



20
years
1995-2015



Institute of Business Management



CATALOG

2015-2016

**Institute of Business Management
Catalog 2015-2016**



COLLEGE
OF
BUSINESS MANAGEMENT



VISION / MISSION STATEMENT

Vision

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

Mission

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

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



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WELCOME TO IOBM FROM THE PRESIDENT



I am delighted that you have chosen IOBM as the gateway to your professional life and career. Over the last twenty years, we have had the privilege of nurturing and developing thousands of talented youth such as yourself, and turning them into outstanding professionals, business managers, industry leaders and entrepreneurs, who are now making their mark across Pakistan and overseas.

At IOBM, we take our responsibility seriously. Teaching and learning take place in the classroom and beyond. Our faculty comprises some foremost scholars, researchers, and practitioners from the fields of business, social sciences, economics, finance, media, education, engineering, health and environment. Many of them have attended university abroad, and many have held senior management positions in companies. They are, therefore, well equipped to get the best out of you through rigorous instructions and stimulating engagement.

As an Institution, we have constantly endeavored to broaden our outlook and widen our knowledge base through affiliations with reputable universities and institutions abroad, and by participating regularly in international conventions. We have signed Memorandums of Understanding with leading universities in Asia and Europe that allow for exchange of our students and faculty in Joint Research, Training and Development. The exchange programs have been described as invaluable by our students, as well as faculty members.

Our academic programs have also been recognized overseas. Eduniversal, a Paris-based global ranking and rating agency, adjudged ten of our MBA Programs last year amongst the “Top 200 Best Masters” in Central Asian Region and three amongst the “Top 100 Best Masters” in the world.

IOBM has received accolades from the Higher Education Commission (HEC) as well, on account of our commitment to quality in education. In 2014, our Quality Enhancement Cell (QEC) received 98.5% rating, on account of successful implementation of our quality policies. This year the HEC also awarded a “post-doctoral scholarship” to Dr. Nadia Ayub, Associate Professor and Head of the Department of Business Psychology that would allow her to undertake a year’s work at a leading university in Australia.

Our new, seven-storey Entrepreneurship and Management Excellence Center (EMEC) building is at an advanced stage of completion, and will be fully operational by the year-end. This will enhance our capacity for offering customized, residential as well as non-residential training in a variety of disciplines to employees of companies and institutions seeking career advancement. The building will also house an industry-standard video-production studio, a sound studio, an editing suite, additional classrooms and a state-of-the-art auditorium.

I encourage you to go over the information given in this catalog, and on our website www.iobm.edu.pk, about the wide range of undergraduate, graduate and post-graduate levels programs offered by our four constituent colleges, and also familiarize yourself with the many intellectual, professional, social and creative pursuits that you may engage in while you are here.

I wish you every success in your educational endeavors and an outstanding experience at IOBM.

Shahjehan S. Karim
President

AN INTRODUCTION TO THE INSTITUTE OF BUSINESS MANAGEMENT



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

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

The catalog also describes the facilities at computer labs, library resources, student support services and information on application and course registration procedures. Information regarding opportunities for financial assistance and stipends for students are also included. The latter part of the catalog contains brief profiles of academic and administrative personnel.

IoBM: 1994 - 2015

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 the Chancellor is the Chairman of the Board of Governors of the Institute. The other members of the Board are:

- Chairman Higher Education Commission or his nominee
- Mr. Justice[®] Ataur Rehman,
- President, Federation of Pakistan Chamber of Commerce and 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 Syed 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, Development Studies, Health & Hospital Management, Pharmaceutical Administration, Media 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 AML, 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. PJETS by College of Computer Science & Information Systems and Journal of Education and Educational Development by CESD are also published. Students and faculty contribute regularly to its pages. A research seminar is organized on a weekly basis. The Institute was one of the first business schools where foreign language courses, Arabic, French, Spanish, Italian or Chinese were made 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 programs 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 its inception. There are over 4000 students on our campus which is large and purpose-built at Korangi Creek on a 11 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. Another 9 acre site has been purchased 1 km from the present campus.

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 Chairman of the Pakistan Cricket Board. As many as 927 graduates were awarded degrees.

The thirteenth convocation was held on December 4, 2010. The chief guest on the occasion 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. Shams 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 at this convocation.

The Seventeenth convocation was held on December 07, 2014. Over 850 degrees were awarded to students. The chief guest was Mr. Nisar Ahmed Khuhro, Senior Minister for Education, Government of Sindh, keynote speaker was Mr. Muhammad Aliuddin Ansari, President & Chief Executive Officer of Engro Corporation.



CITY CENTER

City Center

IoBM City Center was established in September 2012, targeted at working people looking for career advancement. The location was carefully chosen, close to the intersection of Shaheed-i-Millat Road and Sharae Faisal, to make the center easily accessible. Twenty-four students took admission in the evening MBA program offered at the Center that year. In summer 2015, the campus reached full capacity with a student headcount of over 300. A major objective of the Center was to forge close relationships with city-based business organizations and finance companies that could help in the development of programs and courses with increased experiential content. Two regular courses, Financial Management and Marketing Management have benefited from the initiative so far, based on the guidance and support of leading company executives.

A 'Friends of the City Centre' group has been formed to drive this initiative forward, and develop the Centre into a focal point for serving the manpower development needs of the corporate sector. It is also intended to turn this group into a business policy think-tank, to facilitate regular dialogue between the business community, academia and policy makers. The City Centre is also currently running custom-designed training under the Government of Sindh Youth Development Program. The courses focus primarily on Accounting, Computer Science, and Communication Studies. Pre-engineering courses are also offered during morning hours, and students registered at the City Center can also take courses at the main campus to expedite the completion of their degree requirement.

The City Centre is supervised by a Management Committee, headed by the Rector. It includes the Dean CBM and several departmental heads. This Committee is also responsible for the academic administration of the Center. The rapid growth of business interest in the Center, and growing student intake has encouraged us to invest in a 3,000 square yard plot of land close to the present location. Plans for constructing a four-storied, state of the art building have been approved, and the move to the new building is expected to commence in the latter part of the year 2016.



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. PJETS and JoEED are also being published.

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 85,000 sq. ft., is equipped with state-of-the-art teaching equipment to enable the Institute to keep pace with the dynamics of the global market. All classrooms are equipped with internet and intranet facilities. IoBM is a Wi-Fi campus. The campus buildings are centrally air-conditioned and 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 26,900 sq.ft. was completed in 2001. Another centrally air-conditioned building with a covered area of 31,655 sq.ft., houses the College of Computer Science and Information Systems and has been operational since 2002. The Convocation Center was completed in November, 2002, and the Students Activity Center building in September, 2003 which has a second floor housing 10 faculty residential suites for visiting scholars and was completed in January, 2006. The library building has been operational since January, 2005. A separate building houses the department of Industrial Engineering & Management. 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 Information Systems building includes a number of computer laboratories with around three hundred workstations. It is fully equipped with satellite/ radio-linked e-mail, Wi-Fi facilities and internet facilities for all students, faculty and staff.

Library

The IoBM library, an ideal setting for learning and research, serves as a repository for 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 48,851 books. All library books are searchable using OPAC (Online Public Access Catalog) and the newly developed software Library Information and Management System (LIMS), available at the front desk. Students are provided with Internet workstations and rooms for group study. Of the many recent initiatives by IoBM are its access to a large number of e-resources through the HEC Digital library, and online journals through JSTOR e-database. The library also provides access to print and online journals through subscription to a number of business, marketing, management and HRM journals. In addition to the main library, the Learning Resource Center in the Academic block caters to the scholarly requirements of M Phil and PhD programs. The Library 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 like-minded 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 and Music & Arts Society (MARTS). 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.

Students' Achievements

- IoBM team won the "Unilever Talent Hunt 2014"
- IoBM team won 3rd position in HEC All Pakistan Interwarcity Table Tennis Championship
- IoBM team won 2nd position at FAST Robotics competition
- IoBM team won "Battle of the Brands" at LUMS Music Festival, 2015
- IoBM team won 2nd prize at LUMS Leadership Marathon, 2015





Recent Events

Finance Society

- Workshop on Savings and Investment for Students, April, 2013
- Webcast Session and Career Counselling session by CFA International, June, 2013
- Possibilities '13: invest, Inspire, Innovate! October, 2013
- Possibilities 2.0 - Raising the Bar!, March, 2014
- Finance Society Open House 2014, September, 2014
- Hawala, Black Money and its Impact on Pakistan's Economy 2014

Dialogue Society

- The Last Moments, October, 2014
- Discovering Spiritual Peace in the Chaos of Materialism, March, 2015



CBM Society of Health Managers (CSHM)

- The CBM Society of Health Manager organized its 5th camp, with the theme of "Empower Your Health", March, 2014
- "Entrepreneurship in the Healthcare", Health Management Convention - 2014
- "Blood Donation Drive" in collaboration with SWAT, April, 2015
- Participated in "Health and Nutrition Festival" organized by Ministry of Health in Mitthi Tharparkar, April, 2015
- "From Farm to Plate, Make Food Safe", World Health Day, April, 2015



Entertainment Plus Society (EPS)

- Eid Milad un Nabi (SAW): 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), February, 2015
- EPS promotion of the movie “Jalaibee”: star cast of the movie was invited to IoBM Campus, March, 2015
- Jashan-e-Baharan, April, 2015
- Launch of Privilege Card, April, 2015

Sports Society

- Sports Talent Hunt, September, 2014
- Ceremony Inter Society Sports Festival, November, 2014
- All Karachi Inter University tournament, November, 2014
- HEC Intervarsity Badminton Championship, January, 2015
- HEC Intervarsity Volleyball Championship, February, 2015
- HEC Intervarsity Basketball Championship, February, 2015
- HEC Intervarsity Cricket tournament, February, 2015
- HEC Intervarsity Football tournament, February, 2015
- IBA sports league, February, 2015
- Bahria Inter University Cricket tournament, February, 2015
- HEC All Pakistan Intervarsity Table Tennis Championship, March, 2015

The Strategic Human Resource Society (SHRS)

- Close Up Make Your Move, September, 2014
- Djuice Movie Screening, September, 2014
- Red Bull Doodle Art, September, 2014
- Pink Ribbon Breast Cancer Awareness Drive, October, 2014
- Zenith: Leadership & Development Conference, January, 2015
- Coca Cola World Cup Shoot, February, 2015





Literary and Public Speaking Society (LPSS)

- Open House: The Literary and Public Speaking Society - LPSS conducted its recruitment drive in October, 2014

