

Catalog 2014 - 2015



Institute of Business Management



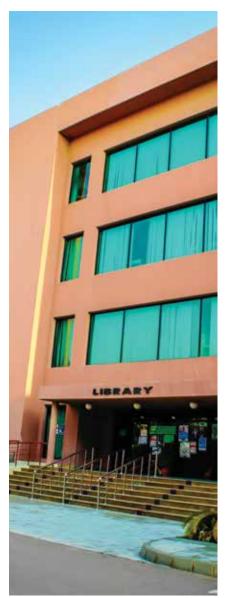




Institute of Business Management

Catalog 2014-2015

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

FROM THE CHANCELLOR

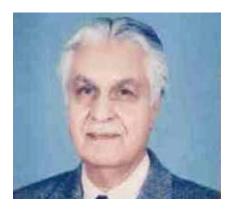
Warmth and affection emanating from association with my students is natural and spontaneous indeed. It is with this feeling that new students to the IoBM family are happily welcomed and regarded in such a promising and practical manner that they naturally develop a sense of belonging to IoBM.

IoBM graduates, who have earned degrees through academic and career commitment are well-placed in national and multinational organizations. They continue to have mutually rewarding union with a cherished alumni card, participating in IoBM functions and activities and thus guiding students and hitting the media and corporate headlines with the IoBM brand.

IoBM is rated highly due to students' level of responsibility and highly knowledgeable and meticulous faculty. Students' level of responsibility rises from a highly demanding academic routine of attendance, punctuality, lectures, projects, assignments, reports, quizzes and exams. The faculty is truly committed to teach and the management is readily available as and when needed. Allow me to value the efforts and hard work of Mr. Shahjehan S. Karim for achieving the existing status of IoBM.

IoBM's harmonious blend of quality education, top-of-the-line career-orientation, state-of-the art facilities, purpose built campus and well-defined discipline and decorum, grooming and caring will be the key to success in academic and career excellence.

Illahi Buksh Soomro Chancellor



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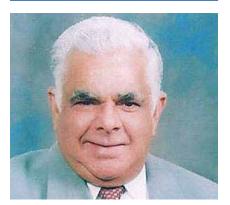
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WELCOME TO IOBM FROM THE PRESIDENT



We welcome warmly our new students to the Institute of Business Management (IoBM), with its constituent college, the College of Business Management (CBM) ranked as one of Pakistan's leading business schools.

The origins of IoBM go back to 1994 when Foundation for Higher Education established by a group of dedicated citizens of Karachi, initiated its maiden project; College of Business Management later becoming IoBM's first constituent college. It was followed by setting up of Institute of Business Management in 1998, having presently its four constituent colleges with more than four thousand students and strong alumni risen to senior positions in the corporate sector.

Today, we are an internationally renowned Business School because of our vision to become a world class educational institute with a mission to foster environment where students are motivated to make learning a life-long process. We have thus developed an exemplary reputation among students, their parents and faculty. We encourage our alumni to setup their own business to bring positive impact on our economy.

IoBM's affiliation with universities abroad and participation in international conventions have raised its status where no other national institute can match our track record. It is a matter of great encouragement that Eduniversal, an international academic ranking organization with Headquarters in Paris, have adjudged a number of our Masters and MBA as one of the best programs.

We have signed Memorandum of Understanding which includes exchange of students and faculty with leading universities in Asia and Europe. We are probably the only institution in Pakistan that regularly sends its students to spend a semester to partner universities. Similarly, we receive international students to spend a semester at IoBM.

IoBM has placed increased attention on Quality Assurance and improving teaching and learning environment. To meet this challenge IoBM has established Quality Enhancement Cell (QEC) which has been recently awarded a very high score by the Higher Education Commission for successful implementation of QEC policies.

Our 2014 development plan includes construction of a new state-of-the-art seven floor Entrepreneurship and Management Excellence Center. In addition, three new Computer Labs have been established in the College of Computer Science and Information System. IoBM's newly established City Center is well on its way to become an outstanding facility for the students and corporate sector interested in evening academic programs.

Recently, we have enlarged academic repertoire to include a four year BS (Hons) program in Media Studies, BS program in Actuarial Science & Risk Management and MBA in Finance & Risk Management. We have also included Islamic Banking and Finance in the ongoing BS (Finance & Accounting) Program which will certainly improve the employment prospects of our graduates.

Looking forward to interact with you during your stay at IoBM and wishing you a wonderful IoBM experience.

Shahjehan S. Karim President

AN INTRODUCTION TO THE INSTITUTE OF BUSINESS MANAGEMENT

This catalog will give you the most up to date and vital information about the courses and programs of study that most interest you. Essential information about fees, facilities and student services is also available here to help you to be well-versed with life at IoBM.

Beginning with a prolog to the Institute, the catalog proceeds to introduce life at IoBM and culminates in course descriptions. The catalog also describes undergraduate and graduate degree programs offered at IoBM; its teaching methods; academic and research programs and assessment procedures; its computer and library resources; student support services and information on application procedures.

Administrative and financial information including opportunities for financial assistance and stipends are also included in the catalog. The catalog introduces you to the academic and administrative personnel at IoBM and its faculty. A detailed description of all courses taught at IoBM is also given. Every effort has been made to keep the catalog up-to-date and to ensure that courses are offered as described. However, circumstances beyond IoBM's control may sometimes make this impossible. Changes in the curriculum may be necessary to keep abreast of professional developments. For that reason, the Institute reserves the right to make unavoidable alterations in courses offered, and in the structure.



IoBM: 1994 - 2014

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 dissemination of quality education. Its first project was setting up a management university 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 its 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. During end 2010, we have been honored with prestigious awards of EDUNIVERSAL Palms 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 (AACSB) and other international and national organizations.











The Governor of Sindh is an ex-officio Patron and Mr. Illahi Buksh Soomro, former Speaker National Assembly, is the Chairman of the Board of Governors of the Institute and also its Chancellor. The other members of the Board are:

- Chairman, Higher Education Commission
- Mr. Justice [®] Ataur Rehman
- President, Federation of Pakistan Chamber of Commerce & Industry
- President, Karachi Chamber of Commerce & Industry
- President, Karachi Stock Exchange (Guarantee) Ltd
- Secretary, Government of Sindh, Education & Literacy Department
- Mr. Shahjehan S. Karim, President IoBM
- Mr. Basheer Janmohammad
- Mr. Jahangir Siddiqui
- Mr. S. M. Muneer
- Mr. Muhammad Ali Tabba
- Mr. Salahuddin Qureshi
- Mr. Muhammad Shareef
- Dr. Zafar Saied Saifee
- Mr. Masood Hashmi
- Mr. Talib S. Karim, Rector IoBM
- Mr. M. W. Jahangir, Secretary BOG

The Institute, through its College of Business Management (CBM), offers a four year BBA (Honors) and a two/three year MBA degree program with specialization in Marketing, Finance, Human Resource Management and Management Information Systems, Health & Hospital Management, Pharmaceutical Administration, Media Management, Advertising & Communication Management, Industrial Management and Telecommunication Management. A research degree, an MPhil leading to PhD, is also 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 is 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 offers a BS program in Commerce, Media, MBA in Educational Management and MSc leading to MPhil in Economics. College of Engineering and Sciences (CES) offers program in Electrical Engineering.

The Institute emphasizes on research and publishes HEC and internationally recognized Pakistan's first business policy and research journal, Pakistan Business Review. Students and faculty contribute regularly to its pages. A research seminar is organized on a weekly basis. The Institute is the only business school where foreign language courses, Arabic, French, Spanish, Italian or Chinese are compulsory subjects in the BBA and BCS programs. The Institute has a competent and dedicated faculty with the majority holding foreign degrees. One 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 by UK and graduate programs of US Universities. It has extensive links with a number of North American and British universities. Professors from these universities have served as Chief Academic Officers of the Institute.

Since 1998, more than 7,000 students have graduated from the Institute. Most of them are placed in 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 several provincial and federal government agencies. 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.

The Entrepreneurship & Management Excellence Center (EMEC) of the Institute organizes professional education, training and research programs for 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 1995. There are over 4000 students on our campus which is large and purpose-built at Korangi Creek on a 10 acre site, comprising the Business College building, Administration and Entrepreneurship & Management Excellence Center building, CCSIS building, a Convocation Center, Student Activity Center, a five-storeyed library building, Industrial Engineering and Management building, a mosque and CESD building.

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 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 at this convocation. 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 at this convocation. 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 of the Institute 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 and over 700 degrees were awarded to students at this convocation. 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 guests on the occasion were 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 at this convocation. 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 at this convocation. The keynote speaker was Mr. Shahid Aziz Siddiqi, 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 at this convocation. The chief guest was Mr. Nisar Ahmed Khuhro, Senior Minister for Education, Govt. of Sindh, 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 in this convocation.

City Center

The IoBM City Center is established to serve as a bridge between business organizations and business school. The City Center offers the highly popular MBA (Evening) program in two streams (two years for those with 16 years education and three years for others).



WHY CHOOSE IoBM?

For the last four years, IoBM has been rated as one of the top universities in the private sector, both by the Higher Education Commission of the Federal Government and the Provincial Government of Sindh. Eduniversal, during its international conventions of Deans of Business Colleges from over sixty countries, held in 2008 at Paris, France and in 2009 at Cape Town, South Africa awarded IoBM 2 Palms as one of the two best Business Schools in Pakistan. The Institute has been an active member of the International Association of Universities (IAU), International Association of University Presidents (IAUP), Association to Advance Collegiate Schools of Business (AACSB), Association of Commonwealth Universities (ACU) and is also associated with several other international academic organizations.

IoBM has established linkages and earned credibility with reputed foreign business schools and leading international institutes, associations and organizations pertaining to sharing and contributing ideas and insight in business education and research.

The programs we offer include executive MBA and MBA (Evening) in diverse fields, held on weekends placing special emphasis on the needs of busy executives and those who, having finished one career, wish to go for a new one. IoBM offers programs in Health and Hospital Management, Finance & Risk Management, Industrial Management, Telecommunication Management, Environment & Energy Management, Education Management, Organizational Psychology, Economics and many other disciplines. IoBM faculties excel in their respective fields. They pass on their expertise in research and scholarship to students enabling them to have an enhanced understanding of their respective disciplines.

Students have access to excellent facilities and learning resources as IoBM continually invests in the University's infrastructure: library, gym, sports, computer equipment, Wi-Fi facility, video conferencing, state-of-the-art campus building and subsidized transport facilities. IoBM has earned its reputation through an excellent internship and graduate employment record. The rigorous academic degree courses enable graduates to acquire breadth and depth in their chosen subjects and, therefore, enter a wide range of careers. A large number of its graduates join top business schools in Europe, USA and Canada.

Research is a core competence at IoBM. All members of the IoBM community are actively engaged in disseminating knowledge, pursuing research in a diverse range of themes. The Institute publishes the country's first research quarterly journal, Pakistan Business Review (PBR), which is recognized by the Higher Education Commission (HEC) and ECONLIT, Journal of Economic Literature, USA. An annually held HEC financed international conference provides a platform for the presentation of research undertaken at IoBM.

IoBM is now connected with PERN2, a high speed dedicated National Research & Education Network (NREN) for the universities/institutes and other academic sectors of Pakistan.

"The essence of IoBM's academic programs pertains to career focused education towards Individual fulfillment, professional excellence, institutional credibility, family welfare and social responsibility. The net result is reflected in the net product. IoBM's credibility speaks for itself."

Shahjehan S. Karim President Institute of Business Management

LIFE AT IoBM



RESOURCES AND FACILITIES

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 74,000 sq. ft., is equipped with stateof-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 they 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 20,000 sq.ft. was completed in 2001. Another centrally air-conditioned building with a covered area of 50,000 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. 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 on 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 the faculty and students. The College of Computer Science and Informations. 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 the 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 30,000 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 engages in numerous projects to expand access to its physical and digital collections. Skills development sessions are conducted for students and faculty from time to time. The library projects on the horizon include development of a portal of web links, just a click away, on the desktops of faculty and students.

STUDENT ACTIVITIES

Exciting and eventful as always, last year at IoBM has been no exception. Following are some examples to give you a glimpse of life at IoBM in general:

Student life at IoBM is not just about presentations, reports, midterms and finals. In fact, there is a whole range of student-organized entertainment and events that take place throughout the year. Students on campus are genuinely interested in cultural vibrancy and a sense of community. In between the busy academic schedule there are seminars, talk shows, guest speakers, fund raiser bake sales, the Event Management class food and fun stalls, CBMUN, Green Day, Drama festival and so much more. One can never get enough of it.

To cater to the individual student's choice, there are a number of societies for likeminded people such as:

Literary and Public Speaking; Finance; Mathematics; Entrepreneurs; Club IT; CBM Society for Health Managers; Egalitarians- Economics; Youth Enhancement; Enlighterz; Industrial Engineering & Management; Dialogue; Marketing; Strategic & Human Resource; Entertainment Plus; Vanguard and the Sports Society; Mentor; SWAT. Each society is headed by a faculty advisor who is a senior member of the faculty or management and a team of student office bearers. These societies are diverse in their activities, organizing university-wide forums for students to talk about and debate social, economic, and political issues; organize seminars & workshops where they invite well known personalities from the business, government and corporate world. This provides them with an opportunity to exchange ideas and opinions with market leaders. Our students participate in various events organized by other universities / institutes locally, as well as, nationally and have won laurels for their Institute. Social care is a regular feature of these societies. Every year in the month of Ramzan donations in cash and kind are collected and, along with the Management's major contribution, distributed to the needy in various hospitals of the city. Among other regular features is blood donation camps put up from time to time.









Recent Events

Dialogue Society

- A Talk by a Peace T.V speaker Shaikh Hussain Yee, on January 17, 2013
- A lecture by Shujauddin Shaikh, on January, 28 at the IoBM auditorium, about our Beloved Prophet Muhammad (peace be upon him) & about his Sunnah in the lecture 'The Sealed Nectar'.
- A Talk on Love for Allah! on March 9, 2013 by Warda Siraj
- A guest speaker lecture session on 'Preparing for Ramadan' by Shaykh Moiz Hasan on June 26, 2013
- Dialogue Society in collaboration with Marketing Society invited IoBMers to attend a talk by Omer Mukhtar Ahmed in June 2013
- A talk on "Spiritual Qualities of a Leader"! on November 2, 2013 by Kamran Kiyani
- Anger Management by Warda Siraj on November 5, 2013 in CBM GCR (Girls only)
- Becoming a True Believer on October 3, 2013 (For Males only)
- A lecture on Arrogance and Qibr by Shaykh Kamaluddin on November 26, 2013
- Lecture session on 'Youth with Spiritual Energy-Future Leaders' by Dr. Nasar Shahid on December 9, 2013
- "The Legacy of Muslims"! at IoBM Auditorium on February 24, 2014 by Br. Adnan Rashid

CBM Society of Health Managers (CSHM)

- World Health Day 2014 CPR Training by Aman Foundation, April 2013
- Health Management Syndicate Meeting Bridging the Gap with the Industry, August 2013
- Industry Academic Bridge' with more than 25 industry experts and the Higher Education Commission.
- 9th Health Asia Pharma Summit, September, 2013
- MHM Convention Poster Presentation, December, 2013
- IoBM Health Assessment Camp and Seminar on Organ Donation by Dr. Adib ul Hassan Rizvi, March, 2014





Entertainment Plus Society (EPS)

- Milad : In a world of losing hope and shaking faith, EPS brought Milad to reconstruct and polish the good faith with soothing recitations in praise of Allah and the Holy Prophet (P.B.U.H)
- Welcome Night: with the pour in of a new batch of students every fall, EPS builds on bonds, erases hesitation, celebrates their interweaving in the system
- Youm-e-Hussain: EPS fills the gaps of religious diversity and pays respect to Youm-e-Hussain
- Jashn-e-Baharaan: with the aroma of spring penetrating the air of Karachi, EPS floods joy among CBMers with the celebration of bahar with the utmost element of colors, scents, music and beyond all the inauguration of new beginnings

Finance Society

- Open House was held in February, 2013
- Seminar on "Importance of Savings and Investments for Students", April, 2013
- The Finance Society of IoBM in collaboration with CFA Society Pakistan organized Seminar & Career Counseling Session. The seminar included a Webcast Session on: The Great Convergence: Asia, the West, and the Logic of One World by Kishore Mahbubani, Dean & Professor, National University Singapore, June 2013
- Possibilities 2013: Investment, Inspire and Innovate, October, 2013

Sports Society

- 1st PTV T20 Cricket Championship 2013, June, 2013
- Inter Society Sports Festival 2013, November, 2013
- HEC Intervarsity Table Tennis Championship Zone "G" 2013-14, December, 2013
- HEC Intervarsity Volleyball Championship Zone "G", March 2014
- Aga Khan Inter University Football Tournament, April, 2014
- Aga Khan Inter University Basketball Tournament, April, 2014

The Strategic Human Resource Society (SHRS)

- Open House was held in September, 2013
- Zenith Leadership & Development Conference ZLDC), January 17-19, 2014









Literary and Public Speaking Society (LPSS)

- Open House: The Literary and Public Speaking Society LPSS conducted its recruitment drive in October, 2013
- College of Business Management Debating Championship (CBMDC), November, 2013
- College of Business Management Model United Nations (CBMUN), February, 2014

PR and Media Management Society

- Ambassadors of Goodwill, March 02, 2013
- Social Media Entrepreneurs, June 15, 2013
- New Media Vision for Pakistan, August 18, 2013
- An interactive Session with JANG GROUP, September 29, 2013
- An interactive Session with DAWN (Economic and Business Review), October 05, 2013
- Risk Management of Rains and floods in Sindh, October 26, 2013
- An interactive session with THE NEWS and THE NATION, November 23, 2013
- IoBM Convocation 2013: Students of Media Management and Public Relations familiarize and acclimatize with many print and electronic media personnel from leading media organizations covering and reporting this mega event, December 07, 2013
- Interactive Session: "Sharing trickle down benefits of higher education at the grassroots level", March 01, 2014
- Special Children's Exclusive at Jashn-e-Baharaan, April 11, 2014

Mathematics Society

• The Seventh Mathematics Colloquium 2013 was conducted by the IoBM Society of Mathematics in collaboration with the society of Actuarial Sciences and CLUB IT in March, 2013

The Rotaract Club

- The open house had musical performances by IoBM house bands and the renowned performers Young Stunners as well
- To raise funds for the under privileged. To date Rs. 40,000 have been collected.





• Visit to Thatta. Around 300 warm clothes and 22 Kgs of Biryani in the regions of Makli and Haleji were distributed.

Social Welfare And Trust (SWAT)

- Winter cloth distribution, 180 blankets distributed among Temporary and Permanent non management staff of IoBM in January, 2013
- Blood donation drive at IOBM; Students donated 124 units of blood Indus Blood Center, Indus Hospital in February, 2013
- Winter cloth distribution, 200 blankets distributed in D'silva colony in February, 2013
- Positive effects of blood donation on human health, a session with Dr. Saba Jamal of Indus Hospital in February, 2013
- SWAT School Project for under privileged students, 44 students were admitted at Creek High School in August, 2013
- Meat distribution in Ibrahim Hyderi, Landhi & D'silva town; 5,200 K.g meat was distributed in October, 2013
- Winter Cloth distribution, 450 blankets were distributed in Neelum Colony along with a package which included sweaters/Jackets and socks in December 2013.

Media Society

- Ethics of Media: Seminar and panel discussion held in February, 2012
- IoBM Media Festival held in March, 2013
- Preview screening for film "Josh": The Media Society hosted the preview screening of Pakistani film Josh in July, 2013
- 2nd IoBM Media Festival, held in October, 2013
- Screening for documentary-film Unmanned: America's Drone War, November, 2013
- Drama Mania: Three theatrical performances held in collaboration with the The Nautanki Gang in February, 2012 and April, 2014
- IoBM Film Festival (IFF), April, 2014







CONVOCATION



In December, 2013, IoBM held its sixteenth Convocation, awarding degrees to 252 MBA (Regular), 77 MBA (Executive), 32 MBA (Health and Hospital Management), 40 MBA (Industrial Management), 10 MBA (Media Management), 04 MBA (Advertising and Communication Management), 17 MBA (Finance and Risk Management), 05 MBA (Telecommunication Management), 02 MBA (Educational Management), 03 MS (Economics & Finance), 06 MSC (HRM), 07 MPhil, 290 BBA (Honors), 65 BS (Joint Honors) and 15 BS (Actuarial Science & Risk Management), 17 BS (Commerce) and 5 BS (Industrial Engineering & Management).

The chief guest was Mr. Nisar Ahmed Khuhro, Senior Minister for Education, Govt. of Sindh, 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 in this convocation.

Gold Medals were awarded to the following students:



Noor-ul-Huda Arif Nagaria BBA (Honors) Shan Foods Gold Medal



Shoaib Rizvi BS (AS & RM) S. H. Hashmi Memorial Gold Medal



Hina Rahman MBA (Regular) Halima-Fatima Memorial Gold Medal



Ayena Maqbool MBA (HRM) Imam Ali Kazi Memorial Gold Medal



Sanaiya Piyarali MBA (Regular) Adamjee Foundation Gold Medal



Fareeha Zulqarnain MBA (TCM) Janmohammad Dawood Gold Medal



Urooj Amanullah MBA (Finance) Razzak Tabba Memorial Gold Medal



Sidra MBA (MHM) Imam Ali Kazi Memorial Gold Medal

GLOBAL LINKAGES

International Relations Department

Institute of Business Management (IoBM) has its International Relations Department that works under the supervision of the President of IoBM. The Department is successfully managing execution of international relations on bilateral and multilateral terms with a large number of universities in Europe, Asia and U.S.A.

Eduniversal Ranking

Eduniversal, based in Paris, France, is a worldwide academic institutions ranking organization which ranks the 4,000 best academic institutions from around the world. The expertise of IoBM is distinguished in the 2014 Eduniversal Best Masters Ranking with the following programs:

Top 200 Best Masters Programs:

- MBA Advertising and Communication Management Ranked 2
- MBA Human Resource Management Ranked 6
- MBA Industrial Management Ranked 6
- MSc Economics Ranked 6
- MBA Marketing Ranked 7
- MBA Finance and Accounting Ranked 7
- MBA Executive Ranked 8
- MBA Full Time Ranked 15

Top 100 Best Masters Programs:

- MBA Finance and Risk Management
- MBA Health and Hospital Management
- MBA Environment and Energy Management
- MBA Logistics and Supply Chain Management



From Institute of Business Management President Shahjehan S. Karim



Erasmus Mundus (EM)

Erasmus Mundus is a cooperation and mobility Program of the European Union in the field of higher education. IoBM is participating in the EM Project as the Joint Coordinator to develop institutional cooperation by promoting linkages between leading Asian and European Universities, in the form of student, faculty and staff mobilities. This Program also enables Undergraduate, Master, Ph.D and Post Doctorate students of Asian partner countries to benefit educationally, linguistically and culturally from studying at Partner Universities. Further, the Project also provides opportunity to IoBM faculty members and staff to get training at Partner Higher Educational Institutions, which will upgrade their knowledge, skills and orientation through different training programs.

List of the members of our EM Consortium 2014 is as follows:

European Union Partners:

Germany

Greece

Portugal France

Poland

Slovakia

Finland

France

Italy

- Spain
 - Lithuania Vytautas Magnus University
 - Erfurt University of Applied Sciences

University of Malaga (Coordinating Institution)

- University of Peloponnese
- University of Florence

IPAC

- Institute of Politecnico de Castelo Branco
- University of Montpellier 2
- Wroclaw University of Technology
- Technical University of Kosice

Kathmandu University

University of Kelaniya

University of Peradeniya

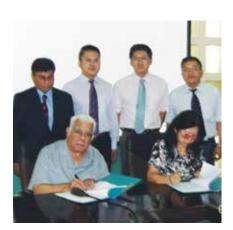
Haaga-Helia University of Applied Sciences

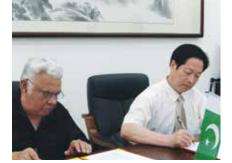
Institute of Business Management (Joint Coordinating Institution)

American International University Gaeddu College of Business Studies

Asian Partners:

- Pakistan
 - Bangladesh
- Bhutan
- Nepal
- Sri Lanka
- Sri Lanka
- Thailand
 - Thailand Chiang Mai University Malaysia University of Kuala Lumpur





Bilateral Agreements

IoBM has bilateral agreements under formally signed Memorandum of Understanding (MoU) with following universities, which provides exchange of students, faculty and staff and promote joint research and consultancy.

- 1. Eqrem Cabej Universities, Albania
- 2. American International University, Dhaka, Bangladesh
- 3. University of Chittagong, Bangladesh
- 4. Gaeddu College of Business Studies, Bhutan
- 5. International Burch University, Bosnia
- 6. Guangxi University of Finance and Economics, China
- 7. Guangxi University of Technology (GXUT), China
- 8. Guilin University of Technology, China
- 9. University of Florence, Italy
- 10. Hanyang University, South Korea
- 11. National University of Mongolia
- 12. University of Kuala Lumpur, Malaysia
- 13. Kathmandu University, Nepal
- 14. Pokhara University, Nepal
- 15. Girne University, North Cyprus
- 16. Institute of Politecnico de Castelo Branco, Portugal
- 17. University of Malaga, Spain
- 18. Erfurt University of Applied Sciences, Germany
- 19. University of Georgia, Tbilisi
- 20. Dongseo University, Busan, South Korea
- 21. SIAS International University, Henan, China
- 22. Zehngzhou Institute of Science & Technology, China
- 23. Zhengzhou University of Science and Technology, Henan, China
- 24. William V.S. Tubman University (TU), Republic of Liberia
- 25. University of Kuala Lumpur, Malaysia
- 26. Caucasus University, Tbilisi, Georgia
- 27. IIC University of Technology Phnom Penh, Combodia
- 28. Universidad Autonoma de Guadalajara, Mexico
- 29. University of Kelaniya, Sri Lanka
- 30. Michigan Technological University, USA
- 31. Bilkent University, Turkey
- 32. University of Peradeniya, Sri Lanka
- 33. Mykolas Romeris University, Lithuania
- 34. Vytautas Magnus University, Lithuania
- 35. Siam University, Thailand
- 36. Koc University, Istanbul, Turkey
- 37. Istanbul Kemerburgaz University, Turkey
- 38. Naresuan University, Thailand
- 39. Vietnam National University, Vietnam
- 40. VNU university of science, Vietnam







Student and Faculty Exchange Program

IoBM's students have gone to the following Universities on Student Exchange Programs:

- Bilkent University, Turkey
- International Burch University, Bosnia
- Guilin University of Technology, China
- Erfurt University of Applied Sciences, Germany
- University of Florence, Italy
- Hanyang University, South Korea
- Vytautas Magnus University, Lithuania

IoBM has entered into an understanding with these universities for exchange of students on waiver of university tuition and in some cases provision of free hostel facilities. Our students going to Erfurt University of Applied Sciences for undergraduate studies for a semester also work with leading German Companies as internees and thus gain practical experience. IoBM also welcomes students from our 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 to 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 with a number of universities all over the world.

Senior Expert Services

A German NGO, Senior Expert Services (SES) has been sending technical experts and faculty to IoBM for giving 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.

IAU LEADHER Program 2014

The LEADHER program offers opportunities for learning partnerships and collaboration among IAU Member Institutions in Good Standing and enables participating institutions to tap into the wealth of experiences around the world. Institute of Business Management (IoBM) in collaboration with Caucasus University, Georgia (CU) has been selected for funding a project on Strengthening research capacity and research management in universities for the International Association of Universities (IAU) Leadership for Higher Education Reform (LEADHER) Program 2014.

Memberships of Professional Bodies

IoBM is also 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), (Member, Executive Council)
- 8. Marketing Association of Pakistan (Member, Executive Council)
- 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)



COLLEGE OF BUSINESS MANAGEMENT

BBA (HONORS)



BBA (Honors) Program is a professional and comprehensive management degree providing conceptual knowledge and in-depth exposure to functional areas in business management including accounting, marketing, finance, management, entrepreneurship and MIS along with special emphasis on leadership, social awareness, creativity and innovation. The program employs 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 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 by the industry.

The Bachelor of Business Administration (Honors) is a four-year program. It requires completion of 144 credit hours of course work and 2 credit hours of internship in a firm approved by the College. A student is required to complete 48 courses of 3 credit hours each in order to meet the degree requirements. Six credit hours are structured into the program for a foreign language course. Students must maintain a CGPA of 2.5 for the conferment of the BBA (Honors) degree.

Students are provided with general business courses as part of their studies and select electives from the following specializations:

- Accounting
- Finance and Banking
- Human Resource Management
- Industrial Management
- Management Information Systems
- Marketing
- Advertising and Media Management
- Management
- Logistics and Supply Chain Management

Courses are divided into Foundation, Core and Electives.

Foundation Courses

Communication COM107 Academic English COM102 Business Communication I COM202 Business and Professional Speech COM205 Persuasive and Analytical Writing for Business Communication

Language

LAN 10* Foreign Language I LAN 20** Foreign Language II *2 = Introduction to French *1 = Introduction to Arabic *3 = Introduction to Spanish *4 = Introduction to German *5 = Introduction to Japanese *6 = Introduction to Italian *7 = Introduction to Russian *8 = Introduction to Chinese **2 = Intermediate French

**6 = Intermediate Italian

**8 = Intermediate Chinese

- **1 = Intermediate Arabic **4 = Intermediate German
- **3 = Intermediate Spanish
- **5 = Intermediate Japanese **7 = Intermediate Russian

Economics

ECO101 Principles of Microeconomics ECO102 Principles of Macroeconomics ECO402 Pakistan Economic Policy OR ECO405 Seminar in Economic Policy

Law

LAW409 Corporate and Business Law

Mathematics

MTH101	College Algebra
MTH103	Calculus for Business Decisions

Political Science

PSC301 Pakistan Studies

Social Science

SSC101 Introduction to Psychology SSC301 History of Ideas SSC401 Business Ethics

Religious Studies

REL101 Islamic Studies

Statistics

STA201 Quantitative Business Analysis STA202 Quantitative Skills and Managerial Statistics

Core Business Courses

Accounting

ACC101	Introduction to Financial Accounting
ACC201	Intermediate Financial Accounting
ACC301	Cost Accounting
ACC410	Management Accounting

Finance

- FIN201 Introduction to Business Finance FIN202 **Financial Management**
- FIN301 Financial Institutions

Human Resource Management

HRM301 Human Resource Management

Management

- MAN101 Principles of Management
- MAN302 Organizational Behavior
- MAN303 Production and Operations Management
- MAN307 Entrepreneurial Leadership
- MAN308 Social Advocacy and Community Work
- MAN403 Entrepreneurship and Small Business Management
- MAN405 Strategic Management
- MAN408 Analysis of Pakistani Industries

Management Information Systems

MIS303 IS Audit and Management MIS305 CRM Systems and Applications

Marketing

MKT301 Principles of Marketing MKT302 Marketing Management MKT403 Sales Management MKT404 Methods in Business Research MKT509 Consumer Behavior MKT511 Brand Management

Logistics and Supply Chain Management

SCM301 Introduction to ERP Systems

Elective Business Courses

Accounting

- ACC302 Accounting and Financial Information Systems
- ACC502 Advanced Managerial Accounting
 - ACC505 Auditing
- ACC506 Analysis of Financial Statements

Finance and Banking

- FIN503 Corporate Finance
- FIN504 International Finance
- FIN505 **Treasury and Fund Management**
- FIN506 **Investment Banking and Security Analysis**
- FIN507 Portfolio Management
- FIN508 **Risk Management**
- FIN511 Analysis of Financial Statements
- FIN514 Asset Liability Management



Human Resource Management

HRM502 Industrial Relations and Labor Laws
HRM509 Leadership Studies
HRM511 Performance Appraisal and Management
HRM520 Event Management
HRM602 Staffing Organizations
HRM603 HR Training and Development
HRM604 Negotiation, Bargaining and Advocacy
HRM605 Compensation Management

Management

MAN305 International Relations
MAN410 Introduction to Industrial Management
MAN501 Total Quality Management
MAN502 Business Process Re-engineering
EEM601 Environmental Management and Green Technology

Management Information Systems

MIS509Software Project ManagementMIS522Business Information SystemsMIS524Decision Support SystemsMIS525Enterprise SystemsMIS526Enterprise Resource Planning SystemsMIS527Information SecurityMIS528Advanced Information SecurityMIS530Information Systems ResearchMIS532New Perspectives on Organizations and Information Systems

Marketing

- MKT405 Marketing Research
- MKT504 Advertising
- MKT506 International Marketing
- MKT507 Services Marketing
- MKT508 Personal Selling
- MKT510 Direct and Digital Marketing
- MKT517 Media Marketing
- MKT520 Merchandising and Sales Promotion
- MKT521 Distribution and Channel Management
- MKT530 New Product Development
- MKT531 Retail Management
- MKT607 Islamic Marketing
- MKT608 Small Business Marketing
- EEM602 Green Marketing Strategy: A challenge for a New Era





Logistics and Supply Chain Management		
SCM302	Quantitative Methods in Production and Logistics	
SCM306	IT Applications in Logistics	
SCM309	Packaging Design and Environmental Aspects	
SCM501	Supply Chain Management	
SCM504	Procurement and Inventory Management	
SCM506	Transportation Techniques and Management	

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. In order to obtain the BBA (Honors) degree in four years, they need to complete twelve courses in a year. Full load of six courses can be taken each in the Fall and Spring semesters with an option for fewer courses in the latter and making up the shortfall in the summer session.

Course Structure

Semester One	Semester Two
Academic English	Introduction to Financial Accounting
Principles of Microeconomics	Business Communication I
Principles of Management	Principles of Macroeconomics
Introduction to Psychology	Principles of Marketing
College Algebra	Calculus for Business Decisions
Islamic Studies	Pakistan Studies
Semester Three	Semester Four
Intermediate Financial Accounting	Business and Professional Speech
Persuasive and Analytical Writing for Business Communication	Introduction to Business Finance
IS Audit and Management	Business Ethics
Entrepreneurial Leadership	Social Advocacy and Community Work
History of Ideas	Sales Management
Quantitative Business Analysis	Quantitative Skills & Managerial Statistics
Semester Five	Semester Six
Introduction to ERP Systems	Financial Management
Financial Institutions	Foreign Language II
Foreign Language I*	Production & Operations Management
Organizational Behavior	Management Accounting
Cost Accounting	Human Resource Management
Methods in Business Research	Consumer Behavior
Semester Seven	Semester Eight
Marketing Management	Corporate and Business Law
CRM System and Applications	Pakistan Economic Policy OR
Entrepreneurship and Small Business	Seminar in Economic Policy
Analysis of Pakistani Industries	Strategic Management
Elective I	Brand Management
Elective II	Elective III
	Elective IV
	Internship (2 credit hours)

* Six units of a foreign language course complete the language sequence.

BS (HONORS) ECONOMICS AND FINANCE





The BS (Honors) is designed to instill in students academic skills necessary for a professional career in Finance and Economics. It requires completion of 144 credit hours of course work and 2 credit hours of internship of at least six weeks in a firm approved by the College. Students graduating with a CGPA of 2.5 automatically qualify for MBA program offered by CBM. Students must take a minimum load of twelve credit hours (four courses) or a maximum load of eighteen credit ours (six courses) in a semester. In order to obtain the BS degree in 4 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.

Required Courses

Accounting

ACC101 Introduction to Financial Accounting ACC201 Intermediate Financial Accounting ACC503 Taxation

Communication

COM107 Academic English COM202 Business and Professional Speech COM203 Methods in Business Writing

Economics

ECO101	Principles of Microeconomics
ECO102	Principles of Macroeconomics
ECO103	Intermediate Microeconomics
ECO105	Intermediate Macroeconomics
ECO301	Managerial Economics
ECO302	International Trade
ECO303	Financial Economics
ECO304	Introduction to Econometrics
ECO305	Topics in Microeconomics
ECO306	Topics in Macroeconomics
ECO307	Monetary Theory and Policy
ECO402	Pakistan Economic Policy
ECO406	Money and Banking

Finance and Banking

FIN201	Introduction to Business Finance
FIN202	Financial Management
FIN301	Financial Institutions
FIN305	Internet Banking and EPS
FIN503	Corporate Finance
FIN504	International Finance
FIN505	Treasury and Fund Management

FIN506 Investment Banking and Security Analysis FIN507 Portfolio Management FIN509 Financial Derivatives Money and Capital Markets FIN512 FIN513 Project Appraisal

Human Resource Management

HRM301 Human Resource Management

Language

LAN 10* Foreign Language I LAN 20** Foreign Language II *1 = Introduction to Arabic *3 = Introduction to Spanish *5 = Introduction to Japanese *6 = Introduction to Italian *7 = Introduction to Russian

*2 = Introduction to French *4 = Introduction to German *8 = Introduction to Chinese

**1 = Intermediate Arabic **3 = Intermediate Spanish **5 = Intermediate Japanese **7 = Intermediate Russian

**4 = Intermediate German **6 = Intermediate Italian **8 = Intermediate Chinese

**2 = Intermediate French

Law LAW401 Business Law

Management

MAN101 Principles of Management MAN302 Organizational Behavior

Management Information Systems

MIS402 Computer Concepts and Applications

Marketing

MKT301 Principles of Marketing MKT404 Methods in Business Research

Mathematics

MTH101 College Algebra MTH103 Calculus for Business Decisions

Political Sciences PSC301 Pakistan Studies

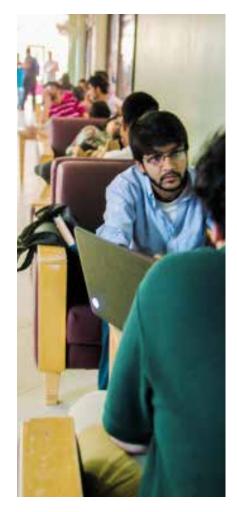
Religious Studies REL101 Islamic Studies

Social Sciences

SSC101 Introduction to Psychology Policy Studies* SSC201 SSC202 Environmental Studies*

*Students can either opt for the two foreign language courses or Policy Studies and Environmental Studies. However, they will not be allowed to take one Foreign Language and Policy Studies or Environmental Studies.







Statistics

STA203 STA301 STA302 Probability Theory and Statistics Model and Inference Methods of Data Analysis

Course Structure

Semester One	Semester Two
	Introduction to Financial Accounting
Academic English Principles of Microeconomics	Methods in Business Writing
Foreign Language I or Policy Studies	Principles of Macroeconomics
Computer Concepts and Applications	
College Algebra	Foreign Language II or Environmental Studies
Islamic Studies	Calculus for Business Decisions
	Intermediate Microeconomics
Semester Three	Semester Four
Intermediate Financial Accounting	Intermediate Macroeconomics
Business and Professional Speech	Internet Banking and EPS
Probability Theory and Statistics	Introduction to Business Finance
Business Law	Principles of Marketing
Introduction to Psychology	Pakistan Studies
Principles of Management	Model and Inference
Semester Five	Semester Six
International Trade	Managerial Economics
Introduction to Econometrics	Financial Economics
Money and Banking	Corporate Finance
Financial Management	Money and Capital Markets
Financial Institutions	Organizational Behavior
Methods of Data Analysis	Methods in Business Research
Semester Seven	Semester Eight
Taxation	Topics in Macroeconomics
Topics in Microeconomics	Pakistan Economic Policy
Monetary Theory and Policy	Treasury and Fund Management
International Finance	Investment Banking & Security Analysis
Portfolio Management	Financial Derivatives
Human Resource Management	Project Appraisal
	Internship (2 credit hours)

BS (HONORS) ACCOUNTING AND FINANCE

BS (Honors) in Accounting and Finance prepares graduates for careers in accounting and finance professions, such as banking and corporate finance. It requires completion of 144 credit hours of course work and 2 credit hours of internship of at least six weeks in a firm approved by the College. Students graduating with a CGPA of 2.5 automatically qualify for the MBA program offered by CBM. Students obtaining the BS (Accounting and Finance) degree have been granted exemption from seven ACCA examination papers by ACCA, UK. 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. In order to obtain the BS degree in 4 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.



Required Courses

Accounting

ACC101 Introduction to Financial Accounting ACC201 Intermediate Financial Accounting ACC301 Cost Accounting ACC302 Accounting and Financial Information System ACC405 Internal Auditing and EDP Accounting ACC501 Advanced Financial Accounting ACC502 Advanced Managerial Accounting ACC503 Taxation ACC505 Auditing

Communications

COM107 Academic English COM202 Business and Professional Speech COM203 Methods in Business Writing

Economics

ECO101 Principles of MicroeconomicsECO102 Principles of MacroeconomicsECO301 Managerial EconomicsECO402 Pakistan Economic PolicyECO406 Money and Banking

Finance and Banking

- FIN201
 Introduction to Business Finance

 FIN202
 Financial Management

 FIN301
 Financial Institutions

 FIN305
 Internet Banking and EPS

 FIN402
 Islamic Banking and EPS
- FIN403 Islamic Banking and Finance
- FIN503 Corporate Finance
- FIN504 International Finance







FIN505 Treasury and Fund Management FIN506 **Investment Banking and Security Analysis** FIN507 Portfolio Management FIN509 **Financial Derivatives** FIN511 Analysis of Financial Statements FIN513 Project Appraisal

Human Resource Management

HRM301 Human Resource Management

Language

LAN 10* Foreign Language I

- LAN 20** Foreign Language II
- *1 = Introduction to Arabic
- *3 = Introduction to Spanish
- *7 = Introduction to Russian
- *4 = Introduction to German *5 = Introduction to Japanese *6 = Introduction to Italian

*2 = Introduction to French

- *8 = Introduction to Chinese **2 = Intermediate French
- **1 = Intermediate Arabic
- **3 = Intermediate Spanish **4 = Intermediate German
- **5 = Intermediate Japanese **6 = Intermediate Italian
- **7 = Intermediate Russian **8 = Intermediate Chinese

Law LAW401 Business Law

Management

MAN101 Principles of Management MAN302 Organizational Behavior MAN403 Entrepreneurship and Small Business Management

Management Information Systems MIS402 Computer Concepts and Applications

Marketing

MKT301 Principles of Marketing MKT404 Methods in Business Research

Mathematics

MTH101 College Algebra MTH103 Calculus for Business Decisions

Political Sciences PSC301 Pakistan Studies

Religious Studies REL101 Islamic Studies

Social Sciences

SSC101 Introduction to Psychology SSC201 Policy Studies* SSC202 Environmental Studies*

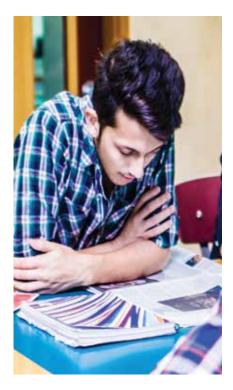
*Students can either opt for the two foreign language courses or Policy Studies and Environmental Studies. However, they will not be allowed to take one Foreign Language and Policy Studies or Environmental Studies.

Statistics

STA203Probability Theory and StatisticsSTA301Model and InferenceSTA302Methods of Data Analysis

Semester One Academic English Principles of Microeconomics Foreign Language I or Policy Studies Computer Concepts and Applications College Algebra	Semester Two Introduction to Financial Accounting Methods in Business Writing Principles of Macroeconomics Foreign Language II or Environmental Studies
Islamic Studies	Calculus for Business Decisions Pakistan Studies
Semester Three Intermediate Financial Accounting Business and Professional Speech Probability Theory and Statistics Business Law Principles of Marketing Introduction to Psychology	Semester Four Accounting & Financial Information Systems Internal Audit & EDP Accounting Introduction to Business Finance Internet Banking & EPS Model and Inferences Principles of Management
Semester Five Advanced Financial Accounting Managerial Economics Financial Management Financial Institutions Money and Banking Methods of Data Analysis	Semester Six Cost Accounting Corporate Finance Treasury & Fund Management Islamic Banking and Finance Organizational Behavior Methods in Business Research
Semester Seven Advanced Managerial Accounting Analysis of Financial Statements Portfolio Management International Finance Human Resource Management Entrep. & Small Business Management	Semester Eight Auditing Taxation Pakistan Economic Policy Investment Banking & Security Analysis Financial Derivatives Project Appraisal Internship (2 credit hours)





MBA AFTER BBA (HONORS), BS JOINT (HONORS) AND BS (HONORS) ACCOUNTANCY MANAGEMENT & LAW



MBA Program is designed to produce transformational and ethical leadership for businesses and industry through integrated curriculum and experiential learning and prepares students for business challenges emerging from globalization, technology driven innovation, and interconnectivity.

This Program consists of 36-credit hours of rigorous MBA level courses dealing with strategy and business transformation and includes a Capstone Project. For students who have obtained their BBA and BS Joint (Honors) degree from CBM, the foundation stage (of 36 credit hours) are exempted from the regular 72 credit hour MBA Program. An MBA student is required to take 10 courses, a Capstone Project of 6 credit hours and clear a comprehensive examination in order to complete the degree requirements. Students must maintain a 3.0 CGPA for conferment of the degree. Minimum duration of this program is 1.5 years.

The Capstone Project which is divided into two 3-credit hour components provides the student with an opportunity to engage with real world complexities, enhance individual competencies and develop lasting skills most particularly in thinking, research, communication, information management and decision making. Students undertake an individual project that addresses a specific and real management challenge or business issue. In doing so, they have the opportunity to develop and demonstrate their capacity for high value thinking and effective decision making. The project is supervised by an assigned faculty member and an industry mentor and is evaluated in an open exhibition by executives and faculty.

MBA students can specialize in the following areas:

- Marketing
- Finance
- Human Resource Management
- Logistics and Supply Chain Management

Required Course

Finance

FIN601 Strategic Financial Analysis and Design

Human Resource Management

HRM601 Transformational and Ethical Leadership

Management

MAN603 Technology, Innovation and Strategy MAN604 Management Strategies and Emerging Organizations MAN605 Seminar in Business Policy

Marketing

MKT601 Marketing Strategies and Value Innovation



My two years at IoBM not only taught me the Management subjects, but also helped me grow as a person suitable for the

corporate world. After joining IoBM, I had to go through a rigorous process of academics and training on self-improvement which installed confidence in me. My MBA in marketing at IoBM helped me to understand the nuances of Sales & Marketing, besides helping me to improve my communication and personality, which is helping me a lot at my job now. Acquiring Degree from IoBM has helped me in joining companies like PTC, Engro Foods & Hilal Foods. I would like to thank all my mentors for making a difference in my life.

Ghazanfar Farooq

Alumnus Trade Marketing Manager Hilal Foods Pvt. Ltd. Capstone Project BPR601 Capstone Project I BPR602 Capstone Project II

Business Elective Courses

Students may choose 4 elective courses from the following specializations:

Majors in Accounting

ACC501Advanced Financial AccountingACC502Advanced Managerial AccountingACC505AuditingACC506Analysis of Financial Statements

Majors in Finance and Banking

FIN513Project AppraisalFIN602Behavioral FinanceFIN603Entrepreneurial FinanceFIN604Debt and Equity MarketsFIN531Financial Derivatives and Risk ManagementFIN605Financial Modeling for Investment DecisionsFIN606SME and Micro-FinancingFRM514Takaful and Risk Management in Islamic Products

Majors in Human Resource Management

- HRM501 Recruitment and Selection
- HRM502 Industrial Relations and Labour Laws
- HRM503 Employee Training and Development
- HRM504 Negotiation Skills and CB
- HRM505 Organizational Change and Development
- HRM506 Strategic Human Resource Management
- HRM507 Public Relations and Event Management
- HRM508 Salary and Compensation
- HRM509 Leadership Studies
- HRM511 Performance Appraisal and Management
- EEM601 Environmental Management and Green Technology

Majors in Management Information Systems

- MIS509 Software Project Management
- MIS523 Decision Systems
- MIS524 Decision Support Systems
- MIS525 Enterprise Systems
- MIS526 Enterprise Resource Planning Systems
- MIS527 Information Security
- MIS528 Advanced Information Security
- MIS530 Information Systems Research
- MIS532 New Perspectives on Organization Information Systems
- MIS533 Big Data and Business Analytics







The SCM specialization is based on internationally recognized curricula and is being run in collaboration with German experts. The added feature of the program is training on SAP® ERP system. There are tremendous job opportunities in the field of supply chain and logistics. MBA graduates can select four elective courses offered in the area of Supply Chain & Logistics Management.

Majors in Management

MAN411 Project Management MAN413 Corporate Social Responsibility MAN416 Corporate Governance MAN508 Comparative Management

Majors in Marketing

Marketing Research
Advertising
Industrial Marketing
International Marketing
Brand Management
Media Marketing
Marketing of Financial Services
Distribution and Channel Management
Integrated Marketing Communications
New Product Development
Social Marketing
Marketing Analytics
International Branding
Seminar in Marketing
Pricing Models and Strategies
Non-Profit Marketing
Islamic Marketing
Small Business Marketing
Green Marketing Strategy: A Challenge for a New Era

Majors in Logistics and Supply Chain Management

SCM302 Quantitative Methods in Production and Logistics
SCM305 Business Process Management in Supply Chain and Logistics
SCM306 IT Applications in Logistics
SCM501 Supply Chain Management
SCM502 ERP Systems Design and Implementation
SCM503 Strategic Supply Chain Management
SCM504 Procurement and Inventory Management
SCM505 Storage and Warehouse Techniques
SCM506 Transportation Techniques and Management
SCM514 Sustainability and Environmental Aspects in Managing Supply Chains
SCM515 Risk Management in Supply Networks
SCM516 Innovation Management in Supply Chain and Logistics
SCM517 Corporate Consultancy Project in Logistics

Semester One	Semester Two
Management Strategies and Emerging Organizations	Technology, Innovation and Strategy
Marketing Strategies and Value Innovation	Strategic Financial Analysis and Design
Elective I	Elective III
Elective II	Elective IV
Semester Three	Semester Four
Seminar in Business Policy	Capstone II
Transformational and Ethical Leadership	
Capstone I	

MBA ADVERTISING AND MEDIA MANAGEMENT AFTER BBA (HONORS)

The BBA (Honors) programs are the route to Master in Advertising and Media Management. For those students who have obtained their BBA (Honors) degree from CBM, the MBA program is of a shorter duration. Exemption is offered for a number of courses and the required course load of a two-year regular MBA is reduced from a 78 credit hour program to a 36 credit hour program, to be completed in two regular semesters. A student is required to take 12 courses of 3 credit hours each and clear the comprehensive examination in order to complete the degree requirements. Students must maintain a CGPA of 3.0 for the conferment of the degree.

Required Courses

Accounting ACC501 Advanced Financial Accounting

Advertising

ADV504 Advertising Management and Strategy ADV505 Creative Planning and Development

Law LAW405 Media Law and Business Ethics

Management

MAN501 Total Quality Management MAN508 Comparative Management

Marketing

MKT501Strategic Marketing and PlanningMKT507Services MarketingMKT511Brand ManagementMKT526Public Relations and Event ManagementMKT527Integrated Marketing Communication

Media

MMM423 Specialized Communication Skills MMM429 Digital Media MMM434 Media Planning MMM435 Print Media MMM436 Electronic Media MMM437 Role of Media in World Affairs MMM438 Introduction to Media in Pakistan MMM439 Media Research and Public Opinion









Course Structure for MBA Advertising Management

Semester One	Semester Two
Advertising Management and Strategy	Integrated Marketing Communication
Brand Management	Creative Planning and Development
Public Relations and Event Management	Advanced Financial Accounting
Digital Media	Comparative Management
Services Marketing	Strategic Marketing and Planning
Media Planning	Total Quality Management

Course Structure for MBA Media Management

Semester One	Semester Two
Introduction to Media in Pakistan	Public Relations and Event Management
Print Media	Media Research and Public Opinion
Electronic Media	Specialized Communication Skills
Brand Management	Digital Media
Comparative Management	Media Law and Business Ethics
Advertising Management and Strategy	Role of Media in World Affairs



MBA AFTER BS COMPUTER SCIENCE

This degree program is offered to students who have completed their BS (Computer Science) four-year program and want to decide on a career in the area of Business Administration. It requires a completion of 15 courses of 3 credit hours each and the comprehensive examination in order to complete the degree requirements. Students are required to maintain a minimum CGPA of 3.0 for the conferment of the degree.

Foundation Courses

Communication COM402 Business Communication

Law LAW401 Business Law

Social Sciences SSC401 Business Ethics

Core Business Courses

Accounting ACC401 Introduction to Managerial and Cost Accounting

Finance FIN404 Financial Management

Management

MAN402 Organizational Behavior MAN403 Entrepreneurship and Small Business Management MAN405 Strategic Management MAN501 Total Quality Management

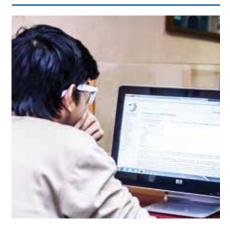
Marketing

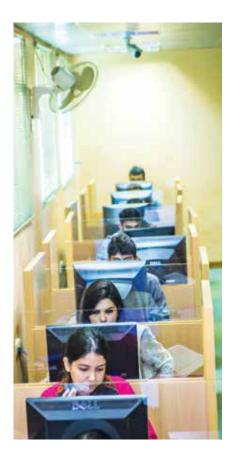
MKT402 Marketing Management MKT404 Methods in Business Research

Business Elective Courses

Majors in Accounting

ACC501Advanced Financial AccountingACC502Advanced Managerial AccountingACC504Accounting Information SystemsACC505Auditing







Majors in Finance and Banking

FIN403	Islamic Banking and Finance
FIN502	Strategic Financial Management
FIN503	Corporate Finance
FIN504	International Finance
FIN505	Treasury and Fund Management
FIN506	Investment Banking and Security Analysis
FIN507	Portfolio Management
FIN508	Risk Management
FIN509	Financial Derivatives
FIN510	Investment Analysis
FIN511	Analysis of Financial Statements
FIN512	Money and Capital Markets
FIN513	Project Appraisal
FIN514	Asset Liability Management
FRM514	Takaful and Risk Management in Islamic Products

Majors in Human Resource Management

HRM501Recruitment and SelectionHRM502Industrial Relations and Labour LawsHRM503Employee Training and DevelopmentHRM504Negotiation Skills and CBHRM505Organizational Change & DevelopmentHRM506Strategic HRMHRM507Public Relations and Event ManagementHRM508Salary and CompensationHRM509Leadership StudiesHRM510Personnel DevelopmentHRM511Performance Appraisal and Management

Majors in Management

MAN502*Business Process Re-engineering MAN504 Business Balanced Scorecard MAN507 Business Etiquette MAN508 Comparative Management * Accepted as elective under all disciplines.

Majors in Management Information Systems

- MIS502 Electronic Commerce
- MIS504 Oracle/Developer 2000
- MIS507 Relational Database Management Systems
- MIS509 Software Project Management
- MIS521 Record Management
- MIS522 Business Information Systems
- MIS523 Decision Systems
- MIS524 Decision Support Systems
- MIS525 Enterprise Systems
- MIS526 Enterprise Resource Planning Systems





Majors in Marketing

MKT501 Strategic Marketing and Planning MKT502 Graphic Designing MKT503 Packaging and Printing MKT504 Advertising MKT505 Industrial Marketing MKT506 International Marketing MKT507 Services Marketing MKT508 Personal Selling MKT509 Consumer Behavior MKT510 Direct and Digital Marketing MKT511 Brand Management MKT512 Export Marketing MKT519 Marketing of Financial Services MKT520 Merchandising and Sales Promotion MKT521 Distribution and Channel Management MKT526 Public Relations and Event Management MKT527 Integrated Marketing Communication

Majors in Logistics and Supply Chain Management

- SCM501 Supply Chain Management
- SCM502 ERP Systems Design amd Implementation
- SCM503 Strategic Supply Chain Management
- SCM504 Procurement and Inventory Management
- SCM505 Storage and Warehouse Techniques
- SCM506 Transportation Techniques and Management

Course Structure

Semester One Intro. to Managerial & Cost Accounting Business Communication Organizational Behavior Total Quality Management Marketing Management Business Ethics	Semester Two Financial Management Business Law Entrep. & Small Business Management Strategic Management Methods in Business Research
Semester Three Elective I Elective II Elective III Elective IV	

The course structure of the program is based on internationally recognized curricula and is being run with strong collaboration of German experts. The added feature of the program is training on SAP[®] ERP system. There are tremendous job opportunities in the field of supply chain and logistics. MBA graduates can take any four elective courses offered in areas of Supply Chain & Logistics Management.

MBA FINANCE AND RISK MANAGEMENT AFTER BBA / BS (JOINT HONORS) AND BS (HONORS) ACCOUNTANCY MANAGEMENT & LAW



MBA Finance and Risk Management, requires completion of 36 credit hours of course work comprising 12 courses (3 credit hours each). Students require maintaining 3.0 CGPA on a scale of 4 for the conferment of the degree.

Required Courses

Economics ECO408 Applied Financial Economics

Finance

FIN511 Analysis of Financial Statements

Finance and Risk Management

FRM401 Principles of Risk Management
FRM402 Computational Methods in Risk
FRM403 Introduction to Financial Risk Management
FRM404 Risk Financing Techniques
FRM405 Advanced Financial Risk Management

Mathematics MTH409 Financial Mathematics I MTH410 Financial Mathematics II

Social Sciences SSC405 Business Ethics & Financial Responsibility

Elective Courses

Finance and Banking

FIN403 Islamic Banking and Finance

Finance and Risk Management

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

FRM504 Theory of Risk and Insurance
FRM506 Financial Regulation for Risk Management
FRM510 Energy Risk Management
FRM513 Project Risk Management
FRM516 International Finance Reporting and Standards
FRM518 Management of Insurance Institutions

Semester One	Semester Two	Semester Three
Financial Mathematics I	Introduction to Financial Risk Mgmt.	Risk Financing Techniques
Principles of Risk Management	Financial Mathematics II	Advanced Financial Risk Management
Computational Methods in Risk	Applied Financial Economics	Analysis of Financial Statements
Business Ethics and Fin. Responsibility	Elective I	Elective II

MBA PROGRAM FOR STUDENTS WITH 16 YEARS EDUCATION

MBA program is designed to produce transformational and ethical leadership for businesses and industry through integrated curriculum and experiential learning and prepares for business challenges emerging from globalization, technology driven innovation, and interconnectivity.

This MBA program is designed for students having a minimum of 16 years of education with degrees in a wide range of disciplines such as business, commerce, engineering, law, science, medicine, arts and pharmacy. The 72 credit hours MBA program is divided into a foundation stage of 36 credit hours followed by the 36-credit hours of rigorous MBA level courses/project dealing with strategy and business transformation. The foundation stage consists of preparatory course work necessary for the higher level MBA courses. The students are also expected to complete 2 credit hours of internship of at least six weeks in an approved firm and the comprehensive examination. Students must maintain a 3.0 CGPA for MBA level courses and project for the conferment of the degree. The program may be completed in a minimum of two years depending upon the relevant preparation. Students who are weak in English and Communication Skills are required to take an additional "Business English" course to enhance their knowledge of the language.

The capstone project which is divided into two 3-credit hour components provides the student with an opportunity to engage with real world complexities, enhance individual competencies and develop lasting skills most particularly in thinking, research, communication, information management and decision making. Students undertake an individual project that addresses a specific and real management challenge or business issue. In doing so, they have the opportunity to develop and demonstrate their capacity for high value thinking and effective decision making. The project is supervised by an assigned faculty member and an industry mentor and is evaluated in an open exhibition by executives and faculty.

MBA students can specialize in the following areas by taking four electives:

- Marketing
- Finance
- Human Resource Management
- Logistics and Supply Chain Management
- Management Information Systems

Required Courses

Accounting ACC402 Introduction to Financial Accounting

Economics

ECO401 Micro and Macroeconomics



I joined IoBM when I was intending to submit my application at LSE (London School of Economics – Central London) in an MSc program

back in 2005 last guarter which I later deferred for a year. As soon as I embarked upon the MBA journey at IoBM, I gradually started to realize that not only the academic amenities but also the faculty are at par with any well reputed academia within and outside Pakistan; especially the faculty of marketing pathway were extremely profound and well-fortified with the contemporary business models. Later on I decided to stay back at IoBM and managed to complete my MBA in Marketing in just two years taking full load along with my professional commitments. Today I serve at Abbott under the capacity of a leading marketing role. I have also worked at global brands mainly; The Nielsen Company, BearingPoint Inc. I proudly credit IoBM for my progress in the corporate world and further enabling me to utilize and harness the inculcated business competencies and strategic marketing models deemed imperative towards evolving out as a successful business leader.

Atif Rafeeq Alumnus

Product and Business Intelligence Manager Abbott Laboratories Pakistan Limited

Communications

COM401*Business English COM402 Business Communication *For less proficient students

Finance

FIN404 Financial Management FIN601* Strategic Financial Analysis and Design

Human Resource Management

HRM401 Human Resource Management HRM601*Transformational and Ethical Leadership

Marketing

MKT402 Marketing Management MKT404 Methods in Business Research MKT509 Consumer Behavior MKT601* Marketing Strategies and Value Innovation

Statistics STA403 Statistics and Mathematics

*Indicates MBA level courses

Specialized Courses

MBA students have a choice of four electives from the following disciplines:

Majors in Accounting

ACC501 Advanced Financial Accounting ACC502 Advanced Managerial Accounting ACC505 Auditing ACC506 Analysis of Financial Statements

Majors in Marketing

MKT405 Marketing Research MKT504 Advertising MKT505 Industrial Marketing MKT506 International Marketing MKT511 Brand Management MKT517 Media Marketing MKT519 Marketing of Financial Services MKT521 Distribution and Channel Management MKT527 Integrated Marketing Communications MKT530 New Product Development MKT534 Social Marketing MKT602 Marketing Analytics MKT603 International Branding MKT604 Seminar in Marketing MKT605 Pricing Models and Strategies MKT606 Non-Profit Marketing MKT607 Islamic Marketing MKT608 Small Business Marketing

Law LAW409 Corporate and Business Law

Management

MAN401 Principles of Management MAN406 Production and Operations Management MAN603*Technology, Innovation and Strategy MAN604*Management Strategies and Emerging Organizations MAN605*Seminar in Business Policy

Capstone Project BPR601* Capstone Project I

BPR602* Capstone Project II

Majors in Finance and Banking FIN513 Project Appraisal FIN602 Behavioral Finance FIN603 Entrepreneurial Finance FIN604 Debt and Equity Markets FIN531 Financial Derivatives and Risk Management FIN606 SME and Micro-Financing FRM514 Takaful and Risk Management in Islamic Products

Majors in Human Resource Management

HRM501 Recruitment and Selection HRM502 Industrial Relations and Labour Laws HRM503 Employee Training and Development HRM504 Negotiation Skills and CB HRM505 Organizational Change and Development HRM506 Strategic Human Resource Management HRM507 Public Relations and Event Management HRM508 Salary and Compensation HRM509 Leadership Studies HRM511 Performance Appraisal and Management

Majors in Management

MAN411 Project Management MAN413 Corporate Social Responsibility MAN416 Corporate Governance MAN508 Comparative Management EEM401 Environmental Issues and Management

Majors in Logistics and Supply Chain Management

- SCM302 Quantitative Methods in Production and Logistics
 SCM305 Business Process Management in Supply Chain and Logistics
 SCM306 IT Applications in Logistics
 SCM309 Packaging Design and Environmental Aspects
 SCM501 Supply Chain Management
 SCM502 ERP Systems Design and Implementation
 SCM503 Strategic Supply Chain Management
 SCM504 Procurement and Inventory Management
 SCM505 Storage and Warehouse Techniques
 SCM506 Transportation Techniques and Management
 SCM514 Sustainability and Environmental Aspects in Managing Supply Chains
 SCM515 Risk Management in Supply Networks
- SCM516 Innovation Management in Supply Chain and Logistics
- SCM517 Corporate Consultancy Project in Logistics

Majors in Management Information Systems

- MIS509 Software Project Management
- MIS523 Decision Systems
- MIS524 Decision Support Systems
- MIS525 Enterprise Systems
- MIS526 Enterprise Resource Planning Systems
- MIS527 Information Security
- MIS528 Advanced Information Security
- MIS530 Information Systems Research
- MIS532 New Perspectives on Organization Information Systems
- MIS533 Big Data and Business Analytics

Foundation Stage Semester One Principles of Management Consumer Behavior Introduction to Financial Accounting Statistics and Mathematics	Semester Two Methods in Business Research Financial Management Human Resource Management Production and Operations Management
Micro and Macroeconomics Business Communication	Marketing Management Corporate and Business Law
MBA Stage Semester Three Management Strategies and Emerging Organizations Marketing Strategies and Value Innovation Elective I Elective II	Semester Four Technology, Innovation and Strategy Strategic Financial Analysis and Design Elective III Capstone I
Semester Five Seminar in Business Policy Transformational and Ethical Leadership Elective IV Capstone II	



MBA PROGRAM FOR STUDENTS WITH 14 YEARS EDUCATION





MBA program is designed to produce transformational and ethical leadership for businesses and industry through integrated curriculum and experiential learning and prepares for business challenges emerging from globalization, technology driven innovation, and interconnectivity.

This MBA program is designed for students having 14 years of education with degrees in a wide range of disciplines such as business, commerce, law, science, and arts. The 108 credit hours MBA program is divided into a foundation stage of 72 credit hours followed by the 36-credit hours of rigorous MBA level courses and a capstone project dealing with strategy and business transformation. The foundation stage consists of preparatory course work necessary for the higher level MBA courses. The students are also expected to complete 2 credit hours of internship of at least six weeks in an approved firm and the comprehensive examination. Students completing 72 credit hours of the foundation stage are also eligible for the grant of Bachelor of Business Studies (BBS) degree as per HEC recommendations. Students must maintain a 3.0 CGPA for MBA level courses and project for the conferment of the degree. The program may be completed in a minimum of 3.5 years depending upon the relevant preparation. Students who are weak in English and Communication Skills are required to take an additional "Business English" course to enhance their knowledge of the language.

The capstone project which is divided into two 3-credit hour components provides the student with an opportunity to engage with real world complexities, enhance individual competencies and develop lasting skills most particularly in thinking, research, communication, information management and decision making. Students undertake an individual project that addresses a specific and real management challenge or business issue. In doing so, they have the opportunity to develop and demonstrate their capacity for high value thinking and effective decision making. The project is supervised by an assigned faculty member and an industry mentor and is evaluated in an open exhibition by executives and faculty.

MBA students can specialize in the following areas by taking four electives:

- Marketing
- Finance
- Human Resource Management
- Logistics and Supply Chain Management
- Management Information Systems

Required Courses

Accounting

ACC401 Introduction to Managerial and Cost Accounting ACC402 Introduction to Financial Accounting

Communications

COM401*Business English COM205 Persuasive and Analytical Writing for Business Communication COM402 Business Communication *For less proficient students

Economics

ECO401Micro and MacroeconomicsECO405Seminar in Economic Policy

Human Resource Management

HRM401 Human Resource Management HRM601*Transformational and Ethical Leadership

Management

MAN401 Principles of Management MAN402 Organizational Behavior MAN406 Production and Operations Management MAN415 Entrepreneurial Leadership and Motivation MAN603*Technology, Innovation and Strategy MAN604*Management Strategies and Emerging Organizations MAN605*Seminar in Business Policy

Management Information Systems

MIS526 Enterprise Resource Planning Systems

Social Sciences

SSC101 Introduction to Psychology SSC401 Business Ethics

*Indicates MBA level courses

Specialized Courses

MBA students have a choice of four electives from the following disciplines:

Majors in Accounting

ACC501	Advanced Financial Accounting
ACC502	Advanced Managerial Accounting
ACC505	Auditing
ACC506	Analysis of Financial Statements

Majors in Human Resource Management

HRM501Recruitment and SelectionHRM502Industrial Relations and Labour LawsHRM503Employee Training and DevelopmentHRM504Negotiation Skills and CBHRM505Organizational Change and DevelopmentHRM506Strategic Human Resource ManagementHRM507Public Relations and Event ManagementHRM508Salary and CompensationHRM509Leadership StudiesHRM511Performance Appraisal and Management

Majors in Management

MAN411 Project Management MAN413 Corporate Social Responsibility MAN416 Corporate Governance MAN508 Comparative Management

EEM401 Environmental Issues and Management

Finance

FIN201 Introduction to Business FinanceFIN404 Financial ManagementFIN601* Strategic Financial Analysis and Design

Law

LAW409 Corporate and Business Law

Marketing

MKT401 Principles of Marketing
MKT402 Marketing Management
MKT403 Sales Management
MKT404 Methods in Business Research
MKT509 Consumer Behavior
MKT601* Marketing Strategies and Value Innovation

Statistics

STA202 Quantitative Skills and Managerial Statistics STA403 Statistics and Mathematics

Capstone Project

BPR601* Capstone Project I BPR602* Capstone Project II

Majors in Finance and Banking

Majors in Finance and Banking		
FIN513	Project Appraisal	
FIN531	Financial Derivatives and Risk Management	
FIN602	Behavioral Finance	
FIN603	Entrepreneurial Finance	
FIN604	Debt and Equity Markets	
FIN606	SME and Micro-Financing	
FRM514	Takaful and Risk Management in Islamic Products	
Majors ir	a Logistics and Supply Chain Management	
SCM302	Quantitative Methods in Production and Logistics	
SCM305	Business Process Mgmt. in Supply Chain & Logistics	
SCM306	IT Applications in Logistics	
SCM309	Packaging Design and Environmental Aspects	
SCM501	Supply Chain Management	
SCM502	ERP Systems Design and Implementation	
SCM503	Strategic Supply Chain Management	
SCM504	Procurement and Inventory Management	
SCM505	5	
	Transportation Techniques and Management	
	Sustainability & Env. Aspects in Managing Supply Chains	
	Risk Management in Supply Networks	
SCM516	Innovation Management in Supply Chain and Logistics	

SCM516 Innovation Management in Supply Chain and Logistics SCM517 Corporate Consultancy Project in Logistics

Majors in Marketing

MKT405 Marketing Research MKT504 Advertising MKT505 Industrial Marketing MKT506 International Marketing MKT511 Brand Management MKT517 Media Marketing MKT519 Marketing of Financial Services MKT521 Distribution and Channel Management MKT527 Integrated Marketing Communications MKT530 New Product Development MKT534 Social Marketing MKT602 Marketing Analytics MKT603 International Branding MKT604 Seminar in Marketing MKT605 Pricing Models and Strategies MKT606 Non-Profit Marketing MKT607 Islamic Marketing MKT608 Small Business Marketing

Majors in Management Information Systems

- MIS504Oracle/Developer 2000MIS509Software Project ManagementMIS523Decision SystemsMIS524Decision Support SystemsMIS525Enterprise SystemsMIS526Enterprise Resource Planning SystemsMIS527Information SecurityMIS528Advanced Information SecurityMIS530Information Systems ResearchMIS532New Perspectives on Org. Information Systems
- MIS533 Big Data and Business Analytics

Foundation Stage Semester One Principles of Management Business Communication I Principles of Marketing	Semester Two Persuasive and Analytical Writing for Business Communication Entrepreneurial Leadership and Motivation Sales Management Quantitative Skills & Managerial Statistics
Introduction to Financial Accounting Statistics and Mathematics Introduction to Psychology	Introduction to Managerial & Cost Accounting Micro and Macroeconomics
Semester Three Intro to Business Finance Business Ethics Organizational Behavior Introduction to Enterprise Resource Planning Systems Methods in Business Research Consumer Behavior	Semester Four Financial Management Human Resource Management Production and Operations Management Marketing Management Seminar in Economic Policy Corporate and Business Law
MBA Stage Semester Five Management Strategies and Emerging Organizations Marketing Strategies and Value Innovation Elective I Elective II	Semester Six Strategic Financial Analysis and Design Technology, Innovation and Strategy Elective III Capstone I
Semester Seven Seminar in Business Policy Transformational and Ethical Leadership Elective IV Capstone II	

MBA WEEKEND PROGRAM FOR STUDENTS WITH 16 YEARS EDUCATION

MBA program is designed to produce transformational and ethical leadership for businesses and industry through integrated curriculum and experiential learning and prepares for business challenges emerging from globalization, technology driven innovation, and interconnectivity.

This MBA program is designed for students having a minimum of 16 years of education with degrees in a wide range of disciplines such as business, commerce, engineering, law, science, medicine, arts and pharmacy. The 72 credit hours MBA program is divided into a foundation stage of 36 credit hours followed by the 36 credit hours of rigorous MBA level courses/project dealing with strategy and business transformation. The foundation stage consists of preparatory course work necessary for the higher level MBA courses. Students must pass a comprehensive examination and maintain a 3.0 CGPA for MBA level courses and project for the conferment of the degree. Students who are weak in English and Communication Skills are required to take an additional "Business English" course to enhance their knowledge of the language.



