses
PDE701 Advanced Research Methodology
PDE702 Advanced Applied Econometrics
PDE704 New Dimensions in Economics and Public Policies
PDE705 Advance Microeconomics

Elective Courses
PDE711 Industrial Economics In a Globalized World
PDE712 Public Finance
PDE714 Selected Topics in Monetary Economics
PDE715 Selected Topics in Islamic Economics
PDE716 Mergers, Acquisitions and Restructuring
PDE717 Topics in Labor Economics
PDE718 Topics in Financial Economics
PDE719 Agricultural Policy
PDE720 Topics in Environmental Economics
PDE 721 Economics of Governance
PDE722 Topics in Health Economics

Course Structure (MS With Economics background)

<table>
<thead>
<tr>
<th>Semester One</th>
<th>Semester Two</th>
<th>Semester Three</th>
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</thead>
<tbody>
<tr>
<td>Advanced Applied Econometric</td>
<td>Elective I</td>
<td></td>
</tr>
<tr>
<td>Advance Microeconomics</td>
<td>Elective II</td>
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</table>
### Course Structure (MS Without Economics background)

<table>
<thead>
<tr>
<th>Semester One</th>
<th>Semester Two</th>
<th>Semester Three</th>
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</thead>
<tbody>
<tr>
<td>Microeconomics (Deficiency Course)</td>
<td>Mathematics for Economists (Deficiency Course)</td>
<td>New Dimensions in Economics and Public Policy</td>
</tr>
<tr>
<td>Macroeconomics (Deficiency Course)</td>
<td>Advanced Research Methodology</td>
<td>Advance Microeconomics</td>
</tr>
<tr>
<td>Econometrics &amp; Research Methods</td>
<td>Advanced Applied Econometric</td>
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<tr>
<td>(Deficiency Course)</td>
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<th>Semester Four</th>
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<tbody>
<tr>
<td>Elective I</td>
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<td>Elective II</td>
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### Course Structure (BS with Economics background)

<table>
<thead>
<tr>
<th>Semester One</th>
<th>Semester Two</th>
<th>Semester Three</th>
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<tbody>
<tr>
<td>Microeconomics</td>
<td>Development Economics I</td>
<td>Applied Econometrics</td>
</tr>
<tr>
<td>Macroeconomics</td>
<td>Theory and Practice of Economic Policy</td>
<td>Qualitative Research Methods</td>
</tr>
<tr>
<td>Econometrics &amp; Research Methods</td>
<td>Mathematics for Economists</td>
<td>International Trade &amp; Globalization</td>
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<thead>
<tr>
<th>Semester Four</th>
<th>Semester Five</th>
<th>Semester Six</th>
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<tbody>
<tr>
<td>Independent Study I</td>
<td>Advanced Research Methodology</td>
<td>New Dimensions in Economics and Public Policy</td>
</tr>
<tr>
<td>Independent Study II</td>
<td>Advanced Applied Econometric</td>
<td>Elective I</td>
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<td></td>
<td>Advance Microeconomics</td>
<td>Elective II</td>
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<thead>
<tr>
<th>Semester Seven</th>
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<tbody>
<tr>
<td>Research Thesis</td>
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### Course Structure (BS without Economics background)

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<tr>
<th>Semester One</th>
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<th>Semester Three</th>
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</thead>
<tbody>
<tr>
<td>Deficiency Course I</td>
<td>Deficiency Course IV</td>
<td>Econometrics &amp; Research Methods</td>
</tr>
<tr>
<td>Deficiency Course II</td>
<td>Microeconomics</td>
<td>Development Economics I</td>
</tr>
<tr>
<td>Deficiency Course III</td>
<td>Macroeconomics</td>
<td>Theory and Practice of Economic Policy</td>
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<table>
<thead>
<tr>
<th>Semester Four</th>
<th>Semester Five</th>
<th>Semester Six</th>
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<tbody>
<tr>
<td>Mathematics for Economists</td>
<td>International Trade &amp; Globalization</td>
<td>Advanced Research Methodology</td>
</tr>
<tr>
<td>Applied Econometrics</td>
<td>Independent Study I</td>
<td>Advanced Applied Econometric</td>
</tr>
<tr>
<td>Qualitative Research Methods</td>
<td>Independent Study II</td>
<td>Advance Microeconomics</td>
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<tr>
<th>Semester Seven</th>
<th>Semester Eight</th>
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<tbody>
<tr>
<td>Elective I</td>
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<td>Elective II</td>
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<th>Semester Eight</th>
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INTERNSHIP PROGRAM

At IoBM the Internship Program is designed to allow students to work on meaningful assignments and gain real-world experience; thus, making them immediately valuable for the organisations they join upon graduation. The internship aims to provide IoBM students with relevant corporate experience in reputed organisations. An internship bridges the gap between the theoretical knowledge and practical skills needed in professional life. Real-world experience related to their field and knowledge is of vital importance to students in two main areas:

Work Experience

An internship is a means to gain hands-on work experience, develop specific skills and knowledge, and network with people from the student’s chosen field. Moreover, employers assess the skills and abilities of prospective employees by evaluating their previous experience. Students pursue career-related opportunities before graduation, thereby obtaining an edge over other candidates in the competitive job market.

Career Choices

An internship provides a more accurate picture of what individuals would do in certain professions. After experiencing a particular job environment and observing what it entails, students may decide if this is the right career. The internship is compulsory for MBA regular and Bachelors’ students. MBA weekend program and evening program students are exempted from the internship program as they are already on the job.

Eligibility for Internship

**MBA:** Minimum CGPA = 2.8    Semesters completed at IoBM = Two
**Bachelors Degree:** CGPA = 2.4  Semesters completed at IoBM = Four or Five

- Candidates must have completed MKT 404, Methods in Business Research (MBR) or any other equivalent course according to their degree program.
- Interested and eligible students are required to register INT 302 (Non credit) on SMARTZ.
- A registration fee may apply.
- The internship is for a minimum of six continuous weeks.
- Students are not allowed to take any weekday course along with official internship program.
- The internship is allowed only in organisations approved by the Internships & Placements Department.
- All interns are required to write a report based on the given guidelines.
- SOPs of internship will be provided to registered interns prior to the start of internship.
### LIST OF COMPANIES IN WHICH IoBM STUDENTS DO INTERNSHIP

| 10Pearls | Alternate Research Pvt. Ltd. |
| 14th Street Pizza | Aman Foundation |
| 360 Training | American Pacific Enterprises LLC |
| 360Training.com | AMFCO International |
| 3M Pakistan Pvt. Limited | Amir Adnan |
| A.F. Ferguson & Co. Chartered Accountants | Amreli Steels Limited |
| A.I. MIR LLC | Anjum Asim Shahid Associates Limited |
| AAJ News TV | APL Pakistan Pvt. Ltd. |
| Aaj TV | Apna Karachi FM 107 |
| AASA Consulting (Pvt) Ltd. | APTECH Computers Education |
| Aba Ali Habib Securities | Arif Habib Bank Limited |
| Abacus-Global | Arif Habib Limited |
| ABAMCO Limited | ARMTECH Business Solutions (Pvt.) Ltd. |
| Abbott Laboratories Pakistan Ltd. | Arpatech |
| Abudawood Trading Company | Arpatech Pvt. Ltd. |
| ACCA Pakistan | Artal Group of Companies |
| Ace Insurance Limited | Artistic Milliners |
| ACM Gold Pvt. Ltd. | ARY Communications |
| Adam Motor Co. Limited | ARY Digital Television Network |
| Adamjee Life Insurance Company | AsiaCare Health & Life Insurance |
| Adcom Pvt. Limited | Asiatic Public Relations Network Ltd. |
| ADM Denim | Askari Bank Limited |
| ADVANS Micro Finance Bank | Asktourism |
| Aftab Associates | Atco Laboratories (Pvt) Limited |
| Aga Khan Education Services | Atlas Honda |
| Aga Khan Health Services | Attock Cement Pvt. Limited |
| Aga Khan University | Auspak |
| Agha Steel | Automobile Corporation Pakistan |
| Ahmed Foods | Avanza Solutions |
| AIG Pakistan | Aventis Pharma Pakistan Limited |
| Airlift | Axis Communications |
| Airmen Golf Course & Recreational Park | Badar Expo Solutions (BXSS) |
| Aisha Steel Mills Ltd. | Bandhani Group |
| Akber Ali & Sons | Bank Al Baraka |
| AKD Commodities | Bank Al Habib |
| AKD Securities | Bank AlFalah Limited |
| Akhuwat Foundation | Bank Al-Habib Limited |
| Al Marai, Saudia Arabia | Bank Islami Limited |
| Al Meezan Investment Management Ltd | Bank of Punjab |
| Albaraka Bank Limited | Barclays Bank Limited |
| Alfalah Securities | BASF Pakistan |
| Ali Asghar Textile Mills Ltd. | Bayer Pakistan |
| Allianz EFU Health Insurance Limited | BenchMatrix |
| Al-Mughal Trading Corporation | Bentham Science Publishers |
| Alstom Pakistan (Pvt,) Limited | Berger Paints Pakistan Limited |
Berlitz
Beyond Profits
Blitz Advertising (Pvt.) Limited
Blue Communications
BMA Capital Management Limited
BOC Pakistan Limited
BOL Network
Boom Group Pakistan
Bosch Pharmaceuticals
Bottomline Pvt. Ltd.
Bounty Studio
Brand Mileage
Brand Synario
BreezeCom Pvt. Ltd.
Bridgestone Tires Pakistan Limited
Bullseye 360
Burj Bank Ltd.
Business Plus
Business Recorder
Byco Petroleum Pakistan Ltd.
Cadbury Pakistan Ltd.
Calibre Vintage
Candyland Industries Limited
Capital Management (Pvt.) Limited
Carbonated TV
Careem
CDC Pakistan
Celentas Digital Solutions
Centegy Technologies (Pvt.) Ltd.
Central Depository Company of Pakistan
CIM Shipping
Citi Security
Citibank N.A.
Citizen Archive of Pakistan
Citizens Foundation
Clariant Pakistan Limited
Classic Designs
Clicktrade
Cloud BPO
Clouds Innovators Solution
CM Pak Ltd.
Coats Pakistan Pvt. Ltd.
Coca-Cola Beverages Pakistan Ltd.
Colgate Palmolive Pakistan Ltd.
Collective Wizdom
Commtel Digital
Contact Plus
Continental Biscuits Pvt. Limited
Contract Advertising
Converge Technologies Pvt Ltd.
Creative Chaos Pvt. Ltd.
Creative Edge Communications
Creative Factor
Creek Developers
Crescent Insurance
Crescent Steel and Allied Products Limited
Crown Group of Companies
Crystal-Lite
Cubix Labs
Cupola Pakistan Limited
Custom HR Solutions
Cybernet
Dadabhoy Investments Pvt. Ltd.
Dadex
Dalda Foods Pvt. Ltd.
DAMCO Pakistan (Pvt) Ltd.
Dany Technologies
Daraz Pakistan
Daraz.Com
Dawlance (Pvt.) Limited
DAWN News
Dawood Hercules Corporation
Deal Club
Deal Today
Dealon
Deloitte Pakistan
Descon Engineering
Deutsche Bank
Dewan Group of Companies
Dewan Mushtaq Trade Ltd.
DG Harbour
DGS Pvt. Ltd.
DHL Global Forwarding
DHL Pakistan Limited
Digital Tribe
Directing Edge
DMK Consultancy
Dollar Industries
Dolmen Group
Dot Images
Drug Information Systems
Dubai Islamic Bank Limited
Duleaf
Dupont Pakistan
EDGE Financials
EFU General Insurance Limited
EFU Life Assurance Limited
Elixir Securities Pakistan Ltd.
Empact
Engage 24X7
Engage Consulting
English Biscuits Manufacturers Ltd.
Engro Corp.
ENI Pakistan Limited
EPFirms
Ephlux
EPlanet Communication
Epoxy Industries (Pvt.) Limited
<table>
<thead>
<tr>
<th>Company Name</th>
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<tr>
<td>Escape Advertisement</td>
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<td>eSys Pakistan</td>
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<td>Faysal Asset Management Ltd.</td>
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<td>Friends of Literacy &amp; Mass Education</td>
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<td>Ghulam Farooq Group</td>
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<td>Gul Ahmed Textile Mills</td>
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<td>HR Outsourcing &amp; Consulting</td>
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<td>HUB-PAK SALT REFINERY</td>
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<td>ICS Group of Companies</td>
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<td>International Foundation and Garments (PVT) Ltd</td>
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<td>INVATERRA</td>
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Invortex Technologies
Iris Communication
Islamic Investment Bank
Ismail Industries
Ismail Iqbal Securities
IT Link Online
J. Walter Thompson Asiatic (Pvt.) Ltd.
Jaag Broadcasting Systems Pvt Ltd.
Jaffer Brothers Limited
Jahangir Siddiqui & Co. Limited
Jason Group of Companies
Jazz Warid
JCR -VIS
Jeem Solutions
Johnson & Johnson Pakistan Ltd.
Jotun Paints
JS Bank Limited
JS Global Capital Limited
JS Investment
Junctionz
KalSoft (Pvt.) Limited
Karachi Deals
Karachi International Container Terminal Ltd.
Karachi Stock Exchange Limited
Karachi Vocational Training Institute
KASB Bank Limited
KASB Capital
KASB Funds Limited
KASB Securities
K-Electric
Khaliq Fashion
Khwaja Ghareeb Nawaz Trust
KNYSYS
Kopak Shipping Company
KPMG Taseer Hadi & Co.
KZR Associates
Lakson Group of Companies
Lalani & Associates
Land O’Lakes Inc.
Lane 12
Lasmo Oil Pakistan Limited
LGS Matrix
Liberty Books
Lilly Pakistan (Pvt) Ltd.
Linde Pakistan
Live Securities Pvt. Ltd.
Lo’real Pakistan
Logic Information’s
Logicose
Lootlo.pk
Lucky Cement
Lucky Textile Mills
Lucky Knits
M. Yousuf Adil Saleem & Co. Chartered Accountants
Maersk Sealand
Magnus Investment Advisors Ltd.
Majsons Corporation
MAL Pakistan Limited
Manhattan Leo Burnet
Manzor Pakistan
Maple Pharmaceuticals Pvt. Ltd.
Marie Stopes Society
Markematics Pvt. Ltd.
Martin Dow Pharmaceutical
Mass Advertising Pvt. Ltd.
Mazars
MCB Bank Limited
MCB-Arif Habib Savings & Investments Limited
Meat One
Media Axis
Media Max Pvt. Limited
Media Pulse Pvt. Limited
Meezan Bank Ltd.
Mehran Enterprises
Merck Marker Pvt. Ltd.
Merit Packaging Pvt. Ltd.
Meritocracy
Metro Cash & Carry Pakistan
Metropolitan Bank Limited
MGH Group
Microsoft Corporation
Midas Safety
Mindshare Pakistan Pvt. Limited
Mitsubishi Corporation
Mobil Askari Lubricants
Mobilink
Mobitel, KSA
Mondelz
Monsieur
Mother and Child Welfare Foundation
MS Associates
MullenLowe & Rauf
 Muller & Phipps Pakistan Pvt. Ltd.
Multinet Pakistan Pvt Ltd
Multinet Pakistan Pvt. Ltd.
Mushawar Consulting
Mustafa & Co. Pvt. Limited
MWM Studio
Nabiqasim Industries
Najmi Bilrami Collaborative Pvt. Ltd.
Nanosoft Technologies Pvt. Ltd.
Narejo Human Resources
National Bank of Pakistan
National Clearing Company of Pakistan Ltd.
National Commodity Exchange
National Foods Limited
National Fullerton Asset Management Ltd.
National Industrial Parks Ltd. (NIP)
National Insurance Company
National Investment Company of Pakistan
National Investment Trust
National Marketing Services
Naveena Export Pvt. Limited
NBP Funds Management
Nedo Corporation
Nestle Pakistan
Net Space Systems
New Era Industries
New Jubilee Insurance Co. Limited
Next Degree
Next Generation Innovations
NIB Bank Ltd.
Nielsen Pakistan
Nizami Bijli
Nolin BPO
Novartis Pharma Pakistan Limited
OBS Group
Oceanic Star Line (Pvt) LTD
Oman National Electronics, Dubai
OMD Pakistan
OMV Pakistan Exploration
Oratech Systems Pvt. Limited
Orient Public Relations
Orix Pakistan Limited
Oxford University Press
Oxygene Pakistan
P&O Nedlloyd
Packages Limited
Pak Mediacom Pvt. Limited
Pak Oman Microfinance Bank
Pak-Arab Refinery Limited
Pakistan Institute of Corporate Governance
Pakistan Institute of Management
Pakistan Petroleum Ltd.
Pakistan Refinery Ltd.
Pakistan Services Limited
Pakistan State Oil Company Ltd.
Pakistan Super League (PSL)
Pakistan Telecommunication Co. Ltd.
Pakistan Television Corporation
Pakistan Tobacco Company (British American Tobacco)
Pakistan Vehicle Engineering (Pvt) Ltd.
Pak-Kuwait Investment Co. Ltd.
Pak-Petrochemical
Pak-Suzuki Motors Co. Limited
Parke Davis & Co. Limited
Pastel Communications
Path Group of Companies
PCI Group
Pearl Packages
Pegasus Consultancy (Pvt.) Ltd.
Pfizer Laboratories Limited
PharmEvo Pvt. Ltd.
Pharmatec
Philip Morris International
Philip Pakistan
Philips Electrical Co. of Pakistan
PIRAMAN Group
Pixarch
Pizza Hut
Pizza Hut – MCR (Pvt) Ltd.
Pizza Next - MFC Pvt. Ltd.
Plastech Products (Pvt.) Ltd.
Polaris
Premier Systems Pvt. Ltd.
Prestige Communications Ltd.
Prestige Grey
Price Solution Pvt. Ltd.
Prime HR
Procter & Gamble
Promotech Media Solution (Pvt) Ltd.
Protege Global
Qineqt
Qordata
Qubee
Rain Bargain
Reactivate Pvt. Ltd
Reckitt Benckiser Pakistan Ltd.
Red Tape Media
Resources Linked
Reveal Pakistan
RG Blue Communications (Pvt) Limited
Rhone Poulenc Rorer Pakistan Ltd.
Rising Technologies
Robotics Labs
Roche Pharmaceuticals Limited
Rohi International Pvt. Ltd.
Roshan Media
S13 - Systems Innovations Pvt. Ltd.
Sach International
Sagacious Business Consultancy
Salsoft Technologies Pvt. Ltd
Samba Bank Ltd.
Sana Safinaz
Sanofi Aventis Pakistan Ltd.
Sapphire Textile Mills Limited
SBT Japan
Schneider Electric
School of Leadership
SCT Group
Sea Gold limited
Searle Pharmaceuticals
Security Papers Limited
Service Sales Co.
Shabbir Tiles & Ceramics Ltd.
Shafi-Reso Chemicals
Shaheen Air International
Shaheen Airlines
Shajar Capital
Shamrock
Shan Foods Pvt. Ltd.
Shangrila Pvt. Ltd.
Sharaf Shipping Agency
Shell Pakistan Limited
SibiSoft Inc.
Sidat Hyder Morshed Associates Private Limited
Siemens Pakistan Engineering Co. Limited
Signium International
Silk Bank
Sindh Education Foundation
Singer Pakistan Limited
SKF Pakistan Pvt. Ltd
Small & Medium Enterprise Development Authority (SM-EDA)
Snack Bites Company
So Safe Pakistan
Social Sell
Socially Global
Solutionicks
Soorty Enterprises
Spark Communication
SSG Consulting
Stancos Pvt. Limited
Standard Chartered Bank Limited
Starcom Pakistan
Starcrest Communications
State Bank of Pakistan
Statuspro Inc.
STEP Consultants
Stitchers International
Stork Prints Pakistan
Strategic HR Promotion (SHRP)
Streebo
Strongman Medline
Structure Lab Services Pakistan
Sufi Brothers
Sui Southern Gas Company Ltd.
Sukoon.Com
Summit Bank Limited
Sun Consultants
Sun Enterprises
Sun Systems
Super Trading Inc.
SWVL
Symbios.pk
Synapse Consulting
Sysnet Pakistan Pvt. Ltd.
Systems Limited
Talent Optimizers
Tameer Micro Finance Bank Ltd.
Tapal Tea Pvt. Ltd.
Target Resourcing
Tarzz
Tata Group of Industries
Tata Textile Mills Ltd.
Taurus Securities Ltd.
TBH Employment and Consulting Services
TCS (Pvt.) Limited
TCS E-COM
Teach for Pakistan
Teamants
Teamz International
TeleCard Ltd.
Telemart
Telenor Pakistan Limited
TenPearls
The Bank of Khyber
The Brand Consultant
The Express Tribune
The First Micro Finance Bank Ltd.
The Learning Organisation
The Leatger Grandeur
The Recruiters
The Snack Bites Company
Thinkline
Third Eye Managed Services
Time & Vision Advertising
Times Consultant (Pvt) Ltd.
TIPU Associates
TNi - Worldwide Partners Inc.
Together
Top Boss
Total Lubricants
Touchpoint (Pvt) Ltd.
Toyota Indus Motor Company
TPL Holdings
TPL Trakker Limited
TPS
TradeKey
Transit HR Consulting
Transworld Associates
Travel Mate
Travel Solutions
Travelport
Tri Pack
Triple E Pvt. Limited
TV One - Airwaves Media Pvt. Ltd.
Uber
UBL Fund Manager
UBL Insurers
Ufone
Uniferoz
Unilever Pakistan Limited
Unique Pakistan
Unisys Pakistan Pvt. Limited
United Pakistan
United Assets Management Co. Ltd.
United Bank Limited
IoBM emphasises close collaboration with the government, firms, banks and leading HR consultants to ensure appropriate induction of its graduates into these organisations. Close links are maintained with CEOs and Heads of Departments in organisations to provide graduates with the best possible career prospects. Efforts are made to match students’ talents with the requirements of both multinational and local organisations.

IoBM’s Placement Department provides a firm commitment to its graduates for developing their careers. This begins when the student is inducted and continues with a lifelong partnership. Some of the activities designed students’ placement include but are not limited to the following.

**Publishing Graduate Directory**

Graduates are invited to showcase their resumes in IoBM’s Graduate Directory. GD is circulated to 150 national and multinational companies and is an essential tool for being placed in the market.

**Career Counselling Sessions**

The placement department holds Career Counselling Sessions for the final semester students. In these sessions, executives of renowned companies mentor the graduating batch students in one-to-one sessions. The purpose of these sessions is to

- uncover the underlying concerns of students about their area of interest,
- answer their questions regarding professional life,
- guide them in building their career road map and prepare them to step into the corporate world.