PR and Media Management Society

- Seminar on "FACES BEHIND FAME" in Print and Electronic Media organized by IoBM students of Media Management and Public Relations, July, 2014
- Enlightening over the IoBM horizon: Attributing Senior Citizens, October, 2014
- Interaction with media entrepreneurs, November, 2014
- ENTREPRENEURSHIP 360°, February, 2015

Mathematics Society

- The Eighth Mathematics Colloquium 2014 was conducted by the IoBM Society of Mathematics in collaboration with the society of Actuarial Sciences and CLUB IT in March, 2014



The Rotaract Club

- Representing IoBM in Lahore FC College (Fellowship Program), May, 2014
- Rotaracts District Conference, July, 2014
- Darulsukun the senior citizens, July, 2014
- Edhi Iftar Project, July, 2014
- A better Future, July, 2014
- Annual Recruitment Open House, September, 2014
- The Induction Ceremony, October, 2014
- US Consulate Session, October, 2014
- Rotary Youth Leadership Awards (RYLA), November, 2014
- Street Cleanup Project, December, 2014



Social Welfare And Trust (SWAT)

- SWAT Uniforms, Shoes and Books Distribution to CHS students, September, 2014
- Meat Distribution, October, 2014
- SWAT Open House'14 Featuring Noori, October, 2014
- Distribution of Sweaters/Walk for Peshawar Victims, December, 2014
- Match Screening, Now or Never Pak VS India, February, 2015
- Thar Project'15, February, 2015



Media Society

- Pre-event activity (Information Desk for Fresh men and Photo-booth), September, 2014
- Awaami Junction 3 (Theater Play), September, 2014
- Na- Maloom Afraad Team's visit to IoBM, September, 2014
- Launch of On Campus in collaboration with Marts, March, 2015



Mentor - The Psychology Club

- Open House'14, October, 2014
- "Rajuvenate", December, 2014
- Car Show, April, 2015



CONVOCATION



In December 2014, IoBM held its seventeenth Convocation, awarding degrees to 219 MBA (Regular), 85 MBA (Executive), 28 MBA (Health and Hospital Management), 46 MBA (Industrial Management), 07 MBA (Media Management), 16 MBA (Advertising and Media Management), 24 MBA (Finance and Risk Management), 08 MBA (Telecommunication Management), 12 MBA (Educational Management), 04 MBA (Environmental & Energy Management), 02 MS (Economics & Finance), 01 MS (Computer Science), 11 MSC (Organizational Psychology & HRM), 11 MPhil, 278 BBA (Honors), 64 BS (Joint Honors), 15 BS (Actuarial Science & Risk Management), 13 BS (Industrial Engineering & Management), 24 BS (Commerce), 12, BS (Media Studies), 05 BS (MIT), and 02 BS (Accountancy, Management & Law).

The chief guest was Mr. Nisar Ahmed Khuhro, Senior Minister for Education, Government of Sindh, keynote speaker was Mr. Muhammad Aliuddin Ansari, President & Chief Executive Officer of Engro Corporation in this convocation.

Gold Medals were awarded to the following students:



Areeba Zaidi
BBA (Honors)
Janmohammad Dawood
Gold Medal



Mohsin Ahmed
BBA (Honors)
Halima Fatima Memorial
Gold Medal



Qandeel Fatima Memon
BS (ARM)
Razzak Tabba Memorial
Gold Medal



Madiha Shakil
MBA (Regular)
Shan Foods
Gold Medal



Mariam Tameezuddin
MBA (HRM)
S. H. Hashmi Memorial
Gold Medal



Marium Zehra
MBA (Finance)
Adamjee Foundation
Gold Medal



Fakiha Rasheed
MBA (Health & Hospital Mgmt.)
Sanofi-Aventis
Gold Medal



Madiha Waseem
MBA (Industrial Mgmt.)
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 Master's 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 Master's Programs:

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





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, PhD 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:

- Spain University of Malaga (Coordinating Institution)
- Lithuania Vytautas Magnus University
- Germany Erfurt University of Applied Sciences
- Greece University of Peloponnese
- Italy University of Florence
- Portugal Institute of Politecnico de Castelo Branco
- France University of Montpellier 2
- Poland Wroclaw University of Technology
- Slovakia Technical University of Kosice
- Finland Haaga-Helia University of Applied Sciences
- France IPAC



Asian Partners:

- Pakistan Institute of Business Management (Joint Coordinating Institution)
- Bangladesh American International University
- Bhutan Gaeddu College of Business Studies
- Nepal Kathmandu University
- Sri Lanka University of Peradeniya
- Sri Lanka University of Kelaniya
- 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, Cambodia
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 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) was 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 (President)
9. Employers Federation of Pakistan
10. Institute of Corporate Governance
11. International Finance Corporation (IFC), USA
12. Association of University Programs in Health Administration
13. Association of Management Development Institutions in South Asia (AMDISA)
14. IFC - Business Edge Programs



COLLEGE OF BUSINESS MANAGEMENT

CBM vision is to be the leading business school, nationally and internationally, that is recognized for producing transformational leaders and managers.

CBM Mission is to provide transformational leadership and management for the development of economy and society through excellence in character, professionalism, education and research.

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
- Entrepreneurship
- 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

*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

**1 = Intermediate Arabic

**2 = Intermediate French

**3 = Intermediate Spanish

**4 = Intermediate German

**5 = Intermediate Japanese

**6 = Intermediate Italian

**7 = Intermediate Russian

**8 = Intermediate Chinese

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 Service

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



Entrepreneurship

- ENT503 Startup Experience
- ENT504 Technology Support for Small Business
- FIN603 Entrepreneurial Finance
- ENT505 Innovative Internet Based Business Models
- ENT506 Emerging Entrepreneurial Environment

Human Resource Management

- HRM501 Recruitment and Selection
- HRM503 Employee Training and Development
- HRM504 Negotiation Skills
- HRM508 Salary and Compensation
- HRM511 Performance Appraisal
- HRM512 HR Analytics

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

- MIS509 Software Project Management
- MIS522 Business Information 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

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

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

* 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 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
- 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
- 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 *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

- **1 = Intermediate Arabic **2 = Intermediate French
- **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

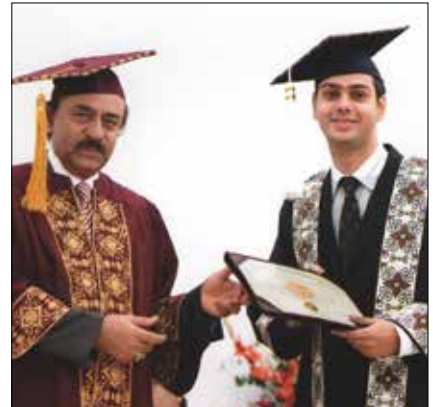
Religious Studies

- 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

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

Course Structure

Semester One Academic English Principles of Microeconomics Foreign Language I or Policy Studies Computer Concepts and Applications College Algebra Islamic Studies	Semester Two Introduction to Financial Accounting Methods in Business Writing Principles of Macroeconomics Foreign Language II or Environmental Studies Calculus for Business Decisions Intermediate Microeconomics
Semester Three Intermediate Financial Accounting Business and Professional Speech Probability Theory and Statistics Business Law Introduction to Psychology Principles of Management	Semester Four Intermediate Macroeconomics Internet Banking and EPS Introduction to Business Finance Principles of Marketing Pakistan Studies Model and Inference
Semester Five International Trade Introduction to Econometrics Money and Banking Financial Management Financial Institutions Methods of Data Analysis	Semester Six Managerial Economics Financial Economics Corporate Finance Entrep. & Small Business Management Organizational Behavior Methods in Business Research
Semester Seven Taxation Topics in Microeconomics Monetary Theory and Policy International Finance Portfolio Management Human Resource Management	Semester Eight Topics in Macroeconomics Pakistan Economic Policy Treasury and Fund Management Investment Banking & Security Analysis Financial Derivatives 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 Microeconomics
- ECO102 Principles of Macroeconomics
- ECO301 Managerial Economics
- 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
- 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	*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

**1 = Intermediate Arabic	**2 = Intermediate French
**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

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

Course Structure

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



OVERVIEW OF MBA PROGRAMS



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

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

The standard MBA program is a 72 credit hours program that most students can complete in two years. It 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 and project dealing with strategy and business transformation.

The foundation stage covers areas such as accounting, finance, marketing, economics and management and consists of preparatory course work necessary for the higher level MBA courses. MBA stage refers to the HEC compliant MS/MBA program requirements.

There are two strands of the standard MBA program; MBA Program with specializations and Specialized MBA programs.

- MBA Program with specializations allows the students to specialize in majors such as Marketing, Finance, Human Resource Management, Logistics and Supply Chain Management and Development Studies. Credit hour requirements for this program may vary in accordance with the duration of the previous qualification and the amount of relevant foundational background for the MBA stage:
 - MBA Program for applicants with 14 years education is of 108 credit hours. It consists of a foundational stage of minimum 2 years and consists of 72 credit hours followed by 36 credit hours of rigorous MBA level courses. Students completing the 2-year foundational stage are eligible for a Bachelor of Business Studies (BBS) degree.
 - MBA Program for applicants with 4-year bachelor degree from IoBM in business related disciplines such as BBA (Honors), BS Joint (Honors), BS (Honors) Accountancy, Management & Law are exempted from the foundational stage, and their MBA program is of 36 credit hours.
 - MBA Program for applicants with 4-years bachelors degree from IoBM in non-business disciplines are exempted from up to 6 equivalent courses of the foundational stage done at IoBM.
- Specialized MBA Programs are all of 72 credit hours and share the structural guidelines of the standard MBA program with coverage of the foundational courses in the areas such as Economics, Quantitative, Communication, Research, Management, Marketing, Finance, Accounting etc and retain the emphasis on strategy core courses at the MBA level. The specialized MBA Programs include:
 - MBA Educational Management
 - MBA Media Management
 - MBA Industrial Management
 - MBA Environment and Energy Management
 - MBA Finance and Risk Management
 - MBA Logistics and Supply Chain Management
 - MBA Health and Hospital Management



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



The CBM MBA program is designed to produce transformational and ethical leadership for businesses and industry through integrated curriculum and experiential learning and prepares graduates for business challenges emerging from globalization, connectivity and technology driven innovations. The program is designed to produce a skilled pool of business leaders possessing a solid set of multidisciplinary expertise in the core corporate functions of Finance, Marketing, HRM, Supply Chain and Development Studies.

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.