The capstone project which is divided into two 3-credit hour components provides the student with an opportunity to engage with real world complexities, enhance individual competencies and develop lasting skills most particularly in thinking, research, communication, information management and decision making. Students undertake an individual project that addresses a specific and real management challenge or business issue. In doing so, they have the opportunity to develop and demonstrate their capacity for high value thinking and effective decision making. The project is supervised by an assigned faculty member and an industry mentor and is evaluated in an open exhibition by executives and faculty.

MBA students can specialize in the following areas by taking four electives:

- Marketing
- Finance
- Human Resource Management
- Logistics and Supply Chain Management
- Management Information Systems

Required Courses

Accounting ACC402 Introduction to Financial Accounting

Economics ECO401 Micro and Macroeconomics

Finance

FIN404 Financial Management FIN601* Strategic Financial Analysis and Design



Communications COM401*Business English COM402 Business Communication *For less proficient students

Human Resource Management HRM401 Human Resource Management HRM601*Transformational and Ethical Leadership

Law

LAW409 Corporate and Business Law

Marketing

MKT402 Marketing Management MKT404 Methods in Business Research MKT509 Consumer Behavior MKT601* Marketing Strategies and Value Innovation

Statistics

STA403 Statistics and Mathematics

*Indicates MBA level courses

MAN401 Principles of Management

MAN406 Production and Operations Management MAN603*Technology, Innovation and Strategy MAN604*Management Strategies and Emerging Organizations MAN605*Seminar in Business Policy

Capstone Project

Management

BPR601* Capstone Project I BPR602* Capstone Project II

Specialized Courses

MBA students have a choice of four electives from the following disciplines:

Majors in Accounting

ACC501 Advanced Financial Accounting ACC502 Advanced Managerial Accounting ACC505 Auditing ACC506 Analysis of Financial Statements

Majors in Marketing

MKT405 Marketing Research MKT504 Advertising MKT505 Industrial Marketing MKT506 International Marketing MKT511 Brand Management MKT517 Media Marketing MKT519 Marketing of Financial Services MKT521 Distribution and Channel Management MKT527 Integrated Marketing Communications MKT530 New Product Development MKT534 Social Marketing MKT602 Marketing Analytics MKT603 International Branding MKT604 Seminar in Marketing MKT605 Pricing Models and Strategies MKT606 Non-Profit Marketing MKT607 Islamic Marketing MKT608 Small Business Marketing

Majors in Finance and Banking

FIN513 Project Appraisal FIN602 Behavioral Finance FIN603 Entrepreneurial Finance FIN604 Debt and Equity Markets FIN531 Financial Derivatives and Risk Management FIN606 SME and Micro-Financing FRM514 Takaful and Risk Management in Islamic Products

Majors in Human Resource Management

HRM501 Recruitment and Selection HRM502 Industrial Relations and Labour Laws HRM503 Employee Training and Development HRM504 Negotiation Skills and CB HRM505 Organizational Change and Development HRM506 Strategic Human Resource Management HRM507 Public Relations and Event Management HRM508 Salary and Compensation HRM509 Leadership Studies HRM511 Performance Appraisal and Management

Majors in Management

MAN411 Project Management MAN413 Corporate Social Responsibility MAN416 Corporate Governance MAN508 Comparative Management EEM401 Environmental Issues and Management

Majors in Logistics and Supply Chain Management

- SCM302 Quantitative Methods in Production and Logistics
 SCM305 Business Process Management in Supply Chain and Logistics
 SCM306 IT Applications in Logistics
 SCM309 Packaging Design and Environmental Aspects
 SCM501 Supply Chain Management
 SCM502 ERP Systems Design and Implementation
 SCM503 Strategic Supply Chain Management
 SCM504 Procurement and Inventory Management
 SCM505 Storage and Warehouse Techniques
 SCM506 Transportation Techniques and Management
 SCM514 Sustainability and Environmental Aspects in Managing Supply Chains
 SCM515 Risk Management in Supply Networks
- SCM516 Innovation Management in Supply Chain and Logistics
- SCM517 Corporate Consultancy Project in Logistics

Majors in Management Information Systems

- MIS509 Software Project Management
- MIS523 Decision Systems
- MIS524 Decision Support Systems
- MIS525 Enterprise Systems
- MIS526 Enterprise Resource Planning Systems
- MIS527 Information Security
- MIS528 Advanced Information Security
- MIS530 Information Systems Research
- MIS532 New Perspectives on Organization Information Systems
- MIS533 Big Data and Business Analytics



Foundation Stage Semester One Principles of Management Consumer Behavior Introduction to Financial Accounting Statistics and Mathematics	Semester Two Micro and Macroeconomics Business Communication Methods in Business Research Financial Management
Semester Three Human Resource Management Production and Operations Management Marketing Management Corporate and Business Law	MBA Stage Semester Four Management Strategies and Emerging Organizations Marketing Strategies and Value Innovation Elective I Elective II
Semester Five Technology, Innovation and Strategy Strategic Financial Analysis and Design Elective III Capstone I	Semester Six Seminar in Business Policy Transformational and Ethical Leadership Elective IV Capstone II

MBA WEEKEND PROGRAM FOR STUDENTS WITH 14 YEARS EDUCATION



MBA program is designed to produce transformational and ethical leadership for businesses and industry through integrated curriculum and experiential learning and prepares for business challenges emerging from globalization, technology driven innovation, and interconnectivity.

This MBA program is designed for students having 14 years of education with degrees in a wide range of disciplines such as business, commerce, law, science, and arts. The 108 credit hours MBA program is divided into a foundation stage of 72 credit hours followed by the 36-credit hours of rigorous MBA level courses and a capstone project dealing with strategy and business transformation. The foundation stage consists of preparatory course work necessary for the higher level MBA courses. Students must pass a comprehensive examination. Students completing 72 credit hours of the foundation stage are also eligible for the grant of Bachelor of Business Studies (BBS) degree as per HEC recommendations. Students must maintain a 3.0 CGPA for MBA level courses and project for the conferment of the degree. The program may be completed in a minimum of 9 semesters depending upon the relevant preparation. Students who are weak in English and Communication Skills are required to take an additional "Business English" course to enhance their knowledge of the language.

The capstone project which is divided into two 3-credit hour components provides the student with an opportunity to engage with real world complexities, enhance individual competencies and develop lasting skills most particularly in thinking, research, communication, information management and decision making. Students undertake an individual project that addresses a specific and real management challenge or business issue. In doing so, they have the opportunity to develop and demonstrate their capacity for high value thinking and effective decision making. The project is supervised by an assigned faculty member and an industry mentor and is evaluated in an open exhibition by executives and faculty.

MBA students can specialize in the following areas by taking four electives:

- Marketing
- Finance
- Human Resource Management
- Logistics and Supply Chain Management
- Management Information Systems

Required Courses

Accounting

ACC401 Introduction to Managerial and Cost Accounting ACC402 Introduction to Financial Accounting

Communications

COM401*Business English COM205 Persuasive and Analytical Writing for Business Communication COM402 Business Communication *For less proficient students

Economics

ECO401 Micro and Macroeconomics ECO405 Seminar in Economic Policy

Human Resource Management

HRM401 Human Resource Management HRM601*Transformational and Ethical Leadership

Management

MAN401 Principles of Management MAN402 Organizational Behavior MAN406 Production and Operations Management MAN415 Entrepreneurial Leadership and Motivation MAN603*Technology, Innovation and Strategy MAN604*Management Strategies and Emerging Organizations MAN605*Seminar in Business Policy

Management Information Systems

MIS526 Enterprise Resource Planning Systems

Social Sciences

SSC101 Introduction to Psychology SSC401 Business Ethics

*Indicates MBA level courses

Specialized Courses

MBA students have a choice of four electives from the following disciplines:

Majors in Accounting

ACC501	Advanced Financial Accounting
ACC502	Advanced Managerial Accounting
ACC505	Auditing
ACC506	Analysis of Financial Statements

Majors in Human Resource Management

HRM501Recruitment and SelectionHRM502Industrial Relations and Labour LawsHRM503Employee Training and DevelopmentHRM504Negotiation Skills and CBHRM505Organizational Change and DevelopmentHRM506Strategic Human Resource ManagementHRM507Public Relations and Event ManagementHRM508Salary and CompensationHRM509Leadership StudiesHRM511Performance Appraisal and Management

Majors in Management

MAN411 Project Management MAN413 Corporate Social Responsibility MAN416 Corporate Governance MAN508 Comparative Management EEM401 Environmental Issues and Management

Finance

FIN201 Introduction to Business FinanceFIN404 Financial ManagementFIN601* Strategic Financial Analysis and Design

Law

LAW409 Corporate and Business Law

Marketing

MKT401 Principles of Marketing
MKT402 Marketing Management
MKT403 Sales Management
MKT404 Methods in Business Research
MKT509 Consumer Behavior
MKT601* Marketing Strategies and Value Innovation

Statistics

STA202 Quantitative Skills and Managerial Statistics STA403 Statistics and Mathematics

Capstone Project

BPR601* Capstone Project I BPR602* Capstone Project II

Majors in Finance and Banking

Majors in	n Finance and Banking
FIN513	Project Appraisal
FIN602	Behavioral Finance
FIN603	Entrepreneurial Finance
FIN604	Debt and Equity Markets
FIN531	Financial Derivatives and Risk Management
FIN606	SME and Micro-Financing
FRM514	Takaful and Risk Management in Islamic Products
Majors ir	a Logistics and Supply Chain Management
SCM302	Quantitative Methods in Production and Logistics
SCM305	Business Process Mgmt. in Supply Chain & Logistics
SCM306	IT Applications in Logistics
SCM309	Packaging Design and Environmental Aspects
SCM501	Supply Chain Management
SCM502	ERP Systems Design and Implementation
SCM503	Strategic Supply Chain Management
SCM504	Procurement and Inventory Management
SCM505	Storage and Warehouse Techniques
SCM506	Transportation Techniques and Management
SCM514	Sustainability & Env. Aspects in Managing Supply Chains
SCM515	Risk Management in Supply Networks

SCM516 Innovation Management in Supply Chain and Logistics

SCM517 Corporate Consultancy Project in Logistics

Majors in Marketing		
MKT405	Marketing Research	
MKT504	Advertising	
MKT505	Industrial Marketing	
MKT506	International Marketing	
MKT511	Brand Management	
MKT517	Media Marketing	
MKT519	Marketing of Financial Services	
MKT521	Distribution and Channel Management	
MKT527	Integrated Marketing Communications	
MKT530	New Product Development	
MKT534	Social Marketing	
MKT602	Marketing Analytics	
MKT603	International Branding	
MKT604	Seminar in Marketing	
MKT605	Pricing Models and Strategies	
MKT606	Non-Profit Marketing	
MKT607	Islamic Marketing	
MKT608	Small Business Marketing	

Majors in Management Information Systems

- MIS504Oracle/Developer 2000MIS509Software Project ManagementMIS523Decision SystemsMIS524Decision Support SystemsMIS525Enterprise SystemsMIS526Enterprise Resource Planning SystemsMIS527Information SecurityMIS528Advanced Information SecurityMIS530Information Systems Research
- MIS532 New Perspectives on Org. Information Systems
- MIS533 Big Data and Business Analytics

Foundation Stage Semester One Principles of Management Business Communication I Principles of Marketing Introduction to Financial Accounting	Semester Two Statistics and Mathematics Introduction to Psychology Persuasive and Analytical Writing for Business Communication Entrepreneurial Leadership and Motivation
Semester Three Sales Management Quantitative Skills & Managerial Statistics Introduction to Managerial & Cost Accounting Micro and Macroeconomics	Semester Four Intro to Business Finance Business Ethics Organizational Behavior Introduction to Enterprise Resource Planning Systems
Semester Five Methods in Business Research Consumer Behavior Financial Management Human Resource Management	Semester Six Production and Operations Management Marketing Management Seminar in Economic Policy Corporate and Business Law
MBA Stage Semester Seven Management Strategies and Emerging Organizations Marketing Strategies and Value Innovation Elective I Elective II	Semester Eight Strategic Financial Analysis and Design Technology, Innovation and Strategy Elective III Capstone I
Semester Nine Seminar in Business Policy Transformational and Ethical Leadership Elective IV Capstone II	

MBA EVENING PROGRAM FOR STUDENTS WITH 16 YEARS EDUCATION

MBA Evening program is designed to produce transformational and ethical leadership for businesses and industry through integrated curriculum and experiential learning and prepares for business challenges emerging from globalization, technology driven innovation, and interconnectivity.

This MBA Evening program is designed for students having a minimum of 16 years of education with degrees in a wide range of disciplines such as business, commerce, engineering, law, science, medicine, arts and pharmacy. The 72 credit hours MBA program is divided into a foundation stage of 36 credit hours followed by the 36 credit hours of rigorous MBA level courses/project dealing with strategy and business transformation. The foundation stage consists of preparatory course work necessary for the higher level MBA courses. Students must pass a comprehensive examination and maintain a 3.0 CGPA for MBA level courses and project for the conferment of the degree. Students who are weak in English and Communication Skills are required to take an additional "Business English" course to enhance their knowledge of the language.

The capstone project which is divided into two 3-credit hour components provides the student with an opportunity to engage with real world complexities, enhance individual competencies and develop lasting skills most particularly in thinking, research, communication, information management and decision making. Students undertake an individual project that addresses a specific and real management challenge or business issue. In doing so, they have the opportunity to develop and demonstrate their capacity for high value thinking and effective decision making. The project is supervised by an assigned faculty member and an industry mentor and is evaluated in an open exhibition by executives and faculty. The classes of this program will be held at IoBM City Center from 6:00 PM to 9:00 PM for each course.

MBA students can specialize in the following areas by taking four electives:

- Marketing
- Finance
- Human Resource Management
- Logistics and Supply Chain Management
- Management Information Systems

Required Courses

Accounting

ACC402 Introduction to Financial Accounting

Economics

ECO401 Micro and Macroeconomics

Finance

FIN404 Financial Management FIN601* Strategic Financial Analysis and Design Communications COM401*Business English COM402 Business Communication *For less proficient students

Human Resource Management HRM401 Human Resource Management HRM601*Transformational and Ethical Leadership





Law

LAW409 Corporate and Business Law

Marketing

MKT402 Marketing Management MKT404 Methods in Business Research MKT509 Consumer Behavior MKT601* Marketing Strategies and Value Innovation

Statistics

STA403 Statistics and Mathematics

*Indicates MBA level courses

Management MAN401 Princi

MAN401 Principles of Management MAN406 Production and Operations Management MAN603*Technology, Innovation and Strategy MAN604*Management Strategies and Emerging Organizations MAN605*Seminar in Business Policy

Capstone Project

BPR601* Capstone Project I BPR602* Capstone Project II

Specialized Courses

MBA students have a choice of four electives from the following disciplines:

Majors in Accounting

ACC501 Advanced Financial Accounting ACC502 Advanced Managerial Accounting ACC505 Auditing ACC506 Analysis of Financial Statements

Majors in Marketing

MKT405 Marketing Research MKT504 Advertising MKT505 Industrial Marketing MKT506 International Marketing MKT511 Brand Management MKT517 Media Marketing MKT519 Marketing of Financial Services MKT521 Distribution and Channel Management MKT527 Integrated Marketing Communications MKT530 New Product Development MKT534 Social Marketing MKT602 Marketing Analytics MKT603 International Branding MKT604 Seminar in Marketing MKT605 Pricing Models and Strategies MKT606 Non-Profit Marketing MKT607 Islamic Marketing MKT608 Small Business Marketing

Majors in Finance and Banking

FIN513 Project Appraisal FIN602 Behavioral Finance FIN603 Entrepreneurial Finance FIN604 Debt and Equity Markets FIN531 Financial Derivatives and Risk Management FIN606 SME and Micro-Financing FRM514 Takaful and Risk Management in Islamic Products

Majors in Human Resource Management

HRM501 Recruitment and Selection HRM502 Industrial Relations and Labour Laws HRM503 Employee Training and Development HRM504 Negotiation Skills and CB HRM505 Organizational Change and Development HRM506 Strategic Human Resource Management HRM507 Public Relations and Event Management HRM508 Salary and Compensation HRM509 Leadership Studies HRM511 Performance Appraisal and Management

Majors in Management

MAN411 Project Management MAN413 Corporate Social Responsibility MAN416 Corporate Governance MAN508 Comparative Management EEM401 Environmental Issues and Management

Majors in Logistics and Supply Chain Management

- SCM302 Quantitative Methods in Production and Logistics
 SCM305 Business Process Management in Supply Chain and Logistics
 SCM306 IT Applications in Logistics
 SCM309 Packaging Design and Environmental Aspects
 SCM501 Supply Chain Management
 SCM502 ERP Systems Design and Implementation
 SCM503 Strategic Supply Chain Management
 SCM504 Procurement and Inventory Management
 SCM505 Storage and Warehouse Techniques
 SCM506 Transportation Techniques and Management
 SCM514 Sustainability and Environmental Aspects in Managing Supply Chains
 SCM515 Risk Management in Supply Networks
 SCM516 Innovation Management in Supply Chain and Logistics
- SCM517 Corporate Consultancy Project in Logistics

Majors in Management Information Systems

- MIS509 Software Project Management
- MIS523 Decision Systems
- MIS524 Decision Support Systems
- MIS525 Enterprise Systems
- MIS526 Enterprise Resource Planning Systems
- MIS527 Information Security
- MIS528 Advanced Information Security
- MIS530 Information Systems Research
- MIS532 New Perspectives on Organization Information Systems
- MIS533 Big Data and Business Analytics



Foundation Stage Semester One Principles of Management Consumer Behavior Introduction to Financial Accounting Statistics and Mathematics	Semester Two Micro and Macroeconomics Business Communication Methods in Business Research Financial Management
Semester Three Human Resource Management Production and Operations Management Marketing Management Corporate and Business Law	MBA Stage Semester Four Management Strategies and Emerging Organizations Marketing Strategies and Value Innovation Elective I Elective II
Semester Five Technology, Innovation and Strategy Strategic Financial Analysis and Design Elective III Capstone I	Semester Six Seminar in Business Policy Transformational and Ethical Leadership Elective IV Capstone II

MBA EVENING PROGRAM FOR STUDENTS WITH 14 YEARS EDUCATION





MBA Evening program is designed to produce transformational and ethical leadership for businesses and industry through integrated curriculum and experiential learning and prepares for business challenges emerging from globalization, technology driven innovation, and interconnectivity.

This MBA Evening program is designed for students having 14 years of education with degrees in a wide range of disciplines such as business, commerce, law, science, and arts. The 108 credit hours MBA program is divided into a foundation stage of 72 credit hours followed by the 36-credit hours of rigorous MBA level courses and a capstone project dealing with strategy and business transformation. The foundation stage consists of preparatory course work necessary for the higher level MBA courses. Students must pass a comprehensive examination. Students completing 72 credit hours of the foundation stage are also eligible for the grant of Bachelor of Business Studies (BBS) degree as per HEC recommendations. Students must maintain a 3.0 CGPA for MBA level courses and project for the conferment of the degree. The program may be completed in a minimum of 9 semesters depending upon the relevant preparation. Students who are weak in English and Communication Skills are required to take an additional "Business English" course to enhance their knowledge of the language.

The capstone project which is divided into two 3-credit hour components provides the student with an opportunity to engage with real world complexities, enhance individual competencies and develop lasting skills most particularly in thinking, research, communication, information management and decision making. Students undertake an individual project that addresses a specific and real management challenge or business issue. In doing so, they have the opportunity to develop and demonstrate their capacity for high value thinking and effective decision making. The project is supervised by an assigned faculty member and an industry mentor and is evaluated in an open exhibition by executives and faculty. The classes of this program will be held at IOBM City Center from 6:00 PM to 9:00 PM for each course.

MBA students can specialize in the following areas by taking four electives:

- Marketing
- Finance
- Human Resource Management
- Logistics and Supply Chain Management
- Management Information Systems

Required Courses

Accounting

ACC401 Introduction to Managerial and Cost Accounting ACC402 Introduction to Financial Accounting

Communications

COM401*Business English COM205 Persuasive and Analytical Writing for Business Communication COM402 Business Communication *For less proficient students

Economics

ECO401 Micro and Macroeconomics ECO405 Seminar in Economic Policy

Human Resource Management

HRM401 Human Resource Management HRM601*Transformational and Ethical Leadership

Management

MAN401 Principles of Management MAN402 Organizational Behavior MAN406 Production and Operations Management MAN415 Entrepreneurial Leadership and Motivation MAN603*Technology, Innovation and Strategy MAN604*Management Strategies and Emerging Organizations MAN605*Seminar in Business Policy

Management Information Systems

MIS526 Enterprise Resource Planning Systems

Social Sciences

SSC101 Introduction to Psychology SSC401 Business Ethics

*Indicates MBA level courses

Specialized Courses

MBA students have a choice of four electives from the following disciplines:

Majors in Accounting

ACC501	Advanced Financial Accounting
ACC502	Advanced Managerial Accounting
ACC505	Auditing
ACC506	Analysis of Financial Statements

Majors in Human Resource Management

HRM501Recruitment and SelectionHRM502Industrial Relations and Labour LawsHRM503Employee Training and DevelopmentHRM504Negotiation Skills and CBHRM505Organizational Change and DevelopmentHRM506Strategic Human Resource ManagementHRM507Public Relations and Event ManagementHRM508Salary and CompensationHRM509Leadership StudiesHRM511Performance Appraisal and Management

Majors in Management

MAN411	Project Management
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- MAN413 Corporate Social Responsibility
- MAN416 Corporate Governance
- MAN508 Comparative Management
- EEM401 Environmental Issues and Management

Finance

FIN201Introduction to Business FinanceFIN404Financial ManagementFIN601*Strategic Financial Analysis and Design

Law

LAW409 Corporate and Business Law

Marketing

MKT401 Principles of Marketing
MKT402 Marketing Management
MKT403 Sales Management
MKT404 Methods in Business Research
MKT509 Consumer Behavior
MKT601* Marketing Strategies and Value Innovation

Statistics

STA202 Quantitative Skills and Managerial Statistics STA403 Statistics and Mathematics

Capstone Project

BPR601* Capstone Project I BPR602* Capstone Project II

Majors in Finance and Banking

Majors ir	n Finance and Banking
FIN513	Project Appraisal
FIN602	Behavioral Finance
FIN603	Entrepreneurial Finance
FIN604	Debt and Equity Markets
FIN531	Financial Derivatives and Risk Management
FIN606	SME and Micro-Financing
FRM514	Takaful and Risk Management in Islamic Products
Majors ir	a Logistics and Supply Chain Management
SCM302	Quantitative Methods in Production and Logistics
SCM305	Business Process Mgmt. in Supply Chain & Logistics
SCM306	IT Applications in Logistics
SCM309	Packaging Design and Environmental Aspects
SCM501	Supply Chain Management
SCM502	ERP Systems Design and Implementation
SCM503	Strategic Supply Chain Management
SCM504	Procurement and Inventory Management
SCM505	Storage and Warehouse Techniques
SCM506	Transportation Techniques and Management
SCM514	Sustainability & Env. Aspects in Managing Supply Chains
SCM515	Risk Management in Supply Networks

- SCIVISTS KISK Wallagement in Supply Networks
- SCM516 Innovation Management in Supply Chain and Logistics SCM517 Corporate Consultancy Project in Logistics

Majors in Marketing

MKT405 Marketing Research MKT504 Advertising MKT505 Industrial Marketing MKT506 International Marketing MKT511 Brand Management MKT517 Media Marketing MKT519 Marketing of Financial Services MKT521 Distribution and Channel Management MKT527 Integrated Marketing Communications MKT530 New Product Development MKT534 Social Marketing MKT602 Marketing Analytics MKT603 International Branding MKT604 Seminar in Marketing MKT605 Pricing Models and Strategies MKT606 Non-Profit Marketing MKT607 Islamic Marketing MKT608 Small Business Marketing

Majors in Management Information Systems

- MIS504 Oracle/Developer 2000
- MIS509 Software Project Management
- MIS523 Decision Systems
- MIS524 Decision Support Systems
- MIS525 Enterprise Systems
- MIS526 Enterprise Resource Planning Systems
- MIS527 Information Security
- MIS528 Advanced Information Security
- MIS530 Information Systems Research
- MIS532 New Perspectives on Org. Information Systems
- MIS533 Big Data and Business Analytics

Foundation Stage Semester One Principles of Management Business Communication I Principles of Marketing Introduction to Financial Accounting	Semester Two Statistics and Mathematics Introduction to Psychology Persuasive and Analytical Writing for Business Communication Entrepreneurial Leadership and Motivation
Semester Three Sales Management Quantitative Skills & Managerial Statistics Introduction to Managerial & Cost Accounting Micro and Macroeconomics	Semester Four Intro to Business Finance Business Ethics Organizational Behavior Introduction to Enterprise Resource Planning Systems
Semester Five Methods in Business Research Consumer Behavior Financial Management Human Resource Management	Semester Six Production and Operations Management Marketing Management Seminar in Economic Policy Corporate and Business Law
MBA Stage Semester Seven Management Strategies and Emerging Organizations Marketing Strategies and Value Innovation Elective I Elective II	Semester Eight Strategic Financial Analysis and Design Technology, Innovation and Strategy Elective III Capstone I
Semester Nine Seminar in Business Policy Transformational and Ethical Leadership Elective IV Capstone II	

MBA HEALTH AND HOSPITAL MANAGEMENT

Mission Statement

"The mission of the MBA Health and Hospital Management program is to promote an environment of continual learning and development of health and managerial expertise of its students and faculty keeping in consideration the needs, demands and behavior of target population and stake holders in the healthcare industry. We are highly committed to build a competent brand of health managers who excel in creative and critical thinking, decision making, team building and technical mixed with strong communication and enterprising skills to generate research driven results. Our program institutes best teaching methodologies delivered by dedicated faculty who cater to the capacity building of future healthcare leaders, sensitive to the needs of the society to disseminate applied knowledge, promote the understanding and ethical practice of health care business in turn serving the community and the Nation".

The program is geared to professionals who aspire to be health care managers. This is a specialized program that integrates technical knowledge with managerial skills specializing in marketing, finance, accounting, interpersonal communication, human resource management, and various disciplines of the health management field which are relevant to those working within the private and government health care sectors. The program has a multidisciplinary approach in preparing graduates for the provision of necessary expertise to manage health services most effectively and develop technically competent and socially sensitive managers for leadership roles in global health systems hospitals, NGO sector, pharmaceutical industries and population programs.





The MBA Health and Hospital Management Program at IoBM is ideal for those entrepreneurial

healthcare professionals who wish to create true change in healthcare sector of Pakistan. Besides business dynamics and leadership, I also learned teambuilding, strategy, creative thinking and contingency planning for the future needs of healthcare industry.

Dr. Tayaba Naim MBA (Health & Hospital Management)

MBA-Health and Hospital Management Program is designed to provide students with ten business core courses and an opportunity to select three business electives. The business core courses provide students with a sound management base, while the business base is complemented by six core health management courses and four health elective courses (amongst a choice of twenty six listed health electives). Another core requirement of the program is to complete a supervised Capstone Project of six credit hours, which provides students with an opportunity to apply curricular concepts and hand-on skills to provide solutions to the problems that occur in any healthcare organizational setting. The semester structure integrates health core and elective courses providing a concentrated approach that gives students an opportunity to relate and draw parallels between health and business courses.

The Program

The two-year MBA Health and Hospital Management program is offered on weekends. Students are required to complete 25 courses (23 courses of 3 credit hours and one Capstone project of 6 credit hours) in order to fulfill the degree requirements. Students must maintain a 3.0 CGPA for the conferment of the degree.

The courses are divided into four modules:

- 1. Health Services Management
- 3. Pharmaceutical Administration
- 2. Hospital Administration
- 4. Population Management

Core Business Courses

Accounting

ACC401 Introduction to Managerial and Cost Accounting ACC402 Introduction to Financial Accounting

Economics ECO401 Micro and Macroeconomics

Human Resource Management HRM401 Human Resource Management

Management Information Systems MIS401 Computer Applications

Elective Business Courses*

*Refer to Page No. 84.

Core Health Courses

MHM401 Introduction to Health Policy, Planning & Management MHM403 Health Management Information Systems MHM405 Pharmaceutical Management MHM517 Capstone Project (6 credit hours)

Elective Health Courses

Course Structure

MHM501 Pharmaceutical Branding MHM503 Financial Management of Health Services MHM505 Concepts of Primary Health Care MHM507 Introduction to Epidemiology MHM509 Marketing of Health Services MHM511 Population and Health MHM513 Managing Physicians MHM516 Health Program Evaluation MHM519 Financial Applications in Pharmaceutical Marketing MHM521 Pharmaceutical Sales Management MHM523 Health Ethics MHM525 Management issues in Health Psychology MHM527 Supply Chain & Production Mgmt. in Pharma. Industries

MHM502 Health Economics MHM504 Strategic Mgmt. of Health Services MHM506 Managing Professional Health Care Organizations MHM508 Pharmaceutical Marketing and Quality Assurance MHM510 Introduction to Demography Methods MHM512 Economics & Management of Pharma. Industry MHM514 Environmental Health Assessment & Management MHM518 Regulatory Affairs at Healthcare Industries MHM520 Product Management MHM522 Project Management of Health Services MHM524 Healthcare Human Resource Management MHM526 Healthcare Leadership

MHM528 Quality Management in Health Care

Semester One	Semester Two	Semester Three
Intro. to Health Policy, Planning & Mgmt.	Micro and Macroeconomics	Introduction to Financial Accounting
Business Communication	Quantitative Analysis	Health Mgmt. Information Systems
Principles of Management	Principles of Marketing	Hospital Administration
Computer Applications	Research and Survey Methodology	Pharmaceutical Management
Semester Four	Semester Five	Semester Six
Intro. to Managerial & Cost Accounting	Financial Management	Business Electives II
Human Resource Management	Business Elective I	Business Elective III
Organizational Behavior	Health Elective I	Health Elective III
Capstone Project (Part one)	Health Elective II	Health Elective IV
	Capstone Project (Part two)	

COM402 Business Communication

Finance FIN404 Financial Management

Management MAN401 Principles of Management MAN402 Organizational Behavior

Marketing MKT401 Principles of Marketing

MHM402 Quantitative Analysis

MHM515 Hospital Administration

MHM404 Research and Survey Methodology

MBA ADVERTISING AND MEDIA MANAGEMENT

What makes the two programs common is that students of both Advertising Management and Media Management take 16 courses out of 24 courses together. The difference between the two programs is that of choosing one out of the two sets of electives. Those who take additional eight courses pertaining to electives of Media Management may be eligible for MBA Media Management and those who take eight elective courses related to the Advertising group may become eligible for MBA Advertising Management.

Accounting ACC402 Introduction to Financial Accounting

Communication COM402 Business Communication

Economics ECO401 Micro and Macroeconomics

Finance FIN404 Financial Management

Human Resource Management

HRM401 Human Resource Management

Management

MAN401 Principles of Management MAN402 Organizational Behavior

Management Information Systems MIS401 Computer Applications

Marketing

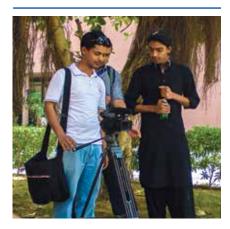
MKT401 Principles of MarketingMKT404 Methods in Business ResearchMKT509 Consumer BehaviorMKT532 Principles of Advertising

Media

MMM435 Print Media MMM436 Electronic Media MMM438 Introduction to Media in Pakistan

Statistics

STA403 Statistics and Mathematics









Elective Courses

Advertising

ADV403 International Advertising and PromotionsADV504 Advertising Management and StrategyADV505 Creative Planning and Development

Law

LAW405 Media Law and Business Ethics

Management Information Systems MIS511 E-Commerce and Graphic Designing

Marketing

MKT511 Brand Management MKT526 Public Relations and Event Management MKT527 Integrated Marketing Communication

Media Management

Course Structure

MMM427 Citizen Journalism MMM429 Digital Media MMM434 Media Planning MMM439 Media Research and Public Opinion MMM428 Script Writing MMM430 Time, Priorities and Conflict Management MMM437 Role of Media in World Affairs MMM511 Multimedia and Film Production

Semester One Business Communication Principles of Management Computer Applications Introduction to Media in Pakistan	Semester Two Organizational Behavior Principles of Marketing Principles of Advertising Statistics and Mathematics	Semester Three Introduction to Financial Accounting Micro and Macroeconomics Methods in Business Research Electronic Media
Semester Four Financial Management Human Resource Management Consumer Behavior Print Media	Elective Courses for MBA Advertising Management	
	Semester Five International Advertising & Promotions Advertising Management and Strategy Public Relations and Event Management Digital Media	Semester Six Creative Planning and Development Brand Management Media Planning Integrated Marketing Communication
	Elective Courses for MBA Media Management	
	Semester Five Multimedia and Film Production Media Research and Public Opinion Citizen Journalism Script Writing	Semester Six Media Law and Business Ethics E-Commerce and Graphic Designing Role of Media in World Affairs Time, Priorities and Conflict Mgmt.

Students who wish to do bi-majors in Marketing after completing MBA in Advertising and Media Management can opt for any Marketing Electives other than 'Strategic Marketing and Planning'.

(Marketing Management is a Pre-requisite for SMP)

MBA FINANCE AND RISK MANAGEMENT

Financial Managers are expected to have knowledge of principles and practices of Financial Risk Management. Therefore, MBA in Finance and Risk Management program is designed to cover all dimensions of Risk Management and Finance including recent development in Corporate Risk Management, Sustainable Risk and Risk Financing techniques. Students will learn how to choose alternative techniques to reduce exposure and risks and implement a risk-assessment tool to evaluate future risks. They will also learn implementation and monitoring of selected techniques. The Master's Program requires completion of 72 credit hours of course work comprising 24 courses. Students require maintaining 3.0 CGPA on a scale of 4 for the conferment of degree.

Required Courses

Accounting

ACC401 Introduction to Managerial and Cost Accounting ACC402 Introduction to Financial Accounting

Communication COM402 Business Communication

Economics

ECO401 Micro and Macroeconomics ECO408 Applied Financial Economics

Finance

FIN404	Financial Management
FIN501	Advanced Financial Management
FIN511	Analysis of Financial Statements

Finance and Risk Management

FRM401 Principles of Risk Management
FRM402 Computational Methods in Risk
FRM403 Introduction to Financial Risk Management
FRM404 Risk Financing Techniques
FRM405 Advanced Financial Risk Management

Human Resource Management

HRM401 Human Resource Management

Law

LAW403 Business and Insurance Law

Management

MAN401 Principles of Management MAN405 Strategic Management





Marketing MKT401 Principles of Marketing

Mathematics MTH409 Financial Mathematics I MTH410 Financial Mathematics II

Social Sciences SSC405 Business Ethics and Financial Responsibility

Statistics STA402 Model and Inferences

Elective Courses

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



Semester One	Semester Two
Introduction to Financial Accounting	Micro and Macroeconomics
Business Communication	Financial Management
Principles of Management	Principles of Marketing
Model and Inferences	Financial Mathematics I
Semester Three	Semester Four
Intro. to Managerial & Cost Accounting	Advanced Financial Management
Principles of Risk Management	Intro. to Financial Risk Management
Computational Methods in Risk	Business and Insurance Law
Financial Mathematics II	Human Resource Management
Semester Five	Semester Six
Applied Financial Economics	Risk Financing Techniques
Analysis of Financial Statements	Advanced Financial Risk Management
Business Ethics & Fin. Responsibility	Strategic Management
Elective I	Elective II



MBA ENVIRONMENT AND ENERGY MANAGEMENT

IoBM offers the first of its kind MBA Environment and Energy Management that aims to prepare future decision-makers in companies, government and nongovernmental organizations for analyzing and acting in an environmentally proactive way when making decisions about policy, production and resource utilization.

This is a weekend program which requires completion of 72 credit hours of course work, including 24 courses of 3 credit hours each spread over six consecutive semesters (two-years). Students must maintain a CGPA of 3.0 for the conferment of the degree. The course structure is subject to change in compliance with HEC requirements. The course is particularly designed for managers, administrator engaged in the Environment and Energy sector.

Entry Requirements

Applicants are required to have a four year Bachelor's degree in Agriculture, Architecture, Biology, Business Administration, Chemistry, Engineering, Commerce, Medical, Forestry, Geology, Geography, Microbiology, Public health, Liberal Arts and Environment Science.



Accounting ACC402 Introduction to Financial Accounting

Communication COM402 Business Communication

Statistics STA404 Statistical Inference

Human Resource Management HRM401 Human Resource Management

Management

MAN401 Principles of Management MAN402 Organizational Behavior MAN405 Strategic Management

Marketing MKT401 Principles of Marketing

Finance

FIN404 Financial Management









Environmental and Energy Management

EEM401Environmental Issues and ManagementEEM402Air and Noise Pollution ManagementEEM403Energy Sources and ManagementEEM404Industrial and Municipal Waste ManagementEEM405Renewable EnergyEEM406Coastal Environment and ManagementEEM407Green Technology and Energy AnalysisEEM408Safety, Health and Environmental ManagementEEM409Risk and Disaster ManagementEEM410Environmental Impact AssessmentEEM411Environmental Rules, Laws and RegulationsEEM412Research and Survey MethodologyEEM520Project

Elective Courses

Environmental and Energy Management

EEM501 Climatic Changes and its Impact
EEM502 Natural Resources Management
EEM503 Hospital Waste Management
EEM504 Solid and Hazardous Waste Management
EEM505 Energy Audit
EEM506 Energy Conservation
EEM507 Energy Planning
EEM508 Environmental Ethics
EEM509 Public Awareness for Environment and Energy Sector
EEM510 Economics of Energy Management

Management

MAN411 Project Management MAN501 Total Quality Management



Semester One	Semester Two
Environmental Issues and Management	Energy Sources and Management
Principles of Management	Industrial & Municipal Waste Mgmt.
Business Communication	Introduction to Financial Accounting
Air and Noise Pollution Management	Statistical Inference
Semester Three	Semester Four
Renewable Energy	Green Technology and Energy Analysis
Coastal Environment and Management	Safety Health and Environmental Mgmt.
Principles of Marketing	Financial Management
Organizational Behavior	Human Resource Management
Semester Five	Semester Six
Risk and Disaster Management	Env., Rules, Laws and Regulations
Environmental Impact Assessment	Research and Survey Methodology
Strategic Management	Elective II
Elective 1	Project



MBA LOGISTICS AND SUPPLY CHAIN MANAGEMENT

Master of Business Administration in Logistics and Supply Chain Management degree program is solution oriented designed, and addresses strategic economic and process oriented technical problems in industry, administration and commerce. Major subject of the studies are national and international global oriented enterprises in collaboration with national and international partners. The program exercises the latest business oriented thinking and provides international expert knowledge on logistical engineering and technologies as well as application knowledge in process automation, material management and leading software solutions in ERP (enterprise resource planning), process simulation and e-Commerce. In common projects with the local and international industry as well as logistical service provider the theoretical knowledge is applied in realistic problem solving projects.

The MBA program is aimed to develop professionals in management functions like Logistics, supply chain management, enterprise resource planning production planning, controlling, and procurement or material management etc in industrial, manufacturing and service enterprises.

Required Courses

Accounting

ACC401 Introduction to Managerial and Cost Accounting ACC402 Introduction to Financial Accounting

Human Resource Management

HRM502 Industrial Relations and Labor Laws

Economics ECO401 Micro and Macroeconomics

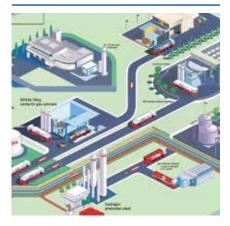
Environment And Energy Management EEM709 Trade and Environment

Management

MAN405 Strategic Management MAN406 Production and Operations Management MAN408 Analysis of Pakistani Industry MAN502 Business Process Re-engineering MAN510 International Management

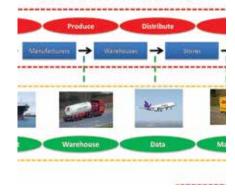
Management Information Systems MIS405 Computer Applications - E-Business

Law LAW401 Business Law





Example of Supply Chain Management vs Logistics Management





Supply Chain and Logistics Management

- SCM501 Supply Chain Management
- SCM503 Strategic Supply Chain Management
- SCM507 Quantitative Methods for Logistics
- SCM508 Design of Business Processes Workflow Management
- SCM510 Logistical Projects in ERP- Case Study Development
- SCM511 Risk Management in Supply Networks
- SCM512 Innovation Management in Supply Chains and Logistics
- SCM513 Corporate Consultancy Projects in Logistics

Elective Courses

Communication

COM402 Business Communication

Statistics

STA404Statistical InferenceSTA407Design of Experiments

Management

MAN403 Entrepreneurship and Small Business Management MAN501 Total Quality Management

Course Structure

Engineering

ENG407 Manufacturing Process and Systems ENG501 Technology Management

Finance

FIN510Investment AnalysisFIN513Project Appraisal

Marketing

MKT401 Principles of MarketingMKT505 Industrial MarketingMKT507 Services MarketingMKT530 New Product Development

Semester One	Semester Two
Production and Operation Management	Strategic Management
Introduction to Financial Accounting	Introduction to Managerial & Cost Accounting
Supply Chain Management	Design of Business Processes - Workflow Management
Innovation Management in Supply Chain Logistics	Quantitative Methods for Logistics
Semester Three	Semester Four
Micro and Macroeconomics	Total Quality Management
Logistical Projects in ERP- Case Study Development	Industrial Relations & Labor Law
Strategic Supply Chain Management	Trade and Environment
Business Law	Elective I
Semester Five	Semester Six
Risk Management in Supply Networks	Corporate Consultancy Projects in Logistics
Analysis of Pakistani Industry	International Management
Elective II	Computer Applications – E-Business
Business Process Re-engineering	Elective III

MBA INDUSTRIAL MANAGEMENT AFTER BS INDUSTRIAL ENGINEERING AND MANAGEMENT

IoBM students who have completed BS (Industrial Engineering and Management) four-year program have the option to complete MBA in Industrial Management in oneyear. The students are exempted from core and basic courses and they are required to complete 12 courses, including two elective courses. The course is particularly designed to provide the business expertise essential for senior managers by combining specific management and engineering subjects.

Core Courses

Accounting

ACC401 Introduction to Managerial and Cost Accounting

Engineering ENG408 Facilities Planning

Finance FIN404 Financial Management

Management

MAN405 Strategic Management MAN410 Introduction to Industrial Management MAN411 Project Management

Statistics

STA404 Statistical Inference

Elective Courses

Engineering

ENG405 Environmental Impact Assessment & ManagementENG410 Maintenance ManagementENG412 Manufacturing Process and SystemsENG501 Technology Management

Management

MAN408 Analysis of Pakistani Industries MAN502 Business Process Re-engineering MAN509 Logistics and Inventory Control

Course Structure

gement Finance FIN503 Corporate Finance FIN510 Investment Analysis FIN513 Project Appraisal

Management Information Systems

MIS501 Information Systems Management

Marketing MKT505 Industrial Marketing

Semester One	Semester Two	Semester Three	
Intro. to Managerial & Cost Accounting	Facilities Planning	Strategic Management	
Introduction to Industrial Management	Financial Management	New Product Development	
ERP Systems Design & Implementation	Industrial Relations and Labor Laws	Elective I	
Statistical Inference	Project Management	Elective II	



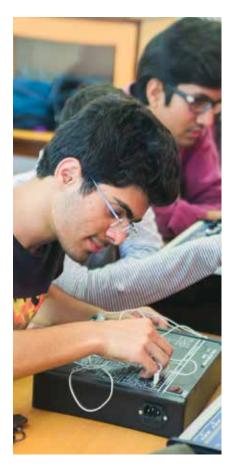
Human Resource Management HRM502 Industrial Relations and Labor Laws

Marketing MKT530 New Product Development

Logistics and Supply Chain Management SCM502 ERP Systems Design and Implementation

MBA INDUSTRIAL MANAGEMENT





Master of Business Administration in Industrial Management degree program is designed to address and solve real life problems relating to industrial set-ups. Collaboration with relevant industries and financial institutes is its modus operandi. This course is one of the very few aimed at mid-career professionals who wish to make the move to senior management within industrial and manufacturing organizations. It is designed to provide the business expertise essential for all senior managers by integrating specific engineering subjects with the management of technology and manufacturing systems. The program also examines the latest business thinking and provides expert knowledge on engineering and technology issues and theories. Topics such as finance, marketing, management strategy are integrated with modern industrial issues such as project and quality management, manufacturing effectiveness, advanced manufacturing technology and supply chain management. This combination of subjects has been specifically designed to reflect the challenges faced by traditional manufacturing organizations.

Required Courses

Accounting

ACC401 Introduction to Managerial and Cost Accounting ACC402 Introduction to Financial Accounting

Communication

COM402 Business Communication

Economics

ECO401 Micro and Macroeconomics

Engineering

ENG405 Environmental Impact Assessment and Management ENG408 Facilities Planning

Finance

FIN404 Financial Management FIN503 Corporate Finance

Human Resource Management

HRM401 Human Resource Management HRM502 Industrial Relations and Labor Laws

Management

MAN401 Principles of Management
MAN405 Strategic Management
MAN406 Production and Operations Management
MAN410 Introduction to Industrial Management
MAN411 Project Management
MAN501 Total Quality Management
MAN502 Business Process Re-engineering
MAN503 Supply Chain Management

Management Information System

MIS401 Computer Applications

Marketing

MKT401 Principles of Marketing

Statistics

STA404 Statistical Inference STA407 Design of Experiments

Elective Courses

Engineering

ENG410Maintenance ManagementENG412Manufacturing Process and SystemsENG501Technology Management

Environmental and Energy Management

EEM404 Industrial and Municipal Waste ManagementEEM408 Safety, Health and Environment ManagementEEM409 Risk and Disaster Management

Finance

FIN510 Investment Analysis FIN513 Project Appraisal

Management

MAN403 Entrepreneurship and Small Business Management MAN509 Logistic and Inventory Control

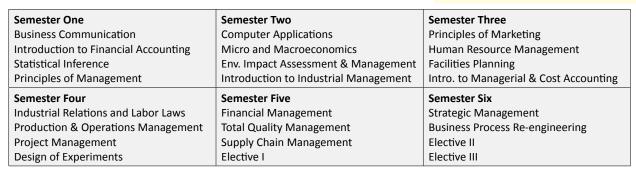
Marketing

MKT505 Industrial Marketing MKT507 Services Marketing MKT530 New Product Development

Supply Chain and Logistics Management

SCM502ERP System Design and ImplementationSCM503Strategic Supply Chain ManagementSCM504Procurement and Inventory Management

Course Structure







From the orientation ceremony to the convocation, life at IoBM was a thrilling ride, packed with a myriad of experiences. Although full-

load MBA studies with a full-time job seemed daunting at first, I eventually got used to the busy schedule- even began enjoying it! Learning time management, attending interactive classes, dealing with people from diverse academic backgrounds, making new friends, meeting assignment deadlines, preparing for presentations, cramming for the hourlies with friends, holding Skype meetings with fellow group members to discuss term projects, chilling out in the cafeteria on the rare occasion of a class being cancelled, receiving a scholarship and then a gold medal- all are memorable parts of the two most challenging yet exhilarating years of my life! I sincerely thank IoBM for providing me with the opportunity and the confidence to excel.

Fareeha Zulqarnain

Gold Medalist (MBA TCM) Assistant Manager Pakistan Space & Upper Atmosphere Research Commission

MS IN BUSINESS MANAGEMENT





MS program in Business Management is a research route for PhD in Business Management and is designed for students with 4-year BBA qualification or those meeting the HEC criteria for MS/MPhil in management science i.e. 16 years of education with a degree in a business relevant field with1st division/CGPA 3.0.

Eligibility

Candidates with MBA degree satisfying the eligibility criteria on page 165.

Program Structure

MS in Business Management is a 36 credit hours program with 10 courses including 2 electives and one thesis of 6 credit hours. Each of the 10 courses is of 3 credit hours.

After successful completion of the course work, the students are required to carry out research study for the thesis under the guidance of a research supervisor assigned by IoBM. In lieu of thesis, students can also opt for two additional courses for the completion of the degree.

Course Structure

MPM601 Advanced Qualitative Research MPM603 Advanced Quantitative Research 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

Elective

Elective I Elective II (Electives may be selected from the specialization areas of Business Management of 700 Series)

Thesis (06 credit hours)

MPHIL IN BUSINESS MANAGEMENT

The MPhil program in Business Management is designed to meet the challenges of the business world and the growing demand for well-qualified and researchoriented scholars in Pakistan. This program has been carefully designed in response to the traditional and emerging trends and to meet the growing market demand for various specialist areas in business management.

Eligibility

Candidates with MBA degree fulfilling the eligibility criteria on page 165.

Program Structure

The MPhil is a 30 credit hours program with 8 courses and one thesis of 6 credit hours.

After successful completion of the course work, students are required to carry out research study for the thesis under the guidance of a research supervisor assigned by IoBM.

Course Structure

MPM601 Advanced Qualitative Research MPM603 Advanced Quantitative Research 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

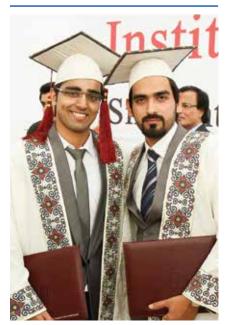
For Health Professionals, Electives may be selected from the specialization areas of Business Management of MPM700 Series in replacement of any four of the above mentioned courses.

Thesis (06 Credit hours)





PHD IN BUSINESS MANAGEMENT



Mission of CBM's PhD research program in business management is to pursue leading-edge research, engage in the development of innovative ideas and analytical skills, and encourage both faculty and students to be independent and creative thinkers. The outcome of this research program is the production of a real and measurable impact on society and industry through quality research published in impact factor journals and recognized by the industry.

Eligibility

MS/MPhil 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 / M.Phil or equivalent degree from HEC recognized institutions in a relevant discipline. Students with HEC recognized MBA have to do at least four pre-requisite courses
- GRE Subject or GAT test conducted by the NTS. 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 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)
- On completion of dissertation/thesis the student is awarded 12 credits

A PhD student must additionally complete the following requirements:

- Pass Comprehensive Exam
- PhD Proposal/Synopsis Development
- Pass 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
- Publish at least one paper in an ISI indexed or an HEC recognized journal. An official acceptance of the paper is also acceptable
- Evaluation of PhD Dissertation by two foreign faculty members from developed countries as per HEC criteria
- Dissertation/Thesis Finalization
- Open defense of PhD dissertation
- Meet any other HEC requirement
- Final Dissertation/Thesis Submission to BASR
- Degree Award

Course Structure

Pre-requisites:

MPM601 Advanced Qualitative Research MPM603 Advanced Quantitative Research MPM610 Independent Study MPM616 Econometrics

Semester One Directed Research Elective I Directed Research Elective II Exploratory Research Elective I

Semesters Three to Nine

PBM901 Research Thesis

Graduate Courses:

Directed Research Electives in Area of Specialization

The objective of the directed research electives is to enable the PhD students to link their chosen areas of specialization with the philosophy and methodology of business research and to benchmark their proposed research with quality publications.

PBM701 Philosophy of Business Management
PBM703 Multivariate Analysis
PBM705 Readings in Business Research
PBM707 Replication of Business Research Design and Results

Exploratory Research Electives in the Area of Specialization

PhD students may select the following and/or other PhD level courses from CESD and CSIS on the advice of their supervisors.

PBM801 Marketing Models
PBM803 Marketing Theory
PBM805 Advanced Topics in Marketing
PBM811 Advanced Topics in Strategic Management
PBM813 Advanced Topics in Organization Theory
PBM815 Advanced Topics in Human Behavior in Organization
PBM821 Advanced Topics in Operations Management Research
PBM823 Advanced Research Topics in Operations Management
PBM825 Advanced Research Topics in Management Information Systems
PBM831 Advanced Readings in Business Ethics

PBM842 Globalization Discourses of Ethics

Semester Two

Directed Research Elective III Directed Research Elective IV Exploratory Research Elective II

PHD IN ENVIRONMENT AND ENERGY MANAGEMENT

The doctoral program in Environment and Energy Management is a rigorous, interdisciplinary and multidisciplinary study. Students will be required to acquire substantial knowledge in primary environment and energy related disciplines with a focus on management and conservation, and sustainable development of resources; develop breadth in specialized fields related environmental and energy; become proficient in advanced research methods and develop expertise in a chosen dissertation topic. Students will be required to write a dissertation that evidences original research and high proficiency in the interpretation, analysis, and explanation of environment and energy related issues and phenomena. The overall objectives of the program are:

To improve understanding of environment and energy related Issues and to identify solutions to these problems To foster collaborative, interdisciplinary and multidisciplinary research amongst researchers from various disciplines

Eligibility

MS/MPhil 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 / M.Phil or 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 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)
- On completion of dissertation/thesis the student is awarded 12 credits

A PhD student must additionally complete the following requirements:

- Pass Comprehensive Exam
- PhD Proposal/Synopsis Development
- Pass 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
- Publish at least one paper in an ISI indexed or an HEC recognized journal. An official acceptance of the paper is also acceptable
- Evaluation of PhD Dissertation by two foreign faculty members from developed countries as per HEC criteria
- Dissertation/Thesis Finalization
- Open defense of PhD dissertation
- Meet any other HEC requirement
- Final Dissertation/Thesis Submission to BASR
- Degree Award

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)

EEM705 Advanced Environment Toxicology & Epidemiology

EEM706 Advanced Pollution Control Technologies and Mitigation Options

EEM707 Advances in Green Technology Mechanism

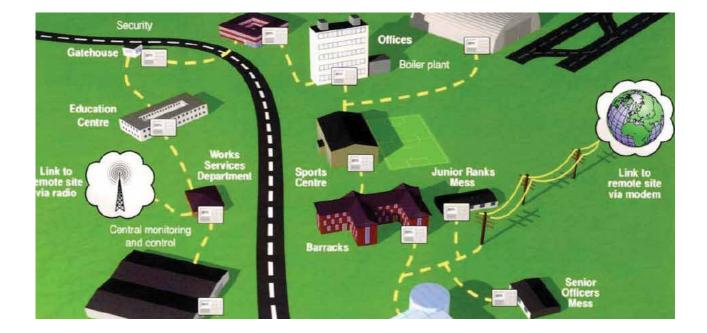
EEM708 Disaster Risk Management and Mitigation Strategies

EEM709 Trade and Environment

EEM710 Sustainability and Conservation of Major Ecosystems

Semester Four to Nine EEM850 Research Thesis





ELECTIVE BUSINESS COURSES MBA HEALTH AND HOSPITAL MANAGEMENT





Since I am in the communication business, I know that confidence is essential for business student to accomplish anything

professionally. IoBM provided me the opportunity to interact with different classes of people and learn. If someone sees me presenting in front of the Management of respectable companies they won't be able to tell how nervous I was the first time I was presenting in my Marketing Class. Kudos to IoBM for providing a foundation to students to nurture and grow, I wouldn't think twice before sending my daughter one day to this prestigious institution.

Anika Moiz

Head of Corporate Communications JS Investments Ltd.

Majors in Accounting

ACC501Advanced Financial AccountingACC502Advanced Managerial AccountingACC504Accounting Information SystemsACC505Auditing

Majors in Finance and Banking

FIN403 Islamic Banking and Finance FIN502 Strategic Financial Management FIN503 Corporate Finance FIN504 International Finance FIN505 Treasury and Fund Management FIN506 Investment Banking and Security Analysis FIN507 Portfolio Management FIN508 Risk Management **FIN509** Financial Derivatives FIN510 Investment Analysis FIN511 Analysis of Financial Statements FIN512 Money and Capital Markets FIN513 Project Appraisal FIN514 Asset Liability Management FIN515 Foreign Trade and Banking FRM514 Takaful and Risk Management in Islamic Products

Majors in Human Resource Management

HRM501Recruitment and SelectionHRM502Industrial Relations and Labour LawsHRM503Employee Training and DevelopmentHRM504Negotiation Skills and CBHRM505Organizational Change and DevelopmentHRM506Strategic Human Resource ManagementHRM507Public Relations and Event ManagementHRM508Salary and CompensationHRM509Leadership StudiesHRM510Personnel DevelopmentHRM511Performance Appraisal and Management

Majors in Management

MAN501 Total Quality Management
MAN502 Business Process Re-engineering
MAN507 Business Etiquette
MAN508 Comparative Management
MAN411 Project Management
EEM401 Environmental Issues and Management
EEM402 Air and Noise Pollution Management
EEM408 Safety, Health and Environmental Management
EEM409 Risk and Disaster Management
EEM503 Hospital Waste Management

Majors in Management Information Systems

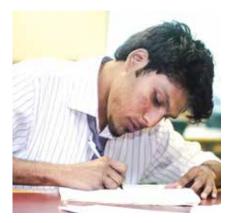
- MIS501 Information Systems Management MIS503 System Analysis and Design MIS504 Oracle/Developer 2000 MIS505 Software Engineering MIS506 Data Communication & Networking MIS507 Relational Database Mgmt. Systems MIS508 Programming in C++ MIS509 Software Project Management MIS521 Record Management MIS522 Business Information Systems MIS523 Decision Systems MIS524 Decision Support Systems MIS525 Enterprise Systems MIS526 Enterprise Resource Planning Systems
- MIS527 Information Security
- MIS528 Advanced Information Security
- MIS530 Information Systems Research
- MIS532 New Perspectives on Organizations and Information Systems

Majors in Supply Chain and Logistics Management

- SCM501 Supply Chain Management
- SCM502 ERP System Design and Implementation
- SCM503 Strategic Supply Chain Management
- SCM504 Procurement and Inventory Management
- SCM505 Storage and Warehouse Techniques
- SCM506 Transportation Techniques and Management

Majors in Marketing

- MKT402 Marketing Management
- MKT403 Sales Management
- MKT501 Strategic Marketing and Planning
- MKT502 Graphic Design
- MKT503 Packaging and Printing
- MKT504 Advertising
- MKT505 Industrial Marketing
- MKT506 International Marketing
- MKT507 Services Marketing
- MKT508 Personal Selling
- MKT509 Consumer Behavior
- MKT510 Direct and Digital Marketing
- MKT511 Brand Management
- MKT512 Export Marketing
- MKT514 Public Relations and Event Management
- MKT519 Marketing of Financial Services
- MKT520 Merchandising and Sales Promotion
- MKT521 Distribution and Channel Management
- MKT531 Retail Management
- MKT534 Social Marketing
- MKT603 International Branding









COLLEGE OF COMPUTER SCIENCE AND INFORMATION SYSTEMS



BS COMPUTER SCIENCE



The program emphasizes the need for an overall development that includes exposure to an integrated series of courses in technology, methodology, social sciences, liberal arts and management. Project-based software development along with research assignments have also been emphasized. These courses seek to impart a broad and deep knowledge of 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 135 credit hours of course work. Students are required to take 45 courses, a live project and comprehensive research assignment in order to complete their degree requirements. Students must maintain a CGPA of 2.5 for the conferment of degree.

Foundation Courses

Accounting

ACC101 Introduction to Financial Accounting

Economics ECO104 Micro and Macroeconomics

Management

MAN101 Principles of Management MAN414 Project Management

Language

LAN 10* Foreign Language I LAN 20** Foreign Language II *1 = Introduction to Arabic *2 = II *3 = Introduction to Spanish *4 = II *5 = Introduction to Japanese *6 = II *7 = Introduction to Russian *8 =

- **1 = Intermediate Arabic**3 = Intermediate Spanish
- **5 = Intermediate Japanese
- **7 = Intermediate Russian
- *2 = Introduction to French
- *4 = Introduction to German
- *6 = Introduction to Italian *8 = Introduction to Chinese
- **2 = Intermediate French
- **4 = Intermediate German
- **6 = Intermediate Italian
- **8 = Intermediate Chinese

Communication

COM107 Academic English COM202 Business and Professional Speech COM203 Methods in Business Writing

Engineering ENG307 Basic Electronics

Political Sciences

PSC301 Pakistan Studies

Mathematics

MTH107Calculus and Analytical GeometryMTH204Linear AlgebraMTH215Differential EquationsMTH222Discrete StructureMTH224Multivariable CalculusMTH403Numerical Computing

Statistics

STA203 Probability Theory and Statistics

Religious Studies

REL101 Islamic Studies

Computing (Core Courses)

Data Structure and Algorithms
Object Oriented Programming
Computer Communications and Networks
Operating Systems
Introduction to Software Engineering
Human Computer Interaction
Project II

Computer Science (Core Courses)

CSC205	Computer	Architecture an	d Organization
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- CSC315 Theory of Automata & Formal Languages
- CSC410 Data Communication and Networking
- CSC412 Artificial Intelligence

Computer Science (Elective Courses)

CSC303	Computer Graphics	CSC305	System Analysis and Design
CSC309	Microprocessor and Applications	CSC345	Digital Image Processing
CSC428	Web Engineering	CSC434	Software Quality Assurance
CSC435/	574 Distributed Systems	CSC443	Mobile Computing
CSC445	Network Security	CSC448	Digital Signal Processing
CSC451	Telecommunication Systems	CSC463	Operations Research
CSC464	Wireless Network	CSC531	Data Warehousing
CSC581	Neural Network	CSC583	Fuzzy Systems

Course Structure

CSC111	Introduction to Information and Communication
	Technologies (ICT)

- CSC113 Programming Fundamentals
- CSC217 Digital Logic Design
- CSC220 Introduction to Database Systems
- CSC461 Project I
- CSC222 Computer Organization and Assembly Language
- CSC318 Design & Analysis of Algorithm
- CSC411 Compiler Construction

CSC305	System Analysis and Design
CSC345	Digital Image Processing
CSC434	Software Quality Assurance
CSC443	Mobile Computing
CSC448	Digital Signal Processing
CSC463	Operations Research
CSC531	Data Warehousing
CSC583	Fuzzy Systems

Semester One	Semester Two	Semester Three
Intro to Info. & Comm. Technology (2+1)	Object Oriented Programming (2+1)	Digital Logic and Design (2+1)
Programming Fundamentals (2+1)	Discrete Structure (3+0)	Data Structures and Algorithms (2+1)
Calculus and Analytical Geometry (3+0)	Multivariable Calculus (3+0)	Linear Algebra (3+0)
Islamic Studies (3+0)	Probability Theory and Statistics (3+0)	Methods in Business Writing (3+0)
Academic English (3+0)	Business and Professional Speech (3+0)	Numerical Computing (2+1)
Basic Electronics (2+1)	Micro and Macroeconomics (2+1)	Intro. to Financial Accounting (3+0)
Semester Four	Semester Five	Semester Six
Operating Systems (3+0)	Computer Comm. & Networks (2+1)	Artificial Intelligence (3+0)
Differential Equations (2+1)	Theory of Automata & Formal Lang. (2+1)	Computer Graphics (2+1)
Intro. to Database Systems (2+1)	Computer Architecture & Org. 2+1)	Design & Analysis of Algorithms (2+1)
Data Comm. & Networking (2+1)	Intro. to Software Engineering (2+1)	Digital Signal Processing (2+1)
Computer Org. & Assembly Lang. (2+1)	Foreign Language II (3+0)	Principles of Management (3+0)
Foreign Language I (2+1)	Pakistan Studies (3+0)	Human Computer Interaction (2+1)
Semester Seven	Semester Eight	
Project I (0+3)	Project II (0+3)	
CS Elective I (2+1)	Wireless Network (2+1)	
Operations Research (3+0)	CS Elective III (2+1)	
CS Elective II (3+0)	CS Elective IV (2+1)	
Compiler Constructions (2+1)	Project Management (3+0)	

BS ACTUARIAL SCIENCE AND RISK MANAGEMENT



BS in 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, student will gain a broad business background with an emphasis in 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 COM203 Methods in Business Writing

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

LAW

LAW401 Business Law

Management

MAN101 Principles of Management

Marketing

MKT301 Principles of Marketing MKT404 Methods in Business Research

Actuarial Science

ARM501 Stochastic Process/Modeling ARM601 Models of Financial Economics-I ARM602 Models of Financial Economics - II

Computer Sciences

CSC103 Structured Programming Language

Finance

FIN201Introduction to Business FinanceFIN406Financial EconometricsFIN503Corporate FinanceFIN507Portfolio ManagementFIN509Financial Derivatives

Language

**5 = Intermediate Japanese

**7 = Intermediate Russian

LAN 10* Foreign Language I	
LAN 20** Foreign Language I	I
*1 = Introduction to Arabic	*2 = Introduction to French
*3 = Introduction to Spanish	*4 = Introduction to German
*5 = Introduction to Japanese	*6 = Introduction to Italian
*7 = Introduction to Russian	*8 = Introduction to Chinese
<pre>**1 = Intermediate Arabic</pre>	**2 = Intermediate French
**3 = Intermediate Spanish	**4 = Intermediate German

- **6 = Intermediate Italian
- **8 = Intermediate Chinese

Mathematics

MTH104Calculus IMTH105Calculus IIMTH204Linear AlgebraMTH209Financial Mathematics IMTH210Financial Mathematics IIMTH211Actuarial MathematicsMTH403Numerical Computing

Statistics

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

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

Course Structure

Pakistan Studies

PSC301 Pakistan Studies

Religious Studies REL101 Islamic Studies

STA205	Probability Theory and Statistics II
STA301	Model and Inferences
STA303	Time Series analysis and forecasting
STA307	Decision Theory
STA310	Loss Models II

FRM504	Theory of Risk and Insurance
FRM506	Financial Regulation for Risk Management
FRM510	Energy Risk Management
FRM513	Project Risk Management
FRM516	International Financial Reporting and Standards
FRM518	Management of Insurance Institutions

Semester One	Semester Two	Semester Three
Academic English	Introduction to Financial Accounting	Principles of Marketing
Principles of Microeconomics	Probability Theory and Statistics II	Linear Algebra
Foreign Language I	Calculus II	Model and Inferences
Probability Theory and Statistics	Principles of Macroeconomics	Introduction to Business Finance
Calculus I	Financial Mathematics I	Methods in Business Writing
Structured Programming Language	Islamic Studies	Financial Mathematics II
Semester Four	Semester Five	Semester Six
Numerical Computing	Financial Derivatives	Portfolio Management
Business Law	Actuarial Mathematics	Life and Other Contingencies
Introduction to Econometrics	Principles of Risk Management	Enterprise Risk Management
Principles of Management	Stochastic Processes	Sampling Theory
Pakistan Studies	Financial Econometrics	Models in Financial Economics I
Method of Data Analysis	Corporate Finance	Methods in Business Research
Semester Seven	Semester Eight	
Institutional Investments	Decision Theory	
Models in Financial Economics II	Loss Models II	
Applied Regression Analysis	Risk Financing Techniques	
Computational Methods in Risk Mgmt.	Time series Analysis & forecasting	
Loss Models I	Project	
Elective I	Elective II	

MS COMPUTER SCIENCE



Elective Courses

- CSC531 Data Warehousing CSC562 Object Oriented Software Engineering
- CSC564 Software Requirement Engineering
- CSC571 Advanced Database Management Systems
- CSC574 Distributed Systems
- CSC576 Parallel and Distributed Algorithms
- CSC581 Neural Networks
- CSC583 Fuzzy Systems

Course Structure

The Master of Science program in Computer Science provides an 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 in the desired areas of specialization. The program is based on HEC guidelines. The program comprises two year of study over at least 4 semesters. It requires completion of 30 credit hours of course work. Students are required to complete 8 courses and a thesis of 6 credit hours equivalent of 2 courses in order to fulfill their degree requirements. Students must maintain a CGPA of 3.0 for the conferment of the degree.

Eligibility

BS(CS) / MCS / BE in Computer Engineering or are required to make up for the requirement as proposed by the Department Board of Studies. Minimum CGPA of 2.5 on a scale of 4.

MS (Computer Science) program consists of two groups of courses: core and elective.

Core Courses

CSC541 Advanced Research Methodology

- CSC543 Advanced Computer Architecture
- CSC545 Decision Theory

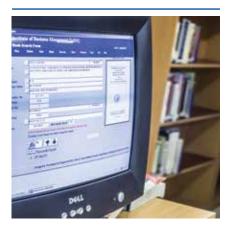
CSC548 Advanced Analysis of Algorithms

- CSC561Advanced Software EngineeringCSC563Software Quality AssuranceCSC565Software Testing StrategiesCSC573Data MiningCSC575Parallel and Distributed Computing
- CSC578 Communication and Information Policy
- CSC582 Pattern Recognition
- CSC591/592 Thesis

Semester One	Semester Two	
Advanced Research Methodology	Decision Theory	
Advanced Computer Architecture	Elective I Elective II	
Advanced Analysis of Algorithm		
Semester Three	Semester Four	
Elective III	MS Thesis (6 credit hours)	
Elective IV		

MS MATHEMATICS AND MS STATISTICS (SCIENTIFIC COMPUTING)

The MS programs in Mathematics & Scientific Computing and in Statistics & Scientific Computing prepare students for careers in research, applications, and teaching. Students choose courses from two areas of concentration for their course work: Mathematics and Computations or Statistics and Computations. Students are required to successfully qualify eight courses (4 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 interest and on the availability of the faculty. Students will be required to qualify Final (Comprehensive) Examination, as well as write and defend a thesis. The MS Program takes usually two years to complete and students must pass GRE/NTS exam prior to the completion of the degree.



Eligibility

16 Years of education in Computer Science, Engineering, Mathematics or Statistics any relevant field.

Required Courses

MS (Mathematics & Scientific Computations)

Compulsory Courses (12 credit hours)

MTS614Mathematical StatisticsMTS616Advanced Numerical ComputingMTS615Dynamical SystemMTS618Statistical Modeling and Computing

Elective Courses

Mathematics Concentration (6 credit hours)

- MTS610 Calculus of Variation
- MTS612 Numerical Methods for ODEs and PDEs
- MTS620 Asymptotic Analysis
- MTS626 Advance Convex Analysis
- MTS628 Advance Numerical Optimization
- MTS630 Advance Mathematical Physics
- MTS632 Advance Variational Inequalities
- MTS634 Advance Numerical Linear Algebra
- MTS636 Advance Hilbert Space
- MTS641 Continuum Mechanics
- MTS642 Geometric Methods in Mechanics and Physics

Computation Concentration (6 credit hours)

- MTS629 Machine Learning and Pattern Recognition MTS631 Production Quality Software
- MTS633 Fundamental Algorithms



 $\frac{\partial \theta}{\partial x} \int f(x,\theta) d\theta$



I found the IoBM MBA to be a milestone in my professional and personal life. The intensity and breadth of the program prepares you for high

pressure situations, complex problem solving and work-life balancing that you can use in your approach to all challenges in life. For satisfying my everlasting passion for cars, I am managing my entrepreneurial venture - which was born in a classroom at IoBM. My entrepreneurial journey, being taught as case study at a leading local university, made its way to the final round of Shell Tameer Entrepreneurial Awards 2012, and earned me the honor of being an alumnus of the International Visitors Leadership Program (IVLP) sponsored by the US Department of State. I would certainly recommend the IoBM MBA as an excellent opportunity to enhance your leadership skills and as a recognized route for career progression.

Shakaib Uzzaman Khan

Alumnus Founder & Director SK Motor Syndicate & Digital Marketing Manager, Standard Chartered Bank

Elective Courses

Statistics Concentration (6 credit hours)

Statistical Inference
Multivariate Statistics
Stochastic Processes
Theory and Practices of Forecasting

Computation Concentration (6 credit hours)

MTS627	Machine Learning and Pattern Recognition	
MTS631	Fundamental Algorithms	
MTS635	Simulation and Modeling	
MTS691/692 Thesis		

MTS613Design of ExperimentsMTS619Time Series AnalysisMTS623Applied Regression ModelsMTS627Statistical Quality Control

MTS629 Production Quality Software

MTS633 Information Retrieval and Data Mining

Semester Two

Semester Four

6 credit hours

Statistical Modeling & Computing

Mathematics Concentration I

Thesis (Mathematics Oriented)

MTS637 Principles in Parallel Computing

Course Structure MS (Statistics & Scientific Computing)

Semester One	Semester Two	
Mathematical Statistics	Statistical Modeling & Computing	
Numerical Analysis	Statistics Concentration I	
Dynamic System		
Semester Three	Semester Four	
Statistics Concentration II	Thesis (Statistics Oriented)	
Computation Concentration I	6 credit hours	
Computation Concentration II		

MTS635 Information Retrieval and Data Mining

MS (Mathematics & Scientific Computing)

MS (Statistics & Scientific Computations)

MTS637 High Performance Computing

MTS691/692 Thesis

Course Structure

Mathematical Statistics

Dynamical Variable

Required Courses

MTS609 Numerical Analysis

MTS615 Dynamical System

MTS614 Mathematical Statistics

Semester Three

Advanced Numerical Analysis

Mathematics Concentration II

Computation Concentration I

Computation Concentration II

Compulsory Courses (12 credit hours)

MTS618 Statistical Modeling and Computing

Semester One

MTS639 Principles in Parallel Computing

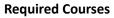
MBA TELECOMMUNICATION MANAGEMENT

Telecommunication is an exciting area of study, involving fast moving and sophisticated technologies of telephone, television, radio, computers, the internet and more.