**Job Announcements**

IoBM’s placement department manages a database of job opportunities of reputed companies/organisations in the market. These opportunities are communicated regularly to our students, graduates & alumni via group emails.

**Career Fairs**

Career Fair is the annual feature of IoBM. It provides a meeting ground between the corporate world and students/graduates with resumes to HR representatives. Students are selected for jobs against companies’ requirements immediately or later since their data remains readily available with such organisations for possible employment.

**Employability Enhancement**

The department organises workshops and sessions on employability enhancement for our students. These workshops are on how to give interviews, CV writing, professional personality development etc. These workshops are conducted by professionals having extensive corporate experience and provide the students with a boardroom perspective, valuable practical tips and a unique networking opportunity with industry gurus. It helps our students & graduates to get good jobs and achieve rapid progression therein.

**On-Campus Recruitment Drives**

The department facilitates companies to conduct on-campus recruitment drives. On the day of the recruitment drive, employers can conduct information sessions, as well as conduct employment tests or on-the-spot interviews.

**Career Counseling advice**

Guidance and counselling are essential aspects of development for young adults at IoBM. The department is constantly engaged in assisting students in preparing for and finding jobs for them.
LIST OF COMPANIES IN WHICH IoBM GRADUATES ARE EMPLOYED

10Pearl
14th Street Pizza
1LINK (Guarantee) Limited
360 Training
3M Pakistan Pvt. Limited
A.F. Ferguson & Co. Chartered Accountants
A.I. MIR LLC
AAJ News TV
Aaj TV
AASA Consulting (Pvt) Ltd.
Aba Ali Habib Securities
Abacus Consulting
Abacus-Global
ABAMCO Limited
Abbott Laboratories Pakistan Ltd.
Abudawood Pakistan
ACCA Pakistan
Ace Insurance Limited
ACM Gold Pvt. Ltd.
Adam Motor Co. Limited
Adamjee Life Insurance Company
Adcom Leo Burnett
ADM Denim
ADVANS Micro Finance Bank
Aftab Associates
Aga Khan Education Services
Aga Khan Health Services
Aga Khan University
Agha Steel Mills
Agility Logistics Pakistan
Agro Processors and Atmospheric Gases (Pvt.) Ltd.
Ahmed Foods
AIG Pakistan
Airlift Technologies
Airmen Golf Course & Recreational Park
Aisha Steel Mills Ltd.
Akber Ali & Sons
AKD Commodities
AKD Investment Management Ltd.
AKD Securities
Akhuwat Foundation
Al Marai, Saudia Arabia
Al Meezan Investment Management Limited
Albaraka Bank Limited
Alfalah Securities
Ali Asghar Textile Mills Ltd.
Ali Gohar & Co. Limited
Ali Gohar and Company (Pvt) Limited
Al-Khair Distributor
Allianz EFU Health Insurance Limited
Al-Mughal Trading Corporation
Alstom Pakistan (Pvt.) Limited
Alternate Research Pvt. Ltd.
Aman Foundation
American Pacific Enterprises LLC
AMFCO International
Amir Adnan
Amrei Steels Limited
Anjum Asim Shahid Associates Limited
APL Pakistan Pvt. Ltd.
Apna Karachi FM 107
APTECH Computers Education
Arif Habib Bank Limited
Arif Habib Limited
ARMTECH Business Solutions (Pvt.) Ltd.
Arpatech Pvt. Ltd.
Artal Group of Companies
Artistic Milliners
ARY Communications
ARY Digital Television Network
AsiaCare Health & Life Insurance
Asiatic Public Relations Network Ltd.
Askari Bank Limited
Askari General Insurance Co. Ltd.
Asktourism
Atco Laboratories (Pvt) Limited
Atlas Asset Management
Atlas Honda
Attck Cement Pvt. Limited
Auspak
Automobile Corporation Pakistan
Avanza Solutions
Aventis Pharma Pakistan Limited
Axis Communications
Badar Expo Solutions (BXSS)
Bakri Energy (formerly Bakri Pakistan Pvt. Ltd.)
Bandhani Group
Bank Al Baraka
Bank Alfalah Limited
Bank Al-Habib Limited
Bank Islami Limited
Bank of Punjab
BankIslami Pakistan Limited
BASF Pakistan
Bayer Pakistan
Bays International (Pvt.) Limited
BDO Ebrahim & Co. Chartered Accountants
BenchMatrix
Bentham Science Publishers
Berger Paints Pakistan Limited
Beyond Profits
Blitz Advertising (Pvt.) Limited
Blue Chip FMCG (UAE)
Blue Communications
BMA Capital Management Limited
BOC Pakistan Limited
BOL Network
Boom Group Pakistan
Bosch Pharmaceuticals
Bottomline Pvt. Ltd.
Bounty Studio
Brand Mileage
Brand Synario
Breezecom Pvt. Ltd
Bridgestone Tires Pakistan Limited
British Council Pakistan
Brookes Pharma
Bulls Eye Communications
Bullseye 360
Burj Bank Ltd.
Business Plus
Business Recorder
Byco Petroleum Pakistan Ltd.
Cadbury Pakistan Ltd.
Calibre Vintage
Capital Management (Pvt.) Limited
Carbonated TV
Careem Pakistan
Carfirst
Celentas Digital Solutions
Centegy Technologies (Pvt.) Ltd.
Central Depository Company of Pakistan
Charter for Compassion Pakistan
Child Life Foundation
CIM Shipping
Citi Security
Citibank N.A.
Citibank N.A. Pakistan
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Jeem Solutions
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Jotun Paints
JP Coats Pakistan (Private) Limited
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JS Investments
Jubilee Life Insurance Pvt Ltd
Jumani Group of companies
Junctionz
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Karachi Deals
Karachi International Container Terminal Ltd.
Karachi Lubricants Pvt Ltd
Karachi Stock Exchange Limited
Karachi Vocational Training Institute
KASB Bank Limited
KASB Capital
KASB Funds Limited
KASB Securities
Kaymu.PK
K-Electric
Khaadi
Khaliq Fashion
Khwaja Ghareeb Nawaz Trust
KNYSYS
Kopak Shipping Company
KPMG Taseer Hadi & Co.
KZR Associates
Lakson Business Solutions
Lakson Group of Companies
Lalani & Associates
Land O’Lakes Inc.
Lane 12
Lasmo Oil Pakistan Limited
Levi Strauss & Co
LGS Matrix
Liberty Books
Lilly Pakistan (Pvt) Ltd.
Live Securities Pvt. Ltd.
Lo’real Pakistan
Logic Information’s
Logicose
Lootlo.pk
Lucky Cement Ltd.
Lucky Knits
Lucky Textile Mills
M. Yousuf Adil Saleem & Co. Chartered Accountants
Maersk Sealand
Magnus Investment Advisors Ltd.
Magnus Investments Advisors Limited
Majsons Corporation
MAL Pakistan Limited
Mandi Express
Manhattan Leo Burnet
Manzar Pakistan
Maple Pharmaceuticals Pvt. Ltd.
Marie Stopes Society
Markematics Pvt. Ltd.
Martin Dow Limited
Martin Dow Pharmaceutical
Mass Advertising (Pvt) Ltd
Mass Advertising Pvt. Ltd.
Mayfair
Mazars
Mazars Consulting
MCB Bank Limited
MCB-Arif Habib Savings & Investments Limited
Meat One
Media Axis
Media Max Pvt. Limited
Media Pulse Pvt. Limited
Meezan Bank Ltd.
Mehran Enterprises
Merck Marker Pvt. Ltd.
Merit Packaging Pvt. Ltd.
Meritocracy
Metro Cash & Carry Pakistan
Metropolitan Bank Limited
MGH Group
MGH Logistics Pakistan
Microsoft Corporation
Midas Safety
Mindshare Pakistan Pvt. Limited
Minha Soft
Mitchell’s Fruit Farms
Mitsubishi Corporation
Mobil Askari Lubricants
Mobilink
Mobitel, KSA
Mondelz
Monsieur
MS Associates
MullenLowe & Rauf
Muller & Phipps Pakistan Pvt. Ltd.
Multinet Pakistan Pvt. Ltd.
Mushawar Consulting
Mustafa & Co. Pvt. Limited
MWM Studioz
Nabiqasim Industries
Najmi Bilrami Collaborative Pvt. Ltd.
Nanosoft Technologies Pvt. Ltd.
Narejo Human Resources
National Bank of Pakistan
National Clearing Company of Pakistan
National Commodity Exchange
National Foods Limited
National Fullerton Asset Management Ltd.
National Industrial Parks Ltd. (NIP)
National Insurance Company
National Investment Company of Pakistan
National Investment Trust
National Marketing Services
Naveena Export Pvt. Limited
Nedo Corporation
Nestle Pakistan
Net Space Systems
New Era Industries
New Jubilee Insurance Co. Limited
Next Degree
Next Generation Innovations
Nielsen Pakistan
Nike Pakistan Limited
Nizam Bijli
Novartis Pharma Pakistan Limited
OBS Group
Oman National Electronics, Dubai
OMD Pakistan
OMV Pakistan Exploration
Optimus Capital Management
Oratech Systems Pvt. Limited
Orient Automotive Industries (PVT.) LTD
Orient Public Relations
ORIX Leasing Company
Orix Pakistan Limited
Oxford University Press
Oxygene Pakistan
P&O Nedlloyd
Packages Limited
Pak Mediacom Pvt. Limited
Pak Oman Microfinance Bank
Pak Petrochemical Industries
Pak-Arab Refinery Limited
Pakistan Institute of Corporate Governance
Pakistan Institute of Management
Pakistan Mercantile Exchange Limited
Pakistan Petroleum Ltd.
Pakistan Refinery Ltd.
Pakistan Services Limited
Pakistan State Oil Company Ltd.
Pakistan Telecommunication Co. Ltd.
Pakistan Television Corporation
Pakistan Tobacco Company (British American Tobacco)
Pakistan Vehicle Engineering (Pvt) Ltd.
Pak-Kuwait Investment Co. Ltd.
Pak-Petrochemical
Pak-Suzuki Motors Co. Limited
Parke Davis & Co. Limited
Pastel Communications
Path Group of Companies
PCI Group
Pearl Packages
Pegasus Consultancy (Pvt.) Ltd.
Pfizer Laboratories Limited
Pharmatec
PharmEvo (Pvt.) Ltd
Philip Morris International
Philips Electrical Co. of Pakistan
Philips Pakistan
PIRANA Group
Pixarch
Pizza Hut – MCR (Pvt) Ltd.
Pizza Next - MFC Pvt. Ltd.
Plastech Products (Pvt.) Ltd.
Point Blanc Media
Polaris
Premier Software (Pvt.) Ltd
Premier Systems Pvt. Ltd.
Prestige Communications Ltd.
Prestige Grey
Price Solution Pvt. Ltd.
Price Waterhouse Coopers Pakistan (PWC)
Primatics Financial
Prime HR
Procter & Gamble
Promotech Media Solution (Pvt) Ltd.
Protege Global
Qineqt
Queebe
Rafi Securities
Rain Bargain
Reckitt Benckiser Pakistan Ltd.
Red Tape Media
Red Tape Media
Resource Linked Private Limited
Reveal Pakistan
RG Blue Communications (Pvt) Limited
Rhone Poulenc Rorer Pakistan Ltd.
Rising Technologies
Robotics Labs
Roche Diagnostics
Roche Pharmaceuticals Limited
Rohi International Pvt. Ltd.
Roshan Media
S13 - Systems Innovations Pvt. Ltd.
Sach International
Sagacious Business Consultancy
Salsoft Technologies Pvt. Ltd
Samba Bank Ltd.
Sana Safinaz
Sanofi Aventis Pakistan Ltd.
Sapphire Textile Mills Limited
SASPAK Cargo Pvt Ltd.
SBT Japan
Schneider Electric
School of Leadership
SCT Group
Searle Pharmaceuticals
Service Sales Co.
Shabbir Tiles & Ceramics Ltd.
Shafi-Reso Chemicals
Shaheen Airlines
Shajar Capital
Shajar Capital Pakistan (pvt) Ltd
Shamrock
Shan Foods Pvt. Ltd.
Shandaar Corporation
Shangrila Pvt. Ltd.
Sharaf Shipping Agency
Sheild Corporation
Shekha & Mufti
Shell Pakistan Limited
Shipco Transport Pakistan (Pvt.) Ltd
SibiSoft Inc.
Sialat Hyder Morshed Associates Private Limited
Siddiqsons Limited
Siemens Pakistan Engineering Co. Limited
Signium International
Silk Bank
Sindh Education Foundation
Singer Pakistan Limited
SKF Pakistan Pvt. Ltd.
Snack Bites Company
So Safe Pakistan
Social Investment Managers and Advisors (SIMA)

LLC
Social Sell
Socially Global
Sofcom (Private) Limited
Softtech Microsystems
Solutionicks
Soorty Enterprises
South Asia Pakistan Terminals Limited
Spark Communication
SSG Consulting
Stancos Pvt. Limited
Standard Chartered Bank Limited
Starcom Pakistan
Starcrest Communications
State Bank of Pakistan
Statuspro Inc.
STEP Consultants
Stitchers International
Stork Prints Pakistan
Strategic HR Promotion (SHRP)
Streebo
Strongman Medline
Sufi Brothers
Sui Southern Gas Company Ltd.
Sukoon.pk.com
Summit Bank Limited
Sun Consultants
Sun Enterprises
Sun Systems
Super Trading Inc.
SWVL
Symbios.pk
Synapse Consulting
Sysnet Pakistan Pvt. ltd.
Systems Limited
Talent Optimizers
Tameer Micro Finance Bank Ltd.
Tameer Microfinance Bank Limited
Tapal Tea Pvt. Ltd.
Target Resourcing
Tarzz
Tata Group of Industries
Tata Textile Mills Ltd.
Taurus Securities Ltd.
TBH Employment and Consulting Services
TCS – E Com
TCS (Pvt.) Limited
Teach for Pakistan
Teamants
Teamz International
TeleCard Ltd.
Telenor Pakistan Limited
TenPearls
Thal Ltd
Thatta Cement Company Limited
The Arkadians, AKD Group
The Bank of Khyber
The Bank of Tokyo, MUFG
The Brand Consultants (TBC)
The Citizen Foundation
The Express Tribune
The First Micro Finance Bank Ltd.
The Hub Power Company Ltd
The Learning Organisation
The Leatger Grandeur
The Recruiters
The Searle Company Ltd
The Snack Bites Company
Thinkline
Third Eye Managed Services
Time & Vision Advertising
Times Consultant (Pvt) Ltd.
TIPU Associates
TNI - Worldwide Partners Inc.
Top Boss
Torque Corporation Pvt. Ltd
Total Lubricants
Touchpoint (Pvt) Ltd.
TPL Holdings
TPL Trakker Limited
TPS
TradeKey
Transit HR Consulting
Transworld Associates
Travel Mate
Travel Solutions
Travelport
TripleE Pvt. Limited
TV One - Airwaves Media Pvt. Ltd.
Uber
UBL Fund Manager
UBL Insurers
Ufone
UNDP Pakistan
Uniferoz
Unilever Pakistan Limited
Unique Pakistan
Unisys Pakistan Pvt. Limited
United Assets Management Co. Ltd.
United Bank Limited
United Consultants Pvt. Limited
United Energy Pakistan Ltd.
United Marine Agencies
United Registrar of Systems Limited
United Sales Pvt. Limited
Unity Foods
Universal Brush Ware Pvt. Ltd.
Urbanite
US Consulate, Karachi
USAID Pakistan
Versa Canada Inc.
Visa International (Asia Pacific) Ltd.
Vision Express
Vivo Mobile Pvt Ltd
Ward Howell International
Warid Telecom
Waterlink Group of Companies
Wavetec Pvt. Ltd.
Weekend World Marketing Limited
Wemsol Pvt. Ltd (KEENU)
Westminster & Eastern Financial Services Ltd.
Winstar Pvt. Ltd.
World Tel
WorldCall Broadband Limited
Wrap n Roll
WWF Pakistan
Xenith Public Relations (Pvt.) Ltd.
YB Holdings
Younus Brothers Group
Yunus Textile Mills Ltd.
Zameen.com
ZAP Infotech Inc.
ZEPCOM
ZH Technologies Inc.
ZIL Limited
Zishan Engineers Pvt. Ltd
Zong China Mobile
ZRG International
ENTREPRENEURSHIP & MANAGEMENT EXCELLENCE CENTER (EMEC)

Introduction

The Entrepreneurship & Management Excellence Center (EMEC) is the executive education and consultancy wing of Institute of Business Management. EMEC is responsible for conducting specialized management training programs by closely working with its clients. It provides a wide range of open enrolment, customized training programs, post-graduate diploma and summer school. These programs are designed for professionals, business personnel and leaders from various public and private sector organizations who aspire to seek new perspectives and insights on management Issues. These training programs are conducted by our distinct faculty members and leading industry scholars with research interests ranging from global business issues to local problems. Many of our trainers are leaders in their fields and bring in new knowledge and experiences in their sessions.

Initiatives by EMEC

- Trainings, seminars and conferences
- Lectures by foreign experts on specialized topics
- Collaboration with relevant organizations, institutes and associations
- Public & private partnerships administration of entrance tests
- Advisory/consultancy services
- Entrepreneur skills development

Programs at EMEC

Customized Training & Need Assessment Services
In order to bridge the gap between the actual and perceived market demand of organization’s most important resource, their people, EMEC employs a need assessment tool customized for each client. The customized and effective need analysis would translate goals into realistic achievable target determining in what areas the training is needed with a clear outcome. This process helps EMEC develops customized training programs for its clients.

Open Enrolment Training

With an aim of enhancing your skills and understanding to achieve your organizational, personal development and career objective, EMEC offers wide range of training programs. We offer training in the areas of Management, Marketing, Human Resources, Information Technology, Finance and Accounting, Leadership, Supply Chain.

Past Training Programs

Human Resource Management
- Executive Diploma in Human Resources
- Leading HR Change
- Developing Talent Management & Employer Branding Strategy
- Maximizing Return on Training
- Result Driven Performance Management
- Maximize your Sales Force Performance
- Recruitment, Interviewing and Selection
- Management of Contract / Outsourced Labour
- Competency Based People Management
• Compensation and Benefit Management
• New Approaches- Employer Branding and Talent Management
• Fundamentals of Effective Mentoring
• HR as Business Partner
• Management of Contract Labor
• Sindh Labour Laws & Updates

Sales and Marketing
• Diploma in CRM
• Competitive Advantages through Channel Management in FMCG
• Digital Marketing
• Ali Baba store selling
• Strategic Marketing Management
• Digital Marketing

Communication
• Assertive Communication for Managers
• Personal Branding Toolkit
• Business Report Writing
• Company Secretary: Master class

Banking & Finance
• Financial Modeling
• Block chain for Executives
• Pool Management and Profit Distribution
• Halal Audit for Halal Certification

Leadership & Strategy
• Introduction to Design Thinking
• Developing Leadership Excellence
• Consultative Simulation Workshop on Value Innovation
• Aligning HR with Business Strategy
• Pedagogical Leadership Teaching Training
• Design thinking for Business Innovation
• Project Sizing & Costing
• Introduction to Systematic Reviews
• Impression Management
• Criticality and Risk Assessment
• Re-energizing Teams in a New Environment
• Teamwork Skills
• Leadership in Post Pandemic

Soft Skills
• Basic to Advanced Excel
• Advanced Excel & Dashboard Reporting
• Microsoft Power Pivot, Power Query and Power BI

Logistics & Supply Chain Management
• Supply Chain Excellence
• Asset Performance Management - using Blended Learning

Entrepreneurship
• Diploma in Tech Entrepreneurship
• Creative Digital Art Skills for Business Start-ups
Training Facilities

1. A semicircular u-shape Lecture Theatre with a capacity of 85 persons equipped with microphones/speakers on individual desks, BenQ flat-panel interactive touch screen (android based) for sharing whiteboard and other contents with the audience.
2. Flexibility with room layout with plenty of space to move around for games and activities
3. Fully air-conditioned training rooms with a backup power supply.
4. Good acoustics and soundproofing
5. Participant breakout spaces with Mira-cast-based smart screens and flip chart boards
6. Catering – appropriate provision of refreshments/ lunch
7. Location – easy to find on a map, convenient location with access to public transport
8. Ample and secured on-campus parking
9. Trainers Lounge for use of office staff and trainers
10. Wireless Internet access
11. Photocopying/printing/ email on-demand from USB

EMEC Workshops
March 2022- July 2023

Workshops
• Business Intelligence and Big Data Visualization, March 15 & 16, 2023
• Leading HR in the World of New Normal, January 28, 2023
• Predictive Maintenance using the Internet of Things (IoT), November 30 & December 1, 2022
• The Future Supply Chain: Supply Chain Transformation through Digital Disruptive Technologies, November 16 & 17, 2022
• Successful Talent Acquisition Strategies, November 12, 2022
• New Business Drivers Shaping the Future of Leadership Effectiveness, October 29, 2022
• Business Intelligence and Big Data Visualization, October 26 & 27, 2022
• Compensation and Benefits Strategy in Competitive Market, October 8, 2022
• Transitioning to Result-Driven Performance Management, September 25, 2022
• Futuristic Trends in Learning and Development, September 10, 2022
• Competency-Based People Management, August 6, 2022
• Employer Branding and Talent Management in a Disruptive World, July 2, 2022
• Aligning Business Strategy with HR, June 18, 2022

Diploma
Four-month Undergraduate Diploma in Web development, Graphic Designing, Social Media and Freelancing, June 19 till October 18, 2023

Training Programs

Developing Leadership Excellence and Communication Skills
Two-day training for the officers of the School of Logistics, Pakistan Airforce (PAF) Airmen Academy on February 28 & March 1, 2023

Capacity Building Training for the Teachers
Two-day Capacity Building training for the teachers of DHA College & School System (DHACSS), March 2022

Capacity Building Consultative Workshops
Four-day training for the officers of Islamic Relief Pakistan, March 2022
OFFICE OF RESEARCH INNOVATION AND COMMERCIALIZATION (ORIC)

The Office of Research, Innovation and Commercialization (ORIC) is an integral part of the institution’s eco-system. It is headed by the Honourable President of IoBM, with the vision to make IoBM a hub of economic opportunities for academia, faculty and youth alike by fostering a research and innovation culture.

IoBM’s continuously supports its researcher to conduct rigorous applied research to become a centre of excellence. It is imperative that apart from maintaining high standards in teaching, research is rigorously pursued and suitably rewarded. The research & development output of IoBM is in line with national needs and contributes to the country’s socio-economic growth.

ORIC acts as a focal point for providing guidance and support to the constituent institutions in all activities related to research & development. As such, the office has a significant role in achieving IoBM vision. Therefore, the mission of this office is to facilitate and coordinate applied research activities and liaise with other national and international academics, research and industrial organizations to promote research at IoBM.