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

MBA students can specialize in the following areas:

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

Required Course

Finance

FIN601* Strategic Financial Analysis and Design

Human Resource Management

HRM606* Leadership, Ethics and Change



Being awarded the gold medal for highest CGPA in BBA(H), honored by being the Valedictorian for batch of 2014 and qualifying for one of the toughest graduates program in Pakistan's banking industry, I am truly blessed. I owe my successes, achievements and milestones to only IoBM, its faculty and the incredible management. The university not only grooms you for the professional world but toughens you up and gears you towards success. We've always been encouraged to push the envelope, explore the possibilities and carve our own niche in this world. IoBM not only shows you the way but also provides you the tools to reach the top. I am proud to be affiliated with IoBM, it is a wonderful place to learn, share, grow and be the best version of yourself. I thank the university and its staff for making my years at this institute the most productive, rewarding and memorable.

Areeba Zaidi
Gold Medalist
BBA (Honors)



Management

MAN604* Management Strategies and Emerging Organizations

MAN606* Business Analytics for Decision Making

MAN608* Technology, Operations and Innovation

Marketing

MKT601* Marketing Strategies and Value Innovation

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

ACC601 Advanced Financial Accounting

ACC602 Advanced Managerial Accounting

ACC603 Auditing

ACC604 Analysis of Financial Statements

Majors in Finance and Banking

FIN602 Behavioral Finance

FIN603 Entrepreneurial Finance

FIN604 Debt and Equity Markets

FIN606 SME and Micro-Financing

FIN607 Financial Derivatives and Risk Management

FIN608 Project Appraisal

FIN610 International Islamic Finance Standards

FIN611 Islamic Capital Markets

FRM514 Takaful and Risk Management in Islamic Products

Majors in Human Resource Management

HRM607 Recruitment and Selection

HRM608 Industrial Relations and Labor Laws

HRM609 Employee Training and Development

HRM610 Negotiation Skills

HRM611 Organizational Change and Development

HRM612 Strategic Human Resource Management

HRM615 Leadership Studies

HRM614 Salary and Compensation

HRM616 Performance Appraisal and Management

HRM617 HR Analytics

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

Majors in Development Studies

SSC601 Dimensions of Development

SSC602 Development Sociology

PDE703 Development Economics

STA601 Development Statistics and Research Methodology

MAN607 Project and Planning Management

Majors in Management

MAN610 Environmental Issues and Management

MAN611 Project Management

MAN613 Corporate Governance

MAN614 Comparative Management

MAN615 Corporate Social Responsibility



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 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
- MKT609 Social Marketing
- MKT610 New Product Development
- MKT611 Integrated Marketing Communications
- MKT612 Distribution and Channel Management
- MKT613 Marketing of Financial Services
- MKT614 Media Marketing
- MKT615 Brand Management
- MKT616 International Marketing
- MKT617 Industrial Marketing
- MKT618 Advertising
- MKT619 Marketing Research

Majors in Logistics and Supply Chain Management

- SCM601 Quantitative Methods in Production and Logistics
- SCM602 Business Process Mgmt. in Supply Chain & Logistics
- SCM603 IT Applications in Logistics
- SCM604 Packaging Design and Environmental Aspects
- SCM605 Supply Chain Management
- SCM606 ERP Systems Design and Implementation
- SCM607 Strategic Supply Chain Management
- SCM608 Procurement and Inventory Management
- SCM609 Storage and Warehouse Techniques
- SCM610 Transportation Techniques and Management
- SCM611 Sustainability & Env. Aspects in Managing Supply Chains
- SCM612 Risk Management in Supply Networks
- SCM613 Innovation Management in Supply Chain and Logistics
- SCM614 Corporate Consultancy Project in Logistics

Course Structure

Semester One Management Strategies and Emerging Organizations Marketing Strategies and Value Innovation Elective I Elective II	Semester Two Technology, Operations and Innovation Strategic Financial Analysis and Design Elective III Elective IV
Semester Three Business Analytics for Decision Making Leadership, Ethics and Change Capstone Project I	Semester Four Capstone Project II

MBA PROGRAM FOR STUDENTS WITH 16 YEARS EDUCATION

The CBM MBA program is designed to produce transformational and ethical leadership for businesses and industry through integrated curriculum and experiential learning and prepares graduates for business challenges emerging from globalization, connectivity and technology driven innovations. The program is designed to produce a skilled pool of business leaders possessing a solid set of multidisciplinary expertise in the core corporate functions of Finance, Marketing, HRM, Supply Chain and Development Studies.

The program is a 72 credit hours program that most students can complete in two years. It 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 and project dealing with strategy and business transformation. The foundation stage covers areas such as accounting, finance, marketing, economics and management and 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.

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

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

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

Applicants from non-business disciplines of IoBM may avail up to 6 course exemptions from foundation stage courses equivalent to their bachelor's program courses.



"Four years at IoBM have been an exhilarating experience. IoBM provided me with 100% scholarship which shows that hard-work is highly appreciated here. This Institute has also provided me an opportunity to gauge international exposure through the exchange program at Bilkent University Turkey. The finance elective courses that I took there has helped me a lot in enhancing my knowledge. IoBM's faculty has not only taught me the subject courses efficiently but have also taught how to have a positive outlook on life, and how to overcome emerging challenges. I have made friends here who will remain friends for a lifetime. Thank you IoBM for this amazing experience!"

Asfia Aziz
President's Merit Scholarship
BBA (Honors)

Required Courses

Accounting

ACC419 Financial Accounting

Communication

COM107+Academic English

COM402 Business Communication

+Less Proficient Students

Economics

ECO409 Business Economics

Finance

FIN404 Financial Management

FIN601* Strategic Financial Analysis and Design

Human Resource Management

HRM410 Managing Human Capital

HRM606*Leadership, Ethics and Change

** Indicates MBA level courses*

Specialized Courses

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

Majors in Accounting

ACC601 Advanced Financial Accounting

ACC602 Advanced Managerial Accounting

ACC603 Auditing

ACC604 Analysis of Financial Statements

Marketing Electives for MBA

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

MKT609 Social Marketing

MKT610 New Product Development

MKT611 Integrated Marketing Communications

MKT612 Distribution and Channel Management

MKT613 Marketing of Financial Services

MKT614 Media Marketing

MKT615 Brand Management

MKT616 International Marketing

MKT617 Industrial Marketing

MKT618 Advertising

MKT619 Marketing Research

Law

LAW409 Corporate and Business Law

Management

MAN403 Entrepreneurship and Small Business Management

MAN418 Management and Organizational Dynamics

MAN606*Business Analytics for Decision Making

MAN608*Technology, Operations and Innovation

MAN612*Strategic Management

Marketing

MKT402 Marketing Management

MKT404 Methods in Business Research

MKT509 Consumer Behavior

MKT601* Marketing Strategies and Value Innovation

Statistics and Mathematics

STA411 Quantitative Analysis for Decision Making

Capstone Project

BPR601* Capstone Project I

BPR602* Capstone Project II

Majors in Finance and Banking

FIN602 Behavioral Finance

FIN603 Entrepreneurial Finance

FIN604 Debt and Equity Markets

FIN606 SME and Micro-Financing

FIN607 Financial Derivatives and Risk Management

FIN608 Project Appraisal

FIN610 International Islamic Finance Standards

FIN611 Islamic Capital Markets

FRM514 Takaful and Risk Management in Islamic Products

Majors in Human Resource Management

HRM607 Recruitment and Selection

HRM608 Industrial Relations and Labor Laws

HRM609 Employee Training and Development

HRM610 Negotiation Skills

HRM611 Organizational Change and Development

HRM612 Strategic Human Resource Management

HRM615 Leadership Studies

HRM614 Salary and Compensation

HRM616 Performance Appraisal and Management

HRM617 HR Analytics

Majors in Management

MAN610 Environmental Issues and Management

MAN611 Project Management

MAN613 Corporate Governance

MAN614 Comparative Management

MAN615 Corporate Social Responsibility

Majors in Logistics and Supply Chain Management

- SCM601 Quantitative Methods in Production and Logistics
- SCM602 Business Process Mgmt. in Supply Chain & Logistics
- SCM603 IT Applications in Logistics
- SCM604 Packaging Design and Environmental Aspects
- SCM605 Supply Chain Management
- SCM606 ERP Systems Design and Implementation
- SCM607 Strategic Supply Chain Management
- SCM608 Procurement and Inventory Management
- SCM609 Storage and Warehouse Techniques
- SCM610 Transportation Techniques and Management
- SCM611 Sustainability & Env. Aspects in Managing Supply Chains
- SCM612 Risk Management in Supply Networks
- SCM613 Innovation Management in Supply Chain and Logistics
- SCM614 Corporate Consultancy Project in Logistics

Majors in Development Studies

- SSC601 Dimensions of Development
- SSC602 Development Sociology
- PDE703 Development Economics
- STA601 Development Statistics and Research Methodology
- MAN607 Project and Planning Management



Course Structure

<p>Foundation Stage Semester One Management and Organizational Dynamics Consumer Behavior Financial Accounting Quantitative Analysis for Decision Making Business Economics Business Communication</p>	<p>Semester Two Methods in Business Research Financial Management Marketing Management Corporate and Business Law Managing Human Capital Entrepreneurship and Small Business Management</p>
<p>MBA Stage Semester Three Strategic Management Technology, Operations and Innovation Elective I Elective II</p>	<p>Semester Four Marketing Strategies and Value Innovation Strategic Financial Analysis and Design Elective III Capstone Project I</p>
<p>Semester Five Business Analytics for Decision Making Leadership, Ethics and Change Elective IV Capstone Project II</p>	

MBA PROGRAM FOR STUDENTS WITH 14 YEARS EDUCATION



The CBM MBA program is designed to produce transformational and ethical leadership for businesses and industry through integrated curriculum and experiential learning and prepares graduates for business challenges emerging from globalization, connectivity and technology driven innovations. The program develops a skilled pool of business leaders possessing a solid set of multidisciplinary expertise in the core corporate functions of Finance, Marketing, HRM, Supply Chain and Development Studies.

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 covers areas such as accounting, finance, marketing, economics and management and 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 eligible for the grant of Bachelor of Business Studies (BBS) degree.

Students must maintain a 3.0 CGPA for MBA level courses 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.

A distinguishing feature of the CBM MBA is the academic ecosystem of experiential learning which immerses the student in a cycle of “learning by doing” through reflection. Case studies and project work are among the pedagogies used for delivery of the curriculum content.

A significant value adding feature of the CBM MBA is the 6 credit hours Graduate Capstone Project divided into two 3 credit hour components. Students undertake, individually or in small groups, a real life project with a company that addresses a real life issue which, through the application of multidisciplinary knowledge and skills acquired during the MBA studies helps in more profitable and competitive decision making and implementation in the organization. This project is jointly supervised and evaluated by a faculty member with aligned skills and interest and an industry mentor and is evaluated in an open exhibition by executives and faculty.