MBA in Telecommunication Management, offered by IoBM, is designed to provide the management skills and technical knowledge required to plan, acquire, evaluate and operate telecommunication systems. Students learn the structure and environment of the telecommunication industry, total quality management, strategic planning and financial management with emphasis on critical management concepts. This program can prepare students for careers in the telecommunication industry. The course has been designed by telecommunication 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 load of 12 credit hours (4 courses) in each of the 3 sessions (Fall, Spring and Summer).





Accounting

ACC401 Introduction to Managerial and Cost Accounting ACC402 Introduction to Financial Accounting

Communication COM402 Business Communication

Economics ECO401 Micro and Macroeconomics

Finance FIN404 Financial Management

Human Resource Management

HRM401 Human Resource Management

Management

MAN401 Principles of Management MAN402 Organizational Behavior MAN405 Strategic Management MAN411 Project Management MAN501 Total Quality Management

Marketing

MKT401 Principles of Marketing







Telecommunication

- TCM401 Introduction to Technology Management
- TCM402 Introduction to Teletraffic Engineering
- TCM403 Global Comm: Industry and Policy
- TCM404 Management of Telecommunication
- TCM405 Optical Communication Network
- TCM406 Network Design
- TCM408 Advanced Mobile and Wireless Communication
- TCM409 Customer Service & Call Center Tech.
- TCM410 Management of Network Security
- TCM411 Telecommunication Marketing
- TCM507 Optimization of Telecommunication Systems

Elective Courses

- TCM501 Management of Telecommunication Regulatory System
- TCM502 The Future of Emerging Technology
- TCM503 Electronic Business, System and Technology
- TCM504 Management of Physical Security Technology System
- TCM505 Telecommunication Business Continuity Process and Crisis Management
- TCM506 Telecommunication Business Process
- TCM508 Managing Telecommunication in Media Application
- TCM510 Managing the Creative Process
- TCM511 IP Multimedia Technologies

Course Structure

Semester One	Semester Two
Business Communication	Introduction to Financial Accounting
Principles of Management	Organizational Behavior
Introduction to Technology Mgmt.	Global Comm. Industry and Policy
Introduction to Teletraffic Engineering	Management of Telecommunication
Semester Three	Semester Four
Principles of Marketing	Financial Management
Intro. to Managerial & Cost Accounting	Micro and Macroeconomics
Adv. Mobile & Wireless Communication	Optimization of Telecom. Systems
Network Design	Optical Communication Network
Semester Five	Semester Six
Human Resource Management	Telecommunication Marketing
Total Quality Management	Strategic Management
Customer Service & Call Center Tech.	Project Management
Management of Network Security	Elective



PHD (COMPUTER SCIENCE) PHD (MATHEMATICS & SCIENTIFIC COMPUTING) PHD (STATISTICS & SCIENTIFIC COMPUTING)

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

Eligibility

M.Phil. /M.S. / in Computer Science related field 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 / M.Phil or 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 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)
- On completion of dissertation/thesis the student is awarded 12 credits

A PhD student must additionally complete the following requirements:

- Pass Comprehensive Exam
- PhD Proposal/Synopsis Development
- Pass 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
- Publish at least one paper in an ISI indexed or an HEC recognized journal. An official acceptance of the paper is also
- acceptable
- Evaluation of PhD Dissertation by two foreign faculty members from developed countries as per HEC criteria
- Dissertation/Thesis Finalization
- Open defense of PhD dissertation
- Meet any other HEC requirement
- Final Dissertation/Thesis Submission to BASR
- Degree Award







Course Structure

Semesters One to Nine (Select Six courses)

PhD (Computer Science)

- PCS701 Big Data Analytics and Knowledge Discovery
- PCS703 Natural Language Processing Information Retrieval
- PCS705 Advance Theory of Computation
- PCS707 Advances in Machine Learning
- PCS709 Computational Intelligence
- PCS711 Heuristic Search theory & Methods
- PCS713 Advance Neural Network
- PCS715 Intelligent Web Technologies
- PCS717 Parallel and Distributed Systems
- PCS719 Formal Research Methods
- PCS723 Computer Vision and Robotics
- PCS725 Temporal and Spatial Database Management System
- PCS731 Advanced Digital Signal Processing
- PCS733 Advance Decision Support System
- PCS739 Advances in Simulation and Modeling
- PCS743 Fuzzy Topologies with Human Centric Computing
- P CS745 Advanced Algorithm Analysis
- PCS749 Seminar on Logic and Scientific Computing
- PCS751 Seminar on Emerging Computing Technologies
- PCS850 Research Thesis

PhD (Statistics & Scientific Computing)

- PST701 Advanced Statistical Computing and Graphics
- PST703 Regression Modeling and Computing
- PST705 Advanced Mathematical Statistics
- PST707 Advanced Bayesian Inference and Stochastic Modeling
- PST713 Nonlinear and Integer Programming
- PST715 Advanced Design and Analysis of Experiments
- PST717 Advances in Time Series Analysis
- PST719 Advances in Bioinformatics & Biostatistics
- PST721 Statistical Quality Control
- PST723 Stochastic Modeling
- PST850 Research Thesis

PhD (Mathematics & Scientific Computing)

- PMT701 Advanced Numerical Computing
- PMT703 Linear Algebra and Lie Algebra
- PMT705 Applied Matrix Theory
- PMT707 Numerical Methods for PDEs
- PMT709 Topics in Inverse Problems
- PMT711 Topics in Numerical Differential Equations
- PST 701 Advance Statistical Computing & Graphics
- PST703 Regresion Modeling & Computation
- PST713 Nonlinear and Integer Programmng
- PMT850 Research Thesis





COLLEGE OF ENGINEERING AND SCIENCES

BS INDUSTRIAL ENGINEERING AND MANAGEMENT



This is an intensive program integrating engineering skills with managerial knowledge. The program has been designed in close consultation with leading engineering firms. A blend of management and engineering courses makes this program distinct from other engineering courses. Another outstanding feature is the provision of hands on training facilities in industrial units on a continuous basis, which blends theory with practical experience. Each final year student is required to undergo 2 credit hours of internship of 6 to 8 weeks with a reputable engineering firm. This close collaboration increases job opportunities and accessibility to higher technical and managerial positions.

This program requires completion of 138 credit hours of course work, including 46 courses. Students graduating with a CGPA of 2.5 automatically qualify for the MBA program offered by IoBM. Students can also proceed further for postgraduate work in Industrial / Management Engineering at leading international schools.

Required Courses

Accounting

ACC101 Introduction to Financial Accounting

Computer Science

CSC310 Computer Simulations

Engineering

ENG101 Workshop Practices
ENG103 Engineering Drawing
ENG108 Introduction to Thermo-Fluids
ENG201 Design of Machine Elements
ENG203 Engineering Economics
ENG209 CAD/CAM Applications
ENG218 Metrology and Statistical Quality Control
ENG220 Mechanics of Materials
ENG303 Production Planning and Control
ENG305 Work Study and Methods Engineering
ENG307 Basic Electronics

General Sciences

GSC101 Physics

Management

MAN101 Principles of Management MAN303 Production and Operations Management

Marketing

MKT301

Principles of Marketing

Communication

COM107 Academic English COM402 Business Communication

ENG102 Engineering Mechanics
ENG105 Basic Industrial Engineering
ENG109 Industrial Chemistry
ENG202 Production System Design
ENG206 Manufacturing Process
ENG217 Materials Engineering
ENG219 Industrial Maintenance and Safety
ENG300 Electrical Technology and Instrumentation
ENG304 Automation and Robotics
ENG306 Basic Machine Design

HRM301 Human Resource Management

Management Information Systems

- MIS104 Computer Programming and Graphics
- MIS406 Operations Research
- MIS409 Computer Applications and MIS

Mathematics

MTH202 Engineering MathematicsMTH208 Differential Equation and Complex VariablesMTH403 Numerical Computing / AnalysisMTH406 Finite Element Analysis

Political Sciences

PSC301 Pakistan Studies

Statistics

STA204Industrial Applications of StatisticsSTA407Design of Experiments

Religious Studies

REL101 Islamic Studies

Elective Courses

Engineering

ENG204 Plant EngineeringENG216 Reliability AnalysisENG401 Computer Integrated ManufacturingENG402 Manufacturing StrategiesENG403 Human Factor EngineeringENG404 Tool Design

Management

MAN402 Organizational Behavior MAN501 Total Quality Management MAN503 Supply Chain Management MAN509 Logistics and Inventory Control

Mathematics

MTH406 Finite Element Analysis

Course Structure



Semester One	Semester Two	Semester Three
Engineering Mathematics	Introduction to Thermo-Fluids	Materials Engineering
Computer Programming and Graphics	Engineering Mechanics	Pakistan Studies
Physics	Engineering Drawing	Design of Machine Elements
Workshop Practices	Industrial Chemistry	Principles of Management
Academic English	Business Communication	Electrical Technology & Instrumentation
Islamic Studies	Diff. Equation and Complex Variables	Basic Industrial Engineering
Semester Four	Semester Five	Semester Six
Industrial Applications of Statistics	Production & Operations Management	Basic Machine Design
Mechanics of Materials	Human Resource Management	Computer Simulations
Production System Design	Operations Research	CAD/CAM Applications
Introduction to Financial Accounting	Metrology & Statistical Quality Control	Engineering Economics
Basic Electronics	Principles of Marketing	Numerical Computing / Analysis
Computer Applications and MIS	Manufacturing Process	Industrial Maintenance & Safety
Semester Seven	Semester Eight	
Production Planning and Control	Automation and Robotics	
Design of Experiments	Work Study and Methods Engineering	
Project I	Project II	
Elective I	Elective III	
Elective II	Elective IV	

BE ELECTRICAL ENGINEERING IN ELECTRONIC AND TELECOMMUNICATION



BE Electrical Engineering program is launched at IoBM with specialization in Electronic and Telecommunication. This program is geared towards those who want to integrate engineering expertise with managerial skills. This integration will result in enhanced job opportunities and accessibility to higher technical and managerial positions. It further involves designing and managing technology at the national and international level to find new and exciting ways to use their expertise.

The program is Pakistan Engineering Council (PEC) approved and designed in close consultation with leading engineering firms and scholars from reputable academic Institutions. The Electrical engineering curriculum is a four-year degree program comprising 8 semesters. The emphasis is given to laboratory work, experimental knowledge and innovative teaching methods. One of its special features is an Internship of 6 to 8 weeks in a reputable engineering organization. During the first four semesters, same courses are offered to all students. At the end of the fourth semester, students are allowed to select either of two of the above mentioned areas of specialization. The course work offered in the last four semesters is especially designed to enhance students' knowledge of area of interest and provide them thorough understanding about the advanced subjects in that particular area of specialization.

Completion of course work (with 2.5 CGPA) and internship automatically qualify students for the Master's programs offered by IoBM. They can also proceed further for postgraduate studies or work in the fields of Telecommunication and Electronics, at leading universities and organizations throughout the world. The IoBM course credits are easily transferable to a majority of international universities.

Required Courses

Communication

COM101 Functional English COM203 Methods in Business Writing COM402 Business Communication

Computer Engineering

- CME102 Fundamentals of Computing
- CME104 Computer Programing and Problem Solving
- CME203 Data Structures and Algorithms
- CME205 Microcontroller and Microprocessor Systems
- CME301 Computer Communication and Networks

Electrical Power Engineering

- EPE101 Linear Circuit Analysis
- EPE102 Electronic Workshop Practices
- EPE200 Electrical Network Analysis
- EPE201 Computer Aided Engineering Design
- EPE302 Electrical Machines

Electronic Engineering

- ELE200 Electronic Devices and Circuits
- ELE201 Digital Logic Design
- ELE304 Electronic Circuit Design
- ELE370 Instrumentation and Measurements
- ELE403 Embedded Systems Design
- ELE415 Opto-Electronic
- ELE417 Industrial Electronic
- ELE419 Linear Control Systems
- ELE422 VLSI Design
- ELE450 Senior Design Project I
- ELE451 Senior Design Project II
- ELEXXX Elective I
- ELEXXX Elective II
- ELEXXX Elective III
- ELEXXX Elective IV

Telecommunication Engineering

TCE200 Electronic Communication System TCE204 Electromagnetic Field Theory TCE205 Signal and Systems TCE301 Probability Methods in Engineering TCE321 Wave Propagation and Antenna TCE404 Digital Signal Processing Techniques TCE415 Transmission and Switching Systems TCE416 Digital Communication TCE421 FPGA Based System Design TCE422 Communication Systems TCE450 Senior Design Project I TCE451 Senior Design Project II TCE461 Wireless and Mobile Communications TCE471 Optical Communication TCEXXX Elective I TCEXXX Elective II TCEXXX Elective III TCEXXX Elective IV

Engineering Management

ENG203 Engineering Economics

Mathematics

MTH107 Calculus and Analytical Geometry
MTH204 Linear Algebra
MTH215 Differential Equation
MTH216 Complex Variable and Transforms
MTH403 Numerical Computing / Analysis

Religious Studies

REL101 Islamic Studies



General Sciences GSC103 Applied Physics

Management

MAN101 Principles of Management MAN302 Organizational Behavior

Political Sciences PSC301 Pakistan Studies

Social Sciences SSC100 Community Services

Inter-Disciplinary Engineering

IDE401Principles of Applied MechatronicsIDE402Renewable Energy Methods

Course Structure

First two years are common for both electrical engineering streamlines (Electronic and Telecommunications)

Semester One	Semester Two
Functional English (3+0)	Methods in Business Writing (3+0)
Applied Physics (3+1)	Electronic Devices and Circuits (3+1)
Linear Circuit Analysis (3+1)	Linear Algebra (3+0)
Fundamentals of Computing (3+1)	Computer Programming and Problem Solving (2+1)
Calculus and Analytical Geometry (3+0)	Islamic Studies or Ethical Behavior (2+0)
	Electrical Workshop Practices (0+1)
Semester Three	Semester Four
Data Structures and Algorithms (3+1)	Microcontroller & Microprocessor Systems (3+1)
Digital Logic Design (3+1)	Principles of Management (3+0)
Network Analysis (3+1)	Electromagnetic Theory (3+0)
Differential Equation (3+0)	Complex Variables and Transforms (3+0)
Pakistan Studies (2+0)	Signal and Systems (3+1)
Computer Aided Engineering Design (0+1)	

Course Structure Streamline1: Electronic Engineering

Semester Five	Semester Six
Probability Theory and Statistics (3+0)	Instrumentation and Measurements (3+1)
Numerical Computing / Analysis (3+0)	Electronic Circuit Design (3+1)
Communication Systems (3+1)	Engineering Economics (3+0)
Linear Control Systems (3+1)	Digital Signal Processing (3+1)
Electrical Machine (3+1)	Elective I (3+1)
Semester Seven	Semester Eight
Organizational Behavior (3+0)	Business Communication (2+0)
Renewable Energy Methods (3+0)	Principles of Applied Mechatronics (3+1)
Elective II (3+1)	Elective IV (3+1)
Elective III (3+1)	Senior Design Project II (0+3)
Senior Design Project I (0+3)	

Elective Courses

Streamline1: Electronic Engineering

Jucuin				
CME301	Computer Communication and Networks			
CME414	Digital Image Processing	ELE415	Opto-Electronic	
ELE417	Industrial Electronics	ELE420	Power Electronics	
ELE422	VLSI Design	ELE423	Digital control system	
ELE428	Digital Electronics	ELE429	Introduction to Nano-Technology	
ELE430	Solid State Device	ELE432	Robotic and Application	
TCE461	Mobile and Wireless Communication	TCE321	Wave Propagation and Antenna	

Course Structure

Streamline2: Telecommunication Engineering

Semester Five Communication Systems (3+1) Instrumentation and Measurements (3+1) Probability Methods in Engineering (3+0) Linear Control Systems (3+1)	Semester Six Computer Communication and Networks (3+1) Electronic Circuits Design (3+1) Digital Signal Processing (3+1) Engineering Economcis (3+0)
Numerical Computing / Analysis (3+0) Semester Seven	Elective I (3+1) Semester Eight
Organizational Behavior (3+0) Renewable Energy Methods (3+0) Wireless and Mobile Communication (3+0)	Business Communication (2+0) Principles of Applied Mechatronics (3+1)
Elective II (3+1)	Elective IV (3+1) Senior Design Project II (0+3)
Senior Design Project I (0+3)	

Elective Courses

Streamline2: Telecommunication Engineering

CME414	Digital Image Processing	TCE420	Information Theory and Coding	
TCE415	Transmission and Switching System	TCE461	Mobile and Wireless Communication	
TCE416	Digital Communication	TCE321	Wave Propagation and Antenna	
TCE423	RF and Microwave Engineering	TCE424	Radar Systems	
TCE425	Telecom Management	TCE430	Satellite Communication	
TCE431	Digital Filter Design	CME420	Multimedia Communication	
TCE421	FPGA Based System Design	TCE426	Electromagnetic Compatibility	
TCE427	Antenna Theory and Design	TCE428	Mobile and Pervasive Computing	
TCE429	Tele-traffic Engineering	TCE471	Optical Communication	

MS IN ENGINEERING MANAGEMENT

The MS in Engineering Management degree (MEM) can be either an academic or professional master's degree that bridges the gap between the field of engineering, technology and the field of business by equipping students with the technical expertise and leadership skills required to advance their career in the fast-paced world of technology. Sound decision-making, information management, project management, quality engineering, design engineering, simulation, facility layout, production system and industrial costing management are some of the core issues being dealt as part of their career. MEM graduates can fill this gap.

The need for engineering management has been felt at all levels of managers, particularly in the professional management work environment. Also, management is applicable to every aspect of an organization functions and at all levels of top management, middle management and lower management. Basic and specialized knowledge in the field of engineering management is a dire need for every engineer and 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 (3 courses) in each of the 3 sessions(Fall, Spring and Summer).

Course Contents

Durati	on:	2 years
Total c	redit hours:	30
-	Teaching:	24
-	Thesis/ Project:	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 MS degree requirements in the discipline of Engineering Management. A minimum of four courses from core subjects and four courses from optional subjects be undertaken.

Eligibility

BSc/BE degree (16-years of education) in any engineering discipline









Compulsory Core Courses (Four Courses)

MEM501 Project Management (3+0) MEM502 Designs, Patents, Contract and Legal Engineering (3+0) MEM503 Quality Processes for Design and Production (3+0) MEM504 Research Methodology (3+0)

MS Projects (Compulsory)

MEM 517 Thesis/ Project (6)

Elective Courses (Any Four Courses)

MEM505 Applied Engineering Analysis (3+0) MEM506 Production System Design and Analysis (3+0) MEM507 Operations Analysis & Resource Allocation(3+0) MEM508 Operation Management (3+0) MEM509 Simulation Modeling (3+0) MEM510 Production Planning and Control (3+0) MEM511 Advances Practices in Engineering Management (3+0) MEM512 Environmental and Safety Management (3+0) MEM513 Industrial Costing Management (3+0) MEM514 Technology Management (3+0) MEM515 Lean Six Sigma & Lean Manufacturing(3+0) MEM516 Marketing Management (3+0)



Course Structure

Semester One	Semester Two
Project Management (3+0)	Design, Patents, Contract & Legal Engineering (3+0)
Quality Processes for Design & Production (3+0)	Elective I (3+0)
Research Methodology (3+0)	Elective II (3+0)
Semester Three	Semester Four
Elective III (3+0)	Thesis-II / Project-II (4+0)
Elective IV (3+0)	
Thesis-I / Project-I (2+0)	



COLLEGE OF ECONOMICS AND SOCIAL DEVELOPMENT

BS (HONORS) ACCOUNTANCY, MANAGEMENT AND LAW



The College of Economics and Social Development (CESD) is a liberal arts college with graduate and undergraduate programs in the areas of accountancy, management & law, education, economics, media studies and psychology. Research is a core competence of CESD. The program is designed to help students build a solid foundation in general business principles and skills. It requires completion of 144 credit hours of course work and 2 credit hours of internship of at least six weeks in a firm approved by the College. Students graduating with a CGPA of 2.5 automatically qualify for MBA program offered by CBM in a weekday full-time program, students may take a maximum of six courses per semester with Summer as an optional semester. This program will lead to MBA or a professional accountancy qualification. Students have the option of passing the Institute of Chartered Accountants of Pakistan (ICAP) foundation and intermediate examinations simultaneously with obtaining the program.

Required Courses

Accounting

- - ACC202 Taxation I ACC203 Financial Accounting I ACC204 Taxation II ACC304 Financial Accounting II ACC305 Cost Accounting I ACC405 Internal Auditing ACC415 Cost Accounting II ACC415 Cost Accounting II ACC416 Auditing II
 - ACC417 Corporate Reporting
 - ACC418 Performance Measurement and Decision Making
 - ACC501 Advanced Financial Accounting
 - ACC502 Advanced Managerial Accounting

ACC102 Introduction to Financial Accounting I ACC103 Introduction to Financial Accounting II

Communication

- COM103 Functional English-I
- COM104 Functional English-II
- COM105 Business Communication and Behavioral Studies-I
- COM106 Business Communication and Behavioral Studies-II

Finance and Banking

- FIN201 Introduction to Business Finance
- FIN202 Financial Management
- FIN502 Strategic Financial Management
- FIN511 Analysis of Financial Statements

Economics

ECO202 Introduction to Economics and Finance-I ECO203 Introduction to Economics and Finance II ECO204 The Pakistan Economy

Law

LAW101Mercantile Law-ILAW102Mercantile Law-IILAW103Company Law-ILAW104Company Law-IILAW301Intellectual Property, Patents, CopyrightsLAW400Company Secretarial PracticesLAW404ArbitrationLAW407Statutory Compliance

Human Resource Management HRM301 Human Resource Management

HRM502 Industrial Relations and Labour Laws

Management Information Systems

MIS413 Information Technology-I MIS416 Information Technology-II

Social Sciences

SSC202 Environmental Studies SSC401 Business Ethics

Religious Studies

REL101 Islamic Studies

Language

LAN 10*Foreign Language I*1 = Introduction to Arabic*2 = Introduction to French*5 = Introduction to Japanese*6 = Introduction to Italian

Course Structure

Management

MAN101 Principles of Management MAN403 Entrepreneurship and Small Business Management MAN411 Project Management MAN416 Corporate Governance

Marketing

MKT301 Principles of Marketing MKT404 Methods in Business Research

Statistics

STA101 Quantitative Methods-I STA102 Quantitative Methods-II

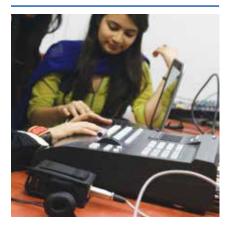
Logistics and Supply Chain Management

SCM301 Introduction to ERP Systems

*3 = Introduction to Spanish	*4 = Introduction to German
*7 = Introduction to Russian	*8 = Introduction to Chinese

Semester One	Semester Two	
Functional English I	Introduction to Economics and Finance II	
Quantitative Methods I	Introduction to Financial Accounting II	
Information Technology I	Mercantile Law II	
Introduction to Economics and Finance I	Quantitative Methods II	
Introduction to Financial Accounting I	Functional English II	
Mercantile Law I	Business Communication and Behavioral Studies I	
Semester Three	Semester Four	
Financial Accounting I	Company Law II	
Taxation I	Financial Accounting II	
Business Communication and Behavioral Studies II	Cost Accounting II	
Company Law I	Auditing II	
Cost Accounting I	Information Technology II	
Auditing I	Taxation II	
Semester Five	Semester Six	
Introduction to Business Finance	Human Resource Management	
The Pakistan Economy	Principles of Marketing	
Financial Management	Introduction to ERP Systems	
Islamic Studies	Business Ethics	
Intellectual Property, Patents, Copyrights	Internal Auditing	
Principles of Management	Advanced Financial Accounting	
Semester Seven	Semester Eight	
Company Secretarial Practices	Strategic Financial Management	
Project Management	Statutory Compliance OR Arbitration	
Methods in Business Research	Performance Measurement and Decision Making	
Advanced Managerial Accounting	Industrial Relations and Labour Laws	
Corporate Reporting	Entrepreneurship and Small Business Management	
Analysis of Financial Statements	Introduction to a Foreign Langauage OR Corporate Governance OR	
	Environmental Studies	

BS (HONORS) MEDIA STUDIES



The BS (Honors) Media Studies program is designed to provide students 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.

The curriculum seeks to endow students with creativity, and deep insight into the evolution and dynamics of media and visual communication, through an array of courses in journalism, communication and social sciences, as well as practical hands-on exposure to the art and craft of filmmaking, television and new media.

The program has benefited tremendously from the guidance and support this department has been consistently receiving from media experts and practitioners, specialists in the field of journalism and filmmaking, as well as collaboration with and guidance from media channels and establishments, media-related institutions and regulatory authorities.

The four-year program requires completion of 144 credit hours of course work, and a compulsory student internship.



Required Courses

Communication COM108 English I COM109 English II

Economics ECO106 Basic Economics

Islamic Studies REL101 Islamic Studies

Language

LAN112 Urdu I LAN113 Urdu II

Law LAW405 Media Law and Business Ethics

Management MAN305 International Relations



Media Studies

MMM301 Photo Journalism MMM303 Outline of Political Science MMM307 World Civilization and Culture MMM310 News Writing and Reporting MMM312 Introduction to Advertising and PR MMM314 Online Journalism MMM316 Sub Editing MMM321 Development Communication MMM324 Media Management and Marketing MMM328 Methods in Media Research MMM330 Appreciation of Vernacular Literature MMM333 Sports Journalism MMM337 Thesis (Journalism) MMM342 Advanced Filmmaking – The Art & Craft I MMM349 Radio I MMM351 Production Management MMM353 Lighting Design MMM355 Production of Documentary MMM357 Advanced Editing & Sound Design MMM359 Graphics & Animation for Web MMM361 Fashion Journalism MMM363 Introduction to Design Tools MMM365 Advanced Filmmaking - The Art & Craft II (Studio)

Pakistan Studies

PSC301 Pakistan Studies

Statistics

STA100 Basic Statistical Methods

Course Structure Common Courses for Journalism & Production Majors:

MMM302 Logic and Critical Thinking MMM304 Media Literacy MMM308 Contemporary World Media MMM311 Introduction to Broadcast Media MMM313 Theater Arts MMM315 Feature, Article and Column Writing MMM318 Economic Journalism MMM322 Current Affairs MMM326 Studio Production MMM329 Creative Writing Workshop MMM332 News Production / News Anchoring MMM336 Human Rights and Gender Reporting MMM338 Cinematography I MMM344 Screenwriting for Film/TV MMM350 Radio II MMM352 Advanced Production Management MMM354 Introduction to Editing & Sound Design MMM356 Ad-Film Production MMM358 Advanced Cinematography MMM360 Introduction to Photography MMM362 History of Filmmaking MMM364 Introduction to Mass Communication MMM366 Advanced Filmmaking - The Art & Craft II (Thesis)

Social Sciences

SSC101Introduction to PsychologySSC104Principles of SociologySSC302Important Concepts in Philosophy

Semester One	Semester Two
English I	English II
Urdu I	Urdu II
Introduction to Mass Communication	Media Literacy
Introduction to Photography	Introduction to Design Tools
Introduction to Psychology	Basic Economics
Principles of Sociology	Islamic Studies
Semester Three	Semester Four
Semester Three Creative Writing Workshop	Semester Four Appreciation of Vernacular Literature
Creative Writing Workshop	Appreciation of Vernacular Literature
Creative Writing Workshop News Writing and Reporting	Appreciation of Vernacular Literature World Civilization and Culture
Creative Writing Workshop News Writing and Reporting Theater Arts	Appreciation of Vernacular Literature World Civilization and Culture History of Filmmaking

Journalism Majors

Semester Five	Semester Six	
Introduction to Broadcast Media	Feature, Article and Column Writing	
Introduction to Advertising and PR	Online Journalism	
News Production / News Anchoring	Economic Journalism	
Sub-Editing	Photo-Journalism	
Cinematography I	Methods in Media Research	
Production Management	Media Law and Ethics	
Semester Seven	Semester Eight	
Current Affairs	Human Rights and Gender Reporting	
Development Communication	Fashion Journalism	
Sports Journalism	Media Management and Marketing	
Radio I	Magazine Production	
Production of Documentary*	Thesis (Journalism)*	
	Internship (2 credit hours)	

Production Majors

Semester Five	Semester Six
Introduction to Broadcast Media	Advanced Editing & Sound Design
Lighting Design	Screenwriting for Film & TV
News Production / News Anchoring	Advanced Cinematography
Introduction to Editing & Sound Design	Advanced Production Management
Cinematography I	Methods in Media Research
Production Management	Media Law and Ethics
Semester Seven	Semester Eight
Radio I	Graphics & Animation for Web
Current Affairs	Ad-Film Production
Production of Documentary*	Media Management and Marketing
Advanced Filmmaking – The Art & Craft I*	Advanced Filmmaking – The Art & Craft II (Studio)
	Advanced Filmmaking – The Art & Craft II (Thesis)*
	Internship (2 credit hours)

*Credit Hours: 6



MBA EDUCATIONAL MANAGEMENT FOR STUDENTS WITH 16 YEARS EDUCATION

This is a weekend program which requires completion of 72 credit hours of course work, including 24 courses of 3 credit hours each spread over six consecutive semesters (two-years). Students must maintain a CGPA of 3.0 for the conferment of the degree. The course structure is subject to change in compliance with HEC requirements. The course is particularly designed for schools and school system managers, administrators, principals and coordinators.

Students can take a minimum load of 6 credit hours (two courses) or maximum of 12 credit hours (four courses) in each of the 3 semesters (Fall, Spring and Summer).

Required Courses

Accounting

ACC402 Introduction to Financial Accounting

Educational Management

EDM406 Education Policy and Planning
EDM412 Marketing Education Services
EDM415 Educational Philosophy and Ethics
EDM418 Testing in Education
EDM419 Managing Teaching and Learning
EDM420 Academic Writing and Seminar Skills
EDM424 Teacher Education
EDM425 Developing Leadership and Management Skills
EDM426 Curriculum Management and Planned Change
EDM427 Research Methods in Education I (Qualitative)
EDM434 Thesis Writing
EDM437 ICT in Education
EDM439 Developing Research Projects

Finance

FIN404 Financial Management

Human Resource Management

HRM401 Human Resource Management

Management

MAN401 Principles of Management MAN402 Organizational Behavior

Marketing

MKT401 Principles of Marketing

Social Sciences

SSC406 Psychology and Learning









Elective Courses

Educational Management

EDM502Managing Higher Education SystemsEDM503Quality Assurance in EducationEDM504Managing Schools and School SystemsEDM508Knowledge ManagementEDM511Lifelong Learning in Changing ContextsEDM513Strategic Management Issues in EducationEDM514Early Childhood Development

Course Structure

Semester One	Semester Two
Managing Teaching and Learning	Teacher Education
Academic Writing and Seminar Skills	Curriculum Mgmt. and Planned Change
Principles of Management	Organizational Behavior
Psychology and Learning	Introduction to Financial Accounting
Semester Three	Semester Four
Educational Philosophy and Ethics	Developing Leadership & Mgmt. Skills
Research Methods in Education I	Testing in Education
(Qualitative)	Research Methods in Education II
Human Resource Management	(Quantitative)
Principles of Marketing	Financial Management
Semester Five	Semester Six
Marketing Education Services	Elective II
Developing Research Projects	Elective III
Education Policy and Planning	ICT in Education
Elective I	Thesis Writing



MBA EDUCATIONAL MANAGEMENT FOR STUDENTS WITH 14 YEARS EDUCATION

This is a weekend program which requires completion of 108 credit hours of course work, including 36 courses of 3 credit hours each spread over nine consecutive semesters (three-years). Students must maintain a CGPA of 3.0 for the conferment of the degree. The course structure is subject to change in compliance with HEC requirements.

The program is designed for students who have passed a two-year Bachelor's degree. Students can take a minimum load of 6 credit hours (two courses) or maximum of 12 credit hours (four courses) in each of the 3 semesters (Fall, Spring and Summer).

Required Courses

Accounting

ACC402 Introduction to Financial Accounting

Communication

COM403 Interpersonal Communication Skills COM407 English Language Development

Educational Management

EDM402 Applied Linguistics EDM403 Critical Thinking and Reading EDM406 Education Policy and Planning EDM412 Marketing Education Services EDM414 Classroom Management EDM415 Educational Philosophy and Ethics EDM417 Educational Counseling EDM418 Testing in Education EDM419 Managing Teaching and Learning EDM420 Academic Writing and Seminar Skills EDM421 Sociology of Education EDM422 Learners and Learning Styles EDM423 Reflective Inquiry in Education EDM424 Teacher Education EDM425 Developing Leadership and Management Skills EDM426 Curriculum Management and Planned Change EDM427 Research Methods in Education I (Qualitative) EDM428 Research Methods in Education II (Quantitative) EDM429 ICT in Education EDM430 Developing Research projects EDM434 Thesis Writing

Finance

FIN404 Financial Management

Human Resource Management

HRM401 Human Resource Management





Management

MAN401 Principles of Management MAN402 Organizational Behavior

Management Information Systems MIS400 Computer Applications and System

Marketing MKT401 Principles of Marketing

Social SciencesSSC402Introduction to PsychologySSC406Psychology and Learning

Statistics

STA403 Statistics and Mathematics

Elective Courses

Educational Management

EDM502 Managing Higher Education Institutions
EDM503 Quality Assurance in Education
EDM504 Managing Schools and School Systems
EDM508 Knowledge Management
EDM511 Lifelong Learning in Changing Contexts
EDM513 Strategic Management Issues in Education
EDM514 Early Childhood Development

Semester One Introduction to Psychology Critical Thinking and Reading Applied Linguistics English Language Development	Semester Two Reflective Inquiry in Education Learners and Learning Styles Statistics and Mathematics Interpersonal Communication Skills	Semester Three Educational Counseling Classroom Management Computer Applications and Systems Sociology of Education
Semester Four Managing Teaching and Learning Academic Writing and Seminar Skills Principles of Management Psychology and Learning	Semester Five Teacher Education Curriculum Mgmt. and Planned Change Organizational Behavior Introduction to Financial Accounting	Semester Six Educational Philosophy and Ethics Research Methods in Education I (Qualitative) Human Resource Management Principles of Marketing
Semester Seven Developing Leadership and Mgmt. Skills Testing in Education Research Methods in Education II (Quantitative) Financial Management)	Semester Eight Marketing Education Services Developing Research Projects Education Policy and Planning Elective I	Semester Nine Elective II Elective III ICT in Education Thesis Writing

Course Structure

MSc ORGANIZATIONAL PSYCHOLOGY AND HUMAN RESOURCE MANAGEMENT FOR STUDENTS WITH 16 YEARS EDUCATION

The program is geared towards professionals who wish 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 72 credit hours of course work, including 23 courses plus a research project of 3 credit hours each spread over six semesters. Students are expected to maintain a CGPA of 3.0 and successful completion of research project for the conferment of the degree. This program combines study in psychology with courses in human resource management, workplace relations, leadership and 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 3 semesters (Fall, Spring and Summer).



Foundation Courses

Psychology PSY400 Introduction to Organizational Psychology

Management MAN401 Principles of Management

Human Resource Management HRM401 Human Resource Management

Statistics STA410 Introduction to Behavioral Statistics

Communication COM402 Business Communication COM405 Organizational Consulting Skills

Core Courses

Psychology

PSY402Counseling PsychologyPSY405Group DynamicsPSY406Research Methods in Organizational PsychologyPSY407Personnel PsychologyPSY408Consumer PsychologyPSY430Psychological Testing-IPSY431Psychological Testing-IIPSY432Behavior Modification in IndustryPSY433Leadership and Strategic Change







Course Structure (Career Option I Majors Psychology)

Human Resource Management

HRM408 Human Resource Issues in Pakistan
HRM501 Recruitment and Selection
HRM502 Industrial Relations and Labor Laws
HRM503 Employee Training and Development
HRM504 Negotiation Skills and Collective Bargaining
HRM530 Research Practicum in HRM

Elective Courses Courses

Psychology

PSY501Work Motivation AttitudePSY506Quality of Work LifePSY515Projective Methods

Human Resource Management

HRM531 Pay for Performance and RewardHRM532 Performance ManagementHRM508 Salary and CompensationHRM509 Leadership Studies

Semester One	Semester Two	Semester Three
Principle of Management	Group Dynamics	Research Methods
Human Resource Management	Organizational Consulting Skills	Consumer Psychology
Intro. to Organizational Psychology	Psychological Testing-I	Recruitment and Selection
Introduction to Behavioral Statistics	Human Resource Issues in Pakistan	Industrial Relation and Labor Law
Semester Four	Semester Five	Semester Six
Counseling Psychology	Psychological Testing-II	Elective I
Personnel Psychology	Behavior Modification in Industry	Elective II
Employee Training and Development	Leadership & Strategic Change	Elective III
Negotiation Skills & Collective Barg.	Research Practicum in HRM	

Course Structure (Career Option II Majors HRM)

Semester One	Semester Two	Semester Three
Principles of Management	Group Dynamics	Research Methods in Org. Psychology
Human Resource Management	Organizational Consulting Skills	Consumer Behavior
Intro. to Organizational Psychology	Psychological Testing-I	Recruitment and Selection
Statistical Inference	Human Resource Issues in Pakistan	Industrial Relations and Labor Laws
Semester Four	Semester Five	Semester Six
Counseling Psychology	Psychological Testing-II	Elective I
Personnel Psychology	Behavior Modification in Industry	Elective II
Employee Training & Development	Leadership and Strategic Change	Elective III
Negotiation Skills & Collective Barg.	Research Project / Practicum	
	(3 credit hours)	

MSc ORGANIZATIONAL PSYCHOLOGY AND HUMAN RESOURCE MANAGEMENT FOR STUDENTS WITH 14 YEARS EDUCATION

The program is geared towards professionals who wish 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 three-year weekend program requires successful completion of 108 credit hours of course work, including 36 courses and 3 credit hours research project each spread over six semesters. Students are expected to maintain a CGPA of 3.0 and successful completion of research project for the conferment of the degree. This program combines study in psychology with courses in human resource management, workplace relations, leadership and 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 3 semesters (Fall, Spring and Summer)

Foundation Courses

Psychology PSY400 Introduction to Organizational Psychology

Management MAN401 Principles of Management MAN402 Organizational Behavior MAN413 Corporate Social Responsibility

Human Resource Management HRM401 Human Resource Management

Marketing MKT401 Principles of Marketing

Statistics STA410 Introduction to Behavioral Statistics

Communication

COM402 Business Communication COM405 Organizational Consulting Skills COM403 Interpersonal Communication Skills

Social Sciences

SSC104 Principles of Sociology SSC401 Business Ethics

Management Information System

MIS401 Computer Applications





It's a delight to have educational accolades from a place like IoBM that not only gives quality education but also gives

self-reliance as how to face professional world once we are out in the professional arena. I feel a sense of accomplishment by completing my graduation and master degree program from IoBM. Having IT and Marketing knowledge, I mastered the skills of business development right after I graduated and joined IT industry of Pakistan in 2010. Later on I was moved to Oman in 2011 and recently I have been relocated to UAE. From the very beginning of my career, I have always tried to embrace business practices (that I learnt during my stay at IoBM). This practices have helped me in getting abreast of the game in IT services industry and has certainly taken *me to the paramount level – one can dream* of! IoBM will always have a special place in my heart for making me what I am today. Thanks to faculty, management, and staff for providing extra ordinary services to the student community and to Alumni.

Faizan Sattar Baloch Alumnus Director Operations Microsoft Enterprise Services, KalSoft UAE



IoBM was an important part of my learning and professional development as a business student majoring in finance. It was

engaging on so many levels- educationally with enlightening lectures and discussions; the curriculum was responsive to my needs from both the theoretical and practical perspectives in our field. Professionally, the Institute offered me a platform to showcase my personal and business skills in several international and national business challenges such CFA Research Challenge, Telenor OCMT and CIMA GBC where my team represented IoBM and Pakistan in the global final in 2012. Being amongst the recipients of gold medal for BBA and MBA is much like an amazing cover art for a book that holds stories of the five brilliant years I spent at IoBM and the lessons learnt in these years allow me to move forth in my professional life.

Hina Rahman

Gold Medalist (MBA Regular) Senior Officer - Working Capital Mgmt. Damco Pakistan (Pvt) Ltd

Elective Courses

Course Structure

Psychology

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

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

- HRM408 Human Resource Issues in Pakistan
- HRM501 Recruitment and Selection
- HRM502 Industrial Relation and Labor Law
- HRM503 Employee Training and Development
- HRM504 Negotiation Skills and Collective Bargaining
- HRM530 Research Practicum in HRM
- HRM505 Organizational Change & Development
- HRM506 Strategic HRM
- HRM511 Performance Appraisal

Human Resource Management

HRM508 Salary and CompensationHRM509 Leadership StudiesHRM531 Pay for Performance and RewardHRM532 Performance Management

Semester One	Semester Two	Semester Three
Intro. to Organizational Psychology	Principles of Management	Human Resource Management
Introduction to Behavioral Statistics	Principle of Marketing	Organizational Behavior
Principle of Sociology	Personality Theories	Performance Appraisal
Computer Applications	Business Ethics	Business Communication
Semester Four	Semester Five	Semester Six
Corporate Social Responsibility	Human Resource Issues in Pakistan	Research Methods in Org. Psychology
Group Dynamics	Psychological Testing-I	Consumer Psychology
Industrial Relation and Labor Law	Organizational Change & Development	Recruitment and Selection
Organizational Consulting Skills	Interpersonal Communication Skills	Strategic HRM
Semester Seven	Semester Eight	Semester Nine
Counseling Psychology	Psychological Testing-II	Elective I
Personnel Psychology	Behavior Modification in Industry	Elective II
Employees Training and Development	Leadership & Strategic Change	Elective III
Negotiation Skills & Collective Barg.	Research Practicum in HRM	Elective IV

MPHIL LEADING TO PHD IN ORGANIZATIONAL PSYCHOLOGY

The MPhil leading to PhD 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 from IoBM or Master's degree holders in the relevant subject 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. Experience in research or teaching will be considered as an additional qualification.

Program Structure

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

Additional PhD level course work of at least 18 credit hours followed by thesis defense is required for the award of PhD degree.

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 PsychologyMPP609 Personnel Psychology in the Work PlaceMPP611 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)





Joining IoBM, I believe, was the wisest decision I ever made which supported me in my transition in becoming a complete and thorough

business professional. I remain highly indebted to my distinguished faculty for their able quidance and support which helped me achieve the honor of Gold Medal for MBA(R) and to become the valedictorian of MBA Convocation 2013. During my course of bachelor's and master's degree I remained merit scholarship holder throughout. I am very thankful to IoBM for giving me a platform to actively participate in extracurricular activities as well, in which I represented Pakistan on behalf of IoBM in the global final of CIMA Global Business Challenge 2012 which was held in Sri Lanka. This not only boosted my level of confidence but also gave me a chance to meet business students like me from all over the world. The real and enduring education provided by IoBM to its students will definitely help them succeed in their professional career and growth.

Ayena Maqbool

Gold Medalist (MBA HRM) Officer Finance Lucky Cement Ltd.

MS ECONOMICS



Economics Finance



This program is proposed for MA \ MSc students who have 16 years of prior 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 coursework for 30 credit hours and six credit hours of thesis writing.

Required Courses

Economics

Microeconomics
Macroeconomics
Econometrics and Research Methods
Theory and Practice of Economic Policy
Development Economics
Mathematical Economics

Elective Courses

ECO516 Monetary Economics

FIN503 Corporate Finance FIN518 Current Issues in Islamic Finance FIN406 **Financial Econometrics** FIN517 Theory and Practice of Finance

Course Structure

Semester One

Microeconomics Macroeconomics **Econometrics and Research Methods**

Semester Two

Theory and Practice of Finance Theory and Practice of Economic Policy **Financial Econometrics**

Semester Three

Elective I Elective II Thesis Writing (6 credit hours)



MS/MPHIL IN EDUCATION

MS/MPhil in Education is specially geared for teachers teaching at all levels in private and public sector institutions as well as administrators who have an interest in research. This is a two-year degree program completed by advanced coursework and research. Candidates can enroll for a minimum of two years and a maximum four years. The coursework is offered in the first year and the second year of candidature is devoted to thesis writing. At the end of the first year, the candidates are required to produce an extended research proposal (approximately 2500-3000 words). Upon acceptance of their research proposal, the candidates are guided to conduct research and are finally examined on the basis of thesis defense and written presentation of the thesis of an upper limit of 20000 - 25000 words.

Eligibility

- As per HEC policy 16 years of education in the relevant field of study with 3 CGPA or B-Grade
- Candidates must clear NTS test

Program Details

- Duration: 2-4 years
- Number of courses: 8 courses
- Course: 24 credit hours
- Thesis: 6 credit hours
- Minimum CGPA requirement for the award of degree: 3.0

Course Structure

Semester One

- MPE615 Research Methods in Education
- MPE617 Statistical Testing and Inferences in Education
- MPE603 Policies and Education in Pakistan

Semester Two

MPE604Developing a Research ProjectMPE605Economics of EducationMPE606Global Issues in Education

Semester Three

MPE610 Philosophical Foundations in Education MPE611 Readings in Education

Semester Four - Six MPE609 Research Thesis



PHD IN PSYCHOLOGY

PhD in Psychology is a program that will promote scholarship, research, and service at an academic level. The doctoral program will inspire to be the highest degree of excellence at Institute of Business Management for faculty and candidates alike to remain current in the research literature, and to conduct socially relevant and intellectually competent research in the specialized areas.

Eligibility

MS/MPhil 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, 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 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)
- On completion of dissertation/thesis the student is awarded 12 credits

A PhD student must additionally complete the following requirements:

- Pass Comprehensive Exam
- PhD Proposal/Synopsis Development
- Pass 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
- Publish at least one paper in an ISI indexed or an HEC recognized journal. An official acceptance of the paper is also acceptable
- Evaluation of PhD Dissertation by two foreign faculty members from developed countries as per HEC criteria
- Dissertation/Thesis Finalization
- Open defense of PhD dissertation
- Meet any other HEC requirement
- Final Dissertation/Thesis Submission to BASR
- Degree Award

Course Structure

Semester One

PSS701 Methods and Issues in Advanced Qualitative Research PSS703 Methods and Issues in Advanced Quantitative Research

Semester Three

Elective course for Psychology

PSS709 Measurement and Assessment PSS710 Psychology of Personality

Semester Two

PSS705Seminar in Multidisciplinary StudiesPSS707Independent Study

Semester Four to Nine

PSS850 Research Thesis

PHD IN EDUCATION

The aim of PhD in Education is to promote scholarship, research, and service at an academic level. The doctoral program will inspire to be the highest degree of excellence at the Institute of Business Management for faculty and candidates alike to remain updated in the current research literature and to conduct socially relevant and intellectually competent research in the specialized areas. This program will address research competencies with a range of courses in education.

Eligibility

MS/MPhil 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, 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 course work and dissertation/thesis. Minimum duration is 3 years and maximum is 5 years:

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- Pass Comprehensive Exam
- PhD Proposal/Synopsis Development
- Pass 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
- Publish at least one paper in an ISI indexed or an HEC recognized journal. An official acceptance of the paper is also acceptable
- Evaluation of PhD Dissertation by two foreign faculty members from developed countries as per HEC criteria
- Dissertation/Thesis Finalization
- Open defense of PhD dissertation
- Meet any other HEC requirement
- Final Dissertation/Thesis Submission to BASR
- Degree Award







Course Structure

Semester One

PSS701 Methods and Issues in Advanced Qualitative Research PSS702 Advanced Educational Philosophy

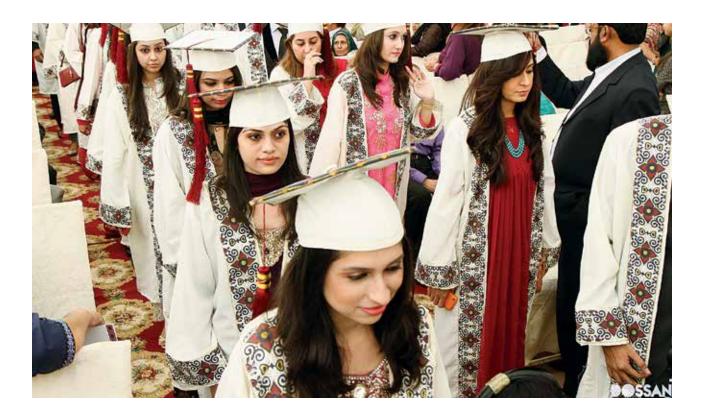
Semester Two

PSS703 Methods and Issues in Advanced Quantitative Research PSS705 Seminar in Multidisciplinary Studies

Semester Three (Electives: Select any Two)

PSS710 Planning, Developing and Evaluating Curriculum PSS 712 Educational Policies and Organizational Development PSS 714 Managing Educational Projects and Intervention PSS 716 Education for Human Development PSS 718 Managing Learning Organizations PSS 720 Teacher Professional Development

Semester Four to Nine PSS850 Research Thesis



PHD IN ECONOMICS

The PhD Economics Program focuses on imparting state of the art teaching and research skills within the broader economics discipline. Students registering for the program should have a thorough knowledge of economic theory, technical and quantitative skill, 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

MS/MPhil 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 / M.Phil or 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 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)
- On completion of dissertation/thesis the student is awarded 12 credits

A PhD student must additionally complete the following requirements:

- Pass Comprehensive Exam
- PhD Proposal/Synopsis Development
- Pass 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
- Publish at least one paper in an ISI indexed or an HEC recognized journal. An official acceptance of the paper is also acceptable
- Evaluation of PhD Dissertation by two foreign faculty members from developed countries as per HEC criteria
- Dissertation/Thesis Finalization
- Open defense of PhD dissertation
- Meet any other HEC requirement
- Final Dissertation/Thesis Submission to BASR
- Degree Award







Required Courses

PDE701 Advanced Research MethodologyPDE702 Advanced Applied EconometricsPDE703 Development EconomicsPDE704 New Dimensions in Economics and Public Policies

Elective Courses

- PDE711 Industrial Economics
- PDE712 Public Finance
- PDE713 International Trade
- PDE714 Selected Topics in Monetary Economics
- PDE715 Selected Topics in Islamic Economics

Political Economy and Economic Policy Analysis, and (ii) Discourses on Globalization

Course Structure

Semester One

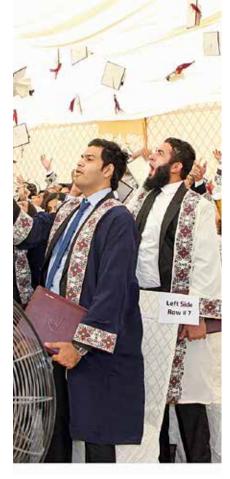
Advanced Research Methodology Advanced Applied Econometrics

Semester Two

Development Economics New Dimensions in Economics and Public Policies

Semester Three

Elective I Elective II Semesters Four to Nine PDE850 Research Thesis



INTERNSHIP AND PLACEMENT PROGRAMS

INTERNSHIP PROGRAM



Eligibility for Internship

MBA: Minimum CGPA = 2.8 BBA / BS (Honors): Minimum CGPA = 2.4 IoBM makes efforts to help students get some experience in highly competitive organizations. Their fresh ideas, unique perspectives and fundamental knowledge are important assets that can help shape the future of an organization. The Internship Program for interns is designed to provide students with the opportunity to work on meaningful assignments and gain real-world experience. Real-world experience is aligned to the courses studied by students. Such experience is of vital importance to students in two main areas:

1. Gain Valuable Work Experience in the Chosen Field of Interest

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

2. Decide on Right Careers Prior to Graduation

An internship provides a more accurate picture of what individuals do in certain professions. After experiencing a particular job environment and observing what it entails, students may decide if this is the right career for them. The internship is compulsory for all MBA, BBA, and BS final year students, and has a minimum duration of six consecutive weeks. Executive students are exempted from the internship program.

8 Semesters of Study Completed at IoBM = Two
 4 Semesters of Study Completed at IoBM = Six

- MBA & BBA (Honors) students should have passed the Methods in Business Research (MBR) course.
- The Institute selects the organization for internship for the student.
- A student has to select and write a case study on an intriguing problem faced by the organization or department where the student interns and to suggests workable solutions considering the courses studied.
- Students are required to explain in their report how the internship enriched their learning by identifying theories and concepts studied in class and their application in relation to their experience in the organization of internship. Reports are graded as follows:

A - Grade = 3.89 points B - Grade = 3.33 points

Grades lower than 'B' are considered 'satisfactory' and are not awarded any marks. Interns who fail to get a passing grade are required to re-write their reports.

- Reports are required to be submitted by an intern within two weeks of completion of the internship.
- All sponsoring organizations are requested to evaluate the intern's performance on a prescribed form which is discussed with the intern so as to focus on his/her strengths and weaknesses.

ORGANIZATIONS WHERE IOBM STUDENTS HAVE INTERNED

AA Packaging Industries AAG TV Abbott Pakistan ABUDAWOOD ACCA Pakistan **Access Communication Solutions** Adamjee Insurance Adcom (Pvt) Ltd. AdMail Connection Magazine Advance Trading Corporation **ADVANS Micro Finance Bank** Adys Sourcing **AEG Travel Services** Afroze Textiles Aftab Technologies **Agility Logistics** Agro Processors & Atmospheric Gases AIESEC Airmen Golf Course & Recreational Park Aisha Steel Mills AKD Investments **AKD** Securities AKD Trade Al Baraka Bank (Pakistan) Ltd. Al Ghazi Tractors Limited Al Karam Textiles Limited Al Meezan Investment Management Ltd. Al Zeb Industries Al Zohaib Textile Mills Alfa Engineering Algorithm Consulting Ali Gohar Pharmaceuticals Allied Bank Pakistan Limited Allied Engineering & Services Alpen Solutions Amerli Steels Ltd. Analytical Measuring Systems Pvt. Ltd. Anees Hussain Anjum Asim Shahid Associates Ltd. Anzo Chemicals Apna TV Arena Arif Habib Commodities Arif Habib Investments Limited Arif Habib Securities Limited Aroha Labs Arpatech (Pvt) Ltd.

Artistic Milliners **ARY Digital Network** ASCO International Pvt. Asia Petroleum Ltd. Asiatic Public Relations Network Askari Commercial Bank Limited Atlas Group of Companies Atlas Honda Limited Atlas Lease Limited Atrium Mall Management Attock Cement Pakistan Limited Aurora Automobile Corporation of Pakistan **Avanza Solutions** Axact **Aziz Products Babson Noller Corporation Bake Parlor Banbhore Ceramic Industries** Bank Al Habib Ltd. Bank Alfalah Limited Bank Islami Limited Bank of Punjab **Barclays Bank Limited** BASF Pakistan Pvt. Limited Bayer Pakistan Pvt. Limited BBCL Pvt. Ltd **Berger Paints Pakistan Limited** Biogenics Pakistan (Pvt.) Ltd Blitz Advertising Pvt. Limited BMA Capital Pvt. Limited **BOC** Pakistan Limited Bosch Pharmaceuticals (Pvt.) Ltd. **BP** Pakistan Exploration & Production BR&W Pvt. Limited **Brands** Image **Bridge Consultants Foundation Brookes Pharmaceutical Laboratories** Bullseve 360 Burj Bank Burque Corporation Pvt. Ltd Byco Petroleum Pakistan Ltd. Candyland Cargo Care Casual Mode Pvt. Ltd. Central Depository Company of Pakistan Chevron (Formerly Caltex)

CIM Shipping Circuit Advertising Citi FM 89 Citibank N.A. Citizen Archive of Pakistan **City School Clariant Pakistan Limited** Coca-Cola Beverages Pakistan Ltd. Commercial Union Assurance PLC. Concern for Children Trust **Continental Biscuits Limited** Cool & Cool Cordoba Corporation **Corvit Technologies** Cox & Kings (Agents) Limited Creative Chaos Pvt. Ltd. Creative Jin Creativedge Communications Credit & Commerce Consultants **Crescent Bank Limited** Crescent Steel and Allied Products Ltd. Cres-Soft Pvt. Limited **Crown Power Est** CrystaLite, Inc **Cummins Sales & Services** Cupola Pakistan Limited Cybernet Cynamid Pakistan Limited Dada Dairies Dalda Foods Pvt. Limited DAMCO Dawlance Pvt. Limited Dawn Group of Newspapers Dawn News TV **Dawood Hercules Corporation** Deal Club Dealtoday.pk Deflog Pvt Ltd. Deloitte Delta shipping Deutsche Bank A.G. Dewan Cement Dewan Mushtaq Group DG Harbour **DHL Global Forwarding DHL** Pakistan Limited **Diamond Impex Corporation** Dr. Sulaiman Al Habib Medical Group **Dreamworld Resort** Dubai Islamic Bank Dupont Far East Inc. EDP Services Pvt. Limited Efro Tech Services

Efroze Chemical Industries Pvt. Ltd. **EFU** Insurance Eli Lilly Pakistan (Pvt.) Limited **Elixir Securities Emaculate Solutions** Emirates Global Islamic Bank Ltd. Emirates Investment & Development, Dubai Empact English Biscuits Manufacturers Ltd. Engro Asahi Polymer & Chemicals Ltd. Engro Chemicals Pakistan Ltd. Engro Corp. **Engro Foods Engro Powergen** Engro Vopak Terminal Ltd. **ENI Pakistan Limited** ePlanet Communication **Etihad Airwavs ETON FINANCIAL** Event Architects Pvt. Ltd. Express News **Express Tribune** Facilities Shipping Agency Far Eastern Impex (Pvt) Ltd Fauji Fertilizer Company Ltd. Fauji Foundation Securities Faysal Asset Management Ltd. Faysal Bank Limited Fecto Cement Ltd. Ferguson's Associates First Women Bank Ltd. Five by Five Communications Float Securities Pvt. Ltd. FM 107 Pvt. Limited FM Radio 91 Fontanalia Four Season Garment Freedom Security Friends & Co **Gatron Industries Genesis Direct** Geo TV Gerry's Information Technology Gestetner Pvt. Limited Getz Pharma Ghandhara Nissan Diesel Ltd. Gillette Pakistan Limited GlaxoSmithKline Pakistan Ltd. **Global Sea Foods Gloria Jeans GM** Fashion Godil Cold Chain Pvt. Ltd. **Gravity Communications**

Green Star Social Marketing GroupM Gul Ahmed Textile Mills H&S Pvt. Ltd. Habib Bank AG Zurich Habib Bank Limited Habib Metropolitan Bank Limited Hanif Packages Harvest Topworth International Hawk Advertising Helium Pvt. Ltd. Hermain Travels **Higher Education Commission Pakistan** Hilal Confectionary Ltd. Hilton Pharmaceutical Pvt. Ltd. Hinopak Motors Limited Hoechst Marion Roussel Pakistan Home Express **HRS Global HRSG** Recruiting HRSI HSBC Bank Middle East Ltd. Hubcrete Pvt. Ltd. Hum TV HYACINTH Hyeworth Renault Petersen Pak Pvt. Ltd. I.Q. Knitwear IAL Saatchi & Saatchi **IBEX Global** IBM – Pakistan **ICI** Pakistan Limited Icon Securities (Private) Ltd IEC Pvt. Ltd. **IGI** Financials **IGI** Insurance Indus Motor Company Ltd. Institute of Securities Management & Research Intel Pakistan Corporation Interflow Communications Pvt. Ltd. InterGraphics C&A Pvt. Ltd. International Advertising Pvt. Limited International Asset Management Co. Ltd. International Brands Limited **Invest & Finance Securities Limited** Invest Capital Pvt. Ltd. Ismail Hamed & Sons Ismail Industries Limited Ismail Igbal Securities (Private) Limited ISMAR **ITOCHU** Corporation Izhar Concrete J & P Coats Pakistan Pvt. Ltd. J. Walter Thompson Asiatic Pvt. Ltd.

Jaffer Brothers Limited Jaffer Business Systems (Pvt.) Ltd. Jahangir Siddiqui & Co. Ltd. Jang Group Javed Engineering Enterprise JCR-VIS Credit Rating Company Jofa International Johnson & Johnson Pakistan IS Bank Limited JS Global JS Investments Limited Jubilee Life Insurance JWT Pakistan Kalsoft Pvt. Limited Karachi Cargo Services Pvt. Ltd. Karachi Electric Supply Corporation Karachi International Container Terminal Ltd. Karachi Stock Exchange Limited KARSAZ Pvt. Ltd. **KASB Bank Limited KASB** Securities Limited Khadim Ali Shah Bukhari & Co. **Knoll Pharmaceuticals Limited** Kolson Pakistan **Kopack Shipping** KPMG Taseer Hadi & Co. Lakson Business Solutions Ltd. Lakson Group of Companies Lane 12 Li Fung (Singapore) Pte. Limited Liberty Books Lisco Pakistan Logicose L'oreal Pakistan Lowe & Rauf Pvt. Limited Lucky Cement Ltd. Maaz Pharmaceutical Macter Pharma Maersk Pakistan Pvt. Ltd. Magnus Investment Advisors Limited Maison Cosulting And Solutions Mamora International Management Association of Pakistan Manhattan Leo Burnett Marina Industries Marksman Advertising Marriott Hotel Martin Dow Pharmaceuticals (Pak) Ltd. Matech Consulting and Outsourcing MCB Bank Limited MCR Pvt. Limited – Pizza Hut Meat One Meeco Asia Pacific

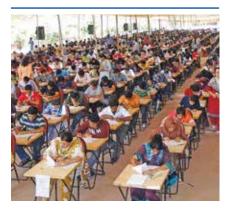
Meezan Bank Ltd. Meher Associates Pvt. Limited Merck Pharmaceutical Merck Sharp & Dohme of Pakistan Limited Merit Packaging Ltd Meritocracy Metlife Alico MicroSoft Pakistan Midas Safet Millennium Software Pvt. Ltd. Mindshare Pakistan Pvt. Ltd. MM Group of Companies Mobil Askari Lubricants Mobilink **MPS** Securities Muller & Phipps Pakistan Ltd. Multinet Pakistan Ltd. **Mustagim Dyeing & Printing Industries** Nabi Qasim Industries Nanosoft Technologies Narejo Human Resources Nash Advertising National Bank of Pakistan National Foods Limited National Industrial Parks Ltd. National Marketing Services National Refinery Ltd. Naveena Exports Pvt. Ltd. **Nedo Corporation** Nestle' Milkpak Limited **NIB Bank Limited** NIFT Nippon Paint Novartis Pharma Pakistan Ltd. Novo Nordisk Pharma Ocean Express Agencies Octara Pvt Ltd. Ogilvy & Mather **Oman International Bank** Opal Laboratories Pvt. Ltd **Oratech Systems Orient Communications Orient Energy Systems** Orix Investment Bank **Orix Leasing Pakistan Limited Osaka Lighting** OTSUKA Oxygene P&O Nedlloyd Pacon Manufacturing Pak Brunei Investment Company Pak Greaf Pak Gulf Leasing Company Ltd.

Pak MediaCom Pvt. Limited Pak Mercantile Pak Oman Asset Management Company Pak Oman International Bank Ltd. Pak Oman Microfinance Bank Limited Pak Qatar Family Takaful Limited Pak Suzuki Motors Co. Ltd. Pakistan Beverage Ltd. Pakistan Credit Rating Agency Pakistan Currency Exchange Pakistan International Airlines Pakistan International Container Terminal Ltd. Pakistan Mercantile Exchange Pakistan Petroleum Limited Pakistan Refinery Limited Pakistan State Oil Co. Limited Pakistan Steel Mill Pakistan Tobacco Company Limited Pak-Kuwait Investment Co. Ltd. PARCO Park Towers – Prime Management Services Parke Davis & Co. Limited PFI Pepsi Cola International Limited Pfizer Laboratories Limited Pharmatec PharmEvo Private Limited Philip Morris International **Philips Electrical Industries Limited** Pkstudent.com **Popular Fabrics** Port Qasim Authorities **Premier Distributer** Prestige Communications Pvt. Ltd. Prime Human Resource Services (Pvt) Ltd Procter & Gamble Pakistan Limited Protege Global Punjab Oil Mills Limited Qasim International. Container Terminal Ltd. Qatar Airways Qubee **Rajby Industries Reckitt Benckiser Pakistan Limited** Red Bull **Red Communication** Red Cut **Regent Plaza Hotel Relacom Pakistan Reuters Limited Rhone Poulenc Rorer Pakistan RK Printers Roche Pakistan Limited** Rocket Internet (Daraz.pk)

Ryan Agencies Saleega Sandrill Sanofi-Aventis Pakistan Ltd. Sapphire Textile Mills Limited Sattar & Sattar Co. Scentsation Schneider Electric Searle Pakistan Limited Shadman Cotton Mills Limited Shamrock Communications Shan Foods Sharp-Filter Pvt. Ltd. Shell Pakistan Limited SHELL Tameer Sheraton Hotel Shield Pakistan Sidat Hyder Siemens Pakistan Limited Silchem Silk Bank Ltd. Sindh Bank Ltd. Sindh Technical Education and Vocational Training Authority Skyline SMS Pakistan Solushunz Soneri Bank Ltd. SoSafe Water Technologies Spark Communication Spectrum Communications **Standard Capital Securities** Standard Chartered Bank Limited State Bank of Pakistan Status Pro Strongman Medline Sui Southern Gas Company Limited Summit Bank Ltd. Symmetry Synergy Advertising Pvt. Limited Syngenta Tapal Tea Pvt. Limited Target Resourcing Tariq Abdul Ghani & Co. Ltd. Tata Best Foods Taurus Securities Limited TCS Pakistan Ltd. TDAP Teach For Pakistan Telenor Pakistan Pvt. Limited Terv World Textiles Tetra Pak Texas Heart Institute Texpo Pakistan

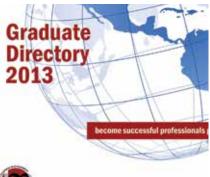
Tharparker Sugar Mills The Financial Daily The Aga Khan University Hospital The Citizens Foundation The First Micro Finance Bank Ltd. The Resource Group THK Associates Pvt. Ltd. **Topline Securities** Torque Toyota Motor Corporation **TPL** Trakker Tradekey Pvt, Ltd.Total Lubricants **Tri-Emmm Textile Products** U.F. Enterprises (Pvt) Ltd. Ufone Unicon International Unilever Pakistan Limited Unisys Pakistan Pvt. Limited United Bank Limited United Electrical Engineers Pvt. Ltd. **Universal Express** USAID Usmanco International VectraCom Vision Direct Marketing W Woodwards Pakistan Ltd. Warid Telcom Pvt. Limited Westminster & Eastern Financial. Services World Wide Cargo Service WorldCall Wrap n Roll Wyeth Pakistan Limited **Xcess Logistics** Xenith Public Relations (Pvt.) Limited Yapı Kredi Invest Yunus Textile Mills Limited Zafa Pharmaceutical Laboratories Ltd. **Zeppelin Communications ZIL** Limited Zindagi Service Limited Zong 360 Training 3M Pakistan Pvt. Limited

PLACEMENT PROGRAM



IoBM lays tremendous emphasis on its close collaboration with the government, firms, banks and leading HR consultants so as to ensure appropriate induction of its graduates into such organizations. Close linkages are maintained with CEOs and Heads of Departments in organizations so as to provide the best career prospects for graduates. Efforts are made to match the talents of students with requirements of both multinational and local organizations.

Emphasis has been placed on the requirement of Career Fair Seminars. They provide a meeting ground between the corporate world and graduates with the provision of resumes to HR representatives where students are selected for jobs against their requirements immediately, or at a later stage since their personal data remains easily available with such organizations for possible employment. In Career Seminars, graduates are given fresh insight into the corporate world with detailed discussions on the writing of resumes and methodology in performing well during interviews.





Institute of Business Management



IoBM's Internship & Placement Department provides a firm commitment to its graduates for developing careers. This begins from the point the student is inducted and continues with a life long partnership. We assist our graduates / alumni in finding their career paths. Some of the activities designed for placing students include, but are not limited to:

1. On Campus Recruitment Drives

The Internship & Placement Department has been able to develop strong relationships with the corporate sector by signing MoUs for both Internship & Job Placements, co-sponsoring guest lectures and seminars. As a result, companies frequently conduct on campus recruitment drives. This includes such organizations such as Unilever, P&G, ICI, GSK, Engro, etc.

2. Publishing Annual Graduate Directories

MBA graduates are invited to showcase their resumes in IoBM's bi-annual Graduate Directory. This publication is circulated to about 264 national and multinational companies and is an essential tool for being placed in the market. The Internship & Placement department recently conducted a survey to determine the efficacy of this document. It was found that 62% of the respondents were contacted for interviews and 69% of these were able to secure positions.

3. Career Counseling

Guidance and counseling is an extremely important aspect of development for young adults at IoBM. With this in mind the team in the Internship & Placement Department is constantly engaged in assisting students in the entire process of preparing for and actually finding jobs for them.

4. Guest Lectures by Industry Experts

Recognizing the importance of networking and relationship management, the Department frequently invites industry professionals for lectures, conferences and corporate events. Our aim is to provide students with the opportunity to establish a strong and lasting contact base before graduation to ensure that they are able to get positions in the industry and business organizations.

5. Workshops Related to Career Management

The department has recently introduced periodic in-house workshops such as interviewing techniques, resume writing, behavior patterns in organizations, etc.

6. Career Fair

The department organizes a Career Fair, inviting organizations engaged in their recruitment cycle to make company presentations and answer questions from students. The department envisages this as an annual event not for only interactive sessions between students and the corporate world, but also for providing resumes for either immediate employment, in case jobs are available with the organization concerned, or resumes being kept pending by organizations for jobs whenever such an opportunity arises.

7. Job Alerts via Group mail, Notices and Rozeepk.com

IoBM's Internship & Placement Department manages a database of job opportunities in the market. Students are provided opportunities through group mails, notices and an online web portal in collaboration with Rozeepk.com.







FIRMS EMPLOYING IOBM GRADUATES

A.F. Ferguson & Co. Chartered Accountants A.I. MIR LLC Aaj TV AASA Consulting (Pvt) Ltd. Aba Ali Habib Securities Abacus-Global ABAMCO Limited Abbott Laboratories Pakistan Ltd. Abu Dawood Trading Company AC Nielsen ACCA Pakistan Ace Insurance Limited ACM Gold Pvt. Ltd. Adam Motor Co., Limited Adamjee Life Insurance Adcom Pvt. Limited ADM Denim ADVANS Micro Finance Bank Aftab Associates Aga Khan Education Services Agfa Gaveart Pakistan Ahmed Foods AIG Pakistan Airmen Golf Course & Recreational Park Aisha Steel Mills Ltd. Akber Ali & Sons **AKD Commodities AKD** Securities **AKU Institute of Education** Al Marai, Saudia Arabia Al Meezan Investment Management Limited Alfalah Securities Ali Asghar Textile Mills Ltd. Ali Gohar & Co. Limited Allianz EFU Health Alma Matters **Al-Mughal Trading Corporation** Alstom Pakistan (Pvt.) Limited Alternate Research Pvt. Ltd. Aman Foundation American Pacific Enterprises LLC AMFCO International 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 ARY Shopping Channel** AsiaCare Health & Life Insurance Asiatic Public Relations Network Ltd. Askari Bank Limited Asktourism ATCO Laboratories Pakistan Atlas Honda Attock Cement Pvt. Limited Auspak Automobile Corporation of Pakistan Avanza Solutions Aventis Pharma Pakistan Limited Axact **Axis Communications** Bandhani Group Bank Alfalah Limited Bank Al-Habib Limited Bank Islami Limited Bank of Punjab **Barclays Bank Limited** BASF **Bayer** Pakistan BDO Ebrahim & Co. Chartered Acc. BenchMatrix **Bentham Science Publishers Berger Paints Pakistan Limited Beyond Profits** Bhoja Air (Pvt.) Limited Blitz Advertising (Pvt.) Limited **Blue Communications BMA Capital Management Limited** Boom Group Pakistan **Bosch Pharmaceuticals** Bottom-line Pvt. Ltd. **Bounty Studio BP** Pakistan Exploration & Production **Brand Mileage Brand Synario**

Breezecom Pvt. Ltd **Bridgestone Tires Pakistan Limited British Oxygen** Bullseve 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 Caresse Cosmetics, Santcos Limited **Celentas Digital Solutions** Centegy Technologies (Pvt.) Ltd. Central Depository **CIM Shipping Citi Security** Citibank N.A. Citizen Archive of Pakistan **Citizens Foundation Clariant Pakistan Limited Classic Designs Classified Tribune** Clicktrade Cloud BPO CM Pak 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 Limted** Crystal-Lite Cubix Labs Cupola Pakistan Limited **Custom HR Solutions** Cybernet Dadabhoy Investments Pvt. Ltd. Dadex Dalda Foods Pvt. Ltd. DAMCO Dawlance (Pvt.) Limited **DAWN Group of Newspapers**

Deal Club Deal Today Dealon Deloitte **Descon Engineering Deutsche Bank** Dewan Group Dewan Mushtaq Trade Ltd. DG Harbour DGS Pvt. Ltd. **DHL** Forwarding **DHL Global Forwarding DHL** Pakistan Limited **Digital Tribe Directing Edge** DMK Consultancy **Dollar Industries Dolmen Group** Dot Images Dow Jones **Drug Information Systems** Dubai Islamic Bank Duleaf **Dupont Pakistan EDGE** Financials **EFU General Insurance Limited** EFU Life Eli Lilly Pakistan (Pvt) Ltd. Elixir Securities Pakistan Ltd. Emirates Bank Ltd. **Emirates Global Islamic Bank Limited** Empact Engage 24*7 Engage Consulting English Biscuits Manufacturers Ltd. Engro Corp. Engro Foods Ltd. Engro Pak Tank Terminals Limited **Engro Polymer Pakistan ENI Pakistan Limited EPFirms** Ephlux ePlanet Communication Epoxy Industries (Pvt.) Limited eSys Pakistan **Etihad Airways** Etilize Pvt. Ltd. Evalution Factor (Pvt) Ltd. **Evernew Entertainment Evolution Advertising** Excelerate **Express News** Faysal Asset Management Ltd.