IoBM aims at making research a top priority for the future knowledge economy, which encompasses all the research activities, from the development of research proposals to the commercialization of research products - under a single umbrella.

The scope of work of ORIC includes, but is not limited to, initiatives as follows:

- Outcome-based research
- The research leading to product development
- Funding opportunities for research and product development
- Capacity building of students/faculty in winning research and product-development awards and hackathons
- Capacity building in research, innovation, and entrepreneurship

IoBM, in pursuance of achieving its agenda, established the President’s Innovation Steering Committee (PISC), which is the regulatory body to oversee and support research, innovation and entrepreneurship. Hence, help ORIC execute its strategy and key performance indicators as per the HEC’s requirements. The Steering Committee is supported through its role and functions by the Deans of IoBM Colleges/faculties and ORIC.

ORIC also, after a rigorous exercise, drafted the ORIC Five Year Strategic Policy (2021-2025), and six strategic themes stood out;

1. Promoting the culture of Research & Development through research excellence & collaboration
2. Entrepreneurship (innovation, commercialization, incubation, patent)
3. Capacity Building of faculty, staff & students (training/exhibitions/community events)
4. Promoting Industry-academia linkage: a source of knowledge creation, innovation & economic growth
5. HR & Operations
6. Sustainability

Following identifying strategic themes, ORIC goals, objectives and strategies are determined to ensure more clarity.
Yearly Insights Highlights of Activities

1. Research Proposal Submitted for Funding

   In the year 2021 – 22, around twenty-six (26) proposals have been submitted to numerous donors, including the Higher Education Commission (HEC), Islamic Relief Pakistan (IRP), United Nations Development Programme (UNDP), Government of Sind and other.

   However, in 2020 – 21, around thirty-seven (37) proposals were submitted to HEC and numerous other national and international donors by our faculty.

2. Grants Secured

   The research grant secured by IoBM through NRPU has amounted to Rs. 15.1 million in the year 2021 – 22, while in 2020 – 21 total amounts confirmed was Rs. 62.8 million.
QUALITY ENHANCEMENT CELL (QEC)

The QEC is an independent department at IoBM, established in 2008 under the directive of the Higher Education Commission (HEC) and is headed by a director. The purpose of QEC is to implement the guidelines provided by the HEC. It is also involved in planning, guiding, and monitoring quality assessment and enhancement activities.

Since its inception, QEC has been successfully functioning over the last eight years, amassing an excellent record. QEC was able to contribute to the implementation of qualitative and quantitative data for several academic programs.

QEC has consecutively been in the W category for the last eight years. In the recent ranking, the QAA of HEC has awarded the QEC of IoBM a score of 100%, which is a strong reflection of the quality assurance system at IoBM.

HEC QEC monitors plagiarism policies provided by HEC and serves as a focal point for the implementation of HEC quality criteria. All research papers are checked for plagiarism by software and reported to HEC on a regular basis.

The QEC is rated very highly by the Asia-Pacific Quality Network (APQN). It has received the best internal quality assurance award from APQN. APQN has recognized that QEC designed a post-graduate diploma in quality assurance in tertiary education which can be conducted locally and internationally. QEC is an active member in the IoBM linkage with APQN, AMDISA, CHEA, ASQ, INQAAHE, the Tallories network, etc.

QEC is responsible for setting up Systems, Applications, and Products (SAP) university alliance linkages with an Australian university with the help of German experts and is among the few institutions in the world to be providing SAP training to its students in the areas of Supply Chain, Human Capital Management, Finance and Accounting, Material Management, Production Planning, Project Management, etc.

QEC, has been the focal agency to coordinate acquiring accreditation by NBEAC for IoBM’s BBA and MBA programs, accreditation by the Pakistan Engineering Council (PEC) for its BS-Industrial Engineering and Electrical Engineering programs, and is currently assisting in acquiring AACSB accreditation and a QS ranking.

QEC is also responsible for developing policies, procedures, and their revisions. HEC utilizes the services of QEC in its assessment of Institutional Performance Evaluations of other HEIs on a regular basis. QEC is also conducting workshops on areas of quality and the preparation of self-assessment reports of the programs of other institutions. Uploading of all IoBM programs on the e-portal (PQR) of HEC has been done successfully by QEC.

QEC is now engaged in moving towards ISO-21001 Management Systems for educational organizations and in setting up an IoBM Center of Excellence for Quality Management for continuous quality improvement in the areas of engagement, innovation, and impact.
ADMINISTRATIVE AND ACADEMIC REQUIREMENTS
After completion of their MBA program, all students are required to pass a comprehensive examination conducted by the Institute. The comprehensive examination provides students an opportunity to integrate, synthesize and apply the various aspects of academic achievements and overall work done in their chosen majors and the core courses studied during their MBA. Preparation for the comprehensive examination would develop a broader understanding of the significance of the major chosen by the students within the framework of their overall educational experience.

Structure

The comprehensive examination is of a three hour duration divided equally into three segments and consisting of three case studies, each of a one hour duration.

The case studies/questions are related to all majors available to MBA students.

1. To pass the comprehensive examination, a student must get satisfactory grades in one of their majors and in one non-major. The examination is to be conducted twice a year in the months of March and September. Students will be charged Rs. 5,000 as comprehensive examination fee. Passing the comprehensive examination is a mandatory requirement for obtaining the MBA degree.

2. Students are allowed a maximum of two attempts to qualify for the comprehensive examination. A third attempt may be availed only after the Dean’s permission. The comprehensive examination is taken only after the students have completed all course requirements and attained a CGPA of at least 3.0 in their program.

3. A refresher course will be arranged by EMEC in the month of August for students who will appear in the comprehensive exam in September and will be conducted by faculty from within IoBM or hired from outside. Students will be charged a nominal fee for attending the refresher course.
PROCEDURE FOR SUBMITTING MS, MPhil & PhD THESIS

MS / MPhil Thesis

- Candidates must pass NTS (50% or more marks in General Exam) or equivalent test taken by IoBM / GRE
- Candidates must pass 08 courses (24 credit hours) with a minimum CGPA of 3.0. D grades will not be considered
- Qualified candidates to inform MPhil program coordinator/ HoD to decide on a specialized area for research
- Candidates to suggest supervisor as per relevant area of interest
- BASR’s decision to be shared with the candidate and supervisor in writing
- Candidates to submit thesis on a CD for plagiarism (19% acceptable) check to the program BASR Office (Reference section to be excluded from thesis)
- After Plagiarism check, candidates will submit four copies of final thesis to the BASR
- BASR to approve the examiners’ names: 2 for Thesis Evaluation and 1 for Thesis Defense (equal number of alternative names will also be shared with the BASR) which will be provided by the supervisor
- Reports from the examiners to be directed to the respective Deans
- Dean to submit the report to BASR for recommendations (if any)
- Final copy of the thesis to be submitted to BASR for thesis defense
- Supervisor, coordinator, respective Dean, external examiner, relevant department faculty to form the thesis defense committee
- Candidates to defend the thesis through PowerPoint presentation
- Viva report to be submitted to the respective dean
- Dean to forward the examiners’ report to BASR for the final approval of degree
- The Rector to confirm the award of the degree

PhD Thesis / Dissertation

For prescribed forms and details, refer to PhD manual for students

- Candidates must pass NTS (60% or more marks in subject exam) or equivalent test i.e. GRE or by IoBM
- Candidates must pass 06 courses (18 credit hours) with a minimum CGPA of 3.0. D grades will not be considered
- Qualified candidates to inform PhD program coordinator/HoD to decide on a specialized area for research
- Candidate to suggest supervisor as per relevant area of interest
- BASR’s decision to be shared with the candidate and supervisor in writing
- Candidates to submit thesis on a CD for plagiarism (19% acceptable) check to the BASR Office (Reference section to be excluded)
- After Plagiarism check, candidates submit four copies of final thesis to the BASR Office
- BASR to approve the examiners’ names: Two international thesis evaluators and one national evaluator (equal number of alternative names will also be shared with the BASR committee members) which will be provided by the supervisor
- Reports from the examiners to be directed to the respective deans
- Dean to submit the report to BASR for recommendations (if any)
- Final copy of the thesis to be submitted to BASR for thesis defense.
- Supervisor, coordinator, respective dean, external examiners, relevant department faculty to form the thesis defense committee
- Candidates to defend the thesis through PowerPoint presentation
- Examiners’ report to be submitted to the respective dean
- Dean to forward the examiners’ report to BASR for final approval of degree
- The Rector to confirm the award of the degree
TEACHING AND LEARNING AT IoBM

IoBM has been, and continues to aim at harnessing the best researched and the most widely implemented methods of dissemination of information to support excellence in teaching, learning and research. Multifaceted teaching strategies at IoBM include experiential learning, cooperative learning, directed class discussions and activities in critical thinking.

- Experiential learning methodology enables industry engagement through “learning by doing” approach. Adoption of experiential learning in all programs is a strategic initiative of IoBM.
- The case method of instruction continues to be a significant classroom teaching strategy at IoBM with a view to integrating the best practices with management theory.
- Field-based learning encourages students to complement their conceptual knowledge with off-campus learning experiences that deepen their understanding of business issues.
- Research-based assignments under the supervision of trained faculty aim to hone the research skills of students and maximize participant-centered learning experiences by exploring specific topics of interest related to real business situations.
- Specially-designed classrooms reinforce instruction through multimedia technology.
- Understanding being the purpose of instruction, the process of assessment at IoBM is more than just evaluation. It is a substantive contribution to learning that aims to identify gaps in student learning. IoBM’s approach to learning is rooted deeply in assessment that fosters understanding and is more than an end-of-the-semester test. It informs students and faculty about what students currently understand and how to proceed with subsequent teaching and learning.

Performance Evaluation and Standards

The performance of students is constantly evaluated through surprise quizzes, hourly examinations, assignments throughout the semester, submission of term reports, presentations and final examinations at the end of the semester. The grades awarded are as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Marks</th>
<th>Grade Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>96-100</td>
<td>4.00</td>
</tr>
<tr>
<td>A</td>
<td>91-95</td>
<td>3.89</td>
</tr>
<tr>
<td>A-</td>
<td>87-90</td>
<td>3.78</td>
</tr>
<tr>
<td>B+</td>
<td>84-86</td>
<td>3.67</td>
</tr>
<tr>
<td>B</td>
<td>79-83</td>
<td>3.33</td>
</tr>
<tr>
<td>B-</td>
<td>74-78</td>
<td>3.00</td>
</tr>
<tr>
<td>C+</td>
<td>68-73</td>
<td>2.75</td>
</tr>
<tr>
<td>C</td>
<td>65-67</td>
<td>2.67</td>
</tr>
<tr>
<td>C-</td>
<td>62-64</td>
<td>2.50</td>
</tr>
<tr>
<td>D</td>
<td>60-61</td>
<td>1.75</td>
</tr>
<tr>
<td>F</td>
<td>&lt;60</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Grade points are assigned to the given grades for calculation of the cumulative Grade Point Average (CGPA).
‘I’ Grade Policy

Eligibility criteria for approval of ‘I’ grade: Student missing final examination of a course due to a genuine reason, for example, serious illness/death in immediate family or official assignment may apply for ‘I’ grade with documentary evidence.

Conditions for I grade: Absences should not exceed the allowed limit; marks obtained in 1st & 2nd hourlies should be at least 60% and I grade processing fee of Rs.1000/= per course to be paid. Marks obtained should be at least 60% ‘I’ grade final exam otherwise ‘I’ grade will be changed to F grade.

Weightage Policy

Eligibility criteria for approval of Weightage: Student missing any of the two hourly examination of a course due to a genuine reason, for example, serious illness/death in immediate family or official assignment may apply for weightage with documentary evidence.

Conditions for weightage: Absences should not exceed the allowed limit; marks obtained in final examination should be at least 60% and weightage processing fee of Rs.2000/= per course to be paid.

Rechecking Policy

Eligibility criteria for Rechecking: After the final exam results have been posted, a student can apply for rechecking of final exam answer script/term project.

Conditions for rechecking: Absences should not exceed the allowed limit; marks obtained in 1st, 2nd hourlies & final examination should be at least 60% and rechecking processing fee of Rs.1000/= per course to be paid.

Note: Detailed policies are available on website in examination section.

Leave for Absences

A student shall apply for leave for his/her absence from class in advance, duly supported with concrete evidence, for approval of the Rector. Following tables shows the approved absences for a course during a semester.

<table>
<thead>
<tr>
<th></th>
<th>Approved Absences:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular Semester:</td>
<td>4 days</td>
</tr>
<tr>
<td>Weekdays</td>
<td>2 days</td>
</tr>
<tr>
<td>Summer Semester:</td>
<td>3 days</td>
</tr>
<tr>
<td>Weekdays (Crash)</td>
<td>2 days</td>
</tr>
</tbody>
</table>

The above absences are allowed on account of serious illness or emergencies and after approval by the Rector.

If a student accumulates more than the approved number of absences in a course, he/she will automatically be awarded an “F” grade in that particular course.

A student will not be eligible to apply for weightage or ‘I’ grade in case the absences exceed the allowed limit. In case of a severe constraint, a student may apply for condoning of excess absences supported with concrete evidence to Academics Officer, who will forward the application along with evidence and attendance record duly verified by him, to the Rector for approval. After the Rector’s approval, the student will have to sign an attendance undertaking.
IoBM stands out among other universities for its special emphasis on maintaining good order and discipline among its students. It reserves the right to prescribe such regulations from time to time as may be considered expedient for effectively maintaining the highest standards of conduct. The regulations set out below are IoBM’s General Regulations for discipline.

The General Regulations provide that:

**No student of IoBM shall**

1. disrupt the activities and functions of the Institute;
2. damage any property of the Institute or of any faculty member, visitor or an employee of the Institute or knowingly misappropriate such property;
3. forge or falsify any certificate/degree issued by IoBM or knowingly make false statements concerning standing or results obtained in examinations;
4. engage in violent, indecent, disorderly, threatening, or offensive behavior or language;
5. engage in the harassment/disrespect of any faculty member, peer, visitor, employee of the Institute;
6. exhibit behavior that is inappropriate in terms of the norms and cultural values of the Institute and society in general;
7. engage in any political activity while enrolled at IoBM;
8. disrespect/disregard any guidelines/instructions prescribed by faculty and management of the Institute;
9. assist or encourage directly or indirectly any person to act in breach of the above-mentioned regulations.

**No student of IoBM shall breach any regulation**

a) relating to the use of the libraries or the information and communication technology facilities at IoBM;
b) relating to conduct in examinations;
c) assist or encourage directly or indirectly any person or persons to act in breach of the above-mentioned regulations.
The Disciplinary Committee

The Disciplinary Committee, IoBM, comprises a Chairman, Executive Director Administration, Academic Heads of Departments, Controller of Examinations, and other members notified by IoBM. If the Disciplinary Committee is satisfied that a student is guilty of breach of conduct it may:

1. impose a fine of such amount as it thinks fit;
2. order the student to pay compensation to any person or body suffering injury, damage, or loss as a result of the student’s conduct;
3. make an order banning the student from specified premises or facilities for a certain period or on such terms as it thinks fit;
4. rusticate the student for such period as it thinks fit;
5. expel the student;
6. ask the parents of the student to give an undertaking that henceforth their wards will not get involved in any activity warranting disciplinary action and should any such incident occur, the Disciplinary Committee reserves the right to expel him/her permanently from the Institute without even asking him/her to appear before the Committee for the consideration of his/her case.

If the Disciplinary Committee is satisfied that a student has committed a breach of the disciplinary regulations relating to plagiarism it may:

(i) exclude any part of the work submitted from assessment;
(ii) award no mark / reduce or disregard any piece of work;
(iii) permit a student to re-sit an examination or resubmit a piece of work on such conditions as it thinks fit.

Appeal / Review of the decision:

The review of the decision taken by the committee shall rest with the President, IoBM.
ATTENDANCE POLICY

Ensure 100% attendance for each course. 20% absence is permissible, only in case of illness, or emergencies. Absences have to be approved by the Management. Approval is contingent upon the evidence provided. 20% means that a student is allowed a maximum of four approved absences in a course during a regular semester and two in a course offered on weekends. If a student accumulates more than the allowed number of absences, he/she will automatically be awarded an ‘F’ grade in that particular course.

In case of a severe condition, a student may apply for condonation of excess absences supported with concrete evidence to the Academics Officer, who will forward the application along with evidence and attendance record duly verified by him, to the Rector for approval. After the Rector’s approval, the student will have to sign an attendance undertaking. For detail visit the link: http://www.examination.iobm.edu.pk

DRESS CODE POLICY

A. For Female students:

- At least mid-thigh shirts should be worn with pants, although knee-length shirts are desirable and preferred. Tucked in shirts with pants or jeans will be treated as a dress code violation.
- Ripped jeans are not allowed.
- Tights to be worn only with closed slit long shirts, otherwise to be avoided, if worn in an exposed and indecent manner, as judged by the Proctor.
- All sort of revealing and indecent dress-up is not permitted.
- Trousers and shalwars above ankles are to be avoided.
- Clothes offensive in terms of cuts and style, or by way of messages printed on them are to be avoided.
- Only light make-up, jewelry and perfume is permitted.

B. For Male Students:

- Only full-length trousers, jeans and shalwars are allowed. Track/sports lowers, Bermudas and shorts are strictly not allowed.
- Footwear: Slippers are strictly not allowed. Dress shoes and shoes with back-strap are allowed.
- Male students are advised to maintain a proper hair-cut and refrain from piercing their ears and faces.
- Offensive messages printed on shirts are not permitted.
- Ripped jeans are not allowed.
EXAMINATION NORMS

Each semester has two hourly exams (6th & 11th week) & one final exam in the 15th week. Mark distribution is explained to the students at the beginning of the semester. Traditionally, 15 marks are given for each hourly exam and 40 marks for the final exam. 30 marks are assigned for quizzes and assignments. In some cases, there might be a slight variation if the concerned faculty so desires.

In its pursuit of excellence, IoBM believes in providing a congenial atmosphere to the students during exams in order to get them to perform at an optimum level. However, there are certain norms which the students are expected to be aware of and observe both in letter and spirit. These norms are as follows:

• Impersonation may lead to permanent expulsion from the Institute.
• Cell phones are strictly prohibited in the exam hall/room. Defying this rule may result in confiscation or a fine of Rs. 1000/=.
• Valid college ID card is mandatory for entry to the exam room/hall. There is absolutely no relaxation in this rule.
• Punctuality is most important at all times. Students are expected to reach their exam location and be seated at least 10 minutes prior to the exam time. Late comers will be made to wait for five minutes in case of hourlies and 15 minutes in the final exam before they are allowed entry. Students arriving late by more than 15 minutes will not be allowed to appear in the exam.
• As per Institute’s policy, all question papers are to be returned along with answer scripts.
• Students are required to bring their own stationary and calculators as no lending or borrowing is permitted during examinations.
• Programmable calculators or other kinds of electronic devices are strictly prohibited inside the exam area.
• Indiscipline in the exam hall/room will not be tolerated. Such cases are to be reported to the controller of examinations immediately for appropriate action.
• Possession of any written material related to the subject or communication with their fellow students will result in disciplinary action through the decision of the Disciplinary committee.

Mid-Term Policy

Students are required to take two mid-terms and one final examination. There would be no N-1 given to a student. All students must take both the mid-term exams, as the aggregate of these would be included in the final grade. The Institute does not exempt students from completing course requirements on medical grounds nor is leave granted for any personal reasons. This is to ensure the market credibility of the Institute’s teaching programs and degrees.

Policy for Course Repetition

Student failing a course twice will not be allowed to register for a third attempt. If it is a compulsory course, a second failure will lead to failure in the degree and withdrawal from the Institute.
Grade Improvement

The Institute provides an opportunity to students for improvement of their CGPA if it is below 2.5 in the undergraduate and 3.0 in the Graduate program. A student wishing to improve his grade in any course is eligible to reappear in that course with exemption in attendance provided he has secured at least C- in that course in the undergraduate and C in the graduate program. Only courses for which grades C, D or F are received may be repeated for credit. Only one repetition is permitted, unless authorized in writing by the Dean. On repetition of a course, credit hours are applied towards a degree only once.

BBA (Honors) and BS students must maintain a minimum CGPA of 2.0 on a cumulative basis in order to maintain good standing. Any deficiency should be made up in the following semester. Otherwise, the concerned student may be dropped from the rolls of the College. A CGPA of 2.5 is required for conferment of the degree.

MBA and MPhil students are expected to maintain a CGPA of 2.5 to remain in good standing. Any deficiency should be made up in the following semester; otherwise the concerned student may be dropped from the rolls of the College. The cumulative GPA should be 3.0 in order for a student to receive the degree. MBA and MS students are required to repeat those courses in which they receive F and D grades.

Umrah Leave

Dates of hourly and final exams are announced in the catalog well in advance for subsequent semesters. Students should not plan their personal events including Umrah during these dates. Weightage requests will not be entertained for missing hourly or final exam on such pretext.

Umrah leave of two weeks (four absences) for weekdays and (two absences) for weekend are allowable for a course on production of sufficient evidence, and are subject to the approval by the Rector. Total absences, however, should not exceed the allowed absence.

Hajj Leave

Hajj leave of three weeks (six absences) for weekdays and (three absences) for weekend are allowable for a course on production of sufficient evidence, and are subject to the approval by the Rector.

Below Good Standing Policy

As per Institute of Business Management (IoBM) Policy, admission will be cancelled on the following grounds:

- Bachelor’s students scoring a CGPA below 2.00 for two consecutive semesters and Summer Crash in an academic year
- Master’s (Regular Program) students scoring a CGPA below 2.5 for two consecutive semesters and Summer Crash in an academic year
- Master’s weekend and evening program students scoring a CGPA below 2.5 for three consecutive semesters in an academic year (which includes three regular semesters)

Please note that if you have a below good standing CGPA, you cannot take semester gap/s unless approved by ED / Registrar.
Academic Dishonesty

To maintain credibility and uphold its reputation, the Institute has certain procedures to deal with academic dishonesty which are uniform and should be respected by all. Violations of academic integrity include:

- Unauthorized assistance during an examination
- Falsification or invention of data
- Unauthorized collaboration on an academic exercise
- Plagiarism

Definition of Plagiarism

Students are required to submit original work. Papers and/or projects submitted as part of a group effort must be clearly identified, with the team members specifically acknowledged. Ideas, data, direct quotations, paraphrasing, or any other indirect incorporation of the work of others must be clearly referenced to avoid plagiarism. Examples of plagiarism include:

- Direct quotation or paraphrasing from published sources that are not properly acknowledged;
- The use of other persons or services to prepare work that is submitted as one's own;
- The use of previously submitted papers or work, written by other students or individuals;
- Misappropriation of research materials;
- Any unauthorized access to an instructor’s file or computer account;
- Any other serious violations of academic or moral integrity as established by the instructors of the Institute;
- Conduct during examinations.