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

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



Required Courses

Accounting

ACC401 Introduction to Managerial and Cost Accounting
ACC419 Financial Accounting

Communication

COM107⁺ Academic English
COM407 Business and Professional Speech
COM408 Persuasive & Analytical Writing for Business Comm.
⁺Less Proficient Students

Economics

ECO405 Seminar in Economic Policy
ECO409 Business Economics

Law

LAW409 Corporate and Business Law

Management

MAN308 Social Advocacy and Community Service
MAN401 Principles of Management
MAN402 Organizational Behavior
MAN403 Entrepreneurship and Small Business Management
MAN406 Production and Operations Management
MAN415 Entrepreneurial Leadership and Motivation
MAN606* Business Analytics and Decision Making
MAN608* Technology, Operations and Innovation
MAN612* Strategic Management

**Indicates MBA level courses*

Specialized Courses

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

Majors in Accounting

ACC601 Advanced Financial Accounting
ACC602 Advanced Managerial Accounting
ACC603 Auditing
ACC604 Analysis of Financial Statements

Majors in Finance and Banking

FIN602 Behavioral Finance
FIN603 Entrepreneurial Finance
FIN604 Debt and Equity Markets
FIN606 SME and Micro-Financing
FIN607 Financial Derivatives and Risk Management
FIN608 Project Appraisal
FIN610 International Islamic Finance Standards
FIN611 Islamic Capital Markets
FRM514 Takaful and Risk Management in Islamic Products

Finance

FIN404 Financial Management
FIN601* Strategic Financial Analysis and Design

Human Resource Management

HRM606* Leadership, Ethics and Change
HRM410 Managing Human Capital

Marketing

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

Management Information Systems

MIS526 Introduction to Enterprise Resource Planning Systems

Statistics and Mathematics

STA403 Statistics and Mathematics
STA404 Statistical Inference

Social Sciences

SSC301 History of Ideas
SSC400 Organizational Psychology
SSC401 Business Ethics

Capstone Project

BPR601* Capstone Project I
BPR602* Capstone Project II

Marketing Electives for MBA

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
MKT609 Social Marketing
MKT610 New Product Development
MKT611 Integrated Marketing Communications
MKT612 Distribution and Channel Management
MKT613 Marketing of Financial Services
MKT614 Media Marketing
MKT615 Brand Management
MKT616 International Marketing
MKT617 Industrial Marketing
MKT618 Advertising
MKT619 Marketing Research

Majors in Human Resource Management

- HRM607 Recruitment and Selection
- HRM608 Industrial Relations and Labor Laws
- HRM609 Employee Training and Development
- HRM610 Negotiation Skills
- HRM611 Organizational Change and Development
- HRM612 Strategic Human Resource Management
- HRM615 Leadership Studies
- HRM614 Salary and Compensation
- HRM616 Performance Appraisal and Management
- HRM617 HR Analytics

Majors in Management

- MAN610 Environmental Issues and Management
- MAN611 Project Management
- MAN613 Corporate Governance
- MAN614 Comparative Management
- MAN615 Corporate Social Responsibility

Majors in Development Studies

- SSC601 Dimensions of Development
- SSC602 Development Sociology
- PDE703 Development Economics
- STA601 Development Statistics and Research Methodology
- MAN607 Project and Planning Management

Majors in Logistics and Supply Chain Management

- SCM601 Quantitative Methods in Production and Logistics
- SCM602 Business Process Mgmt. in Supply Chain & Logistics
- SCM603 IT Applications in Logistics
- SCM604 Packaging Design and Environmental Aspects
- SCM605 Supply Chain Management
- SCM606 ERP Systems Design and Implementation
- SCM607 Strategic Supply Chain Management
- SCM608 Procurement and Inventory Management
- SCM609 Storage and Warehouse Techniques
- SCM610 Transportation Techniques and Management
- SCM611 Sustainability & Env. Aspects in Managing Supply Chains
- SCM612 Risk Management in Supply Networks
- SCM613 Innovation Management in Supply Chain and Logistics
- SCM614 Corporate Consultancy Project in Logistics

Course Structure

Foundation Stage Semester One Business and Professional Speech Financial Accounting Principles of Management Consumer Behavior Statistics and Mathematics Organizational Psychology	Semester Two Persuasive and Analytical Writing for Business Communication Organizational Behavior Marketing Management Statistical Inference History of Ideas Business Economics
Semester Three Introduction to Managerial & Cost Accounting Corporate and Business Law Managing Human Capital Entrepreneurial Leadership and Motivation Methods in Business Research Social Advocacy and Community Service	Semester Four Introduction to Enterprise Resource Planning Systems Financial Management Business Ethics Seminar in Economic Policy Entrepreneurship and Small Business Management Sales Management
MBA Stage Semester Five Strategic Management Technology, Operations and Innovation Elective I Elective II	Semester Six Marketing Strategies and Value Innovation Business Analytics for Decision Making Elective III Capstone Project I
Semester Seven Strategic Financial Analysis and Design Leadership, Ethics and Change Elective IV Capstone Project II	

MBA WEEKEND PROGRAM FOR STUDENTS WITH 16 YEARS EDUCATION

The CBM MBA program is designed to produce transformational and ethical leadership for businesses and industry through integrated curriculum and experiential learning and prepares graduates for business challenges emerging from globalization, connectivity and technology driven innovations. The program is designed to produce a skilled pool of business leaders possessing a solid set of multidisciplinary expertise in the core corporate functions of Finance, Marketing, HRM, Supply Chain and Development Studies.

The CBM MBA program is a 72 credit hours program that most students can complete in two years. The CBM MBA program is designed for working executives 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 and project dealing with strategy and business transformation. The foundation stage covers areas such as accounting, finance, marketing, economics and management and consists of preparatory course work necessary for the higher level MBA courses. 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.

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- Management
- Finance
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- Development Studies

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Required Courses

Accounting

ACC419 Financial Accounting

Communication

COM107⁺ Academic English

COM402 Business Communication

⁺ Less Proficient Students

Economics

ECO409 Business Economics

Finance

FIN404 Financial Management

FIN601* Strategic Financial Analysis and Design

Human Resource Management

HRM410 Managing Human Capital

HRM606* Leadership, Ethics and Change

* Indicates MBA level courses

Specialized Courses

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

Majors in Accounting

ACC601 Advanced Financial Accounting

ACC602 Advanced Managerial Accounting

ACC603 Auditing

ACC604 Analysis of Financial Statements

Marketing Electives for MBA

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

MKT609 Social Marketing

MKT610 New Product Development

MKT611 Integrated Marketing Communications

MKT612 Distribution and Channel Management

MKT613 Marketing of Financial Services

MKT614 Media Marketing

MKT615 Brand Management

MKT616 International Marketing

MKT617 Industrial Marketing

MKT618 Advertising

MKT619 Marketing Research

Law

LAW409 Corporate and Business Law

Management

MAN403 Entrepreneurship and Small Business Management

MAN418 Management and Organizational Dynamics

MAN606* Business Analytics for Decision Making

MAN608* Technology, Operations and Innovation

MAN612* Strategic Management

Marketing

MKT402 Marketing Management

MKT404 Methods in Business Research

MKT509 Consumer Behavior

MKT601* Marketing Strategies and Value Innovation

Statistics and Mathematics

STA411 Quantitative Analysis for Decision Making

Capstone Project

BPR601* Capstone Project I

BPR602* Capstone Project II

Majors in Finance and Banking

FIN602 Behavioral Finance

FIN603 Entrepreneurial Finance

FIN604 Debt and Equity Markets

FIN606 SME and Micro-Financing

FIN607 Financial Derivatives and Risk Management

FIN608 Project Appraisal

FIN610 International Islamic Finance Standards

FIN611 Islamic Capital Markets

FRM514 Takaful and Risk Management in Islamic Products

Majors in Human Resource Management

HRM607 Recruitment and Selection

HRM608 Industrial Relations and Labor Laws

HRM609 Employee Training and Development

HRM610 Negotiation Skills

HRM611 Organizational Change and Development

HRM612 Strategic Human Resource Management

HRM615 Leadership Studies

HRM614 Salary and Compensation

HRM616 Performance Appraisal and Management

HRM617 HR Analytics

Majors in Management

MAN610 Environmental Issues and Management

MAN611 Project Management

MAN613 Corporate Governance

MAN614 Comparative Management

MAN615 Corporate Social Responsibility

Majors in Logistics and Supply Chain Management

- SCM601 Quantitative Methods in Production and Logistics
- SCM602 Business Process Mgmt. in Supply Chain & Logistics
- SCM603 IT Applications in Logistics
- SCM604 Packaging Design and Environmental Aspects
- SCM605 Supply Chain Management
- SCM606 ERP Systems Design and Implementation
- SCM607 Strategic Supply Chain Management
- SCM608 Procurement and Inventory Management
- SCM609 Storage and Warehouse Techniques
- SCM610 Transportation Techniques and Management
- SCM611 Sustainability & Env. Aspects in Managing Supply Chains
- SCM612 Risk Management in Supply Networks
- SCM613 Innovation Management in Supply Chain and Logistics
- SCM614 Corporate Consultancy Project in Logistics

Majors in Development Studies

- SSC601 Dimensions of Development
- SSC602 Development Sociology
- PDE703 Development Economics
- STA601 Development Statistics and Research Methodology
- MAN607 Project and Planning Management



Course Structure

Foundation Stage Semester One Management and Organizational Dynamics Consumer Behavior Business Communication Quantitative Analysis for Decision Making	Semester Two Business Economics Financial Accounting Marketing Management Managing Human Capital
Semester Three Methods in Business Research Corporate and Business Law Financial Management Entrepreneurship and Small Business Management	MBA Stage Semester Four Strategic Management Technology, Operations and Innovation Elective I Elective II
Semester Five Marketing Strategies and Value Innovation Strategic Financial Analysis and Design Elective III Capstone Project I	Semester Six Business Analytics for Decision Making Leadership, Ethics and Change Elective IV Capstone Project II

MBA WEEKEND PROGRAM FOR STUDENTS WITH 14 YEARS EDUCATION



The CBM MBA program is designed to produce transformational and ethical leadership for businesses and industry through integrated curriculum and experiential learning and prepares graduates for business challenges emerging from globalization, connectivity and technology driven innovations. The program develops a skilled pool of business leaders possessing a solid set of multidisciplinary expertise in the core corporate functions of Finance, Marketing, HRM, Supply Chain and Development Studies.