Faysal Bank Limited **Fidelity Insurance** First Capital Equities Pvt. Limited First Women Bank Ltd. **Fitness Republic** Flight Connections Focus Humanitarian Folio 3 Food Connections Pakistan Forex Financial Products Forte Pakistan Pvt. Ltd. Foundation Public School 14th Street Pizza Freight Systems Co. Ltd. Friends of Literacy & Mass Education **FYSL Trade** Gatron Industries Ltd. / Novatex Ltd. GEMCO Pakistan Ltd. General Tyre & Rubber Company Ltd. Genix Pharma Private Limited. Getz Pharma Ghulam Farooq Group Giga Group of Companies GlaxoSmithKline Pakistan Limited Global Food Marketing **Global Seafood Marketing** Global Securities Pvt. Ltd. Goodcore Technologies Greaves Airconditioning (Pvt) Ltd. **Green Cherry Solutions** Green Star Social Marketing Pakistan (Guarantee). Limited **Gul-Ahmed Textile Mills** Gumcorp Pvt. Ltd. Habib Bank AG Zurich Habib Bank Limited Habib Metropolitan Bank Ltd. Habib Oil Mills Limited Habib University Foundation Habitt Haleeb Foods, HANDS Pakistan Hasnain Tanweer Associates (Pvt) Ltd. HBL Asset Management Ltd. Herbion International Inc. Hilal Confectionary Pvt. Ltd. Himont Pharmaceutical Pvt. Ltd. **Hinopak Motors Limited** Hirelabs Home Express HRS Global **HRS** International HSBC Bank Middle East Ltd. HUBCO

Hum TV Human Resource Solutions HURD IAL Satchi & Satchi **IBEX Global** IBL Group **IBM** Pakistan **ICE** Animation **ICI** Pakistan Limited Icon Global **Icon Securities ICS Group of Companies** Ifra Soft Technology IGI Financial Services IJARA Imrooz Inbox Business Technology Indus Bank Limited Indus Motors Company Industrial & Commercial Bank of China Industrial Development Bank of Pakistan Information Technology Services Intel Pakistan Interactive Cell **Interactive Health Solutions** Interflow Communications Pvt. Ltd. International Advertising Pvt. Ltd. International Asset Management Company **INVATERRA** Invest & Finance Securities Limited Invortex Technologies **Iris Communication** Islamic Investment Bank Ismail Igbal Securities IT Link Online J&P Coats Pakistan Pvt. Ltd. J. Walter Thompson Asiatic (Pvt.) Ltd. Jaag Broadcasting Systems Pvt Ltd. Jaffer Brothers Limited Jahangir Siddigui & Co. Limited Jason Group of Companies JCR-VIS Credit Rating Co. Ltd. Jeem Solutions Johnson & Johnson Pakistan Ltd. Jotun Powder Coating JS Bank Limited JS Global Capital Limited **JS** Investment Junctionz KalSoft (Pvt.) Limited Karachi Deals Karachi Electric Supply Company 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 (Formerly KESC) Khadim Ali Shah Bukhari & Co. Ltd. Khalig Fashion KNYSYS Kopak Shipping Company KPMG Taseer Hadi & Co. Khwaja Ghareeb Nawaz Trust **KZR** Associates Lakson Group of Companies Lalani & Associates Land O'Lakes Inc. Lane 12 Lasmo Oil Pakistan Limited Lawrencepur LGS Matrix Liberty Books Live Securities Pvt. Ltd. Lo'real Logic Information Systems, Inc. Logicose Lowe & Rouf Lucky Cement Ltd. Lucky Knits M. Yousuf Adil Saleem & Co. Chartered Accountants Maersk Sealand Magnus Investment Advisors Ltd. Majsons Corporation MAL Pakistan Limited Manhattan Leo Burnet Manzar Pakistan Maple Pharmaceuticals Pvt. ltd. Marie Stopes Society Markematics Pvt. Ltd. Martin Dow Pharmaceutical Mass Advertising Pvt. Ltd. Mazars - Pakistan MCB Bank 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 Metlife Alico

Metro Cash & Carry Pakistan Metropolitan Bank Limited MGH Group **Microsoft Corporation** Midas Safet Midas Safety Mindshare Pakistan Pvt. Limited Mitsubishi Corporation Mobil Askari Lubricants Mobilink Mobitel, KSA Monsieur **MS** Associates Muller & Phipps Pakistan Pvt. Ltd. Multinet Pakistan Pvt. Ltd. Mustafa & Co. Pvt. Limited Nabigasim 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 Trust National Marketing Services Naveena Export Pvt. Limited Nedo Corporation Nelson Pakistan Nestle Pakistan Limited Net Space Systems New Era Industries New Jubilee Insurance Co. Limited Next Degree Next Generation Innovations NIB Bank Ltd. Nike Pakistan Limited Novartis Pharma Pakistan Limited **OBS Group Oman National Electronics, Dubai OMD** Pakistan **OMV** Pakistan Exploration Oratech Systems Pvt. Limited **Orient Public Relations** Orix Investment Bank Pakistan Ltd. **Orix Leasing Pakistan Limited Oxford University Press Oxygene Pakistan** P & O Nedlloyd **Packages Limited**

Pak Mediacom Pvt. Limited Pak-Arab Refinery Limited Pakistan Institute of Corporate Governance Pakistan Petroleum Ltd. Pakistan Refinery Ltd. Pakistan Services Limited Pakistan State Oil Company Ltd. Pakistan Telecommunication Co. Ltd. Pakistan Television Corporation Pakistan Tobacco Company Pakistan Vehicle Engineering (Pvt) Ltd Pak-Kuwait Investment Co. Ltd. Pak-Petrochemical Pak-Suzuki Motors Co. Limited PARCO Parke Davis & Co. Limited Pastel Communications Path Group of Companies PCI Group Pearl Packages Pegasus Consultancy (Pvt.) Ltd. Pfizer Laboratories Limited Pharmatec Philip Morris International Philips Electrical Co. of Pakistan PICIC **PIRANA Group** Pixarch 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 Qubee Rain Bargain Reckitt Benckiser Pakistan Ltd. Red Tape **Reveal Executive Development Center Reveal Pakistan** Rhone Poulenc Rorer Pakistan Ltd. **Rising Technologies** Robotics Labs **Roche Pharmaceuticals Limited** Rocket Internet (daraz.com) Rohi International Pvt. Ltd. Roshan Media

S13 - Systems Innovations Pvt. Ltd. Sach International Sagacious Business Consultancy Salsoft Technologies Pvt. Ltd Samba Bank Ltd. Sanofi Aventis Pakistan Ltd. Sapphire Textile Mills Limited SBT Japan Schneider Electric Pakistan (Pvt.)Ltd. School of Leadership SCT Group Searle Pharmaceuticals Service Sales Co. Shabbir Tiles & Ceramics Ltd. Shafi-Reso Chemicals **Shaheen Airlines** Shajar Capital Shamrock Shan Foods Pvt. Ltd. Shangrila Pvt. Ltd. Sharaf Shipping Agency Shell Pakistan Limited SibiSoft Inc. Sidat Hyder Siemens Pakistan Limited Signium International Sindh Education Foundation Singer Pakistan Limited SKF Pakistan Pvt. Ltd **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 Streebo Strongman Medline Summit Bank Sun Consultants Sun Enterprises Sun Systems Super Trading Inc.

Symbios.pk Synapse Consulting Sysnet Pakistan Pvt. ltd. Systems Limited **Talent Optimizers** Tameer Micro Finance Bank Ltd. Tapal Tea **Target Resourcing** Tata Group of Industries Tata Textile Mills Ltd. Taurus Securities Ltd. **TBH Employment and Consulting Services** TCS (Pvt.) Limited Teach for Pakistan Teamants Teamz International Pvt. Ltd. TeleCard Ltd. **Telenor Pakistan Limited** TenPearls The Aga Khan Health Services The Aga Khan University Hospital The Bank of Khyber 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 360 Training Time & Vision Advertising Times Consultant (Pvt) Ltd. **TIPU** Associates TNI - Worldwide Partners Inc. Top Boss **Total Lubricants** Touchpoint (Pvt) Ltd. Toyota Indus Motor Company **TPL Trakker Limited** TPS TradeKey **Transit HR Consulting** Transworld Associates Travel Mate **Travel Solutions** Travelport **TRG Customer Solutions** Triple-e (Pvt.) Limited TV One - Airwaves Media Pvt. Ltd. **UBL** Fund Managers **UBL** Insurers Ufone

Uniferoz Unilever Pakistan Limited Union Bank Limited Unique Pakistan Unisys Pakistan Pvt. Limited United Assets Management Co. United Bank Limited United Consultants Pvt. Limited United Energy Pakistan ltd. **United Marine Agencies** United Registrar of Systems Limited United Sales Pvt. Limited Universal Brush Ware Pvt. Ltd. Urbanite US Consulate, Karachi **USAID** Pakistan Versa Canada Inc. Visa International (Asia Pacific) Ltd. Vision Express Ward Howell International Warid Telecommunication Waterlink Group of Companies Wavetec Pvt. Ltd. Weekend World Marketing Limited Westminster & Eastern Financial Services Ltd. Winstar Pvt. Ltd. World Tel World Wildlife Fund for Nature Pakistan WorldCall Broadband Limited Wrap n Roll WWF Pakistan Xenith Public Relations (Pvt.) Ltd. Younus Brothers Group Yunus Textile Mills Ltd. ZAP Infotech Inc. Zeppelin Communications ZH Technologies Inc. **ZIL Limited** Zishan Engineers Pvt. Ltd Zong ZRG International





ENTREPRENEURSHIP & MANAGEMENT EXCELLENCE CENTER

ENTREPRENEURSHIP & MANAGEMENT EXCELLENCE CENTER (EMEC)





The Entrepreneurship & Management Excellence Centre is the executive education wing of Institute of Business Management. EMEC is responsible for conducting specialized management training programs by closely working with its clients. The Entrepreneurship & Management Excellence Centre provides a wide range of open enrolment and customized programs. These programs are designed for professionals, business personals 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 with research interests ranging from global business issues. Many of our trainers are leaders in their fields and bring in new knowledge and experiences in their sessions.

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 targets determining in what areas the training is needed. This process helps EMEC develops customized training programs for its clients.

Open Enrolment Training

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



Initiatives by EMEC

- 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

Independent, Free and Responsible Media

The Institute of Business Management has been awarded an "Independent Free & Responsible Media" project under the aegis of the Citizen's Voice Project for Independent, Free and Responsible Media. This project will be undertaken by Trust for Democratic Education and Accountability (TDEA), and Institute of Business Management (IoBM).

The project aims to gauge media responsibility and independence through development of Media Responsibility and Independence Index. The of Media index will be developed through the formation of Pakistan Citizen's Forum comprising representatives from media, civil society and academia is one of its kind activities in Pakistan. Not only this group will facilitate in developing the index but will also highlight the issues surfacing in developing the index.

Collaboration with Harvard University

IoBM has been associated with Harvard University's South Asia Initiative (SAI) to bring Harvard to Pakistan. Aman Foundation has partnered with the Harvard University which seeks to increase scholarship on and in Pakistan by arranging a host of activities like seminars from eminent Harvard faculty for audiences in Pakistan, host conferences, facilitate research, and initiate scholarly exchange. As part of the engagement, seminars will be conducted via video conference by Harvard faculty members during the year that highlight problems and identify innovative solutions relating to a variety of issues ranging from health and education to energy and environment. Three webinars were conducted in Spring 2013. IoBM screened the seminars for Harvard SAI in Pakistan and began a long lasting relationship with them.

The seminar titled; "Troublemakers: Entrepreneurial Approaches against Corruption" was held on February 27, 2013. This seminar was aired simultaneously across Pakistan, Bangladesh and Sri Lanka and engaged thought leaders, policy makers, and public and private agencies involved in the areas of development. Another seminar titled; "Innovation in Education: Lessons for Entrepreneurship in Pakistan" was held on March 6, 2013. Yet another webinar, "Education in the Marketplace" was held on April 1, 2013.









Activities at EMEC

- USAID NPO Management Course 5th Round, May-June 2013
- Risk Assessment Workshop, May 2013
- USAID NPO Management Course 6th Round, June 2013
- HR Diploma 3rd Round Module 1, June 2013
- HR Diploma 3rd Round Module 2, August 2013
- Business Writing Workshop, September 2013
- HR Diploma 3rd round Module 4, September 2013
- Leveraging Social Media, October 2013
- Launch of Diploma in Supply Chain Management, October 2013
- Problem Solving & Decision Making Skills, November 2013
- HR Diploma 3rd Round Module 5, November 2013
- HR Diploma 3rd Round Module 6, December 2013
- HR Diploma 3rd Round Module 7, December 2013
- HR Diploma 3rd Round Module 8, January 2014
- HR Diploma 3rd Round Module 9, January 2014
- Business Communication, January 2014
- Advance Ms Excel, March 2014
- Intermediate Excel, March 2014
- Basic and Advance Excel training for Bayer in March-April, 2014
- Communication Skills Training at Ten Pearls April, 2014
- Professional Development Program in Health Management for General Practitioners with PharmEvo

NPO Management Course

In order to enhance the capacity of Not for Profit Organizations in Pakistan and to bridge the gap between citizens and government to promote good governance, The United States Agency for International Development (USAID) awarded a three year, \$45 million contract under the aegis of The Citizen's Voice Project (CVP). This project is being undertaken by a consortium of the Trust for Democratic Education & Accountability (TDFEA), The Asia Foundation (TAF), and Grant Thorton- - Amjum Asim Shahid Rehman (GT-AASR).

Entrepreneurship & Management Excellence Centre of Institute of Business Management, in this regard, conducts NPO (Not for Profit Organization) Management Course training and since October 2012 to date EMEC has conducted six NPO Management Course trainings and has build the capacity of more than sixty participants of thirty different NPO's across the country. NPO Management Course is a seven day residential training program comprising five (5) compulsory and two (2) optional courses. The participants are trained in Strategic Planing, Financial Management, Monitoring & Evaluation, Compliance, Project Management, Proposal Writing, Leadership, Public Outreach, Human Resources & Admin & Procurement.



Contract Research/Consultancy

- Economics Department: Comparative Study on Non Tariff Barriers in Pakistan, India and China, Trade Development Authority of Pakistan (TDAP), September 2012.
- Economics Department and EMEC in collaboration with Delloitte, Pakistan, Comparative Development strategy for Baluchistan, for the Government of Baluchistan, sponsored by UNDP.
- A consultancy "CUSTOMER PERCEPTIONS AND BEHAVIOUR: A STUDY OF TOYOTA, HONDA AND SUZUKI CAR OWNERS" for Indus Motors was conducted by IoBM from April 12 to June 13.

Research at IoBM and EMEC

- Research, being a core competence, is accorded top priority at the Institute of Business Management
- All full time faculty members have a contractual obligation to complete one major research study per year
- MBA at IoBM is research intensive and every optional course is designed to include a research component

Pakistan Business Review

Pakistan Business Review (PBR) is Institute of Business Management (IoBM's) multidisciplinary journal in continuous publication since April 1999. It is Pakistan's first refereed academic business research quarterly. PBR is an HEC approved Y category journal. It is abstracted and indexed by the American Economic Association in the ECONLIT and the Journal of Economic Literature, USA. It is supervised by an International Advisory Board of Business Academics from national and international organizations such as the London School of Economics, the University of Sussex, the University of San Diego and Indiana University, USA, Bochun University, Germany, the United Nations Industrial Development Organization, the International Association for Clean Technology, Austria. International advisory board members are also drawn from China, Spain, Columbia, Sri Lanka, Bangladesh, Lithuania, and Nepal. The Institute of Cost and Management Accountants of Pakistan, the Institute of Chartered Accountants of Pakistan, the Pakistan Institute of Development Economics, the Applied Economic Research Center, the University of Karachi and the Agha Khan University faculty are also represented on the board. All full time faculty members at IoBM are on the editorial board and contribute research papers on a regular basis. Pakistan Business Review is in its fourteenth year of continuous publication. PBR published a total of 31 research papers during April 2012 to April 2013.

National Conferences Attended and Papers Presented by IoBM Faculty in 2013-2014

- "Impact of Media Advertisements upon Subliminal Persuasion of Pakistani youth audience" by Dr. Linah Askari in Social Intervention International Conference at University of Karachi
- "Inflection of Media Advertisement Subliminally Persuades Pakistani Youth towards Carefree Attitudes of Life" by Dr. Linah Askari in International Conference on The Emerging Issues of Social Sciences in Pakistan at Quaid-i-Azam University, Islamabad
- "Impact of Performance Appraisal's Characteristics on Sales Persons' Job Satisfaction: A Comparative Study of Multinational Companies in Pakistan" by Aijaz Rasheed and A.Q Molvi in International Research and Contemporary Management Practices at LUMS
- "Alleviation Poverty through Skill Development Income Generation through Household Activities" by Dr. Shahida Wizarat in Aik Hunar Aik Nagar (AHAN) at South Asian Convention & Exhibition on Handicrafts
- Pay Satisfaction and Organizational Commitment in Private Business University Faculty by Shagufta Ghauri in Emerging issues of Social Sciences in Pakistan at HEC
- "Metaphysical and Epistemological Presumptions of Business Ethics Discourses and the Postmodernist Challenges" by Asad Shehzad in International Research Conference on Contemporary Management Practices at LUMS

International Conferences Attended and Papers Presented by IoBM Faculty in 2013-2014

- "Learning Styles of Students and Teaching Styles of Teachers in Business Education: A Case Study of Pakistan" by Dr. Nasreen Hussain and Dr. Nadia Ayub in International Conference on Education and Educational Psychology in Turkey
- "The Relationship between Personal Growth Initiatives and Psychological Well-being among Adolescents" by Dr. Nadia Ayub in the Second International Journal of Arts & Science Conference in USA
- "Testing the Validity of CAPM and APT in the Oil, Gas and Fertilizer Companies Listed on the Karachi Stock Exchange" by H. Jamal Zubairi in the third Conference on Financial Markets and Corporate Governance in Australia
- "An Investigation of the Factors Influencing the Capital Structure of Listed Companies in Pakistan" by H. Jamal Zubairi in International Conference on Business Management & Information Systems (ICBMIS2012) in Singapore
- "Transverse Product Effect on CSEM with Double Hydrocarbon Reservoir in Seabed Logging " by Seema Ansari in 3rd Global Conference for Academic Research on Scientific and Emerging Technologies (GCARSET) in Malaysia
- "Problems Faced by Parents of Young Children with Mental Retardation" by Shelina Bhamani in the third International Conference on "Global Trends in Emotional Intelligence (EI) and Peace Education" in Nepal
- "Trends of Emotional Intelligence in University Students" by Shelina Bhamani in the third International Conference on "Global Trends in Emotional Intelligence (EI) and Peace Education" in Nepal
- "Are Schools Disabled Friendly for Young Children? A Case Study from Pakistan" by Shelina Bhamani in International Conference on Inclusive Education in Bangladesh
- "Profitability Determinants of Commercial Banks" by Samina Riaz in International Business and Social Sciences Research Conference in Dubai
- "Promoting Intercultural Communication: An Empirical Study" by Fareeda Ibad in International Symposium on Languages and Communication in Turkey
- "Institutionalizing Health Management in Pakistan" by Dr. Asima Faisal in Healthcare Executive Management Development Program in India
- "Trypanophobia (Needle Phobia) in Young Adults A Cross Sectional Study in Karachi, Pakistan" by Dr. Asima Faisal in International Symposium on Business and Social Sciences in Japan
- "Impact of Modern Agricultural Policies on Women Working in Agriculture in Pakistan" by Urfi Khalid in 6th Annual International Conference on Business and Society in a Global Economy in Greece
- "Trade-led Growth Hypothesis: An Empirical Analysis of South Asian Countries" by Dr. Shahida Wizarat in a conference on "Applied Financial Economics" in Greece

Faculty Publications

- Impact Factor Publications 14
- Other publications 8

Publications 2013-2014

IoBM is concerned about the lack of textbooks which reflect Pakistan environment and practices for business students. Several textbooks by IoBM faculty have been published. These include:

- 1. "Teacher PD and Distance Education: A case from South Asia". Saarbrucken, Germany: LAP LAMBERT Academic Publishing by Nasreen Hussain in 2012
- 2. "Marital Satisfaction", Publisher: LAP LAMBERT Academic Publishing GmbH & Co. KG, Germany, by Dr. Nadia Ayub in 2012
- "Mother's Dysfunctional Attitude Is She Responsible for My Emotional State in Adulthood", Published by LAMBERT Academic Publishing, Saarbrucken, Germany, by Dr. Linah Askari in 2013
- 4. Case Study by Javaid Ahmed on "Organizational Transformation Challenges at the State Bank of Pakistan" in Asian Journal of Management Cases

External Research

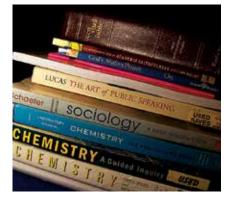
Consultancy work has been undertaken for the Federation of Pakistan Chambers of Commerce and Industry, the Aga Khan Education Service, Karachi, the Institute of Bankers in Pakistan, Deloitte, Touche International Chartered Accountants, the United Nations Industrial Development Organization, Vienna, SBP, Doha Bank FPCCI, TDAP and the Government of Sindh. Research papers from CBM are regularly presented at the annual meetings of the Pakistan Society for Development Economics, Islamabad.

Online Accessibility

loBM subscribes to the Business Collection of JSTOR, an online access to a vast collection of business academic journals. It allows access to 46 multidisciplinary and discipline specified collections. In addition, the HEC has allowed us online access to almost 5000 research journals. These publications carry theoretical and applied research findings in fields such as Accounting, Business, Computing, Economics, Engineering, Finance, Law, Management, Marketing, etc. The fast internet link of IoBM provides an easy access to download articles and research reports. Students are encouraged to avail the browsing facility available on the campus. The faculty is also encouraged to use these research journals, give assignments and group discussion exercises based upon the articles of specific fields.

PERN2

IoBM is now connected with Pakistan Education & Research Network (PERN2) which is a high speed dedicated National Research & Education Network (NREN) for the universities/institutes and other academic sectors of Pakistan. This will provide students, faculty members and researchers a fully integrated and dedicated communication infrastructure using advanced Information & Communication Technologies. This NREN is being established to achieve true collaborative research, knowledge & resource sharing and distance learning. PERN2 is also aimed to have connectivity to other NREN(s) of the world including APAN (Asia), Internet2 (USA), GEANT2 (Europe), etc. and initiate collaborative research with the consortiums of NREN(s).It will establish 10GbE Metro Network in Islamabad, Lahore, Karachi, Quetta, Multan, Hyderabad and Peshawar Regions for universities /institutes. PERN2 is designed for multi-services carrier network.







QUALITY ENHANCEMENT CELL (QEC)



QEC is a separate department headed by a Director, Deputy Director and Statistical Officer under the Rector. The Quality Enhancement Cell of IoBM, set up to enhance the quality of teaching and learning of various programs of the university, has been successfully functioning over the last 6 years. Recently, IoBM has been rated by the Higher Education Commission as one of the top the institutions in terms of the performance of its QEC and scored 96% on the basis of quantitative assessment through quality process reports in year 2012-13 and scored 98% in the year 2011. QEC is an institutional member of Asia Pacific Quality Network (APQN), American Society for Quality (ASQ) and a member of the Council for Higher Education Accreditation(CHEA).

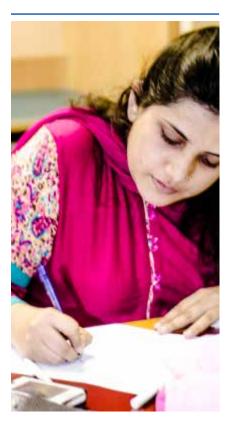
QEC also monitors plagiarism policy implementation and serves as a focal point for the implementation of HEC quality criteria and has patronage of the management.

QEC has been responsible for setting up Standard Applications and Products (SAP) University Alliance Linkages with an Australian University with the help of German experts as IoBM is among the very few institutions in the country which is providing SAP training to its students in the areas of Supply Chain Human Capital Management, Finance and Accounting, etc.

IoBM has been awarded Asian Pacific Quality Network (APQN) Best Internal Quality Assurance award at APQN Conference in Taiwan held in April, 2013.

ADMINISTRATIVE AND ACADEMIC REQUIREMENTS

COMPREHENSIVE EXAMINATION



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 the 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.

Students of MBA Executive program are exempted from this examination.

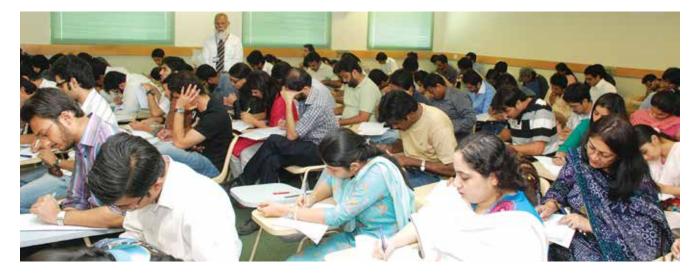
Structure

The comprehensive examination is of 3 hours duration divided equally into three segments consisting of three case studies of one hour duration each.

The case studies are related to all specializations available to MBA students.

To pass the comprehensive examination, a student must get satisfactory grades in all of the three case studies. The examination is conducted twice a year in the months of March and September. Passing the Comprehensive examination is a mandatory requirement for obtaining the MBA degree.

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 student has completed all course requirements and attained a CGPA of at least 3.0 in his/her program.



PROCEDURE FOR SUBMITTING MS, MPHIL & PHD THESIS

MS / MPhil Thesis

- Candidates must pass NTS (50% or more marks in General Exam)
- Candidates must pass 08 courses (24 credit hours) with a minimum CGPA of 3.0. D grades will not be considered
- Qualified candidates will inform M.Phil program coordinator/ HoD to decide on a specialized area for research
- Candidates to suggest supervisor as per relevant area of interest
- BASR 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 will 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 will 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 will form the thesis defense committee.
- Candidates will defend the thesis through powerpoint presentation
- Viva report to be submitted to the respective dean
- Dean to forward the examiner's report to BASR for the final approval of degree
- The Rector will confirm the award of the degree

PhD Thesis

- Candidates must pass NTS (50% or more marks in subject exam)
- Candidates must pass 06 courses (18 credit hours) with a minimum CGPA of 3.0. D grades will not be considered
- Qualified candidates will inform PhD program coordinator/HoD to decide on a specialized area for research
- Candidate to suggest supervisor as per relevant area of interest
- BASR 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 will 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 will 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 will form the thesis defense committee.
- Candidates will defend the thesis through powerpoint presentation
- Examiners report to be submitted to the respective dean
- Dean to forward the examiner's report to BASR for final approval of degree
- The Rector will 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 cooperative learning, directed class discussions and activities in critical thinking.

- The case method of instruction continues to be a significant classroom teaching strategy at IoBM so as to integrate 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:

Grade	Marks	Grade Points		
A+	96-100	4.00		
А	91-95	3.89		
A-	87-90	3.78		
B+	84-86	3.67		
В	79-83	3.33		
B-	75-78	3.00		
C+	68-74	2.75		
С	65-67	2.67		
C-	62-64	2.50		
D	60-61	1.75		
F	<60	0.00		

Grade points are assigned to the given grades for calculation of the Cumulative Grade Point Average (CGPA).

The grade of 'I' (Incomplete) may be recorded to indicate that the requirements of a course have been substantially completed, but for a legitimate reason, a small component of the work (final examination) remains to be completed and the record of the student justifies the expectation that he or she will obtain a passing grade upon completion. The instructor should be notified of the reason for the non-completion of work in order to ascertain the legitimacy of that reason and in turn to grant an incomplete grade.

In order to complete the "I" grade, students must appear in the final examination in the following semester. Failure to do so will result in an 'F' grade. The incomplete grade is not counted in the computation of the CGPA for the semester in which the incomplete grade was permitted. The instructor assigning an incomplete grade files with the Dean a signed form indicating the reason for the incomplete grade.

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 the repetition of a course, the 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 the 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 to receive the degree. MBA and MS students are required to repeat those courses in which they receive F and D grades.



My four years at IoBM were transformational. IoBM opened my eyes to various specialized fields including MSc in Organizational

Psychology. I specialized in Human Resource Management which is the most competitive program offered by IoBM among the leading business schools in Karachi.

Coming to IoBM was the best decision I made, I got selected for the exchange program in Turkey which gave the opportunity to meet students from across the world, and was exposed to a learning community. The Bachelor's degree earned has greatly enriched my knowledge and understanding of the underlying theories and concepts of Human Resource Management and opened avenues of progression in the corporate world. It has laid the initial foundation of my corporate career and I am wholeheartedly grateful to the alma mater for my success in the professional and personal life.

Noor-Ul-Huda Nagaria

Gold Medalist (BBA Honors) Senior HR Business Partner Narejo Human Resources (Pvt.) Ltd

DISCIPLINE





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 that may be considered expedient for effectively maintaining the highest standards. 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;
- forge or falsify any certificate/degree issued by IoBM or knowingly make false statements concerning standing or results obtained in examinations;
- 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

- 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 above mentioned regulations.



The Disciplinary Committee

The Disciplinary Committee, IoBM, comprises a Chairman, Rector, Executive Director Administration, Academic Heads of Departments, Controller of Examination, and such 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;
- award 'F' (fail) grade to a student cheating in an examination or a part of the examination concerned;
- 7. 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.



I have 7 plus years of work experience after I



graduated from IOBM. I have worked in a bank, in IT firms and also in the Education Sector. I am currently Assistant Director of Adopt a School Program at Sindh Education

Foundation. I wouldn't have reached here, had I not spent 2 years in CBM getting my MBA degree in Marketing that groomed me as a future Manager. With its humongous campus, and great teachers, CBM was like a second home to те and mv two elder sisters, Sabina Mir and Sara Mir. The placement office is excellent, and has been expanding over the years. I have fond memories of my university. In short CBM rocks!!!

Maria Mir

Alumna Assistant Director AASP Sindh Education Foundation

ATTENDANCE POLICY



Ensure 100% attendance for each course. 20% absences are permissible, only in case of illness, or emergencies. These 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.

DRESS CODE POLICY

Appropriate dressing enhances the personality and contributes to successful non-verbal communication in the workplace.



IoBM expects its students to reflect its values and standards in every way, and especially in the way they dress and conduct themselves. This will enable them to make a positive impression and project a professional image wherever they go.

In order to achieve the above stated objectives, the following guidelines must be strictly observed:

- All clothing worn by students should be well laundered.
- Clothes should be inoffensive in terms of cuts and style, or by way of messages printed on them.
- Female students may only wear jeans provided their tops are of mid-thigh length. They should also be modest and avoid transparent materials and short lengths for sleeves and trousers/shalwars.
- Only light make up, jewelry and perfume is permitted.
- Male students are only allowed full length trousers or jeans.For footwear, they must wear dress shoes, moccasins, joggers or sandals with back straps.
- Male students should maintain proper haircuts and refrain from piercing their ears and faces.

No variations or violations in all of the above will be permitted and students doing so will be marked absent in their respective classes.



EXAMINATION NORMS

Each semester has two hourly exams (6th & 11th week) & one final exam in the 15th week. Marks distribution is conveyed to the students at the beginning of the semester which tradionally is 15 marks for each hourly 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.

IoBM, in its pursuit of excellence, believes in providing a congenial atmosphere to the students during all exams in order to get them to perform at their 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 :

- 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 check their exam location and be seated at least 10 minutes prior to the exam time. Late comers will be made to wait for 5 minutes in case of hourlies and 15 minutes in the final exams before they are allowed entry.
- As per Institute's policy all question papers are to be returned along with the answer scripts.
- Students are required to bring their own stationary and calculators as no lending or borrowing is permitted during examination.
- Programmable calculators or any other kind 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-terms, 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 done 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.









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

loBM 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.



Receiving my MBA from IoBM strengthened my leadership abilities and increased my knowledge of the business world. IoBM

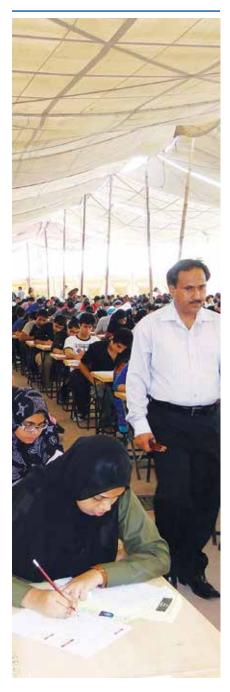
has given me the direction that I needed in my life. At IoBM, I have been encouraged and trained to explore outside my comfort zone. I became more confident as a person and as a professional. I have learned to face challenges head on with creative approaches and turn the challenges into opportunities. It has expanded my knowledge and perception. With the merit scholarship provided, I yearned to give my best in all areas of studies and in return had the satisfaction of proving my capabilities. I have been motivated to surpass my own accomplishments which have made me the person that I am now. The faculty and staff are exceptional people who are outstanding in their fields and always go beyond the role of teacher and act as mentors. Overall it was the most memorable five year journey of my life.

Urooj Amanullah

Gold Medalist MBA (Finance)

ADMISSION AND FINANCE

ADMISSION REQUIREMENTS



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 any one of the following:

- A Higher Secondary School (HSC) Certificate with at least *50% marks awarded by a recognized Provincial Intermediate Board
- 3 A-Levels with a minimum of *two Cs, preferably in business related subjects, excluding General Paper and Urdu or an 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

In addition:

- Atleast 5C's in O-Level exam or minimum 50% marks in SSC or equivalent
- Success in aptitude test and interview conducted by IoBM

*Subject to revision by the IoBM Management

Eligibility for entrance to Engineering Programs:

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

- A Higher Secondary School (HSC) Certificate with at least *60% marks awarded by a recognized Provincial Intermediate Board
- IBCC equivalence certificate will be required for A-Levels with atleast one C grade in science related subject. American High School Diploma with CGPA 2.5 or any other qualifications
- Any other qualification if an authority has issued an equivalence certificate.

In addition:

• Success in aptitude test and interview conducted by IoBM

*Subject to revision by the IoBM Management

Eligibility for entrance to two year Master's Programs:

The admission for Master's Programs would be based on any one of the following:

- A four year Bachelor's degree 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
- Four years overseas bachelor's degree or equivalent recognized by HEC
- Students with 2/3-year Bachelor's degree are eligible for MBA (3-year) program.

In addition:

- Minimum 50 % marks in overall Academic career or 5C's in O-Level and 2C's in A-level exam excluding General Paper and Urdu or equivalent.
- Success in aptitude test and interview conducted by IoBM.

*Eligibility criteria is subject to revision by the IoBM Management.

Eligibility for entrance to two year MBA (Weekend / Evening) Programs:

The admission for MBA Weekend Program would be based on any one of the following:

- A four year Bachelor's degree 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
- Four years overseas bachelor's degree or equivalent recognized by HEC
- Students with 2/3-year Bachelor's degree are eligible for MBA (3-year) program.

In addition:

- One-year work experience (for MBA Weekend).
- Minimum 50 % marks in last qualification
- Success in aptitude test and interview conducted by IoBM.

*Eligibility criteria is subject to revision by the IoBM Management.

Eligibility for entrance to MS/MPhil Program:

It is based on any one of the following:

• Master in relevant field with high second division or equivalent from HEC recognized Institutes/Universities in Pakistan

In addition:

- Minimum 50 % marks in overall Academic career or 5C's in O-Level and 2C's in A-level exam excluding General Paper and Urdu or equivalent
- Success in aptitude test and interview conducted by IoBM
- Minimum 50% cumulative Score in GAT General test as required by HEC



Admission Requirements for Ph.D Programs:

• Candidate having 18 years of education from an HEC recognized university is eligible to apply. For admission into the PhD minimum CGPA 3.0 on scale of 4 or First Division in M.Phil/M.S/Equivalent degree is required

In addition:

- Success in aptitude test and interview conducted by IoBM
- Minimum 60% cumulative Score in GAT subject test as required by HEC

Transfer of Credits

Students desiring credit transfer in a specific degree program will be required to submit application along with their transcripts and course outlines/descriptions.

The equivalence committee will examine such cases and decide accordingly, keeping in view the following:

- All requests must be for same level of program. Courses completed in Bachelor's program cannot be considered for Master's program
- Courses of two semesters can be accepted 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 transfer

Readmission 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 struck off and candidates would be required to go through the admission process afresh in case they want to register for courses in future.

The procedure for rejoining:

Admissions can be deferred for maximum of two semesters with justification and approval of Executive Director Admissions. Any relaxation not beyond two years is subject to approval of Executive Director Admissions.

Students who complete their Bachelor's from IoBM are eligible to register for MBA. However, if Security Deposit has been withdrawn, candidates may reapply for admission.

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 readmission.



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. Assistantships and financial assistance are provided to students on merit and need basis. Currently about 25% of the students are receiving some form of financial aid.

HEC - Japanese Scholarships

The Government of Japan in collaboration with the Higher Education Commission (HEC) Pakistan is offering scholarships to Pakistani students.

HEC - French Scholarships

French need based scholarships are available for graduate programs.

Endowment Fund - Education Department, GOS

Endowment scholarships awarded by the Government of Sindh, Education and Literacy Department, are also available to our students studying under undergraduate and graduate programs. These are based on a specific quota for urban and rural applicants.

IoBM Endowment Fund

IoBM has also established an endowment fund to help needy students. Many students are availing assistance through this fund.

Shahjehan Karim & Family Endowment Fund

Financial assistance are available through Shahjehan Karim & Family Endowment Fund. Many students will avail assistance through this program.

Janmohammad Dawood Trust

Generous scholarships and financial assistance are available through Janmohammad Dawood Trust. Many students are availing assistance through this program.

Tabba Foundation

Financial assistance are available through Tabba Foundation. Many students are availing assistance through this program.

Endowment Fund – Shan Foods

Endowment fund has been established by Shan Foods for various academic activities.

Sui Southern Gas Company Ltd. Scholarships

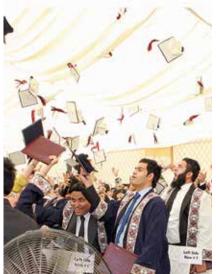
SSGC need based scholarships are awarded by SSGC for students enrolled in undergraduate programs from Sindh and Balochistan provinces.

Scholarships are also available on reciprocal basis to:

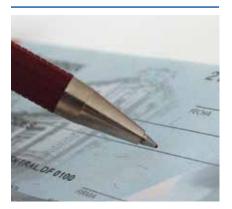
- Bilkent University, Turkey
- International Burch University, Bosnia
- University of Florence, Italy
- Vytautas Magnus University, Lithuania

- Hanyang University, South Korea
- Guilin University of Technology, China
- Erfurt University, Germany





FEE STRUCTURE*



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. 15,000.00 which is refundable only as per the policy.

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

	Registration Fee	Tuition Fee* (per course)	Tuition Fee Full Load**	Total Fee* (per semester)
All Bachelor's Programs	10,000.00	12,100.00	72,600.00	82,600.00
All Master's (Regular) Programs	10,000.00	13,300.00	79,800.00	89,800.00
All Master's (Evening & Weekend) Programs	7,000.00	13,300.00	53,200.00	60,200.00

* Subject to change

** Six courses for regular, four courses for weekend / evening programs and three courses for MS/Phil or PhD programs

Summer session fee is charged on the basis of courses taken. Convocation fee of Rs. 10,000.00 is charged on completion of the degree program, inclusive of degree charges of Rs. 3,000.00. MBA evening and weekend students, planning to take less than a full load, would be charged registration and tuition accordingly. However, caution money will remain the same.

Post Graduate Programs	Registration Fee (1-2 Courses)	Tuition Fee Per Course	Thesis Fee	External Examiner Fee	Viva Voce Exam Fee	Supervisors Fee	Foreign Examiner Fee
MS / MPhil Programs	3,500.00	11,500.00	23,000.00	10,000.00	5,000.00	25,000.00	-
PhD Programs	5,000.00	12,500.00	50,000.00	20,000.00	10,000.00	30,000.00	65,000.00

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

Caution Money

- Students are enrolled in courses with the understanding that they will complete the entire curriculum. If for any reason they drop the program after completion of first semester, they are not entitled to a refund of caution money.
- Students who have successfully completed their program can claim a refund within the period of one year from the date of Convocation. Failure to make a claim within this timeframe will result in forfeiture of the caution money.

Tuition Fees

- 1. If a student drops a course/courses or semester within the due date, tuition fees paid for courses will be transferred to the next semester. In case of failure to notify the drop of a course/courses within the due date, full tuition fees will be charged. If a student drops a course/ courses or semester after the due date, full tuition fees will be charged.
- 2. If a course is cancelled by the Institute due to any reason, the student would be entitled to claim a refund for the course fee or carry it forward to the next semester/subsequent semester.
- If a student withdraws(with out getting registered/courses dropped) from the Institute before the start of a semester for any reason, he/she would be entitled to claim a refund of tuition fee. However, no refund is allowed during the semester in such cases.
- 4. If a student drops course (s) in cases where he intends to achieve the required improvement in GPA and no classes have been attended, he would be allowed a refund of the tuition fees.
- 5. If a student paid a full load course fee and registered for a fewer number of courses (without dropping any course) excess payment may be refunded/carried forward to the next semester.

External students

Tuition fees for any course(s) would be refundable if no classes have been attended.

Registration Fee

Registration fee is refundable/adjustable in the following cases:

- 1. If a course is cancelled by the Institute due to any reason, the student would be entitled to claim a refund of the Registration fee(full or prorate) or carry it forward to the next semester/subsequent semester.
- 2. If a student has deposited Registration fees but does not get registered, registration fees would be refundable/carried forward to next semester.
- 3. If for any reason IoBM defers the admission of any candidate till the next semester, registration fee will be carried forward to the next semester.

Fresh Entrants

In case a candidate, after getting admission, decides to withdraw from the Institute, the following refund policy as per directive of Higher Education Commission (HEC) will be applicable:

%age of Tuition Fee	Timeline for Semester System		
Full (100%) Fee Refund	Up to 7th day of convening of classes		
Half (50%) Fee Refund	From 8th – 15th day of convening of classes		
No Fee (%) Refund	From 16th day of convening of classes		

- In case a candidate fails to meet the admission criteria after declaration of HSC/A-Level results, he/she will be refunded tuition fee within the first semester of his admission.
- If for any reason IoBM defers the admission of any candidate till the next semester, tuition fee will be carried forward to the next semester.
- If any candidate is allowed a deferment of admission to improve his/her grade and later he/she decides not to join he/she will not be entitled for refund of tuition fees.

ORGANIZATION



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Board of Governors

The Board of Governors exercises the powers to hold, control and administer the property, funds and the 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 effectiveness of the Institute's operations and continuity and preservation of its autonomy.

Members of the Board of Governors (listed on Page 10)

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. Basheer Janmohammad, Chairman
- Mr. Shahjehan S. Karim
- A Judge of Sindh High Court
- Chairman Higher Education Commission or his nominee
- Secretary, Education & Literacy Department or his nominee
- Mr. Muhammad Ali Tabba
- Mr. Salahuddin Qureshi
- Mr. Talib S. Karim
- Deans of respective Colleges
- 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



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:

- Mr. Tasneem Ahmed Siddiqui
- Dr. Abuzar Wajidi

Board of Studies

The following departments exist in the Institute:

College of Business Management (CBM)

Communication, Management, Marketing, Human Resource Management, Health & Hospital Management, Accounting and Finance, Environment & Energy Management, Risk Management, Industrial Management, Advertising & Media Management and MPhil Business Management.

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)

Electronics & Telecommunication

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. Shahjehan S. Karim, President
- Dr. Mehtab Karim
- Dr. Ahmer S. Karim
- Mr. Mohsin Furqan
- Dr. Musarrat Hasan
- Dr. Mrs. Afroze Imam Ali Kazi
- Mr. Sani Ahmed
- Ms. Sabina Mohsin
- Mr. Talib S. Karim
- Mr. Mehboob S. Karim
- Mr. Nabhan Shah Karim
- Mr. M. W. Jahangir, Secretary







It is a great honor and pleasure to be a graduate of IoBM especially being a part of the first batch of Actuarial Sciences and Risk

Management. It was a blend of learning experience with fun and activities. IoBM has not only enhanced me in my studies but also improved my time management, communication, intellectual and presentation skills. All the management staff and teachers were really kind and cooperative throughout these four years. Getting a Gold Medal was my greatest achievement which made me realize that hard work really pays off. All in all, it has been an outstanding experience being part of such a prestigious university.

Shoaib Rizvi

Gold Medalist (BS AS&RM) Management Associate Magnus Investments Advisory Limited

FACULTY





Rector IoBM & Executive Director, Academics, Corporate Affairs & EMEC



Talib S. Karim, Rector & Executive Director Academics Corporate Affairs and Entrepreneurship & Management Excellence Center, 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 Marketing Association of Pakistan and represents the Institute in various Associations nationally and internationally.

College of Business Management (CBM)

The Dean



Prof. Dr. Irfan Hyder, Dean CBM and CES, holds a PhD and M.S. from University of Texas at Austin, USA. In addition, he holds an MBA from IBA and BE-Electronic from DCET/NED. He has a wide experience in academic leadership, consultancy, entrepreneurial ventures, trainings, teaching, research, in the design and implementation of innovative programs and as a motivational speaker. He provides consultancy for entrepreneurial and personal visions, students/parental counseling and education. In his career spanning over 18 years, he has worked in leadership positions at various organizations. He was deputy director at IBA and Dean and VP of PAF-KIET. He has extensive industry consultancy experience for private and public sector organizations such as Oxford University Press, Trade Development Board (EPB), Pakistan Ordnance Factories, Pakistan Steel, Ministry of Science and Technology, etc. His entrepreneurial ventures include E-Patterns Software Solutions, Ahsan Memorial (AEF) & L2L Academy.

Advisors



Muhammad Ashraf Janjua, Advisor to the President, holds MA (Economics) degree from Government College, Lahore (Punjab University) and MA (Development Economics) from Williams College, Mass. USA. He has done one-year graduate work at Stanford University, California, USA. He also worked in the office of Executive Director for Pakistan at IMF, Washington DC from 1979 to 1983. Before joining State Bank of Pakistan in 1966, he has been a Research Economist in the Pakistan Institute of Development Economics (PIDE) and Associate Editor of Pakistan Development Review (PDR), Deputy Governor (Policy) and member Board of Directors from 1992 to 1995 and subsequently, Chief Economic Advisor, State Bank of Pakistan from 1995 to 2004. He is member Board of Directors at Atlas Asset Management Ltd. since 2008, and at National Institute of Banking And Finance (NIBAF) since 2009. Among other research work, he is the author of History of the State Bank of Pakistan Volume-III (1977-88) and Volume-IV (1988-2003).



Dr. Muhammad Arshad Malik, Advisor Health, Hospital and Pharmaceutical Management, is a retired Federal Secretary to the Government of Pakistan. He joined Civil Service of Pakistan (CSP) in 1957 and studied Public Administration at Oxford University (England). He holds an MBBS degree and has held senior positions, including Secretary Health, in various Ministries/Departments and Organizations from 1959-1995. He had been Professor of Government and Management Sciences at a reputable University. He had also been elected a Senior Associate Member at St. Anthony's College, Oxford University, England.

Dr. Ahmer S. Karim, Advisor, College of Computer Science and Information Systems (CCSIS), has a PhD and a Master's degree from Arizona State University, USA, preceded by Bachelor of Science in Finance and MIS from the University of Arizona, USA. 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 also other academic conference proceedings. Dr. Karim has also published several academic books on Information Systems.

Accounting and Finance

H. Jamal Zubairi, Senior Fellow and Head of Department of Accounting and Finance, holds a BE degree from Dawood College of Engineering & Technology and MBA from IBA, Karachi. He also holds a banking diploma (DAIBP) from the Institute of Bankers of Pakistan. He possesses over 30 years of professional experience, mainly as a development banker with the National Development Finance Corporation and has also worked for other leading financial institutions such as ORIX Leasing. He has taught core as well as elective courses in Accounting and Finance for over 20 years, both as visiting and full time faculty. His research interests are in the areas of Banking, Risk Management and Corporate Finance. He has presented research papers at various international conferences and has also co-authored a book 'Financial Management in Pakistan' which was published by the Oxford University Press, Pakistan in the year 2005.

Dr. Muhammad Mahmud, Senior Fellow serving as a Senior Fellow and Former Dean, Faculty of Management Sciences, (KASBIT). Before joining (KASBIT) Dr. Mahmud served Institute of Business Administration (IBA), Karachi for twenty-four years in various capacities (teaching, research and administrative). Dr. Mahmud has MBA degree from the IBA Karachi and Ph.D. degree in Business Administration from the University of Malaya, Kuala Lumpur, Malaysia. His main area of interest is finance. He has published more than 24 articles in reputed local and International Journals. The Institute of Bankers of Pakistan for participating in research essay competition awarded him third prize in 2002 and fourth prize in 2003.

Syed Ajaz Ahmed, Senior Fellow of Finance and Accounting, is a fellow member of ICMAP and has qualified the final examination of the ICMAP in 1976. He has served for 32 years in national and multinational corporations and has headed finance and accounts department in various industrial sectors, including construction, food and beverages and petrochemicals. Mr. Ajaz has also worked for investment banking, shipping and textile sectors. Before joining IoBM as full-time member, he has been an adjunct faculty member at ICMAP and facilitator of ICAP.

Sharique Ayubi, Associate Professor of Finance and Accounting. He holds a Master in Business Administration (MBA) from IBA, Karachi and another Master's degree in Economics from the University of Karachi. He also holds a Banking Diploma from the Institute of Bankers, Karachi. Currently, he is enrolled in the MS/PhD program. His experience in industry has been in National Development Finance Corporation (NDFC), where he worked for 14 years. He has been teaching courses in Finance, Accounting and Management for over 12 years at various universities and business schools. His research interests are Corporate Governance; Regulation of Banking and Securities Markets; and Comparative Management.









Naseem Akhtar, Associate Professor, Finance and Accounting, is an MBA from IBA (gold medalist) and BE Mechanical from NED. He has working experience of 28 years. His last appointment was with Rousch (Pakistan) Power Limited as a Chief Executive Officer. Prior to that, he worked as an Assistant Vice President, NDFC. He was also the Company Commander-Captain in Pak Army for 3 years.



Syed Maqbool ur Rehman, Assistant Professor in Accounting and Finance, is an investment banker as well as an educationist with an MBA from IBA. He has also received a diploma in banking from the Institute of Bankers in Pakistan. He has worked with reputed financial institutions for 18 years in operational areas in senior management positions. He has been teaching since 1989 at various business schools. His research interests include Risk Management, Compliance of IAS by local industry, Corporate Governance and Financial Markets.



Tauseef A. Qureshi, Assistant Professor in Finance, holds an MBA from the Institute of Business Administration. He has a unique blend of industry and teaching experience and has held senior management positions in Pakistan, USA and Canada.



Mehboob Moosa, Assistant Professor, Accounting, is a fellow member of ICMAP. He has also qualified CA final group-II. His 30 years' experience includes working with national and multinational companies like BOC (Pakistan) Ltd., Al-Futtaim Engineering, Dubai, Habib Group, World Group of Companies (Automobiles), Liberty Textiles, etc. as well as audit firms like KPMG Taseer Hadi, Sidaat Hyder, Rahim Jan and educational institutions of UK and Pakistani education streams. 1320g 2012 - 2013 Institute of Business Management



Shazia Farooq, Senior Lecturer of Accounting and Finance, is a CFA Charter holder and also holds BBA (Hons) and an MBA from IBA, Karachi. She brings 15 years of professional experience in the field of finance, banking and research. She is teaching core as well as elective courses in Finance.



Kamran Rabbani, Senior Lecturer, Finance and Accounting, is an MBA in Finance. He has working experience of 20 years mainly in the banking sector, where he trained Saudi Bankers in the area of small and medium enterprise financing. He has 4 years of teaching experience as visiting faculty at Greenwich and at IoBM since January 2010.



Tazeen Arsalan, Senior Lecturer, Finance and Accounting, holds BBA (Hons) and an MBA from IoBM, Karachi. She has 5 years of business consultancy experience and has presented various papers at national and international levels.



Samina Riaz, Senior Lecturer in Accounting, holds an MBA in Finance from Bahria University. Her research interests are in the areas of Banking and Financial Accounting and also presented research papers in the national and international Conferences and intends to pursue PhD in the same.

Misbah Igbal, Senior Lecturer in Accounting and Finance, holds a BBA (Hons.) and MBA degree from the Institute of Business Management and is currently pursuing her M.Phil in Business Management to be followed by a PhD in Finance. She has been teaching Finance and Accounting courses for 11 years, with around 3-year professional experience as an Investment Analyst (covering the Cement, Tractors, FMCG and Automobile sectors) and has been quoted on various national and international magazines for such. Involved in the USAID's and TAF's program on Training NPO personnel, she has conducted various trainings for such.Her research papers have been published in the Pakistan Business Review and presented in the International Sindh Conference'12. Her research interests are behavior of Capital Markets, Financial Management techniques, evolution of Shariah Financing and Development & History of Sindh. She is a recipient of the Group Study Exchange Program Fellowship 2013 for New Jersey, USA, hosted by the Rotary Foundation, International

Sarwat Ahson, Senior Lecturer, holds an MBA degree from Institute of Business Administration, Karachi. She brings with her eight years of corporate banking experience, two years of consulting and four years of teaching experience in various institutes of repute including IBA, SZABIST and IoBM.

Samreen Mohsin, Lecturer in Accounting & Finance holds BBA (hons) and MBA with majors in Finance from IoBM Karachi. She has been associated with IoBM since 2007 as a visiting faculty.

Najeha A. Bela, Junior Lecturer, Accounting & Finance, holds a BBA and MBA in finance from University of Karachi, and has a teaching experience of one year. She is currently pursuing M-Phil in Business Management from CBM, and has research interests in contemporary accounting and finance.

Communication

Dr. Nasreen Hussain, Senior Fellow and HoD Education and Communication with the rank of Professor, holds a PhD in Education. She has 30 years of diverse teaching, research, and national as well as international consultancy experience. She has edited books as well as written academic articles and book chapters. Her last two books were published in early 2009 by the Oxford University Press and the Cambridge Scholars Publishing, UK. She has received British Council, Hornby Trust, USIS, USAID and AKU awards to pursue her academic and research projects and is also the External Moderator for the University of Cambridge. Her interest is in educational research methods with a special focus on qualitative research, continuing professional development, curriculum design, and material development.













Fareeda Ibad, Associate Professor and Senior Fellow, Communication Skills, holds a Master's degree from the University of Punjab in English. Her professional experience of 37 years includes teaching English and Communication to adult learners in diversified contexts. She has worked at the PACC in the capacity of language teacher, officer-in-charge, teacher trainer and curriculum coordinator. She has also worked at the British Council in the capacity of IELTS examiner and trainer, and ICFE examiner. Her communication teaching experience of 20 years includes teaching at both BBA and MBA levels at IoBM, Greenwich and Iqra Universities. Her additional experience is in the field of testing in ELT and corporate training in Soft Skills development.



Muhammad Asif Khan, Assistant Professor, Communication, is an MA in English Literature and Linguistics from the University of Karachi and MBA from IoBM. He has a rich experience of teaching English and communication related subjects to various categories of students ranging from intermediate and A-Levels to BBA and MBA. His areas of interest include TESL, Business Communication and Interpersonal Skills. He is also a contributor to the Pakistan Business Review (PBR), where his interviews with prominent personalities of the corporate world are published. In future he plans to pursue his MPhil in the area of HRD.



Aliya Sikandar, Assistant Professor, Department of Communication, holds a Master's degree in TESOL from the Institute of Education, University of London, UK, and a Master's degree in English Literature from the University of Karachi. She also has an RSA certificate in Teaching of English (COTE) from University of Cambridge. She has worked for the Aga Khan University for almost 24 years before joining the Institute full time in September, 2013. Currently, Ms Sikandar is engaged in teaching Business Communication and, Academic English courses. Her areas of interest are Business Communication, Critical Discourse Analysis, Scholarly Writing and Spoken Discourse.



Muhammad Irfan Sheikh, Senior Lecturer in Communication, earned his Master's degree in English Literature and Linguistics from the National University of Modern Languages (NUML). He completed his Bachelor of Commerce from the University of Karachi, Bachelor of Education from Hamdard University and 'Training to Teach English for Specific Purposes' (TTESP) from the Aga Khan University. He is a member of PARE (Pakistan Association for Research in Education) and SPELT (Society of Pakistan English Language Teachers). He is an M Phil fellow and is currently working on his research thesis. He has developed a website "Webell" for ELT and research purposes.



Wajdan Raza, Senior Lecturer, Communication, has an EIL Certificate from Kings' College, London and MA English Linguistics from the University of Karachi. His PhD in Sociolinguistics is in progress from the University Sains Malaysia. He has also submitted his MPhil English Linguistics dissertation at the University of Karachi. He has teaching experience of five years and his last appointment was as an Assistant Professor in the Department of English at PAF-KIET. He has conducted training and has been a visiting lecturer at the Aga Khan University, Karachi University and NUML. He has four published research papers to his credit. He is also a recipient of KINGS Award 2010 by the King's College London.



Sarwat Nauman, Senior Lecturer in Communication, holds an MA in English Literature from the University of Karachi. She has teaching experience of 7 years and has been associated with Greenwich University, Pakistan International School Jeddah, and Defence Authority College for Women.

Mehvish Saleem, Lecturer, Communication Skills, holds a Master's degree in English Linguistics from the University of Karachi. Her professional experience includes teaching English and Communication for over 6 years at various public and private sector universities. She has been associated with NUCES-FAST, University of Karachi, Iqra University, Institute of Cost and Management Accountants of Pakistan and Federal Urdu University. She has worked as a support teacher trainer for EDLINKS-USAID for English Language Proficiency Enhancement Refresher Program in Sindh and Baluchistan. She is a member of IATEFL (International Association of Teachers of English as a Foreign Language) and SPELT (Society for Pakistan English Language Teachers). She was a visiting postgraduate at the University of Warwick. Her research interest includes teaching English in large classes/'difficult circumstances', second language anxiety, and practitioner research.

Syeda Mahtab Fatima, Lecturer in Arabic and Islamic Studies, has Master's degree in Arabic from Quaid-e-Azam University, Islamabad with two certificates in Arabic courses from the National University of Modern Languages, Islamabad. She has done BA and BEd from the University of Punjab, Lahore. She has more than 12 years of teaching experience. Her case study about the importance of Arabic Language in International trade was published in Pakistan Business Review July 2010.

Lubna Ali, Lecturer in Communication, has a TESOL Certificate from Middlesex University, London and MA English Linguistics and Literature from NUML University. She has English Language teaching experience of 5 years and has taught English Language and communication to students ranging from ESOL students at Middlesex University, engineering students at NED and business school students at Bahria University and IoBM. She is a member of SPELT (Society of Pakistan English Language Teachers). In future, she plans to pursue her MPhil and PhD in Applied Linguistics.

Ishtiaq Ahmed Kolachi, Lecturer in Communication, is M.A in English Literature and Bachelor in Education (B.Ed) from Shah Abdul Latif University Khairpur, Sindh. He has also done his Diploma in Linguistics from National University of Modern Languages, Islamabad. He has vast experience of teaching English language, Communication Skills and Business English. His areas of interest include TESL, Business Communication and Teachers' Training Programs. In the near future he plans to pursue his M.Phil in the area of Education.

Abdul Nazeem, Junior Lecturer in Communication, holds Bachelor's degree from University of Karachi. He has worked with Alliance Française de Karachi and Consulate General of France in Karachi for more than 4 years. He has a background of IT (Desktop Support Engineer), Tourism and Hospitality and Obtained DELF - Diplôme d'études en langue française from République Française Ministère de l'Éducation Nationale. He has successfully completed Community Based Disaster Risk Management training with FOCUS Humanitarian Assistance Pakistan and worked as search & rescue team leader. He is Interpreter to French delegations with CSSK (Center of Social Sciences Karachi). He has been attending training programs and sessions arranged by l'Alliance Française de Karachi & Consulate General of France in Karachi.

Environment and Energy Management

Dr. Shahid Amjad, is a Professor and Head of the Department, Environment & Energy Management. He has a PhD from School of Ocean Sciences, University of Wales, UK. His MS is from the University of Oslo Norway in Benthic Ecology. He has completed courses in Management of R&D Institutes from University of New South Wales, Australia. He has been associated with the National Institute of Oceanography as Director General and with various top universities of Pakistan as Acting Vice Chancellor and Professor. He has also been associated as a visiting faculty with NED and the University of Karachi since 2005.













Dr. Abdulrauf Farooqi is a Professor with 30 years post-doctorate experience in teaching, research & development, and humanitarian assistance, 2005-2011, Dr. Abdulrauf Farooqi has held the positions of Professor and Chairman of the Department of Environmental Science at Allama Iqbal Open University and International Islamic University (IIU) Islamabad, as appointed by the HEC. He provided seasoned leadership and academic expertise to direct and advance academic research, training, and quality educational programs in Environmental Sciences, Agricultural Sciences, and Youth Studies. Dr. Farooqi holds 22 years of extensive field experience with the World Bank and the United Nations High Commissioner for Refugees (UNHCR) in leading through a collaborative international effort to protect and assist refugees.

Health, Hospital and Pharmaceutical Management



Dr. Asima Faisal, Head of Department & Assistant Professor, MBA Health and Hospital Management Program at IoBM hold an MBBS from Sind Medical University and MBA in Health and Hospital Management from IoBM. She has more than 18 years of experience in the health industry serving diversity in the areas of health management. She was Director Media and Marketing and afterwards Director Programs for the Institute of Health Management (IHM) at Dow University of Health Sciences (DUHS). Dr. Asima was associated with Sind Education Foundation where she arranged health Camps and health Trainings of Teachers (TOTs) all over Sind. She has been actively involved in CSR activities like free Health camps, flood relief, disaster management activities and conducting TV shows on various medical and health management issues of the society. She was also affiliated with South City Hospital in sharing her expertise in managerial and administrative areas. She is a member of the subject committee for pharmaceutical representatives training and assessment from the National Testing Service (NTS). She was sent as a Counselor for the British High Commission to Universities in the United Kingdom for pursuing avenues of internationalization of higher education. Being a Certified Master Trainer she has also done consultancies for health education in GlaxoSmithKline, for their Continuing Medical Education programs (CME) all over Pakistan. Added to her credentials, on an academic front, she has presented at various international forums in India and Japan. Dr. Asima is currently pursuing for her PhD program at IoBM.



Dr. Humeira Jawed Abidi, Lecturer in Health and Hospital Management, holds an MBA (Health Management) from IoBM and MBBS from Sindh Medical University. She has worked in the Clinical Trial Unit of the Aga Khan University Hospital and GlaxoSmithKline in the area of Product Management. She is also the former President of CBM Society of Health Managers (CSHM). Dr. Humeira is a Certified Master Trainer in Faculty Professional Development Program (MT FPDP) from the Higher Education Commission, Pakistan and under the same; she has also been certified from Asian Institute of Technology, Bangkok, Thailand for an advanced program on 'Ensuring Training Effectiveness for MT FPDP'. At present, she is enrolled in PhD Program at IoBM.

Management and HRM



Dr. Khalid Amin, Senior Fellow and Head of Departments of Management, Human Resource Management and International Relations, holds an MBA and a PhD in Business Administration. He is also a Fellow, Institute of Corporate Secretaries and a Fellow, Institute of Bankers. He has been Chief Executive, Dubai 9 Group, Dubai; Secretary General (Chief Executive), Federation of Pakistan Chambers of Commerce & Industry; Secretary General & Chief Executive, All Pakistan Textiles Mills Association; Chief Executive, Telecard Ltd.; Chief Operating Officer of two Financial Institutions in the Prudential Group; General Manager in Pakistan Automobile Corporation, State Petroleum & Board of Industrial Management. He has been actively involved in Business Research and has over 50 reports, papers and articles to his credit. He has been advising the Ministries of Finance, Commerce and SECP & FBR on business facilitation and regulation. He has been a visiting Professor in MBA Programs in business schools in Pakistan, USA and Europe.

Abdul Qadir Molvi, Associate Professor of Management, has specialized in sales management training, marketing and strategy for corporate clients. He has earned a professional diploma in International Trade and Commerce from UC Berkeley, (USA), MBA (IBA), and BSc from the University of Karachi. He has over 33 years marketing experience of pharmaceutical and consumer products with leading MNCs. He was elected to the Council of the Marketing Association of Pakistan (1996-98) and served as its Vice President in 1998. He has also been invited to lecture on international marketing to the classes of Brand Management 1999 at Fullerton College, California, USA.

Humayun Zafar Choudhry, Assistant Professor in Management, holds an MA in International Relations from the University of Karachi and has completed a number of management courses from Middlesex University, London. His experience in the industry encompasses the areas of Management, Project Financing, Leasing, Modarabas, and Credit and Marketing. He had been associated with IoBM for 12 years as visiting faculty before joining the Institute on a permanent basis. He also conducts Management Development workshops for IoBM and has conducted the same for the corporate sector as well as for NIPA (National Institute Of Public Administration). Mr. Choudhry had worked in senior most positions in the financial sector, and his last position in a public limited company was that of CEO. In the year 2010, he qualified as a certified Director education from Pakistan Institute Of Corporate Governance (PICG).

Dr. Fazal Anwer Khalidi, Assistant Professor of Management, 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 adjunct faculty. His qualifications include 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 has also attended an executive development program at the Thunderbird School of Global Management, Arizona, USA.

Shagufta Rafif Ghauri, Senior Lecturer, Management, holds a Master's degree in Human Resource Management and brings along a vast experience of teaching different management subjects and Business English courses to BBA, MBA and MBA(Executive) students. She has also served in the capacity of Vice Principal at a reputed O Level School in Karachi for 3 years. She has been a faculty member of different universities of Karachi and has also been conducting courses and training workshops at the Teacher's Resource Center. She had been associated with IoBM for seven years.

Shiraz Ahmed, is a Senior Lecturer in department of HRM and holds M.Phil in Management. He has received training from master trainers from the UK, Africa and Pakistan. He has been trained by foreign faculty of the British Council for their Global Leadership Development Program. He is also a British Council Trained Management Trainer and a Certified HR Professional as well. He has spoken and facilitated sessions to local and foreign diplomats including British Foreign Minister, British High Commissioner, Global CEO and Regional Directors. Managers from junior to senior positions including Head of Departments and Directors have attended his workshops. People from Nokia, Siemens, RBS, Shell, Wal-Mart, Emirates Airline, ICI, Haier, Engro, Coca Cola, AC-Nelson, B Braun, Bayer, Mobilink, Byco, Descon engineering, Toyota Indus Motors and many more have benefited from his workshops. He has been visitng faculty in leading business schools.

Ali Mujahid, Senior Lecturer, Human Resource Management, did his BBA in Marketing and MBA in Management from University of Central Oklahoma, USA. He has 10 years of teaching, research and consultancy experience in different organizations in Pakistan. His areas of interest include creativity, business education, leadership and organizational development. His main focus is to develop and research innovative tools to enhance student development and learning.











Erum Zahoor Zaidi, Senior Lecturer, Human Resource Management holds an MS in Management Sciences and MBA (Marketing) from SZABIST Karachi. She has delivered lectures on Entrepreneurship development, Operations Management, Information and Business Management, Experiential Marketing and Business Research Methods at the leading Universities in Karachi. She has worked with Injaz Pakistan to develop the entrepreneurship program. She has organized seminars on entrepreneurship development and personal management as well as executive development in various universities.



Juveria Baig, Lecturer in Human Resource Management has more than six years of diversed experience in the areas of Project Management, Recruitment, Training, Coaching and Mentoring and Performance Management. Her education includes B.Sc (Hons) from Textile Institute of Pakistan, MBA from Hamdard University and Masters in Human Resource Management from University of New South Wales, Sydney, Australia. After working with a Swiss Multi-National and USAID, Juveria turned her focus towards academia and taught at her alma mater in Sydney, Australia.She is very seriously committed to a career in research, learning & development and teaching. Her research focus remains in the areas of Knowledge Management and Workforce Development.

Marketing



Javaid Ahmed, Senior Fellow and Department Head of Marketing, is a Certified Board Director, FCIM, FCMI (UK), Member of Mensa and a UK Chartered Engineer. He has an MBA with Distinction from Lancaster (empirical research awarded 1st prize by the British Institute of Management) and BSc Eng (London). He brings over 28 years of a successful top management career with the multinational health care industry including over a decade in Switzerland, Malaysia and the Philippines. He has been on the Jury of the EFP Prime Ministers' Corporate Award of Excellence. He is case research active in corporate and market strategy and has supervised CBM's MPhil Marketing program. He has written two research based dissertations, published fifteen papers and articles and delivered twenty-two selected professional presentations and workshops.



Riaz Khan, Senior Fellow, Marketing holds Bachelor degrees from Florida International University in Industrial Engineering Technology and also in Electronics Engineering Technology and has Master's degree in International Marketing from the University of Houston, Houston, Texas. USA. He possesses over 32 years of experience in senior level positions, mainly as international marketer working for various multinational companies around the world. He was Executive Director Marketing in Trade Development Authority of Pakistan has also worked for other leading organizations like Philips NV Holland, Pak Arab Refinery. His research interests are in the area of international marketing and its environment and have written numerous research papers which he has read and shared at various international conferences and seminars held in Mexico City, New York, Frankfurt and other international venues. He also was associated for two years in UNDP program of Technical Cooperation between Developing Countries (TCDC) based in New York City. He has been a visiting Professor in MBA Programs at various universities in USA. In December 2013, his marketing research paper was approved by Indian Institute of Management in Bangalore (IIMB), India where he was invited to share and read his research paper for the participants in the 3rd International Management Conference held in Bangalore, India.



Kausar Saeed, Associate Professor, Marketing possesses over 22 years of diversified experience of corporate, academic, entrepreneurial and developmental sector. She has 15 years of teaching experience at graduate and undergraduate level in various renowned universities of Pakistan and her areas of specialization are Management and Marketing. She has spent ten years in Marketing Communications out of which five years were in Advertising with Interflow Communications. She also served as Manager Capacity Development with Aga Khan Foundation where she was involved in developing and conducting training for developmental sector organizations in Pakistan. Currently, she is pursuing her MS Degree in the area of Management Sciences.

Saeed-ur-Rehman, Senior Fellow, Marketing, holds an MA in Political Science from the University of Karachi. His experience in Sales as a senior manager and executive is spread over a period of 34 years. His association with highly reputed multinationals such as Cyanamid and Gillette has honed his management, leadership, and communication skills. He has also been involved in conducting sales training on a national platform.

Saadiyeh Said, Assistant Professor, has an MBA from IBA, Karachi. She has over 20 years of Marketing and market research experience, having worked in organizations like Johnson and Johnson and as Executive Director for Aftab Associates. She has worked as a marketing consultant for Ferozesons Laboratories, Pakistan Ltd. and Shazeb Industries. In addition, she has been actively involved in marketing training programs for various organizations and has undertaken several market research projects at a national level.

Amber Raza, Senior Lecturer, Marketing holds an MPhil and MBA (IoBM) and is part of IoBM's Doctoral program (Business Management). 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 seven years experience of teaching at the University level; supporting, 100 plus, students in their research projects which were based on diverse topics with focus on Management and Marketing. She has presented research papers at International (Turkey, Malaysia, India & Australia) and at National Conferences. Her first paper 'Banks Love MBA's was published in the IoBM research Journal (Pakistan Business Review) in October 2000. Since then she has contributed a number of research papers in the field of Marketing and Management.