Cheating is unacceptable. Examples of cheating are:

- Any written or oral communication among students during an examination
- Providing information about the content of an examination
- Impersonation by another student during an examination
- Using cell phones, programmable calculators or any other kind of electronic devices during an examination
- Using cheat sheet during an examination
- Material written on palm, hand or any other part of the body

IoBM is a no smoking campus. Any violation of this rule can lead to serious consequences. The penalty for this can amount to the extent of cancellation of registration. Use of drugs is a serious offense and any student found guilty will be rusticated permanently.
ADMISSION AND FINANCE
ADMISSION DEPARTMENT

Admissions Department performs various functions to admit eligible and quality students. These functions are performed with full transparency and accuracy while maintaining due confidentiality of personal data of all potential candidates for admission.

Admissions Department ensures that admissions are purely merit based depending upon the candidates ‘scholastic achievements, performance in aptitude tests and interviews.

Admission to IoBM is on a highly competitive basis, and only those who compete successfully on merit are selected for admission. They come from a variety of backgrounds. After joining IoBM, students continue to pursue their studies with a high level of competitiveness aimed at professional development. The admission criteria for the Institute’s academic programs are described below:

Eligibility for entrance to Bachelor’s Programs:

The admission for Bachelor’s Programs would be based on the following:

- A Higher Secondary School (HSC) Certificate with at least 55%* marks awarded by a recognized Provincial Intermediate Board
- 3 A-Levels with atleast 2C grades, Urdu will be accepted as a 3rd subject and not as a grade as long as the candidate has passed the course
- American High School Diploma with CGPA 2.5 or any other equivalent diploma
- Any other qualification if an authority has issued an equivalence certificate with minimum 55%
- IBCC equivalence may be required for A-Level and other foreign qualifications

In addition:

- Atleast 5C grades in O-Level exams (you need a total of eight subjects including: English, Urdu, Islamiyat, Pakistan Studies, and Math’s as compulsory subjects and three electives)
- IBCC equivalence may be required for O-Level and other foreign qualifications
- Minimum 55% marks in SSC or equivalent
- Success in aptitude test and the panel interview conducted by IoBM

Exemption from Aptitude Test on SAT-1

The applicant can apply for exemption in appearing in the IoBM Aptitude Test:

- A score of 550 (out of 800) in Mathematics
- A score of 550 (out of 800) in Evidence-Based Reading and Writing

Total score of 1100 is required for the exemption

*Subject to revision by the IoBM Management
Programs List:

- BBA (Honors)
- BS Joint (Honors) Accounting and Finance
- BS Joint (Honors) Economics and Finance
- BS Joint (Honors) in Business & Psychology
- BS (Honors) Accountancy, Management and Law
- BS (Honors) Media Studies
- BS Entrepreneurship
- BS Industrial Management
- BS Logistics and Supply Chain Management
- BS Economics, Law and International Relations (ELI)
- BS Economics, Media and International Relations (EMI)
- BS Technology Management
- BS Psychology

Eligibility for entrance to the undermentioned Bachelor’s Programs:

- BS Computer Science
- BS Data Science
- BS Actuarial Science and Risk Management
- BS Mathematics and Economics
- BS Software Engineering

The admission in these Programs would be based on the following:

- A Higher Secondary School (HSC) Pre-Engineering Certificate with at least 55%* marks awarded by a recognized Provincial Intermediate Board
- 3 A-Levels with at least 2C grades including Mathematics subject, Urdu will be accepted as a 3rd subject and not as a grade as long as the candidate has passed the course
- American High School Diploma with CGPA 2.5 or equivalent
- Recognized Overseas Equivalence Diploma
- Any other qualification if an authority has issued an equivalence certificate with minimum 55%
- Students from pre-medical track will be required to complete few additional courses
- For BS Actuarial Sciences and Risk Management students other than pre-engineering group will be required to complete additional deficiency courses

In addition:

- At least 5C grades in O-Level exams (you need a total of eight subjects including: English, Urdu, Islamiyat, Pakistan Studies, and Math’s as compulsory subjects and three electives)
- IBCC equivalence is required for O-Level, A-Level and other foreign qualifications
- Minimum 55% marks in SSC or equivalent
- Success in aptitude test and the panel interview conducted by IoBM

Exemption from Aptitude Test on SAT-1

The applicant can apply for exemption in appearing in the IoBM Aptitude Test:

- A score of 550 (out of 800) in Mathematics
- A score of 550 (out of 800) in Evidence-Based Reading and Writing

Total score of 1100 is required for the exemption

*Subject to revision by the IoBM Management
Eligibility for entrance to BE Electrical Engineering Program:

The admission for Engineering Programs would be based on the following:

- A Higher Secondary School (HSC) Pre-Engineering Certificate with at least 60% marks awarded by a recognized Provincial Intermediate Board
- 3 A-Levels with at least one C grade either in Mathematics, Chemistry and Physics
- American High School Diploma with CGPA 2.5 or any other qualifications
- Any other qualification if an authority has issued an equivalence certificate with minimum 55%
- IBCC equivalence certificate will be required for A-Levels and other foreign qualifications

In addition:
- At least 5 C grades in O-Level exams (you need a total of eight subjects including: English, Urdu, Islamiyat, Pakistan Studies, and Math’s as compulsory subjects and three electives)
- IBCC equivalence may be required for O-Level and other foreign qualifications
- Minimum 55% marks in SSC or equivalent
- Success in aptitude test and panel interview

Exemption from Aptitude Test on SAT-1

The applicant can apply for exemption in appearing in the IoBM Aptitude Test:

- A score of 550 (out of 800) in Mathematics
- A score of 550 (out of 800) in Evidence-Based Reading and Writing

Total score of 1100 is required for the exemption

*Subject to revision by the IoBM Management

Eligibility for entrance to B.Ed. Programs:

B.Ed. (Honors) 1.5 years Weekend Program:

For admission in the B.Ed (Honors) 1.5 years Weekend program, the candidate must possess:

16 years of Education (MA / MSc / MCom or equivalent degree) in any discipline like Sciences, Social Sciences, Humanities and others, with at least 45% or 2.00 CGPA out of 4 from a University/Institution recognized by HEC.

B.Ed. (Honors) 2.5 years Weekend Program:

For admission in the B.Ed (Honors) 2.5 years Weekend program, the candidate must possess:

14 years of education (BA / BSc / BCom or equivalent degree), with minimum 45% or 2.00 CGPA out of 4 from a University/Institute recognized by HEC.

BS Education:

For admission in the BS Education 4 years program, the candidate must possess:

- A Higher Secondary School (HSC) Certificate with at least 55% marks awarded by a recognized Provincial Intermediate Board
- 3 A-Levels with at least 2C grades including Mathematics subject, Urdu will be accepted as a 3rd subject and not as a grade as long as the candidate has passed the course
- American High School Diploma with CGPA 2.5 or equivalent
- Recognized Overseas Equivalence Diploma
- Any other qualification if an authority has issued an equivalence certificate with minimum 55%
- IBCC equivalence may be required for A-Level and other foreign qualifications
In addition:

- Atleast 5C grades in O-Level exams (you need a total of eight subjects including: English, Urdu, Islamiyat, Pakistan Studies, and Math’s as compulsory subjects. The remaining three subjects are electives)
- IBCC equivalence may be required for O-Level and other foreign qualifications
- Minimum 55% marks in SSC or equivalent
- Success in aptitude test and the panel interview conducted by IoBM

Exemption from Aptitude Test on SAT-1
The applicant can apply for exemption in appearing in the IoBM Aptitude Test:

- A score of 550 (out of 800) in Mathematics
- A score of 550 (out of 800) in Evidence-Based Reading and Writing

Total score of 1100 is required for the exemption

*Subject to revision by the IoBM Management

Eligibility for MBA (offered in Morning):
Please refer to Page No. 45 for specializations

The admission for this program would be based on the following:

- Sixteen years of Education in Arts, Science, Law, Commerce, Engineering, Medicine, Pharmacy or any other degree with high second division or equivalent from HEC/Provincial Government approved Institutes/Colleges/Universities in Pakistan.
- A final qualification examination of a professional body recognized by the Higher Education Commissions of Pakistan, for example, ACMA, CA, ACCA (HEC equivalence / membership certificate required)
- Four years overseas Bachelor’s degree or equivalent recognized by HEC

In addition:

- Minimum 55% marks in overall academic career in annual examination system or 5C’s in O-Level and 3 A-level with minimum 2C’s excluding General Paper and Urdu or equivalent
- Minimum CGPA 2.5 on a scale of 4 in semester system (CGPA will be considered, if both CGPA & Percentage are mentioned in the Transcript)
- Success in aptitude test and interview conducted by IoBM

Eligibility criteria is subject to revision by the IoBM Management.

Eligibility for MBA (offered on Weekends/Evening):
Please refer to page No. 45 for specializations

The admission in MBA (offered on Weekends/Evening) would be based on the following:

- Sixteen years of Education in Arts, Science, Law, Commerce, Engineering, Medicine, Pharmacy or any other degree with high second division or equivalent from HEC/Provincial Government approved Institutes/Colleges/Universities in Pakistan
- A final qualification examination of a professional body recognized by the Higher Education Commissions of Pakistan, for example, ACMA, CA, ACCA (HEC equivalence certificate required)
- Four years overseas Bachelor’s degree or equivalent recognized by HEC

In addition:

- Minimum 55% marks in last qualification in annual examination system
- Minimum CGPA 2.5 on a scale of 4 in semester system (CGPA will be considered, if both CGPA & Percentage are mentioned in the Transcript)
- Success in aptitude test and interview conducted by IoBM
- Candidates once admitted, not having a four year degree in business management/commerce will attend a Bootcamp of six weeks before the semester begins
Eligibility for MSc Organizational Psychology and HRM:

The admission in this program would be based on the following:

- Sixteen years of Education in Arts, Science, Law, Commerce, Engineering, Medicine, Pharmacy or any other degree with high second division or equivalent from HEC/Provincial Government approved Institutes/Colleges/Universities in Pakistan
- A final qualification examination of a professional body recognized by the Higher Education Commissions of Pakistan, for example, ACMA, CA, ACCA (HEC equivalence certificate required)
- Four years overseas Bachelor’s degree or equivalent recognized by HEC

In addition:
- Minimum 55% marks in last qualification in annual examination system
- Minimum CGPA 2.5 on a scale of 4 in semester system (CGPA will be considered, if both CGPA & Percentage are mentioned in the Transcript)
- Success in aptitude test and interview conducted by IoBM
- Candidates once admitted, not having a four year degree in business management/commerce will attend a Bootcamp of six weeks before the semester begins

Eligibility for entrance to MS/MPhil Programs:

The admission in MS/MPhil Programs would be based on the following:

- Sixteen years of education in relevant field with high second division or equivalent from HEC recognized Institutes/Universities in Pakistan

OR

- Four years overseas Bachelor’s degree or equivalent recognized by HEC

In addition:
- Minimum 55% marks in overall academic career in annual examination system or 5C’s in O-Level and 3 A-level with minimum 2C’s excluding General Paper and Urdu or equivalent
- Minimum CGPA 2.5 on a scale of 4 in semester system (CGPA will be considered, if both CGPA & Percentage are mentioned in the Transcript)
- Candidates must score minimum 50% marks in NTS/ETC test
- Success in panel interview conducted at IoBM

Programs List:

- MS Business Management
- MS Computer Science
- MS Mathematics and Scientific Computing
- MS Statistics and Scientific Computing
- MS Engineering Management
- MS in Electrical Engineering
- MS in English-Applied Linguistics
- MS in Economics
- MPhil in Education
- MPhil in Organizational Psychology
Admission Requirements for PhD Programs:

- Candidate having 18 years of education from an HEC recognized university is eligible to apply. For admission into the PhD program, minimum CGPA 3.0 on scale of 4 or first division in MPhil/MS/ degree is required
- Minimum CGPA 3.0 is required for candidates having MBA or equivalent degrees. They will have to do pre-requisite courses recommended by the committee (HEC equivalence certificate required)
- Students with HEC recognized professional degrees i.e., ACMA, CA, ACCA may also apply subject to equivalence certificate issued by the HEC

In addition:
- Minimum 55% marks in overall academic career in annual examination system or 5 Cs in O-Level and 3 A-Levels with at least C grades in any subjects
- Success in interview
- Candidates must score minimum 60% marks in NTS/ETC test

PhD Eligibility Policy:

1) MS with relevant degree

18 Credit Hours of Courses plus 30 Credit Hours of Thesis

2) MS with irrelevant degree

Minimum 12 Credit Hours of deficiency Courses (from BS approved by Doctorial Committee) plus 18 Credit Hours of Courses plus 30 Credit Hours of Thesis

Program List
- PhD in Business Management
- PhD in Economics
- PhD in Education
- PhD Computer Science
- PhD Statistics & Scientific Computing

Policy and Procedure for Transfer of Credit Hours

Students desiring credit transfer in a specific degree program will be required to submit application along with their transcripts and course outlines/descriptions soon after their admission formalities have been completed. The request for transfer of credit hours will be reviewed if the previous program was incomplete and courses were done during the last three years. The credit equivalence committee (CEC) will examine such cases and decide accordingly, keeping in view the following:

- All requests must be for the same level of program. Courses completed in Bachelor’s program cannot be considered for Master’s program
- The credit hours will not be considered from program which has been completed and the student has been graduated.
- Transfer applications can be submitted once and at least two weeks before commencement of the first semester, late applications for transfer of credits will not be considered nor any second application will be accepted.
- Student will be required to submit the application along with course outlines and an official transcript
- Student must have secured B or better grade as per the IoBM grading plan in each course meant to be transferred and the course title/course must match with IoBM course plan. However, the decision of the subject specialist or Credit Equivalence Committee will be final.
• The Committee has the right to reject any course or an application

• Maximum of three courses can be transferred in PhD programs

• Maximum of four courses can be transferred in MPhil/MS programs

• Maximum courses of two semesters can be transferred in Bachelor’s / MBA Programs from highly reputed and HEC recognized institutes of Pakistan and abroad. However, each case will be reviewed separately and the decision will be taken considering the grades and the reasons for the transfer

Re-Admission and Continuation Policy

• Students who stop attending classes at the Institute, for any reason, without informing the concerned authorities about their absence for more than one semester, their admission shall be suspended.

• Admissions can be deferred for maximum of two semesters with justification and approval of the Executive Director Admissions.

• Any relaxation not beyond two years is subject to approval of Executive Director Admissions.

• Students who complete their Bachelor program from IoBM are eligible to register for MBA if there were no any disciplinary issues. However, if security deposit has been withdrawn, candidates may apply for restoration of admission to office of the Executive Director.

• Students dropped due to below good standing (for Master’s program below 2.5 CGPA and for Bachelor’s below 2 CGPA) may also apply for re-admission and to qualify both the entry test and interview.

• Students dropped out from the Institute for any reason will not be considered for enrollment as an external candidate

• On successful completion of readmission process in undergraduate and graduate program: the degree/transcript section will consider transfer of previous courses completed in IoBM based on grades and their relevancy.

• A MPhil or a PhD student dropped due to below good standing / time barred or absent for more than two years and CGPA is below 3.00, may also apply for readmission and to qualify both the entry test and Interview.

• After readmission, the student will follow current program structure and obsolete courses will not be considered. However, the Program Head and OGS Office may recommend transfer of previous courses having minimum C+ grades to degree/transcript section for consideration.
SCHOLARSHIPS AND FINANCIAL ASSISTANCE PROGRAMS

Internal
IoBM has established a financial assistance fund for students who are unable to afford the financial costs associated with an academic program. Financial assistance are provided to students on the basis of merit and need. Currently, about 25% of the students are receiving some form of financial aid. Special scholarship programs are available under CSR activity for deserving students of selected districts in Sindh through IoBM Outreach Program, TCF Alumni Program and Kiran Foundation.

Educational Assistance on Need
IoBM grants Educational Assistance (EA) to its regular students. It is a 50% waiver of the tuition fee and is automatically renewed for the next semester, subject to maintaining the specified criteria and GPA.

Merit Scholarships
IoBM offers Merit Scholarships to its meritorious students which is 50% of the tuition fee and automatically renewed for the next semester, subject to maintaining the specified criteria and GPA in the first semester.

Sports Scholarship
Sports scholarship awarded to the students who have achievements at a regional, national or international level in the last 8-12 months and are the active player of IoBM sports team. After the endorsement of student’s application by the HoD sports, scholarship is awarded to student which is 50% of tuition fee.

Program Promotional Waiver
Students of the following programs are eligible to get 50% tuition fee waiver:

- BS Industrial Management
  GPA 2.5 with minimum 15 credit hours or 5 courses in a semester
- B.Ed (1.5 and 2.5 years)
  GPA 2.5 with minimum 12 credit hours or 4 courses in a semester

External
Endowment Fund
Various endowment funds have been set up by IoBM, public and private donors to provide financial assistance for students who deserve and in need.

Following external financial assistance are being provided to students:

- IoBM Endowment Fund
- Lucky Cement Scholarships
- Sindh Educational Endowment Fund (SEEF), Government of Sindh
- Shan Foods Endowment fund
- Bashir Janmohammad CCSIS Building Endowment Fund
- Mitsubishi Corporation Scholarships
- Faysal Bank Zakat Fund

Scholarships are also available on reciprocal basis to:

- Bilkent University, Turkey
- International Burch University, Bosnia
- University of Florence, Italy
- Vytautas Magnus University, Lithuania
- Hanyang University, South Korea
- Guilin University of Technology, China
- Erfurt University, Germany
IoBM operates on a self-financing basis as a non-profit institution. All students are required to pay a one-time CAUTION MONEY of Rs. 25,000.00 which is refundable only as per the policy.

The fee structure for various degree programs, per semester, is as follows:

<table>
<thead>
<tr>
<th>Program Type</th>
<th>Registration Fee</th>
<th>Tuition Fee* (per course)</th>
<th>Fee on the basis of Per Credit Hour</th>
<th>Tuition Fee Full Load</th>
<th>Total Fee* (per semester)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Bachelor’s Programs</td>
<td>10,000.00</td>
<td>22,080.00</td>
<td>7,360.00</td>
<td>132,480.00</td>
<td>142,480.00</td>
</tr>
<tr>
<td>All Master’s (Regular) Programs</td>
<td>10,000.00</td>
<td>23,805.00</td>
<td>7,935.00</td>
<td>142,830.00</td>
<td>152,830.00</td>
</tr>
<tr>
<td>All Master’s (Specialized / Weekend) Programs</td>
<td>10,000.00</td>
<td>23,805.00</td>
<td>7,935.00</td>
<td>142,830.00</td>
<td>152,830.00</td>
</tr>
</tbody>
</table>

* Subject to change

Note:
Additional fee will be charged for remedial (non-credit) courses such as MTH100 or COM100 which have to be taken by those students who have not been able to reach the desired level of competence in the relevant section of the admission test.

Rs. 44,160/- will be additional Lab Charges for BE Electrical Engineering in Electronics and Telecommunication program.
Rs. 44,160/- will be additional Lab Charges for BS Computer Science and BS Software Engineering program.
Rs. 20,000/- will be charged for MBA Boot Camp (Page No. 46) for MBA students joining IoBM for the first time.

MBA executive and weekend students, planning to take less than a full load, would be charged registration and tuition fees accordingly. However, caution money will remain the same.

<table>
<thead>
<tr>
<th>Post Graduate Programs</th>
<th>Registration Fee (1-2 Courses)</th>
<th>Tuition Fee Per Course</th>
<th>Thesis, External Examiner, Viva Voce, Exam, Supervisors and Foreign Examiner Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS / MPhil Programs</td>
<td>3,500.00</td>
<td>16,044.00</td>
<td>82,800.00</td>
</tr>
<tr>
<td>PhD Programs</td>
<td>5,000.00</td>
<td>17,424.00</td>
<td>417,450.00</td>
</tr>
</tbody>
</table>

The registration duration of thesis is one year (3 consecutive semesters) after 3rd semester. Students will be required to get themselves re-registered in thesis by paying registration fee and one course fee for the subsequent semesters.
Fee Refund Policy

Interpretation

1. In this policy reference to the masculine also includes the feminine.

Caution Money (Security deposit)

2. Students are eligible to claim refund of caution money:
   a. after completion of their respective programs or
   b. upon cancellation of admission by the student or by IoBM if claimed within six months of such cancellation.
3. Any amount receivable from a student for whatsoever reason will be deducted from the amount due to that student on account of caution money.
4. Without prejudice to the above, both provisional students and deferred candidates (details for both appear below) are entitled to be refunded security deposits in accordance with the terms of this Policy if any have been collected.

Registration Fee

5. Registration fees paid is nonrefundable and nontransferable.

Continuing students

6. In case a course or courses are dropped during any given semester, and provided that such course or courses had been dropped without penalty, the tuition fee of such course or courses:-
   a. shall be fully refunded if the course or courses had been dropped within 7 days of commencement of classes.
   b. shall be refunded 50% if dropped after 7 days but within 14 days of commencement of classes.
   c. shall not be claimed from the 15th day of commencement of classes.
7. Provided that the refund in clause 6 above shall be made only after completion of program or admission cancellation.
8. Tuition fee for students suspended for one semester shall also be refunded as per clause 6 above.
9. Tuition fee for courses dropped after the due date (with penalty) will be forfeited.

Convocation Fee:

| Rent for gown and cap with mask (mask is nonreturnable) | 1,000.00 |
| Degree folder including degree cost | 4,500.00 |
| Physical arrangement and lunch cost for the Graduate only | 4,500.00 approximately |
| Brochure | 500.00 |
| Administrative charges | 1,500.00 |
| **Convocation Fee** | **1,2000.00** |
| Security deposit for the gown and cap (refundable) | 5,000.00 |
| Convocation fee | 12,000.00 |
| **Total amount with security deposit** | **17,000.00** |

**Note:**
- Rs. 5,000.00 will be refunded after the gown and cap are returned in good condition
- The catering and physical arrangements costs for parents will be communicated after finalizing the quotation.
Fresh Entrants

10. If after securing admission, a fresh entrant decides to withdraw from the Institute, the tuition fees paid will be refunded as per Higher Education Commission (HEC) refund policy outlined hereunder:

Provisional Admission

11. Candidates awaiting the results of last required qualification shall be provisionally admitted provided they qualify in the written test as well as the interview. If such a candidate fails to meet the set admission criteria after declaration of the last required results, he will be refunded the tuition fee and the caution money provided that an application for refund is submitted within seven days of declaration of results/grades (along with a copy of result/grades). If a candidate fails to do so, the tuition fee shall stand forfeit. The caution money shall remain payable only for refund till six months from the date of application for refund. This is without prejudice to the other terms of this policy.