This MBA program is designed for working executives 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 covers areas such as accounting, finance, marketing, economics and management and consists of preparatory course work necessary for the higher level MBA courses. Students completing 72 credit hours of the foundation stage are eligible for the grant of Bachelor of Business Studies (BBS) degree.



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

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

Required Courses

Accounting

- ACC401 Introduction to Managerial and Cost Accounting
- ACC419 Financial Accounting

Communication

- COM107+Academic English
- COM407 Business and Professional Speech
- COM408 Persuasive & Analytical Writing for Business Comm.
+Less Proficient Students

Economics

- ECO405 Seminar in Economic Policy
- ECO409 Business Economics

Law

- LAW409 Corporate and Business Law

Management

- MAN308 Social Advocacy and Community Service
- MAN401 Principles of Management
- MAN402 Organizational Behavior
- MAN403 Entrepreneurship and Small Business Management
- MAN415 Entrepreneurial Leadership and Motivation
- MAN606*Business Analytics for Decision Making
- MAN608*Technology, Operations and Innovation
- MAN612*Strategic Management

**Indicates MBA level courses*

Specialized Courses

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

Majors in Accounting

- ACC601 Advanced Financial Accounting
- ACC602 Advanced Managerial Accounting
- ACC603 Auditing
- ACC604 Analysis of Financial Statements

Majors in Finance and Banking

- FIN602 Behavioral Finance
- FIN603 Entrepreneurial Finance
- FIN604 Debt and Equity Markets
- FIN606 SME and Micro-Financing
- FIN607 Financial Derivatives and Risk Management
- FIN608 Project Appraisal
- FIN610 International Islamic Finance Standards
- FIN611 Islamic Capital Markets
- FRM514 Takaful and Risk Management in Islamic Products

Finance

- FIN404 Financial Management
- FIN601* Strategic Financial Analysis and Design

Human Resource Management

- HRM606*Leadership, Ethics and Change
- HRM410 Managing Human Capital

Marketing

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

Management Information Systems

- MIS526 Introduction to Enterprise Resource Planning Systems

Statistics and Mathematics

- STA403 Statistics and Mathematics
- STA404 Statistical Inference

Social Sciences

- SSC301 History of Ideas
- SSC400 Organizational Psychology
- SSC401 Business Ethics

Capstone Project

- BPR601* Capstone Project I
- BPR602* Capstone Project II

Marketing Electives for MBA

- 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
- MKT609 Social Marketing
- MKT610 New Product Development
- MKT611 Integrated Marketing Communications
- MKT612 Distribution and Channel Management
- MKT613 Marketing of Financial Services
- MKT614 Media Marketing
- MKT615 Brand Management
- MKT616 International Marketing
- MKT617 Industrial Marketing
- MKT618 Advertising
- MKT619 Marketing Research

Majors in Human Resource Management

- HRM607 Recruitment and Selection
- HRM608 Industrial Relations and Labor Laws
- HRM609 Employee Training and Development
- HRM610 Negotiation Skills
- HRM611 Organizational Change and Development
- HRM612 Strategic Human Resource Management
- HRM615 Leadership Studies
- HRM614 Salary and Compensation
- HRM616 Performance Appraisal and Management
- HRM617 HR Analytics

Majors in Management

- MAN610 Environmental Issues and Management
- MAN611 Project Management
- MAN613 Corporate Governance
- MAN614 Comparative Management
- MAN615 Corporate Social Responsibility

Majors in Development Studies

- SSC601 Dimensions of Development
- SSC602 Development Sociology
- PDE703 Development Economics
- STA601 Development Statistics and Research Methodology
- MAN607 Project and Planning Management

Majors in Logistics and Supply Chain Management

- SCM601 Quantitative Methods in Production and Logistics
- SCM602 Business Process Mgmt. in Supply Chain & Logistics
- SCM603 IT Applications in Logistics
- SCM604 Packaging Design and Environmental Aspects
- SCM605 Supply Chain Management
- SCM606 ERP Systems Design and Implementation
- SCM607 Strategic Supply Chain Management
- SCM608 Procurement and Inventory Management
- SCM609 Storage and Warehouse Techniques
- SCM610 Transportation Techniques and Management
- SCM611 Sustainability & Env. Aspects in Managing Supply Chains
- SCM612 Risk Management in Supply Networks
- SCM613 Innovation Management in Supply Chain and Logistics
- SCM614 Corporate Consultancy Project in Logistics

Course Structure

Foundation Stage Semester One Business and Professional Speech Financial Accounting Principles of Management Organizational Psychology	Semester Two Statistics and Mathematics Consumer Behavior Persuasive and Analytical Writing for Business Communication Entrepreneurial Leadership and Motivation
Semester Three Marketing Management Statistical Inference History of Ideas Organizational Behavior	Semester Four Business Economics Introduction to Managerial & Cost Accounting Corporate and Business Law Managing Human Capital
Semester Five Methods in Business Research Social Advocacy and Community Service Introduction to Enterprise Resource Planning Systems Financial Management	Semester Six Business Ethics Seminar in Economic Policy Entrepreneurship and Small Business Management Sales Management
MBA Stage Semester Seven Strategic Management Technology, Operations and Innovation Elective I Elective II	Semester Eight Marketing Strategies and Value Innovation Business Analytics for Decision Making Elective III Capstone Project I
Semester Nine Strategic Financial Analysis and Design Leadership, Ethics and Change Elective IV Capstone Project II	

MBA EVENING PROGRAM FOR STUDENTS WITH 16 YEARS EDUCATION

The CBM MBA program is designed to produce transformational and ethical leadership for businesses and industry through integrated curriculum and experiential learning and prepares graduates for business challenges emerging from globalization, connectivity and technology driven innovations. The program is designed to produce a skilled pool of business leaders possessing a solid set of multidisciplinary expertise in the core corporate functions of Finance, Marketing, HRM, Supply Chain and Development Studies.

The CBM MBA program is a 72 credit hours program that most students can complete in two years. The CBM 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 and project dealing with strategy and business transformation. The foundation stage covers areas such as accounting, finance, marketing, economics and management and consists of preparatory course work necessary for the higher level MBA courses. 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.

A distinguishing feature of the CBM MBA is the academic ecosystem of experiential learning which immerses the student in a cycle of “learning by doing” through reflection. Case studies and project work are among the pedagogies used for delivery of the curriculum content. A significant value adding feature of the CBM MBA is the 6 credit hours Graduate Capstone Project divided into two 3 credit hour components. Students undertake, individually or in small groups, a real life project with a company that addresses a real life issue which, through the application of multidisciplinary knowledge and skills acquired during the MBA studies, helps in more profitable and competitive decision making and implementation in the organization. This project is jointly supervised and evaluated by a faculty member with aligned skills and interest and an industry mentor and is evaluated in an open exhibition by executives and faculty. 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
- Management
- Finance
- Human Resource Management
- Logistics and Supply Chain Management
- Development Studies

Applicants from non-business disciplines of IoBM may avail up to 6 course exemptions from foundation stage courses equivalent to their bachelor's program courses.



Required Courses

Accounting

ACC419 Financial Accounting

Communication

COM107⁺ Academic English

COM402 Business Communication

⁺Less Proficient Students

Economics

ECO409 Business Economics

Finance

FIN404 Financial Management

FIN601* Strategic Financial Analysis and Design

Human Resource Management

HRM410 Managing Human Capital

HRM606* Leadership, Ethics and Change

* Indicates MBA level courses

Specialized Courses

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

Majors in Accounting

ACC601 Advanced Financial Accounting

ACC602 Advanced Managerial Accounting

ACC603 Auditing

ACC604 Analysis of Financial Statements

Marketing Electives for MBA

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

MKT609 Social Marketing

MKT610 New Product Development

MKT611 Integrated Marketing Communications

MKT612 Distribution and Channel Management

MKT613 Marketing of Financial Services

MKT614 Media Marketing

MKT615 Brand Management

MKT616 International Marketing

MKT617 Industrial Marketing

MKT618 Advertising

MKT619 Marketing Research

Law

LAW409 Corporate and Business Law

Management

MAN403 Entrepreneurship and Small Business Management

MAN418 Management and Organizational Dynamics

MAN606 Business Analytics for Decision Making

MAN608* Technology, Operations and Innovation

MAN612* Strategic Management

Marketing

MKT402 Marketing Management

MKT404 Methods in Business Research

MKT509 Consumer Behavior

MKT601* Marketing Strategies and Value Innovation

Statistics and Mathematics

STA411 Quantitative Analysis for Decision Making

Capstone Project

BPR601* Capstone Project I

BPR602* Capstone Project II

Majors in Finance and Banking

FIN602 Behavioral Finance

FIN603 Entrepreneurial Finance

FIN604 Debt and Equity Markets

FIN606 SME and Micro-Financing

FIN607 Financial Derivatives and Risk Management

FIN608 Project Appraisal

FIN610 International Islamic Finance Standards

FIN611 Islamic Capital Markets

FRM514 Takaful and Risk Management in Islamic Products

Majors in Human Resource Management

HRM607 Recruitment and Selection

HRM608 Industrial Relations and Labor Laws

HRM609 Employee Training and Development

HRM610 Negotiation Skills

HRM611 Organizational Change and Development

HRM612 Strategic Human Resource Management

HRM615 Leadership Studies

HRM614 Salary and Compensation

HRM616 Performance Appraisal and Management

HRM617 HR Analytics

Majors in Management

MAN610 Environmental Issues and Management

MAN611 Project Management

MAN613 Corporate Governance

MAN614 Comparative Management

MAN615 Corporate Social Responsibility

Majors in Logistics and Supply Chain Management

- SCM601 Quantitative Methods in Production and Logistics
- SCM602 Business Process Mgmt. in Supply Chain & Logistics
- SCM603 IT Applications in Logistics
- SCM604 Packaging Design and Environmental Aspects
- SCM605 Supply Chain Management
- SCM606 ERP Systems Design and Implementation
- SCM607 Strategic Supply Chain Management
- SCM608 Procurement and Inventory Management
- SCM609 Storage and Warehouse Techniques
- SCM610 Transportation Techniques and Management
- SCM611 Sustainability & Env. Aspects in Managing Supply Chains
- SCM612 Risk Management in Supply Networks
- SCM613 Innovation Management in Supply Chain and Logistics
- SCM614 Corporate Consultancy Project in Logistics

Majors in Development Studies

- SSC601 Dimensions of Development
- SSC602 Development Sociology
- PDE703 Development Economics
- STA601 Development Statistics and Research Methodology
- MAN607 Project and Planning Management



The journey at IoBM was filled with different life changing experiences. IoBM has helped me to recognize my true potential and has helped me to achieve my goal. It was through IoBM that I got the opportunity to be an Exchange participant and study in Guilin University (China) for a semester. I am really thankful to IoBM for providing me such an international exposure that boosted my confidence. Studying at IoBM was a transformative journey for me as it has helped me to learn more insights in my particular field and the great support provided by the IoBM's faculty has made me capable enough to deal with professional challenges. The four years at IoBM have been very enriching and has groomed me personally and professionally. Thank you IoBM!