College of Computer Science and Information Systems (CCSIS)

The Dean



Dr. Ejaz Ahmed, Dean of Computer Science Department, has done his PhD in Statistics from the University of Strathclyde, Glasgow, UK and MSc in Statistics from the University of Karachi. He has published many research articles in renowned international journals. He has over 27 years of teaching experience at the University of Karachi and IBA.

Computer Science and MIS



Dr. Abu Turab Alam, Senior Fellow with the rank of Professor of Computer Science, joined the Institute in January, 2004 and is currently teaching courses in Artificial Intelligence, Automata Theory, Natural Language Processing (NLP), Discrete Mathematics and Management Information Systems. His research interest is in Requirements Engineering and elicitation of software requirements for Software Development using NLP techniques. He has a vast experience of research and teaching in various organizations. At NED University, he has worked as a Systems Manager and improved the infrastructure at NED University.



Syed Farhan Mazhar, Assistant Professor in Computer Science, is a professional educator with over 10 years diverse experience in education and professional industry including national and international organizations; like NED University, Concordia University College, Canada, Capital Health, Edmonton, Canada. He received his M.Eng degree in Software Engineering and Intelligent system from University of Alberta, Edmonton Canada. He also possesses M.Sc in Applied Physics with specialization in electronics from University of Karachi, and has also completed his M.Phil course work from Department of ISPA, University of Karachi. His areas of interest are Software Engineering, Semantic web, Data mining, ERP, Database Management System and Project Management. He has also completed his international certification of Oracle (OCP 8/8i/9i/10g and 10g Linux certificate).



Sheikh Muhammad Ali, Senior Lecturer in Statistics, earned his MSc in Statistics from the University of Karachi. He has been involved in research and teaching in Mathematics and Statistics. He has almost eighteen years of teaching experience at various institutes. His areas of interest are Quantitative Analysis for Business and Management, Statistical Inference, Advanced Quantitative Methods, College Algebra, and Calculus for Business Decisions.



Engr. Muhammad Asghar Khan, Senior Lecturer in Computer Science, has a Master's degree in Network and e-business centered computing from University of Reading (UK), MS in Computer Software Engineering from NUST and BS Computer Engineering from Sir Syed University of Engineering and Technology. He has four years of industrial experience of various national and international organizations. His areas of interest are Network Security; Semi structured Databases and System Virtualization.

Khalid Bin Muhammad, Senior Lecturer Computer Science, has a degree of Bachelor of Engineering from NED University of Engineering & Technology and is a member of Pakistan Engineering Council. He also possesses a Master in Computer Science from University of Karachi and an MBA in Banking & Finance from M.A. Jinnah University with first class first position. He has proficiency in Programming Languages specially Object Oriented Programming, Computer Graphics, Engineering Drawings, Computer Aided Designing, Multimedia Technologies, Relational Database Management Systems and Finance related courses. He has a mix of over thirteen years of experience working in industry including Dawlance (Pvt) Ltd and Pakistan Petroleum Ltd and also served as Manager IT.

Najmus Saher Shah, Senior Lecturer in Computer Science, holds an MCS degree and BSc (Honors) in Economics from the University of Karachi and has secured 2nd position in the department. She has three years of teaching experience.

Muhammad Waqar Khan, Senior Lecturer Computer Science, has a degree of Bachelor of Engineering from NED University of Engineering & Technology and a member of Pakistan Engineering Council. He also possesses a Master in Computer Science from University of Karachi and Post Graduate Diploma in Computer and Information Sciences from Karachi University. He is doing Master in Engineering from Usman Institute of Technology, Hamdard University. He has proficiency in Data Communication and Networking, Digital Communication, Programming Languages, System Analysis and Designing, Information Management System, E- Commerce, Mobile Communication System, Satellite Communication, Signal Processing, Relational Database Management Systems and communication networking related courses. He has a mix of over sixteen years experience of working in industry including Pakistan Telecommunication Company Limited (PTCL) as ADE & D.E, Wateen Telecom Pvt Ltd as Assistant Manager OFC Projects & Operations , Comstar ISA Ltd as System Support Engineer , PEMRA as Assistant General Manager , National University of Science and Technology as Lecturer and worked as a visiting faculty in different institutes and universities.

Mohammed Ather Akhlaq, Lecturer, Computer Science has done his M.Phil in Management Information Systems from IoBM. He has also received Mater of Computer Science degree from IoBM. Currently he is focusing on research work and have couple of international publications. His research is mainly focused on information communication technologies.

Asim Iftikhar, Lecturer in Computer Science, holds a Master's degree in Computer Science and is currently enrolled in MS program leading to PhD. He has also done Microsoft Certified Professional Systems Engineer (MCSE). He has eight years of teaching experience in computer related courses. His areas of interest include Digital Communications, E-commerce & Web Development and Graphics Designing.

Sobia Younus, Lecturer, Computer Science, holds an MSC in pure Mathematics and BSC Honors in Mathematics from the University of Karachi. She is currently enrolled in an MS program leading to PhD Mathematics from KU. She has two international publications in the International Journal of Applied Mathematics and Mechanics, India. She has also taught at NUST as visiting faculty.













Rabab Naqvi, Junior Lecturer holds a Master's degree in Computer Science from University of Karachi. She has one year of teaching experience in computer related courses. Her areas of interest include Data Base Management System, Digital Computing & Artificial Intelligence.

Mathematics and Statistics



Dr. Syed Iftikhar Ali, Senior Fellow with the rank of Professor, holds MS and PhD from England. He has a vast teaching experience and has worked for SUPARCO, University of Benghazi (Libya), FAST Institute of Computer Science (Karachi) and Yanbu Industrial College, Saudi Arabia. He is a chartered Physicist and Member of Institute of Physics (London). His main interests are in the areas of Mathematics, Physics and Numerical Analysis.



Dr. Massarrat Ali Khan, Senior Fellow with the rank of Associate Professor, holds MSc in Statistics majoring Operations Research from the University of Karachi, MBA from IBA, Karachi and PhD from Hamdard University, Karachi. He posseses 16 years professional experience in private sector industries in Pakistan and abroad in which he worked with companies such as Philips Electric Company of Pakistan, Al-Futtaim Group of Companies, Juma Al Majid Establishment in UAE and NMC(National Management Consultant) Pakistan. He also has more than 19 years teaching experience in different universities and colleges. He taught at IBA Karachi, Hamdard University, ICMAP, Bahria University, CAMS, Textile Institute of Pakistan and has been associated with IoBM for 14 years as visiting faculty before joining the Institute on a permanent basis. He has conducted several marketing research and business development studies in Pakistan and abroad. His areas of interests are Operations Research for Management, Operations and Production Management, Quantitative Analysis for Business and Management, Statistical Inference and Mathematics.



Laiq Muhammad Khan, Senior Fellow, Statistics, holds an MSc in Statistics from the University of Karachi. He has over 35 years experience of teaching Statistics. His research interests are Statistical Modeling and Inferential Statistics. He has published research work in many national journals. He has taught as visiting faculty at FAST, Institute of Computer Science Karachi for the period 1995-2001. He has been associated with IoBM as visiting faculty since August, 2000.



Syed Wajahat Ali, Senior Lecturer in Mathematics, has an MSc from the University of Karachi. He has been involved in research and teaching in Mathematics and Statistics.



Rizwan Ahmed, Senior Lecturer in Mathematics and Statistics, has done his MSc in Statistics and MPA (Finance) from the University of Karachi. He has also done his MAS (Applied Economics) from Applied Economics Research Center, University of Karachi. He has six years of teaching experience at various institutes. His areas of interest are Quantitative Analysis for Business and Management, Statistical Inference, Macroeconomics, Mathematical Economics and Business Finance.

Hina Samreen, Senior Lecturer in Mathematics holds an MSc in Applied Mathematics and Master's in Applied Economics from the University of Karachi. She has been actively involved in research related work and assisted Pakistan Institute of Education and Research in the development and preparation of various policy papers in labor management and allied subjects.

Sumaira Khan, Lecturer in Mathematics Department, has compleyed her MSc. in Applied Mathematics from Karachi University. She is enrolled in MPhill leading to Ph.D program in Operational Research from Karachi University. She has taught at NUST and Iqra University. She is the member of Review committee for the First National Conference on Islam and Scientific Research held at FAST-NUCES.

Logistics and Supply Chain Management

Muhammad Moin Uddin Ali Khan, Senior Fellow & Head of Supply Chain Management has BSc and BE degrees from University of Karachi and MS in Engineering from University of Missouri, USA. He has been trained in fields of Operations Management, Quality Assurance, Environmental Management, Supply Chain Management and Technology Management from USA, Japan, UK, South Korea, Sweden, Russia, Brazil and Australia. He has been associated with the industry and education for over 34 years. He is certified lead Auditor ISO 9000 QMS and is actively involved in developing Quality Enhancement activities at IoBM in close coordination with the HEC of Pakistan. His research publications are in the areas of advanced materials and has been guest speaker at American and Malaysian Universities.

Actuarial Science and Risk Management

Dr. S. M. Aqil Burney is professor at College of Computer Science and Information Systems is HoD (AS & RM). He hold M.Sc.(Statistics), M.Phil(Risk Theory and Insurance -Statistics) from University of Karachi (UoK) and Ph.D.(Mathematics) from Strathclyde University, Glasgow-UK along with many courses in Population Studies of UN, Computing. He has taught for more than 40 years at institutions and universities of Pakistan and abroad.He also holds extensive experience of academic management and organization. He was Meritorious Professor at Dept of Computer Science University of Karchi prior to joining IoBM. He has published more than 135 research papers and 7 books nationally and internationally in ICT, Mathematics, Statistics and Computer Science. He has supervised more than 10 PhD and 5 MS/M.Phil in Mathematics/Computer Science/Statistics and approved HEC Supervisor. He is Chairman(elect) National ICT Committee for Standard PSQCA-Ministry of Science & technology Govt. of Pakistan and member National Computing Education Accreditation Council (NCEAC), Member IEEE(USA), Member ACM(USA) and Fellow Royal Statistical Society UK).









Fakhir Musharaf, Assistant Professor holds a Master's in Business Administration in Finance from the University of Leicester, UK. His PhD in Risk Management from Edinburgh Napier University UK is in process. He has working experience of 24 years and has worked as an Assistant Manager, Accounts in Cotton Export Corporation and Central Depository Company. He was Manager, Finance and Corporate Affairs in Soorty Enterprises. During his PhD, he also worked with Worech International, UK as a Consultant.



Sohail Ahmed Khan, Assistant Professor holds MS in Finance (specialization: Financial Mathematics) from Germany and also holds M.Sc. in Applied Mathematics from University of Karachi. He has worked for five years at P3 Communication GmbH and LogicaCMG GmbH & Co. KG in Germany. He has also served as cooperative lecturer at the department of computer science, University of Karachi. His research interests encompass Computational Finance, Application of Methods from Financial Mathematics in Insurance, Interest Rate Modeling.



Steve James, Assistant Professor in Actuarial Sciences & Risk Management, joined the Institute in August, 2013. Holds MS degree in Financial Mathematics from Technical University Kaiserslautern, Germany. He has more than five years of teaching experience. He has also worked at Daimler (Germany).



College of Engineering and Sciences (CES)

Electrical Engineering & Telecommunication Management

Seema Ansari, Head of Electrical Engineering Department, has done MS/CS-Telecomm. from University of Missouri, KC, USA and B.E. Electronic Engineering from NED University of Engineering & Technology, Karachi, Pakistan. She is currently enrolled in PhD, Telecommunication Engineering at University of Malaga, Spain. During her academic career, she has been involved in teaching, research, management & administration and has held various positions. She is an author and co-author of 50 plus research papers published in both national and International Journals and magazines also presented papers in conferences. She participated in national and International conferences. She has also contributed as an author of a chapter in a book titled: "Wireless Sensor Networks and Energy Efficiency: Protocols, Routing and Management" published by IGI GLOBAL, USA in Jan. 2011.

Dr. Munaf Rashid, Assistant Professor Electrical Engineering Department, holds BS Electronics degree from SSUET and MS degree in Telecommunication from Hamdard University Pakistan (Gold Medalist). He received PhD degree in Electrical Engineering from Universiti Teknologi Malaysia (UTM). His research study is supported by Malaysian International Scholarship (MIS) program by Ministry of Higher Education Malaysia (MOHE). His research interest mainly lie in high level recognition task, in particular Human Action recognition, Emotion recognition systems, Image and Video retrievals and Machine learning. He served as a session chair for (IACSIT 2010) IEEE Conference in Singapore. He is a member and researcher of Computer Vision, Video and Image Processing (CVVIP) research group. He is the author of many scientific papers published in highly reputed international journals and conferences.

Mujtaba S. Memon, Senior Lecturer, Telecommunication, holds an MSc degree in Communication Technology and Policy from the University of Strathclyde, UK and a BE degree in Electronic Engineering from NED University. He has also completed an Advance Diploma in Software Engineering from Aptech Computer Education. He holds four years of professional experience in organizations like IZON, CYBIZSOL, EURO Support Services and Thistle Hotels.

Wagas uddin Qazi, Lecturer, Telecommunication, holds an MSc degree in Telecommunication Engineering from Staffordshire University, UK and a BE degree in Electronic Engineering from PAF- Karachi Institute of Economics and Technology. He has also completed CCNA course from the Xpedient Institute of Technology. He holds three years of professional experience in Pakistan State Oil. Currently Mr. Qazi is engaged in teaching Courses of Electrical Network Analysis, Linear Control System, Computer Architecture and Organization, Computer Concepts, Computer Concepts and Applications

Osama Mahfooz, Junior Lecturer, Telecommunication, holds an MBA degree in Telecommunication Management from the Institute of Business Management (IoBM) and BE degree in Electronics from the PAF-Karachi Institute of Economics & Technology. He has completed a CCNA Exploration certification from Aptech. He also has four research publications in journal of CCSIS, IoBM recognized by HEC that is PJETS (Pakistan Journal of Engineering Technology & Science)













Radha Mohanlal, Lab Engineer in the Electrical Engineering Department, holds a B.E degree in Telecommunications from N.E.D University of Engineering and Technology. She is enrolled in M.S (Telecommunications) in N.E.D. She has done project work on AODV Ad-Hoc Routing Protocols using remote access to a real test bed environment to perform real- time simulations and analysis. Her area of interest is Computer Networks, Networking Protocols, Information Theory as well as Wireless and Mobile Communications.

Industrial Engineering



Dr. Mohammad Irshad Khan, Senior Fellow and Head of the Department of Industrial Engineering with the rank of Professor, holds a PhD degree in Chemical Engineering and a Postgraduate Diploma from University of Bradford, UK. He has over 30 years experience of Industry and Management and is a registered consultant of the Islamic Development Bank, Jeddah and SMEDA, Pakistan. He is a professional member of Institute of Industrial Engineers, USA.



Mukhtar Ahmed, Senior Fellow, Industrial Engineering, has MS (Mechanical Engineering) from the University of Southern California, Los Angeles, USA and BE (Mechanical Engineering) from NED. He has teaching experience of almost 23 years and started his teaching career with NED where his last appointment was as Associate Professor. He also went to Zimbabwe, Harare Polytechnic as Lecturer. He has 4 years working experience with Roti Corporation of Pakistan as Deputy Manager, Technical.



Fahad Bin Abdullah, Lecturer Industrial Engineering, holds an MSC From University of South Bank- London. He has speacialized in Mechanical Engineering Management, Robotics and Simulations, Advanced Materials and Advance Human Machine Designing. He Holds a BE Mechanical Engineering Degree from NED University. He has the Project Coordination and Maintenance Engineering experience mainly related to field of Mechanical Engineering & Management



Falak Shad Memon, Lecturer Industrial Engineering, holds an MBA degree from Institute of Business Management She has done B.E (Industrial & Manufacturing) from NEDUET. She also has six years of industrial experience as a head of production and purchase department. She is certified ISO lead auditor and posses expertise on SAP in PP, MM and CO module.



Saima Yaqoob, Lab Engineer / Assistant Lecturer, holds a B.E degree in Industrial & Manufacturing from NEDUET, secured 9th position among the graduating batch of hundred and twenty students. She has two years of professional experience with Multinational Organization "YKK Pakistan Pvt Itd" & one year of teaching experience. She is currently enrolled in M.E Industrial Management in NEDUET.

College of Economics and Social Development (CESD)

The Dean

Dr. Mohammad Ali Shamim, Dean of College of Economics & Social Development, has a PhD in Civil Engineering from the University of Paris, France and an MBA from INSEAD, Fontainebleu, France. He has over 45 years experience of working in different organizations, to name a few, the Islamic Development Bank, Jeddah, the IFC and the World Bank. His geographical work exposure spans North America, Europe, Africa and Asia. In addition, he has taught in a Business School. His last assignment was working as the Managing Director & Chief Executive of a cement plant project.

Commercial and Professional Studies

Mohamed Aslam Dossa, Head of the Department of Commercial and Professional Studies, is a qualified Chartered Accountant and a Chartered Management Accountant (England). He has held senior management positions in Pakistan, England, Tanzania and Canada, besides having over 10 years of teaching experience. He was part of the ICAP team for development of the Code of Corporate Governance adopted by SEC Pakistan, and has been a member on ICAP's Public Sector Committee. He is currently President of the Rotary Club of Karachi South.

Abdul Jabbar Kasim, Senior Fellow, Commercial and Professional Studies, brings a rich blend of corporate, professional and academic experience. Besides heading listed leasing companies as a CEO and member board he has taken seats as nominee director on various Corporate Boards. He obtained his B.Com from University of Karachi and went to IBA Karachi to earn his BBA (Hons) and MBA degrees. His main emphasis during the last several years is on Corporate Governance and Best Business Practices and Corporate Affairs. His articles on the said subject appear in the Daily Dawn and Business Recorder. He joined IoBM as a full time faculty in October 2011.

Sartaj Qasim, Assistant Professor, Commercial and Professional Studies did his MBA from the Institute of Business Administration, Karachi, in 1979 and FCMA from U.K. in 1992. He has over thirty years of experience in international aviation financial management. He has been posted in the Netherlands and Saudi Arabia and visited several countries in Europe, America and Asia on official assignments. In addition to his academic qualifications, he holds several airline industry qualifications from IATA including the IATA/UFTAA International Travel Consultant Diploma. He takes keen interest in training and staff development and is a member of the Chartered Institute of Logistics and Transport, U.K. He has conducted several training courses in airline finance and accounting.

Ghulam Murtaza Korai, Lecturer, Commercial and Professional Studies holds an MBA degree in Finance from IBA University of Sindh, Jamshoro, LL.B from SM Govt. Law College University of Karachi, and ICFE (International Certificate in Financial English) from Cambridge ESOL UK. He is also doing his LL.M from SM Govt. Law College University of Karachi. His research interests are in the areas of Company Law, Corporate Governance and Intellectual Property Rights. He has five years of teaching experience at ICAP affiliated Institutes. He has undergone various training workshops in the field of Corporate Law.











Economics



Dr. Shahida Wizarat, Director Research, Chief Editor PBR and Head of the Department, Economics and an MS/PhD Coordinator, is an independent economist and has been involved in research, teaching and administration. Her areas of interest are industrial economics focusing on industrial productivity, its determinants; concentration and profitability; development economic issues; economic policies; debt and its management. She is the author of forty five research papers and articles published in journals of international repute in Pakistan and abroad. She has organized, attended and read papers at several international and national conferences. She earned an MA in Economics from Vanderbilt University, USA and her Ph D in Economics from the University of East Anglia, Norwich, England. She has served as the Editor of the Pakistan Journal of Applied Economics and Directors of the Applied Economics Research Center, University of Karachi. She has also served on the Board Directors of the Karachi Stock Exchange. She is also on advisory boards and research councils of several organizations and universities. She has authored over forty five publications within the country and abroad.



Muhammad Ajaz Rasheed, Assistant Professor in Economics, earned his MPhil in Economics from the Institute of Business Management, an MAS (Applied Economics) from Applied Economics Research Center (University of Karachi) and MSc (Statistics) from the University of Karachi. He has 20 years professional and teaching experience in the area of Statistics, Economics and Computer Science. He has taught at the University of Karachi and University of Balochistan. He has worked with Social Policy and Development Center as a researcher. His research primarily focuses on Macro-Economic Modeling and Monetary Economics. He has published research papers in national and international journals. He has also contributed to the Sindh Economic Survey. He has been a member of FPCCI's standing committee on research and development from July 2005 to June 2007.



Mirza Aqeel Baig, Assistant Professor in Economics has an MPhil in Economics from the Institute of Business Management, MAS in Applied Economics from AERC, University of Karachi and a Master's degree in International Relations. He has over ten years teaching experience at various business institutions. His research interests are in the areas of Monetary Economics and Macro Economics. His research papers have been published in PBR and journals of the Statistics Department of the University of Karachi. He has also contributed papers in the Sindh Economic Survey and the 2nd international Sindh Conference at IoBM.



Ch. Sohail Ahmed, Senior Lecturer, holds an MSc (Statistics) from KU, MPA from IBA, and MAS (Economics) from Applied Economics Research Center, Karachi. He also holds PGD (Computer Science) from the University of Karachi. His research primarily focuses on International Trade and Econometrics. He is pursuing his MPhil Degree in the area of International Trade. He has served for 18 years of at various public and private academic institutions.



Muhammad Zubair, Lecturer in the department of Economics holds Master degree in Economics & Finance from the University of Karachi. He has also secured his post graduate diploma in Economics & Finance and B.A (HONS) with Economics and statistics From University of Karachi. He is also enrolled in M.Phil in IoBM. He has experience of 4 years of Broadcasting with Radio Pakistan in the capacity of Business anchor and reporter covering economic policy and stock market etc. He is contributing regularly his article on economic issues in renowned newspaper Express Tribune from 2 years.

Qazi Muhammad Adnan Hye, Research Fellow, Economics, has MPhil (Economics) from Applied Economics Research Centre (AERC), University of Karachi. He also has MAS (Economics) from AERC and Masters in Economics from Islamia University of Bahawalpur. He has 34 publications to his credit out which 31 are international and 3 are local publications.

Irfan Lal, Research Fellow in Economics, is currently enrolled in M Phil Program at IoBM. He has done MAS from Applied Economics Research Centre, University of Karachi and MA (Economics) University of Karachi.

Sabeen Anwar, Research Associate (Economics), holds MAS (Applied Economics) from Applied Economics Research Center (University of Karachi) and MSc (Hons) from the University of Karachi. She has two international publications. Her M.Phil (Economics) is in progress from IoBM.

Zia Ullah, Research Associate, has MAS from Applied Economics Research Center University of Karachi and MSc in Economics from Quaid-i-Azam University Islamabad. Research Areas includes International Economics and Macroeconomics.

Education

Prof. Dr. Nasreen Hussain, (see profile on page No. 179)

Dr. Muhammad Yousuf Sharjeel, Associate Professor and Head of IoBM City Campus holds a PhD in Measurement & Evaluation and B.Ed, M.Ed and M.Phil from Hamdard University. He was awarded three gold medals for his Bachelor, Master and M.Phil degrees in education and social sciences. He also holds professional certifications from Bradford and Cambridge Universities, U.K. He has conducted several professional HEC & NTS workshops on Training of Trainers and Faculty Development Programs across Pakistan. Besides, he has conducted seminars and workshops for British Council and many public sector universities including University of Karachi. He has presented his research papers at many national and international conferences. He received training from abroad on different educational testing and social sciences programs. He was awarded the professional teaching license in 1989 by the Ministry of Education, U.A.E

Samra Javed, Assistant Professor, Education and Manager, Entrepreneurship& Management Excellence Center (EMEC), holds a Master's degree in English Language and Literature from Government College, Lahore. She has also completed In-service Certificate in English Language Teaching, which is an advanced English language teaching certification awarded by Cambridge, ESOL. In addition, she has worked as the Academic Coordinator of the Society of Pakistan English Language Teachers. She has been involved in research on various aspects of teaching and learning. She is currently pursuing her PhD in Social Sciences with specialization in Education. In addition, she is a trainer in communication skills and proposal writing.

Shelina Bhamani, Coordinator, Associate Degree in Education (ADE) and Lecturer in Education and Social Sciences, holds a Master's degree in Education. She has recently received certification in Science of Early Childhood Development from Red River University, Canada. She has also completed her Advance Diploma in Human Development and Child Development. In addition to In-service Certificate in English Language Teaching, an advanced English language teaching certification, awarded by Cambridge University and an International Graduate Certificate of Education, Autralian Catholic University. Moreover, she is a recipient of gold medals and international travel/study grant scholarships. She has worked as project consultant on many national and international projects. She has been involved in research on various aspects of teacher education and early childhood development. Ms Bhamani is currently pursuing her Research Degree in Education.















Center for Policy and Area Studies



Dr. Sahib Khan Channa, Senior Fellow, has Bachelor of Arts, Bachelor of Law, Master of Arts and Doctorate degrees from the University of Sindh and Post-Doctorate in Political Science from the Arkansas State University, USA. He has over 40 years of administrative, teaching and research experience, having served as Professor and Principal of some prestigious colleges of Karachi, besides holding various senior level positions in the Education Department, Government of Sindh. Recognized as a prominent historian/writer of Sindh by literary circles within the country and abroad, Prof. Channa has contributed a number of research articles to renowned research journals published by different departments/institutes of Sindh University. He has been a member of the Senate, Syndicate and Selection Board of the University of Karachi, also a member of the Senate of almost all the public universities of Sindh as well as member of the Board of Governors of all the Boards of Intermediate and Secondary Education in Sindh. Western, Central and South Asian political and strategic studies are his main research interests.



Urfi Khalid, Senior Fellow in Pakistan Studies, holds an MA in Physical and Political Geography from the University of Punjab, Lahore. Prior to her current assignment, she was associated with Institute of Business Management as visiting 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. Her research paper has been 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.

Business Psychology



Dr. Nadia Ayub, Head & Associate Professor of Department of Business Psychology earned a Doctor of Philosophy in Psychology from the University of Karachi, Pakistan. She is HEC approved PhD Supervisor and supervising number of MPhil & PhD thesis at IoBM. Her research focuses on social problems, adolescents, organizational issues, personality, family and marriages, and Psychometrics. Her researches appeared in Journal of Immigrant and Minority Health, Japanese Psychological Research, Journal of Child & Adolescent Mental Health, The International Journal of Interdisciplinary Social Sciences, Asian Journal of Distance Education, Pakistan Business Review, Journal of Alternative Perspectives in the Humanities and Social Sciences, Asian and Culture History, Pakistan Journal of Clinical Psychology, and other journals. She has published more than 20 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, European Journal of Business & Social Sciences, Journal of Pakistan Psychological Association, Universal Research Journal, and Pakistan Business Review. She has worked on research project on Community Health Sciences at the Aga Khan University and Hospital. She has organized, Third Annual Conference on Industrial and Organizational Psychology: Better Organizations through collaboration in Education, Research and Practice, and First National Conference on Application of Social Sciences in Pakistan at the Institute of Business Management. She is the member of HEC National Curriculum Revision Committee of Psychology. She is recipient of Group Study Exchange Program Fellowship 2011 for Pennsylvania, USA, hosted by the Rotary Foundation International. She received HEC Best University Teacher Award for 2011.

Dr. Linah Askari, Assistant Professor Psychology, Department of Business Psychology is a psychologist with vast academic and professional experience of behavioral, organizational, clinical and business psychology spanning over 18 years. She holds a PhD in Psychology from the University of Karachi and was awarded gold medals both in MSc Psychology and Post Magistral Diploma in Clinical Psychology from the University of Karachi. She is a recipient of 'Star Laureate Award' in 2006 from 'Who's Who in Pakistan'. She has introduced the latest 'Attitudinize Psychotherapy' recognized internationally through paper presentations at conferences and research publications. She is also the co-editor of "Handbook of Counseling and Psychotherapy in an International Context".

Dr. Sehar Hassan, Assistant Professor, Business Psychology, holds a PhD in Psychology from the University of Karachi. She has published 12 research papers out of which 2 were published in International Journals, like Indian Journal of Social Sciences and Official Journal of the World Psychiatric Association. She has also written a few chapters for two books "Pakistan Earthquake 2005 – The Day, the Mountains Moved' and 'Wars, Insurgencies and Terrorism – A psycho-social perspective published by Oxford University Press. She holds full time teaching experience of approximately 1 year initially as Lecturer and then as Assistant Professor at Jinnah Women University, Rawalpindi. She has a part time clinical experience of 9 years and as visiting faculty for two years at PECH College and at Jinnah Post-graduate Medical College, Karachi. She has a special interest and training in the field of Trauma Psychology and has also designed and introduced Disaster and Emergency Management training courses.

Sadia Aziz Ansari, Senior Lecturer in Psychology earned her Master's degree from the University of Karachi. She also holds a Post- Magistral Diploma in Clinical Psychology from Bahria University, Karachi. Her academic and research potential brings her to IoBM, where she continues to engage in research projects. Her research proposal entitled "Glass Ceiling at Call Centers in Pakistan" was funded by ILO. She has presented research papers at national and international conferences. In addition to that, she has more than two years of clinical experience at various reputable organizations. Her research primarily focuses on psychological assessment and development, employee attitude, positive psychology and emerging issues in applied psychology. Hercurrentresearch projects focus on reward and compensation in the telecomindustry, Karachi, and cross-cultural validation of Ryff's Scale of Psych.

Islamic Studies / Philosophy Unit

Asad Shahzad, Assistant Professor in Philosophy Unit, has earned his MA in English Literature from the University of Karachi. He has received intensive training from SPELT under Cambridge University. He has taught at several educational institutions before joining IoBM. He writes for different newspapers on religious, political and social issues. He has presented several papers at national conferences on the topics of Unique Equilibrium of Free-Will and Determinism in Rumi's writings and "The Impact of Fantastic Advertisement of Consumer Goods on the Mental Health of Society" His paper "Iqbal's Idealist Critique of Hawking's Materialist Concept of Time" was published in Iqbal Review, April 2008 issue; and "Incoherences in Konrad Lorenz's Concept of Aggression" in PBR. Currently, he is involved in research in the area of the philosophy of globalization.









Media Studies



Ejaz Wasay, Head of Media Studies and Senior Fellow Marketing at the Institute of Business Management (IoBM), has over 37 years of industry experience in the fields of Marketing, Corporate Communications and Advertising. He has worked with several leading local companies and MNCs including United Bank Ltd. (UBL), Orient McCann-Erickson, Unilever, Glaxo, Philips and Gillette, and held senior level positions. With Gillette over 10 years, from 1984 to 1994, he worked in Pakistan, Brazil and was last based in Dubai – UAE as Marketing Manager Middle East. He has been a visiting faculty at IoBM since 2005 and joined as Sr. Fellow Marketing on January 1, 2011. Ejaz Wasay has been Council Member, Marketing Association of Pakistan (MAP) for several years, and its President in 2005.



Sabeen Jamil, Lecturer, Media Studies, holds an M.A in Mass Communication from University of Karachi and is pursuing MBA in Advertising and Media Management from IoBM. She has worked as a journalist at a leading English language newspaper and has been contributing to leading newspapers and magazines including The News, Dawn, Express Tribune and Newsline for three years now. She has been associated with a private university as a faculty before she joined IoBM in September 2011.

VISITING FACULTY AT INSTITUTE OF BUSINESS MANAGEMENT (IOBM)

Aamir Abbasi MBA Finance, MSc Nuclear Physics

Abdul Basit CA, ACA, CISA

Abdul Hamid Khan MBA, (IBA)

Abdul Khaliq Aboya MA in Philosophy, (KU)

Abdul Rahim Khan MBA, (IoBM)

Ahmed Abbas Zaidi MBA (IoBM)

Aishah Kamil MBA Finance, (IBA)

Ali Zulqarnain Master in Mech. Engg., (NED)

Ambreen Bashir MBA (IoBM)

Amin Nasrullah MBA (IoBM)

Amin Rajani MBA, (IoBM)

Amir Zia MA, English Literature (KU)

Amjad Hussain MIM, Minnesota, MSC (KU)

Asad Hussain MBA, (IBA)

Basit Hassan SAP, (Victoria University), MIS (Iqra)

Dr. Adnan Kanpurwala MBBS, MBA, Mphil, PhD Dr. Asif John MBBS, (Uni. of Peshawar), MBA, (IBA)

Dr. Amir Iqbal PhD Mech. Engg from UK

Dr. Atif Mahmood MBBS, MBA, Mphil, PhD

Dr. Ayesha Ayaz MBBS, MBA

Dr. Muhammad Rizwan PhD, Clinical Psychology

Dr. Najeeb Alam Khan PhD in Mathematics, (KU)

Dr. Naveed Yousuf MBBS, MBA, PhD

Dr. S. A. Rab MBBS, MBA

Dr. Sadia Irshad PhD in Economics, (UPMF)

Dr. Shahid Iqbal PhD, Clinical Psychology

Dr. Shahida Mirza MBBS, MHM, (IoBM)

Dr. Syeda Amber Hassan MBBS, MBA, MPH

Ayesha Wjahat MSc, Applied Psychology

Baber Khairi MBA, (Bentley University), USA

Fahad Ashfaq Khan MSc, (London), MSc, Physics, (KU)

Fahad Fahim MA in Risk Management, (KU) Faisal Aziz MA in English Linguistics, (KU)

Faisal Dehdi MBA, (IoBM)

Faisal Jalal MBA, (IBA)

Faiz ul Islam MBA, (IBA)

Fareen razzak MBA, (IBA)

Fatima Ahmed MBA, (IoBM)

Fawad Fazal MBA, (IBA)

Fraz Nasim MBA, (IoBM)

Hamza Farooq MA, (KU)

Hareem Siddiqui MBA in HRM, (KU)

Haris Inam MBA, (IoBM)

Hassan Sardar MBA in Marketing, MIS, (KU)

Irfan Dossa MS, (KU)

Irfan Muhammad MPhil in Philosophy, (KU)

Jahanzaib Haque BA Mass Communication, (Cyprus)

Kamil yousuf MBA, (IoBM) Kamran Abbas MSc (Economics)

Kazim Alam Master in Journalism, (USA)

Khalid Durrani MBA, (USA)

Khalid Hussain MPhil, (IoBM)

M. Siddiq Khatri MBA, (KU)

Maira Akhtar MBA, (IoBM)

Mansoor Soomro MBA, (IoBM)

Maqbool ur Rehman MBA,

Maria Andleeb Siddiqui Master of Engineering, (NED)

Maria Iqbal MBA, (IoBM)

Mufti Ehsan Waqar MBA, (IoBM)

Muhammad Ali Chartered Accountant, (ICAP)

Muhammad Ali Khoja Postgraduate, (University of Kent)

Muhammad Ali Shaikh MBA, (IBA)

Muhammad Ahsan Irshad MBA in Industrial Engineering, (IoBM)

Muhammad Haseeb MAS, (AERC), MSc, (KU)

Muhammad Irfan MS, (KU) Muhammad Tahir MA, (KU)

Muhammad Zakaullah MA, Arabic

Muhammad Zeeshan Shaukat MBA in Industrial Engineering, (IoBM)

Muhammad Zia Kiani LLB

Nabeel Latif MPhil in Economics, (IoBM)

Naveed Ilyas MBA, (IBA)

Nayyer Nizam MBA, (USA)

Nazia Azfar MBA, (SZABIST)

Noman Ahmed Siddiqui MS, (Sir Syed University)

Noman Nasir BE, MBA, (LUMS)

Nuzhat Khan MSc, (Analytical Chemistry)

Obaid ur Rehman CA, (LLB)

Rabia Ali MA Mass Communication, (KU)

Raheel yousuf MBA, (IoBM)

Rizwan Ahmed MBA, (IoBM)

Saad Rafi MBA, (IoBM)

Saghir Ahmed Khan MA Economics Saima Ikhlas Masters in Psychology, (Punjab University)

Sajjad Hussain MBA, MSc Engineering

Salahuddin Masters in Economics, (Uni. of Punjab)

Salman Ahmed Masters in Policy Economics, (USA)

Sanam Aftab MBA in Finance, (IBA)

Shah M. Saad Hussain MS, (Michigan), MBA, (IBA)

Shahid Amin MA in English, MA, (USA)

Shahid Hameed Masters in Economics (KU)

Shamim Zuberi MBA,(IBA)

Shahzad Naeem BS in Marketing & Media, (Washington DC)

Sheikh Abdul Qadir MS, (NED)

Sheikh Zahid Masood MPA, (Harvard), USA

Shoaib Ahmed MBA Media and Marketing

Sohail Sawani MBA, (IoBM)

Suman Valeecha MPhil, (IoBM)

Syed Aqeel Zafar ul Hassan MA, (Punjab University)

Syed Baber Ali MBA, (IBA) Syed Haris Hassan BS, (Sir Syed University)

Syed Khaleeq Ahmed MBA, FCMA, LLB, DAIBP

Taqi Shaheen Bachelors of Arts, (NCA)

Tariq Aziz MBA, (USA)

Tariq Saeed MBA, (Preston)

Yousriyah Mukry MBA in Marketing, (LUMS)

Zahid Khan MBA, (IoBM)

Zaki Anwar MBA, (IoBM)

Zulfiqar Jafer Chartered Accountant

Zarar Rahim Zubair MBA, (IBA)





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. Shahjehan S. Karim, President, Institute of Business Management has worked in the Civil Service of Pakistan for over 37 years, holding a number of senior positions with the Government of Pakistan and the Government of Sindh. He has also worked with the United Nations Organization as an International Civil Servant for almost a decade. He is a graduate of the University of Arizona, USA and also studied Public Administration at Cambridge University, UK; Transportation Management at the University of British Columbia, Canada and is a fellow of the Economic Development Institute of the World Bank. Mr. Karim is the Founder President of the Foundation for Higher Education and the Institute of Business Management.



Sabina Mohsin Executive Director Administration, Admissions and Finance BBA, University of Arizona, USA MS, US International University, Nairobi, Kenya



Talib Syed Karim Rector, IoBM & Executive Director Academics, Corporate Affairs & EMEC BS, Systems Engineering, University of Arizona, USA MA, Economics, University of Arizona, USA



Manzoor Hussain Bhutto Advisor to President MA, Economics, (KU)



Dr. Akhlaq Ahmed Advisor to President MSc, (University of Karachi PhD, (Exeter University, England)



M. W. Jahangir Senior Manager & HoD Corporate Affairs B.Com., (Sindh University), CA Finalist (ICAP)



Muhammad Misbahuddin Senior Manager & HoD HR & Administration MBA, (PIMSAT), LLB, (KU)



Aslam Kurban Ali Senior Manager & HoD Finance, ACMA



Maj (R) Arif Sultan Khan Manager Purchase Graduate of PMA, Kakul



Maqsood Ahmed HoD, Internships & Placements MBA (IBA)



Nazir Ahmed Shaikh Controller of Examinations MSc, (University of Sindh)



Pervez Jamil Manager, Public Relations MA, (KU)



Syed Aley Ahmed Project & Maintenance Manager BE Civil, FIE, PE



Samra Javed Manager, EMEC MPhil in Social Sciences (SZABIST)



Dr. Syed Shahanshah Hasan Medical Advisor & Incharge SAC MBBS (Dow Medical College)



Shaikh Muhammad Sharif Nasir Senior Assistant Librarian MILIS, (KU)



Imdad Ali Mugheri Incharge Admissions LLB (KU), MBA (University of Sindh)



Malik Barolia Senior Assistant Manager Accounts MBA (MAJU), ACMA-II



Saeed Mukhtar A. Siddiqui Senior Assistant Manager, IT MBA (Missorui)



Azam Hashmi Course Coordinator MBA (IBA)



Lt. Cdr. (R) Sartaj Hussain Incharge Security BA (Islamabad)



Syed Suleman Jaffer Hatimi Proctor & Chief Protocol Officer BA (KU)



Nadeem Ahmed Khan Assistant Manager, Internal Audit MBA (Baqai) CIMA Finalist (England)



Muhammad Adnan Assistant Manager, IT MBA, MIS (KU)

Muhammad Hassan Sayeed	Humayun Rashid	Masood Hasan	
Senior Admissions Officer-II	Senior Sport Officer-II	Senior Accountant-II	
MBA (New Port University)	MSc, MA & BEd (KU)	MBA (Biztek)	
Mehmood Ahmed	Muhammad Masood Khan	Abdul Khaliq	
Senior Accountant-II	Senior Personnel Officer	Senior Officer, Internship & Placement	
B.Com (India)	BSc (KU)	MBA (IBA), LLB (Hyderabad)	
Munawar Ahmad	Muhammad Arif Shaikh	Mehtab Alam	
Senior Admin. Officer	Senior Maintenance Officer	Senior Maintenance Officer	
B.A	Diploma of Associate Engg.	B.Tech, Electrical (NED)	
Muhammad Kamran	Shakeel Ahmed	Fraz Khan	
Senior Examination Officer	House Keeping Officer-II	Computer Programmer-II	
MSc (KU)	BA (KU)	B.Com (KU)	
Muhammad Kashif	Syed Mustafa Hussain	Abid Ali	
Computer Programmer-II	Academics Officer-II	Accounts Officer-II	
BSc (Preston)	MA (KU)	CA (Intermediate)	
Muhammad Asim	Rashid Aqeel	Muhammad Zahid	
Accounts Officer	Internal Audit Officer	Accounts Officer	
ACCA	B.Com	ACCA	
Naeem Mirza	Vara Syed	Samiullah Khan	
Assistant Librarian	Student Counselor & IR Officer	HR Officer	
MLIS (KU)	MBA (IoBM)	BA (KU)	
Barira Amin	Bismah Mirza	Faraz A. Khan	
HR Officer	EMEC Officer	Officer, Corporate Affairs	
MBA (Hamdard University)	MBA (IoBM)	CA, Finalist	

COURSE DESCRIPTIONS

COURSE DESCRIPTIONS

The courses offered by the Institute, covering a wide range of fields, are especially designed to help students gain an insight into the subject matter. The contents of the courses not only cover an international perspective of the concept taught but also place a special emphasis on the local/national content.

Course Abbreviations and Sequence

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- Please note that this list is subject to change. Details of courses, including information about the course activities and scheduling are distributed by the faculty at the time of registration.
- Students should ensure that they complete the Pre-requisite courses before opting for advanced level courses.

Accounting

ACC101/402 Introduction to Financial Accounting

This course is aimed at people with no or limited prior knowledge and provides an understanding of how financial statements are prepared for various types of organizations. The principles of financial accounting course focuses on the record-keeping and financial statement preparation process.

ACC102/103 Introduction to Financial Accounting I & II

The objective of these courses is to enable students to understand fundamentals of accounting theory and apply it to basic financial accounting.

ACC104 **Cost and Management Accounting**

This course covers the understanding of cost concepts, cost classifications, flow of costs stream, costing methods and accounting of elements of costs.

ACC201 Intermediate Financial Accounting

This course covers all aspects of corporate accounting, analysis of financial statements and specialized accounting for leases, construction contracts, inflation and taxation. ACC 101

Pre-requisite:

ACC202/204 Taxation I & II

The aim of these courses is to develop basic knowledge and understanding in the core areas of income tax and its chargeability as envisaged in the Income Tax Ordinance 2001 and the Income Tax Rules 2002 (relevant to the syllabus), Sales Tax Act 1990 and the Sales Tax Rules (relevant to the syllabus). Pre-requisite: ACC 102/103

ACC203/304 Financial Accounting I & II

These courses are designed to provide understanding of accounting methods, and procedures as followed by business organizations. These cover the accounting process of classification, summarization, presentation in the light of International Accounting and Financial Reporting Standards.

Pre-requisite: ACC 102/103

ACC301/401 Introduction to Managerial and Cost Accounting

The course is designed to make students familiarize with product costing systems, including job order costing, process costing, joint products and by-products.

Pre-requisite: ACC201/302

ACC302 Accounting and Financial Information Systems

This course provides an understanding of computer based accounting and hands on training of application of accounting package. Pre-requisite: ACC 101/201, CSC 203

ACC305/415 Cost Accounting I & II

These courses are designed to provide students an understanding of the importance of the role of cost accounting in planning and controlling the wide range of organizational and manufacturing cost. Pre-requisite: ACC 102/103

ACC405 Internal Auditing and EDP Accounting

This course covers the understanding and application of internal auditing tools and techniques and information system for management of risk and security system. Pre-requisite: ACC102/103/201

ACC410 Management Accounting

This course deals with the performance evaluation, decision making and control aspects of business. It creates an understanding of cost concepts, principles, tools and techniques of management accounting for performance measurement, operational and investment decisions and cost controls.

Pre-requisite: ACC301

ACC413 Managerial Accounting

This course is designed to familiarize students with product costing systems including job order costing, process costing, joint products and by-products. The course also covers budgetary planning & control systems including standard costing and variance analysis, cost/volume/profit analysis, performance measures evaluation, etc.

ACC414/416 Auditing I & II

The purpose of these courses is to give students theoretical and to a limited extent, technical knowledge and skills of auditing and review of historical financial information. It will provide a foundation for acquiring intensive knowledge required for professional competence. Pre-requisite: ACC 102/103

ACC417 Corporate Reporting

This is an advanced course in the field of Financial Accounting. The course includes preparation of financial statements, consolidated accounts and their disclosures; accounting for investment in subsidiaries and associated undertakings; reporting on investments in joint ventures.

Pre-requisite: ACC 102/103/203/304

ACC418 Performance Measurement and Decision Making

The main aims of this course is understanding of cost accounting in relation to management functions, application of financial information for control purposes; development and interpretation of data for decision making techniques of performance appraisal and operational research.

Pre-requisite: ACC 102/103/ 203/304/305/415

ACC501 Advanced Financial Accounting

The course will enable students to understand and learn accounting aspects of topics in partnership, head office/branch relationship, installment sales, business combinations, foreign currency translation and bankruptcy and liquidation.

Pre-requisite: ACC101/102/103/203/201/304/402

ACC502 Advanced Managerial Accounting

This course covers the use of accounting data for managerial decision, control and planning purposes and provides in-depth analysis of various techniques and methods used by managers. Prerequisite:

ACC102/103/301/305/401/410/415

ACC503 Taxation

Tax law is studied with a special emphasis on what constitutes taxable income and allowable deductions for individual tax payers. The course also includes a comprehensive coverage and treatment of taxes as related to business profits.

Pre-requisite: ACC 201

ACC505 Auditing

This course covers the understanding of audit techniques, rules, principles and procedure and their application in the audit of financial statements, relevant records and source documents. Pre-requisite: ACC201/402

ACC506 Analysis of Financial Statements

The course begins by describing accounting standards of USA and international accounting standards with a special focus on developing students' capability to standardize various companies' financial statements.

Pre-requisite: ACC 402/501, FIN202

Advertising

ADV401 Principles of Advertising

The course provides working knowledge of advertising while giving an insight into various tools used for advertising to sell goods and services. The students will analyze the current issues facing the business of advertising and the environment in which it operates.

ADV402 Advertising Management

The course Investigates the nature & scope of advertising and its place within marketing strategy decisions and society. The students will learn the methods of planning, preparing, placing and evaluating an advertising message in the applicable media. Pre-requisite: ADV401, MKT401

ADV403 International Advertising and Promotions

An intensive analysis of theoretical concepts and the practice of international advertising. The course also covers environmental considerations in international advertising, planning and execution of advertising worldwide, and the role of media in the debate surrounding standardization versus localization of worldwide advertising campaigns for consumer/industrial products and services. Pre-requisite: MKT 401/509/532 ADV401/402

ADV406 Advertising Strategy

A study of the theoretical foundations and the process of developing advertising and promotional strategy; methods of utilizing research data for developing and evaluating advertising strategy. Pre-requisite: ADV401/402/405, MKT401/509

ADV407 Creative Production

The course gives an insight into the competing factors of "brilliant instinct" as opposed to the disciplines of the marketing process; the diligence of research & its interpretation; strategic thinking & an understanding of positioning and brand identity, the considerations for cost effectiveness and the necessity for teamwork. Pre-requisite: ADV401/402/405/406, MKT509

ADV408 Client Management

The course will provide opportunities to practice advertising management by analyzing and discussing situations that arise in the course of advertising management and create future advertisers who have good command over strategic thinking, creative analysis and client management.

Pre-requisite: ADV401/402, MKT509/527

ADV409 Advertising Campaign

A presentation of the skills, necessary to design, implement and manage advertising campaigns, with an emphasis on planning and decision making procedures applied to specific advertising problems.

ADV501 Creative Management

The course provides an understanding of the purpose and process of developing creative work in an advertising agency and all relevant issues in the creative process from brief to market success. Pre-requisite: ADV401/402

ADV504 Advertising Management and Strategy

The course is designed to give students an appreciation of the critical role that strategy plays in advertising. The need for adopting a strategic perspective, in the contemporary context, and carrying it through the creative process, media planning, campaign implementation and monitoring of results shall be discussed. The course will include a practical approach towards developing advertising and promotional strategies, using selected cases and to understand the application of tools and techniques that make advertising more effective.

Pre-requisite: MAN401, MKT532

ADV505 Creative Planning and Development

The course will help the students generate fresh, unique and appropriate ideas that can be used in advertising and learn tactics to improve on advertising campaigns including developing central selling points and creating a brand image. The course will give an insight into the steps involved in the process of creativity.

ADV506 Media Performance and Product Development

This course teaches the students about developing an entirely new media outlet, be it print or electronic. This course also teaches students to track the effectiveness, importance and challenges for media managers through case studies that encourage students to apply the text matter to contemporary issues.

Acturial Science

ARM501 Stochastic Process/Modeling

The aim of the course is to acquaint students with the use of probability theory to study models of phenomena with a degree of unpredictability about them, such as queues and population growth. Discrete and continuous time Markov chains, Poisson processes, random walks, branching processes, first passage Probability generating functions. Limiting probabilities, Branching processes, Exponential distribution: definition and properties, memory less property. Continuous-time Markov chains: definition. Birth and death processes. Chapman-Kolmogorov and Kolmogrov equations. Limiting probabilities. Balance equations. Pre-requisite: STA205

ARM601/602 Models of Financial Economics I & II

This course aims to provide the complete understanding of pricing of various types of options, Modelling of stock prices, Binominal Tree distribution, Risk neutral Pricing, Brownian Motion, Interest rate Modelling. MFE is the compulsory exam (paper-III) for the Associate Actuaries exam conducting by Society of Actuaries (SOA)USA. After completing the course students are fully prepared for the SOA (USA) examination.

Pre-requisite: ARM601/FIN509

Communication

COM102 Business Communication I

This course provides students with the fundamentals of effective writing which can be applied in other courses, and in any correspondence required of them in their future occupations. Students will be able to create business messages for specific purposes and for solving real life business communication problems.

Pre-requisite: COM 101

COM103 Functional English I

The main objective of this course is to help students to write simple sentences correctly. The course gives students the opportunity to read topics of interest and simulate real life situations. It also aims at developing vocabulary, grammar and punctuation skills.

COM104 Functional English II

The objective of this course is to help students communicate effectively in English language through the correct use of grammar and mechanics. It will provide a basis for composition and comprehension through practical use of the above.

COM105 Business Communication and Behavioral Studies I

This course is designed to give students an understanding of behavior of individuals and groups in all types of organizations and as to how organizations to achieve their goals.

COM106 Business Communication and Behavioral Studies II

The course aims to introduce students to the key concepts of business communication and their application. The course also intends to incorporate an understanding of the concepts of organizational behavior to develop problem solving and negotiation skills as well as leadership qualities in students.

COM107 Academic English

This course has been designed to enhance the students' understanding and use of writing and critical reading skills thereby inculcating a maturity of thought appropriate to students' needs in the freshman year. It examines the relationship between critical reading, critical thinking and analysis of issues from multiple perspectives.

COM108 English I

The course has been designed to improve the four English language skills at the tertiary level. The course includes reading texts from newspapers and magazines to enable students to communicate with adequate fluency and accuracy.

COM109 English II

This course includes readings from selected contemporary literature and exposes students to a variety of writing styles in order to improve command over the English language. Pre-requisite: COM 108

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COM202 Business and Professional Speech

The course applies the theories and principles of informative and persuasive business speech. Students learn to apply these skills in public speaking, meetings, interviewing, and group interaction. The course also aims at developing arguments to persuade with logic and reason in business related issues. Pre-requisite: COM 201/203

COM203 Methods in Business Writing

The course aims at developing business writing skills in order to produce effective letters, memos, job resumes, and short reports. It develops tools for critical thinking to improve business communication and decision-making.

Pre-requisite: COM 101

COM205 Persuasive and Analytical Writing for Business Communication

This course builds on the skills students have acquired in COM 102 by applying them to advanced business writing situations such as proposals and formal research reports proposals. They will also research and write an executive research report that solves a real business related problem.

Pre-requisite: COM 102

COM209 Communication Skills

The main objectives of the course are to help learners improve in all four skills of the English language, utilize them in catering to their immediate academic needs accurately, and integrate the language learned in their field of specialization successfully.

COM402 Business Communication

The course incorporates the principles of business writing and their application through letters, memos, and minutes of meetings. It also develops skills in writing long and short reports and proposals. The course aims to develop critical thinking skills by analyzing the constituents of reasoning, building arguments, and evaluating judgments through analytical business writing.

COM403 Interpersonal Communication Skills

This advanced course focuses on developing group communication and negotiation skills. The course also teaches students to identify barriers to critical thinking and enables them to analyze the complexity of business issues from multiple perspectives. Pre-requisite: COM 402

COM405 Organizational Consulting Skills

This course is primarily designed for the practitioner who provides services to agencies, professionals, or organizations. The purpose of the course is to provide an understanding of the process of organizational consultation. The course focuses on the essential skills and abilities needed for successful consulting to organizations.

Computer Engineering

CME102 Fundamental of Computing

This course is designed to provide the computer and programming foundation for all computer science and engineering students. The language used in this course C++. Topics include: introduction to computers, computer programs, and C++, semantics and syntax, data types and variables, assignments, Boolean expression, programs testing and debugging, concepts of algorithms design and implementation, program structures: selection and control loops constructs, functions, arrays, pointers and strings.

CME104 Computer Programming and Problem Solving

The course includes the basic concepts of object-oriented programming, functions, classes, linked list, procedures, Data Abstraction, Inheritance and Polymorphism, Filing Concept, Data Retrieval and saving into Binary and Text files.

CME200 Computer Aided Engineering Design

Introduction to computer-aided design tools including AutoCAD, OrCAD, MATLAB, Lab VIEW, and PCAD. Provides an understanding of computer-aided drafting principles and practices, and provide knowledge of engineering drawing fundamentals using AutoCAD.

CME205 Microcontroller and Microprocessor Systems

Introduction to microprocessor and microcontrollers, basic concepts, control unit, internal registers, ALU of an 8-bit or 16-bit microprocessor, timing and sequencing, peripherals And interfacing, memory and I/Osynchronization, wait state, hardware single stepping, memory speed requirements, logic levels, loading and buffering. Understanding the instruction set, data transfer, logic operations and branching, programmed I/O interrupts, Microprocessor system design, machine code and assembly language programming.

ELE201 Pre-requisite:

Computer Communication and Networks CME301

To help the students gain an understanding of the terminology and standards in modern day computer networks. To make the students understand communication basics, networking and network technologies; with emphasis on data and computer communication within the framework of the OSI and TCP/IP protocol architectures, internet and internetworking and how to apply these in the design and analysis of networks.

CME414 Digital Image Processing

This course emphasizes general principles of image processing, rather than specific applications. The topics covered are as image sampling and quantization, color, point operations, segmentation, morphological image processing, linear image filtering and correlation, image transforms, Eigenimages, multiresolution image processing, wavelets, noise reduction and restoration, feature extraction and recognition tasks, and image registration. **TCE404**

Pre-requisite:

CME420 Multimedia Communication

To develop familiarity with the science and technology of multimedia communication. Pre-requisite: **TCE200**

Computer Science

CSC105/402 Data Structure and Algorithms Design

The course covers object oriented design, static and dynamic data structures (strings, stacks, queries, binary trees), recursion, searching and sorting.

CSC111 Introduction to Information and Communication Technology (ICT)

Introduction to computers, types, generation, units, methods of computing, algorithm development and number systems, flow of control, basic number codes, overview of computer systems, using computer software.

CSC112 **Object Oriented Programming**

The course includes the basic concepts of object-oriented programming, functions, classes, linked list, procedures, Data Abstraction, Inheritance and Polymorphism, Filing Concept, Data Retrieval and saving into Binary and Text files.

CSC113 **Programming Fundamentals**

The course enables students to develop short programs using conditional statements and loops and functions, structure, linked list and file processing. Students are required to complete a project at the end of the course using C language.

CSC205 **Computer Architecture & Organizations**

The course involves a study of information set architecture, processor performance and design, data path, control (hardware, micro programmed), pipelining, I/O memory organization with cache virtual memory.

CSC208 **Network Programming Framework**

This course presents an overview of the technology, architecture and software used by the systems of network connected computers. The course will cover data transmission, local area network architecture, network protocols, internet working, distributed systems, security, and World Wide Web technology. Students will write programs that run concurrently on multiple computers.

CSC217 Digital Logic Design

The course covers an introduction to switching logic and combination circuits, minimization techniques, Karanugh Map and Quin Mcclusky methods, Half Adders & Full Adders, Combination Circuits using MSI AND LSI Components and an introduction to Micro Programming.

CSC218 **Operating Systems**

Topics of the course include software organization, translation, linkage, loading and executing, control programs for batch processing, time sharing and real time application, accounting, communication between programs units, multiprogramming and multiprocessing system, etc.

Prerequisite: CSC105, CSC205

Introduction to Database Systems CSC220

This course develops an understanding of a database software package developed for microcomputer applications. Topics include how to design implement, and access a database.

CSC213 Computer Communication & Network

Synchronous and asynchronous communications, Modes of transmission ASCII codes and data stream with parity, Guided Transmission Media (Twisted Pair, Coaxial Cable and Optical Fibre), Wireless (terrestrial and satellite). Line Configurations, Null Modem, Data Link Control, Flow Control Techniques, Stop & Wait, Sliding Window. Error control techniques, reverse error detection techniques (parity, CRC), switched networks (circuit switched, message switched and packet switched), Broadcast n, Packet Radio Networks, Network Topologies, LAN Architecture, LAN System & Network Standards, Ethernet and Fast Ethernet (CSMA/CD), Token Ring And FDDI etc., OSI Model, TCP/IP protocol suit, Introduction to IEEE802 Family. Connectivity Devices (modems, hubs, repeaters, bridges, routers), Resource Sharing, Managing User Accounts And Group, Implementing Security, Disaster Recovery, Protecting Data, Recovering From System Failure.

CSC222 Computer Oranization and Assembly Language

Digital computer organization, machine language, instruction execution, addressing techniques, digital representation of data symbolic coding and assembly system; macros; conditional assembly; I/O control subroutine linkage.

CSC303 Computer Graphics

This course discusses the introduction to computer graphics hardware, algorithms, and software. The topics include: line generators, affine transformations, line and polygon clipping, splines, interactive techniques, perspective projection, solid modeling, hidden surface algorithms, lighting models, shading, and animation. Substantial programming experience is required. Pre-requisite: CSC203

CSC305 System Analysis & Design

This course provides study of structured techniques in data processing applications, objectives, investigation, system models, design effectiveness, procedures, etc. Physical models, data models, project dictionary and project management tools and techniques are also covered as part of the course.

CSC102, CSC109 Prerequisite:

CSC309 Microprocessor and Applications

The course discusses the structure of Microprocessor, Bit slices and 8/16/32 bit microprocessors, processor architecture, registers, index and stack pointers, address modes, I/O interface adapters, interface devices, system clock, clock phase and bit rates, memory read-write and read only, memory mapping of I/O interrupts, handling of interrupts, direct memory access methodologies. Pre-requisite: CSC201, CSC205

CSC315 Theory of Automata and Formal Language

Automata and formal language, regular expressions, Turing machines, recursive functions, formal languages, non-deterministic automata and push down automata are the contents of this course. Pre-requisite: MTH201

CSC317 Introduction to Software Engineering

This course intends to develop skills to move from personal software development methodologies to professional standards and practices. This course will help students to create programs that interact with their environment and human users according to standard professional norms. The course also intends to develop effective software testing skills, write code conforming to the API standards. to identify and evaluate trade-offs in design and implementation decisions for systems of an intermediate size. The course also will help students to read and write programs in Java using advanced features and to extend model of computation.

CSC318 **Design and Analysis of Algorithm**

This course teaches techniques for the design and analysis of efficient algorithms, emphasizing methods useful in practice. Topics covered include: sorting; search trees, heaps, and hashing; divide-andconquer; dynamic programming; amortized analysis; graph algorithms; shortest paths; network flow; computational geometry; number-theoretic algorithms; polynomial and matrix calculations; caching; and parallel computing.

CSC320 Human Computer Interaction

It provides an introduction to human-computer interface design and evaluation, with an emphasis on graphical user interfaces for software products. It covers design principles and theory, usability engineering methods, and selected basic research in the areas of humanfactors and human cognition, hands-on application of learned principles using, NET or other languages.

Pre-requisite: CSC305, CSC203

CSC345 **Digital Image Processing**

The course includes digital image fundamentals, image sampling & quantization problems, image modeling & geometry, image translation, rotation, convolution, FFT & DCT, Walsh transform, histogram modification, edge linking & boundary detection, image compression techniques.

Prerequisite: CSC303

CSC410 Data Communication & Networking

The course focuses on Data Communications and network management wverview, review of computer network technology, standards, models, and language. Prerequisite: CSC202, CSC304

CSC411 Compiler Construction

The course discusses the structure of compilers, Lexical analysis, syntax analysis, semantic analysis, abstract interpretation, Tree: pattern matching and parsing and code generation. Pre-requisite: CSC301

Artificial Intelligence CSC412

The course introduces the overview of AI applications area, predicate calculus and structures and strategies for state of space search.It also discusses the Heuristic search, control and implementation of state apace search. An introduction to Prolog and LISP is also given. Other topics may also be covered such as Rule-based expert systems, knowledge representation and natural languages. Pre-requisite: CSC301, MTH201

CSC422 Parallel Computing

The course includes the introduction to parallel computing, a review of parallel hardware, library-based and language-based approaches to parallel computing and basic concepts of parallel computing. Pre-requisite: CSC435

CSC425 Advanced Operating Systems

This course covers many advanced topics in operating system design and implementation such as operating systems structuring, multi-threading and synchronization in detail and then moves on to systems issues in parallel and distributed computing systems. Pre-requisite: CSC304.

CSC430 **Decision Support Systems**

An introduction to the analysis, design, and application of information systems used in the direct support of management decision making. This includes not only comprehending key ideas, concepts and facts, and the ability to restate them in different terms, but extends to the ability to evaluate, assess and choose among alternative concepts and ideas, to relate and reconcile among them, and apply them to new situations.

Pre-requisite: CSC305

CSC434/563 Software Quality Assurance

This course extends Software Engineering concepts to focus upon quality, from the perspective of the software, user, customer, and support staff. Topics included are software guality practices, user friendly systems design, modularity and structure, requirements coverage, systems architecture, designing from test maintainability, and an overview of languages and their fit toward various target applications.

Pre-requisite: CSC422

CSC 435/574 Distributed Systems

The aim of this course is to provide students with an understanding of the principles, techniques, and practice in the design and implementation of distributed systems, with a particular focus on infrastructure software.

Pre-requisite: CSC204, CSC427

CSC436 Business Process Re-Engineering

The course covers the concepts of business process re-engineering: guidelines, planning phase, redesign phase, transition phase, implementation phase. Total quality management (TQM) techniques, How TQM and Re-engineering are different, Desktop computing and LANs, how re-engineering improves an organization's efficiency; the ISO 9000 and TQM, Achieving TQM and the ISO 9000 directives. Pre-requisite: CSC305

CSC443 **Mobile Computing**

The course includes Mobile Information Device Profile (MIDP 2.0) programming using J2ME (de facto standard for mobile devices) to supplement the introduction to wireless Internet (WAN, LAN and PAN) covered in the classes. By the end of this course, students will have acquired a deep understanding of various wireless programming concepts and APIs and developed extensive knowledge that you can use to develop sophisticated MIDP applications.

Pre-requisite: CSC410, CSC414, CSC425

CSC444 Electronic Commerce

This course emphasizes organizational issues related to electronic commerce such as business models for B2B or B2C e-commerce, technology infrastructure, electronic payment mechanisms, information privacy, and competitive advantage. CSC102 Pre-requisite:

CSC445 **Network Security**

Cryptology and simple cryptosystems; conventional encryption techniques; stream and block ciphers; DES; Block Ciphers; The Advanced Encryption Standard; confidentiality & message authentication: hash functions are the contents of the course. Pre-requisite: CSC208

Digital Signal Processing CSC448

One- and N-dimensional signals and systems, sampling theorem, discrete-time fourier transform, discrete fourier transform, fast Fourier transform, z-transforms: stability and minimum phase signals/ systems, linear filtering of signal: time domain: difference equations and convolution, impulse invariance, etc. are the contents of the course.

Pre-requisite: CSC313, CSC410

CSC451 **Telecommunication Systems**

The course includes introduction to media, bandwidth and noise. Twisted pair (UTP, STP), coaxial cables (types and specifications), optical fibres (types and losses), introduction to optical sources and detectors. Microwave links, satellite communication and infrared links, etc.

CSC410 Pre-requisite:

CSC461/462 Project I and II

The aim of this project is to bridge the gap between the academic study and training needed by industry and businesses. Students are initiated to work under close faculty supervision, on real-world problems of sufficient magnitude. Project implementation and documentation are the main concerns. CSC414, CSC305

Pre-requisite:

Wireless Communication CSC510

The course discusses the historic development of wireless communication, communication satellites and its systems, satellite frequency bands, satellite multiple access formats, brief treatment of modulation, encoding, decoding, satellite channels, protocols, application of satellite in data in computer communication. Pre-requisite: CSC410

CSC531 Data Warehousing

This course provides an introduction to data warehouse design. Topics in data modeling, database design and database access are reviewed. Issues in data warehouse planning, design, implementation and administration are discussed in a seminar format. Pre-requisite: CSC204

CSC541 Advanced Research Methodology

Students will be given an in-depth analysis to the research methods used in the study of organizations and especially in the study of computer science issues. The course will cover the quantitative and qualitative research processes, which includes sampling techniques, measurement and measurement testing, generalizability and a practical seminar relating to questionnaire construction and data gathering and management.

CSC543 Advanced Computer Architecture

Design and evaluation of modern uni-processor computing systems, evaluation methodology/metrics and caveats, instruction setdesign, advanced pipelining, instructionlevel parallelism, prediction-based techniques, alternative architectures (VLIW, Vector and SIMD), memory hierarchy design and I/O. Case studies.

CSC545 Decision Theory

The course combines approaches to decision theory. It is intended for advanced undergraduates and graduates students in computer science. The course will cover basic decision theory, also known as "rational choice theory"; the limitations and problems with this theory, both as it applies to computers and to human agents.

CSC548 Advanced Analysis of Algorithm

Introduction to advanced techniques for designing and analyzing algorithms, including asymptotic notations, divide-and-conquer algorithms and recurrences, greedy algorithms, data structures, dynamic programming, graph algorithms and randomized algorithms.

CSC561 Advanced Software Engineering

System development using formal techniques, algebraic specification, abstract model specification, verification: proof systems, proof techniques, proof obligations, design: data refinement, operation refinement, design decomposition, software reliability and metrics, macro models: productivity, effort, defect reliability modeling, simple model, markove modeling, parameter estimation, comparison of models.

CSC562 Object Oriented Software Engineering

This short course with UML, Java, and Eclipse will expose students to the basics of object-oriented software engineering, including object-oriented analysis and design using UML (Unified Modeling Language), object-oriented programming using Java, all within the Eclipse environment. Laboratory sessions will equip participants with practical experience in object-oriented design, programming, and testing.

CSC563 Software Quality Assurance

This course provides an intermediate QA and Test. Students will acquire a thorough skill set for their respective roles in a QA or test team environment. They will also learn both the theoretical concepts of this matured discipline and the unique experiences and innovative practices from Microsoft.

CSC564 Software Requirement Engineering

The Requirements Elicitation Process: Joint Application Design, Prototyping, Requirements Inspections, Quality Function Deployment, Scenarios. Organizing and Analyzing the problem. Software Behavior Specification: State-oriented, Function-oriented, Object-oriented. Formal Methods, etc.

CSC565 Software Testing Strategies

The course introduces the major concepts of software testing and develops technical proficiency in test case design and test plan development to covers techniques and tools for software requirements to support testing and test plan development. It presents software testing activities and products within the context of the software development cycle and addresses the role of inspections, walk-trough's and reviews in support of software testing.

CSC571 Advanced Database Management Systems

This course begins with a study of advanced relational theory, followed by the SQL Application Programming Interface (API) standards. Students will also study Data Warehousing, OLTP and OLAP integration, and database distributed architectures.

CSC573 Data Mining

The objective of this course is to serve as an introduction to the techniques, tools and applications of data mining (DM). Also covered is the relationship between DM and other fields such as artificial intelligence, Knowledge Discovery for Databases (KDD), data warehousing and Online Analytical Processing (OLAP). By the end of the course, students should be able to learn any commercial DM tools easily and apply DM techniques to a variety of research and application projects.

CSC574 Distributed Systems

This course aims to provide students with a deeper understanding of distributed systems. In particular, we focus on the principles, techniques, and practices relevant to the design and implementation of such systems. The course takes a systems-oriented view of distributed systems, concentrating on infrastructure software and providing hands-on experience implementing distributed systems.

CSC575 Parallel and Distributed Computing

Parallel and distributed systems. Speedup and Amdahl's Law, Hardware architectures: multiprocessors (shared memory), networks of workstations (distributed memory), clusters (latest variation). Software architectures: threads and shared memory, processes and message passing, Distributed Shared Memory (DSM), Distributed Shared Data (DSD), etc.

CSC576 Parallel and Distributed Algorithms

The topics to be covered are parallel/distributed algorithms, coarse-grain parallel algorithms and applications, parallel scientific computation, interconnection networks, parallel and distributed computing on network of workstations, scheduling, languages and compiler techniques for parallel programming and theory of parallel/ distributed computing.

CSC578 Communications and Information Policy

This course provides an introduction to the technology and policy context of public communications networks, through critical discussion of current issues in communications policy and their historical roots. The course focuses on underlying rationales and models for government involvement and the complex dynamics introduced by co-evolving technologies, industry structure, and public policy objectives.

CSC581 Neural Networks

Basic Characteristics: The Processing Element; The Magic of the Transfer Function, Weight Adjustment Basics; Network Learning Types; Network Architectures, Comparison to Traditional Methods, Using Neural Networks with Data, Generalization, Validation and Sample Neural Networks Applications; Pattern Recognition Applications; Image Understanding NN's; Spacecraft Structure Neuro control.

CSC582 Pattern Recognition

This course will introduce the fundamentals of statistical pattern recognition with examples from several application areas. Techniques for handling multidimensional data of various types and scales along with algorithms for clustering and classifying data will be explained. This is an advanced level course suited for graduate students in Computer Science and Engineering.

CSC583 Fuzzy Systems

Comparison of conventional and fuzzy logic. Fuzzy set theory, fuzzy logic, approximate reasoning and fuzzy logic control system. Concept of artificial neural networks. Single layer networks, multilayer network, supervised and unsupervised networks. Applications of neural networks in control systems, sensor processing and communications. Fuzzy neural integrated systems.

Economics

ECO101 Principles of Microeconomics

The course focuses on the introduction to consumer behavior and the theory of the firm. Topics include the production, possibility frontier, the demand behavior of households, the supply behavior of business firms, the theory of costs, and an introduction to market structure and welfare economics.

ECO102 Principles of Macroeconomics

This course analyzes the determinants of aggregate economic activity. The main areas studied are the monetary and banking system, the composition and fluctuations of national income, and inflation, all as influenced by monetary fiscal and exchange rate policies. There is a special emphasis on the Pakistan government's economic policies, financing the budget deficit, structural adjustment program (SAP), and privatization policies.

ECO103/105 Intermediate Micro and Macroeconomics

The objective of this course is twofold: first is to extend the students' understanding of microeconomic theory and to introduce the use of mathematical and graphic models of macroeconomic process.

ECO104/401 Micro and Macroeconomics

The course analyzes the study of the working of a country's economy in an international setting. It examining the interaction of households, business firms, government and the rest of the world in resource, product and financial business fluctuations, inflation, unemployment and monetary and fiscal policies, with a special emphasis on the Pakistan government's economic policies, financing the budget deficit, structural adjustment program (SAP) and privatization policies.

ECO106 Basic Economics

This course is an introduction to the basic economic concepts. It will include both microeconomics and macroeconomics, and the economics of Pakistan.

ECO202/203 Introduction to Economics and Finance I & II

The objective of these courses is to enable candidates to equip themselves with the main economic concepts and their uses and relevance in economic analysis. The course aims to serve an introduction to the economic environment of trade, industry and banking as well as to methods of analysis relevant to the study of financial decisions.