Deferment of Admission - Fresh Entrants

12. In case of a written request of the candidate for deferment of admission for a semester, he must sign an affidavit stipulating the matters stated in this policy and duly notarized, the paid tuition fee shall be carried forward to next semester.

13. If a candidate of the nature in clause 12, later decides not to join and informs the Institute of his withdrawal or does not join:
   a. the tuition fee shall stand forfeit provided the Institute and candidate were otherwise agreed upon admission in the current semester but for the candidate’s withdrawal from the Institute.

14. Notwithstanding clause 12 above, if any deferred candidate decides to withdraw from admission at any time, the security deposit, if collected, shall be fully refunded and shall remain payable till six months from the date of intimation of withdrawal from the Institute. Upon expiry of said period the security deposit shall also stand forfeit.

15. If any candidate is allowed a second attempt to improve his grade/percentage/results in order to qualify for the admission, he must sign an affidavit stipulating the matters stated in this Policy and duly notarized. If the candidate fails in the second attempt or does not avail the opportunity of second attempt:
   a. caution money, if collected, will be fully refunded and shall remain payable only for refund till six months from the date of intimation of the final refusal of admission from IoBM. Upon expiry of the said period the caution money shall also stand forfeit.
   b. the tuition fee shall stand forfeit provided the Institute and candidate were otherwise agreed upon admission in the current semester but for the candidate’s failure to achieve the results required by the Institute.

16. A candidate will retain his status as candidate until completion of the formalities provided herein.

Dispute

17. In case of any dispute/disagreement regarding interpretation of any clause of this Policy, the decision of the IoBM management shall be final and binding.

Amendment

18. This policy may be amended or changed at the discretion of the management provided always that any amendment or change may only take place at the start of every semester and that such amendment or change must be incorporated in all new admission letters from the semester in which the amendment or change takes place onwards.

<table>
<thead>
<tr>
<th>%age of Tuition Fee</th>
<th>Timeline for Semester System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full (100%) Fee Refund</td>
<td>up to 7th day of commencement of classes</td>
</tr>
<tr>
<td>Half (50%) Fee Refund</td>
<td>From 8th-14th day of commencement of classes</td>
</tr>
<tr>
<td>No Fee (%) Refund</td>
<td>From 15th day of commencement of classes</td>
</tr>
</tbody>
</table>
ORGANIZATION
Board of Governors

The Board of Governors exercises the powers to hold, control and administer the property, funds and resources of the Institute. It also approves the annual report, plan of work, statements of accounts and the annual budget estimates as recommended by the Executive Council. It is also responsible for ensuring the effectiveness of the Institute’s operations and the continuity and preservation of its autonomy.

Members of the Board of Governors (listed on Page No. 8)

Executive Council

The Executive Council is responsible for formulating and approving the principles, policies and plans governing the activities and operations of the Institute so as to facilitate teaching and other academic work. It can appoint faculty, researchers and officers on the recommendation of the Selection Board. It can also create new components of the Institute such as faculties/departments/college, and constitute standing committees, subcommittees, councils, and other administrative or academic advisory bodies, if necessary. It can undertake initiatives to ensure efficient and effective management and functioning of the Institute. It proposes plans of work for the approval of the Board of Governors.

Members of the Executive Council

- Mr. Bashir Janmohammad, Chairman
- Mr. Talib Syed Karim, President
- Chairman, Higher Education Commission
- Mr. Justice Irfan Saadat Khan
- Secretary, Universities & Boards Department, Government of Sindh
- Mr. Masood Hashmi
- Mr. Muhammad Ali Tabba
- Prof. Dr. Sarosh Hashmat Lodi
- Prof. Dr. Tariq Rahim Soomro
- Dr. Shahida Wizarat
- Dr. Shujaat Mubarik
- Dr. Muhammad Abbas
- Mr. M. W. Jahangir, Secretary

Academic Council

The Academic Council is responsible for:

- Advising the Executive Council on academic matters
- Regulating the conduct of teaching, research, publications and examinations
- Regulating the admission of students to courses of studies and examinations at the Institute
- Regulating the conduct and discipline of the students of the Institute
- Regulating award of financial assistance, exhibitions, medals and prizes
- Formulating courses of study, syllabi and outlines of all examinations conducted by the Institute

External Members of the Council:

- Mr. Mazhar ul Haq Siddiqui
- MS Rukhsana Asghar
- Mr. Khalid M. Nagra
Board of Advanced Studies and Research

IoBM has a Board of Studies which reports to the Academic Council. It supervises teaching research and academic discipline. It has three sub-committees on curriculum, resources, and discipline. External members on the Board of Studies are:

External Members of the Board:

- Prof Dr. Bhawani Shankar
- Dr. Nadeem Hanif
- Dr. Amjad Waheed

Board of Studies

The following departments exist in the Institute:

**College of Business Management (CBM)**

**College of Computer Science and Information Systems (CCSIS)**
Mathematics and Statistics, Computer Science & MIS and Actuarial Science

**College of Economics and Social Development (CESD)**
Economics, Commercial and Professional Studies, Media Studies, Education, Policy & Area Studies, Business Psychology, Social Sciences and Organizational Psychology

**College of Engineering and Sciences (CES)**
Electrical (Electronics & Telecommunication), MS-Engineering Management and MS-Electrical Engineering

HoDs report to the Dean and the academic work of each department is governed by a departmental board of studies consisting of both internal and external members.

Foundation for Higher Education

Foundation for Higher Education was established in 1994 under the Societies Registration Act, 1860 as a non-profit institution committed to the provision of quality education in Pakistan. IoBM is the first educational institution established by the Foundation. Following are the members of the Foundation:

- Mr. Talib Syed Karim, President
- Mrs. Sabina Mohsin
- Mr. Mehtab Syed Karim
- Dr. Mussarrat Hasan
- Mr. Mohsin Furquon
- Mr. Mehboob Syed Karim
- Mr. Talha Syed Karim
- Mr. Nabhan Shah Karim
- Mr. Naveed Qazi
- Mr. Masood Hashmi
- Syed Amr Ali Karim
- Mr. M. W. Jahangir, Secretary
Acting Rector

Dr. Tariq Rahim Soomro Professor of Computer Science, and Acting Rector at IoBM, earned his BSc (Hons) and M.Sc. degrees in Computer Science from the University of Sindh, Jamshoro, Pakistan, and his PhD in Computer Applications from Zhejiang University, Hangzhou, China, making him the first Pakistani to receive all three degrees in the field of Computer Science. He has more than 28 years of extensive and diverse experience as an administrator, computer programmer, researcher, and teacher. He has served as Coordinator, Head of Department, Head of Faculty, Dean of Faculty, Head of Academic Affairs, and acquired wide experience in accreditation requirements of ABET USA, NCEAC & HEC Pakistan, KHDA UAE, and MOHESR UAE. He has published over 100 peer-reviewed papers. He is member Task Force on Arabic Script IDNs of the Middle East Strategy Working Group (MESWG) of ICANN, and received ISOC Fellowship to the Internet Engineering Task Force (IETF) at the 68th IETF Meeting. He is the first Pakistani to became IEEE Computer Society Distinguished Visitor (2021-2023) and to be selected by the IEEE Computer Society at the 2021 Inaugural Class of IEEE Computer Society Distinguished Contributors.

College of Business Management

Dr. Muhammad Shujaat Mubarik is Professor and Dean College of Business Management (CBM). Having done his PhD from University of Malaya, Malaysia, Dr. Mubarik brings blended-experience from industry, academia, and research. His areas of interest are supply chain management, sustainability, and intellectual capital. He has more than 100 research papers (Clarivate/Scopus/ABDC/ABS indexed) published in journals of high repute. He also has four books to his credit, published by internationally reputable publishers like Springer and Taylor and Francis. Dr. Mubarik has also contributed various book chapters in the international best-selling handbooks; prominent among them is Palgrave’s Handbook on Cross-Cultural Negotiation. He has worked on various fund-ed projects in collaboration with colleagues from national and international universities. He is also a consultant and corporate trainer and has extended his services to many multinational and national firms.

Accounting and Finance

Dr. Imam Uddin earned his PhD in Islamic Business & Finance from University of Karachi. He also holds a Specialization Degree in Islamic Jurisprudence, Bachelor of Laws (LL.B), and Post Graduate Diploma in Islamic Banking & Finance from reputable Institutions & got the status of approved PhD supervisor in the field of Business Management & Business Education by HEC. Currently, he is Associate Professor and Head of Department at IoBM. He brings more than 16 years of experience from industry, academia, and research. Dr. Imam has served the Islamic Banking Industry in the capacity of Islamic Finance expert for many years where he was engaged in product development and product management. He has also designed & developed courses for several Institutes in the field of Islamic Banking, Finance & Accounting. He has spoken at several International Conferences.

Sharique Ayubi holds a Master in Business Administration (MBA) from Institute of Business Administration (IBA), Karachi as well as an MA in Economics from the University of Karachi. He joined IoBM in 2004 and is working as an Associate Professor since 2010. His industry experience has been in the National Development Finance Corporation (NDFC), where he worked for fourteen years. He has been teaching courses in Finance, Accounting, Management and Marketing for over 25 years at various reputable universities and business schools. Sharique Ayubi served KASBIT Institute for four years as HOD, Management Sciences. He was awarded CIDA scholarship to attend “Training of Trainers” program under the LUMS-McGill Social Enterprise Development Program. His research interests are financial markets and institutions, Regulations in Banking and Securities Markets, and Comparative Management.
Mehboob Moosa is currently pursuing a PhD in Business Management at IoBM. He holds an MPhil in Business Management and is also FCMA from Institute of Cost & Management Accountants of Pakistan, a CA Finalist from the Institute of Chartered Accountants of Pakistan and holds a PGD in Islamic Banking & Finance from the Center for Islamic Economics (CIE). He is working with IoBM as an Assistant Professor. His 38 years’ experience include working with national and multinational companies like BOC (Pakistan) Ltd., Al-Futtaim Engineering, Dubai, Habib Group, World Group of Companies (Automobiles), Liberty Textiles, Century-21 Textiles etc., as well as audit firms like KPMG Taseer Hadi, Sidaat Hyder, Rahim Jan and teaching in educational institutions of UK and Pakistani education streams.

Dr. Bilal Ahmed Chishty is Assistant Professor in the Department of Accounting and Finance. He has over 26 years of experience in accounting, finance, management, and teaching in middle and senior positions. He has been associated with private and public sector organizations in the country for various tasks and responsibilities. He holds a Master’s degree in Business Administration (MBA) from Khadim Ali Shah Bukhari Institute of Technology (KASBIT), Karachi, and also did MS (Finance) from Hamdard Institute of Management Sciences (HIMS) Karachi. He completed his Ph.D. at the University of Malaysia Sarawak (UNIMAS) in the field of finance. His core areas of research are short-term financing, capital structure, corporate finance, behavioral finance, and financial inclusion. Besides teaching, he is managing and supervising various capstone projects. He is course coordinator, and course leader of financial management and fintech.

Syed Sarmad Hasan completed his CMA from ICMA Pakistan in 1994 and MBA from UMS, Malaysia in 2017 with distinction. He was trained as a Financial Strategy Specialist at the prestigious American Management Association (AMA), New York, USA in 2014. Currently, he is working as Assistant Professor in the Accounting & Finance department at IoBM and is also the program coordinator of BS – Accounting & Finance and BS – Economics & Finance. He has worked in the corporate sector and with international NGOs for 25 years in Pakistan, Thailand, Bangladesh and Malaysia at various positions including CFO and Director Finance. His areas of expertise include financial analysis, strategic planning, budgeting, financial reporting and performance measurement. He is pursuing his PhD in Finance from UMS, Malaysia. He has published several articles in peer reviewed international journals.

Dr. Arslan Qayyum is Assistant Professor in the Department of Accounting and Finance. He did his PhD (Finance) from the University of International Business and Economics (UIBE), Beijing, China in 2019, under a fully-funded Chinese Government scholarship for PhD studies. He has served as an instructor of Accounting and Finance subjects in many reputable national and international institutions including Stratford College, NCBAA&E, COMSATS University, and UIBE. He has also published research articles in reputable peer-reviewed national and international journals and has presented working papers in international conferences.

Dr. Arsalan Hussain has completed his PhD in Business Management from Universiti Utara Malaysia. He holds an M.Phil. degree in Business Management from IoBM. and MBA from Quaid-i-Azam University, Islamabad. He has teaching experience of over 10 years at higher education institutions in Pakistan. Dr. Arsalan is Assistant Professor at the College of Business Management, IoBM. His research interests are in the areas of capital structure, financial performance, financial innovation, Fintech, and corporate finance. He has published more than 15 articles in international peer-reviewed and indexed journals of Scopus, Web of Science, and JCR impact factor journals. Recently, Dr. Arsalan has been recognized as an HEC-approved PhD supervisor, in the discipline of Management Sciences & Business Education.

Kamran Rabbani, Senior Faculty member at IoBM has been with the institution for the last twelve years. He has a Master’s degree in Finance, has completed Intermediate level CA, and has a Diploma in banking. He has more than 24 years of corporate banking experience and SME lending, product development, financial analysis and risk management, having worked in leading banks in Pakistan and in Saudi Arabia. He has attended workshops and seminars on different topics, locally and internationally. He was Master Trainer of a US-based company. His research interest mainly lies in SME and Micro-lending issues, and its best practices. He has published two research papers on SME financing. He has participated in designing Commercial/ Retail, Banking, and SME and Micro-Financing courses, for MBA students.
Muhammad Asim Khan has completed his course work of MPhil leading to PhD program. He received his MBA from the Karachi University Business School, M.Com. from the University of Karachi. He is working with IoBM as a Senior Lecturer. He has served with Siemens Pakistan, Shaheen Air International and Aga Khan Education Service Pakistan in commercial, corporate planning and education management capacities for more than twenty-three years. He has also been associated with several prestigious institutions as a visiting faculty member. His areas of interest include Management Accounting practices, and Corporate Finance. He has published several research papers in reputed journals at national and international level and has participated in national and international conferences as well.

Muhammad Muzaffar Ali is currently pursuing an MPhil leading to PhD program. He has received his M.Com, MEd and B.Ed from the University of Karachi. He is working with IoBM as a Senior Lecturer. He worked with several corporate sector companies in shipping and manufacturing and automobile sector in Accounting and Finance capacities for seven years. He has also served Aga Khan Education Service, Pakistan and Fatimiyah Education Network as Head of Department for more than eighteen years. He also served in the Ministry of Education of the Maldives where he was a convener of accounting and finance department in Male City. He has also been associated with several universities as a visiting faculty member for more than twelve years. His research interests include capital markets, analysis and forecasts related to corporate accounting and financial markets.

Dr. Nayeem Ansari holds a PhD Degree in Management Sciences. He is an active academician and a researcher in the field of Energy & Finance. Currently, he is working as Assistant Professor in the Accounting & Finance department at IoBM. He has over 20 years of experience both in the corporate sector and academia. He has been acted as a Company Secretary, CFO & also a trainer in different corporate sectors.

Khawaja Masood Raza, Senior Lecturer Accounting and Finance, holds an MPhil and Masters in Islamic Banking & Finance from the University of Karachi (KU), and is currently pursuing PhD in Islamic Banking & Finance from there. He is a Certified Shari’ah Advisor and Auditor (CSAA) from the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI), Bahrain. His industry exposure extends over 30 years in banking, textile, information technology and consultancy, working with large organizations locally and internationally. While associated with the industry, he has been teaching Accounting, Finance, Islamic Banking, Islamic Finance and Taxation courses for over twenty years, at various universities and institutes. His area of expertise includes Accounting & Financial Management. His research interests are Accounting, Finance and Islamic Banking & Finance.

Shakira Fareed is currently enrolled in a Ph.D. (Business Management) program at the University of Malaysia Sarawak and she has a specialization in Finance. She holds her MBA in Finance and Risk Management from IoBM and MA in Economics from Karachi University. She is working with IoBM as a Lecturer. She has worked as a student counselor and secondary teacher at Groom Well School. She has been a coordinator of capstone projects in addition to working on capstone database development and management. She has five and a half years of research experience.

Dr. Ruqia Shaikh is currently Assistant Professor - Accounting & Finance at CBM. She has a PhD in Management, with specialization in Accounting, from Zhongnan University of Economics and Law, China. She also has a Master’s degree in Finance from Sukkur IBA University. In China, she worked as a Postdoc Scholar with Henan University, published her work in reputable journals, and taught Accounting and Finance at Zhengzhou and Wuhan Universities, as a Visiting Professor. She was awarded a PhD fellowship, and a distinguished PhD student grant by the Chinese Scholarship Council (CSC). Her research interests include Ownership and control mechanisms, Earnings management and Investment efficiency, and she is also interested in working on methodologies like textual analysis, and bibliometric analysis. Her work has been published in prestigious journals such as Managerial and Decision Economics, Technology in Society, and Environmental Science and Pollution Research.
**Dr. Kiran Jameel** currently Assistant Professor- Accounting & Finance department, and PhD Program coordinator at CBM, did her Ph.D. in Finance from the University of Karachi in 2018. She has worked before as an Assistant Professor at Hamdard University, Karachi, and at the University of Karachi. She has ten (10) years of experience in teaching, research, and consultancy in Management Sciences and Business Administration. She has published 18 research papers in HEC categorized national and International journals, as well as three book chapters for renowned international publishers i.e. Springer & IGI. She is also an external reviewer for several national and international journals. Her research interest includes Sustainable Financial Risk Management, Fin-tech, Behavioral Finance, and Islamic Financial Markets & SDGs.

**Mohsin Ali** has completed MPhil (MS) in Accounting from Charles Sturt University, Australia in 2018. He holds an MBA in Finance from SZABIST and BS in Finance from Karachi University. He has joined IoBM in 2021 as a Lecturer in Accounts and Finance Department. He has worked in the Accounting and Finance industry in Australia and Pakistan. He has been giving lectures in the Charles Sturt University and some other universities and institutes in Pakistan. His future plans include a doctorate degree in the same field. His research interest is specifically in the field of Finance, Islamic finance and Technological advancements in the field of finance and accounting. He has contributed some research in the same field while completing his studies.

**Dr. Rizwan Ullah** is an Assistant Professor in the Department of Accounting and Finance at IOBM, and an HEC-approved supervisor. He completed his PhD in Finance from the Harbin Institute of Technology Harbin, China, in 2020, and his MS in Finance from Quaid-i-Azam University, Islamabad, in 2015. He has published 16 papers so far, in impact factor journals including the Journal of Environment, Development, Sustainability, and others. He completed his IPFP at the University of Chitral under the HEC program in 2022, and National Faculty training at HEC Islamabad. He also worked as a faculty member for four years at top universities in China and Pakistan. His research interest lies in Corporate Environmental Performance, Green Corporate Social Responsibility Firm Innovation and Firm Financial Performance.

**Naeem Uddin Kamran** has completed his MS in the field of Management Sciences from the Preston University Karachi, and Also an Associate Member of Institute of Cost and Management Accountants of Pakistan. He is currently working with IoBM as SENIOR LECTURER. He has been teaching since 2000. His professional experience includes teaching varied Accounting and Finance courses in diverse higher education contexts as well as professional institutions such as ICMAP and ICAP, ACCA. His key academic and professional achievements include receiving Best Faculty member Award from ICMAP as well as DHA SUFFA University. He is also interested in Completing his PHD from IoBM.
Communication & Languages

**Dr. Aliya Sikandar** holds a PhD in Education from the Institute of Business Management, MA TESOL from the Institute of Education, University of London, UK, and a Master’s degree in English Literature from the University of Karachi. Dr. Sikandar is currently the Head of the Communication & Languages Department at IoBM. Her PhD concerns Critical Discourse analysis of research consultations in higher education. She is working with IoBM as Associate Professor and also has an RSA certificate in Teaching of English (COTE) from the University of Cambridge. She has worked for the Aga Khan University for almost 24 years before joining IoBM full time in September, 2013. Currently, she is engaged in teaching Business Communication courses. Her areas of interest are Business Writing and Speech, Critical Discourse Analysis, Scholarly Writing and Spoken Discourse.

**Pir Muhammad** is an MPhil fellow and holds a Master degree in Arabic and Islamic Studies from the University of Karachi. He also holds a Master degree in English Literature and Applied Linguistics from National University of Modern Languages (NUML). He is currently working as a Lecturer in Communication and Languages Department. He completed his Dars-e-Nizami (Aalim-e-Deen) course of eight years and one-year specialization course in Islamic Jurisprudence from Jamia Darul Ullom Karachi.. He has done a post graduate diploma in Islamic Banking and Finance from Center for Islamic Economics (CIE) Karachi. He was a lecturer of Quran, Hadith and Fiqh before joining the institute. He has been teaching Islamic Studies and Arabic language courses at IoBM since 2012. His area of interest is Islamic Studies, Islamic Finance and Arabic language.

**Ms. Kishwer Nazli**, Senior Lecturer in the Communication and Languages Department, completed her MSc in Geography, M.A in English Literature and Linguistics, and MS in Applied Linguistics from the University of Karachi. Her work experience with reputable universities such as FAST, ZIAUDDIN, KIET and NED extends over 14 years. She has published a paper in ICLAP titled “Gendered language in Media”, and another on “A comparative analysis of monolingual and bilingual teaching” in IJRS. She is currently working on a paper focused on “Language and gender at the workplace”. Her areas of interest are Critical Discourse Analysis and Second Language Teaching. She also trains teachers on the SPELT platform and others, and has hosted many conferences. She published a paper titled “The Role of Computer-Assisted Language Learning in Language Teachers’ Professional Development” in January,2023, as the first author.

**Lubna Ali**, currently working as a senior lecturer in the Communication and Languages Department, holds an MPhil from the Institute of Business Management, and a Master’s degree in English Linguistics and Literature from the National University of Modern Languages. She has over seventeen years of teaching experience not only in Pakistan’s reputable universities but also abroad, in Dubai and London. Her research interest lies in teaching English as a second language and second language acquisition. Besides teaching, she is an active member of the Society of Pakistan English Language Teachers (SPELT).