Alina Makhani

Recipient of exchange scholarship to China

Course Structure

Foundation Stage Semester One Management and Organizational Dynamics Consumer Behavior Business Communication Quantitative Analysis for Decision Making	Semester Two Business Economics Financial Accounting Marketing Management Managing Human Capital
Semester Three Methods in Business Research Corporate and Business Law Financial Management Entrepreneurship and Small Business Management	MBA Stage Semester Four Strategic Management Technology, Operations and Innovation Elective I Elective II
Semester Five Marketing Strategies and Value Innovation Strategic Financial Analysis and Design Elective III Capstone Project I	Semester Six Business Analytics for Decision Making Leadership, Ethics and Change Elective IV Capstone Project II

MBA EVENING PROGRAM FOR STUDENTS WITH 14 YEARS EDUCATION



The CBM MBA program is designed to produce transformational and ethical leadership for businesses and industry through integrated curriculum and experiential learning and prepares graduates for business challenges emerging from globalization, connectivity and technology driven innovations. The program develops a skilled pool of business leaders possessing a solid set of multidisciplinary expertise in the core corporate functions of Finance, Marketing, HRM, Supply Chain and Development Studies.

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 covers areas such as accounting, finance, marketing, economics and management and consists of preparatory course work necessary for the higher level MBA courses. Students completing 72 credit hours of the foundation stage are eligible for the grant of Bachelor of Business Studies (BBS) degree.

Students must maintain a 3.0 CGPA for MBA level courses 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.

A distinguishing feature of the CBM MBA is the academic ecosystem of experiential learning which immerses the student in a cycle of “learning by doing” through reflection. Case studies and project work are among the pedagogies used for delivery of the curriculum content.

A significant value adding feature of the CBM MBA is the 6 credit hours of a Graduate Capstone Project divided into two 3 credit hour components. Students undertake, individually or in small groups, a real life project with a company that addresses a real life issue which, through the application of multidisciplinary knowledge and skills acquired during the MBA studies helps in more profitable and competitive decision making and implementation in the organization. This project is jointly supervised and evaluated by a faculty member with aligned skills and interest and an industry mentor and is evaluated in an open exhibition by executives and faculty. 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
- Management
- Finance
- Human Resource Management
- Logistics and Supply Chain Management
- Development Studies



I remember walking into IOBM not knowing what I wanted to do with life. Little did I know that being a part of IOBM would change my life. Being the president of the Marketing society, I was exposed to the practical aspects of Marketing which helped me not only adjust but also excel in the field with a competitive edge, interaction with companies, meeting managers and discussing strategy created a rich and conducive learning environment for me. The faculty not only imparted skill but also provide adequate support and direction. Every class added some value, every individual provided impetus to grow.

Roydon D'mello
Assistant Manager Marketing
FedEX Express

Required Courses

Accounting

- ACC401 Introduction to Managerial and Cost Accounting
- ACC419 Financial Accounting

Communication

- COM107⁺ Academic English
 - COM407 Business and Professional Speech
 - COM408 Persuasive & Analytical Writing for Business Comm.
- ⁺Less Proficient Students

Economics

- ECO405 Seminar in Economic Policy
- ECO409 Business Economics

Law

- LAW409 Corporate and Business Law

Management

- MAN308 Social Advocacy and Community Service
- MAN401 Principles of Management
- MAN402 Organizational Behavior
- MAN403 Entrepreneurship and Small Business Management
- MAN415 Entrepreneurial Leadership and Motivation
- MAN606* Business Analytics for Decision Making
- MAN608* Technology, Operations and Innovation
- MAN612* Strategic Management

**Indicates MBA level courses*

Specialized Courses

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

Majors in Accounting

- ACC601 Advanced Financial Accounting
- ACC602 Advanced Managerial Accounting
- ACC603 Auditing
- ACC604 Analysis of Financial Statements

Majors in Finance and Banking

- FIN602 Behavioral Finance
- FIN603 Entrepreneurial Finance
- FIN604 Debt and Equity Markets
- FIN606 SME and Micro-Financing
- FIN607 Financial Derivatives and Risk Management
- FIN608 Project Appraisal
- FIN610 International Islamic Finance Standards
- FIN611 Islamic Capital Markets
- FRM514 Takaful and Risk Management in Islamic Products

Finance

- FIN404 Financial Management
- FIN601* Strategic Financial Analysis and Design

Human Resource Management

- HRM606* Leadership, Ethics and Change
- HRM410 Managing Human Capital

Marketing

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

Management Information Systems

- MIS526 Introduction to Enterprise Resource Planning Systems

Statistics and Mathematics

- STA403 Statistics and Mathematics
- STA404 Statistical Inference

Social Sciences

- SSC301 History of Ideas
- SSC400 Organizational Psychology
- SSC401 Business Ethics

Capstone Project

- BPR601* Capstone Project I
- BPR602* Capstone Project II

Marketing Electives for MBA

- 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
- MKT609 Social Marketing
- MKT610 New Product Development
- MKT611 Integrated Marketing Communications
- MKT612 Distribution and Channel Management
- MKT613 Marketing of Financial Services
- MKT614 Media Marketing
- MKT615 Brand Management
- MKT616 International Marketing
- MKT617 Industrial Marketing
- MKT618 Advertising
- MKT619 Marketing Research

Majors in Human Resource Management

HRM607 Recruitment and Selection
 HRM608 Industrial Relations and Labor Laws
 HRM609 Employee Training and Development
 HRM610 Negotiation Skills
 HRM611 Organizational Change and Development
 HRM612 Strategic Human Resource Management
 HRM615 Leadership Studies
 HRM614 Salary and Compensation
 HRM616 Performance Appraisal and Management
 HRM617 HR Analytics

Majors in Management

MAN610 Environmental Issues and Management
 MAN611 Project Management
 MAN613 Corporate Governance
 MAN614 Comparative Management
 MAN615 Corporate Social Responsibility

Majors in Development Studies

SSC601 Dimensions of Development
 SSC602 Development Sociology
 PDE703 Development Economics
 STA601 Development Statistics and Research Methodology
 MAN607 Project and Planning Management

Majors in Logistics and Supply Chain Management

SCM601 Quantitative Methods in Production and Logistics
 SCM602 Business Process Mgmt. in Supply Chain & Logistics
 SCM603 IT Applications in Logistics
 SCM604 Packaging Design and Environmental Aspects
 SCM605 Supply Chain Management
 SCM606 ERP Systems Design and Implementation
 SCM607 Strategic Supply Chain Management
 SCM608 Procurement and Inventory Management
 SCM609 Storage and Warehouse Techniques
 SCM610 Transportation Techniques and Management
 SCM611 Sustainability & Env. Aspects in Managing Supply Chains
 SCM612 Risk Management in Supply Networks
 SCM613 Innovation Management in Supply Chain and Logistics
 SCM614 Corporate Consultancy Project in Logistics

Course Structure

Foundation Stage Semester One Business and Professional Speech Financial Accounting Principles of Management Organizational Psychology	Semester Two Statistics and Mathematics Persuasive and Analytical Writing for Business Communication Entrepreneurial Leadership and Motivation Consumer Behavior
Semester Three Marketing Management Statistical Inference History of Ideas Organizational Behavior	Semester Four Introduction to Managerial & Cost Accounting Business Economics Corporate and Business Law Managing Human Capital
Semester Five Methods in Business Research Social Advocacy and Community Service Introduction to Enterprise Resource Planning Systems Financial Management	Semester Six Business Ethics Seminar in Economic Policy Entrepreneurship and Small Business Management Sales Management
MBA Stage Semester Seven Strategic Management Technology, Operations and Innovation Elective I Elective II	Semester Eight Marketing Strategies and Value Innovation Business Analytics for Decision Making Elective III Capstone Project I
Semester Nine Strategic Financial Analysis and Design Leadership, Ethics and Change Elective IV Capstone Project II	

MBA HEALTH AND HOSPITAL MANAGEMENT

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

This 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.

This MBA program is a 75 credit hour program which is divided into a foundation stage of 36 credit hours followed by 39 credit hours of rigorous MBA level courses and a project dealing with strategy. The program covers areas such as accounting, finance, marketing, economics, law, management, quantitative, and health services management. 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 supervised Capstone project of 6 credit hours, divided into two parts) in order to fulfill the degree requirements. Students must maintain a 3.0 CGPA for the conferment of the degree.

Applicants from non-business disciplines of IoBM may avail up to 6 course exemptions from foundation stage courses equivalent to their bachelor's program courses.

Core Business Courses

Accounting

ACC419 Financial Accounting

Human Resource Management

HRM410 Managing Human Capital

Communication

COM402 Business Communication

Management

MAN418 Management and Organizational Dynamics



Finance

FIN404 Financial Management
FIN603 Entrepreneurial Finance

Elective Business Courses*

*Refer to Page No. 79.

Core Health Courses

MHM529 Introduction to Health Policy, Planning & Management
MHM530 Quantitative Analysis
MHM531 Health Management Information Systems
MHM532 Research and Survey Methodology
MHM533 Business and Health Economics
MHM534 Health Psychology
MHM601 Strategic Management of Health Services
MHM602 Health Service Delivery and Operation Management
MHM603 Health Ethics, Law and Jurisprudence
MHM604 Healthcare Leadership

Marketing

MKT402 Marketing Management
MKT601 Marketing Strategies and Value Innovation

Capstone Project

BPR601 Capstone Project I
BPR602 Capstone Project II

Elective Health Courses

MHM605 Financial Management of Health Services
MHM606 Concepts of Primary Healthcare
MHM607 Introduction to Epidemiology
MHM608 Pharmaceutical Quality Assurance
MHM609 Marketing of Health Services
MHM610 Population and Health
MHM611 Environmental Health Assessment & Management
MHM612 Hospital Administration
MHM613 Regulatory Affairs at Healthcare Industries
MHM614 Product Management
MHM615 Pharmaceutical Sales Management
MHM616 Project Management of Health Services
MHM617 Seminar in Health Policy Management
MHM618 Health Communications
MHM619 Healthcare Human Resource Management
MHM620 Management Issues in Health Psychology
MHM621 Supply Chain & Prod. Mgmt. in Pharma. Inds.
MHM622 Quality Management in Healthcare
MHM623 Pharmaceutical Branding

Course Structure

Foundation Stage Semester One Introduction to Health Policy, Planning & Management Quantitative Analysis (QA / Biostatistics) Management and Organizational Dynamics Business Communication	Semester Two Research and Survey Methodology Health Management Information Systems Financial Accounting Health Psychology
Semester Three Financial Management Managing Human Capital Marketing Management Business and Health Economics	MBA Stage Semester Four Strategic Management of Health Services Health Service Delivery and Operation Management Health Ethics, Law and Jurisprudence Entrepreneurial Finance
Semester Five Marketing Strategies and Value Innovation Healthcare Leadership Health Elective I Capstone Project I	Semester Six Business Elective I Business Elective II Health Elective II Health Elective III Capstone Project II

MBA MEDIA MANAGEMENT AND MARKETING

The MBA Media Management and Marketing (MMM) program seeks to develop quality human resource, capable of playing strategic leadership roles across a variety of traditional and new media organizations, as well as consumer marketing companies.