ECO204 The Pakistan Economy

This course focuses on the structural change of employment, investment and external trade in Pakistan's economy since 1947. It gives an insight into the GDP growth of various sectors encompassing expenditure and production.

ECO205 Economic Development of Sindh

This course highlights Sindh's share in Pakistan's economy. It also encompasses the development strategy of the government of Sindh and its fiscal policy. It strives to compare Sindh and the gulf economy and focuses on the demographics, environment and the economy of Karachi.

ECO301 Managerial Economics

The course aims to serve an introduction to optimization techniques and their application on the market behavior in terms of demand and supply, market equilibrium and forecasting market parameters. Pre-requisite: ECO 101, ECO 102

ECO302 International Trade

International Trade is primarily concerned with trade flows between nations and the resulting monetary flows that occur between nations. In this course students are exposed to theories that explain the current flow of trade, various commercial policies, foreign exchange markets, balance of payments, and macroeconomic policies that deal with various types of imbalances in the balance of payments of countries.

Pre-requisite: ECO 103/105

ECO303 Financial Economics

Financial Economics introduces students to the process of investment in financial markets, both at a practical and theoretical level. This course discusses various types of financial instruments in common use and the economic theories that explain how they are priced. Pre-requisite: ECO 102

ECO304 Introduction to Econometrics

The course focuses on the role and uses of statistical inference in economic research; problem of spanning gap from an economic model to its statistical counterpart; measurement problems and their solutions arising from statistical model and nature of the data; limitations and interpretation of results of economic measurement from statistical techniques.

Pre-requisite: STA301

ECO305 Topics in Microeconomics

This course focuses on market structure and the economics of information. The course aims to make candidates comfortable enough with this area of microeconomics theory so that candidates can read applied papers in one's areas of application and use theoretical models appropriately in research.

Pre-requisite: ECO 103/105

ECO306 Topics in Macroeconomics

The course aims to provide an introduction to macroeconomic analysis. Long-run growth, business cycles, trade, and fiscal & monetary policies are analyzed using dynamic general equilibrium models. Classical, Keynesian and new classical models are used to examine inflation, unemployment, the open economy, and analysis of fiscal, monetary and exchange rate policies.

Pre-requisite: ECO 305

ECO307 Monetary Theory and Policy

The course is a study of the theoretical and empirical work in money demand, money supply, money multiplier, output effect of monetary policies, alternative techniques of monetary policy formulation and implementation, multi-asset financial markets, and inflation. Pre-requisite: ECO 103/105

ECO308 Capital Investment Economic Analysis

The course aims to offer an analysis of economic merits of alternatives including interest and income tax consideration. Risk and sensitivity exploration techniques and an introduction to analytical techniques for multiple objectives or criteria.

ECO402 Pakistan Economic Policy

The course is an overview of structural change in the Pakistan economy 1947-2008. The topics include GDP in terms of production sectors and expenditure; structure of employment, investment and external trade; macroeconomic policies, planning (five yearsandADP), fiscal policy, monetary policy, balance of payments policy, exchange rate policy, microeconomic policy, agricultural policy, industrial policy, labour policy, social sectors, poverty and income distribution.

Pre-requisite: ECO 101/201

ECO403 Macroeconomics

The course is a study of the operation of a country's economy in an international setting examining the interaction of households, business firms, government and the rest of the world in resource, product and financial business fluctuations, inflation, unemployment and monetary and fiscal policies, with special emphasis on the Pakistan government's economic policies, financing the budget deficit, structural adjustment program (SAP), and privatization policies.

ECO404 Micro and Managerial Economics

The course aims to provide an introduction to optimization techniques and their application on the market behavior in terms of demand and supply, market equilibrium, forecasting market parameters and application on business models; elasticity and risk, methods to calculate risk, risk analysis and capital budgeting and five approaches to competitive structure. Pre-requisite: STA 403

ECO405 Seminar in Economic Policy

The course includes growth and structural change in the Pakistan economy, fiscal, monetary and exchange rate policies, the corporate sector, trade policy, foreign investment, structural adjustment. Theroleof the World Bank and International Monetary Fund (IMF), discussion on regional economic cooperation. Strategies in multinational corporations and issues in the international transfer of the technology are also discussed.

Pre-requisite: ECO 403, ECO 404

ECO406 Money and Banking

The course describes the monetary systems, financial markets, national income components and their relationship to business activity. Study of structure, regulation and performance of the banking industry.

Pre-requisite: ECO 401

ECO408 Applied Financial Economics

The course will describe the categories, within which financially important variables exist, and develop ways to encapsulate them using simple statistics drawn from the study of simple probability distributions. It will develop graphical tools to analyze market movements, financial history and models which every person interested in finance must know.

Pre-requisite: ECO401

ECO501 Microeconomics

Theory of the firm; market imperfections and failures with special reference to public goods, externalities, taxes and subsidies; Duality in consumption and production; general equilibrium, linear and non-linear models, fixed coefficient technology, contract curve and production possibility frontier; aggregation issues, decisionmaking under uncertainty, expected utility theory, competitive equilibrium; welfare analysis in a partial and general equilibrium setting; the Stolper-Samuelson theorem; the Rybcznski theorem; Walrasian competitive adjustment mechanism; Pareto optimality and game theory.

ECO502 Macroeconomics

The course will cover long-run and short-run macroeconomics; aggregate demand and national income accounts; saving and finance; investment and financial markets; investment and monetary policy; central bank and macroeconomic policy; money supply and interest rate transmission mechanisms; fiscal policy; discretionary fiscal policy; expectations, inflation, and interest rates; foreign exchange markets and foreign trade and international balance.

ECO503 Econometrics and Research Methods

literature reviews and data sources; overall design of a research project; equation misspecification, omitted variables, errors in variables, measurement error, simultaneous equation bias; instrumental variables; dynamic single equation models; static, dynamic and equilibrium-correction models; causality and endogeneity; co-integration tests, Johansen's estimator; generalized linear models; random effect models and diagnostic testing.

ECO505 Theory and Practice of Economic Policy

The basic aim of this course is to analyze the international aspects of development policy pursued by developing countries, using the tools of open economy macroeconomics as well as international trade theory and policy to investigate issues of concern to policy-makers in developing countries.

ECO506 Monetary Economics

The course will focus on monetary issues. The principal aim will be to identify the major intellectual developments in monetary economics over the past two centuries. The course will help students examine keyideas, concepts and theories that have shaped the historical evolution of the subject with special emphasis placed on key articles in the literature. Major monetary schools, new classical Keynesian, stake flow consistency approached will be evaluated.

ECO507 Development Economics

This course will offer a brief overview of selected topics in development economics. Following a general introduction to the subject and to the data the course will focus on long-term processes of productivity growth and structural transformation. This will be followed by a critical presentation of the, still rapidly growing, literature on cross-country growth comparisons (Barro regressions). The last part of the course deals with modern economic growth and globalization.

ECO510 Mathematical Economics

The course includes study of mathematical concepts and tools such as functions, matrices and higher-order derivatives in cases of single and multiple independent variables. Emphasis is on the application of optimization, both with and without constraints, and introductory integral for understanding relationships of various economic variables and concepts, such as the relationship of aggregate, average and marginal functions. Other topics covered analyze market equilibria, impact of taxation and input-output models.

ECO601 Theory of Economic and Social Policy

The areas that the course covers are: moral and ethical foundations of economic and social policy, the role of state in policy making, economic policy; various economic systems including a) marketoriented economy, capitalism; liberalism, b) marxism, socialism including economic theory of socialism, and c) keynes and social democratic policies; an appraisal of contemporary social democraticregimesisincluded as well. The course also closely focuses on development policy including theoretical foundations.

Educational Management

EDM402 Applied Linguistics

This course addresses grammatical aspects of language such as syntax, semantics, and pragmatics and changes that have taken place in language over time. Stages of language acquisition and bilingual development will also be discussed.

EDM403 Critical Thinking and Reading

This course introduces participants to critical reading as a process of analyzing and evaluating the context and purpose of written texts by focusing on the four basic methods of critical thinking: analysis, interpretation, evaluation, and synthesis.

EDM406 Education Policy and Planning

This course introduces empirical and legal research in education policy issues at the local and state levels by facilitating communication between education leaders and policymakers.

EDM412 Marketing Education Services

This course offers a study of business and marketing trends, goals, teaching procedures, tests and measurements, academic administration, and technologies utilized in the field of education.

EDM414 Classroom Management

This course will provide participants with the conceptual and practical understanding of various components of classroom management. Furthermore, the participants will be given case studies to analyze the solutions for the problems faced in the classroom.

EDM415 Educational Philosophy and Ethics

This course focuses on aspects related to the learning process, the study of learning outcomes, student attributes, and instructional processes directly related to classroom and educational institutions. The course also educates the learners to function according to the ethical standards of the discipline.

EDM417 Educational Counseling

The course integrates issues of educational, pedagogical and organizational counseling in relation to the contemporary school situation. The focus is on work of school counseling centers, for e.g. counseling in the sphere of educational and behavioral problems and students' career growth.

EDM418 Testing in Education

This course focuses on the use of tests as an instructional as well as an administrative tool, teacher attitudes towards testing, and teacher competency with regard to testing. The course will help participants use testing as an important tool in the process of teaching and learning.

EDM419 Managing Teaching and Learning

This course explores teaching methods and strategies, teaching and learning styles, classroom management, testing, and their application to a range of classroom contexts. It will also focus on teacher beliefs along with the practical application of peer observation, microteaching, and simulation.

EDM420 Academic Writing and Seminar Skills

This course will develop the participants' skills in writing General English and the basics of APA (6th edition) writing style. It also aims to equip the participants with editing and proof reading strategies to help them refine their written drafts.

EDM421 Sociology of Education

The course takes an expanded view of education and focuses on learners within both community and educational institution settings and how it attends to the complex interrelations between schooling and the social, cultural, historical, political, and economic contexts within which learning institutions operate. It also includes the inter relationship between education, family, community and the society at large.

EDM422 Learners and Learning Styles

This course will orient participants with learners' psychology and styles. The course will provide in depth understanding of various learner centered approaches. In addition, detail discussions will be held to explore the concept of multiple intelligence, developmentally appropriate curriculum, and individual oriented lesson planning. Particular attention will be given to the recent contemporary concepts of diversity, pluralism and globalization. For better understanding, participants will be given an opportunity to reflect on their teaching styles and its impact on learning styles.

EDM423 Reflective Inquiry in Education

This course introduces the concept of reflective inquiry in teaching. It will bring together essential perspectives of researchers, practitioners and theoreticians about reflective inquiry.

EDM424 Teacher Education

This course introduces participants to the best practices in teacher education and professional development. It focuses on relevant theories, current issues, and present-day practices in teacher development. It also focuses on pre-service and in-service models.

EDM425 Developing Leadership and Management Skills

This course introduces some of the basic theories and issues related to leadership and management in educational settings. It will focus on awareness and understanding of self as a leader and critique the nature and practice of leadership.

EDM426 Curriculum Management and Planned Change

This course will cover concepts, processes, and principles of curriculum planning, development, and evaluation. This will help the participants to develop their performance competencies needed to engage in curriculum planning and decision-making as an administrator, supervisor or teacher.

EDM427 Research Methods in Education I (Qualitative)

This course introduces qualitative research methods as they are applied in education. The primary purpose of the course is to develop awareness in the participants and facilitate the ability to carry out small scale action research in their own professional settings.

EDM428 Research Methods in Education II (Quantitative)

The course will focus on the process of defining research problems, the logic of research design, and a limited number of techniques for measurement, design and sampling, and for analysis of data in quantitative research.

EDM429 ICT in Education

This course will provide the participants with hands-on practice of understanding the appropriate use of technology in the milieu of education. Moreover, it will help participants to plan, design, integrate and evaluate the technology for educational program development by using webinars, moodles, blogs etc.

EDM439 Developing Research Project

This course will make the participants undergo the whole process of completing a research project starting from brain storming to writing a comprehensive research report. The course will be mainly practical with hands-on activities to contribute to the overall aim of the course.

EDM502 Managing Higher Education Systems

The course assesses the performance of higher education institutions and obstacles encountered in academic and administrative work. It will provide participants an opportunity to visit higher education institutions for a briefing to experience and critique the management systems in operation.

EDM503 Quality Assurance in Education

This course is based on the theoretical framework of quality control management as a model of modern management and its potential application in the educational field.

EDM504 Managing School and School Systems

This course is particularly based on elements of school systems by utilizing system analysis in identifying system input, operations, outputs, and feedback processes that offer clear criteria for development and improvement in both public and private school systems.

EDM508 Knowledge Management

This course introduces a range of organizational practices specifically to identify, create, represent, distribute and adoptin sights and experiences. It will focus on application of knowledge management processes and student alumni services.

EDM511 Lifelong Learning in Changing Contexts

This course analyses the competing understandings and practices of lifelong learning against a background of rapid social, cultural, and organizational changes. Debates around the impact of globalization will be central to the analysis of lifelong learning.

EDM513 Strategic Management Issues in Education

This course will cover knowledge of strategic management models and theories and practices in the field of education. It examines concepts, information, and skills related to strategic planning. MS/ MPhil in Education Leading to PhD.

EDM514 Early Childhood Development

This course will orient participants with the basic concepts of early childhood education and development. It will help the participants to explore and analyze various models in place. Furthermore, the course will enhance the participants' concepts and analysis pertinent to childhood studies in Pakistani and global contexts.

EDM550 Thesis Writing

The participants will be given guidance and readings to conduct a research project of approximately 6000-8000 words in their own work environment. The project is likely to be based on the investigation of a management issue leading to recommendations for improvement and action.

Electrical Power System Engineering

EPE101 Linear Circuit Analysis

The course introduces electrical engineering, basic circuit and systems concepts, and mathematical models of components, Kirchhoff'slaws, resistors, sources, capacitors, inductors, and operational amplifiers, solutions of first and second order linear differential equations associated with basic circuit forms.

EPE102 Electronic Workshop Practices

To develop practical skills in the use of workshop tools and equipment. Introduction to various technical facilities in the workshop including mechanical and electrical equipment. Concepts in electrical safety, safety regulations, earthling concepts, electric shocks and treatment.

EPE200 Electrical Network Analysis

Current and voltage transients, RLC circuits with DC and AC excitation, resonant circuit: series and parallel resonance in AC circuit, Q-Factor, mutual inductance and transformers, introduction to phasor representation of alternating voltage and current, single-phase circuit analysis, star-delta transformation for DC and AC circuits, polyphase generators, phase sequence, vector diagrams for balance and unbalanced three phase networks, power in three phase circuits and different methods of its measurements. Two-port networks and their interconnections. Application of Laplace transform in circuit analysis.

EPE302 Electrical Machines

To understand the magnetic field and the reluctance of magnetic materials and air. Voltage-current characteristics and voltage regulation of generator. Torque speed characteristics and speed regulation of DC motors. To introduce the fundamentals of ac machine. Detailed operating principles of ac machines including induction motor, synchronous motors, alternators and Transformers have been included to develop thorough understanding of construction, characteristics, operation and proper application of ac machines being used in industries.

Pre-requisite: EPE200

Electronic Engineering

ELE102 Basic Electronics Engineering

The course focuses on theory of electrical conductivity, metals and semiconductors, the physics of semiconductors, principles of, diodes, diode applications, and type of diodes, bipolar transistors, and transistor biasing.

Pre-requisite: GSC103, EPE102

ELE200 Electronic Devices and Circuits

Transistors Modeling Techniques, Hybrid Equivalent Model,BJT Small Signal Analysis, AC Equivalent Circuits,FETs and MOSFETS construction and operation, FET Small Signal Analysis, AC Equivalent Circuits, Cascaded Systems and Compound Configurations, Differential pair of BJTs and MOSFET, Definition and amplifier types Class A, B, C and D amplifiers their operations and circuits Distortion and power considerations

Pre-requisite: ELE102

ELE201 Digital Logic Design

Introduce the concepts and tools for the design of digitalelectronic circuits. Basic concepts to design digital hardware consisting of both combinational and sequential logic circuits, number systems, Boolean algebra, logic gates, combinational logic design, sequential circuits and logic design, memory and simple programmable logic devices (SPLDs), introduction to field programmable logic devices (FPLDs)/ field programmable gate arrays (FPGAs).

Pre-requisite: ELE102

ELE304 Electronic Circuit Design

This course introduces the concept of Operational Amplifier, Mathematical operations, Practical Considerations, Differentiators & Integrators. Integrated Circuits analysis and its applications. Filter Design, Types and Operation. Oscillators design includes General Consideration, Criteria for Oscillation, Basic Circuit Requirements. RF Oscillator Circuits design, types and operation. Phase-shift Oscillators: Principle of Operation, Wien Bridge Oscillator, Integrated timers. Voltage Controlled Oscillator, Phase Lock Loop. IC Voltage Regulators, Switch Mode Power Supplies. Pre-requisite: ELE102

ELE370 Instrumentation & Measurements

Introduces the concepts, methods and instruments for the measurement of electrical and non-electrical quantities. Pre-requisite: EPE200, ELE201

ELE403 Embedded Systems Design

Trends and challenges in embedded system design, The Microcontroller Architecture, Assembly Language programming, Addressing modes and Instruction Set, I/O Ports programming, TIMER and SERIAL and PARALLEL port programming, Interrupts, interfacing, A/D and D/A conversion. Interfacing and Application using PWM. Pre-requisite: CME100, ELE201

ELE415 Opto-Electronic

Nature of light, basic laws of light, optical fiber, types of optical fiber, fiber material, fabrication and components, Planner waveguides and applications, laser principle, operation, characterization and classes of lasers. optical transmitter, semiconductor light sources, light emitting diodes, semiconductor laser diodes (SLDs), Link Budget Analysis, optical receivers, wavelength division multiplexing (WDM), FDM versus benefits of WDM, dense wavelength division multiplexing and optical networks..

Pre-requisite: GSC103

ELE417 Industrial Electronic

Introduction to power electronics; solid-state devices used in power electronics: power diode, power BJT, power MOSFET, SCR, GTO, IGBT, TRIAC, DIAC, Industrial Drives : DC Drive, AC Drive. Stepper Motor Drive.Transducers : Force and Pressure Measuring Transducers, Linear Variable Differential Transformer, Speed and Position Transducers, Semiconductor Photoelectric and Temperature Transducers, Halt Effect Transducers/Sensors. Programmable Logic Controller.

Pre-requisite: ELE419

ELE419 Linear Control Systems

This course is aimed to build a comprehensive foundation in the analysis and design of control systems using classical and modern techniques.

Pre-requisite: TCE205

ELE422 VLSI Design

Teach VLSI system design including system specification, verification, and fabrication.

Pre-requisite: ELE302

ELE428 Digital Electronics

This course covers combinational and sequential logic circuits. Topics include number systems, Boolean algebra, logic families, MSI and LSI circuits, A/D and D/A converters, and other related topics. Upon completion, students should be able to construct, analyze, verify, and troubleshoot digital circuits using appropriate techniques and test equipment.

Pre-requisite: ELE419

ELE429 Introduction to Nanotechnology

Introduction, Nano scale phenomena, nanoparticles, carbon nanostructures, nanowires, nanostructured, materials, selfassembly, surface probe microscopy, other Nano scale characterization, nanolithography, Nano scale devices and systems, applications of nanotechnology.

Pre-requisite: GSC103

ELE450 Senior Design Project I

To give students a chance for enhancing their Technical capabilities by implementing their theoretical & practical knowledge in the field of Research & Development. (For Semester VII).

ELE451 Senior Design Project II

To give students a chance for enhancing their Technical capabilities by implementing their theoretical & practical knowledge in the field of Research & Development. (For Semester VIII).

Engineering

ENG101 Workshop Practice

The course is focused on practical learning experiences. Students will develop their skills with materials/components, tools, machines/ equipment and related technology. The course will also include workshop safety, project planning and design, reading working drawings and surface finishing.

ENG102 Engineering Mechanics

The course discusses static of particles, kinematics of particles, kinetics of particles, rigid bodies, equilibrium of rigid bodies, kinematics of rigid bodies, plan motion of rigid bodies, friction and analysis of structures.

Pre-requisite: MTH 202

ENG103 Engineering Drawing

This course extensively covers the drawing equipment and the use of instruments, basic drafting techniques and standards, freehand sketching of machine and engine components, concepts of working drawings of component parts of machines and engines, etc.

ENG105 Basic Industrial Engineering

This course is designed to introduce the fundamental concepts of industrial engineering and give answers to the very first questions that are usually asked by the prospective industrial engineering students. The course surveys both the traditional and modern topics of industrial engineering, providing a historical as well as an academic perspective of the whole profession.

ENG108 Introduction to Thermo-Fluids

To introduce basics of thermodynamic properties, laws of thermodynamics and their application to power and refrigeration cycles. Introduction of basic modes of heat transfer. Formulation of basic equations for Fluid Engineering problems. To determine the friction energy loss for various pipes/ducts geometries and fluid engineering applications. Introduction o hydraulic machinery.

ENG109 Industrial Chemistry

The course aims to introduce student to the general concepts of chemical engineering by laying the foundation to establish material and energy balances of chemical processes. Fundamental knowledgeofstoichiometryandchemicalequilibriumisappliedtosimple combustion and separation processes.

ENG201 Design of Machine Elements

The course content includes the choice of material, component design, shaft design and shafting, gear design, introduction to design of simple machine elements, governors and gyroscopes, design of springs and design/selection components. Pre-requisite: ENG 101/102

ENG202 Production System Design

The course focuses on the structure and operation of production planning, scheduling and control systems; emphasis on system structure, capacity planning, master production scheduling, shop loading and supply chain; investigation of current trends, cellular manufacturing, group tech, flexible manufacturing systems and introduction to robot anatomy. Pre-requisite: **FNG 201**

ENG203 Engineering Economics

The course includes the economic environment, cost concepts and analysis, time value of money, depreciation and depletion, comparing alternatives; production concepts and mathematical models and capital financing and budgeting. ECO 104

Pre-requisite:

ENG204 Plant Engineering

The course content comprises thermal power plants, steam generators and turbines, air-conditioning and ventilation, pumps and compressors, etc.

ENG 206 Manufacturing Process

The course is designed to focus on analytical study and design of manufacturing engineering with emphasis on manufacturing and processes; the interaction of design, materials, and processing, laboratory instruction and hands-on experience in metrology, machining, process planning, economic justification, current manufacturing methodologies and expendable and non-expendable casting processes.

ENG209 CAD/CAM Application

The course focuses on modular software development for interactive CAD. The topics include human interface for interactive design, programming structure for modular entity creation, storing and retrieving object data, utilizing peripheral input and output devices, attribute regulation and control, and software transfer and documentation specifications. MIS 001/104

Pre-requisite:

ENG216 Reliability Analysis

The course introduces the system reliability, focuses on analysis of deterministic, probabilistic and stochastic reliability models. The topics covered include coherent structures, minimum path representations, computing system reliability, systems with associated components, bounds on system reliability, classes of life distributions, optimal management of systems by replacement and preventive maintenance.

Pre-requisite: STA204

ENG217 Materials Engineering

To familiarize the students with various industrial materials, their applications, properties and structural changes during manufacturing processes.

Pre-requisite: GSC101 / ENG101

ENG218 Metrology & Statistical Quality Control

The course exposes the students to the principles of measurement, gauges and modern quality concepts and their practical use, the basic statistical & probability techniques and their usages in quality applications.

Pre-requisite: STA204

ENG219 Industrial Maintenance and Safety

To up keep the plant and machines by removing every type of trouble and providing safe atmosphere in the organization to improve productivity and to enhance the efficiency and economy of the organization. Importance of plant maintenance, factors influencing the maintenance. Considerations in designing plant maintenance, economic aspects of maintenance, care and maintenance of common industrial equipment, maintenance linkage to safety, different systems/types of maintenance, laws of accident proneness, accidents preventions. Legal, humanitarian & economic reasons to prevent accidents, safety measures, analysis & procedures, safety equipment.

Pre-requisite: ENG206

ENG220 Mechanics of Materials

Simple tension, compression and shear, biaxial tension and compression, torsion, stress of beams, analysis of plane stress and strain. Deflection of beams, mechanical properties of materials. Pre-requisite: **FNG217**

ENG300 Electrical Technology and Instrumentation

The course focuses on an index study of electrical technology and instrumentation. The course content includes electricity fundamentals and basic laws, A.C. fundamentals, electric machines fundamentals and measuring instruments.

ENG302 Industrial Maintenance

This course is designed to develop an understanding about Industrial maintenance. It includes basic considerations for industrial maintenance, maintenance management and replacement analysis. Pre-requisite: ENG 301

ENG303 Production Planning and Control

The course is designed to provide the basics of production planning and control with the need of modern manufacturing organizations in mind. The topics covered in the first course are: production and operations strategy, subjective and objective forecasting -such as Delphi method, trend-based methods, and methods for seasonal series, deterministic inventory planning and control, etc. Pre-requisite: **MAN 304**

ENG304 Automation and Robotics

The course focuses on the general principles of operation and programming of automated systems, automated assembly, automated manufacturing, and inspection systems. Control of automated manufacturing, industrial logic systems and programmable logic controllers, etc. are also a part of the course. MIS 001/104 Pre-requisite:

ENG305 Work Study and Methods Engineering

This course is designed to teach the fundamentals of Work Study and Methods Engineering, which are both used for the examination of human and human work in all their contexts. Work Study topics includes: methods study, charting techniques, time study, workplace design principles, job evaluation and compensation.

ENG306 Basic Machine Design

The course focuses on normal design procedure, strength & properties, metallurgical aspects, choice of materials, component design, gear design, design of springs, design/selection of screw, bolts, rivets and other joining components and power screws.

ENG307 Basic Electronics

The course is designed to understand and troubleshoot electrical and electronic circuits found in modern applications of technology. The types of work environments that use the skills of electronics technicians include telecommunications service providers, TV and satellite service organizations, computer network sales and entertainment industries.

ENG310 Computer Simulations

The course enables the students to become proficient in simulation model building and use of computer simulation as problem solving technique. Hands-on experience on computer simulation using any suitable software.

Pre-requisite: MIS104

ENG401 Computer Integrated Manufacturing (CIM)

The course is designed to help students to define computer integrated manufacturing (CIM), use manufacturer's reference manuals to determine the system's normal operating characteristics, set-up, program, and troubleshoot a system. The course provides them an opportunity to study the integration of robots, CNC, CAD/CAM, databases, and automated systems into the manufacturing environment. Pre-requisite: ENG 209

ENG402 Manufacturing Strategies

This course deals with strategic implications of alternative methods of product cost measurement. The discussions will primarily be case-based and will cover cost measurement issues in both conventional and modern manufacturing environments. Pre-requisite: ENG 207

ENG403 Human Factor Engineering

The course focuses on the analysis and design of work systems considering human capabilities and limitations, human anatomy and physiology, and occupational safety and health, an emphasis on understanding how human factor should be considered in design processes to maximize system effectiveness and safety. Pre-requisite: HRM 301

ENG404 Tool Design

Tool designing is a division of manufacturing or industrial engineering. This course includes lab work where jigs, fixtures, molds, and dies will be designed, built and operated. It also involves both theoretical and practical tooling design and experimentation, lab work, reporting and class discussion.

Pre-requisite: ENG 209

ENG405 Environmental Impact Assessment and Management

The goal of the course is to promote an understanding of how environmental impact assessment is conducted and used as a valuable tool in the engineering project management decisionmaking process. Students learn to prepare an environmental impact assessment, review and critically analyze an environmental impact statement, use mathematical models for environmental impact prediction, and apply environmental impact assessment as a tool in management decision-making. Case studies of environmental impact assessment for several types of engineering projects will be also be discussed in the course.

ENG408 Facilities Planning

The course includes fundamentals in developing efficient layouts for single-story and multi-story production and service facilities, manual procedures and micro-computer based layout algorithms; algorithms to determine the optimum locations of facilities and special considerations for multi-period and dynamic layout problems.

ENG410 Maintenance Management

This course is designed to help students gain a perspective regarding the maintenance of buildings, industries, and facilities management. Administrative tools and methodology specific to maintenance activities are introduced. Students learn how to manage finance, equipment, materials, and personnel to carry out maintenance functions.

ENG412 Manufacturing Processes & Systems

The course includes manufacturing processes and systems, defines role of manufacturing in a world-class organization by improving operational processes. This is done by identifying internal and external customers in the manufacturing cycle, reducing lead-in time in production of quality products and services, integrating supply chain & by understanding working and benefits of CNC machines and automated processes.

ENG501 Technology Management

This course examines external environmental factors essential to manage organizations involved in new technologies. It considers the adoption of technologies and innovative processes. The students develop skills in acquiring and interpreting information about the external environment to facilitate technology management. The course analyzes the issues associated with resource management for a technology-based firm. This includes manufacturing technologies, information technologies, work force and materials.

Environment and Energy Management

EEM401 Environmental Issues and Management

What is environment? What is pollution? Classification of pollution, nature of pollutants, who is responsible for pollution? Effect of pollution, how to prevent and manage them? Health impact, environmental policy and its compliance, environmental protection agency role and is responsibilities, industries and citizens responsibilities towards pollution prevention, analytical methods for measurement of selected parameters of NEQS, case studies and plant visits will be part of this course.

EEM402 Air and Noise Pollution Management

Definitions and types of pollutions, causes, sources and effects of air pollution, particulate matters, measurement of air pollutants and particulate matters, green houses gases, global warming, causes, sources and effects, ozone depletion, acid rain, causes, sources and effects, air pollution prevention and control, strategies/methodology compliance of NEQS standards for air pollutants, nature of noise, propagation of noise in air, noise characterization, sources of noise, effect of noise pollution, health impact of noise pollution, noise measuring techniques and methodology, etc. will be covered in this course.

EEM403 Energy Sources and Management

The course will cover basic concept of energy, forms of energy, fundamental of renewable/non-renewable energy sources, energy and environment renewable energy sources, energy scenario in Pakistan, renewable energy potential in Pakistan, basic heat transfer mechanism, etc. Students will learn about the best practices in these areas, includes case studies and visit to plants.

EEM404 Industrial and Municipal Waste Management

The course will cover waste classification, sources, characteristics, generation, onsite handling and storage, collection, transfer, recycling and disposal techniques of solid and hazardous waste. It also covers history of waste disposal, dumping, and burning, land filling, composting and incinerating techniques. Various methods for the treatment of liquid effluents from municipalities and industries. Pre-requisite: EEM401

EEM405 Renewable Energy

The course will cover a brief history of energy, reasons of shortage and load shedding, fuel problems for energy, alternative fuels and its problems, power from wind, its environmental impact, costs and economics of alternative fuels, energy from bio-mass and solid waste its problems and environmental impact etc. Pre-requisite: EEM403

EEM406 Coastal Environment and Management

Products of direct economic value such as fish, hydrocarbons, minerals, dieseline water, etc., products of natural system (intangible), supply of rich nutrients to support productivity, nursery and breeding grounds of fish and shellfish, mangrove ecosystem, coast-dependent activities such as coastal aquaculture, marine transport and shipping, beach related activities, ports and harbor, etc. will be part of this course.

EEM407 Green Technology and Energy Analysis

This course is multidisciplinary and examines Environmental Management Systems (EMS), including their planning and organization. The course also studies how businesses can manage their interactions with the environment in a systematic strategic management approach. Since awareness of environmental issues has increased the need for product eco-compatibility. Students will learn a new methodological approach to design for the environment.

EEM408 Safety, Health and Environmental Management

The course is based on OSHA 18000 and is designed for students to understand the concept of EHS management, its importance and principles, hazards and risks at work place, causes and solutions, importance of EHS in industries, purpose and policy, developing safety policy, EHS auditing and inspections, safety training and employee's motivation and involvement, Plant visit is part of the course.

EEM409 Risk and Disaster Management

This course is designed to enable students to develop management skills to operate and understand the complex techniques and key concepts of disaster and risk management pertaining to floods, earthquakes, etc. Students will develop critical evaluation and the application of key elements of business planning and the management of risk and disaster.

EEM410 Environmental Impact Assessment (EIA)

The course is designed to provide a critical overview of the theory and practice of EIA as per international standard to those students who need to understand pollution impacts on the environment and how to do its assessment. EIA is one of the major requirements of environmental regulations and the course would cover the impact of development on environment.

EEM411 Environmental Rules, Laws and Regulations

The course provides students various regulations of environmental laws of Pakistan and international practices, theory and enforcement problems, including policy making, analysis of policy, needs of environmental law, implementation of legislations, etc.

EEM412 Research and Survey Methodology

The course is designed for those students who are new comers to research and who may have barrier with regard to the research methods and having difficulties in writing thesis or a research project report. The course will give students a sound knowledge of research methodology which is essential for writing thesis, research project conceptualization, elements of a research proposal and formulation of research design.

EEM501 Climatic Changes and its Impact

Climate change is today's most pressing issue, receiving international attention from political leaders, media, corporations and the general public. Students will learn about strategic frameworks for assessing the impact of climatic changes on markets and customer demand.

EEM502 Natural Resources Management

Students will learn qualities of ecosystems and critically review environmental issues such as climate change, water shortage and forest preservation, etc. The course includes social-ecological system concepts, ecosystem based management, global and regional governance through multilateral agreements, sustainable development, poverty versus environment.

EEM503 Hospital Waste Management

The course covers the general awareness of the health and environmental risks resulting from poor care of hospital waste management practices. It will provide the knowledge about handling, disposal and effect of infections hazardous health care waste, including hospital waste disposal problems and solutions. The course focuses on proper planning and organized approach necessary to improve the system for hospital waste management.

EEM504 Solid and Hazardous Waste Management

The basic goal of this course is to manage community and industrial waste in a manner that meets public health and environmental concerns and public desires to reuse and recycle waste materials. The students will learn how to mange solid and hazardous waste properly and efficiently. The course covers different modern methods of waste disposal, composting and incinerating etc.

EEM505 Energy Audit

This course covers the need for energy consumption, monitoring, designing and starting energy consumption control program, energy accounting, targeting and reporting, energy audit process, preparations, facility inspections, audit procedure and action plan, audit report, recommendations, implementation and follow ups of energy conservation schemes, understanding energy bills, electric rate structure, natural gas rate schedule, steam and chilled water rate, cost of water and waste water, monthly energy bill analysis, actions to reduce electricity utility costs.

EEM506 Energy Conservation

The course will cover areas of energy consumption and conservation, conservation scheme, and implementation, major areas of energy conservation, lighting, components of lighting system, lamp types, luminaries and types, maintenance of the lighting system and schedule, luminaries dirt depreciation factor, re-lamping strategies, spot replacement and group re-lamping strategies and costs, lighting survey, measuring light levels, regulatory/safety issues, lighting safety issues, energy policy Act 1992, lamp substitution, lighting control technologies, selection of lights for new facility, EPA green lights program, electrical motors and transformers-factor involving selection and installation, maintenance and overhaul scheduling, performance tests, depreciation factors, energy system maintenance, transmission and distribution networks, HVAC systems, boilers, steam distribution systems.

EEM507 Energy Planning

The course will cover energy economics and planning, energy economics, the nature and cause of the energy problems, demand side and supply side issues, commercial and traditional energy determinants externalities, policy issues, pricing and distribution policies, energy balances formulation and execution, natural energy statistics, definitions, of primary, secondary, delivered and useful energy, problems of interpolation and comparison of energy statistics, rural energy planning, pattern of energy demand and supply, socioeconomic aspects of energy utilization, survey methods, identifying potential solutions, project planning, monitoring and execution, financial evaluation projects, project analysis and financial appraisal, discounted cash flow, time preference discount rates inflation and interested rates, project evaluation in term of present values and internal.

EEM508 Environmental Ethics

The course focuses on the understanding of the natural environment and human relationship to it. The course provides strong coverage of major ethical theories such as moral, relativism, ethical egoism and discussion about the tragedy of the commons, etc.

EEM509 Public Awareness for Environment and Energy Sector

This course will focus on the importance, scope and application of the public relation and public information as regard to environment and energy in the private and public sectors, the local, regional, national and international levels.

EEM510 Economics of Energy Management

This course examines the economics of markets for various energy sources (such as oil, coal, natural gas, and electricity), and their interactions with each other and with the rest of the economy. We will look at how energy markets have historically developed and why they have been subject to extensive government intervention. We will analyze the effects of traditional policy measures such as price controls and regulation; and we will examine current policy issues arising from the relationships among energy use, economic growth, and the environment (carbon storage and the policy measures). The course will also look at energy demand and supply analysis, efficiency measures as well as current issues both local and international. The course is designed both for students interested in energy economics specifically, and for those interested in applied economics as well as oil and gas sector in general.

EEM601 Environmental Management and Green Technology

The world is facing increasing environmental and climatic threats which are posing severe scientific, social and economic challenges to the human race. These challenges include: the depletion of natural resources, the loss of diversity and the need to develop new forms of energy generation whilst efficiently utilizing existing energy sources. Tackling these environmental problems and establishing a sustainable environment requires the adoption of appropriate policies and managerial strategies. The interdisciplinary nature of this course provides a broad understanding of environmental problems. The course aims to provide basic managerial and generic skills for a career in the environmental sustainability sector.

EEM602 Green Marketing Strategy: A Challenge for a New Era

The course is designed to introduce a framework for Green marketing management in light of the socio-economic, cultural and legislative changes related to environmental sustainability. The course provides an overview of concepts and techniques as they relate to marketing opportunities, marketing strategies and communicating effective marketing programs within the context of sustainability. Students will be challenged to critically analyze marketing strategies, plans and decisions. The students will also analyze the social shift that makes green marketing a key aspect of business strategy in light of the changing environmental scenario.

EEM701 Methods and Issues in Advanced Qualitative Research

The course focuses on developing a working knowledge of a range of qualitative methods, methodological approaches, and theoretical framework of research to enable the participants to conduct qualitative research within the social sciences. Through lectures and seminars, current methodological issues are analyzed and discussed. The participants will conduct an empirical investigation designed to evaluate the usefulness of a research method that they select. The research method itself should thus be the focus of inquiry. Academic writing skills will be developed to enable participants to write effective academic papers.

EEM702 Methods and Issues in Advanced Quantitative Research

The primary goal of the course is to help participants to develop a conceptual background and practical skills needed to critically evaluate statistics and to conduct statistical analyses of empirical data independently (e.g., independent study projects, etc.). This course will also introduce computer applications for data analysis, including construction of data files, SPSS for data analysis, and development of an analysis plan. In addition, participants are expected to learn how to document and communicate the results of the analysis efficiently. APA writing style will be introduced to enable participants to write their thesis.

EEM703 Current Advancement and trends in Environment, and Energy Management

The student will be required to undertake course work that fulfills the requirement of current advancement and trends in environmental science and policy. The breadth requirement may be fulfilled by using a wide spectrum of environmentally related courses, including areas such as economics, law, and management, Environmental management and sustainable development of resources, linking green economy with social development. The course evaluates social well being, and economic prosperity. Economic evaluation of environmental impacts, and environmental and social assessments, concepts and methodologies are introduced. Topics include sustainability and management of resources. Socioeconomic developments and Sustainable Management of ecologically sensitive areas, Communities etc.

EEM704 Independent Study in Environment and Renewable Energy Management

This course will provide space to the participants coming from different scientific disciplines to propose a research topic in their field of interest. The research work should be completed within one semester for publication preferably in an impact factor journal. For independent study, the participants will be provided a suitable adjunct faculty member of the university, who is able to facilitate in completing the process of research and publication. This independent study course will be different from the main Ph.D. research study and will be beneficial for the candidate in providing them with experience to pursue their major work of investigations, providing an exposure to plan, conduct and publish a small scale research project in their area of interest.

EEM705 Advance Environmental Toxicology and Epidemiology and its Management

The course will help develop concepts of adverse toxic effects of environmental chemicals and biological solid/liquid effluents from natural and anthropological sources present in air, water and soil on human and other living organisms. It will examine the overall toxicological and epidemiological management approaches and learn to maintain a balanced approach and balanced public expenditure on environmental health (preventive health) and curative health. The course will expand understanding of percepts that the environmental diseases do not necessarily occur at random and without reason and require taking proactive preventive approaches.

EEM706 Advanced Pollution Control Technologies and Mitigation Options

Advanced pollution control technologies are of concern from two overlapping but distinct point of view of human health and the health of aquatic ecosystems. The course is designed to develop understanding of environmental quality and its control technologies vis-a viz advanced pollution control technologies and mitigation options in environmental profession. It will entail understanding about different types of pollution, including properties, industrial production, uses, environmental releases, fate, health impacts and mitigation options. Pollution categorization into air, water and soil pollution, organic/ inorganic pollutants, pesticides and other toxicants.

EEM707 Advances in Green Technology Mechanism

Green technology being relatively new field is mushrooming its growth in length and breadth exponentially. The course is designed to understand the conceptual development of greening technical strategy, branding/communicating strategy and overall management systems. The course will provide in-depth understanding of what is unfolding green agenda means to all aspect of technologies. The green initiatives benefit from the newer green economic landscape and reap advantage of being a trend setter in the development of continuously improved environmental friendly concepts and technologies and consequently help in introducing of new/improved national/international legislation of improved productivity and profitability.

EEM708 Disaster Risk Management and Mitigation Strategies

There is growing national and international concern at the rising frequency and severity of natural hazards and disasters, in part due to factors related to climate change, there is increased impetus in many countries to put in place policy, legal, technical, financial and institutional measures that will reduce the destructive effects on the lives and livelihoods of individuals and communities.

EEM709 Trade and Environment

The objective of Trade & Environment course is to raise awareness on the linkages between trade, the environment and sustainable development, to promote greater dialogue between trade and environment policy makers. WTO, Introduction to environmental economics. Impact of trade on the environment, Impact of environmental regulation on trade, CBD and the Biosafety Protocol, CITES. Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and their Disposal.

EEM710 Sustainability and Conservation of Major Ecosystems

The course introduces the concept and practice of sustainable development (SD). It examines the environmental, economic, and social dimensions of SD by focusing on changing patterns of consumption, production, and distribution of resources. Evaluation of resources. Tropical, Temperate and Polar Ecoregions. Forest, Mountains, deserts, riverine, rangeland areas. Understanding world's oceans and their environments.

Finance and Banking

FIN101 **Financial Markets in Pakistan**

The course gives an insight into the theory of financial development, dynamics of finance and the real economy, financial development in Pakistan, financial infrastructure and financial sector policy (specially monetary policy). The money market (including the foreign exchange market) is also discussed. The capital market (equity and bond), the informal financial system, microfinance and Islamic Finance are also part of this course.

Introduction to Business Finance FIN201

The course explains the basic concepts of time value of money, valuation of current assets, financial forecasting and planning, ratio analysis and common size statements, and capital budgeting techniques.

Pre-requisite: ACC101/102/103/201

Financial Management FIN202

This course covers the basics of finance like fundamentals of financial management, discounted cash flows, capital budgeting techniques, leverage, capital structure determination, etc. Pre-requisite: ACC102/103/402, FIN201

FIN301 **Financial Institutions**

The course provides an analysis of the working and interaction among various types of financial institutions, financial markets and the economy. The topics include policies of financial institutions, interest rate structure and the security and mortgage markets. FIN 201 Pre-requisite:

FIN305 **Internet Banking and EPS**

In this course, students will study topics which include: e-commerce, e-business, digital commerce, B2B, B2C, internet advertising, internet auctions, internet banking, internet marketing. Case studies that give students great experiential knowledge to be effective in the market will also be a part of the course. Pre-requisite: ACC201

FIN306 Introduction to Insurance

Insurance draws principles from finance, law, and ethics to address the issues that face individuals, companies, and society in general. The course will help the students to differentiate between the relatively narrow field of insurance and the broader discipline of risk management. Upon completion the students will have the vocabulary and basic understanding of the various methods of handling exposure to loss.

FIN307 **Mathematics of Financial Derivatives**

The course will begin with the development of the basic ideas of hedging and pricing by arbitrage in the discrete time setting of binomial tree models. Key probabilistic concepts of conditional expectation, martingale, change of measure, and representation, will all be introduced first in this simple framework as a bridge to the continuous model setting.

Pre-requisite: MTH 104. MTH 105

FIN308/407 Financial Engineering

Financial engineering is a body of knowledge encompassing conceptualization and implementation of financial innovations. This course introduces financial engineering innovations within the context of managerial decisions and solving vexing problems of investment management and corporate finance.

FIN402 Money and Banking

The course describes the monetary systems, financial markets, national income components and their relationship to business activity. It also includes the study of structure, regulation and performance of the banking industry focusing on the strategy and procedures of the Central Bank.

Pre-requisite: ECO 401, FIN 401

FIN403 **Islamic Banking and Finance**

The course covers the operations and role of banking institutions in an economy. The different types of financial institutions, local as well as multilateral, and their distinct functions are reviewed. The course also covers the concepts of Islamic banking and similarities and conflicts between Islamic and conventional banking. The requirements to be met by a sharia compliant financial instruments and established Islamic financial instruments (e.g., Musharika, Modarba, Morabaha, leasing etc.) are also covered. Pre-requisite: ECO 401

FIN404 **Financial Management**

The course explains the basic concepts of time value of money, Management of current assets, financial forecasting and planning, ratio analysis and common size statements, and capital budgeting techniques.

FIN405 **Banking Laws and Regulatory Environment**

The course discusses the role and significance of laws related to banks/ financial institutions, including laws applicable to international trade and banking. The role/ functions of important regulatory institutions such as State Bank of Pakistan, Securities and Exchange Commission of Pakistan, Ministry of Finance, etc. are also covered. The purpose and critical evaluation of important regulations will also be a part of the course.

Pre-requisite: ECO 401, FIN 404

FIN406 Financial Econometrics

This course provides an intensive introduction of basic principles of econometric analysis that may help students understand finance theories and their empirical applications. In addition, it also equips students with appropriate statistical techniques for doing applied financial research. The emphasis will be on developing and applying regression-based techniques in both cross-sectional and time-series contexts. Their usefulness will also be examined in the light of financial studies.

Pre-requisite: ECO304, FIN404, FIN501

FIN408/627 Investment Banking and Security Analysis I & II

The course deals with merchant banking activities preformed by banks/DFIs inclusive of non-fund based and fund-based activities that bring in windfall profits to financial institutions. The course provides a detailed study of valuing corporate equity instruments discusses the use of earnings, dividends, risk, cost of money and future growth rate in valuation, it also discusses applications like bond valuation, SWAP funds, arbitrage, etc.

FIN409 Working Capital Management

This course equips students with generic, technical, computational, analytical, critical and evaluative skills relevant to financial management and the commercial bank treasury department function. The course also educates the students on the role of State Bank of Pakistan with close reference to money and capital market.

FIN501 Advanced Financial Management

The objective of this course is to introduce the basic asset valuation models, risk management system, ways to acquire and allocate funds in the most economical and profitable manner, concepts and principles governing investment decisions, etc. Pre-requisite: FIN 404

FIN502 Strategic Financial Management

Giving a review of the fundamentals of financial management, this course enables students to understand the various areas of decision-making in the broad field of financial management in a nonfinancial sector company. Hence, this course focuses on the dynamics of the entire financial management process, emphasizing the skills to take risk-return profile decisions for the business in the presence of a myriad of complexities.

Pre-requisite: FIN 202/404

FIN503 Corporate Finance

This course covers the valuation of corporate liabilities and other securities under uncertainty. The capital asset pricing model is presented and is compared with more recent theories of asset pricing such as, the arbitrage pricing theory and the option pricing model. Pre-requisite: FIN202/404

FIN504 International Finance

The course deals with the factors affecting currency values and the forecasting of future currency prices; describes foreign exchange products, markets, and participants and examines foreign currency exposure from a corporate point of view. Pre-requisite: FIN 202/404

FIN505 Treasury and Fund Management

The course equips students with generic, technical, computational, analytical, critical and evaluative skills relevant to financial management and the commercial bank treasury department function; the role of State Bank of Pakistan with close reference to money and capital markets.

Pre-requisite: FIN202/404

FIN506 Investment Banking and Security Analysis

This course enables the students to recognize the ways to select securities and to act prudently with respect to diversification and management of fund for investment. It contains topics like valuation, sale and purchase of companies, assets management theory, mutual funds management and security analysis.

Pre-requisite: FIN202/404

FIN507 Portfolio Management

The course covers the application of portfolio theory to investment decisions and performance evaluation to cover both the fundamentals of investment theory and the most recent developments in academic research involving the practical implementation and analysis of modern portfolio strategies. Pre-requisite: FIN202/404

FIN508 Risk Management

This course explores various aspects of management of risk associated with operating multinational enterprise and emphasizes on evaluating and hedging financial risks (fixed-income, equity, commodity, and foreign exchange risk exposures). Pre-requisite: FIN202/404

FIN509 Financial Derivatives

The course covers a wide range of financial derivatives, including forwards, futures, swaps and options. The working of various derivative markets and the pricing of derivatives are discussed. The course also covers trading/investment strategies that involve these derivatives.

Pre-requisite: FIN202/401

FIN510 Investment Analysis

The course includes alternative investment theories and decision making under differing uncertainties and constraints. Formulation of objectives and strategies, development of conceptual managerial perspectives for investment environment and security analysis will also be covered in this course.

Pre-requisite: FIN 202/401/404

FIN511 Analysis of Financial Statements

The course begins by describing accounting standards of USA and international accounting standards with special focus on developing students' capability to standardize various companies' financial statements. It develops a road map of financial analysis from both the creditor's and equity investor's point of view. Pre-requisite: FIN 202/404/501/502

FIN512 Money and Capital Markets

This course covers the fundamentals of money and capital markets, like market instruments and mechanisms and various risk management techniques.

Pre-requisite: FIN 202/404

FIN513 Project Appraisal

The course teaches formulation of projects and financial projections into the future. Balance sheet, profit and loss accounts and cash flows are prepared for future years depending on the need and nature of the projects. Economic analysis like internal economic rate of return, Bruno's ratio and the economic rate of return are also described. The course equips students with the understanding of nuances of consortium and syndicate finances.

Pre-requisite: FIN 202/404

FIN514 Asset Liability Management

The course gives an insight into the traditional functions of Asset Liability Management (ALM). It gives a comprehensive review of ALM hedging techniques that encompass all assets and liabilities of financial institutions. Regulatory environment prevailing in the Pakistani financial market and how the State Bank of Pakistan and the Securities and Exchange Commission are regulating financial institutions in Pakistan is also discussed in this course. Pre-requisite: FIN 401/501/502

FIN515 Foreign Trade and Banking

The course aims at discussing the technicalities of foreign trade covering basic concept, difference between local and foreign trade and documentary requirements of banks. Pre-requisite: FIN 501/502

FIN517 Theory and Practice of Finance

The course will cover overview of risk and return, stochastic dominance, portfolio theory, mean variance decision model, other statistical methods, efficient markets, skewness, limits of arbitrage, attention, corruption, political connections, corporate governance and the role of the government, financial econometrics, market microstructure, informational efficient markets, managerial behavior, agency cost and capital structure, corporate finance and compensation and networking etc.

FIN518 Current Issues in Islamic Finance

The course covers the history of Islamic Banking, market perceptions&performanceofIslamicfinanceindustry, analysisonIslamic interest free banking, current economical system & its problems, comparison of capitalism & socialism and philosophy of Islamic economical system. This course gives an in depth study of sources of sharia, ijtihad, riba & its types, commercial interest, usury, simple & compound interests, markup, profit, gharar and gambling.

FIN519 Industrial and Financial Economics

This course provides a basis in the neoclassical theory of finance that underlies other finance courses. This course is primarily concerned with static, i.e., one period, theories of finance. This course will convey more conceptual understanding of finance than exercise complicated mathematical derivations. It starts with examining the data and then develops basic finance theory to explain the data. Following this course, students should be prepared for advanced courses in finance, such as dynamic theories, continuous time finance, empirical finance, and advanced corporate finance.

FIN520 Financial Risk Management

This course deals with the theoretical and practical approaches to effective financial management. Planning, analyzing and controlling investment and short and long term financing are examined for decision-making purposes. Emphasis is placed on the application of risk, the methods in today's business environment and related industries. Topics include: Capital budgeting, risk and diversification, asset liability management, financial derivatives and financial engineering, swaps, options and financial future.

FIN521 International Financial Management

Students taking this elective course should expect to learn the nature and purposes of financial management in the international context. They will gain skills in international investment and financing techniques and in exchange risk management, including accounting and taxation aspects. They will learn, through hands-on case studies and simulations, how to judge the riskiness of a currency from a firm's perspective, and how to measure and manage the company's exposure to exchange rate and international interest rate risks.

FIN601 Strategic Financial Analysis and Design

The objective of this course is to enhance the candidate's conceptual financial management knowledge and its modernapplication practices with focus on real world business finance decisions. The course attempts to develop strategic decision making abilities, in all major areas of finance, through reinforcement of financial management concepts and their practical application in case studies and scenario based questions.

FIN602 Behavioral Finance

Initially field of finance was based on efficient market hypothesis stating that investors and managers are rational participants and prices are efficient. However the last decade negated this paradigm to be the only feature to describe actual financial markets. Researches prove that mistakes in financial decisions are at times caused by biasness of the decision maker. The course examines the psychological influence of investor behavior while making investing decisions.

Pre-requisite: FIN601

FIN603 Entrepreneurial Finance

This course is intended for students who wish to enhance their skills and knowledge in those financial areas of business that lead to successful entrepreneurship and/or small business management. The focus will be on those financial issues and decisions of particular concern to sole proprietors, partnerships and family-owned businesses. This will also include the financial aspects of the relationship between the firm and financial institutions. Pre-requisite: FIN601

FIN605 Financial Modeling for Investment Decisions

Financial modeling course enhance the skills required to test different scenarios leading to company's future growth. The course will enable the students in identifying company's key value drivers and would also help them in developing spreadsheet valuation models. The course also shed light on evaluation of financial returns and their relationship with resource constraints.

FIN606 SME & Micro Financing

This course is designed for students willing to become entrepreneurs or considering working in banks, NGOs, and multinational donor agencies. After the course, they will be able to develop and put into practice analytical skills, tools and techniques used in appraising and taking financing decisions. The course also explores the best practices and paradigms in design and management of MSMEs. Pre-requisite: FIN 523

Finance and Risk Management

FRM201/401 Principles of Risk Management

This course aims to introduce students to the rationale, principles, process and major tools of risk management. A holistic/integrated view of risk management is adopted throughout the course. Covered topics include the concept of risk, risk theory, risk measurement, corporate risks and the rationales of corporate risk management, risk management organization and process, and some major tools of risk management. A lot of the course content reflects the latest developments & industry practices in the discipline of risk management.

Pre-requisite: MAN401 / STA402

FRM202 Life and Other Contingencies

Survival distributions and life tables. Construction of mortality, sickness, multiple decrement and other similar tables for graduated data. Determination of the probability and monetary functions based on mortality, sickness, multiple decrement and other similar rates. Values for premiums for single life annuities and assurances. Determination of policy values, surrender values and paid-up policy values.

Pre-requisite: MTH211

FRM204 Enterprise Risk Management

This course is designed to provide information to actuaries who do not yet regularly practice in enterprise risk management (ERM), but want to know more about it to help expand existing skills or meet professional development requirements. The course content is designed to be introductory, and provides less hard–core mathematics and more conceptual understanding and learning. ERM has been a hot topic for several years and the Society of Actuaries and its members have worked with other actuarial organizations around the world to develop best practices and share them within the actuarial community.

Pre-requisite: FRM201

FRM206 Institutional Investments

The course will start by reviewing basic investment practice, with a discussion about the differentiating institutional features of markets, instruments and benchmarks around the world. It will focus on investment theory, by reviewing the benefits of adding international securities to a domestic portfolio and the key elements of an investment program, starting with the definition of a philosophy and continuing with the construction of a process for managing international equity portfolios.

Pre-requisite: FIN507

FRM302/402 Computational Methods in Risk

A historical perspective of market risk measurement, including the Markowitz, CAPM, and APT models; investigation of the value-atrisk approach and its variants and extensions, and a survey of other methods for evaluating risk, including multivariate methods for evaluating portfolios requiring copula tools. Pre-requisite: MTH210, MTH410

FRM304/404 Risk Financing Techniques

The Risk Financing course explores the selection, implementation and monitoring of risk financing techniques — ways in which an organization can obtain funds to pay for accidental losses which strike it. Topics include risk financing objectives, various types of risk financing plans, insurance as a risk financing technique, capital market products for risk financing, forecasting accidental losses and risk financing needs, accounting and income tax aspects of risk management, and allocating risk management costs.

Pre-requisite: FRM302/402

FRM403 Introduction to Financial Risk Management

This course covers the principles of financial risk management and financial engineering from the perspective of non-financial corporations. The first part of the course discusses how to measure risks and risk exposures, why firms should or should not hedged, and how to hedge basic exposures. You will also learn how to manage foreign exchange rate risk, interest rate risk, commodity price risk and credit risk. The second part of the course demonstrates how financial engineering, i.e., the issuance of complex financial securities, can increase shareholder value. Pre-requisite: FRM401

FRM405 Advanced Financial Risk Management

This course is tailored to provide financial risk professionals with the necessary groundwork required to become a financial risk specialist including the latest standards that represent best practice. The course is essential for any person currently in or planning to enter careers in the financial sector, retail banking, investment & merchant banking, asset management, corporate finance, risk analytics and strategic consultancy.

Pre-requisite: FRM403

FRM503 Corporate Risk Management

This course provides an introduction to modern methods of risk management. Lectures cover risk metrics, measurement and estimation of extreme risks, management and control of risk exposures, and monitoring of risk positions. The impact of risk management tools, such as derivative securities will be examined. Issues pertaining to the efficiency of communication architectures within the firm will be discussed. Regulatory constraints and their impact on risk management will be assessed.

FRM504 Theory of Risk and Insurance

Nature of economic risk and its effect on allocation of resources. Preferences among risky prospects: expected utility theory and the theory of risk aversion. Subjective versus objective probabilities. Market allocation of risk and the role of insurance markets under complete information. Insurance under asymmetric information, moral hazard, and adverse selection.

FRM505 Risk Management in Corporate Treasury

The role of the treasurer has grown from the traditional financial risk management role to one with a much wider remit. This module aims to explore the theoretical and practical issues in the discipline of treasury risk management as applied to listed non-bank corporate. The subject matter will be of interest to potential corporate treasurers, and to those in banks who require an insight into what major corporate customers require from banks.

FRM506 Financial Regulation and Supervision

The area of financial regulation has been even demanding after financial turmoil of 2008 and another looming financial crisis given the instability of global financial institutions. The aim of the course is to build knowledge and skills among the students to produce quality risk management professionals who can add value to the existing regulatory framework of the country while help commercial banks at the same time with implementation and compliance of the regulatory requirements.

FRM508 Financial Markets Issues and Crisis

The financial markets have gone leveraged manifold during the last decade. This increased leverage with complex structured products demands in-depth understanding of the issues in financial markets. The course is aimed to produce professionals with clear understanding of structured products and issues with them. Development of financial markets, anticipating a financial crisis and taking necessary steps to avoid one are key elements of this course.

FRM510 Energy Risk Management

Today, that industry is still growing. Through organizations such as the Professional Risk Managers' International Association we can see its growth every day. This course aimed to understand the risk in trading strategies in Oil risk developed into gas risk, and now on a global scale. Electric power risk management was the next market to develop. The weather derivatives markets followed that. Threatening larger than all these markets is the global environmental financial risk management market for emissions trading.

FRM512 International Risk & Financial Reporting

This course is designed in two parts. Part one containing the Risk Reporting standards prevailing in the current International market. Risk Reporting is currently gaining high importance in the financial markets sand become vital after the financial crisis. Basel banking risk reporting standards are also discussed. In part two student will get the understanding on International Reporting standards (IAS). International Reporting Standards regulated by Financial Accounting Standard Board (FASB).

FRM513 Project Risk Management

This course provides the background reason for existence of the project finance to understand the mechanism of financial market to provide the capital on large scale projects.

FRM514 Takaful & Risk Management In Islamic Products

This course covers risk management issues for Islamic financial products and services, considering all of their unique characteristics that are underlined by the Shariah principles and law. In addition to what conventional finance is providing, Islamic banks are providing specific financial products (contracts) which make them perform as investors, instead of only as creditors.

FRM516 International Financial Reporting & Standards

This course aims to provide wider understanding of International Financial Reporting Standards. This course discusses the issues and problems of financial reporting both, either in general or through the specific regulatory requirements of the International Accounting Issues.

FRM517 Property Risk Management

Insurance company operations and management, including statutory accounting principles, financial management, underwriting, claims and reinsurance. Discussion of commercial property coverages and risk management techniques, including basic property insurance, consequential loss coverage, fidelity and surety bonding and crime coverage.

FRM518 Management of Insurance Institutions

This course applies principles of economics and finance to the management of and creation of value in the insurance enterprise. Course topics encompass: 1) the theory of the firm as applied to the insurance enterprise; 2) the operational risk management of insurance institutions as a class of financial institutions; 3) the industrial organization of insurance markets within an integrated financial services industry; and 4) principal insurance business functions with an emphasis on significant issues and innovative strategies.

General Sciences

GSC101 Physics

The course aims to cover vector review, Coulomb's law, electric fields, Gauss's law, electric potential, capacitors and dielectrics, d.c. circuits, Kirchoff law, RC and RL Circuits, magnetic fields, Ampere's and Farady's laws, energy stored in electric and magnetic fields, Biot and Savart law, electromagnetic oscillations, a.c in resistive, inductive and capacitive, elements.

GSC103 Applied Physics

Electrostatics: Coulomb's law, electric field and potential, capacitance, dielectrics. Electrodynamics: Magnetic field and force, sources of magnetic field, electromagnetic induction, inductance. Solid-state physics: Crystal lattices, unit cells, energy bands, allowed and forbidden states, conductors, semiconductors, insulators. Semiconductors: Composition, purity, n- and p-type materials, carrier properties and distribution. Carrier action: Diffusion, drift, generation, recombination. Conductivity, mobility, p-n junction diode, diode curve, forward-biased diode, reverse-biased diode. Types of diodes: Schottky diode, zener diode, tunnel diode, varactor diode, LED, laser diode. Applications of diodes: Half- and fullwave rectifiers, clipper and clamper circuits, voltage multipliers.

MHM401 Introduction to Health Policy, Planning and Management

This course provides students with an overview of the health system in Pakistan and introduces them to the concepts of public health and the basis of public health programs in the country. The course also covers the planning methodologies and role of health planners within the health care sector. Concepts and techniques of health planning as applied to community and institutional health systems are analyzed.

MHM402 Quantitative Analysis

The course includes introductory as well as advanced study of stochastic and quantitative analytical tools and concepts which can be used to compute vital statistical rates applicable to problems in public health. Topics such as regression analysis, anova, chi-square are also discussed.

Pre-requisite: MHM 401 / MIS401

MHM403 Health Management Information Systems

Applications of computer technology for designing management information system for health care institutions. Topics include data collection, reporting and transmission, file design, record structure, reportformats, processing requirements, medical records and statistical audit. Principles of managing the acquisition and development of health management information system are also discussed.

Pre-requisite: MIS401 / MHM404 / MHM402

MHM404 Research and Survey Methodology

This course is designed to familiarize students with basic concepts surrounding surveys. It intends to expose students to the various components, techniques and methods of developing survey instruments and modes of survey conduction. It defines the basic concepts of research methodology and designing of sample survey, including data presentation through tables and graphs. Pre-requisite: MHM 401 / MIS401

MHM405 Pharmaceutical Management

This course explores the major areas of operations and departments of the pharmaceutical industry including marketing, sales, human resource, regulatory, pharmacovigilance, demand, distribution, production and finance. Coursework often includes an in-depth study of several hospitals to examine how they function. By the end of the class, students are expected to have a comprehension of the main issues involving the management of a pharmaceutical organization and the interdependent units associated with it. Pre-requisite: MAN401

MHM501 Pharmaceutical Branding

This course emphasizes on the expressional area of promotion and capitalizes on the functional area as well. Students will be able to launch new brands, create strategy for brand equity with long-term sustainability, handle multi-brand portfolios and conduct evaluation of brands.

Pre-requisite: MKT401 / MHM405

MHM502 Health Economics

This course deliberates on and applies general theoretical principles of economics to health care sector. The basic approach is to recognize the importance of scarcity and incentive allowing for any differences peculiar to health.

Pre-requisite: ECO401

MHM503 Financial Management of Health Services

The course exposes students to basic financial ratios and a general understanding of financial statements and some productivity, tracking systems and measurements typically utilized in health care organizations.

Pre-requisite: FIN401

MHM504 Strategic Management of Health Services

The content of the course is developed around several health care trends including restructuring, innovation of health care delivery and finance and an increased emphasis on performance. It addresses basic theory, strategic plan development, organizational analysis and specific appropriate analytical techniques, implementation strategies and case studies.

Pre-requisite: MAN401

MHM505 Concepts of Primary Health Care

The course familiarizes students with the basic concepts surrounding primary health care. It aims to provide the basic conceptual understanding of public health problems pertaining to the availability, accessibility and affordability of primary health care services. Pre-requisite: MHM 401

MHM506 Managing Professional Health Care Organizations

The course includes application of management theory and concepts to health services systems and organizations. It characterizes functions, organizational structures of delivery system, fiscal management, personnel management and planning procedures. Pre-requisite: MAN 401, MHM 401

MHM507 Introduction to Epidemiology

The course includes definitions, principles and factors related to the manifestation of infectious and non-infectious diseases, including tracing their sources, modes of survey conduction, controlling spread and initiating measures to prevent recurrences. Pre-requisite: MHM402 / MHM404

MHM508 Pharmaceutical Marketing & Quality Assurance

This course examines the nature of pharmaceutical industrial market and analyses of customer procurement strategy, product policy, pricing, distributing strategy and sales force management strategy.

Pre-requisite: MKT401 / MHM405

MHM509 Marketing of Health Services

The course aims to familiarize the students with methods most commonly used in marketing of health services. It focuses on the critical links between health service marketing as it relates to customers, competitors, market segmentation and definition of target markets.

Pre-requisite: MKT401

MHM510 Introduction to Demography Methods

An introduction to the fundamental methods employed in the statistical study of human populations, especially their size, distribution and number of births/deaths and their health consequences. Students will also learn to apply computer technology to demographic studies.

Pre-requisite: MHM402, MHM404

MHM511 Population and Health

The course studies the impact of population growth on the health of the populace and its effect on the health care delivery system.

MHM512 Economics and Management of Pharmaceutical Industry

The course focuses on the nature of economic systems and how they constrain, control and impact the operational effectiveness of pharmaceutical organizations. Deliberation on contemporary management tools utilized by pharmaceutical organizations to overcome economic, financial, managerial and industrial constraints are also discussed.

Pre-requisite: ECO401 / MHM405

MHM513 Managing Physicians

The course content examines the strategic advantage of attracting and retaining competent medical staff members as it relates to higher occupancy and decreased litigation. Simultaneously, it assesses physician co-operation in making cost effective and high quality care service delivery decisions

Pre-requisite: MHM401 / MHM515

MHM514 Environmental Health Assessment and Management

The objective of this course is to study the impact of environmental pollution and degradation on the health of populace. It provides theoretical instructions with a focus on environmental health assessment and knowledge of managing environmental health problems. Pre-requisite: MHM401 / MHM404

MHM515 Hospital Administration

The course addresses major functions and issues surrounding supervision of hospitals; organization and management of hospitals, relationships/differences between line and staff functions. Likert Scale, Peter Principle, McGregor's Theory X and Y are also discussed. Strengths and weaknesses of employee performance appraisal are identified.

Pre-requisite: MAN401 / MHM401

MHM516 Health Program Evaluation

The course prepares students to discuss components of program evaluation and formulate credible evaluation questions. Students will be able to construct evaluation designs, recognize limitations of each, report evaluative results and critically assess evaluation reports. Pre-requisite: MHM 402 / MHM404

MHM517 Capstone Project (Part 1 & 2)

A Capstone Project course of 6 credit hours is a supervised research, which applies curricular concepts and skills to the problems in an organizational setting.

Pre-requisite: MHM402 / MHM404

MHM518 Regulatory Affairs at Healthcare Industry

Healthcare is a highly regulated industry and the course provides an insight into the important laws and regulations controlling business in the healthcare sector. Upon completion of the course, students will be well versed with drug laws, good manufacturing practices, and laws governing operation of blood banks, breast feeding ordinance, 2002, and environmental concerns.

Pre-requisite: MHM405 / MHM401

MHM519 Financial Applications in Pharmaceutical Marketing

The course is designed to reach financial justification on acceptable accounting principles. Success of marketing activities, whether aimed at consumer satisfaction or otherwise, are measured in terms of "revenue and profit". This course introduces students to marketing activities involving financial justification. Pre-requisite: FIN401 / MHM405

MHM520 Product Management

This course focuses on creating and managing product and brand portfolios in pharmaceutical industry for long-term profitability, as established and mature products and brands are critical to an organization's financial stability and strategic posture. Students will apply strategic frameworks for managing mature products for profitability, transferring existing competencies to new products and evolving market opportunities of a product portfolio.

Pre-requisites: MAN401 / MHM405

MHM521 Pharmaceutical Sales Management

This course enables the students to develop analytical and managerial skills for estimating sales potential, forecasting sales, manning territories and controlling sales force in the pharmaceutical sector. Furthermore the students will learn to apply these concepts for solving problems, through case studies, training and motivational exercises. Pre-requisites: MAN401 / MHM405

MHM522 Project Management of Health Services

In this course, students will be able to learn planning for quality, performing quality assurances activities, and closing project contracts keeping in view ethics, professional knowledge, stakeholder's interests and cultural diversities. By the end of the course, students will be proficient in organizing and executing complex healthcare projects using techniques of project management software tools. Pre-requisites: MAN 401, MIS 401

MHM523 Heath Ethics

In this course, students will be able to learn the principles and theories of ethics related to health care delivery/administration and legal issues surrounding the relationships of patient, provider, and health care institution. This course also focuses on principles of autonomy and informed consent, confidentiality, truthfulness, professional standards and institutional ethics, corporate liability, medical malpractice, medical staff bylaws, patients' rights, medical records and governmental regulation of personnel and health facilities.

Pre-requisites: MHM401

MHM524 Healthcare Human Resource Management

This course aims to provide students with a solid grounding in the fundamentals of human resource management and labor relations concepts and practices in health care. It also looks into the role of HR and its strategy in underpinning organizational viability and its potential to contribute to competitive advantage in the health care industry. The course is especially tailor made to suit the complexity and diversity management of policies and strategies of the human resource working in health care.

Pre-requisites: MAN401 / HRM401 / MHM401

MHM525 Management issues in Health Psychology

Health psychology is an exciting interdisciplinary field of study that bridges the worlds of biology, psychology, and sociology. In this course, will have the opportunity to explore how psychological, social, behavioural, individual and biological influences contribute to health, illness, and reactions to illness. We will also try to answer how these elements interact and influence our health.

Pre-requisites: MAN401 / MHM401

MHM526 Healthcare Leadership

This course introduces the basics principles of leadership and direction for those who are interested in supervision and management of health programs. The course content explores difference theories of Leadership with examples in the health care industry. The teaching methodology will inculcate the aptitude of entrepreneurial roles and risk taking in leadership.

Pre-requisites: MAN401 / MHM401

MHM527 Supply Chain and Production Management in Pharmaceutical Industry

This course is an introduction to the supply chain concept and will explore the management of supply chains to improve an organization's overall efficiency in the pharmaceutical industry. Other concepts included are the definitions, identification procedures, and an overview of methods, processes, and systems that are used in the operation of supply chains to improve performance.

Pre-requisites: MAN401 / MHM405

MHM528 Quality Management in Health Care

Quality Management in Health Care prepares managers and health care professionals to plan, develop and implement successful continuous quality improvement/management programs in the health care industry. Graduates enhance their ability to move into integrated delivery of quality health care services that are accountable to clients of the health care system. In addition the graduates learn to manage and lead quality improvement and analyze information related to quality improvement, risk management and utilization, apply problem-solving skills to analyze problems and determine appropriate personnel and structures to solve quality problems and facilitate organizational change.

Pre-requisites:MAN401 / MHM401

Human Resource Management

HRM301/401 Human Resource Management

The course includes a wealth of conventional wisdom related to traditional human resource management challenges of recruitment and placement, training and development, compensation and labor relations. In addition, contemporary management challenges related to such issues as the strategic role of HRM & global HRM are included. Overall, the course is carefully crafted to present traditional HR management concepts, important contemporary HR management issues and insights so as to ensure organizational success. Pre-requisite: MAN 301/302/401/402

HRM400 Foundation of Human Resource Management

This course is a study of approaches and theories of human resource management; an overview of the human resource profession, including emerging trends, professional roles and professional competencies.

HRM405 Research Methods in HRM

This course focuses on description, analysis and application of research methods for HRM professionals, studied in the context of key business and organizational decision-making processes. Pre-requisite: STA 400, HRM 400, MAN 402

HRM406 Conflict Management and Negotiation

This course examines the nature and effects of conflict in organizations and relationships in the workplace, making conflict and negotiation productive and constructive. The course includes theories supporting effective conflict management strategies and tactics for use and resolution, practice of conflict resolution, negotiation and mediation methods.