**Shazia Noman** is currently working as a senior lecturer in the Communication and Languages Department. She is a skilled ESL instructor, with a passion for teaching and learning. She takes pride in Implementing traditional and innovative methods to motivate students to learn in a dynamic learning atmosphere. Shazia has sixteen years of teaching experience in various institutions including Iqra University, PAF-Kiet University and CAMS. She is currently completing her MPhil in Applied Linguistics.
Amna Akbar is a Lecturer at the department of Communication and Languages, IoBM. She received a Gold Medal for securing 1st position in her Master’s in English Linguistics from the University of Karachi. She previously worked as an Academic English Instructor in the Faculty of Liberal Arts & Human Sciences, Ziauddin University. There, she was also a managing editor of the Journal of Liberal Arts & Human Sciences published by FLAHS. During her one and a half year stay, she spearheaded numerous resource planning and development projects for the faculty at The Language Centre, ZU. Her research interests include Media and Critical Discourse Analysis, Phonology and Sociolinguistics. She recently presented her research paper at The International Conference on Media Science and Digital Communication 2021.

Nida Zehra Abbas, currently working at IOBM as Lecturer in the Department of Communication and Languages, has a Masters degree in English Literature, from the University of Karachi. Her professional experience includes teaching ESL and Business Communication Courses for over six years. She has taught a varied selection of English Language courses at higher secondary, undergraduate and graduate levels. She remains active in student counselling and society work at IOBM. Her academic achievements include being awarded a bronze medal for her Bachelors, and a gold medal for her Masters by the HEC.

Environment and Energy Management

Dr. Shahid Amjad has a PhD from the School of Ocean Sciences, University of Wales, (UK). His MS is from the University of Oslo, Norway, in Benthic Ecology. He has also completed courses in Management from the University of New South Wales, Australia. He is a Professor and Heads the Department of Environment and Energy Management. Dr. Amjad represented Pakistan as a member of the UN International Seabed Authority, Jamaica. He participated as a scientist in the Pakistan’s expedition to Antarctica. He has been associated with the National Institute of Oceanography as Director General. He is Member Experts’ Committee SEPA Sindh and holds memberships of other prestigious organizations. He is HEC Approved Supervisor, and has over 30 National and International research publications to his credit.

Dr. Jamshaid Iqbal, currently Assistant Professor in the Department of Environment and Energy Management, CESD – IoBM, holds a PhD in Environmental Sciences from NUST - Islamabad. He has about 15 years of professional experience including teaching, research, industry and consultancy. He has been associated with various national and international organizations including World Bank (WB), IFC, ADB, USAID, and the International Islamic University, Islamabad. His key areas of research include solid waste management, climate change, energy management, environmental impact assessment and occupational health and safety. Dr. Iqbal is an HEC-approved PhD supervisor. He has published several research-based articles in peer reviewed and HEC recognized national and international journals. He is also Member - Reviewer Panel, for many peer-reviewed international and national journals.

Entrepreneurship

Dr. Munir Hussain, Assistant Professor – Entrepreneurship, holds a PhD degree in European Studies. He is an expert in corporate governance of SMEs in the European Union. He has an MBA in International Business from the University of Wales Institute Cardiff, UK, and a Postgraduate Diploma in Business Administration from the London School of Commerce, UK. He has authored a book published by SPRINGER, and written and published many research articles in national and international publications. He has participated in three international conferences between 2012 and 2017, in Islamabad, Istanbul - Turkey, and Abu Dhabi. He is an HEC-approved PhD supervisor, and oversees entrepreneurial ventures of students, startup incubation, as well as guides students participating in sustainable-business-related competitions. His research focus is on sustainable entrepreneurship in Pakistan, corporate structures of SMEs and startups, geo-economics, and economic regionalism.
Dr. Omar Javaid has a Ph.D. in Socially Sustainable Entrepreneurship, from the Institute of Business Management (IoBM), MS in Management Sciences from KIET, MBA-Exec from IoBM with majors in Marketing, and BE in Industrial & Manufacturing Engineering from NED University. Dr. Javaid has a total of 17 years of experience, working in corporate, non-profit, and education sectors. His core competency is in mentoring new startups and ventures. Since 2010, he has helped hundreds of students fulfill their entrepreneurial ambitions. He has also published various research articles and editorials in professional journals, magazines, and newspapers; and is an avid reader of books and articles on Entrepreneurship, Social Entrepreneurship, Islamic Economics and Finance, and Philosophy of Economics and Business Management.

Rehan Muzamil Butt is faculty member in the Entrepreneurship Department at IoBM, and has been Head of the Department. He did his Masters from the University of Wales, U.K., and has a second Masters in Marketing. His business experience with FMCG and B2B organizations extends over 15 years. He has published research papers in national and international journals, and presented them at conferences. His teaching experience extends over 12 years. He also has been Technical Advisor at business incubation centers at IoBM and other universities, is a reviewer for Journals including PBR, and a Certified Halal Lead Auditor. He has conducted corporate trainings for a host of institutions, and mentored over 1300 students in business startups and socially sustainable projects. His PhD thesis has been submitted to IIUM, Malaysia.

Muhammad Masood Mir, is currently serving in the Institute of Business Management as a Senior Lecturer in Entrepreneurship department. He has more than 12 years’ diversified experience in teaching and corporate sectors. He is also in finishing stage of his PhD, -Business Administration from IBA- University of Sindh. His expertise includes the talent management, organizational culture, leadership, and organizational behavior, Intrapreneurship and Organizational Psychology. Furthermore, he has the research exposure, almost 16 papers are on his credit and published in national and international HEC recognized journals also indexed in the most influential indexing bodies Clarivate analytics (ESCI, SSCI) with complex and innovative tools and detailed analysis. He is also the trainer of research-based software’s like. AMOS, Smart-PLS, SPSS, Expert Choice. He has keen interest in writing the papers in Management Sciences. In future he would like to be an explorer and sailor in the ocean of research and management sciences.

Sardar Muhammad Nawaz holds an MBA from PAK KIET. He is working as a Senior Lecturer with IoBM. His areas of expertise are delivering motivational talk, business startup strategies business plans, public dealing, developing SOPs, business reporting strategies, legal advisory to entrepreneurs. He started his career by founding an NGO with the motive of providing free education to the underprivileged community. He was responsible for marketing strategies and fund-raising campaigns. He has working experience in corporate industry i.e. Banking, Outsourcing Businesses or BPO Services.

Bazla Mukhtar is currently pursuing PhD in Business Management from Institute of Business Management and holds an MBA degree with specialization in Marketing from IoBM together with a BS degree in Zoology from the University of Karachi. She is working as a Lecturer and is also serving as the Program Coordinator for the Entrepreneurship program at IoBM. She has experience of more than 5 years within the fields of academia and research. She also has multiple national and international publications to her credit. In addition to this, she is serving as a production overseer for a venture since 2014 by the name of Wyllie Consultancy which is a US based company providing professional content development services to clients across the globe.

Marium Mateen Khan is a Senior Lecturer, Cluster Head Marketing & Languages for the Entrepreneurship department and the Assistant Editor of JoEED at IoBM. She did her MBA and BBA (Honors) both in Marketing from PAF-KIET. Her areas of expertise include: Consumer Behavior, Brand Management, Entrepreneurship, Customer Relationship Management, Supply Chain Management, Sales Management, and Digital Marketing. She has 10 years of research experience having 20+ research publications in HEC recognized Y and X category journals. She has 23 conference proceeding publications out of which 7 conference proceedings are ISI indexed. She has supervised research theses of BBA level students. She has mentored 95+ startups with a success rate of 30%. She has also won the Inspirational Women Award in 2023.
Kazim Usman is currently pursuing MPhil in Applied Economics from Applied Economics Research Centre (AERC) and a Master’s degree in Economics from University of Karachi. His research interest is Economics of Happiness, Axiology of Economics and Islamic Economics. He has been working as a Lecturer with IoBM, teaching core courses of Economics and Social Entrepreneurship. His goal is to serve in interdisciplinary research in philosophy of economics and its sociological repercussion especially in developing countries.

Saima Munawar is an accomplished Senior Lecturer in the Entrepreneurship Department, possessing extensive experience in teaching and Teacher Training at both international and local levels. In her capacity as Managing Editor of the International Journal of Experiential Learning & Case Studies, she plays a critical role in shaping the discourse on experiential learning. Saima holds a Master of Philosophy degree in Business Management and a Graduate Diploma in Teaching English to Speakers of Other Languages (TESOL). Moreover, her commitment to advancing the field of entrepreneurship is demonstrated by her ongoing pursuit of a PhD in Marketing. Saima’s research interests are focused on consumer and employee behavior, which is evident from her numerous peer-reviewed journal articles and international conference publications.

Health and Hospital Management

Dr. Ather Akhlaq is an Associate Professor of Health Informatics and Health Management and currently holds the position of the Director of ORIC at IOBM. His PhD was from the University of Edinburgh, UK, ranked among the top 50 universities of the world. He is also currently heading the Health Management MBA program. He has a broad experience in interdisciplinary research covering the diffusion of innovation and digital technologies in healthcare, asthma, child abuse, and digital business. Dr Ather has extensively published his work in top journals of health and business topics. He is an expert in mixed methods data collection and analysis. He has contributed to many international research projects investigating digital and public health and recently won the HEC NRPU project of around 4 million.

Dr. Abdur Rahman Aleemi is Associate Professor and HoD Research (CBM). He is leading the MS/PhD programs in Business Management at the Graduate Business Research Department of the College of Business Management. He holds a PhD in Business Management from IoBM, an MPhil from IQRA University and MBA from Virtual University of Pakistan in Finance. His main research interests fall in the areas of Financial Economics, Corporate Finance, Digital Finance & Fintech. He is also a leading researcher in the areas of Islamic Banking, Banking Regulations, Stability, Market Power, Market Micro Structures and Financial Inclusion. He possesses more than 13 Years of diverse experience of industry and academia. He has served both in academia and industry at different positions for various projects and responsibilities. He has supervised several MS/PhD theses and published several research papers in peer reviewed journals and has also presented his work at national and international conferences. Last but not the least he is leading Capstone Projects and has been involved in funded projects with reputed organizations such as ICAP.

Dr. Syed Jamal Shah is Assistant Professor in the Health & Hospital Management department. He secured his PhD from one of China’s most prestigious institutes, “The Harbin Institute of Technology (HIT)” in the field of Business Administration (OB/HR). He is also enrolled as a post-doctoral fellow, Health and Hospital Management, with Antai College of Economics & Management, Shanghai Jiao Tong University, which ranks among one of top 100 global universities as per QS. His research interest includes Human Resource Management, Healthcare Management, Organizational Behavior, Marketing and strategic management. His research work has appeared in journals such as the Baltic Journal of Management (SSCI), the International Journal of Occupational Safety and Ergonomics (SSCI), the International Journal of Conflict Management (SSCI), and Current Psychology (SSCI).
Management and HRM

Dr. Shagufta Ghauri holds a doctorate in Business Management from IoBM. She is currently working as the Head of the Department Management & HR, Assistant Professor and Faculty advisor SHRS. She holds vast teaching experience across major universities of Karachi and has been associated with IoBM for the past 15 years teaching Management & HR courses and has also been involved with curriculum development and training manuals. Dr. Shagufta is an honorary member to the Pakistan Education Foundation. She has several conference presentations and research publications in HEC and Scopus recognized journals. She is also the Patron and faculty advisor of Strategic Human Resource Society and has been organizing the Zenith Leadership & Development Conference on an annual basis since the last eleven years.

Javaid Ahmed holds an MBA degree with Distinction from Lancaster University Management School where his empirical research was awarded 1st prize by the now CMI and a BSc Engineering from the University of London, Kings College. He is the Head of Strategy & Accreditation, Consultant & Trainer Strategic Planning & Market Creation. He has been Head of the Departments of Marketing and Management/HRM. He is an IFC Certified Board Director, FCMI-Fellow of the Chartered Management Institute, FCIM-Fellow of the Chartered Institute of Marketing (UK), Member of MENSA and a UK Chartered Engineer. He brings to academia over 28 years of a successful top management career. He is the recipient of the 2013 Faculty Excellence Award conferred jointly by IoBM and the International Association of University Presidents. In 2020 he earned the Harvard University Premium Certificate of Teaching in Higher Education. Javaid is case research active in competitive strategy and market creation, has supervised MPhil research and taught the pre-doctoral course on Strategy and Governance.

Dr. Fazal Anwer Khalidi has done MSc Marketing from Salford University, UK; MBA from IBA; and MBBS from Dow Medical College. He was awarded a Chevening Scholarship by the British Council to pursue a Master’s program at Salford University. He is working as Assistant Professor with IoBM. He has 24 years of consultancy and senior management experience with multinational pharmaceutical companies. He has also been associated with leading business schools of Karachi as an adjunct member of faculty. He has also attended an executive development program at the Thunderbird School of Global Management, Arizona, USA.

Dr. Mirza Dilshad Baig, Assistant Professor at IoBM, has a Doctorate in Management Sciences. He has rich experience of over three decades in Human Resources and Organizational Development (HR&OD), in private, public and multinational organizations. He has served as Head of HR&OD in most of the organizations. Besides having successful corporate exposure, he was teaching in different educational institutions as a visiting faculty. His teaching expertise lies in the areas of HR Management, Organizational Change & Dynamics. He has several research papers in international journals. Dr. Baig is also a corporate trainer and has provided consulting services to renowned organizations in Pakistan in the field of Strategic HR Management and Organizational Development.

Dr. Muhammad Arif holds a PhD in Management Sciences and an MBA in HRM from SZABIST, Karachi and Master in Maritime Affairs from Bahria University. He is a recipient of Tumgha-e-Imtiaz and currently working as Assistant Professor and Director Research at IoBM. He has held various command and staff appointments and has served as Base Commander PNS ABDOZE, Director Submarine Training center, Captain Training of all Karachi based Educational/Training organizations. He has a versatile and enriched teaching/management experience. He has served as a senior faculty member at the Pakistan Naval Academy as well as directing staff at Pakistan Navy Staff College Lahore, teaching Management/Leadership as well as supervising the research works of senior national and international military officers. As Director Submarine Training Center, Dr. Arif was awarded Tumgha-e-Imtiaz Military TI (M) by the President of Pakistan in recognition of his unique efforts. He is serving at IoBM since January 2019.
Dr. Bilqees Ghani is an Assistant Professor in the HRM and Management department. She earned a Doctorate in Business Management with an emphasis on Human Resource Management and Organizational Behavior from the Institute of Business Management (IoBM). Her research has mainly appeared in international leading-ranked journals like Behavior and Information Technology, Asian Journal of Business Ethics, South Asian Journal of Business Studies, and Frontiers in Psychology. Her research interests draw upon social exchange theory, performance appraisal, and employee workplace attitudes and behaviors, especially extra-role behaviors. Previously, she worked for ITP (a family-owned business) for around 2–3 years. She also has been a part of a number of reputable corporate organizations, such as Abbott Laboratories, the Civil Aviation Authority of Pakistan, and Deloitte Pakistan, as an intern/trainee.

Dr. Shiraz Ahmed has recently achieved his Ph.D. in Business Management from IoBM. He is working as Assistant Professor in Management and HRM Department. He is ICF credentialed coach (PCC), EMCC accredited practitioner coach (EIA), and certified TPMA trainer from IFC-LPI. With over 10 years’ experience, he has expertise in designing, developing and executing world-class programs in Management and Leadership Development and Executive Coaching. He has trained and coached mid-senior professionals and future CEOs from ASA, APAC, and MENA regions from fortune-500 Companies. In last 5 years, Shiraz has coached 40+ senior executives from such companies. He has developed and facilitated Leadership development programs for hundreds of junior-senior level professionals from different industries from Ethiopia, Ghana, China and many more countries.

Dr. Muhammad Azeem Qureshi is postdoctoral research fellow at the University of Malaysia Perlis (UniMAP). He obtained his PhD degree in the field of Business Management and awarded the Certificate of Merit for distinguished performance during his Ph.D from IoBM. He was awarded the MS degree in Management Sciences with a Gold Medal and an MBA degree in Human Resource Management from Institute of Business and Technology. Currently, he is working as an Assistant Professor in the Department of Management & HR. He is also a HEC approved PhD supervisor and associate editor of Pakistan Business Review (PBR). His research area encompasses Business Management, Organizational Behavior and specifically, Leadership, Ethics and Layoff Survivor Sickness. He has published several research papers in HEC recognized national and international peer-reviewed journals.

Dr. Afaq Ahmed Kazi holds a PhD in Human Resources Management, B. Pharmacy, LLLB, MBA and MPA from University of Karachi. He is working as an Associate Professor & Senior Management Consultant with IoBM. He got his professional training from various international bodies such as Pritchett Associates USA, Change Management and Business Process Restructuring by Catalyst Consulting Group USA. He is a senior Human Resources and Industrial Relations professional with over 27 years of professional experience. He has served the industry in HR and management at C-level positions at leading multinational companies in Pakistan and abroad. As a researcher, academician and trainer, he has been associated with a number of universities in Pakistan and provides consultancy services to the Industry. Dr. Kazi is also a specialist in Human Resources & Management with expertise in employment laws. As a researcher he has many research publications in local and international journals and international conferences.

Dr. Sania Usmani, currently Associate Professor in the HR and Management Department at IoBM, completed her Post-Doctoral Fellowship from Universiti Sains Malaysia in 2021. She holds a PhD degree in Management from Iqra University. Her MBA major was in Finance and Supply Chain Management. She has worked with Total Atlas, Royal Bank of Scotland, and Dawlance Ltd. She has completed certifications in Entrepreneurship from IBA, in Neuromarketing from University of Copenhagen and in Readiness (CoRe) from Harvard University. She has expertise in SPSS, Amos, and Smart PLS software packages for statistical analysis. She has attended various international conferences. She has won best paper award in the Australian (2013) and South Korean (2019) Conference. She has published several research papers in HEC and Scopus recognized journals.
Dr. Junaid Ansari is an Assistant Professor in the Management & HRM Department at IoBM. He completed his Postdoctoral fellowship from Universiti Malaysia Perlis in 2022. He holds the degrees of Ph.D. (Business Management), and MBA (Advertising & Media Management) from IoBM. His academic qualifications include Bachelors in Computer Science & IT from NED University, Karachi. At IoBM, he has been teaching MBA, MPhil and PhD level courses, and has published research-based articles in HEC, WoS, and Scopus recognized journals. Dr. Ansari has served the IT sector for more than 12 years, as an Entrepreneur/Head of Software Division, and developed software applications for key public and private-sector organizations in Pakistan, for which he received appreciation from P@SHA and APICTA.

Dr. Saba Gulzar is Assistant Professor in Management and HR Department at CBM. She holds a PhD in Business Management from IoBM. Her main research interests lie in the areas of Human Resource Management and Organizational Behaviour. She is also conducting research on HR Automation, Employees Competencies, Psychological Contract and Deviant Workplace Behaviour. Dr. Saba possesses more than 15 Years of diverse experience of academia. She has served in different positions and handled diverse responsibilities. She has supervised several BBA/MBA theses and published several research papers in well reputed peer-reviewed journals, and has also presented her research work at national and international conferences. She leads Capstone Projects to support and facilitate students.

Dr. Syeda Tayyaba Fasih is Assistant Professor in Management and HR department. She holds a Ph.D. in business management from IoBM, MSC from IoBM in HRM and organizational psychology, and BBA from Bahria University in Human Resource Management. Her main research interests fall in the areas of exclusive talent management practices, sustainable management practices, leadership, and entrepreneurial management. Dr. Tayyaba possesses more than 4.5 years of diverse experience in research and teaching. During this period, she has led Capstone Projects and taught various HRM core and elective courses. She is also supervising a Ph.D. thesis also has published research articles in impact factors international journals such as the “International Journal of Ethics and Systems”, and in peer-reviewed journals and has also presented her work at national and international conferences.

Bushra Javed is currently pursuing her Ph.D in Business Management from IoBM. She holds an MPhil in Business Administration from the Air University, Islamabad. Prior to this, she did her MBA in Finance from University of Education. She is working as a Lecturer with IoBM. Her research interests include Data Driven capabilities, Data driven culture, and Industry 4.0. She has over four years of experience in the academia. She has freelance working experience of academic writing and creative writing. She has several research publications and conference presentations to her credit. She holds a distinction in MBA and has been a scholarship holder since her first semester throughout her MBA.
Marketing

Mohammad Ekhlaque Ahmed is currently pursuing his MPhil in Business Management from IoBM. He holds a Master’s in Business Administration from IBA, Karachi. He is working with IoBM as Assistant Professor, Head of the Department and Lead Capstone Course Projects. He has over 30 years of working experience in the corporate sector at various senior management positions in both multinational and local companies. He worked for Philips, Osram, Dadabhoy Cement and Rajby industries before joining IoBM as a permanent member of faculty. Besides basic marketing courses like Marketing Management, Principles of Marketing, Sales Management, he has also been teaching Strategic Marketing Planning, Marketing Strategies and Value Innovation, Distribution and Channel Management. He is also a corporate trainer in the field of Marketing & Management.

Dr. Syed Amir Saeed holds his PhD in Marketing from Institute of Management Sciences, Peshawar and an MPhil in Marketing and MBA from University of Peshawar. Currently, he is working as an Associate Professor in Marketing Department. He joined teaching in year 2000. He has worked with Gulf Ship Chandlers Dubai, where he was responsible for managing marketing activities and supplies to United Arab Shipping Corporations. He has executed multiple research projects in collaboration with Gallup Pakistan, for major clients including the World Bank and British council. He has also provided advertising consultancy for different national and multinational brands.

Dr. Muhammad Adnan Bashir, Associate Professor in marketing, has done his Ph.D. in Marketing from IoBM, and MPhil & MBA from the Iqra University - Karachi. He holds BSc (Hons) & MSc degrees in Microbiology from the University of Karachi. He has over six years of work experience, in both multinational and national pharmaceutical companies. He has worked for GlaxoSmithKline, Atco Laboratories, and Novartis Pharma Pakistan. His research areas include Branding and Customer Engagement through Online Social Media.

Dr. Amber Raza holds a PhD in Business Management and MBA in HRM from IoBM. She did her MPhil in HRM from PAF-KIET. She is working as an Assistant Professor & HoD Academics with IoBM. She has worked with AKESP in the field of Education Research in Pakistan, and was part of the team that developed evaluating and monitoring instruments for the project QUAID (Quality Advancement through Institutional Development). She has 10 years of teaching experience at university level; and has supported 100 plus students in their research projects which were based on diverse topics with focus on Management and Marketing.

Syed Muhammad Fahim is a PhD scholar at IoBM and holds his MS in Management Sciences from Institute of Business and Technology (IBT). He is currently working as Assistant Professor with IoBM. He has an extensive experience in the field of research and marketing. With more than 25 research papers at his credit, he has developed specialized skills in partial least square Structural Equation Modeling (SEM). He received customized training on PLS SEM in Malaysia. His forte is structural equation modeling via Smart PLS. He has attended and conducted workshops on Smart PLS at various national and International forums.