MBA (MMM) is a 72 credit hours program which is divided into a foundation stage of 36 credit hours, followed by 36 credit hours of rigorous MBA level courses, which is rounded off with a strategy oriented Capstone Project. Key areas covered by the program include accounting, finance, marketing, economics, law, management, quantitative analysis, as well as media management and marketing.

Applicants from non-business disciplines of IoBM may avail up to 6 course exemptions from foundation stage courses equivalent to their bachelor's program courses.

Required Courses

Accounting

ACC419 Financial Accounting

Communication

COM410 Digital Business Communication

Economics

ECO409 Business Economics

Finance

FIN404 Financial Management

Human Resource Management

HRM410 Managing Human Capital

HRM606* Leadership, Ethics and Change

Law

LAW409 Corporate and Business Law

Management

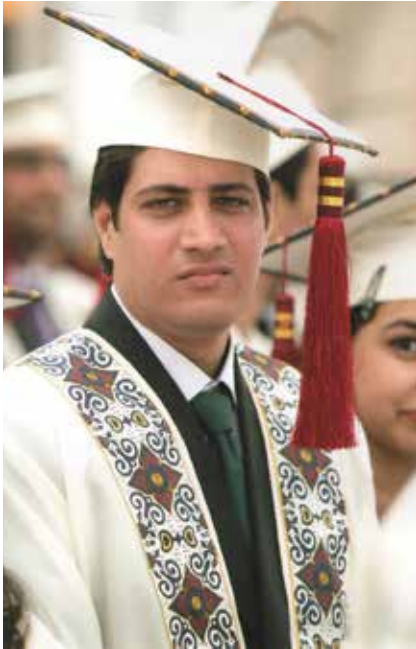
MAN418 Management and Organizational Dynamics

MAN606* Business Analytics for Decision Making

MAN612* Strategic Management

MAN616* Entrepreneurship and Ecommerce





Marketing

- MKT402 Marketing Management
- MKT404 Methods in Business Research
- MKT509 Consumer Behavior
- MKT527 Integrated Marketing Communication
- MKT620* Digital Marketing

Media

- MMM401 Media and Social Change
- MMM601* Digital Video Production
- MMM602* Global Media Marketing Strategies
- MMM603* Seminar in Strategic Media Marketing
- MMM604* Screenwriting for TV & Cinema

Statistics

- STA411 Quantitative Analysis for Decision Making

Capstone Projects

- BPR601* Media Operations Management (*Capstone Project I*)
- BPR602* Media Operations Management (*Capstone Project II*)

**Indicates MBA level course*

Elective Courses

Media

- MMM605 Advanced Documentary Filmmaking
- MMM606 Media Psychology

Course Structure

Foundation Stage Semester One Quantitative Analysis for Decision Making Financial Accounting Consumer Behavior Digital Business Communication	Semester Two Management and Organizational Dynamics Marketing Management Methods in Business Research Business Economics
Semester Three Financial Management Corporate and Business Law Managing Human Capital Media and Social Change	MBA Stage Semester Four Leadership, Ethics and Change Strategic Management Digital Marketing Screenwriting for TV & Cinema
Semester Five Business Analytics and Decision-Making Integrated Marketing Communication Global Media Marketing Strategies Media Operations Management (<i>Capstone Project I</i>)	Semester Six Entrepreneurship and Ecommerce Seminar n Media Marketing Elective I Media Operations Management (<i>Capstone Project II</i>)

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.

Applicants from non-business disciplines of IoBM may avail up to 6 course exemptions from foundation stage courses equivalent to their bachelor's program courses.

Required Courses

Accounting

ACC401 Introduction to Managerial and Cost Accounting

ACC419 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

HRM410 Managing Human Capital

Law

LAW403 Business and Insurance Law





Institute of Business Management is an Institute that thrives on continuous improvements academically as well as infrastructurally to create mavericks in corporate world. I am thankful to the Management of IoBM for providing the students with the best faculty and latest teaching methodologies which broadens the minds and creative thinking of the students. I cannot in any way capture the true essence of "Life at IoBM" in few lines. However I will say that it has been an amazing journey. From meeting deadlines to mega events, from interesting teachers to a diverse set of people, IoBM gives its student exposure to dynamic experience and polishes one's skills resulting in a better equipped, processed and focused individual. The structure provided by the Institute targets the root cause of Pakistan's problems of dearth of knowledge.

Fahad Javed

*Recipient of Merit Scholarship
At IoBM & Exchange Scholarship to China*

Management

- MAN418 Management and Organizational Dynamics
- 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

Course Structure

<p>Semester One Financial Accounting Business Communication Management and Organizational Dynamics Model and Inferences</p>	<p>Semester Two Micro and Macroeconomics Financial Management Principles of Marketing Financial Mathematics I</p>
<p>Semester Three Introduction to Managerial and Cost Accounting Principles of Risk Management Computational Methods in Risk Financial Mathematics II</p>	<p>Semester Four Advanced Financial Management Introduction to Financial Risk Management Business and Insurance Law Managing Human Capital</p>
<p>Semester Five Applied Financial Economics Analysis of Financial Statements Business Ethics and Financial Responsibility Elective I</p>	<p>Semester Six Risk Financing Techniques Advanced Financial Risk Management Strategic Management Elective II</p>



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 non-governmental 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, administrators engaged in the Environment and Energy sector.

This MBA program is a 72 credit hour program which is divided into foundation stage of 36 credit hours, followed by 36-credit hours of rigorous MBA level courses and project dealing with strategy. The program covers areas such as accounting, finance, marketing, economics, law, management, environment and energy management and consists of foundational course work necessary for the higher level MBA courses.

Applicants from non-business disciplines of IoBM may avail up to 6 course exemptions from foundation stage courses equivalent to their bachelor's program courses.

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, and Environment Science from HEC recognized institutions.

Required Courses

Accounting

ACC419 Financial Accounting

Communication

COM402 Business Communication

Finance

FIN404 Financial Management

FIN601* Strategic Financial Analysis & Design

Human Resource Management

HRM410 Managing Human Capital

HRM606* Leadership, Ethics and Change



Management

MAN418 Management and Organizational Dynamics
MAN608* Technology, Operations and Innovation
MAN612* Strategic Management

Marketing

MKT402 Marketing Management
MKT601* Marketing Strategies and Value Innovation

Statistics

STA411 Quantitative Analysis for Decision Making

Environmental and Energy Management

EEM401 Environmental Issues and Management
EEM403 Energy Sources and Management
EEM404 Industrial and Municipal Waste Management
EEM405 Renewable Energy and Energy Conservation
EEM410 Environmental Impact Assessment
EEM411 Environmental Rules, Laws and Regulations
EEM412 Research and Survey Methodology
EEM510 Economics of Energy Management
EEM614 Safety, Health and Environmental Management

Capstone Project

BPR601* Capstone Project I
BPR602* Capstone Project II

**Indicates MBA level courses*

Elective Courses

Environmental and Energy Management

EEM603 Air and Noise Pollution Management
EEM604 Coastal Environment and Management
EEM605 Climatic Changes and its Impact
EEM606 Natural Resources Management
EEM607 Hospital Waste Management
EEM608 Solid and Hazardous Waste Management
EEM609 Energy Audit
EEM610 Energy Conservation
EEM611 Energy Planning
EEM612 Environmental Ethics
EEM613 Public Awareness for Environment and Energy Sector
EEM615 Risk and Disaster Management

Course Structure

Foundation Stage Semester One Business Communication Management and Organizational Dynamics Energy Sources and Management Quantitative Analysis for Decision Making	Semester Two Financial Accounting Marketing Management Managing Human Capital Environmental Issues and Management
Semester Three Financial Management Economics of Energy and Environment Environmental Rules, Laws and Regulations Research and Survey Methodology	MBA Stage Semester Four Leadership, Ethics and Change Strategic Management Renewable Energy and Energy Conservation Industrial & Municipal Waste Management
Semester Five Technology, Operations and Innovation Marketing Strategies and Value Innovation Environmental Impact Assessment Capstone Project I	Semester Six Strategic Financial Analysis & Design Safety, Health & Environmental Management Elective I Capstone Project II



My time at IoBM has been a memorable one in every way, be it the studies, friends, the exams or the occasional bunks! IoBM has played a great part in the development of my professional as well as personal life. Working at this premier financial institution (SBP) had always been my objective. I have the ability to present myself as a finance/banking professional due to the efforts and support I was offered from the faculty at IoBM. I didn't realize it at the time, but even the smallest or most random of things taught and discussed, has helped me in interviews and my jobs. I am proud of being a part of IoBM and I miss the university life.