Pre-requisites: HRM 400, MAN 400/402

HRM407 Seminar in Human Resource Management

This course focuses on discussions of current theory and research in human resource management and related topics. It is based on high quality contemporary research, case studies, discussion forums and available literature on human resource function as it relates to the overall strategy of the company. This course provides students the opportunity to apply knowledge acquired in prerequisite courses to resolve real-life workplace issues.

HRM408 Human Resource Issues in Pakistan

This course focuses on five key issues that present the greatest opportunities and challenges for HR professionals today and examines their implications in Pakistan. The course explores ways to realign HR and to explain the professional competencies needed to play a leadership role in realizing organizational change; examines the opportunities and benefits of planning for and managing a diverse workforce; defines the role of HR in managing a team environment; evaluates ways to design and implement alternative work schedules, reward system, human capital metrics and long term human resource strategies with a variety of organizations from not-for-profit to government organizations and local companies.

HRM409 Management of Excellence & Innovation in Organization

This course aims to enhance students' understanding of innovation processes in the organization and how to manage such processes effectively. It introduces the key concepts, models, and techniques of innovation and organizational change management. Particular areas of emphasis will be the nature of innovation, innovation process, innovation typologies, changes in the external environment and drivers for change, models of organizational innovation and change, individual and group creativity, factors associated with innovation, practices for developing innovative organizations, organizational culture and transformational leadership.

HRM501 Recruitment and Selection

This course offers an understanding of effective techniques of the recruitment and selection process. It equips students with generic, technical, analytical and evaluative skills relevant to recruitment and selection. The course encompasses an in-depth knowledge of the entire recruitment process, right from the planning of staff requirement to designing of the job descriptions and advertisements, interviewing and testing applicants till the final selection and job offer. It encapsulates relevant information about the candidate through effective methodologies applied in the interviewing procedure. Pre-requisite: HRM 301/401/402

HRM502 Industrial Relations and Labor Laws

The course deals with relationship issues arising from interaction between parties in the workplace. It develops an understanding of the principles & philosophy of industrial relations; labor-management relationship and labor administration; industrial relations attitudes and approaches; development and objectives of trade unions; their federations; employers' associations, collective agreements; trade & consideration and process of collective bargaining. Pre-requisite: HRM 301/401/402

HRM503 Employee Training and Development

The course emphasizes the changing role of training as a tool in giving organizations a competitive advantage in the highly competitive business environment. It covers a broad understanding of strategic training models, need assessment techniques, learning theories and program design evaluation. Traditional training methods, use of new technologies in training and interactive training. Pre-requisite: HRM 301/401/402

HRM504 Negotiation Skills and Collective Bargaining

Explains the principles of exchange and develops confidence and skills to conduct negotiations and achieve a mutually acceptable outcome. It covers the method of negotiation developed by the Harvard negotiating project, known as Principled Method of Negotiation. The course covers the whole process of negotiations and collective bargaining in the context of business labor laws, industrial relations and practices; from preparation to closing a deal and includes essential guidelines for devising a negotiation strategy; how to reach consensus; what to do when negotiation breaks down and how to make use of a third party to break deadlock and resolve conflict. Pre-requisite: HRM 301/401/402

HRM505 Organizational Change and Development

The course will help students gain insight into Behavioral Science techniques and practices to help corporate managers and practitioners to formulate and implement changes that promote organizational effectiveness and efficiency and improve quality of life and environment.

HRM506 Strategic HRM

The course provides an in-depth understanding of how the major components of the HR practice fit in with each other in order to develop a "high-performance working environment". This course will give first hand experience about the hidden traps that hinder HReffectiveness in real life situations and what options does an organization has to avoid these traps.

Pre-requisite: HRM 301/401/402

HRM507 Public Relations and Event Management

The course focuses on public relations as management process in business, government and society; decision-making constraints, use of authority, power play of social, political, economic, technological, and moral issues in decision-making and the limitation and abuse of authority.

Pre-requisite: HRM 301/401/402

HRM508 Salary and Compensation

The course analyzes compensation strategies and practices from the perspective of the industry as well as an individual. It addresses the flexibility propositions in a compensation package which enables a company to adapt to the changing environment. Pre-requisite: HRM 301/401/402

HRM509 Leadership Studies

This course is designed to cope with the rapid change which the world has been undergoing for the past five decades; more stringent and varying demands are being placed on management leadership for the growth of their organizations, if not for their actual survival. Pre-requisite: HRM 301/401/402

HRM510 Personnel Development

This course extends training in the area of performance appraisals and is an integral part of Human Resource Development (HRD). It highlights the procedures for assessment of training needs, employee feedback and counseling, career planning and growth, and ways to enable companies to fulfill the intrinsic needs of its employees. Pre-requisite: HRM 301/401/402

HRM511 Performance Appraisal and Management

The success of an organization depends on its results, which are achieved by its employees. Unless organizations select, develop & retain the best talent, they cannot succeed. Organizations plan, coordinate and review the activities of employees so as to achieve the desired results. The purpose of this course is to understand the links between human resource planning, performance and compensation.

Pre-requisite: HRM 301/401/402

HRM517 Personnel Management & Industrial Relations

This course aims to cover the theoretical foundations and empirical practice of HRM and IR. It provides students exposure to a wide variety of organizational practices; to manage and develop employees, ensure their welfare and understand changing employment legislation essential to business survival. This course enables students to develop practical skills in the subject area to equip them for a career in HR/IR.

HRM518 Coaching Skills and Techniques

This course builds and/or refines the student's repertoire of basic coaching skills applicable to most executive coaching situations (e.g. self-awareness, empathy, listening, questioning, giving and receiving feedback, confrontation, limit setting, demonstrating leadership, etc.). It seeks to develop the specialized techniques of executive coaching, peer coaching, management coaching, leadership coaching and individualized skill. Students learn how to coach and understand organizational culture to develop high-performing cultures that strengthen business results.

HRM519 International HRM

The course will review the theories, models and concepts developed in the areas of international management, international organizational behavior, cross-cultural management, and study their implications on international HRM practices. A major focus of the course will be on international human resource management & development issues of recruitment and selection, compensation and reward systems, training and development, performance appraisal, expatriation, repatriation and career development.

HRM530 Research Practicum in HRM

The practicum prepares students to practice industrial/organizational psychology with the understanding of organizational cultures critical to effective professional practice in the workplace. Independent work under the direction of faculty advisor topics includes assessing, analyzing, or appraising performance, aptitudes, skills, preferences, needs, or personality factors required for job/task analysis, personnel recruitment, selection and placement, or performance evaluation.

HRM531 Pay for Performance & Reward

This course familiarizes students with the concepts of performance management within the wider context of human resource management. It provides students with an understanding of the reward management process which includes pay survey, job evaluation, and the design of pay structure. The concept of equal opportunity in compensation and performance management will be emphasized throughout the course.

HRM532 Performance Management

This course develops the theoretical and practical skills necessary to plan, monitor, measure, motivate, and improve performance. Students learn how to define and develop individual and organization- level performance indicators, align individual and organizational performance goals and objectives, measure and track performance, diagnose performance deficiencies, and develop and implement group and individually tailored performance improvement systems.

Languages

LAN101 Introduction to Arabic

This course is designed for those who do not have any prior knowledge of this language. It enables students to carry out basic conversation in Arabic. Students are prepared in a manner that they can put the message across. This course is designed to bring about awareness about the business taking place between Pakistan and the Arab countries. This course also enables students to understand and appreciate language and culture. The main objective of this course is to bring the students to a level where they can read, write, speak and understand and basic Arabic.

LAN102 Introduction to French

This course is designed for those who do not have any prior knowledge of the language. It enables students to carry out basic conversation in French. Students are prepared in a manner that they can put the message across. This course is designed to bring about awareness about the business taking place between Pakistan and France. This course also gives some knowledge about French culture. The main objective of this course is to bring students to a level where they can read, write, speak and understand a foreign language and comprehend and appreciate foreign cultures.

LAN103 Introduction to Spanish

This is an introductory course in Spanish. It is structured for those who have no prior knowledge of the Spanish language. It starts from the basics and brings the students to a level at which they can develop phrases and understand spoken Spanish.

LAN104 Introduction to German

This is an introductory course in German language. It is structured for those who have no prior knowledge of the German language. It starts from the basics and brings students to a level at which they can develop phrases and understand spoken German.

LAN105 Introduction to Japanese

This is an introductory course in the Japanese language. It is structured for those who have no prior knowledge of the Japanese language. It starts from basics and brings students to a level at which they can develop phrases and understand spoken Japanese.

LAN106 Introduction to Italian

This is an introductory course in Italian. It is structured for those who have no prior knowledge of the Italian language. It starts from basics and brings the students to a level at which they can develop phrases and understand spoken Italian.

LAN107 Introduction to Russian

Introductory course structured for beginners. Students will learn basic grammar, pronunciation and dialogue interaction so as to develop phrases and understand spoken language.

LAN108 Introduction to Chinese

This course is designed for those who do not have any prior knowledge of this language. It enables students to carry out basic conversation in Chinese. Students are prepared in a manner that they can put the message across. This course is designed to bring about awareness about the business taking place between Pakistan and the Chinese countries. This course also enables students to understand and appreciate Chinese language and culture. The main objective of this course is to bring the students to a level where they can read, write, speak and understand basic Chinese.

LAN112/LAN113 Urdu I & II

Urdu I, the foundation level course, aims to stimulate students' interest in the language. Reading of short essays, poems, articles and practicing of writing skills will be used. Urdu II is geared to enhance the students' language competency by introducing them to classical and contemporary literature, and encouraging structured discussion and debate in class. Writing exercises will be more extensive and challenging.

[Pre-requisite: LAN112 for LAN113]

LAN201 Intermediate Arabic

This course is designed for those who have basic knowledge of the language and are able to make simple conversation. It further enables students to converse in Arabic on a higher level for specific dealing purposes. This course is designed to give general knowledge of how to communicate in different environments in Arabic. It prepares students in a manner that they can deal with different situations while traveling and corresponding with Arabic natives by letter or e-mail. The main objective of this course is to bring students to a level where they can communicate well and deal with different situations in basic business Arabic.

Pre-requisite: LAN 101

LAN202 Intermediate French

This course is designed for those who have basic knowledge of the language and are able to make simple conversation. It further enables students to converse in French on a higher level for specific dealing purposes. This course is designed to give general knowledge of how to communicate in different environments in French. It prepares students in a manner that they can deal with different situations while traveling and corresponding with French natives by letter or e-mail. The main objective of this course is to bring students to a level where they can communicate well and deal with different situations in basic business French.

Pre-requisite: LAN 102

LAN203 Intermediate Spanish

This course is for those who have a basic understanding and command of the Spanish language. It is oriented towards advanced sentence structuring and composition while improving one's speech style. Pre-requisite: LAN 103

LAN204 Intermediate German

This is an advanced course for those who know the basics of the German language. It teaches advanced sentence structuring and composition while improving one's speech style. Pre-requisite: LAN 104

LAN205 Intermediate Japanese

This course is for those who have a basic understanding and command of Japanese language. It is oriented towards advanced sentence structuring and composition while improving one's speech style.

Pre-requisite: LAN 105

LAN206 Intermediate Italian

This course is for those who have basic understanding and command of the Italian language. It is oriented towards advanced sentence structuring and composition while improving one's speech style. Pre-requisite: LAN106

LAN207 Intermediate Russian

The course is oriented towards advanced sentence structuring and composition while improving dialogue interaction. Pre-requisite: LAN107

LAN208 Intermediate Chinese

This course is designed for those who have basic knowledge of the language and are able to make simple conversation. It further enables students to converse in Chinese on a higher level for specific dealing purposes. This course is designed to give general knowledge of how to communicate in different environments in Chinese. It prepares students in a manner that they can deal with different situations while traveling and corresponding with Chinese natives by letter or e-mail. The main objective of this course is to bring students to a level where they can communicate well and deal with different situations in basic business Chinese.

Pre-requisite: LAN108

LAN401 Functional Urdu

The course will give an insight into the basics of Urdu language. Students will be able to shape language to communicate effectively, while applying appropriate conventions of language usage and grammar. The course will also focus on vocabulary and reading, writing and speaking skills.

Law

LAW101/102 Mercantile Law I & II

The courses aim to enable the students to develop a professional approach towards matters connected with Mercantile Law in the performance of their duties as chartered accountants.

LAW103/104 Company Law I & II

These courses provide candidates with knowledge of the Companies Ordinance, 1984, and helps them to develop an understanding of their application to corporate and other business environment, excluding advanced topics such as provisions relating to arbitration, arrangements and reconstruction, prevention of oppression and mismanagement, winding up, etc. Pre-requisite: ACC102

LAW301 Intellectual Property, Patents, Copyrights

This course emphasizes on patents and copyrights and a briefer look at trade secrets and trademarks. Current issues relating to information technologies and business methods will be highlighted. The seminar has no prerequisites, and is designed for both graduate students and undergraduates.

LAW400 Company Secretarial Practices

This course introduces participants to the duties and responsibilities of the corporate secretary in organizations. Students will explore the role and functions of the corporate secretary and the application of best practice in the conduct of meetings and in ensuring compliance with legal and regulatory requirements.

LAW401 Business Law

The course provides study of law relating to commercial associations/ entities. The topics includes an introduction to the concepts and sources of laws; different aspects of contract laws, the selected parts of partnership laws, sale of goods laws etc.

LAW402 Corporate Law

The aim of the course is to provide knowledge about the practical aspects in the areas of the Companies Ordinance, 1984, e.g., incorporating/registering different types of companies, raising finances, managing company meetings; powers, duties & responsibilities of directors.

Pre-requisite: ACC101 / 402

LAW403 Business & Insurance Law

The legal environment should be an exciting, contemporary, and interesting. This course includes new statutes, regulations, and cases, as well as the most recent developments in cyber, Insurance Law, and Takaful regulations. Course today explicitly addresses the Schools of Business's (AACSB's) broad array of curriculum requirements.

LAW404 Arbitration

The course consists of a theoretical and a practical component. It is a skills-orientated course, designed specifically not only to expose students to the practical skills required during arbitration but also to provide a theoretical context for such skills.

LAW405 Media Law and Business Ethics

This course is based on interaction between media and the public sphere and examines the way moral criteria have been used to underpin the legitimate ethics of journalistic practice. It aims to develop a new framework, which can take an account of the way in which information is produced and distributed in the new environment.

Pre-requisite: MMM438

LAW406 Professional Ethics and Legal Issues

This course addresses the legal and ethical issues in organizations from a multicultural perspective. The emphasis is on the study of multiple perspectives on an issue, analysis and problem solving strategies to create policy and sustain practices that conform to the spirit of ethics codes in its applicability both domestically and globally.

LAW407 Statutory Compliance

This course provides advanced investigation skills to implement effective management systems to monitor statutory compliance, identify breaches and enforce compliance. This course is designed for those personnel who have a role in monitoring and enforcing legislation or other statutory obligations on the public or private sector.

Management

MAN101/301/401 Principles of Management

The purpose of this course is to prepare students to be managers. The course includes a wealth of conventional wisdom related to traditional management challenges of planning, organizing, leading and controlling. In addition, the contemporary management challenges related to such issues as people, quality, diversity, ethics and the global environment are included. Overall, the course is carefully crafted to present traditional management concepts, important contemporary management issues and insights so as to ensure organizational success. The pedagogical objective of the course is to impart specific actionable skills to the student.

MAN201 Personal Management

The importance of self-management is stressed for productive results. Topics include time management, stress and conflict handling. Development of emotional maturity is discussed and interpersonal skills are developed through transactional analysis. Pre-requisite: MAN 101/301/401

Pre-requisite. MAN 101/501/

MAN302/402 Organizational Behavior

Organizational behavior is a study of how people behave as individuals, in groups and how groups behave as parts of organizations. An effective organization is the one that understands and manages optimum levels of these three types of behavior. The course includes a wealth of conventional wisdom related to traditional organizational behavior issues of the individual, the group and the organization. In addition, the contemporary management challenges related to such issues as the design of HR practices, technology, work design and organizational dynamics are included. Pre-requisite: MAN 101/301/401

MAN303/406 Production and Operations Management

The course will provide a student-oriented presentation of the subject. It will reflect current production and operations management practices and techniques. An integrated approach featuring management process, resource conversion and concepts, models, and behavior applications within the production/operations function will be followed.

Pre-requisite: MAN 101/301/401, STA 202, MTH 103

MAN305 International Relations

This course aims at providing basic knowledge of international relations. In this course, the key theoretical concepts and terms of the field will be discussed such as level of analysis of international relations, theory and theory building, important actors in the international arena and the world system, and relations between states. Students will also be introduced to contemporary and future problems and issues in international politics. Pre-requisite: MAN 201

MAN321 Organizational Behavior & HRM

This management area focuses on (1) individual, group, and organizational attributes and behavior to describe and explain the functioning and structuring of work organizations, and (2) the practical aspects of human resource management. Students seeking managerial careers in any business function can valuably learn about leadership, motivation, morale, performance, teams, organizational culture, and organizational design.

MAN403 Entrepreneurship & Small Business Management

To provide an understanding of the person and the process of creating and growing a new venture, this course introduces the entrepreneurial perspective and focuses on all the elements in the entrepreneurial process that are part of creating a new venture. It introduces a new venture through alternative sources of capital in financing.

Pre-requisite: MAN 101/301/401, MKT 302/402, FIN 202

MAN404 Operations Research and Management

The course aims to enhance the capability of decision-making through application of modern methods of mathematical science to complex problems. The topics include linear programming, transportation and assignment models, network models, queuing models, simulation, replacement models, etc.

Pre-requisite: MKT 303, MAN 303

MAN405 Strategic Management

The course is intended to be a challenging and exciting capstone course for a graduate business school curriculum. It is the first course about strategy and its implementation. Students will be exposed to the state of the art of strategy analysis, formulation, implementation and control.

Pre-requisite: MKT 302/402, MAN 301/401, 302/402, HRM /401/402

MAN407 Organizational Management

This course is a study of the entire process of management. It gives an insight into the development of managerial skills for effective running of business operations. Along with the in-depth knowledge of the functions of management it serves as a basis for understanding motivation techniques for human resource which is critical for synergies in business.

MAN408 Analysis of Pakistani Industries

Students get a micro and a macro environmental exposure and understanding of the various issues facing the industry. This course also aims at benchmarking the various functional processes so as to achieve organizational excellence.

Pre-requisite: MAN 302, HRM 301, ECO 402

MAN409 Principles of Management & Human Resource Management

This course highlights management concepts, principles, processes and functions of management, namely, planning, organizing, leading and controlling which provides a sound basis for carrying out required tasks and successfully achieving goals in any organization today. In this environment, effective management, of human resource is one of the few levels that managers have at their disposal to accomplish their organizations strategic objectives.

MAN410 Introduction to Industrial Management

The course introduces industrial management operation system & includes objectives; entrepreneurship, project identification, evaluation, project & operation cost, productivity, breakeven analysis, process management, operations strategy, competitive strategy framework for competitor analysis, structural analysis of industry, total quality management, capacity planning & facility location, inventory management, supply chain management, project management, project control and technology management.

MAN411 Project Management

The course covers project initiation, discovery and analysis, time and cost estimates, project planning, network diagram, critical path, recourse management plan, project execution, monitoring and managing, project control, project closure plan, managing operation transfer plan.

MAN413 Corporate Social Responsibility

CSR is the commitment of businesses to contribute to sustainable economic development by working with employees, their families, the local community and society at large to improve their lives in ways that are good for business and for development. Pre-requisite: MAN 401

MAN415 Entrepreneurial Leadership and Motivation

The Course aims at aspiring students to become successful entrepreneurs and attain leadership in their respective fields of endeavours. By enabling them o overcome their fear and problems of start-up businesses the Course involves presentations by renowned entrepreneurs to arouse passion and provide "mentorship" for successful implementation of entrepreneurial projects.

MAN416 Corporate Governance

Corporate Governance is the system by which business corporations are directed and controlled. The Corporate Governance structure specifies the distribution of rights and responsibilities among different participants in the corporation, such as the board, managers, shareholders and other stakeholders and spells out the rules and procedures for making decisions on corporate affairs. Pre-requisite: MAN 401

MAN417 Services Management

This course focuses on service industries such as dealing with intangibility and inseparability. It also examines the problems faced by professional, not-for-profit, social and financial services marketers.

MAN501 Total Quality Management

This course revolves around the customer satisfaction model and deals with the areas of benchmarking, ISO-9000 (quality management systems), ISO-14000 (environmental quality systems), statistical process control, customer satisfaction approaches/models (management tools). There is special emphasis on research project & case studies in this course.

Pre-requisite: MAN 101/301/401, MAN 303

MAN502 Business Process Re-engineering

This course is designed to develop an understanding about organizing, managing & improving the ongoing process & systems essential for sustained growth of the organization. Pre-requisite: MAN 101/301/401, MAN 303

MAN503 Supply Chain Management

This course covers essentials of Supply Chain Management and is divided into foundations of SCM, enabling concepts, the requirement process, strategic sourcing, strategic cost management relationship management and world class supply chain management. Pre-requisite: MAN 101/301/401, MKT 301/401

MAN504 Business Balanced Scorecard

This course is a set of measures that provide a comprehensive business overview. It includes not only measures that track past actions, but also those that drive future performance. In this course, students will build the skills to create a strategy map and a Balanced Scorecard for an organization.

MAN507 Business Etiquette

The course deals with the ingredients necessary for career growth, apart from technical competence, e.g., protocol in the office,

personal grooming and dress, relationship with colleagues and customers, etc.

MAN508 Comparative Management

This course exposes students to the different work-related values and norms prevalent in various countries of the world. The main aim of this course is to expose students to different cultural mindsets and the effective leadership styles which have been developed in different parts of the world.

MAN509 Logistics and Inventory Control

The course is a based on analysis and designing of domestic and international logistics systems. Topics include transportation, warehousing, inventory control, materials handling and packaging, and plant and warehouse locations. The course may serve as preparation for the American Society of Transportation and Logistics Certification examination in logistics systems management. Pre-requisite: MAN 304

MAN510 Management Infrastructure

This course is a study of the entire process of management. It gives an insight into the development of managerial skills for effective running of business operations. Along with the in-depth knowledge of the function of management it serves as a basis for understanding the motivation techniques for human resource which is critical for synergies in business.

MAN605 Seminar in Business Policy

Business Policy is a multidisciplinary Capstone Course which focuses on all aspects of business including organizational strategies and practical and emerging trends relating to successful organizations around the world. It will cover policy, rationale and practices relating to business of successful organizations with particular emphasis on latest and emerging trends. It would involve case studies of selected business issues such as globalization of strategy, role of multinationals and internationalization, collaborative and competitive advantage strategy formulation and its implementation. Focus would be on in-depth analysis of business policy from a multidisciplinary perspective involving corporate marketing, management, Finance technology, economics, politics, regulation and social environment.

MAN601 Advanced Qualitative Research

This course introduces students to issues involved in developing appropriate research strategies for investigation business and organizational issues and concerns. Extensive literature review, presentation and research article summaries constitute its essential part. Quantitative research techniques are discussed at a higher level and software such as SPSS, MINITAB and EVIEWS are used to analyze secondary data. The unit is also designed to facilitate the completion of an applied research project.

MAN602 Survey of Current Research Literature in Management

The course provides a review of management research literature under the supervision of PhD faculty. It provides an opportunity to analyze quality research published in different professional journals in the field of Management. The course concentrates on organizational behavior, business policy, human resource management, behavioral sciences.

MAN603 Technology, Innovation and Strategy

The course covers the evolving technological trends and their impact on current and future business strategies, operations and environment. These new challenges require innovation and creative strategies to successfully lead through the transformation. The Course focuses on innovations and technology as drivers of business strategy in emerging scenario.

MAN604 Management Strategies and Emerging Organizations

The course aims to equip students in the art and science of conceiving, developing and implementing management strategies to attain and retain competitive business advantage particularly in the emerging organizations. As organizations become global and increase their reach through internet and digital technologies, they are undergoing transformation of their organizational structures, mode of communication, control and management of resources.

Management Information Systems

MIS001 Introduction to Computers

The course is an overview of computers, understanding the machines, binary (bits and bytes), different goals, different machines and their sizes, history of computers and parts of computers.

MIS102 Computer Concepts

The course provides an overview of computers, understanding the machines, binary (bits and bytes), different goals, different machines and their size, history of computers and parts of computers. Problem solving techniques using computers, flow charting and algorithm design, processing methods and programs, types of computer languages, types of computer software an an introduction to operating systems is also part of the course.

MIS103 Computer Applications I

The course is a study of microcomputer applications software, including operating systems, word processing, presentation graphics, spreadsheet, and implementation of solutions using appropriate applications software. Pre-requisite: MIS 102

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MIS104 Computer Programming and Graphics

This is the first course in computer programming for engineers, involving an extensive development of programming skills required in engineering disciplines, the concepts of source and object programs, compilation, data and program distinction.

MIS106 Computer Applications in Business

The course is a study of microcomputer applications software, including operating systems, word processing, presentation graphics, spreadsheet, and implementation of solution using appropriate application software. The course helps to develop integrated business microcomputer based applications.

MIS201 Computer Applications II

The course helps to develop integrated business microcomputerbased applications. It emphasizes on design principles of transaction processing, management reporting, decision support, and executive support.

Pre-requisite: MIS 103

MIS301 Graphics I

Graphics I course divided into 4 main sections – elements of design, principles of design, typography and color theory as applied to print, TV and digital media. In this course, students learn the fundaments of design by way of interactive exercises, group/ individual assignments, presentations and studio work and develop their portfolio.

MIS302 Graphics II

Graphics II takes the students' understanding of visual graphics to a higher level through the use of Photoshop, Illustrator and allied software. This is an applicative course requiring students to work on specific design projects using a variety of creative tools and treatments, to create original print and brand design work including logo designs, art posters, commercial posters, and book designing.

MIS305 CRM Systems and Applications

This course examines customer relationship management (CRM) as a key strategic process within all organizations and serves as a foundation course in the Service Management Program. CRM is defined as the overall process of building and maintaining profitable customer relationships by delivering value and satisfaction to the customer. Focusing on process, strategy and technology, this course leads students from understanding the fundamentals of CRM through the implementation of CRM systems and analysis of customer data.

MIS401 Computer Applications

The course is a study of information technology used in business information systems, including input, processing, storage and retrieval, output hardware and software, including operating systems and management reporting, decision support, and executive supportsystems. Itemphasizeson microcomputer applications software, including operating system, word processing, presentation graphics, spreadsheet, database software, design principles of transaction processing and executive support systems.

MIS402 Computer Concepts and Applications

This course has been designed for students to learn basic concepts of Management Information Systems, components and types of MIS, relationship between information technology and MIS; information about software, their types and application, hardware components of a computer system; devices attached to a computer, use of internet, e-mail and e-commerce.

MIS403 Web Authoring

The course provides an introduction to IIS, internet architecture, creating simple web document, HTML, DHTML, linking web pages together, advanced formatting options, adding images to web document, CGI forms, etc.

Pre-requisite: MIS 401, MIS 402, MKT 301/401

MIS404 Computer Programming Language

The course includes computer cultural impact, its history and uses the essential features of computers and computing systems, problem analysis, development of basic algorithms, introduction to a high level language with general applications, digital computer organization, machine language, instruction execution, addressing techniques, digital representation of data symbolic coding and assembly system, macros, conditional assembly; I/O control subroutine linkage, system and utility programs.

Pre-requisite: MIS 401

MIS405 Computer Applications - E-Business

The course provides Understanding of e-Business models and their influence on the supply chain structure Knowledge of standards and basic technologies of e-business IT solutions Ability to design B2B-solutions. Introduction into B2B-concepts.

MIS406 Operations Research

The course focuses on the nature of operations research, formulating problems and objective analysis, types of problems, risk situation, sequential decisions models, linear programming model, graphical method, simplex method, etc.

Pre-requisite: MIS 401

MIS407 Programming in JAVA

Introduction to object oriented methods, fundamental programming structure in JAVA, GUIs, apples, application, script programming, JAVA database connectivity, JAVA beans, etc.

Pre-requisite: MIS 401, MIS 404

MIS408 Web Page Development and Adobe Photoshop

The course includes an introduction to World Wide Web, hypertext and browser; basic HTML and WWW linking web page together; creating simple web documents, advanced formatting options, adding tables to web pages, adding images to web documents; working with URLs, using external media and plug-Ins, linked windows and frames; uploading web pages on internet server, CGI and forms, image maps and dynamic documents.

MIS409 Computer Applications and MIS

This course has been designed to teach basic concepts of Management Information Systems, components and types of MIS, relationship between information technology and MIS, information about software, their types and application, hardware components of a computer system; devices attached to a computer and the use of internet, e-mail and e-commerce.

MIS411 Graphics and Animation

This is a practical course which aims to make the student familiar with the use of software to produce different types of graphics and animation in their films and presentations.

MIS413 Information Technology I

The objective of this course is to provide students with adequate knowledge of computer hardware and software; important elements and concepts of information systems; basic principles of computer programming and computer software application. It also gives an insight in the IT Security and controls; focuses on practical experience on performing various general procedures and the use of standard packages.

MIS416 Information Technology II

The course will advance students' IT knowledge and also allow them to expand into new areas. It offers students the opportunity to study new and emerging areas of advanced information technology (IT). Students will have a sound theoretical and practical basis for beginning or continuing a professional IT career. Pre-requisite: MIS413

MIS501 Information Systems Management

The course covers information systems planning techniques, information systems portfolio analysis and management control and auditing techniques related to information systems. In addition, it focuses on organizing and managing international information systems.

Pre-requisite: MIS 103/401

MIS502 Electronic Commerce

The course covers information systems that provide services to multiple organizations linking many buyers and sellers electronically. The topics include telecommunications, electronic data interchange, and doing business on the internet. It emphasizes international information policy issues affecting electronic commerce. MIS 103, MIS 201, MIS 401 Pre-requisite:

MIS503 System Analysis and Design

The course focuses on the methodologies and software tools in analyzing business processes. Topics include business re-engineering and information systems cost-benefit concepts; total quality management concepts; systems-building methods, including the system life cycle, prototypes, and end-user development techniques. Pre-requisite: MIS 103, MIS 201, MIS 401

MIS504 Oracle/ Developer 2000

The course teaches design, implementation and management of relational database systems. The basic topics such as creation of tables, indexes, constraints (referential integrity), views and querying data and advanced topics such as rollback segments, parallel processing options and triggers are covered in the course. MIS 103, MIS 201, MIS 401 Pre-requisite:

MIS505 Software Engineering

The course introduces the architectural make up of some well-known operating systems (from micro to mini to mainframe systems). It also introduces different programming techniques using fifth-generation languages such as C++ to visual basic.

Pre-requisite: MIS 103, MIS 201, MIS 401

MIS506 Data Communication and Networking

This course is designed to teach from the very basic to advanced network design methodologies and modern trends in data communications. Design and implementation of windows NT server 4.0 covering topics such as installation of user accounts, groups, domains and trust relationships, sharing of drives, directories and files are taught. It also covers network protocols, such as NetBeui, IPX/SPX and TCP/IP and communication protocols. MIS 103. MIS 201. MIS 401 Pre-requisite:

MIS507 **Relational Database Management Systems**

The course includes continuation of data structure covering file structures & databases, random, indexed sequential inverted & multilist file structures, concept of data models, data security and data integrity, etc.

Pre-requisite: MIS 103, MIS 201, MIS 401

MIS508 Programming in C++

The course includes the basic concepts of object oriented programming, functions, classes, linked list and procedures. Pre-requisite: MIS 103, MIS 201, MIS 401

MIS509 Software Project Management

The course emphasizes the use of Computer-Aided Software Engineering (CASE) tools and object-oriented design and programming; configuration management and simulated project management; examination of software design issues and techniques. It includes a survey of design representation and a comparison of design methods; planning, scheduling and control of projects including cost estimating techniques; network analysis, time analysis, CPM and PERT, resource allocation, constraining & leveling; review of commercially available software and the use of PC based project management package.

MIS 401, MIS 406, MIS 505 Pre-requisite:

MIS510 **Object Oriented Systems Analysis and Design Elective**

The course introduces an object-oriented and web-based software focusing upon the object model describing classes, their relationships to other objects, and their attributes and operations. Pre-requisite: MIS 407, MIS 503

MIS511 E-Commerce, Web Design and Graphic Design

The course introduces students to the multi-disciplinary field of electronic commerce; basic e-commerce concepts; a review of relevant internet technologies; LANS, internet, DNS, web browsers, HTML, HTTP, databases, server architectures; commerce workflow models, business models for e-commerce, the value chain, roles and functional architectures; protocol architectures, issues of compatibility portability, transaction processing: database integrity, transaction processing (local key cryptosystem, internet security and security applications for e-commerce. MIS401

Pre-requisite:

MIS521 Record Management

This course particularly caters to the needs of management responsibilities; IT professionals and perspective on some of the unique issues facing the management of IT professionals. Organization Leaders often set the tone and establish the benchmarks for success. In this course, the focus is on developing a successful leadership style that facilitates team-building, collaboration, and a corporate culture that promotes success. Different decision-making techniques will be explored in the context of successful leadership styles.

MIS102/MIS401/MIS402 Pre-requisite:

MIS522 **Business Information Systems**

The course provides strategic views of information systems in modern business as well as the opportunity to examine and build IS solutions. It also provides ample opportunities to gain practical programming skills necessary for successfully developing business applications using modern development technologies and methodologies which constitute the core of this course.

Pre-requisite: MIS102/MIS401/MIS402

MIS523 Decision Systems

The course helps to gain an insight into different decision levels and practical problems of organizations. The course emphasizes the study of decision theory, decision systems development and enabling technologies. The course includes the application and critical evaluation of methods and technologies in the decision-making path in current business scenarios. Pre-requisite: MIS522

MIS524 Decision Support Systems

This course provides a review of the literature in the area of decision support systems (DSS) and DSS frameworks, the process of decision-making and issues involved in the design, implementation and evaluation of DSS. Additional topics include data mining, user interfaces, knowledge-based DSS, and research directions in DSS; the design and implementation of a DSS prototype. Pre-requisite: MIS523

MIS525 Enterprise Systems

This course examines enterprise systems from the perspectives of Information systems and operations management. It examines integrated computer-based cross-functional information systems, commonly referred to as Enterprise Resource Planning (ERP) systems, designed to support an organization's information needs and operations. Common business processes, re-engineering/change management, and enterprise reference models are introduced from a holistic perspective. The course considers issues associated with the selection, analysis, design, implementation, and configuration of such enterprise systems. It investigates how such systems implement transaction processing, management information, and decision support across an organization's various business processes. Strategic issues relating to success/failure and human aspects will also be introduced.

Pre-requisite: MIS501

MIS526 Enterprise Resource Planning Systems

This course examines the cross-functional integrated computerbased information systems, commonly referred to as Enterprise ResourcePlanning(ERP)systems.Systems,commonbusinessprocesses, re-engineering/change management, and enterprise reference models are introduced with a holistic and research-oriented perspective. It focuses on issues associated with the analysis, design, implementation, and configuration of such enterprise systems and investigates topics such as supply chain, planning and control systems, optimization, scheduling systems, electronic commerce and business information warehousing.

Pre-requisite: MIS525

MIS527 Information Security

The course presents technical arrangements for making information systems more secure. The process starts with defining the proper security requirements that are usually stated as a data security policy. Other topics include: identification and authentication, access control, security kernel, physical security, eavesdropping, hardware security, system software security, encryption techniques, public key infrastructure, security protocols and handling subversive software. Pre-requisite: MIS506

MIS528 Advanced Information Security

The course addresses concerns regarding confidentiality, privacy and the volatility of information resulting from the use of information technology. It emphasizes such managerial security issues as system security and controls, legal and ethical issues arising from protecting computer files both from a Pakistan and world perspective, disaster recovery and contingency planning and other tools used for protecting information system resources. Pre-requisite: MIS527

Pre-requisite: MIS527

MIS530 Information Systems Research

The course provides an opportunity for a substantive review of research in the discipline of information systems as the essential part. Behavioral, strategic and social issues relating to the design, implementation and impact of information technology applications will also be studied.

Pre-requisite: MIS501, MKT404

MIS532 New Perspectives on Organizations and Information Systems

The course investigates the major issues facing organizations in adopting, implementing and using information systems for competitive advantage. It also provides an opportunity to explore a set of critical issues from both an academic and practical perspective. The topics include strategic information systems, e-commerce, knowledge management, the emergence of the business process, ERP implementation, virtual teams and global IT, IS and developing countries, etc.

Pre-requisite: MIS522, MIS525

Marketing

MKT301/401 Principles of Marketing

The course is an introduction to the language and issues of marketing. The course focuses on basic marketing concepts, the role of marketing in the organization, and the role of marketing in society. Topics include market segmentation, product development, promotion, distribution, and pricing.

MKT302/402 Marketing Management

This is an intermediate level marketing course that incorporates a mix of lecture and case study approaches, rounding it off with a term- project aimed at understanding the practice of marketing management in the real business world.

Pre-requisite: MKT 301/401

MKT403 Sales Management

This course enlightens students on how organizations sales goals can be met in an effective & efficient manner through planning, staffing, training, leading & controlling organizational resources. The course teaches students to prepare sales plans and forecasting, territory planning, and time management among other topics. Pre-requisite: MKT 301/401, 302/402

MKT404 Methods in Business Research

Objective of this course is to introduce students with fundamental business research process and to provide them with the necessary skills in designing and conducting basic quantitative and qualitative research which can be applied to practical problems encountered in a business organization.

Pre-requisite: MKT 301/401, 302/402, STA 202/403/404

MKT405 Marketing Research

An Applied Orientation takes a unique functional and marketing approach that illustrates the interaction between marketing research decisions and marketing management decisions. This course is comprehensive, practical, and presents a balanced coverage of both qualitative and quantitative material around marketing research.

MKT501 Strategic Marketing and Planning

TThis course will provide a general understanding of the strategic marketing process, its relationship to the corporate strategy and the particular role of market driven strategies. It will provide understanding of the concept of market orientation and role of distinctive capabilities to deliver value to different product-markets. Pre-requisite: MKT 301/401, 302/402

MKT502 Graphic Design

This course prepares students to make marketing decision based on knowledge of visual/aesthetics and business considerations. It also covers paper proportioning and structural designing using different material vis-à-vis steel, aluminum, plastic, paper, etc and hence translating the brand concept to the final sales package. This module provides an appreciation of the factors affecting style, design, color perception, etc., in packaging. Pre-requisite: MKT 302/402

MKT504 Advertising

Advertising is a creative, and at times, controversial communicative genre that plays a central role in consumer culture. This course will challenge students to consider not only the creative dimensions of advertising but also to consider a sustainable social role for advertising.

Pre-requisite: MKT 302/402

MKT505 Industrial Marketing

The course includes the nature of the industrial market, analysis of customer procurement strategy, product policy, pricing, distribution strategy, sales force management and key account selling strategy. Pre-requisite: MKT 302/402

MKT506 International Marketing

This course analyses opportunities, distinctive characteristics, and emerging trends in foreign markets; explores alternative methods and strategies for entering foreign markets; organizational planning and control; and impact of social, cultural and economic. Pre-requisite: MKT 302/402

MKT507 Services Marketing

This course provides an in-depth appreciation and understanding of the unique challenges inherent in managing and delivering quality services. Students will have the opportunity to work with tools and strategies that address these challenges.

Pre-requisite: MKT 302/402

MKT508 Personal Selling

In this course students are taught the art of oral communication with potential buyers of a product with the intention of making a sale. Among marketing jobs, more people are employed in selling than any other field, hence this course gives good textbook knowledge to equip the student for such a position in the practical field. Pre-requisite: MKT 302/402

MKT509 Consumer Behavior

The course begins with providing an orientation on the concept of consumer behavior and its evolution with changing times with a cus on emerging segmentation and targeting.

MKT510 Direct and Digital Marketing

This course gives an insight into the nature and purpose of direct marketing and how companies can use the various promotional tools to gain a competitive edge. It differentiates the various elements of communication mix and explains where these are used to access targeted consumers.

Pre-requisite: MKT 302/402

MKT511 Brand Management

This course is designed to introduce the concept of brands, brand equity, brand identities, the value of brand as an asset and how they deliver value to all the stakeholders including the company. Students will develop appreciation of brand architectures, brand-product relationships, brand vision and brand positioning. Pre-requisite: MAN401, MKT 302/402

MKT512 Export Marketing

The course offers a guide to the practicalities of entering international markets. The topics includes international trade and regional comparative advantage, soliciting markets, documentation and financing of exports.

Pre-requisite: MKT 302/402

MKT514 Public Relations and Event Management

Courses on event management are the talk of the town nowadays because of the element of glitz, glamour, flamboyance and style associated with important social and corporate events like marriages, company conferences, seminars, workshops, product launches and a host of other activities.

MKT517 Media Marketing

This course teaches techniques which are used by marketers to sell media as well as methods employed to convince advertisers of how their applications can be used to obtain optimum results. Often this takes the form of presentations to advertisers and could include the preparation of a media plan for each campaign to help clients.

MKT519 Marketing of Financial Services

The growth and diversification of the financial services market has led to increasing competition for customers and the constant creation of new products. Significant regulatory developments, impact of technology and new entrants from the global arena and the challenge of retaining an ever so mobile consumer have a profound impact of competition in the sector hence the role of marketing is of creating and sustaining a competitive advantage.

Pre-requisite: MKT 301/401, 302/402

MKT520 Merchandising and Sales Promotion

The course aims to touch upon a frequently overlooked facet of marketing; visual marketing and the role it plays in sales promotions. The course will explore the definition and use of visual merchandising with an emphasis on local companies and then move on to the role it plays in sales promotion.

Pre-requisite: MKT 301/401, 302/402

MKT521 Distribution and Channel Management

The battle of consumer products is now fought in the field of distribution. Even the best advertising and communication and positioning strategy will not be capitalizing on the investments made until there are operational executions in the battlefield, i.e., distribution. Hence, this course has been designed to prepare students with a framework as well as operational plan for the execution of a successful distribution strategies related to the local multi-national and national environment, keeping in view the key elements of Pakistani markets.

Pre-requisite: MAN 101/301/401, MKT 301/401, 302/402

MKT526 Public Relations and Event Management

Public relations is increasingly being recognized as an important business function. Accordingly, this course prepares students to acquire a full understanding of the function of public relations in a complex, social, economic and political environment. This course will also familiarize the students with the processes, tools and techniques required for effective public relations.

MKT527 Integrated Marketing Communication

The objective of this course is to provide students with an understanding of integrated marketing communication from a conceptual point of view as well as its practical application in business organizations. It will focus on essential concepts such as the impact of communication and buying behavior, the role of promotional activities and tools, as well as provide insight into more advanced concepts and guiding principles of value-based IMC planning. Pre-requisite: COM402, MKT401

MKT530 New Product Development

This course educates students on the whole cycle of launching a new product. It engulfs areas right from conceptualization to research, design, testing, manufacturing and finally at the heart of it-marketing the new product.

MKT531 Retail Management

This course provides a good understanding of the concepts, strategies, and trends associated with a retail operation in the marketplace. It explores the current retail environment and key retail management strategies from managing merchandise and employees, to advertising and promotion.

MKT603 International Branding

This innovative course of International Branding is intended to strategically extend international marketing practices and strategies in companies desirous to explore global market opportunities outside their home country. This course would help them understand the tremendous global business opportunities available for them which are not yet explored.

MKT605 Pricing Models and Strategies

The Strategy and Tactics of Pricing show how to manage markets strategically—rather than simply calculate pricing based on product and profit—in order to improve their competitiveness and the profitability of their offers.

MKT606 Non-Profit Marketing

The course focuses on the impact of non-profit marketing in the social sector and the growing intersection between non-profit management and the business world.

MKT607 Islamic Marketing

The course takes an integrated business approach to the application of Sharia principles in the marketing of pure, halal/holy products and services. It shows students how to integrate the timeless principles of enviable Muslim ethics especially to pricing and advertising.

MKT608 Small Business Marketing

The course is specially designed to help small businesses with limited resources to design effective and competitive marketing programs.

Mathematics

MTH101 College Algebra

The course is a review of exponents, equations and inequalities, function notation, composition and inverse, linear, quadric, polynomial, exponential and logarithmic functions and their graphs.

MTH102 Pre-Calculus

The course helps student to learn basic mathematics like algebra, factorization, geometry and trigonometry, introduction to functions and matrices.

MTH103 Calculus for Business Decisions

The course includes the concepts and business application of functions, differential and integral calculus, optimization methodology, transformation and assignment model. Pre-requisite: MTH 101

MTH107 Calculus and Analytical Geometry

The course includes functions, limit, derivatives, integral calculus with applications, vector algebra, vector calculus, introduction to analytical geometry, straight line in R3, planes, cylindrical and spherical coordinates, surfaces, cylinders and spherical trigonometry.

MTH109 Applied Calculus

Introduction to functions, introduction to limit, derivatives and their applications, integral calculus with applications, vector algebra, vector calculus, introduction to analytical geometry, straight line in R3, planes, cylindrical and spherical coordinates, surfaces, cylinders and cones, spheres, spherical trigonometry.

MTH202 Engineering Mathematics

The course covers vector algebra, dot & cross product, gradient, divergence & curl, functions limits, derivative, slope & rate of change, techniques of differentiations, higher derivatives, maxima/minima, optimization, integration techniques, matrices, solution of system of equations, fourier series, sequences & their convergence.

MTH204 Linear Algebra

Algebra of matrices; determinants, vectors in plane and in three dimensions; vector spaces; subspaces; span and linear independence; basis and dimension; homogeneous systems; eigenvalues and eigenvectors; systems of linear differential equations; orthogonal transformations; least square problems.

MTH205 Financial Mathematics

Considering the problem of derivates pricing in finance the necessary tools from probability theory and stochastic processes will be introduced in the course. The first part presents the main objects of interest from finance in the context of discrete models. Discrete probability spaces will be reviewed and fundamental results on Martingale theory will also be discussed including the optimal stopping problem applied to American options. The second part helps to move from discrete to continuous models. The course will include the celebrated Brownian motion and the associated Ito's stochastic calculus.

Pre-requisite: STA 301

MTH206 Multivariate Analysis

This course is designed to provide an integrated, in-depth, but applied approach to multivariate data analysis and linear statistical models in behavioral science research. The topics will include regression analysis, univariate and multivariate ANOVA and ANCOVA, disarmament analysis, logistic regression, canonical co-relation analysis. Principal components, will also be covered. Pre-requisite: MTH 204

MTH207 Stochastic Models and Math. Finance

The course is an introduction to mathematical modeling, analysis, and solution procedures applicable to uncertain (stochastic) production systems, including probability theory and stochastic processes.

Pre-requisite: MTH 205

MTH208 Differential Equations and Complex Variables

Solution of first order ODEs, Second and Higher order Linear ODEs, System of DEs, Homogeneous linear systems, Series Solution of ODE. PDEs methods with applications and complex numbers, Pre-requisite: MTH 202

MTH209/409 Financial Mathematics I

The measurement of interest, Solution of problems in interest, Basic annuities, More general annuities, Amortization schedules and sinking funds.

Pre-requisite: MTH104

MTH210/410 Financial Mathematics II

Bonds and other securities, Yield rates, Practical applications, More advanced financial analysis, The term structure of interest rates, Duration, convexity and immunization, Stochastic approaches to interest.

Pre-requisite: MTH209/409

MTH211 Actuarial Mathematics

Advanced problems in life contingencies; force and laws of mortality; premiums and reserves for insurance and annuities based on a single life; joint life probabilities, annuities and insurances; multipledecrement theory; pension fund mathematics are a part of this course.

Pre-requisite: STA203/205

MTH215 Differential Equations

Solution of first order differential equations by various methods and their applications, Second and Higher order Linear differential equations with engineering applications, System of Differential Equations, Homogeneous linear systems with constant coefficients, Series Solution of Differential Equations.

Pre-requisite: MTH 107

MTH216 Complex Variable and Transforms

Complex numbers and Complex Analytic function, Fourier Series, Laplace Transforms, Properties, derivatives and Integrals, Evaluation of Integration by Laplace Transforms. Inverse Transforms, Method of Partial fractions, Unit step function, Application to differential equations.

Pre-requisite: MTH 215

MTH222 Discrete Structure

The topics covers proposition calculus, predicate calculus inference imprecation, recursive functions, sequences and series, inclusion/ exclusion, recurrence relations, graphs and trees, Boolean algebras, and ordered sets, computer related arithmetic.

MTH224 Multivariable Calculus

The course includes techniques of integration, areas between curves, continuity of functions of several variables, partial differentiation, line integral, multiple integral, calculus of variations. Pre-requisite: MTH104/401

MTH400 Mathematics for Business

This course is designed for all business students. It will assist students in reaching a level of increased competence in mathematics and expanded understanding of the applications of mathematical concepts in business activities. Emphasis is placed upon learning mathematical concepts through practical application to common business problems.

MTH401 Calculus I

The course covers functions, system of linear equations, Crammer's rule, sequences, limits and continuity, differentiation, mean value theorem, maxima and minima and integration of simple functions.

MTH403 Numerical Computing/ Analysis

The course covers errors, calculations and importance in numerical computing; various methods of solution of non-linear equations, Newton's method and condition of convergence, interpolating polynomials, forward differences () Newton's Forward (NF) polynomial, backward differences (), Newton's Backward(NB)polynomial; erroranalysis, unequalspacedvalues, inverse interpolation; numerical differentiation, formula for higher derivatives, numerical integration, rectangular rules; trapezoidal rule, simpson's 1/3, 3/8 and 14/15 rule, romberg's approximation, gauss's quadrature, and multiple integrals. MATLAB and a programming language will be used to teach all topics.

MTH406 Finite Element Analysis (FEA)

The course includes variation function, interpolation function, onedimensional finite elements, two-dimensional finite elements; boundary-value problems, variational principles, Galerken approximation; partial differential equations, initial value problems and numerical integration.

Pre-requisite: MTH 208

MTH407 Mathematics for Business

This course is designed for all business students. It will assist students in reaching a level of increased competence in mathematics and expanded understanding of the applications of mathematical concepts in business activities.

Mathematics & Statistics (Scientific Computing)

MTS610 Calculus of Variations

Calculus of variations concerns problems in which one wishes to find the extrema (usually the minima) of some quantity over a system that has functional degrees of freedom. In this course it is shown that such variational problems give rise to a system of differential equations, the Euler-Lagrange equations. These equations, which have far reaching applications, and the techniques for their solution, will be studied in detail.

MTS611 Statistical Inference

The theory of statistical inference underpins statistical design, estimation and hypothesis testing. Topics covered include, Frequentist and Bayesian approaches, sampling distributions, Sufficiency, likelihood, asymptotic properties of estimators, Bayesian Inference and Likelihood ratio tests.

MTS612 Numerical Methods for ODEs and PDEs

This course will cover numerical solution of (PDEs) and (ODEs). Applications will include the Poisson equation, heat equation, wave equation, and nonlinear equations of fluid, solid, and gas dynamics.

MTS613 Design of Experiments

Introduction to linear models; experimental design; fixed, random, and mixed models. Factorial and fractional factorial designs. Taguchi designs and applications. Incomplete block designs, Response surface designs with applications and Mixture experiments.

MTS614 Mathematical Statistics

This course covers Probability theory, marginal and conditional distributions. Introduction to stochastic processes, Markov chain, generating functions, functions of random variables and derived distributions, sampling distributions, methods of estimation.

MTS615 Dynamical Systems

This component aims to give an overview of the main aspects of nonlinear systems and to provide definitions and theoretical background. This course will address issues under Continuous Dynamical Systems, Discrete Dynamical systems, and Non-linear waves.

MTS616 Advanced Numerical Analysis

Direct and indirect methods for solving linear equations and matrix inversion, conditioning eigenvalues and eigenvectors. Functional approximation, methods for ordinary differential equations. The student is also introduced to use some software packages.

MTS617 Multivariate Statistics

Topics include matrix algebra, random sampling, multivariate normal distributions, multivariate regression, MANOVA, principal components, factor analysis, Discriminant analysis. Statistical software, such as SAS or R, will be utilized.

MTS618 Statistical Modeling & Computation

This course describes how to use R to build statistical models and use them to analyze data. Multiple regression, followed by logistic regression, is applied to Poisson model for count data. Computational techniques such as Monte Carlo, Jackknife and Bootstrap using R, will be discussed.

MTS619 Time Series Analysis

Studies the basic time series models in both the time domain (ARMA models) and the frequency domain (spectral models), emphasizing application to real data sets.

MTS620 Asymptotic Analysis

Topics covered may include Asymptotic expansions, (non) convergence, algebraic equations with small parameters, eigen value problems, Asymptotic evaluation of integrals: Laplace's method, method of stationary phase, Boundary layers, principle of dominant balance, matched asymptotics with applications to physical problems, Boundary layers in PDE's, Method of multiple scales, WKB theory, and Exponentially ill conditioning.

MTS621 Stochastic Processes

This course covers probability theory, models with unpredictability, queues and population growth. Markov chains, Poisson processes, random walks, branching processes, first passage times, recurrence and transience, stationary and limiting probabilities.

MTS623 Applied Regression Analysis

This course explores, applied methods in regression analysis. Topics include linear and multiple regression and model building, ANOVA as regression analysis, analysis of covariance, model selection and diagnostic checking techniques, nonlinear regression, and logistic regression.

MTS625 Theory and Practices of Forecasting

Time series data properties and analysis, temporal dependencies, and applications in areas such as economics, engineering and the natural and social sciences.

MTS626 Advance Convex Analysis

In this course we shall cover the elements at the heart of convex analysis: sub gradients, optimality conditions, the Fenchel conjugate, and duality.

MTS627 Statistical Quality Control

Statistical quality control courses introduce students to the product design and control process. Course assignments may include creating sample quality control plans. Students examine a company's production and processing capacity, along with the product quality loss when production exceeds that capacity.

MTS628 Advance Numerical Optimization

Topics may include, Karush-Kuhn-Tucker optimality conditions; Convergence, Newton and quasi-Newton methods; Nonlinear conjugate gradient methods; Levenberg-Marquardt methods; quadratic programming and nonlinear programming; penalty- and barrier-function methods.

MTS629 Machine Learning & Pattern Recognition

This course is a foundational course for anyone pursuing machine learning, or interested in the intelligent utilization of machine learning methods. The primary aim of the course is enable the student to think coherently and confidently about machine learning problems, and present the student with a set of practical tools that can be applied to solve real-world problems in machine learning, coupled with an appropriate, principled approach to formulating a solution.

MTS631 Production Quality Software

The course will cover the techniques used by most successful software engineers to address problems of quality and complexity. Goal is to learn how to write software that is robust, reusable, and maintainable by practicing the craft thoughtfully and critically through assignments and code reviews. Topics covered include, The Java Language - Overview, features, and best-practices., Concurrency - The Java Memory Model and thread-safety. Object-Oriented Design - Guidelines for good designs. Design Patterns - Solutions for common software design problems. Refactoring - When to modify existing code and how to do so safely. Test-Driven Development - Ensure your code works the way you expect and doesn't break when you change it.

MTS632 Advance Variational Inequalities

The theory of variational inequalities treats optimization problems over convex sets. In this course we study the existence, uniqueness and regularity of the solution of a variational inequality. Applications and numerical methods will also be discussed.

MTS633 Fundamental Algorithms

This is an introductory course in algorithms. We will cover standard topics such as sorting, divide-and-conquer, various data structures, graphalgorithms, dynamic programming, greedy algorithms, and - time permitting - NP-completeness and basic approximation algorithms. The emphasis will be given to arguing the correctness of algorithms and performing the analysis of their running time.

MTS634 Advance Numerical Linear Algebra

Matrix computations lie at the heart of most scientific computer codes. In this course, we will study how to perform such computations efficiently and accurately. Topics will include Gaussian elimination, singular value decomposition, eigenvalue solvers and iterative methods for linear systems.

MTS635 Information Retrieval & Data Mining

The course is aimed at an entry level study of information retrieval and data mining techniques. It is about how to find relevant information and subsequently extract meaningful patterns out of it. While the basic theories and mathematical models of information retrieval and data mining are covered, the course is primarily focused on practical algorithms of textual document indexing, relevance ranking, web usage mining, text analytics, as well as their performance evaluations. Practical retrieval and data mining applications such as web search engines, personalization and recommender systems, business intelligence, and fraud detection will also be covered.

MTS636 Advance Hilbert Space

Inner product spaces, geometric and metric properties of Hilbert spaces, orthogonal expansions and projections in Hilbert spaces. Bounded linear functional and operators, compact operators on Hilbert spaces. The spectral theorem for self adjoint compact operators.

MTS637 Simulation and Modeling

This course describes analytical and simulation techniques, probability distributions and their properties, Introduction to modeling and simulation concentrating on building business cases. Matlab and/or R will be used to solve formal problems and explore knowledge management

MTS639 Principles in Parallel Computing

This course is designed for both academic and industrial scientists interested in parallel computing and its applications to large-scale scientific and engineering problems. It focuses on the three main issues in parallel computing: analysis of parallel hardware and software systems, design and implementation of parallel algorithms, and applications of parallel computing to selected problems in physical science and engineering. The course emphasizes handson practice and understanding of algorithmic concepts of parallel computing.

MTS641 Continuum Mechanics

Topics will include kinematics, stress analysis, balance laws (mass, momentum, and energy), the entropy inequality, and constitutive equations in the framework of Cartesian vectors and tensors. Emphasis will be placed on mechanical principles that apply to all materials by using the unifying mathematical framework of Cartesian vectors and tensors.

MTS642 Geometric Methods in Mechanics and Physics

Topics include smooth manifolds and mappings, tangent and normal bundles. Vector fields and flows, Distributions and Frobenius' theorem. Matrix Lie groups and Lie algebras. Exterior differential forms, Stokes theorem, Hodge Theory and Finite Element Method.

Media Studies

MMM301 Photo Journalism

This hands-on, advanced level course for students majoring in Journalism draws on and develops their skills of visual storytelling, enhances their capacity to research and structure impactful stories, and communicate ideas through pictures and words, in a manner expected of a trained photojournalist. Pre-requisite: MMM332

MMM302 Logic and Critical Thinking

This course seeks to develop the faculties of reasoning and critical thinking. It is designed to train students in analyzing arguments critically, using classical and current logic tools and applying them to real life contexts.

Pre-requisite: SSC101

MMM303 Outline of Political Science

This course is designed to take students through the process of evolution of political ideas and development of political institutions. Discussions relate to the rise of the state, its institutions such as legislature, executive and judiciary, and their working in different countries.

Pre-requisite: SSC104

MMM304 Media Literacy

Offered early in the program, this course will develop students' skills for critically analyzing media content, and understanding the purpose and meaning of messages disseminated by traditional and contemporary media.

Pre-requisite: MPY301

MMM307 World Civilization and Culture

This course focuses on the impact of past civilizations on human culture and society. Starting with the Egyptian, Babylonian, Greek, and Roman civilizations, the discussion hones in on the evolution of Western and Islamic culture as reflected in the arts, music, literature, scientific and philosophical thinking of the last two centuries. Pre-requisite: MMM303

MMM308 Contemporary World Media

This course brings out the richness and diversity of media at a global level and the universal concern with regard to its role as the fourth estate. It also highlights problems encountered by or attributed to media, and the challenges faced by it in satisfying a public that is not only better informed, but also holds media accountable for its actions. Pre-requisite: MMM305

MMM310 News Writing and Reporting

This first news writing course familiarizes students with what news is, how to identify a possible news story, how to gather all the information related to it, and how to present it effectively. It also seeks to acquaint them with reporting techniques for stories related to crime, court cases, political and social issues, education, etc. Pre-requisite: MMM304

MMM311 Introduction to Broadcast Media

This course introduces students to the world of broadcast media and the internet. It aims to provide comprehensive understanding of the historical, technical, legal and commercial aspects of radio and TV as well as new media. Apart from covering the theoretical dimension, this course also provides ample opportunity for practical, hands-on learning.

Pre-requisite: MMM310

MMM312 Introduction to Advertising and PR

This introductory course exposes students to the structure and working of advertising and PR agencies. Students learn about the concepts, practices, principles, tools and techniques of the two interrelated fields, as well as gain insight into the benefits of integrating advertising & PR. Pre-requisite: MMM304

MMM313 Theater Arts

This course is designed to increase student's understanding of theater as a performing art form. Students will explore and experience dramatic structures and styles, acting and directing, theater design and architecture. They will view and critique one or more live play productions, and present their own plays as their term project. Pre-requisite: LAN113

MMM314 Online Journalism

This course exposes students to the practice of web journalism and its capacity to reach vast audiences with speed and alacrity. Students learn to research, write, edit and publish news on the web, through blogs and websites, and to assess their impact. Pre-requisite: MMM310

MMM315 Feature, Article and Column Writing

This course is intended to develop specialized writing skill among students of journalism. It is a practical course that trains students to write as a professional for newspapers, magazines, and other media platforms.

Pre-requisite: MMM316

MMM316 Sub Editing

The purpose of this practical course is to train students in the techniques of copy editing, headline making, page layout construction, besides rewriting, restructuring and improving copy, that make up a Sub-Editor's job. Students also use their knowledge of InDesign software for designing of page layouts.

Pre-requisites: MMM310 & MMM363

MMM318 Economic Journalism

This course seeks to develop students' ability to understand and report on news related to economics, finance and trade. Students learn to analyze financial statements, and understand the operation of banks, financial institutions, stock exchange, and to communicate complex financial news and information in simple laymen's terms. Pre-requisite: ECO106

MMM321 Development Communication

This course highlights the importance of socio-economic development, and provides a strong theoretical basis for scrutinizing a country's development projects and commenting on developmental issues in a constructive manner.

Pre-requisite: MMM307

MMM322 Current Affairs

In this course students improve their understanding of current affairs, engage in critical thinking, and develop comparative perspectives on issues. They enhance their debating skills, and the ability to write on current affairs topics for traditional as well as new media (Facebook, Twitter, and blogs).

Pre-requisite: MMM318

MMM324 Media Management and Marketing

This course examines the different approaches to business management in media organizations, with a focus on their common as well as differentiated marketing strategies and practices. Pre-requisite: MMM328

MMM327 Studio Production

This practical course introduces students to a real-life, production studio environment, as well as to the craft of writing, editing and producing news, talk-shows, and other programs for TV. Students learn by playing the roles of news and script writers, anchors, producers, directors, actors and studio crew under professional guidance.

Pre-requisite: MMM310

MMM328 Methods in Media Research

This comprehensive course seeks to develop students' understanding of the tools and techniques of qualitative and quantitative research such as questionnaires, interview and discussion guides. It also teaches them to identify credible data sources and use them as the basis of creating impactful news stories.

MMM329 Creative Writing Workshop

This is a mid-level course aimed at optimizing the writing skills of students. It is built around extensive reading and writing assignments. Readings will cover classical and contemporary writers, specializing in fiction and nonfiction genres. Emphasis will be placed on developing the capacity for creating original writings of an elevated standard. Pre-requisite: COM109

MMM330 Appreciation of Vernacular Literature

This course is specifically designed to develop deeper understanding of the cultural and historical evolution of languages in South Asia, focusing primarily on Urdu. It will use a variety of literary genres to arouse students' interest in discovering the nuances of the language, and its development along cultural and historical timelines. Pre-requisite: LAN113

MMM332 News Production / News Anchoring

This advanced level, studio-based course for Journalism majors, aims to develop the required skills for producing news packages for, and anchoring on television. The course teaches the students to do stand-ups, interviews, voice-overs, sound bites, and cutaways, in order to tell the journalistic story effectively and professionally. Pre-requisite: MMM327

MMM333 Sports Journalism

This specialized course familiarizes students with the tools and techniques of sports journalism. Class discussions focus on a variety of major sporting events and review their coverage in print and electronic media. Students visit field locations for real time news coverage, where they also interact with and learn from professional journalists.

Pre-requisite: MMM315

MMM335 Magazine Production

This course covers magazine design fundamentals i.e. typography, image research assignments, pre-press and manufacturing process, using traditional and computer-based tools and techniques. Every student must produce a sample online magazine during the term, going through a series of workshops, presentations and revision sessions.

Pre-requisite: MMM316

MMM336 Human Rights and Gender Reporting

This course is designed to familiarize students with the nuances of reporting on human rights violations. It relies on lectures, assignments and field visits to develop deeper understanding of issues related to the vulnerable segments of society i.e. women, children, religious minorities, and to enhance students' ability to write on these issues. Pre-requisite: MMM310

MMM337 Thesis (Journalism)

This capstone project for Journalism majors will test their understanding of the tools and techniques of academic research, as they go through the process of selecting a research topic, developing a formal research design, undertaking literature review, collating, analyzing and interpreting field data and writing the final research report.

Pre-requisite: MMM328

MMM338 Cinematography I

This introductory course provides the technical foundation for developing students' understanding and skill in the art of "visual storytelling". Students will learn to work with camera and light in a variety of conditions.

Pre-requisite: MMM363

MMM342 Advanced Filmmaking – The Art & Craft I

This course is designed as "a commissioned project" where students will work for an "external client" based on their brief. This will include all aspects of filmmaking including idea creation, screenwriting, story-boarding, and selection of music and sound. Pre-requisite: MMM355

MMM344 Screenwriting for Film & TV

This dedicated course will enhance the students' screenwriting skills i.e. "writing from a visual point of view", for TV. The thrust of the course will be on learning from the work of professional scriptwriters, and cover the principal genres and formats. Written assignments will be used to measure progress, and grade the work of students. Pre-requisite: MMM329

MMM349 Radio I

This course will introduce students to contemporary radio broadcasting. They will learn about radio journalism, broadcasting qualities and responsibilities, radio news style, magazine programs and interviewing for radio. Pre-requisite: MMM332

MMM350 Radio II

In the Radio II course, students will practically experience radio broadcasting in a fully functional FM radio station, under faculty supervision. They will take on diverse roles and responsibilities and be graded on their assignments related to developing and broadcasting programs, live news bulletins as well as covering on-campus activities. Pre-requisite: MMM349

MMM351 Production Management

This course is designed to familiarize students with essential pre-production areas such as script development, budgeting, casting, set construction, and scouting for locations, required to produce video films for television. Pre-requisite: MMM363

Pre-requisite. Minimisos

MMM352 Advanced Production Management

This advanced course aims at equipping students with the required skills of a TV Producer. This would include hiring/ managing cast and crew, organizing studio and equipment, communicating ideas for production, as well as the film's promotional aspects. Class lectures and practical assignments will be the methodology used. Pre-requisite: MMM351

MMM353 Lighting Design

This course will introduce students to the fundamentals of lighting design and use of studio lighting equipment. Students' own skills will be developed through observing, questioning and working with an experienced lighting technician. Pre-requisite: MMM361

MMM354 Introduction to Editing & Sound Design

This initial course will focus on two interdependent areas of digital editing and sound design. Students will practice their skill in nonlinear video editing using FCP software, to edit different for types of production such as action, dialogues, comedy etc., and experiment with sound tracks to enhance the impact of the edit. Pre-requisite: MMM363

MMM355 Production of Documentary

This introductory course in nonfiction production will take students through the stages of conceptualizing, researching, scriptwriting, and producing video documentaries. It will focus on learning through observation, discussion and practicing with different treatments, styles, and production techniques. Pre-requisite: MMM338

MMM356 Ad-Film Production

The focus of this course will be on the "ad-film genre", taking students through the creative process, starting off with idea generation or scripting o copywriting, storyboarding, casting, choice of locations, set-designing/ construction, shooting, editing, post-production and sound mixing to arrive at the finished "station material".

Pre-requisite: MMM355

MMM357 Advanced Editing & Sound Design

In this course students will aim at polishing their picture competency and sound competency skills. They will learn about sound track creation for film/TV, working with several strata of sound possibilities, ranging from music to general ambience, and perfect their skills in field-recording and sound editing. [Pre-requisite: MMM354]

MMM358 Advanced Cinematography

This advanced level course will provide students with a deeper understanding of the technical properties of lenses, filters, and lighting through lecture sessions, workshops, and screenings. Students will develop their technical skills, practice video image making, develop critical thinking skills, and their own film language and style.

Pre-requisite: MMM338

MMM359 Graphics and Animation for Web

This course covers the concepts and application of graphic design for the Web. Students will create and maintain their own websites paying attention to design fundamentals such as color, typography, imagery and composition. Web publishing software, simple animation and basic XHTML will be covered. Pre-requisite: MMM342

MMM360 Introduction to Photography

This basic photography course will introduce students to the essentials of professional digital photography. It will teach them the techniques of digital photography in a practical and interactive manner, enabling them to obtain optimum results using varied themes, under different conditions.

MMM361 Fashion Journalism

This course covers various aspect of fashion journalism, from understanding fashion trends, to generating ideas for fashion features, reviewing shows, taking catwalk notes, working with photographers and photographs, interviewing designers, and writing reviews and pitching them to magazine editors. Pre-requisite: MMM301

MMM362 History of Filmmaking

This course aims at creating an appreciation of how filmmaking has evolved over the years into a powerful visual medium. Students will not only discover how sound, light, camera, and music come together to create the magic of film, but also how critical are passion, creativity, commitment, and teamwork to succeed in this vocation. Pre-requisite: MMM313

MMM363 Introduction to Design Tools

This course will introduce students to three practical graphic design software viz. Adobe Photoshop, Illustrator and InDesign, along with their application in photo-editing, web graphics, motion graphics, special effects, vector illustrations, and editorial design and page-making for books and magazines.

MMM364 Introduction to Mass communication

This is an introductory level course designed to provide students with an overview of print, broadcast and new media in terms of its structure and dynamics. The course takes students through the different stages of development of mass communication, and its impact on human society.

MMM365 Advanced Filmmaking – The Art & Craft II (Studio)

The "Studio" component of the final Advertising Filmmaking course will be divided between guest lecture sessions and preparation for the thesis/ creative project. High-caliber guest lecturers drawn from the industry will share first-hand knowledge of the challenges of practical filmmaking and project management. Dedicated studio sessions will concentrate on refining students' technical skills required for accomplishing the thesis. Pre-requisite: MMM342

MMM366 Advanced Filmmaking – The Art & Craft II (Thesis)

This capstone course will draw on students' integrated knowledge, skill and understanding of digital filmmaking. Each student will produce two short films of 20-30 minutes duration. Out of the 90 hours scheduled for this course, a third will be used for lab and review sessions, and two-thirds for fieldwork, editing and post-production. Pre-requisite: MMM365

Media Management

MMM423 Specialized Communication Skills

The course is designed to train and equip students with specialized verbal and written communication acumen required in efficient and effective information and entertainment dissemination through print and electronic media and advertising and public relations.

MMM427 Citizen Journalism

Students are familiarized with such aspects of Citizen Journalism as civic and social issues or problems pertaining to education, health planning, vehicular traffic, public utilities, etc. This course does not only identify issues and problem as regards social and civil life but also enables students to devise and apply practical models to address them through media efficiently and effectively. Pre-requisite: MMM435/438

MMM428 Script Writing

The art of script writing is best learnt through professionals in various fields of print and electronic media in terms of conceiving an idea, developing a plan, devising convincing headlines, scripting the idea and concluding with an exclamation, if not a consensus. Pre-requisite: MMM435/438

MMM429 Digital Media

Digital Media includes interactive multimedia, digital video and film production, web design, image creation, digital animation, 3D modeling, digital sound technology, graphic designing, basically pertaining to digital technology as a part and parcel of electronic media.

Pre-requisite: MIS401

MMM430 Time, Priorities and Conflict Management

This course aims at providing fresh ideas and insights for media personnel to manage time and priorities in tough and tedious routine and special conditions by delegating work responsibilities or by skillful multiple tasks adjustments. Time and priorities management are intensively addressed in all media forms relating to radio, TV, newspapers and magazines as well as in advertising, public relations and event management, of course, according to local and indigenous conditions.

Pre-requisite: MAN401

MMM434 Media Planning

The course prepares the student for the changing media scenario by enabling them to specialize in the handling and effective selection of media. The course elaborates how the advertising budget can be used optimally across various media.

Pre-requisite: MAN401, MKT401

MMM435 Print Media

The objective of the course is to provide specific study of print media for those students who aspire for a career in newspapers, magazines, periodicals and other publications. The course teaches students about process and production of print media, printing technologies, production strategies, thus equipping the students with knowledge and skills to enter the print media industry. Pre-requisite: MMM438

MMM436 Electronic Media

This course prepares students to acquire a full understanding of the function of radio and television in all its modern manifestations, including cable TV. Students will learn how to formulate advertising plans & monitor results taking cognizance of problems, opportunities and regulatory matters.

Pre-requisite: MMM438

MMM437 Role of Media in World Affairs

This course teaches students the importance of media as a vehicle for creating an atmosphere conducive to international relations. It teaches the students how the media has undergone significant changes over the years and the power it has on the formation of public opinion and affecting the external environment for marketers and others.