Dr. Aysha Karamat Baig obtained her PhD from Swinburne University. She is currently working as an Assistant Professor at IoBM. Her doctoral study was on consumer boycott behavior where she specifically investigated the factors that drive Muslim consumers’ participation in global macro-boycott campaigns. During her PhD, Aysha has developed a strong passion for understanding boycott behavior, and the factors related to cross-cultural consumer psychology that influence boycott behavior. Her research interests include Consumer Boycotts, Neuro-Marketing, Culture and Consumer Psychology. She also contributes as a reviewer to a few journals such as Pakistan Business Review and Journal of Islamic Marketing. Her teaching areas include Marketing Management, Consumer Behavior, Digital Marketing and Neuro-Marketing. Her articles have been published in peer reviewed journals.
Mukhtar Ahmed has completed his MPhil course work in Business Management from IOBM. He holds a Master’s degree in Business Management from “The Institute of Management Sciences” Lahore and Bachelor’s degree in Pharmacy from “University of Sindh”. He is working as a Senior Fellow in the Marketing Department. From 2016 to 2018, he was associated with Institute of Business Management (IoBM) Karachi, Institute of Business Management (IBM) Lahore, and Superior University Lahore as a visiting faculty. He has attended the European Leadership Program from Germany organized by Schering AG. He has a diverse experience of over 30 years in the corporate circuit, especially in pharmaceuticals. He spent his entire career in multinational organizations with in sales and marketing. He has worked in various positions from Sales Executive, Product Manager, to Business Unit Head.

Fariha Raza, Senior Lecturer, Marketing, holds BBA (Hons) and MBA degrees from Institute of Business Administration (IBA), Karachi. She also has an MS in Management Sciences from Szabist, Karachi. Currently she is enrolled in PhD Management Sciences at Szabist, Karachi. Her forte is business research. She has a unique blend of corporate and academic experience spanning across 25 years. She has served as General Manager Business Administration at Hilal Foods, and as Deputy General Manager Marketing at Dewan Farooque Motors Limited. Apart from teaching Marketing and Research courses at undergraduate and graduate levels at IoBM, she also supervises capstone projects.

Shah Muhammad Saleem, currently Senior Lecturer in Marketing, received his MBA from the Institute of Business Administration (IBA), after his M.Sc. in Applied Physics from the University of Karachi. A result-oriented, integrity-driven, high-performing manager and seasoned professional, he has 30 years of outstanding experience of working in a matrix organizational structure. He served Abbott Laboratories (Pakistan) Ltd. as Head of Business Excellence & Demand Management, Marketing Manager, National Sales Manager, International Marketing Manager for Sri Lanka & Bangladesh and Group Product Manager. He was also a visiting faculty for over four years at IBA, PAF-KIET, and Bahria University. His areas of interest cut across a wide are of management disciplines and he is registered in the M.Phil. leading up to PhD program.

Dr. Muhammad Tabish serves as an Assistant Professor in the Marketing Department (CBM). He has demonstrated outstanding versatility through his eight years of corporate experience in a variety of national and multinational corporations, combined with seven years of enriching university teaching and administration experience. As a Ph.D. holder since 2021, his expertise in managing various corporate projects is complemented by a robust and expanding research and teaching profile. The publication of research papers in internationally renowned journals demonstrates his commitment to advancing knowledge in his discipline and his passion for teaching and research.

Syeda Dur-e-Afshan Ali holds a Master Degree in Business Management with Majors in Marketing from IoBM. She has also completed a 6 weeks certificate course from INSEAD on Marketing and Sales Excellency. She is currently associated with IoBM as a Lecturer. Prior to that she has been associated with different organizations in the role of marketing and communication and holds 15 years’ experience. BLITZ DBB, Manhattan Communications, Syngenta Pakistan are some organizations she has worked with. She has also served as an external trainer for National Bank of Pakistan. Before joining as permanent faculty at IoBM, she has taught at IU, PAK KIET, Karachi university and IOBM as visiting faculty for 6 years. Her area of interest is motivational speaking, trainings, learning and observing change and shifts in marketing landscape.

Midhat Nadeem is Senior Lecturer in the marketing department at IoBM. He has done his MBA with specialization in Marketing, from IoBM. He is also a PhD candidate, and his research interests are in the areas of green marketing, digital marketing, environmentally sustainable consumer behavior and brand management. Prior to joining the Marketing Department, he was associated with EMEC, in the capacity of Senior Coordinator – Training and Projects, managing the business portfolio of open enrollment and customized training programs. He has also served as a project coordinator and a Lead Trainer for multiple donor funded training and capacity building programs, including but not limited to the projects awarded by USAID, TDEA, UNDP, Aurat Foundation, Asia Foundation and IUCN.
Nida Shaukat is currently pursuing her PHD in Marketing from IoBM. She holds A BBA from IBA and an MBA from Institute of Business Management with a Gold Medal with specialization in Marketing. She is working as a Senior Lecturer in the department of Marketing at IoBM. She started her corporate sector career as a Project Trainee Vaccine Department for Glaxosmithkline and later worked as a copy writer for Headline advertising, Marketing executive exhibitions for Dawn Media Group and Assistant Manager Distribution for K Electric. Nida started her career in academia with IOBM as a Lecturer in the Marketing department. She has taught in Dubai for 6 years in the marketing department at Murdoch University Australia (Dubai Campus). Currently she is serving as a Senior lecturer in the marketing department at IoBM.

Asma Rehman, is currently enrolled in a PhD in Business Management at IoBM and is specializing in Marketing. She holds her MBA in Marketing and BS (H) from IoBM. She has been working as a Lecturer with IoBM. She has been teaching in IoBM as a Visiting faculty for the last two years. Prior to working in Higher Education, she has worked in the capacity of Marketing Manager for a private firm. She is also the founding member and Marketing Consultant in an entrepreneurial venture called Murtafiyah, a Training & Consultancy Firm.

Yamna Khan is a Lecturer in the Department of Marketing at CBM. She has recently completed her PhD in Business Management from the Institute of Business Management (IoBM). Her major areas of research include marketing, food sustainability, and consumer behavior. She did her BBA as well as MBA from the Institute of Business Management. She has considerable experience of teaching Marketing-related courses. She has mentored students at both graduate and post-graduate levels, and led many student projects where students were required to gather first-hand information on marketing-related operations from different companies.

Logistics and Supply Chain Management

Dr. Muhammad Junaid has completed his PhD in the field of Management Science and Engineering (Supply Chain Management) from Taiyuan University of Technology, China, and holds a Master’s degree in Business Administration from Bahauddin Zakariya University, Multan. He is currently working as Acting HoD Assistant Professor at IoBM. He has seven years of teaching, research, and administrative experience. His key academic and professional achievements include receiving a Chinese government scholarship for PhD, working as an editorial board member of Journal of Business Management Studies (JBMS), working as head of the department Operations and Information Systems Management and director PhD Management Science Program at Mohammad Ali Jinnah University (MAJU), winning an excellent research paper award at ICMESS-2018, Japan, and several publications in the prestigious scientific journals indexed/ranked in SCI/SSCI, Scopus, ABDC. His research interests include supply chain risk management, supply chain digitization, supply chain mapping, sustainability, circular economy, and smart manufacturing.

Syed Adeel Shah holds an MPhil in Supply Chain Management from Iqra University. He also holds an MBA and BSc (Hons) in Textile Sciences from the Textile Institute of Pakistan. He is working as a Senior Lecturer at IoBM. He has a wide experience in Textile Supply Chain, teaching, training, research and SCM. His career spans over fifteen years and he has worked in leadership positions at various organizations. He was Country General Manager at Karl Rieker GmbH & Co. KG (Bodelshausen / Germany) and Country Head Supply Chain Management in Wünsche Group (Germany). His experience in SCM and Textile Studies is over twelve years, during which he has served in Karachi’s most prominent institutes, including, AIFD and KUBS.

Sajid Nazir is Senior Lecturer, Logistics & Supply Chain Management at IoBM. He earned his Master’s degree in Supply Chain Management from Coventry University, UK, in 2018, and has participated in the Coventry University Global Leadership Program, that took him to different countries for presentations and provided him leadership training. He also has a Diploma in Global Leadership from the UK. He had earlier completed his BBA from Iqra University. Before Joining IoBM, Sajid worked in the corporate sector at national as well as international levels in Banking, Aviation, and Pharmaceutical industries among others, as a supply chain professional. He has more than 10 publications in reputed journals, to his credit. His certifications and memberships pertain to CISCOM, CSCA, and MCIPS.
Dr. Zeeshan Asim has a PhD in Technology Management from Universiti Malaysia Pahang. He also did his Masters from Coventry University, England. He obtained his BS in Electronic Engineering from Sir Syed University of Engineering and Technology. He is working as an Assistant Professor with IoBM. He has published several articles in high quality international scientific journals. Dr. Zeeshan Asim has about four years of industrial experience and six years Academic Experience in mentoring young Engineering professionals across various Universities and public sector R&D firms. He has worked for National Productivity Organizations, Asian Science Consortium, Jaguar-DHL joint venture Project in Coventry, UK and served as Senior Lecturer with Sir Syed University of Engineering and Technology, Karachi during the course of his career.

Dr. Syed Muzzammil Wasim is currently Assistant Professor in the Logistics and Supply Chain Department at IoBM. He completed his Ph.D. from Taiyuan University of Technology in 2020, with a specialization in the field of Supply chain management, and did his Post-Doc at the School of Economics and Management, Nanjing University of Science and Technology. He completed his Master’s as well as Ph.D. on international scholarships. He has international teaching experience in different management subjects at the undergraduate and graduate levels, and has been part of many national and international journals as a reviewer, board member, and editor. His research interests are sustainable supply chain management, knowledge management, and sustainable performance.

Saheer Ali is a Senior Lecturer in the Logistics and Supply Chain Department. He is currently pursuing his Ph.D. in Management from Universiti Kebangsaan Malaysia. He completed his MBA from Staffordshire University, UK, and bachelor’s in international business from Asia Pacific University. He has more than six years of experience in teaching and corporate exposure. He has served both in academia and industry in different positions and managed various projects. He started his professional career in banking at Faysal Bank, and later joined Mohammad Ali Jinnah University as a lecturer. His primary research focus is on Supply Chain Management, Industry 4.0, and Green Supply Chain Management.

Sherbaz Khan is a PhD Scholar in the domain of Digital Marketing, studying the role of digital influencers on consumer behavior. He is Senior Lecturer in the Department of Supply Chain and Logistics, College of Business Management (CBM), as well as Managing Editor - Pakistan Business Review at CBM. He was the former Director of the Office of Research, Commercialization, and Innovation (ORIC) at Jinnah University for Women, Karachi until January 2023, and Associate Editor of the Journal of Independent Studies and Research at SZABIST. He did his MBA in Marketing from Greenwich University in 2013. His research interests cover, but are not limited to, Supply Chain resilience and Digital Marketing.

Musawir Ali Soomro completed his MBA (Logistics and Supply Chain Management) and BBA (Hons.) from IoBM. He is currently serving as a Lecturer in the Logistics and Supply Chain Management Department at IoBM. Prior to working at IoBM, he has worked at TCS as an Operations Coordinator. Because of his passion for teaching, he started his career in academia as a Research Associate at IoBM, and in light of that he has published articles pertaining to solid waste management, reverse logistics, forecasting practices in well-known journal.
College of Computer Science and Information Systems (CCSIS)

Advisor

Dr. Ahmer S. Karim has a PhD and a Master’s degree from Arizona State University, USA, preceded by MIS and Bachelor of Science in Finance from the University of Arizona, USA. He is the Advisor, College of Computer Science and Information Systems (CCSIS). He has over nine years of teaching experience at the University of San Diego, USA. He has published in Decision Sciences, Information and Management and other academic conference proceedings. Dr. Karim has also published several academic books on Information Systems.

Brig * Dr. Muhammad Abbas is an accomplished academic and administrator with a wealth of experience in research, curriculum development, instructional design, academia-industry linkages, quality of education, and management of academic activities. He obtained his PhD and MS degrees from the University of Manchester in Information Systems Engineering, and his B.E degree from NED University. With over 28 years of experience, he has a proven track record of delivering results through effective planning and implementation of strategies. He has served in various important positions at NUST/GHQ, including Director of Research and Development, Associate Head of Department, Director of Quality Assurance, and Senior Instructor. He is a member of the Pakistan Engineering Council (PEC) and an HEC-approved Supervisor, and has published more than 70 international research papers in reputable journals and presented them at conferences. As Acting Dean of CCSIS, Dr. Abbas brings his extensive knowledge and expertise to lead the faculty and students toward academic excellence.

Actuarial Science and Risk Management

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Computer Science

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College of Engineering and Sciences (CES)

Electrical Engineering and Engineering Management

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College of Economics and Social Development (CESD)

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Commercial and Professional Studies

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Nayab Amjad Jumani working as lecturer at Commercial and Professional Studies Department. A member of ACCA – UK and has experience working in auditing and fund accounting at various financial institutions including Ernst and Young and UBL fund Managers. Also has more than 8 years of experience lecturing ACCA courses.
Economics

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Muhammad Zubair is currently pursuing his PhD in Economics from IoBM. He holds MS Economics from IoBM and Master’s Degree in Economics & Finance from the University of Karachi. Currently, he is working as an Assistant Professor at IoBM. He has also secured his post graduate diploma in Economics & Finance from the University of Karachi. Prior to joining IoBM he has worked with University of Karachi as a visiting faculty. He has experience of 4 years in Broadcasting with Radio Pakistan in the capacity of Business anchor and reporter covering economic policy, trade and industry and etc. Mr. Zubair is also engaged in research and he has participated in various international conferences within and outside Pakistan.

Sadia Mansoor She received an MSc degree in Economics from Quaid- e-Azam University, Islamabad. She holds her MAS Economics in the Applied Economics Research Center from University of Karachi. She is currently working as a Senior Lecturer at IoBM. Her areas of research are development economics and public policy. She worked as a visiting faculty in different universities before joining IoBM as a full-time faculty member. She has attended a number of international conferences and has various publications to her credit. She is also a co-supervisor of MS thesis at IoBM. She has been associated with the Institute as visiting faculty in the past.

Irfan Lal holds his Masters in Economics from the University of Karachi and MAS (Applied Economics) from Applied Economics Research Center, University of Karachi. He is currently working as a Senior lecturer at the Department of Economics at IoBM. He has eleven years of teaching experience at various institutes. His areas of interest are Quantitative Analysis, Macroeconomics, Microeconomics, Development Economics and Business Finance. He has published more than twenty research articles in reputed local and international journals. He was also part of two international research projects completed by IoBM namely, Valuation of Mangroves in PQA Indus Delta: An Econometric Approach; in Collaboration with International Union for Conservation of Nature (IUCN) and Fisher Improvement Program (FIP) and Marine Stewardship Council certification (MSC) of Yellow Fin Tuna; in Collaboration with World Wide Fund for nature (WWF).

Zia Ullah holds an MAS degree in economics from the Applied Economics Research Centre University of Karachi and an MSc degree in economics from the Quaid-i- Azam University Islamabad. He is currently working as a Senior Lecturer at the department of economics. He is associated with the department of economics since July 2012. He has published various research papers in reputed journals of Pakistan. He has also contributed in various projects sponsored by the Institute of Business Management.

Yousuf Aboya is a Ph.D. scholar in Economics at IoBM, has an M.Phil in Economics from IoBM and M.A in Economics from the University of Karachi. He is working as a Senior Lecturer at IoBM. He has eight years of teaching experience at various business institutions. His research interests are in Monetary Economics, Macroeconomics & International Trade. He has some research publications in reputable journals to his credit. He has also presented papers in various conferences.
Education

Dr. Sarwat Nauman is currently heading the Department of Education as an Associate Professor. She has teaching experience of 19 years, and has been associated with IoBM since 2010. She is also Chief Editor of the Journal of Education and Educational Development, and an HEC Pakistan approved supervisor. Her experience in the field of education is diverse, and includes teaching courses related to Education, English Language, English Literature and Communication. Dr. Sarwat was appointed as Country Director, Pakistan, by the Higher Education Teaching and Learning Association (HETL) in 2020, and has conducted many seminars, workshops and conferences in the field of Education.

Dr. Zehra Habib holds a PhD in Education from George Mason University, USA. She is currently working as a Senior Fellow at the Department of Education and is also an Associate Editor of the Journal of Education and Educational Development, a biannual Y category, HEC recognized journal, published by the Department of Education, IoBM. She has over two decades of teaching experience and has been associated with IoBM since 2017. Prior to that she was a visiting faculty at SZABIST, Karachi and has also served St. Josephs’ College for Women Karachi in the capacity of Professor, Department of English, for over 15 years.

Dr. Rabia Aslam is currently working as an Assistant Professor in the Department of Education, IoBM. She completed her PhD in Educational Leadership and Management from SZABIST, Karachi in March 2022. She did her M.Phil. in Education and M.Ed. from Hamdard University. She also holds a degree of M.Sc. in Analytical Chemistry from the University of Karachi. She has been associated with the teaching profession since 2004. Her last experience was at Benazir Bhutto Shaheed University, Lyari, where she worked as a lecturer for four years. She has research expertise in the areas of Feedback, Assessment & Evaluation, Educational Leadership & Management, Teacher Education, and Technology Integration. In addition, she has a number of national and international impact factor publications in HEC-recognized renowned journals.

Amna Shahid, Senior Lecturer at IoBM, holds an MBA in Educational Management and is pursuing her PhD in Education at IoBM. She did her Bachelor in Professional Psychology at the Institute of Professional Psychology, Bahria University. Her areas of interest for research are early childhood education and educational psychology. Her experience covers teaching children ranging from three years olds, to post-graduate level students. Apart from being an educationist, she is also an entrepreneur and enjoys venturing into different creative tasks.

Diana Ambrose is working as a Senior lecturer at the Institute of Business Management in the Education Department. She is pursuing her Ph.D. in Education from the Institute of Business Management. She has worked at various prestigious institutes for the last 25 years. Her areas of interest include Early Child Education, Curriculum Development, Gender Education, Educational Psychology, Child Development, and Teacher Education.
Center for Policy and Area Studies

Dr. Asad Shahzad holds a PhD and MS in Economics from Institute of Business Management. He earned his MA in English Literature from the University of Karachi. Currently, he is working as an Assistant Professor and Acting HoD of Center for Policy and Area Studies. He has taught at several reputable educational institutes. His paper “Incoherences in Konrad Lorenz’s Concept of Aggression” has been cited in Jai Galliott’s Commercial Space Exploration: Ethics Policy and Governance. His paper “Iqbal’s Ideal Critique of Hawking’s Materialist Concept of Time” was published in Iqbal Review, April 2008 issue. His papers have also been published in PBR, Business Review, and Journal of Education and Educational Development. His research works address significant contemporary economic, political, and moral issues with reference to pre-modern, modern and postmodern philosophy.

Urfi Khalid holds an MA in Physical and Political Geography from the University of Punjab. She is working as an Assistant Professor with IoBM. Prior to her current assignment, she was associated with IoBM as visiting member of faculty since 1997. She was teaching at various levels in international institutions in the Middle East before joining IoBM. Her research focus is on gender issues in the economic development of Pakistan. A research paper article by her was published in Pakistan Business Review, April 2011. She presented her paper on Gender Issues of Pakistan Textile Industry at the seminar on “EU Trade Concessions to the Textile Industry of Pakistan” held at IoBM. She has attended various conferences and seminars held at Karachi University and IoBM.

Syed Hasan Habib holds a Master’s degree in Chemistry from University of Karachi. He is working as a Senior Fellow with IoBM. He worked for four years in the chemical process industry before joining Central Superior Services in 1983. He joined Foreign Services in 1986. He attended the Chinese Language Course at the Beijing University of Language and Culture (1989-91). During the 30 years of his diplomatic career, he worked in different capacities at Pakistan’s foreign missions in China, Iran, the Netherlands, Morocco, Switzerland, Chengdu (China) and North Korea. He has also been Pakistan’s representative at several international organizations and conferences. He remains deeply involved in Chinese and North Korean affairs. He is part of several local and international bodies in social and international affairs.

Dr. Farjad Ali holds a PhD degree in Arabic literature and language from University of Karachi. He has two MA’s in Islamic studies and in Arabic with 1st class 1st position from University of Karachi and he was awarded two gold medals as well. He is presently holding the position of Assistant Professor, Department of CPAS at IoBM. He has teaching experience of 10 years in different Institutes including University of Karachi and Sindh Madrasatul Islam University. The areas of his research interest are Religion, The Holy Quran, its language and Philosophy. He has published a research paper in an HEC recognized research journal.
Business Psychology

Dr. Nadia Ayub received a Post-Doctoral Fellowship from the School of Psychology, University of Queensland, Australia, and earned a PhD in Psychology from the University of Karachi, Pakistan. She is an HEC approved PhD supervisor and has supervised a number of MPhil & PhD thesis at IoBM. She is working as Professor and Associate Dean, Psychology Department at IoBM. Her research focuses on identity issues in adolescents, organizational issues, family and marriages, cross-cultural psychology, educational psychology, and psychometrics. She has published more than 30 journal articles, presented research papers at Harvard University in 2012 & 2013 and around the world, served on the editorial boards of International Journal of Psychological Studies, Journal of Pakistan Psychological Association, Universal Research Journal, and Pakistan Business Review. She received the International Education Faculty Achievement Award from the International Association of University Presidents for 2014 and HEC Best University Teacher Award for 2011.

Dr. Sana Sadia is Acting HOD & Assistant Professor in the Department of Business Psychology at IOBM. She is also a Member of the Review Board of “JEED”, a journal of the Department of Education, CESD. Her major areas of interest include child psychology, neurodevelopmental disorders, community and social psychology, and positive psychology, that is delivered through her work related to special needs and neurodiversity. Dr. Sana has 10 years of experience in clinical therapy. She has been associated with several national and international organizations and clinics, as a clinical psychologist, behavioral and child therapist, research psychologist, family therapist, and community counselor. She has also been visiting faculty in the department of psychology, University of Karachi, and visiting faculty designated as associate professor, at the Institute of Industrial and Electronic Engineering (PSCIR). She had presented research papers at several national and global conferences.

Dr. Syed Shameem Ejaz, PhD in Psychology from the University of Karachi, is Assistant Professor in the Department of Psychology, at CESD, IoBM. He has been teaching psychology for 12 years as a regular faculty and as a visiting faculty prior to that, at different institutions. He has been a practicing psychotherapist for 19+ years. His research interests lie in personality, perception, emotion, as well as cognitive impact of social and ecological interactions, as well as in brain-computer interface (BCI). He has been providing research consultation to national and international clients like UNICEF, UNDP, Bayer France, Crop-Sciences Switzerland, Syngenta France-Pakistan. He is actively engaged with vulnerable social groups, especially the youth, providing counseling and psychotherapeutic interventions to deal with stress, anxiety, and depression in conventional clinical setups, and through workshops.

Marvi Makhdoom holds an MPhil Degree in Organizational Psychology from IoBM, and is currently working as a Lecturer, in the Business Psychology Department. Prior to that she worked as a Visiting Faculty in several renowned universities. She has done various national and international courses and diplomas in Psychology, Mental Health, as well as Counselling. Her research work includes areas such as Moral Integrity, Job Involvement, Work Values, and Family Relationship.
Media Studies

**Ejaz Wasay** holds an MBA from IBA. He is Head - Department of Media Studies & Sr. Fellow Marketing. He joined IoBM on January 1, 2011. His industry experience spans over 37 years, in the fields of Marketing, Corporate Communication, and Advertising. He has worked for Unilever, Gillette, Philips, Orient McCann-Erickson and UBL. His overseas assignments with Gillette took him to Brazil and the UAE. He has led two major research projects at IoBM - a Consumer Perception Study for Indus Motor Company and a Media Responsibility & Independence Index research for USAID. His articles have been published over many years in the Marketing Review, and Aurora. He has been Council Member MAP over 15 years, and its President in 2005; and Jury Member of PAS and Effie Awards.

**Dr. Ayaz Ahmed Siddiqui** has lived, studied and worked within the communications industry in Karachi, London and Hong Kong since the last decade. He completed his PhD on the evolution of media political tactics of mainstream opposition groups in Pakistan since 1988, at the School of Communication in Hong Kong Baptist University. He was part of an international study group on ethical best practices within leading Asian news organisations, as the Pakistan lead examining the Daily Dawn. Dr Ayaz has presented research at leading communication conferences and is a member of the International Communication Association (ICA), as well as Agahi Awards. His Op-eds and stories have appeared in The Wire.in, The Eastern Eye - UK, The News, The News on Sunday and Synergyzer magazine.

**Taqi Shaheen** holds a Masters in Arts (MA) from National College of Arts, Lahore. He is currently working as an Associate Professor of Practice. As a film-maker, educator and media artist, his work crosses mediums and defies genre distinctions to fashion curious observations of contemporary South Asian cultures and mediascapes. Since 2004, he has been working closely with creative practitioners to produce collaborative works using artistic practices, pedagogic alternatives, and creative investigations to address alternate experiences of learning. He has presented his research in the US, Europe, and the Middle East at various academic conferences including International Symposium of Electronic Arts (ISEA). His publications include Subjective Atlas of Pakistan (Oxford University Press, 2020), and his works include a documentary series on artists as educators, amongst others.

**Nabhan Shah Karim** holds MA in Filmmaking from Kingston University London, UK and Bachelor in Film and Television from Indiana University Bloomington, USA. He is working as an Assistant Professor of Practice and Head of Media Production Department at the level of Manager. In the US, he interned for CNN’s AC360 and went on to be a producer on a sports broadcast show on the Big Ten Network. After his return to Pakistan, Nabhan was an Assistant Producer at Stimulus Productions working on TV Commercials for big name brands and later on, started his own production company specializing in Digital Videos.

**Muhammad Faraz** holds a Master’s degree in Mass Communication. He is a professional screenwriter, story writer, translator, researcher and a poet, and has over six years experience in teaching screenwriting at IoBM, and over fifteen years of script writing & research for various media groups including CNBC, JAAG Broadcasting System, Total Media Network and others. Currently working as a Senior Lecturer at IoBM he is leading a longer-term project focused on archiving and publication of acclaimed Urdu Screenplays.

**Shayan Hussain** has completed his Masters degree in the field of Film and TV Production from IQRA University. He is currently working with IoBM as Lecturer & Assistant Manager. He has been teaching since 2021. His professional experience includes TV Commercials, short films & documentary production for both digital and conventional media. He has produced a number of TV commercials for brands like Pepsi, Coca-Cola, Nestle, Unilever, Total Parco, Telenor with the creative agencies like Ogilvy Pakistan, ADCOM Leo Burnett, Mullen-Lowe Rauf, IMPACT BBDO and many others. He also worked with acclaimed directors and professionals not limited to Pakistan but from India, the Middle east and Central Europe, i.e. Anurag Kashyap, Arun Gopalan and Ronald Koetzier.
### VISITING FACULTY AT INSTITUTE OF BUSINESS MANAGEMENT (IoBM)

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<tr>
<th>Name</th>
<th>Title</th>
<th>Degree</th>
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<tr>
<td>Aaqib Ali</td>
<td>MBA (Finance), IoBM</td>
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<td>Abdul Basit Acc and Fin</td>
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<td>Abrar Ahmed Khan</td>
<td>MBA (Marketing), IoBM</td>
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<td>Abdul Qadir Lakhani</td>
<td>ACCA - 2016</td>
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<td>Abdus Salam Shaikh</td>
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<td>Afshen Omer</td>
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<td>Afzal Shahabuddin</td>
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<td>Ali Ammar</td>
<td>MBA from IBA in 2009.</td>
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<td>Aly Ahad Mawji</td>
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<td>Aneela M. Ramzan</td>
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<td>Ayesha Ahmed</td>
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<td>Dr. Abdul Khaliq Aboya</td>
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<td>MUHAMMAD ZAKAULLAH</td>
<td>M.A Arabic from KU</td>
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<td>Muhammad Zuhair</td>
<td>MBA (Education Mgmt.)</td>
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<td>Mukarram Hasan</td>
<td>MBA, IBA - 2008</td>
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<td>Mustafa Humayun</td>
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<td>Naheed Ghaffar</td>
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<td>Najeeb Agrawalla</td>
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<td>Nasir Ullah Khan</td>
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<td>MA Economics</td>
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<td>Perwaiz Ishtiaq</td>
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<td>RAHEEL YOUSUF</td>
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<td>Rahul Ajaz</td>
<td>Bachelor (Media Studies), SZABIST</td>
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<td>Rais Ahmad</td>
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<td>Rizwan Tahir</td>
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<td>SAAD RAFI</td>
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<td>Seema Kamran</td>
<td>Masters of Philosophy in Business Mgmt.</td>
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<td>Shahrukh Nadeem</td>
<td>MBA (Marketing)</td>
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<td>Shahzad Arbab</td>
<td>MSc(Information Technology) - 2012</td>
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<td>Shaista Fazal</td>
<td>MA, IR, KU (in progress)</td>
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<td>SHEIKH ABDUL QADIR</td>
<td>MS *(Environmental Engineering)</td>
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<td>Syed Abdul Basit</td>
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<td>SYED AHMED ABBAS ZAIDI</td>
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<td>Syed Ghulam Raza</td>
<td>MA (IR) - 2007&quot;</td>
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<tr>
<td>Syed Kazim Askari</td>
<td>Bachelors of Design, - 1998</td>
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<td>Syed Sarwar Kazim</td>
<td>MSc Statistics - 1987</td>
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<td>Tabassum Shaikh</td>
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<td>TAHIR SARTAJ</td>
<td>“ACCA, BSc Honors”</td>
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<td>Taimoor Mushtaq</td>
<td>Masters of Commerce</td>
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<td>TARIQ AZIZ</td>
<td>“MBA, MIS, BS Computer Science”</td>
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<tr>
<td>Tariq Javaid</td>
<td>MS, Bahria University</td>
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<tr>
<td>Umair Sani</td>
<td>MSc, SZABIST</td>
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<tr>
<td>Dr. Usman Ali</td>
<td>PhD (Philosophy)</td>
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<tr>
<td>Yasmeen Amber Khuro</td>
<td>Charter Banker - 2018</td>
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<td>ZAIN UL ABYDEEN KHANDWANI</td>
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<tr>
<td>Nadeem Zia</td>
<td>Masters in Computer Science</td>
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<tr>
<td>Mahin Mujtaba</td>
<td>MBA (Marketing) - 2010</td>
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<tr>
<td>Dr. Sabahat Naseem</td>
<td>PhD (Clinical Psychology) - 2020</td>
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</table>
Omaira Choudhry
M.Phil (Org. Psychology)

Arsalan Haneef Malik
MBA (Finance) - 2007"

Najeha Afzaal Bela
MBA - 2011”

Farrukh Acc and Fin
FCA - 2005”

Imran Shakir
“ACMA, CPA MBA”

Misbah Iqbal
M.Phil, IoBM

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Shurjeel Uddin
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CA- 2015

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Umer Tanveer
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Shahbaz Ahmed Awan
MBA (Advertising and Media Management)

Dr. Muhammad Kashif
PhD (Europeon Studies) - 2020

Dr. Faisal Afzal Siddiqui
PhD (Statistics) - 2013

Muhammad Ayub Khan
MBA (Marketing & HR) - 2007

Ranjeet Kumar
MBA Marketing
ADMINISTRATION
ADMINISTRATION

The administrative staff of IoBM is highly skilled and qualified to perform multifarious tasks, vital for the smooth running of the Institute. The administration implements the policies formulated by the Governing Board and the Academic Council. It is responsible for organizing academic programs, ensuring student progress, providing adequate support facilities to the faculty and students, and liaison with business and industry to arrange internships, ensure career development and placement of students on the completion of their degree. It is also responsible for the organization and supervision of examinations.

Members of the Administration

Mr. Talib S. Karim, President, Institute of Business Management, holds a Bachelor’s degree in Systems Engineering and a Master’s degree in Economics with specialization in International Trade, both from the University of Arizona, USA. He has worked for a financial institution for ten years before joining the Institute full-time in 1997. He has also taught Economics at the University of Arizona, USA and IoBM. He also attended the Oxford Advanced Management & Leadership Program at Oxford University. He is an Executive Council member of the Management Association of Pakistan and the President of Marketing Association of Pakistan and represents the Institute in various Associations nationally and internationally.

Sabina Mohsin
Executive Director
BBA, University of Arizona, USA
MS, US International University, Nairobi, Kenya

Dr. Imran Batada
CTO
PhD

Brig Muhammad Mushtaq SI (M), S.Bt (Retd)
Director Administration
MA

Dr. Mohammad Ali Shamim
Advisor to President
PhD France

Muhammad Waziruddin Jahangir
Advisor to President for Corporate Affairs
BCom, (Sindh University) CA Finalist, (ICAP)
<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Education/Professional Background</th>
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<tbody>
<tr>
<td>Dr. Muhammad Arif</td>
<td>Director Research and Assistant Professor</td>
<td>PhD, SZABIST</td>
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<tr>
<td>Muhammad Misbahuddin</td>
<td>Senior Manager &amp; Head of HR</td>
<td>MBA, LLB</td>
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<tr>
<td>Aslam Kurban Ali</td>
<td>Senior Manager Finance</td>
<td>ACMA</td>
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<tr>
<td>Imdad Ali Mugheri</td>
<td>Manager and HoD Admissions</td>
<td>MBA, LLB</td>
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<tr>
<td>Riaz Akbar Contractor</td>
<td>Manager Sports &amp; Student Affairs</td>
<td>B.Com</td>
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<tr>
<td>Dr. Amber Raza</td>
<td>HoD Academics and Coordinator</td>
<td>MBA Program, IoBM PhD Marketing, IoBM</td>
</tr>
<tr>
<td>Nadeem Ahmed Khan</td>
<td>Manager Internal Audit</td>
<td>MBA, CIMA Finalist (England) Chartered /Corporate Sec. FCIS (Pak/England)</td>
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<tr>
<td>Syed Adnan Faisal</td>
<td>Manager, Maintenance</td>
<td>BE, Electrical Engineering</td>
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<td>Asim Farooq</td>
<td>Manager and Head of Development</td>
<td>MSc ERP, BCS, BCCI, FAST</td>
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<td>Malik Barolia</td>
<td>Manager, Salary &amp; Compensation</td>
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<td>Fesal Bin Naseem</td>
<td>Controller of Examination</td>
<td>MS, MSc Applied Physics</td>
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<tr>
<td>Muhammad Azhar</td>
<td>Manager, Finance Professional Accounting Affiliate</td>
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<td>Manager QEC Coordination</td>
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<td>Syed Faraz Ali</td>
<td>Manager (ORIC)</td>
<td>MPhil</td>
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<tr>
<td>Atif Shahab</td>
<td>Manager Quality Assurance</td>
<td>MPhil</td>
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<tr>
<td>Nabhan Shah Karim</td>
<td>Assistant Professor of Practice</td>
<td>Head of Marketing and Media Production MA (UK)</td>
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<td>Shaikh Muhammad Nasir</td>
<td>Librarian</td>
<td>MLIS, KU</td>
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<tr>
<td>Juveria Baig</td>
<td>Senior Assistant Manager &amp; HoD Internship, Placement and International Office MBA (Marketing)</td>
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<tr>
<td>Sartaj Hussain</td>
<td>Senior Assistant Manager &amp; HoD Security</td>
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<td>Muhammad Hassan Sayeed</td>
<td>Senior Assistant Manager Financial Assistance &amp; Scholarship Office MBA</td>
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<td>Proctor, Administration</td>
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<tr>
<td>Muhammad Umer Hafeez</td>
<td>Senior Assistant Manager &amp; Head of Network Customer Support MS</td>
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<td>Abdul Khalilq</td>
<td>Assistant Manager, Internship, Placement and International Office MBA</td>
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<td>Abid Ali</td>
<td>Assistant Manager, Accounts &amp; Taxation</td>
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<td>Acting HoD, Assistant Manager, Purchase, MBA</td>
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<td>Ali Abbas Mirza</td>
<td>Assistant Manager, Marketing &amp; Communications, MBA</td>
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<td>Assistant Manager, Housekeeping, MBA</td>
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<td>Assistant Manager and Lecturer, MS</td>
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<td>Mohammad Arif Shaikh</td>
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<td>Rashid Aqeel</td>
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<td>Senior Officer, Examination</td>
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<td>Farooq Ahmed</td>
<td>Executive Secretary to the ED</td>
<td>BA</td>
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<tr>
<td>Muhammad Irfan</td>
<td>Web Developer, Senior Officer</td>
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<td>Amir Ali Khan</td>
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<td>Syed Muhammad Ayaz</td>
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<td>Shahzeb Khan</td>
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<td>Faiza Hasan Rizvi</td>
<td>Coordinator, EMEC Projects</td>
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<td>Hussain Ali</td>
<td>Media Coordinator</td>
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<td>Umair Saeed Kirmani</td>
<td>Business Development Executive Officer</td>
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<tr>
<td>Zohaib Ali</td>
<td>Analyst Programmer / Officer</td>
<td>BS (CS)</td>
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<td>Humaira Kanwal</td>
<td>Officer ORIC</td>
<td>MA</td>
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<tr>
<td>Sumaiya Mithani</td>
<td>Alumni Officer</td>
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<tr>
<td>Sana Shakil</td>
<td>Senior Secretary cum Teaching Associate</td>
<td>MSc</td>
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<tr>
<td>Arsalan Khan</td>
<td>Registrar/Officer</td>
<td>BCom</td>
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<tr>
<td>Afshan Gul Khan</td>
<td>Capstone Officer Marketing</td>
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<tr>
<td>Madiha Khan</td>
<td>Senior Secretary to the President</td>
<td>MBA</td>
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<td>Dania Raheel</td>
<td>Officer, SSK-BIC</td>
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<td>Secretary Dean Office</td>
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<td>Kanwal Hussain</td>
<td>Officer</td>
<td>MPhil</td>
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<tr>
<td>Yusra Shehzadi</td>
<td>Department Officer, GBR</td>
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<td>Neha Arshad</td>
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<td>Marketing Statistician</td>
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<td>Assistant Editor / Officer</td>
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<tr>
<td>Anamta Salam</td>
<td>Marketing Executive</td>
<td>MBA</td>
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<td>Officer, OGS</td>
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<tr>
<td>Shaheen Asim</td>
<td>Assistant to Director Research Officer</td>
<td>BBA</td>
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<tr>
<td>Navera Abrar</td>
<td>Editorial Secretary / Officer, Education</td>
<td>B.Ed</td>
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<tr>
<td>Adeet Kumar</td>
<td>IoT Lab Engineer</td>
<td>BE</td>
</tr>
<tr>
<td>Muhammad Najam Alam Siddiqui</td>
<td>Account Officer</td>
<td>ACMA Part Qualified</td>
</tr>
<tr>
<td>Mahwish</td>
<td>Web Developer, Officer</td>
<td>MCS</td>
</tr>
<tr>
<td>Muhammad Mustafeez ur Rehman</td>
<td>Capstone Officer, LSCM</td>
<td>BE</td>
</tr>
<tr>
<td>Muhammad Qavi Hassan Tahir Khan</td>
<td>Editorial Officer, CCISIS</td>
<td>MS</td>
</tr>
<tr>
<td>Rahul Kumar</td>
<td>IoT Lab Engineer</td>
<td>BE</td>
</tr>
<tr>
<td>Ali Asghar Shabir</td>
<td>Videographer &amp; Editor, Media Studies</td>
<td>BS</td>
</tr>
<tr>
<td>Fatima Tul Zehra</td>
<td>Assistant Editor / Officer, CBM</td>
<td>BBA</td>
</tr>
<tr>
<td>Faryal Farid Bhatti</td>
<td>Officer, Internship, Placement &amp; Int. Office</td>
<td>MBA</td>
</tr>
<tr>
<td>Mahrud Nadeem Vellani</td>
<td>Social Media Coordinator</td>
<td>BS</td>
</tr>
<tr>
<td>Asim Ahmed Khan Younsi</td>
<td>Officer, EMEC &amp; Registration</td>
<td>Diploma in Graphic Designing, BA</td>
</tr>
</tbody>
</table>
ACADEMIC CALENDAR
FALL 2023

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration of Courses and Fee Payment</td>
<td>Tuesday, August 22, 2023 Onwards</td>
</tr>
<tr>
<td>(On board students)</td>
<td></td>
</tr>
<tr>
<td>Orientation for newly admitted students</td>
<td>Saturday, September 2, 2023</td>
</tr>
<tr>
<td>Commencement of Classes</td>
<td>Saturday, September 9, 2023</td>
</tr>
<tr>
<td>Eid-e-Milad-un-Nabi (SAW) *</td>
<td>Thursday, September 28, 2023</td>
</tr>
<tr>
<td>Last day to drop courses without penalty</td>
<td>Thursday, November 2, 2023</td>
</tr>
<tr>
<td>Last day to drop courses with penalty **</td>
<td>Thursday, November 30, 2023</td>
</tr>
<tr>
<td>Revision and Presentation Week</td>
<td>Saturday, December 23 to Thursday, December 28, 2023</td>
</tr>
<tr>
<td>Quaid-e-Azam’s Birthday</td>
<td>Monday, December 25, 2023</td>
</tr>
<tr>
<td>Final Exam</td>
<td>Saturday, December 30, 2023 to Thursday, January 11, 2024</td>
</tr>
<tr>
<td>Classes End</td>
<td>Thursday January 11, 2024</td>
</tr>
</tbody>
</table>

Exam Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Exams</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>8th</td>
<td>Midterm/Assessments</td>
<td>28/10/2023 to 02/11/2023</td>
</tr>
<tr>
<td>17th &amp; 18th</td>
<td>Final</td>
<td>30/12/2023 to 11/01/2024</td>
</tr>
</tbody>
</table>

* Subject to the appearance of moon  
** Grade ‘W’ will appear in Transcript

Note:  
All dates are subject to change. Students will be informed of the changes well in advance.  
For details of examination please visit the website.
**SPRING 2024**

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration of Courses and Fee Payment (On board students)</td>
<td>Monday, December 18, 2023 Onwards</td>
</tr>
<tr>
<td>Orientation for newly admitted students</td>
<td>Saturday, January 13, 2024</td>
</tr>
<tr>
<td>Commencement of Classes</td>
<td>Saturday, January 20 2024</td>
</tr>
<tr>
<td>Kashmir Day</td>
<td>Monday, February 5 2024</td>
</tr>
<tr>
<td>Last day to drop courses without penalty</td>
<td>Saturday, March 09, 2024</td>
</tr>
<tr>
<td>Pakistan Day</td>
<td>Saturday, March 23, 2024</td>
</tr>
<tr>
<td>Last day to drop courses with penalty**</td>
<td>Thursday, April 11, 2024</td>
</tr>
<tr>
<td>Eid-ul-Fitr*</td>
<td>Tuesday, April 9, 2024 to Thursday, April 11, 2024</td>
</tr>
<tr>
<td>Labor Day</td>
<td>Wednesday, May 01, 2024</td>
</tr>
<tr>
<td>Revision and Presentation Week</td>
<td>Saturday, May 04, 2024 to Thursday, May 9, 2024</td>
</tr>
<tr>
<td>Final Exam</td>
<td>Saturday, May 11, 2024 to Thursday, May 23, 2024</td>
</tr>
<tr>
<td>Classes End</td>
<td>Thursday, May 23, 2024</td>
</tr>
</tbody>
</table>

### Exam Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Exams</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>8th</td>
<td>Midterm/Assessments</td>
<td>09/03/2024 to 14/03/2024</td>
</tr>
<tr>
<td>17th &amp; 18th</td>
<td>Final</td>
<td>11/05/2024 to 23/05/2024</td>
</tr>
</tbody>
</table>

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SUMMER CRASH 2024

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration of Courses and Fee Payment</td>
<td>Saturday, April 20, 2024 Onwards</td>
</tr>
<tr>
<td>(On board students)</td>
<td></td>
</tr>
<tr>
<td>Commencement of Classes</td>
<td>Saturday, June 8, 2024</td>
</tr>
<tr>
<td>Eid-ul-Azha*</td>
<td>Sunday, June 16, 2024 to Tuesday, June 18, 2024</td>
</tr>
<tr>
<td>Last day to drop courses without penalty</td>
<td>Tuesday, July 02, 2024</td>
</tr>
<tr>
<td>Ashura*</td>
<td>Tuesday, July 16, 2024 to Wednesday, July 17, 2024</td>
</tr>
<tr>
<td>Last day to drop courses with penalty**</td>
<td>Saturday, July 27, 2024</td>
</tr>
<tr>
<td>Independence Day</td>
<td>Wednesday, August 14, 2024</td>
</tr>
<tr>
<td>Revision and Presentation Week</td>
<td>Saturday, August 03, 2024 to Thursday, August 08, 2024</td>
</tr>
<tr>
<td>Final Exam</td>
<td>Saturday, August 10, 2024 to Saturday, August 17, 2024</td>
</tr>
<tr>
<td>Classes End</td>
<td>Thursday, August 17, 2024</td>
</tr>
</tbody>
</table>

Exam Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Exams</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>5th</td>
<td>Midterm/Assessments</td>
<td>6-07-24 to 11-07-24</td>
</tr>
<tr>
<td>10th</td>
<td>Final</td>
<td>10-08-24 to 17-08-24</td>
</tr>
</tbody>
</table>

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