Pre-requisite: MMM438

MMM438 Introduction to Media in Pakistan

This course comprehensively covers contents like print, electronic, out-of-home media in Pakistan The course also discusses the Pakistani environment in the context of media laws & ethics, the role it plays in world affairs, and marketing, planning and research processes prevalent in the country.

MMM439 Media Research and Public Opinion

Mass media research introduces graduate students to applied audience research for electronic media. The emphasis will be on Pakistan's media market and students will gain hands on experience with syndicated and custom audience research for print and electronic media. Students will be exposed to various aspects of media audience research including Gallup ratings for T.V, radio and cable TV and other music research. Students are expected to become familiar with the Pakistan media market specially in electronic media, based on TV, radio, cable systems and cinema through mass media research based on research process, research approaches, data analysis and research application.

Pre-requisite: MMM435/438

MMM511 Multimedia and Film Production

The course focuses on aspects of multi-media, video and film production. This course provides the student hands-on knowledge of planning, organizing, directing, controlling and promoting, provided by professionals from the field. The work-like atmosphere enables students to prepare for careers in this area.

MPhil in Business Management

MPM601 Advanced Qualitative Research

The course focuses on developing a working knowledge of a range of qualitative methods, methodological approaches, and theoretical framework of research to enable the participants to conduct qualitative research. Students will read research articles and case studies to propose and plan a study of their own selected inquiry.

MPM603 Advanced Quantitative Research

This course aims to provide students with a broad range of quantitative research methods and skills that are relevant across business psychology, business management, human resources, marketing, economics, finance and social sciences.

MPM605 Survey of Current Research Literature in Management

This course will enable students to explore recent research conducted in Business Management discipline and reported in reputed scientific journals. It will also aim at guiding research students to write literature reviews at the early stage of their research design, which form an important part of dissertation.

MPM607 Corporate Governance and Strategy

The course brings together a coherent research based set of concepts, tools and practices for training integrators (general managers/ directors) to handle cross-functional and cross-product sets of decisions. For advanced management researchers, this course aims to develop a useful set of examples and a rich source of research questions.

MPM608 Project / Research Practicum

The practicum course aims to provide students with real experience in a workplace environment, working on a challenging project. The practicum provides opportunities for students from all disciplines, including management, human resource management, finance, and marketing research.

MPM609 Seminar in Human Resource Management

The aim of the course is to equip the students with the latest concepts, techniques and practices of HRM and strategic HRM in a modern corporate environment. The course provides opportunities based on case studies to practically integrate HR functions with overall strategy of national and global organizations.

MPM610 Independent Study

This course will provide space to the participants coming from different disciplines to propose a research topic in their field on unpublished major work and complete the research in one semester for publication in any HEC recognized journal or read at conferences of international repute.

MPM611 Advanced Corporate Finance

The course has been designed to give extended / advanced knowledge about Corporate Finance. Extended topics like option valuation, risk and real options in capital budgeting, financing and dividend policies will be studied at length.

MPM614 Advanced Marketing Strategy

This course focuses on a relative connectivity of changing concepts and philosophy of marketing with application examples created by corporations to handle their complex marketing tasks to achieve intended results.

MPM616 Econometrics

The course provides the students with the fundamental econometric theory and concepts, and practical training to become sound applied economists who know what econometric methods to use in different circumstances and how to interpret and appraise the results of the empirical analysis.

MPM716 Hospital Planning and Organization

This course provides an overview of the evolution, structure and current issues in the health care system. It examines the unique features of health care as a product, and the changing relationships between patients, physicians, hospitals, insurers, employers, communities, and government. This course covers history and organization of the health care system, financing and utilization of health services, health status of the population, disease occurrence, legal aspects of health care and medical sociology. Government health policy formulation and implementation and its impact on health care.

MPM717 Health Institutions, System and Policy Management

This course focuses on managed care and market structure of the healthcare industry as a whole. It covers strategic planning and marketing of managed care services, operational issues in developing a managed care network, actuarial issues, and the management of physician behavior. In addition the course analyzes strategies of vertical integration and horizontal integration, and their attempt to alter the balance of power in local healthcare markets. This course highlights the operational issues in managing cost and quality in an integrated system, integration along the supply chain, and the performance of these systems, and the bargaining and negotiation between hospitals, physicians, and health plans.

MPM718 Global Perspective of Health Care Marketing

This course is aimed at creating better understanding an increasingly complex market environment for Healthcare product development and commercialization. It explores the facts and clarify the implications of ongoing thematic changes - the 5 D's - that are fundamentally transforming commercial decision making in health care markets from insurance and care delivery to pharmaceuticals, biotechnology, and devices.

MPM719 Integrated Leadership in HealthCare

This course describes the critical knowledge and skills needed to be effective leaders in today's complex healthcare environment. It covers conflict resolution, leadership and negotiation skills, strategic planning, and ethics. Within the context of healthcare advocacy, the course examines the organizational and individual issues that impact success in promoting and advocating for a healthcare agenda.

MPM723 Primary Health Care Management

In this course, students are introduced to philosophies and models of primary health care. Capacity building and community development are presented in relation to the socio-political environment in which care is delivered. Community nursing and midwifery are profiled as examples of primary health care initiatives.

MPM724 Managing Healthcare Ethics

This course provides an introduction to the relationship of law to health care, including liability, government regulation, financial and ethical issues, contracting and negotiation and dispute resolution. This course presents an overview of legal and ethical issues facing managers and providers in health care. It provides students with a foundation of health law and ethics and reviews a wide variety of health care legal and ethical situations and dilemmas.

MPM725 Managing Regulatory Affairs of Healthcare Industry

This course provides students with a basic understanding of the areas of regulatory affairs and quality operations within various healthcare industries, including pharmaceutical companies. Students are prepared for occupations involving drug or medical device submissions and quality assurance functions and roles. The issues of regulatory compliance in Pakistan as well as in other areas of the world are covered in the course.

MPhil Leading to PhD in Organizational Psychology

MPP601 Qualitative Research Methods in Psychology

This course provides an introduction to the qualitative research paradigm, issues of ontology, epistemology and methodology, research design using qualitative research methods, and theory building and theory testing. It focuses on several selected research approaches that will prepare students to undertake sound qualitative research.

MPP603 Quantitative Research Methods in Psychology

This course adopts a practical approach to teaching the analytical aspects of quantitative research techniques in psychology. It is designed to provide students with the basic background in research design and data analysis. The logic of statistical inference and scientific explanation, the merits and limitations of quantitative approaches to the study of psychological phenomena, and research ethics will all be discussed.

MPP605 Psychological Testing & Measurement

This course surveys the major concepts and techniques in the field of psychometrics, and provides students with some practical experience with commonly used tests. Topics covered include: the testing process; test standardization; reliability and validity; personality assessment; occupational applications; large-scale measurements; ethics and prospects.

MPP607 Independent Study in Organizational Psychology

This course is designed to propose a research topic in the field of Organizational Psychology in unpublished major work and to complete the research and publish it in HEC recognized journal. For independent study, the participants will be provided a suitable adjunct faculty member of the university, who is able to facilitate in completing the process of research and publication.

MPP609 Personnel Psychology in the Work Place

This course explores the application of psychological theory and practice to human resources activities in organizations. Topics include job analysis and design, employee selection and placement, performance management and appraisal, and legal and ethical considerations in human resources management.

MPP611 Human Factors in Work Environment

This course includes evaluation of human factors in man-machine relationships, with an emphasis on automation, systems analysis, displays, and adaptive problems to stress. It is designed to provide the principles of human factors in work environment; provide guidance into the means of optimizing the design of the workplace and the work system in order to maximize individual outputs.

MPP613 Organizational Conflict & Management

This course is based on the foundation that conflict is both "inevitable and beneficial" in successful organizations. We will examine interpersonal conflict, the role of organizational culture in conflict resolution and the impact of diversity on conflict. Skill development in conflict management and resolution will be based on a collaborative approach involving team- work, case analysis, and role-play.

MPP615 Project Practicum in Organizational Psychology

This course introduces students to work settings such as businesses corporations, banks, governmental and non-governmental organizations in which they will have an opportunity to apply the theories and subject matter of industrial/organizational psychology in the "real world".

MS/MPhil in Education Leading to PhD

MPE503 Education in Pakistan

The topics in the course include empirical and legal research on educational issues of Pakistan at the local and state, critical appraisal of Pakistani policies, facilitating communication between education leaders and policymakers, statutes and case law related to liability, student rights, employee relations and property use.

MPE601 Advanced Qualitative Research Methodology

The course focuses on developing a working knowledge of a range of qualitative methods, approaches, and theoretical framework of research. The course also introduces the participants to APA writing style and concepts of academic writing.

MPE602/ MPM603 Advanced Quantitative Research Methods

This course aims to provide students with a broad range of quantitative research methods and skills that are relevant across business psychology, business management, human resources, marketing, economics, finance and social sciences.

MPE604 Developing a Research Project

This course will enable the candidates to identify their own area of research interest in the field of Education to develop a synopsis for their projected thesis.

MPE605 Economics of Education

This course is designed to introduce participants to economic principles, theory, and practice as it pertains to educational systems and their impact on economic growth (e.g., investment, labor, productivity, cost, efficiency, supply and demand) to the context of education.

MPE606 Global Issues in Education

This course introduces the fundamental, conceptual, and ethical questions that global change is bringing about in contemporary education. The students will understand the importance, commonalities, differences, and connections between global and comparative education.

MPE610 Philosophical Foundation in Education

This course introduces the fundamental conceptual and ethical questions that global change is bringing about in contemporary education. Participants will learn the global dimensions of several crucial contemporary issues, including international security and human rights, the problems of global conflict, the hopes of global cooperation, and the complexity of educational accountability, authority, and professionalism. The course will understand the commonalities, differences, and connections between global and comparative education, and the meaning and significance of globalization for both fields. One distinctive characteristic of the course is the service learning element, i.e., practical experience in educational institutions with focus on issues of change juxtaposing nationalism and globalism. This will enable the participants to apply the philosophical knowledge they gain in a practical context.

MPE611 Readings in Education

This course will introduce the participants to a collection of readings together with some widely-read contemporary theorists to correlate with their goals and stimulate thinking, debating and further reading. The course will also provide an opportunity to the participants to critique books and articles.

Policy Studies

PLY101 Policy Making in a Globalized World

The course focuses on theory of policy – liberal, socialist and nationalist approaches. The state, the market and the individual in capitalist order; global policy makers – multinational, financiers, multilateral agencies and private sector raters; the surveillance standardization regime, the system pegemon and global policy; policy making in Pakistan, state policy makers; the State Bank; the impact of de-regulation and privatization. Private sector policy makers associations NGO's, the media and the influence of global policy on national policy making in Pakistan.

Pakistan / Islamic Studies

PRL301 Pakistan / Islamic Studies

The course covers various movements which led to the creation of the Islamic Republic of Pakistan. The history of Pakistan is discussed with an analysis of the various leaders and their contributions to the development process. The course discusses how different messengers of Allah came to spread His word. It further discusses the need for Islam: its five pillars, the life of the Prophet Muhammad (PBUH), the companions of the Prophet (PBUH), and the several Surahs, Ahadiths, and Ayats.

Political Sciences

PSC301 Pakistan Studies

The course on Pakistan Studies is an in-depth course covering various movements which led to the creation of the Islamic Republic of Pakistan. The history of Pakistan is discussed with an analysis of various leaders and their contributions to the process of national development. It also discusses the two nation theory in detail.

PSC401 Pakistan Studies and Current Affairs

The course is an in-depth study covering the various movements which led to the creation of the Islamic Republic of Pakistan. The history of Pakistan is discussed with an analysis of the various leaders and their contributions to the development process. Issues related to current affairs will also be discussed.

PhD (Business Management)

PBM701 Philosophy of Business Management

The objective of the course is to link the philosophy of the researcher's area of specialization to the theoretical and philosophical foundations of management sciences. It links the selected area with the classical, modern and postmodern discourses and sources of management. It explores past and present of management sciences in terms of epistemology, metaphysics, ethics, knowledge systems and political economy and helps in developing a sound and productive vision of future in the area of research.

PBM703 Multivariate Analysis

The course enables the identification of a set of techniques for analyzing data sets with more than one variable in the student's chosen area of research. Students would explore and identify relevant techniques from univariate analysis, bivariate analysis, analysis of variance, categorical data analysis, multivariate linear regression, discriminant analysis, canonical correlation, multivariate analysis of variance, principal component analysis, factor analysis, cluster analysis and logistic regression. This would lead the student to develop multivariate analysis techniques for their area of research and their justification.

PBM705 Readings in Business Research

This course enables the students to study high quality PhD dissertations and their research methodology in their chosen area of research. The students are expected to study the qualitative and quantitative research methodologies undertaken in their field and develop a template that they would use for their research plans, methodology, outcomes, results and research writing.

PBM707 Replication of Business Research Design and Results

Replication involves the process of repeating a study using the same methods, different subjects, and different experimenters. A qualitative assessment of the result comparison is carried out to identify similarities and differences and to discover assumptions or parameters underlying any variances. The applied research leads to the proposal of how the selected research may be extended and enhanced.

PBM801 Marketing Models

This course describes theoretical and empirical models used to analyze marketing management issues in the areas of product introduction and positioning, pricing, advertising, and distribution channels. The theoretical structure in the course comes from microeconomics of firm and consumer decision making, with special consideration of competitive issues. Theoretical, operational models in marketing, with emphasis on recent advances; in-depth criticism of models, participation in model development project. The empirical work draws from conjoint analysis, choice modeling, and multivariate techniques.

PBM803 Marketing Theory

Recent and classic research contributions to marketing theory development. The course addresses conceptual development and current practice in marketing decision-making. Topics critically examined include marketing orientation, competitive interaction, product development and introduction, channel relationship management, customer relationship management, advertising and promotion, pricing and revenues, and sales, service and quality.

PBM805 Advanced Topics in Marketing

Current state of knowledge in Marketing Research. As an introductory seminar, coverage will include current topics appearing in top marketing journals. Discussions will revolve around the reference disciplines and theories used in the marketing literature. This course will provide an in-depth introduction to a particular methodology or a particular setting that is relevant to research.

PBM811 Advanced Topics in Strategic Management

Current state of knowledge in strategic management. Topics may include the sources of competitive advantage, the role of industry evolution and technology, the organization of top management, and managerial decision-making and cognition. The course allows students to research alternative theoretical perspectives and available empirical evidence related to these topics.

PBM813 Advanced Topics in Organization Theory

This course introduces students to the major schools of thought in organization and management theory. It considers the development of the field, major and foundational works in these schools of thought, and provides a cognitive map with which to evaluate contemporary research and debates. At the end of the course the student will have an understanding of the strengths and weaknesses of each major perspective from the research.

PBM815 Advanced Topics in Human Behavior in Organization

This seminar examines theory and original research within the field of organizational behavior. The course covers a range of topics, including job performance, work attitudes (e.g., organizational commitment, job satisfaction), motivation, trust, justice, individual differences (e.g., personality), team structure and processes, power, leadership, and organizational culture. The primary emphasis is on the field's classic, ground-breaking, emperical and/or provocative research. Overall, the course exposes students to current research thinking and strategies within the field.

PBM821 Advanced Topics in Operations Management Research

This course provides a general introduction to the major research fields of operations management (OM). The focus will be on reading and evaluating current papers from prominent OM journals. The theory of science and the review process will be briefly discussed. Students are expected to have as mathematical background the equivalent of upper-level undergraduate or first-year graduate courses in optimization and probability or stochastic modeling. This course may be appropriate for some graduate students in engineering or computing science.

PBM823 Advanced Research Topics in Operations Management

This course will provide an in-depth introduction to a particular methodology or a particular setting that is relevant to research in operations management. The topic may vary from year to year. Possible topics include optimization modeling and formulation, stochastic modeling and optimization, behavioural research in operations management, and health care operations management. The required background for students will vary depending on the topic. This course may be appropriate for some graduate students in engineering or computing science.

PBM825 Advanced Research Topics in Management Information Systems

As an introductory seminar, coverage will include current and historical topics appearing in top information systems journals. Discussions will revolve around the reference disciplines and theories used in the MIS literature. This course will provide an indepth introduction to a particular methodology or a particular setting that is relevant to research in management information systems. Possible topics include applications of optimal control theory in management information systems and operations management, collaborative communication systems, and quantitative models for management information systems.

PBM831 Advanced Topics in Finance

This course provides introduction to the major research fields of Finance. The focus will be on reading and evaluating current papers from prominent Finance journals. This course provides an introduction to theoretical and empirical research work in asset pricing and market microstructure. Research topics may include market efficiency, time varying expected returns and volatility, test of asset pricing models, and models and analysis of price formation. They may also include contracting theory, the theory of the firm, corporate governance, capital structure, and dividend policy. The course may be repeated if the topics vary.

PBM841 Advanced Readings in Business Ethics

This course offers description and analysis of discourses of ethics ranging from Aristotle to postmodern ethicists. It also focuses on the applications of these theories in the fields of marketing, finance, technology, employer-employee relationship and the regulation of the corporation. This course presents advanced studies of liberal and neo-liberal, Marxist and neo-Marxist, Aristotelian and neo-Aristotelian, modern and postmodern, and communicative and pragmatist ethical approaches to business practice.

PBM842 Globalization Discourses of Ethics

This course offers an analytical contextualization of globalization in the framework of modern and postmodern ethical approaches, and addresses relevant ethical issues and their resolutions in theory and practice. It presents a theoretical framework for the ethics of globalization. This course surveys globalist and anti-globalist, hyper-pro-globalist and hyper-anti-globalist discourses from ethical standpoints. It studies the legal, economic, political, and cultural dimensions of globalization in connection with prospects of global civil society, cosmopolitanism and cosmocracy.

PhD (Computer Science)

PCS701 Big Data Analytics and Knowledge Discovery

This course will introduce principles for big data analytics that have been developed in response to the challenges for big data processing and analysis; it will also cover the Specific knowledge of the fields of Machine Learning and Knowledge Discovery in Databases. Literature published will be discussed and innovative ideas will be encouraged.

PCS703 Natural Language Processing Information Retrieval

The course is concerned with concept in relevant journals s, models and algorithms to interpret generate and learn natural languages, as well as applications of NLP. The goal of the course is for the students to be familiar with basic concepts in NLP, understand the algorithms and methods for NLP and acquire the skills for developing NLP tools/ systems

PCS705 Advance Theory of Computation

This course is primarily concerned with rigorous reasoning about computation; a significant portion of this course will then be focused on computational complexity, including major topics in theoryofcomputationsuchasrandomization, interactive proofs, parallel computation, and quantum computing

PCS707 Advances in Machine Learning

Machine learning approach will be discussed with trends and recent developments. Specific attention will be focused on robotics and intelligent systems.

PCS709 Computational Intelligence

This course will cover the introductory concepts, models, algorithms, and tools for development of intelligent systems. Topics include artificial neural networks, genetic algorithms, fuzzy systems, swarm intelligence, rtificial life, and hybridizations of the above techniques.

PCS711 Heuristic Search Theory and Methods

This course will cover many important search algorithms used in AI ranging from single-agent search like A*, over two-player search (alpha-beta) to many-players, annealing or global search methods. Algorithms will be evaluated in terms of their algorithmic complexity, implementation considerations, utility, interaction with application-dependent knowledge.

PCS713 Advance Neural Networks

This course will cover basic neural network architectures and learning algorithms, for applications in pattern recognition, image processing, computer vision, financial markets analysis. Three forms of learning will be introduced (i.e., supervised, unsupervised and reinforcement learning) and applications.

PCS715 Intelligent Web Technologies

The objective of this course is to cater the recently growing information, culminating in the advent fo big digital libraries. The course will discuss web intelligent techniques using AI, data visualization, statistics and other learning techniques.

PCS717 Parallel and Distributed Systems

This course will cover the current research topics in the design, implementation, and evaluation of parallel and distributed systems. Focus will be on the systems software and parallel programming systems, but some hardware issues will also be covered. Topics will include parallel algorithms, parallelization strategies, virtual machines, and operating system support

PCS719 Formal Research Methods

This course cover the most often encountered research methodologies in Computing Science and the dissemination techniques that a computing scientist should master, ethical issues related to research and graduate school life will also be part of this course

PCS723 Computer Vision and Robotics

Robotics and related technologies will be discussed with emphasis on vision. This course will cover treatment of geometry to reach and understand the modern Non-Euclidean (projective) formulation of camera imaging.

PCS725 Temporal and Spatial Database Management System

This course will introduce principles and foundations of temporal and spatial databases, including data models, query languages, algebras, and algorithms for selected operators

PCS731 Advanced Digital Signal Processing

This course will cover the theory and algorithms for processing of deterministic and stochastic signals. Topics include discrete signals, systems, and transforms, linear filtering, fast Fourier transform, non-linear filtering, spectrum estimation, linear prediction, adaptive filtering, and array signal processing

PCS733 Advance Decision Support System

This course will cover the process of decision-making and issues involved in the design, implementation and evaluation of DSS. Additional topics include data mining, user interfaces, knowledgebased DSS, and research directions in DSS

PCS739 Advances in Simulation and Modeling

The course will cover Markov Models and Queuing Networks and simulation techniques such as, Monte Carlo Techniques and Event Driven Simulation, applied in performance modeling of communication systems and networks.

PCS743 Fuzzy Topologies with Human Centric Computing

Fuzzy set theory and analysis will be explored in the context of human centric computing and information processes. In addition applications in business, actuarial science and risk management will be discussed

PCS745 Advanced Algorithm Analysis

The goal of this course is to develop the appropriate background, foundation and experience for advanced study in Computer Science, Develop mathematical skills for algorithm design, analysis, evaluation and computational cost; Develop the skills to design and implement efficient programming solutions to various problems; Develop data structure techniques for various aspects of programming.

PhD (Mathematics & Scientific Computing)

PMT701 Advanced Numerical Computing

Direct and Indirect methods for solving simultaneous linear equations and matrix inversion, conditioning and round-off errors, Eigenvalues, eigenvectors, numerical functional approximation. Numerical differentiation and integration,

PMT703 Linear Algebra and Lie Algebra

Definition of Lie algebras and examples. Nilpotent, solvable and semi-simple Lie algebras. Engel's theorem, Lie's Theorem, Killing form and Cartan's criterion. Weyl's theorem on complete reducibility. Representations of s1(2,C). Root space decomposition of semisimple Lie algebras. Root system and Weyl group.

PMT705 Applied Matrix Theory

Canonical forms, functions of matrices, variational methods, perturbation theory, numerical methods, nonnegative matrices, applications to differential equations. EM factorization, and Markov chains

PMT707 Numerical Methods for PDEs

Nonlinear discrete equations; Newton and monotone methods for nonlinear equations; computational algorithms and applications; finite difference method-convergence, stability and error estimates; multiplicity of solutions and bifurcation; asymptotic behavior of solutions; and coupled systems of equations.

PMT709 Topics in Inverse Problems

This course enables students know commonly used algorithms and techniques for analyzing and computing inverse problems, have seen and discussed examples of inverse problems in a variety of fields. Inverse problem resources and references will be discussed. Research based project is required.

PMT711 Topics in Numerical Differential Equations

This graduate-level course is an advanced introduction to applications and theory of numerical methods for solution of differential equations. In particular, the course focuses on physically-arising partial differential equations, with emphasis on the fundamental ideas underlying various methods.

PhD (Statistics & Scientific Computing)

PST701 Advanced Statistical Computing and Graphics

This course introduces students to a range of computational techniques including numerical linear algebra, numerical optimization, graphical techniques, numerical approximations,

PST703 Regression Modeling and Computing

The course emphasizes on the principles of statistical modeling through iterative processes, assessing the fit, and suggesting alternative models. Extensive use of R is part of the course.

PST705 Advanced Mathematical Statistics

This course covers the exposure to the topics of Random Vectors, Multivariate Distributions and Transformations, Conditioning, Transforms – Generating and Characteristic Functions, Order Statistics, the Multivariate Normal Distribution, Convergence and Large Sample Approximations

PST707 Advanced Bayesian Inference & Stochastic Modeling

This course focuses on building graphical models and stochastic simulation methods for inference and prediction, Mixture models, networks, and other latent variable probability models, i.e. hidden Markov models, Monte Carlo methodology and related dynamical modeling theory.

PST713 Non-linear and Integer Programming

An advanced mathematical treatment of analytical and algorithmic aspects of finite dimensional nonlinear programming.. General integer programming problems and methods of solving them. Special attention directed toward current research and recent developments in the field

PST715 Advanced Design and Analysis of Experiments

This course focuses on the topics such as design fundamentals, factorial; nested factorial; incomplete block and fractional factorial designs. Response surface and mixture designs will be discussed. Split, Split-split and Optimum designs will be studied.

PST717 Advances in Time Series Analysis

Topics include univariate ARIMA modeling, forecasting, seasonality, model identification and diagnostics. Recent advancements in financial time series, unit root phenomenon, cointegration, GARCH and stochastic volatility modeling, trend break analysis and nonlinearity will be covered.

PST719 Advances in Bioinformatics & Biostatistics

The broad topics include model building, advanced analysis of categorical data, logistic regression analysis for binary outcome data, regression analysis for count data, analysis of life table, Kaplan-Meier survival plot, log rank test and Cox Proportional Hazards model.

PST721 Statistical Quality Control

It covers the techniques of modern Quality Control and Management. Topics include Statistical Process Control, Capability Studies, Continuous Improvement, ISO 9000 and other standards. Six Sigma, Design for Six Sigma and Lean Management tools. :Taguchi methodology.

PST723 Stochastic Modeling

Survey of modeling approaches and analysis methods for data from continuous state random processes. Emphasis on differential and difference equations with noisy input. Doob-Meyer decomposition of process into its signal and noise components.

PhD in Education/Psychology

PSS701 Methods and Issues in Advanced Qualitative Research

The course focuses on developing a working knowledge of a range of qualitative methods, methodological approaches, and theoretical framework of research to enable the participants to conduct qualitative research within the social sciences.

PSS702 Advanced Educational Philosophy

This course is to understand the category of education from wide variety of perspectives. The course will explicate the development education from local through modern to post modern cultural perspectives. Placing education in these cultural and political frameworks will enhance critical acumen of students and widen their perspective of understanding education.

PSS703 Methods and Issues in Advanced Quantitative Research

The primary goal of the course is to help participants to develop a conceptual background and practical skills needed to critically evaluate statistics and to conduct statistical analyses of empirical data independently to complete a small research project.

PSS705 Seminar in Interdisciplinary Studies (Education and Psychology)

This course will provide participants with a broad overview of areas of study, major theories and research methodologies that guide the discipline of social sciences with a special focus on education. Separate seminars will be served as a platform to discuss and analyze current issues using an interdisciplinary social science perspective.

PSS707 Independent Study

This course will provide space for the participants to propose a research topic in their field of interest and complete a small scale project for publication in an HEC recognized journal. This course will be different from the main Ph.D. research study and will be beneficial for the candidates in providing them with experience to pursue their major work of investigation.

PSS709 Measurement & Assessment

This course provides participants with a comprehensive examination of the psychometric procedure sused to develop and validate educational, psychological, and organizational instruments. Topics include normative samples, reliability and validity, test score interpretation, and test development.

PSS710 Psychology of Personality

This course enables participants to differentiate among the primary theoretical models of personality theory, such as psychodynamic, affective, cognitive-behavioral, and humanistic theories.

PSS721 Project Internship - Education

The practicum course aims to provide participants with real experience in a workplace environment by working on a challenging project. The practicum provides opportunities for participants to affiliate themselves with an educational institute and carry out a project over one semester. The project will enable participants to experience and excel in the arena of their concentration.

PhD in Economics

PDE701 Advanced Research Methodology

The importance of research, goals of research, topic selection, literature review, qualitative and quantitative studies, study design and sampling, sampling methods, data preparation and analysis, descriptive statistics, hypothesis testing, errors, correlation, inferential statistics, statistical significance.

PDE702 Advanced Applied Econometrics

Econometric methods for cross-section and panel data. generalized method of moments, empirical likelihood, instrumental variables, bootstrapping, clustering, treatment effects, selection bias, difference-in-differences, qualitative choice, quartile regression, nonparametric methods, and semi parametric methods, recently developed econometric techniques, simulation techniques, estimation subject to inequality restrictions, semi parametric and nonparametric tools.

PDE703 / PEC711 Development Economics

The objective of the course is to familiarize the students with the theory and problems of development; Modernization Theory vs. Dependency Theory; imperialism; Structuralism vs neo-liberalism; trade and development; structural adjustment policies; debt problems; development and democracy; conflict, growth and development; globalization and related issues.

PDE704 New Dimensions in Economic and Public Policies

Optimal design of tax and social insurance policies. Efficiency costs and incidence of taxation, income taxation, transfer and welfare programs, public goods and externalities, fiscal federalism and welfare analysis. Monetary policy and coordination, exchange rates, balance of payment analysis, international capital flows, debt crises, growth, and policy coordination. Structural and stabilization policies, growth, income distribution, poverty. Industrial policy to promote growth and industrialization, organizational structure, R& D, strategic objectives; competition and anti-trust policies.

PDE711/ PEC712 Industrial Economics in a Globalized World

Theory and current issues in industrial economics. Core industrial organization issues, industrial economic issues at the national level and policy related issues. Market structure and innovation, market structure and advertising, vertical integration and mergers, foreclosures, upstream competition, privatization and regulation, industrial policy, structural adjustment and stabilization policies, reforming State Owned Enterprises (SOEs) in China.

PDE712 Public Finance

Equity and market failure; the economics of taxation, direct and indirect taxation, taxation of income, wealth and consumption, tax incentives, tax compliance and enforcement, and tax reform, user charges and fees. Public expenditure policy, government social protection programs, balanced budgets, deficit financing, debt management, fiscal consolidation and fiscal sustainability. Fiscal stimulus vs. fiscal austerity, fiscal decentralization and intergovernmental fiscal relations.

PDE713 International Trade

Law of comparative advantage, gains from trade, Ricardian and the Heckscher-Ohlin models, alternative trade theories, tariff and non-tariff barriers (NTBs), customs unions, international factor movements, fixed and flexible exchange rates, the internationalization of financial markets, international capital mobility, International Financial Institutions (IFIs), balance of payments and adjustment policies, international macroeconomic policy.

PDE714 Selected Topics in Monetary Economics

Monetary policy under uncertainty, market based monetary policy, economic and monetary union, monitoring inflation, empirical models of exchange rate dynamics, financial globalization, rational expectations, exchange rates and monetary policy in the New Synthesis.

PDE715 Main Issues in Islamic Economics

Theological basis to the practical implications of economic philosophy of Islam; basic economic theory of Islam and economic rules and outlook of the individual, businesses and the state in the Islamic context discussed in contrast to conventional economic theories. Analysis of the economic and spiritual well being of individuals and states as proposed under the Islamic system based on equity and justice.

Psychology

PSY400 Introduction to Organizational Psychology

This course examines the psychological aspects of organizational behavior and individual psychological processes and behavior. The topics will include social norms, group and team processes, leadership and power, motivation, job attitudes and satisfaction and organizational change.

PSY402 Counseling Psychology

This course focuses on the basic approaches, principles, and procedures of counseling. Students will be engaged in some directed role playing of counseling techniques as well as prepare a class demonstration based on their personal integration of readings and practice. Research related to counseling as well as issues regarding the nature of the counseling relationship will also be focused. Pre-requisite: PSY400

PSY405 Group Dynamics

This course presents theories of group dynamics and illustrative application to understand personal, marital, political, industrial and professional life. Personal participation by the student in a group interactive process will be emphasized. The course is designed especially to help group leaders understand the complex underlying dynamic forces that influence our behavior in groups.

PSY406 Research Methods in Organizational Psychology

This course builds on the fundamentals of research design and knowledge of basic statistical techniques to provide a broad overview of the major research methods of applied psychological research. Students learn to frame inquiries and problems as research questions.

PSY407 Personnel Psychology

This course focuses on psychological methods and knowledge applied to the personnel functions of industry. It provides an analysis and discussion of theories and research studies on the following topics: organizational management and development; manpower planning, selection, placement, training, and other important personnel problems.

PSY408 Consumer Psychology

This course focuses on the type and behavior of consumer, effects of psycho - social factors in decision making, satisfaction, loyalty, attitude, and changing attitude of consumer, ethics and principles of psychology in advertising, media selection, and methods in developing a research study in the area of consumer and advertising psychology.

PSY430 Psychological Testing I

This course is designed to provide an introduction to concepts, theories, and methods regarding psychological testing and measurement. It will focus on areas such as psychometric principles (e.g., validity and reliability), test and item analysis, test construction, and applications of psychological testing in industry. Pre-requisite: PSY 400

PSY431 Psychological Testing II

This course focuses on psychological testing and measurement in industry and organizations. Various tests such as aptitude test, vocational interest test, personality test, attitude test and predictors used in industry and organization will be demonstrated. Practice using, modifying, making psychological tests, including analyzing and reporting results of the psychological tests will also be discussed.

PSY432 Behavior Modification in Industry

The overall objective of this course is to discuss reinforcement theory and how those techniques can be applied to positively or negatively affect human behavior. Students learn about methods, terminology and procedures used, as well as the development and history of behavior modification.

PSY433 Leadership and Strategic Change

This course is designed to enhance skills for facilitating/consulting with organizational leadership in organizational change. Theories and techniques for understanding and facilitating change processes within diverse organizational cultures are discussed and applied.

PSY434 Personality Psychology

'Personality' is a broad term applied to the wide traits of people who are employed and managed across the economy. Organizations of any size require additional staff to provide psychological assessment and management of their human resources.

PSY435 Research Project/Practicum

The practicum prepares students to practice industrial/organizational psychology with the understanding of organizational cultures critical to effective professional practice in the workplace. Students refine skills in identifying and solving human-resource problems in work settings.

PSY436 Seminar in Organizational Psychology

This course covers the most recent advances, issues and problems in industrial and organizational psychology through relevant professional journals, in order to prepare students for continued education or applied practice of their field. Students will critique professional journals and review the development of topics in their field.

PSY501 Work Motivation and Attitude

The course covers concepts in various theories of motivation, content and process theories, job satisfaction and its relationship with motives and performance efficiency; applications of theories of motivation to increase performance; problems and solutions of motivation in Pakistani society; research and development of motivational techniques to increase performance efficiency.

PSY506 Quality of Work Life

This course focuses on theories and research relating to quality of life at work, application of knowledge in health; safety at work, environment and working motivation; educating managers and employees to enable them to deal with sickness and problems caused by working, and concentrate on their physical and mental health.

PSY515 Projective Methods

This course presents the history and use of projective assessment devices such as the Thematic Apperception Test, Rorschach Ink blot Test, and Draw-A-Person test. The emphasis is upon administration and interpretation of these specific projective techniques.

Religious Studies

REL101 Islamic Studies

This course focuses on the meaning, significance and practicality of Islam as a universal religion. It acquaints students with the fundamental concepts, values and practice of Islam. It also reveals the relevance of Islam to all walks of life. The aim of this course is to enable the students to discover and study the spirit of the religion of Islam.

Supply Chain and Logistics Management

SCM301 Introduction to ERP Systems

This is a hands-on intensive implementation course exploring latest trends in off-the-shelf ERP packages like Oracle Applications or SAP. Overview of the reach of the ERP modules such as ordering and sales, inventory and material management, procurement, project management, manufacturing planning and control, finance, costing, business intelligence, maintenance, HR, etc.

SCM501 Supply Chain Management

This course covers essentials of Supply Chain Management and is divided into foundations of SCM, enabling concepts, the requirement process, strategic sourcing, strategic cost management relationship management and world class supply chain management. Pre-requisite: MAN 101/401

SCM306 IT Applications in Logistics & Supply Chain Management

The course covers the topics: identification techniques for data collection, data transmission, data processing, and data warehousing in logistics; standardization in logistical data management; the importance of a real-time data flow and significant analytics.

SCM309 Packaging Design - Environmental Aspects

Packaging aspects are discussed in view of the different logistical, marketing, environmental, and legal requirements. Important factor is the standardization of packages for cost saving and damage free handling and transportation. Packages are carrying different kind of information, For logistical purposes the international standards for product identification, location numbering etc. are important.

SCM502 ERP Systems Design and Implementation

This course provides a technical overview of enterprise planning systems and their impact on organizations. Selected software solutions are introduced to illustrate the concepts, fundamentals, general information technology context and integration of business enterprise applications. Case studies will be used to discuss various stages of implementing ERP solutions.

SCM503 Strategic Supply Chain Management

This course covers a wide range of Supply Chain Management activities including formation and management of strategic alliances, buyer selections and management, negotiations, global sourcing, ethics in contracting situations and applications of information technology in SCM.

Pre-requisite: MAN 101/401

SCM504 Procurement and Inventory Management

The synchronization of supply with demand in order to provide customer value has to be designed, controlled and improved. In supply chain management these activities have to be coordinated along different stages in different enterprises. This course deals with understanding and overcoming the problems arising in those multistage inventory systems using case studies.

SCM505 Storage and Warehouse Techniques

In order to operate, optimize or understand warehouse systems, a sound knowledge about the various technical realizations of warehouse functions is essential. This course provides an overview of various in-house transporting and storage systems and indicates the preferred areas of usage. Case studies will be used as modus operandi in the course.

SCM506 Transportation Techniques and Management

The course aims to give an understanding of the basic techniques used in transportation. All major techniques in the fields of road-traffic, air traffic, railroad and navy are discussed. Transport chains using freight-villages, intermodal transports, combined transport-chains as location planning, design and organization of dispatch departments, supply- chain- management tracking- and- tracing are investigated using the case study approach.

SCM507 Quantitative Methods for Logistics

Students get knowledge and skills required to manage complex systems of production, distribution and freight transport in global supply chains. It also prepares students for careers in industrial companies and service organizations which have to deal with complex logistical and production processes. Operations Research & Quantitative Logistics focuses on those areas in the transport and logistics sector that require strong quantitative skills, where practitioners apply academically developed theories. This includes Quantitative trend analyses techniques. Production planning process (optimizing capacities and lot sizes). Transportation Planning Facility, site layout, and location planning etc. The use of the planning tools provided by Microsoft Excel Solver Data Analytics, Data warehousing, Business intelligence.

SCM508 Design of Business Processes - Workflow Management

Understanding of Value Adding business processes, internal and cross-company supply chain Knowledge of the design and optimization tools. Definition of internal and external enterprise process chains .Design and optimization process chains using Microsoft Office SharePoint Designer/Server 2007 or ARIS-Toolset. Visualization of internal or cross-company processes by using flowchart modeling style of MS Visio 2010.Automation of ERP processes by implementation workflow management systems in ERP systems (SAP workflow management).

SCM510 Logistical Projects in ERP - Case Study Development

Good understanding of business processes such as order fulfillment, material and capacity resource planning, financial and accounting processes. Operating the ERP application system with SAP or Oracle. Understanding of business analytics resulting out of the business processes. Introduction into ERP systems, Basic technology of the SAP ERP system Design of business cases like quality management, quality auditing or business information systems ,Customizing requirements and realization. Future ERP systems – requirements and realization with advanced computing technics s.a. in- memory-computing with HANA, Cloud Computing.

SCM511 Risk Management in Suppy Networks

This course provides a holistic view on the total value adding process regarding risk portfolios .Using the FMEA method for analyzing risk potentials and learning how to develop resistant / robust supply chain strategies (TSCRM). Introduction to the principles of risk management of business and engineering processes. Sources of risk – early warning signals,Trends effecting the Supply Chain risk potential, TotalSupplyChainRiskManagementTSCRM–holisticapproach,Business continuity management.

SCM512 Innovation Managementin Supply Chain and Logistics

This course provides future trends in global supply networks in technology of material and information flow, new partnership and collaboration principles following the Toyota Supply Chain Management,Impact of new technologies in communication (RFID, GBI, WLAN, Web-based applications etc, Demand driven supply chains, Impact analysis of innovation to social, environmental and financial results. Development of a innovative and sustainable supply chain strategy.

SCM513 Corporate Consultancy Projects in Logistics

This course provides introduction into the project management and consultancy process. Kick-off Meeting between the customer (industrial or logistics service enterprise) and the consultancy team (4 to 5 students and the lecturer) .Problem definition (diagnosis) workshop of the consultancy team moderated by the lecturer. Information gathering at customer's site Creative problem solving workshop of the consultancy team Information consolidation and evaluation – internal decision making process (consultancy team) Presentation of the favorite solutions to the customer.

Social Sciences

SSC101/402 Introduction to Psychology

Its subject matter includes human development, memory cognition, perception and psychopathology. The course explores the field of psychology, teaches to learn about oneself, the mind and the science of psychology.

SSC103 Business Ethics and Corporate Governance

This course entails an understanding of the general principles of ethical conduct. It studies the relationship of what is good and right for businesses. This course shall proceed to place modern business practices in their historical context. The ethical attitude of ancient, medieval, modern and postmodern communities would be contrasted and the nature of modern business practices and their ethical implications would be explained with special reference to business environment in Pakistan.

SSC104 Principles of Sociology

The course seeks to teach the basics of Sociology including social action and interaction, social groups, social institutions, culture, prejudice and stereotypes, and social change.

SSC201 Policy Studies

The Liberal, Marxist and Weberian approaches to policy making. The market and the state, bureaucracy and administration regulatory systems. Non-state sources of policy conception and implementation corporations, association, NGOs policy making and implementation processes in Pakistan in fiscal, monetary, labor, energy, health and education areas.

SSC202 Environmental Studies

The course covers basic concepts of Environmental Science and current environmental issues. Major components of environment and ecosystems. Basic understanding in the areas of industrial, coastal and marine environment, deforestation, greenhouse effects, ozone depletion, impacts on human health and climatic change. Environmental challenges for sustainable development, current and future trends in population growth, environmental pollution, development in industry and agriculture, urbanization, poverty and resource depletion. National and International Environmental laws and regulations.

SSC301 History of Ideas

This course offers insights into the archetypes of knowledge and introduces students with nature of diverse ideas and the way socio-politico-economic conditions are related to ideas. This course studies metaphysics, epistemology, political theory, and ethics etc. It develops students' critical thinking and analytical skills and enables them to appreciate the role of ideas in shaping past, structuring present and influencing future.

SSC302 Important Concepts in Philosophy

This course will seek to discuss the history of ideas, from the ancient Greeks to the present, and the contribution of important philosophers.

SSC401 Business Ethics

This course offers an in-depth analytical and critical study of ethical theory and its application to business practice. It encompasses ethical theories from Aristotle to modern and postmodern ethics and applies them to various areas of business practice such as marketing, management, finance, technology, organization, globalization etc. This course is designed to enable students to foresee, identify and resolve ethical issues and problems in business.

SSC403 Social Psychology

This course focuses on human behavior in its social context to reveal how one's feelings and actions can be influenced by other people. The topics include processes of human interaction and the social influences of family, membership groups, and socioeconomic class on individuals and groups.

SSC405 Business Ethics and Financial Responsibility

The course examines ethical issues in the context of business theory and practice. In the process of exploring these issues and raising questions, students draw on a wide body of literature including the humanities, management theory, and the social sciences.

SSC406 Psychology and Learning

The course examines major theories of learning with relevance to instrumental and classical conditioning, cognitive learning processes, motivation, affect, and memory. The students will explore relevant research on traditional and contemporary issues in learning, with an emphasis on human learning from both behavioral and cognitive perspectives.

SSC501 Epistemology and Moral Philosophy

This course will examine the basic questions and principles of moral reasoning. Among the issues to be considered: what makes an action moral? Does might make right? Do moral judgments admit of exceptions? Is pleasure a relevant factor in deciding what to do? Does moral reasoning rest on a grand mistake?

Statistics

STA100 Basic Statistical Methods

This course provides concepts of statistical tools used for computation of quantities required for business analysis. The emphasis is on quantitative techniques and its application to economics, business and media studies.

STA101/102 Quantitative Methods I & II

The objective of the course is to train students in the use of quantitative techniques in business and finance. The students are required to gain thorough theoretical knowledge of the subject and understanding of the application of such knowledge.

STA103 Sampling and Probability Theory

The course highlights the basis concepts of statistics, sample space, events, classical and axiomatic definition of probability, conditional probability and Bayes' theorem, binomial, Poisson, normal distribution and moment generating functions.

STA201 Quantitative Business Analysis

This course will provide an in-depth study of the concepts of statistics and quantitative business tools. The emphasis will mainly be on learning quantitative techniques along with their applications to economics and business.

Pre-requisite: MTH 103

STA202 Quantitative Skills and Managerial Statistics

The course introduces the use of statistical method to proceed beyond the collected data into the area of decision making through statistical analysis. It provides an in-depth introduction to probability, sampling theory and sampling distribution, estimation of parameters, hypothesis testing, analysis of variance, decision theory and quality control charts.

Pre-requisite: STA 201

STA203 Probability Theory and Statistics

The course includes the basic concepts of statistics, sample space, events, classical and axiomatic definition of probability, conditional probability and Bayes' theorem, binomial, Poisson and normal distribution, moment generating functions, etc. Pre-requisite: MTH104, MTH103

STA204 Industrial Applications of Statistics

The course teaches an applied approach to statistical quality control utilizing theoretical tools acquired in other mathematics-statistics courses. It emphasizes on understanding and applying statistical analysis methods in real-world situations in engineering.

STA205 Probability Theory & Statistics II

Probability Theory, a rigorous treatment of probability and Statistical Theory, a treatment of Distribution Theory and Inference will develop your knowledge of probability and statistics beyond the first year course. It will also provide the probability and statistics basis for all advanced courses. Further Mathematical Methods covers the mathematics needed for statistics and actuarial courses. Pre-requisite: STA203

STA206 **Probability & Statistics**

The course includes concepts of statistics, sample space, events, probability, conditional probability and Bayes' theorem, Discrete and continuous random variables and discrete probability distributions. Mathematical expectations and moment generating function.

STA210 Sampling Theory

The purpose of this course is to provide students with theoretical background in survey sampling. The course will expose students to a wide range of sample designs and estimation techniques used in practice, including different sampling techniques.

Pre-requisite: MTH201, STA203, STA301, STA302

STA301 Model and Inferences

Statistical models and random samples, informal methods of checking models, estimation and prediction, methods of maximum likelihood and least squares and their applications within the frame-work of programming are taught in this course.

Pre-requisite: MTH201, STA203, STA205

STA302 Methods of Data Analysis

The course is an introduction to the use of computers as a powerful tool in data analysis. Topics will include statistical graphics, advanced regression techniques, curve fitting and smoothing, generalized additive models, CART, multivariate techniques, cross-validation and the bootstrap. Additional topics may include survival analysis, simulation methods and neural networks. Pre-requisite: STA203, STA301

Time Series Analysis and Forecasting STA303

The course covers introduction of statistical methods for analyzing and forecasting time series data. The topics include; spectral analysis, smoothing autoregressive moving average models, regression with auto correlated errors, linear filters and bivariate spectral analysis. ARM601, STA305 Pre-requisite:

STA305 Applied Regression Analysis

Linear regression and correlation; maximum likelihood and least square estimators and their properties. nonlinear regression models; generalized linear regression models; introduction to time series; time series model building and forecasting with focus on data of interest to actuaries are features of this course. Pre-requisite: MTH204, STA302

STA307 **Decision Theory**

Sampling models in business and economic problems, Bayesian inferences, auto-regressive series models and their applications, Bayesian estimation of parameters, adaptive forecasting, control theory, dynamics, models for inventory control are features of this course.

STA205 Pre-requisite:

STA309 Loss Models I

Models for loss severity: parametric models, effect of policy modifications; tail behavior. Models for loss frequency: (a,b,0), (a,b,1), mixed Poisson models; compound Poisson models. Aggregate claim models: moment and moment generating function: recursion. Classical ruin theory.

Pre-requisite: FRM202

Loss Models II STA310

Credibility Theory: Limited fluctuation; Bayesian; Buhlmann; Buhlmann-Straub; Empirical Bayes parameter estimation statistical inference for loss models; maximum likelihood estimation; effect of policy modifications; model selection. Pre-requisite: STA309

STA403 Statistics and Mathematics

A systematic exposure to the statistical and mathematical analysis of business situations .This course introduces statistical & mathematical methods in the area of decision-making. The course includes measures of dispersion, different mathematical functions, optimization methodology.

STA404 Statistical Inference

The course concentrates on the application of statistical techniques to the analysis of data and estimation procedures. The topics include counting techniques, probability & its distributions, sampling, estimation of parameters, testing of hypothesis & analysis of variances, regression & correlation. Pre-requisite: STA 403

STA405 Simulation and Modeling

The course includes types of models, properties of linear models, model building techniques, the black box approach, random number generation and testing. Transformation; test of randomness, parameter estimation, least mean square, bootstrap, jackknifing, re-sampling procedures, query models and applications. Pre-requisite: STA 203 CSC 306 / CSC 409

Statistical Methods in Social Sciences STA406

This course includes an overview of quantitative methods, basic concepts in descriptive and inferential statistics. It emphasizes on the development of critical thinking skills and the methodological tools necessary for functioning as an Industrial Organizational Psychologist in applied settings. The focus is on non-parametric and parametric statistical procedures including when and how to use each quantitative method including choice of the most appropriate research method and strategies to address common problems encountered and using computer programs for data analysis.

Design of Experiments STA407

This course explans design of experiment and its importance. Different experimental designs such as Complete Randomized (CRBD), Latin Square Design, two-level factorial, fractional factorial, and Taguchi's orthogonal designs will be discussed. Pre-requisite: STA404

Telecommunication Engineering

TCE200 **Electronic Communication System**

This course introduces the fundamentals of electronic communication systems. Topics include the frequency spectrum, electrical noise, and modulation techniques, characteristics of transmitters and receivers, and digital communications. Upon completion, students should be able to interpret analog and digital communication circuit diagrams, analyze transmitter and receiver circuits, and use appropriate communication test equipment.

Pre-requisite: TCE204, TCE205

TCE204 Electromagnetic Field Theory

Introduces the concepts and mathematical methods to understand and analyze electromagnetic fields and waves. Pre-requisite: GSC103, MTH204

TCE205 Signals and Systems

To provide understanding of signals, systems and transforms. Linear system theory, signals, types of signals, transformations of independent variable, signal properties, exponential signals, impulse and step functions, systems, input-output models of system, properties of system, linear time-invariant system, time domain analysis of linear systems, properties of LTI system, LTI analysis of linear differential equations, complex exponential inputs to LTI system, stability analysis are taught in the course.

Pre-requisite: MTH215

TCE301 **Probability Methods in Engineering**

To introduce the basic concept and engineering applications of probability and statistics, Set theory, basic concepts of probability, conditional probability, independent events, Baye's Theorem, discrete and continuous random variables, distributions and density functions, probability distributions (binomial, Poisson, hypergeometric, normal, uniform and exponential), mean, variance, standard deviations, moments and moment generating functions, linear regression and curve fitting, limits theorems and applications. MTH107

Pre-requisite:

TCE321 Wave Propagation & Antenna

To make students understand different aspects of electromagnetic wave propagation and the role of antenna as transducer. Different characteristics of antennas are also explained. Pre-requisite: TCE204, EPE200

TCE404 Digital Signal Processing

One- and N-dimensional signals and systems, sampling theorem, discrete-time Fourier transform, discrete Fourier transform, fast Fourier transform, z-transforms: stability and minimum phase signals/ systems, linear filtering of signal: time domain: difference equations and convolution, impulse invariance, etc. are the contents of the course.

Pre-requisite: MTH403, CME202

TCE415 Transmission & Switching Systems

Transmission systems including PDH and SDH, synchronization, routing techniques, line encoding techniques. Telecommunication networks, PSTN, PLMN, and PABX, exchange hierarchies, digital exchanges, routers, routers, bridges, switches, hubs, gateways and signaling systems are taught in the course. Pre-requisite: **TCE205**

TCE416 **Digital Communication**

Introduction to principle of analysis and designing of modern digital communication systems. Pre-requisite: **TCE200**

TCE420 Information Theory and Coding

Discrete messages, concept of amount of information, average information, entropy information rate, Shannon's theorem, channel capacity, relation between band width and s/n ration. Pre-requisite: TCE205, TCE204

FPGA Based System Design TCE421

Introduction, digital design and FPGA, FPGA-based system design, manufacturing process, transistor characteristics, CMOS logic gates, wires, registers and RAM, packages and pads, FPGA architectures, SRAM-based FPGAs, permanently-programmed FPGAs, circuit design of FPGA fabrics, architecture of FPGA fabrics, logic design process, combinational network delay, power and energy optimization, arithmetic logic elements, logic implementation using FPGAs, physical design (PnR) for FPGAs, synthesis process, sequential design using FPGAs, sequential machine design process, sequential designstyle, FSM design, ASM design. Trends and challenges in embedded system design, introduction to the design and use of single-purpose processors (hardware) and general-purpose processors (software), memories and buses, hardware/software tradeoffs, advanced computation models, control systems, chip technologies, modern design tools, embedded processor selection, hardware/firmware partitioning, glue logic, circuit design, circuit layout, circuit debugging, development tools, firmware architecture, firmware design, and firmware debugging. Pre-requisite: ELE201

TCF422 **Communication System**

This course is structured as a senior-level design course emphasizing the different communication systems and their applications such as broadband, satellite communication, TV broadcasting and navigation etc.

Pre-requisite: **TCE200**

TCE423 **RF and Microwave Engineering**

Radio communication systems, Modulation and Demodulation, Radio wave propagation techniques, Antennas and Aerials, Antenna Arrays, Antenna Distribution systems, Radio receiver properties, Types of receivers.

Pre-requisite: **TCE321**

TCE424 **Radar Systems**

To teach the principle of operation of radar; commonly used devices in radar; statistical nature of the received signal and signal processing; different types of radar and their applications. Pre-requisite: **TCE200**

TCE425 Telecom Management

The course will give the concepts of Network Management in TCP/ IP Environments, Networks Management Station (NMS), Network Management Requirements, and Performance & Security Management.

Pre-requisite: ENG203

TCF426 **Electromagnetic Compatibility**

The primary purpose of the course is to develop the fundamental concepts of EMI and EMC. The course is devised to acquaint the students with the knowledge of sources and types of interference, EMI effects, Coupling, Grounding, Shielding, filtering and military EMI/EMC standards.

Pre-requisite: **TCE204**

TCE427 Antenna Theory and Design

Design and use of antennas of varying types, including wire, broadband, horn, and reflector antennas in transmitting and receiving applications. The application and design of antenna arrays, and an introduction to diffraction theory. TCE321

Pre-requisite:

TCE428 Mobile and Pervasive Computing

This course will cover the topics such as introduction to wireless communication systems, evolution of mobile radio communications, infra-red systems, paging systems, cordless telephone systems, cellular telephone systems and wireless LANs. Pre-requisite: **TCE461**

Tele-Traffic Engineering TCE429

This course focuses on the application of traffic engineering theory to telecommunication. Pre-requisite: TCE321

TCE430 Satellite Communication

To acquaint the students with the principle of operation of satellite communication, its benefits and the technology involved. Pre-requisite: **TCE200**

TCE431 **Digital Filter Design**

The objective of this course is to introduce the basic concepts in designing digital filters, for example IIR filter or FIR filters. Pre-requisite: TCF404

TCE461 Wireless and Mobile Communications

The aim of this module is to understand the fundamentals of wireless and mobile communications & the use of wireless technology in the telecom industry.

Pre-requisite: **TCE204**

TCE471 **Optical Communication**

The aim of this course is to understand the optical fiber communication technology and networks & their applications in telecommunication industry.

Pre-requisite: TCE416. TCE335

TCE450 Project

To give students a chance for enhancing their Technical capabilities by Implementing their theoretical & practical knowledge in the field of Research & Development. (For Semester VII & VIII).

Telecommunication Management

TCM401 Introduction to Technology Management

Surveys the history and recent developments of technology management in the corporate and government environments. Major aspects of domestic and international technology management are discussed. Information technology management is the focus of this course. Other topics include project and system management, computer information systems, telecommunications management, distribution, marketing, logistics, manufacturing and aspects of international technology management.

TCM402 Introduction to Teletraffic Engineering

Review of Probability distributions, PDF and CDF development and applications for Telecommunication systems. Traffic characterization, Loss and delay traffic scenarios. Traffic tables and Traffic provisioning and planning case studies for both private and Public based Telecommunication Networks.

TCM403 Global Communications: Industry and Policy

Focuses on understanding how the changing structures of telecommunications in North America, South America, Europe, Asia/ Pacific and Japan, and how global decisions affect local actions. The course explores current and merging issues in global telecommunications including deregulation, transition to new business models and affordable access to technology. The students will learn how some of the most powerful global regulatory bodies create and establish legal and regulatory policy, and how their actions affect business and consumers.

TCM404 Management of Telecommunications

To study principle of telecom planning and management, Telecom strategic planning, system planning process, Business planning process, the Business planning and revision, feasibility analysis, financial evaluation techniques.

TCM405 Optical Communication Network

Introduces basic fiber optical technologies. The major components of a fiber communications link, including splices, connectors, optical sources, detectors, optical amplifiers, splitters and modulators are covered. Optical switching systems and technologies will be studied in detail as well as some fiber based standards and networks such as FDDI. SONET.

TCM406 Network Design

To impart knowledge to students, about designing of Telecommunications Networks. This course provides basic concepts of telecommunication networks and how it is designed and what factors play prime role in designing of any telecommunication network. This course also compares various networks such as Satellite, Optical fiber and Microwave/DRS. This comparison provides advantages and disadvantageous of different networks in different scenarios and how and why a particular one is selected.

TCM407 Broadband Communications

Review of basic digital hardware and the structure of digital computer and the digital switching networks. Topics include voice digitization, line coding, time division multiplexing, basic digital modulation formats, network control and synchronization, digital technologies and switching systems for high-speed data and voice networks in examples of T1/T3, ATM, SONET/SDH, B-ISDN, PBX, ACD and LANs. Different types of media such as fiber optics, cable and wire, cellular as well as local and long distance switching systems are also covered.

TCM408 Advanced Mobile and Wireless Communications

Focuses on key technologies used in mobile and wireless communications, including cellular NGSM, TDMA, CDMA paging, PCS and infrared. It emphasizes on key service providers, design of wireless data and voice communications systems, security, and advances in mobile and wireless technology; addresses growth of PDAs and other mobile devices, and their impact on enterprise networks and features a case study approach on the application of these technologies.

TCM409 Customer Service and Call Center Technologies

Focuses on customer service and call centers as the contact point between a customer and a company's products and services; Emphases on critical call center technologies, including Computer Telephony Integration (CTI), workflow software, ACD and PBX systems, messaging systems (voice and email) and knowledge management systems. Students will learn how to implement customer service applications, such as help desk, customer support and field service.

TCM410 Management of Network Security

Defines network security in the context of networks, information and computer systems. This course identifies threats and vulnerabilities; major aspects of encryption, digital signatures and other authentication procedures are covered. LAN, Wireless and other aspects of network security are reviewed with discussions focusing on firewalls, VPN, and ISO17700 compliance.

TCM411 Telecommunication Marketing

Telecommunication Marketing is one of the courses being offered the MBA in Telecommunication Management program. Topics in this course include the nature of the telecommunication market, analysis of customer procurement strategy, product policy, pricing, distribution strategy, sales force management and key account selling strategies.

TCM450 Project

This course gives students a chance to enhance their technical capabilities by implementing their theoretical and practical knowledge in the field of Research and Development.

TCM501 Management of Telecommunication Regulatory System

Introduction to graduate level study of telecommunications law and policy and its intersection with economics and technology. Fundamental principles and theories of telecommunications law, policy and policy-making. and methodological approaches are covered.

TCM502 The Future of Emerging Technologies

Focuses on emerging technologies and the use of scenario planning as a comprehensive tool to explore the trends and factors impacting technical decisions for business, industry and other organizations. It explores emerging technologies, e.g., biotech, Micromechanical Electrical Systems (MEMS), nanotechnologies , etc. and their potential effect on established systems and technologies.

TCM503 Electronic Business, System and Technologies

Provides a high-level overview of the e-business industry with a focus on both business-to-business and business-to-consumer electronic commerce. Discussion of e-government issues will also be covered. Topics include framing the electronic commerce market opportunity, the evolution from simple e-commerce to comprehensive e-business, exploring various business models, identifying key elements of branding and the customer interface, implementation, analytics and industry trends. It examines the fine balance between creating a personalized user experience and maintaining a customer's privacy.

TCM504 Management of Physical Security Technology and Systems

Emphasizes the securing and protection of physical assets with concentration on communications and computing facilities, including computers, servers, etc. Consideration will also be placed on securing key personnel when they are off site. Focus is also placed on processes and procedures that minimize business disruption while insuring site(s) and asset protection.

TCM505 Telecommunication Business Continuity Process and Crisis Management

Emphasizes the development of protocols and procedures designed to minimize business and enterprise risks associated with disasters and other major disruptions to ensure the rapid recovery of critical business functions. Focus is placed on planning and plan maintenance; business impact analysis identifying critical business processes and systems; and development of alternative operating or recovery procedures. Additionally, considerations for virtual continuity and collaboration with intercom any business-continuity planning teams will be covered.

TCM506 Telecommunication Business Process

Focuses on the dramatic transformation of business and organizational models realized through the convergence of communications and computers via the Internet and web, and other networks. Emphasis is placed on the global considerations an enterprise an organization must hold as policies, systems and technologies evaluated for the enterprise or organization. This core MSEBST program course will discuss and analyze relevant case studies.

TCM507 Optimization of Telecommunication Systems

Application of economic principles to policy and strategy issues in the print, online, broadcasting, multi-channel, home video, and motion picture industries, the production, distribution, and pricing of information products and services; intellectual property and new technologies; information networks and compatibility, policy and strategy applications are covered in this course.

TCM508 Managing Telecommunication in Media Application

Examines the information processing of mediated messages and theories underlying memory, attention, and cognition. Advanced analysis of cognitive psychology and emotion theory as they apply to the study of media, case studies in marketing and competitive strategies of media and telecommunications firms. Effects of technological change on industry structure and strategy are covered in this course.

TCM509 Internet Telephony

Focuses on different media and technologies used to deliver integrated data/voice communications, including integrated data/ voice switching, voice-over IP and IP Telephony. It discusses current and emerging standards in the industry. Emphasises on the selection, design and implementation of integrated data/voice applications throughout the enterprise is a feature of this course.

TCM510 Managing the Creative Process

Examination of the business side of video production with emphasis on the role of the producer and/or production manager, including production team organization, schedules, budgets, contracts, markets and intellectual property are the courses features.

TCM511 IP Multimedia Technologies

The objective of course is to impart knowledge about Next Generation Converged Networks and Services based on IP Core Network, i.e. IP Telephony, IPTV, Multimedia and Interactive Games, Internet Radio, and Media Streaming. The students will learn technological as well as managerial aspects of multimedia networks and applications.

TCM515 Multimedia Communication

This course introduces technologies for multimedia communications. It will address how to efficiently represent multimedia data, including video, image, and audio, and how to deliver them over a variety of networks. In the coding aspect, state-of-the-art compression technologies will be presented. Emphasis will be given to a number of standards, including H.26x, MPEG, and JPEG. In the networking aspect, special considerations for sending multimedia over ATM, wireless, and IP networks, such as error resilience and quality of service, will be discussed.

TCM516 Error Control coding

Channel coding, cyclic codes, encoding by polynomial, multiple error correction, finite field arithmetic, BCH codes, reed Solomon codes, performance calculation of block codes, multistage coding, iterative decoding, the soft-output Viterbi Algorithm are taught in the course.

TCM517 Multimedia Systems

Multimedia data has become an indispensable part of our daily life and modern research projects. In this course, students will be introduced to principles and current technologies of multimedia systems, multimedia standards, and gain hands-on experience in this area. Issues in effectively representing, processing, and retrieving multimedia data such as sound and music, graphics, image and video will be addressed.

TCM518 Video and Channel Coding

The course contains video basics, what is video? recording and playback and history of video. analog video, the video image, formats and standards, composite and component video. digital video, comparing digital and analog video, compression, formats and standards, encoding and streaming, video codecs, MPEG, streaming video. Video products, cameras and recorders, video networks and cisco video products.

TCM519 Speech Coding

This course will throw light upon the topics such as models for speech production: the human vocal tract, linear prediction used for vocal tract parameter estimation, parameters for the male/female, and child voice, models for speech perception: the human ear, frequency analysis and pitch perception, intensity discrimination, time/ frequency masking, sound localization and auditory perception, the interaction between visual and auditory information, speech coding and recognition, etc., are a features of this course.

TCM520 Network Security and Cryptography

This course focuses on algorithms and protocols for secure network communication. Topics include cryptographic algorithms (DES, Diffie-Hellman, RSA), authentication, key management, secure networking, certification, trust management, and secure electronic.

TCM521 Voice Over Internet protocol

The objective of this course is to provide a technical and practical overview of Voice over IP (VoIP). The course identifies the main elements of the technology and presents them in an accessible format. At the end of the course students will be conversant with VoIP technology and understand the role of VoIP in their customer's company and marketplace.

TCM522 Information Theory and Coding

The topics covered include basic concepts of information theory entropy, mutual information, channel capacity, information rate, Shannon's noiseless coding theorem and Shannon's fundamental coding theorem; modeling of information sources—zero-memory and Markov models; modeling of information channels—BSC and BEC channels, additively of information and cascaded channels; construction of compact source codes—Kraft inequality, compact codes, Huffman and LZW compression codes; and analysis and design of error-control channel codes—Hamming distance, binary linear codes and the parity-check matrix, Hamming codes, checksum codes, cyclic codes and the generator polynomial and CRC codes.

TCM523 Wireless Adhoc Networks

Introduction, foundations of wireless communication, wireless channels, modulations, WPANs, WLANs, and MAC Layers, wireless protocols, mobile IP, wireless routing, wireless TCP, source coding, QoS, introduction to wireless sensors networks, data dissemination and network security are covered in this course.

TCM524 Broadband Communication

This course covers various systems that transmit data including, multimedia data at high speed networks and networks, ATM, T1/ E1 circuits, multiplexing of T1/E1 standards, optical channels, cable systems, satellite transmission and broadband issues, ISDN, and its variants. High speed multimedia communications systems.

TCM525 Mobile and Pervasive Computing

This course will cover the topics such as introduction to wireless communication systems, evolution of mobile radio communications, infra-red systems, paging systems, cordless telephone systems, cellular telephone systems and wireless LANs. In addition it includes, analog and digital transmission, channel capacity, transmission and multiplexing, communication networks, antenna and wave propagation, spread spectrum, satellite communication, cellular wireless networks, mobile radio propagation model, wireless systems and standards, cordless systems and wireless local loop and wireless LAN technologies are also covered.

TCM526 Next Generation Networks

This course provides students to get the opportunity to research and report on near term "Next Generation Networks". The course consists of discussions on one type of Next Generation Network followed by each student researching two additional Next Generation Network types. A case study approach will be utilized.

TCM527 Satellite Communication

Students will be exposed to historical background of satellite communication, uplink and downlink frequencies, synchronous satellite, international regulations and frequency coordination, frequency allocation and band spectrum, general and technical characteristics of satellite communication signals, advantage and disadvantages of satellite communication, active and passive satellites. In addition to this, the course covers orbits and launching methods, radio wave propagation, atmospheric losses, rain attenuation, the space segment, altitude control, station keeping, thermal control, transponders and antenna, earth segments and the space link, inter connect and technical regulation and compliance approval of CPE and convergence are also features of the course.

CERTIFICATE COURSES







External students are allowed to register for 15-week Certificate Courses of their areas of interest. The following are some of the Certificate Courses being offered during 2014-2015:

Accounting

Accounting Information Systems Advanced Financial Accounting

Advertising and Communication Management Principles of Marketing Principles of Advertising Advertising Research Client Management

Finance and Banking Analysis of Financial Statements Corporate Finance Money and Capital Markets Treasury and Fund Management

Health Services Administration Strategic Management of Health Services Pharmaceutical Marketing and Quality Assurance

Human Resource Management Strategic Human Resource Management Salary and Compensation Leadership Studies

Management Information Systems

Oracle/Developer 2000 Software Engineering Data Communication and Networking Programming in C++

Marketing Advertising Personal Selling Brand Management Media Planning

Sales Management Effective Territory Design Basic Selling Skills Distribution and Channel Management Merchandising

ACADEMIC CALENDAR

FALL 2014

Registration and Fee Payment On board students New students 	Saturday, August 16, 2014 to Thursday, August 28, 2014 Saturday, July 26, 2014 to Saturday, August 16, 2014
Last day to drop courses without penalty	Sunday, September 14, 2014
Orientation	Saturday, September 06, 2014
Commencement of Regular Classes	Monday, September 08, 2014
Commencement of Executive Classes	Saturday, September 13, 2014
Last day to drop courses with penalty	Sunday, October 19, 2014
Eid-ul-Azha*	Friday, October 03, 2014 to Sunday, October 05, 2014
lqbal Day	Sunday, November 09, 2014
Muharram*	Saturday, November 01, 2014 & Sunday, November 02, 2014
Classes End	Sunday, December 14, 2014
Break	Monday December 15, 2014 to Sunday, December 21, 2014
Quaid-e-Azam's Birthday	Thursday, December 25, 2014
Final Exam	Monday, December 22, 2014 to Monday, January 05, 2015

Exam Schedule for Regular and Executive Students

Week	Exams	Regular	Executive
6th	1st Hourly	10/13 - 10/16	10/18 - 10/19
11th	2nd Hourly	11/17 - 11/20	11/22 - 11/23
16th	Final	12/22/2014 t	o 01/05/2015

* Subject to the appearance of moon.

Note:

All dates are subject to change. Students will be informed of the changes well in advance.

SPRING 2015

Registration and Fee Payment On board students 	Thursday, December 18, 2014 to Thursday, January 01, 2015
Last day to drop courses without penalty	Sunday, January 18, 2015
Commencement of Regular Classes	Monday, January 12, 2015
Commencement of Executive Classes	Saturday, January 17, 2015
Eid-e-Milad-un-Nabi (SAW)*	Friday, January 02, 2015
Last day to drop courses with penalty	Sunday, March 01, 2015
Classes End	Sunday, April 19, 2015
Break	Monday, April 20, 215 to Sunday, April 26, 2015
Final Exam	Monday, April 27, 2015 to Tuesday, May 12, 2015
Labour Day	Friday, May 01, 2015

Exam Schedule for Regular and Executive Students

Week	Exams	Regular	Executive
6th	1st Hourly	2/16 - 2/19	2/21 - 2/22
11th	2nd Hourly	3/23 - 3/26	3/28 - 3/29
16th	Final	04/27/2015 to 05/11/2015	

* Subject to the appearance of moon.

Note:

All dates are subject to change. Students will be informed of the changes well in advance.

SUMMER 2015

Registration and Fee Payment On board students New students 	Thursday, April 16, 2015 to Saturday, May 02, 2015 Saturday, March 21, 2015 to Sunday, March 29, 2015
Last day to drop courses without penalty	Sunday, May 17, 2015
Commencement of Executive Classes	Saturday, May 16, 2015
Orientation	Saturday, May 16, 2015
Last day to drop courses with penalty	Sunday, July 05, 2015
Independence Day	Friday, August 14, 2015
Classes End	Sunday, August 16, 2015
Eid-ul-Fitr*	Thursday, July 16, 2015 to Saturday, July 18, 2015
Final Exam	Saturday, August 22, 2015 & Saturday, August 29, 2015 Sunday, Agusut 23, 2015 & Sunday, August 30, 2015

Exam Schedule

Week	Exams	Executive
6th	1st Hourly	6/20 - 6/21
11th	2nd Hourly	7/25 - 7/26
15th	Final	8/22 & 8/23 to 8/29 & 8/30

SUMMER CRASH 2015

Registration and Fee Payment On board students New students 	Thursday, April 16, 2015 to Saturday, May 02, 2015 Saturday, March 21, 2015 to Sunday, March 29, 2015
Last day to drop courses without penalty	Thursday, June 11, 2015
Commencement of Regular Classes	Monday, June 08, 2015
Last day to drop courses with penalty	Saturday, July 11, 2015
Classes End	Thursday, August 06, 2015
Eid-ul-Fitr*	Thursday, July 16, 2015 to Saturday, July 18, 2015
Independence Day	Friday, August 14, 2015
Break	Friday, August 17, 2015 to Sunday, August 16, 2015
Final Exam	Monday, August 17, 2015 to Thursday, August 20, 2015

Exam Schedule

Week	Exams	Executive
5th	Mid-Term	7/6 to 7/9
11th	Final	8/17/2015 to 8/20/2015

* Subject to the appearance of moon.

Note:

All dates are subject to change. Students will be informed of the changes well in advance.



M. Haseeb Halai Travel and Corporate Photographer, Media Studies Undergraduate at IoBM; Photographer for IoBM Catalog 2014 -15

Institute of Business Management

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