Raza Hassan
 Assistant Director
 State Bank of Pakistan

Management

- MAN403 Entrepreneurship and Small Business Management
- MAN406 Production and Operations Management
- MAN418 Management and Organizational Dynamics
- MAN606* Business Analytics for Decision Making

Marketing

- MKT402 Marketing Management
- MKT404 Methods in Business Research
- MKT601* Marketing Strategies and Value Innovation

Law

- LAW409 Corporate and Business Law

Supply Chain and Logistics Management

- SCM301 Introduction to ERP Systems
- SCM601 Quantitative Methods for Logistics & Supply Chain Management
- SCM605 Supply Chain Management
- SCM607 Strategic Supply Chain Management
- SCM612 Risk Management in Supply Networks
- SCM613 Innovation Management in Supply Chain and Logistics
- SCM614 Corporate Consultancy Projects in Logistics
- SCM615 Design of Business Processes - Workflow Management
- SCM616 Logistical Projects in ERP- Case Study Development

**Indicates MBA level courses*

Elective Courses

Management

- MAN501 Total Quality Management
- MAN611 Project Management

Supply Chain and Logistics Management

- SCM604 Packaging Design- Environment Aspects
- SCM606 ERP System Design and Implementation
- SCM608 Procurement and Inventory Management
- SCM609 Storage and Warehouse Techniques
- SCM610 Transportation Techniques and Management
- SCM611 Sustainability & Env. Aspects in Managing Supply Chains

Course Structure

<p>Foundation Stage Semester One Business Economics Quantitative Methods for Logistics & SCM Financial Accounting Business Communication</p>	<p>Semester Two Management and Organizational Dynamics Supply Chain Management Financial Management Managing Human Capital</p>
<p>Semester Three Corporate and Business Law Marketing Management Methods in Business Research Introduction to ERP Systems</p>	<p>MBA Stage Semester Four Entrepreneurship and Small Business Management Innovation Management in Supply Chain & Logistics Production & Operations Management Design of Business Processes - Workflow Management</p>
<p>Semester Five Logistical Projects in ERP- Case Study Development (<i>Capstone I</i>) Risk Management in Supply Networks Leadership, Ethics and Change Business Analytics for Decision Making</p>	<p>Semester Six Strategic Supply Chain Management Elective I Corporate Consultancy Project in Logistics (<i>Capstone II</i>) Marketing Strategies and Value Innovation</p>



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. This MBA program is a 72 credit hour program which is divided into foundation stage of 36 credit hours, followed by 36-credit hours of rigorous MBA level courses and project dealing with strategy. The foundation and MBA level stage covers areas such as accounting, finance, marketing, economics, law, Supply chain, Engineering. It consists of foundational course work necessary for the higher level MBA courses

Applicants from non-business disciplines of IoBM may avail up to 6 course exemptions from foundation stage courses equivalent to their bachelor's program courses.

Required Courses

Accounting

ACC401 Introduction to Managerial and Cost Accounting
ACC419 Financial Accounting

Communication

COM402 Business Communication

Economics

ECO409 Business Economics

Engineering

ENG405 Environmental Impact Assessment and Management
ENG604 Enterprise Asset Management and Financial Analysis

Finance

FIN404 Financial Management

Human Resource Management

HRM410 Managing Human Capital



Management

MAN403 Entrepreneurship and Small Business Management
MAN406 Production and Operations Management
MAN418 Management and Organizational Dynamics
MAN502 Business Process Re-engineering
MAN611*Project Management
MAN612*Strategic Management

Supply Chain and Logistics Management

SCM605* Supply Chain Management

Law

LAW401 Business Law

Marketing

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

Statistics

STA411 Quantitative Analysis for Decision Making

Capstone Project

BPR601* Capstone Project I
BPR602* Capstone Project II

**Indicates MBA level courses*

Course Structure

Foundation Stage Semester One Business Communication Financial Accounting Quantitative Analysis for Decision Making Management and Organizational Dynamics	Semester Two Business Economics Business Law Managing Human Capital Introduction to Managerial and Cost Accounting
Semester Three Marketing Management Financial Management Production and Operations Management Methods in Business Research	MBA Stage Semester Four Entrepreneurship and Small Business Management Project Management Strategic Management Supply Chain Management
Semester Five Business Process Re-engineering Marketing Strategies and Value Innovation Enterprise Asset Management and Financial Analysis <i>Capstone Project I</i>	Semester Six Elective I Elective II Environmental Impact Assessment and Management <i>Capstone Project II</i>

Elective Courses

Engineering

ENG408 Facilities Planning
ENG601 Maintenance Management
ENG602 Manufacturing Process and Systems
ENG603 Technology Management

Environmental and Energy Management

EEM404 Industrial and Municipal Waste Management
EEM408 Safety, Health and Environment Management
EEM409 Risk and Disaster Management

Finance

FIN503 Corporate Finance
FIN510 Investment Analysis
FIN608 Project Appraisal

HRM / Management

HRM606 Leadership, Ethics and Change
MAN501 Total Quality Management
MAN606 Business Analytics for Decision Making
MAN608 Technology, Operations and Innovation

Marketing

MKT617 Industrial Marketing
MKT610 New Product Development
MKT615 Brand Management

Supply Chain and Logistics Management

SCM606 ERP System Design and Implementation
SCM607 Strategic Supply Chain Management
SCM608 Procurement and Inventory Management

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 with 1st division/CGPA 3.0.

Eligibility

Candidates with MBA degree fulfilling the eligibility criteria on Page No. 153.

Program Structure

MS in Business Management is a 36 credit hours program with 10 courses 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)

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



MPhil 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 research-oriented 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 No. 153.

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 lieu of any four of the above mentioned courses.

Thesis (06 Credit hours)

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



PhD IN BUSINESS MANAGEMENT

Mission of IoBM'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 / MPhil 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
- An interview conducted by the Institute
- 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 30 credits

A PhD student must additionally complete the following requirements:

- Comprehensive Exam
- PhD Proposal/Synopsis Development
- PhD Proposal/Synopsis Defense
- BASR Approval of PhD Proposal/Synopsis
- Continuous enrollment in supervised research courses for meeting the full-time residency requirements
- Completion of PhD Dissertation/Thesis
- Selection of External Evaluators by BASR
- Publication of at least one paper in an ISI indexed or an HEC recognized journal or an official acceptance of the paper
- Evaluation of PhD Dissertation by two foreign faculty members from developed countries as per HEC criteria
- Dissertation/Thesis Finalization
- Open defense of PhD dissertation
- Any other HEC requirement
- Final Dissertation/Thesis Submission to BASR



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

Semester Two

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

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
PBM708 Directed Study of a Business Research Problem

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 Topics in Finance
PBM841 Advanced Readings in Business Ethics
PBM842 Globalization Discourses of Ethics

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

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 expertise in specialized fields related to environment 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
- An interview conducted by the Institute
- All other HEC stipulated requirements
- Complete deficiency courses

Program Requirements

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

- PhD course work requirements consist of six graduate level courses (18 credit hours)
- On completion of dissertation/thesis the student is awarded 30 credits

A PhD student must additionally complete the following requirements:

- Comprehensive Exam
- PhD Proposal/Synopsis Development
- PhD Proposal/Synopsis Defense
- BASR Approval of PhD Proposal/Synopsis
- Continuous enrollment in supervised research courses for meeting the full-time residency requirements
- Completion of PhD Dissertation/Thesis
- Selection of External Evaluators by BASR
- Publication of at least one paper in an ISI indexed or an HEC recognized journal or an official acceptance of the paper
- Evaluation of PhD Dissertation by two foreign faculty members from developed countries as per HEC criteria
- Dissertation/Thesis Finalization
- Open defense of PhD dissertation
- Any other HEC requirement
- Final Dissertation/Thesis Submission to BASR

Course Structure



Semester One

- EEM701 Methods and Issues in Advanced Qualitative Research
- EEM702 Methods and Issues in Advanced Quantitative Research

Semester Two

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

Semester Three

Elective Courses (any two)

- EEM801 Advanced Environment Toxicology & Epidemiology
- EEM802 Advanced Pollution Control Technologies and Mitigation Options
- EEM803 Advances in Green Technology Mechanism
- EEM804 Disaster Risk Management and Mitigation Strategies
- EEM805 Trade and Environment
- EEM806 Sustainability and Conservation of Major Ecosystems

Semester Four to Nine

- EEM901 Research Thesis

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



ELECTIVE BUSINESS COURSES

MBA HEALTH AND HOSPITAL MANAGEMENT

Majors in Accounting

- ACC601 Advanced Financial Accounting
- ACC602 Advanced Managerial Accounting
- ACC603 Auditing
- ACC604 Analysis of Financial Statements

Majors in Finance and Banking

- FIN601 Strategic Financial Analysis & Design
- FIN602 Behavioral Finance
- FIN603 Entrepreneurial Finance
- FIN604 Debt and Equity Markets
- FIN606 SME and Micro-Financing
- FIN607 Financial Derivatives and Risk Management
- FIN608 Project Appraisal
- FIN610 International Islamic Finance Standards
- FIN611 Islamic Capital Markets
- FRM514 Takaful and Risk Management in Islamic Products

Majors in Human Resource Management

- HRM607 Recruitment and Selection
- HRM608 Industrial Relations and Labor Laws
- HRM609 Employee Training and Development
- HRM610 Negotiation Skills
- HRM611 Organizational Change and Development
- HRM612 Strategic Human Resource Management
- HRM615 Leadership Studies
- HRM614 Salary and Compensation
- HRM616 Performance Appraisal and Management
- HRM617 HR Analytics

Majors in Management

- MAN610 Environmental Issues and Management
- MAN611 Project Management
- MAN613 Corporate Governance
- MAN614 Comparative Management
- MAN615 Corporate Social Responsibility
- EEM401 Environmental Issues and Management
- EEM603 Air and Noise Pollution Management
- EEM607 Hospital Waste Management
- EEM614 Safety, Health and Environmental Management
- EEM615 Risk and Disaster Management



I believe opting IoBM was the best decision I took in life because it provides students' with world class supportive faculty and industry leaders from various sectors. The level of education is exceptionally productive in sense of multi-dimensional development of personality. I gained new friends, skills, contacts, scholarships and work experience opportunities that added to my personal and professional growth. During my studies I additionally worked as associate in Health and Hospital Management Department and it endowed me with immense opportunities to work upon diverse projects and ventures. If I could describe my experience in a single sentence, it would be: IoBM - a wonderful and magical place where learning and opportunities never ends!

Dr. Faiza Khan

MBA Health and Hospital 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



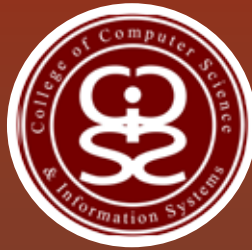
Majors in Supply Chain and Logistics Management

- 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

- 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
- MKT609 Social Marketing
- MKT610 New Product Development
- MKT611 Integrated Marketing Communications
- MKT612 Distribution and Channel Management
- MKT613 Marketing of Financial Services
- MKT614 Media Marketing
- MKT615 Brand Management
- MKT616 International Marketing
- MKT617 Industrial Marketing
- MKT618 Advertising
- MKT619 Marketing Research





COLLEGE OF COMPUTER SCIENCE AND INFORMATION SYSTEMS

CCSIS strives for excellence in creating and imparting knowledge through rigorous educational programs and collaborative scholarly research publications contributing to professional excellence and exemplary national service.

BS COMPUTER SCIENCE



The program emphasizes on 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 on. 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 = 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

**1 = Intermediate Arabic

**2 = Intermediate French

**3 = Intermediate Spanish

**4 = Intermediate German

**5 = Intermediate Japanese

**6 = Intermediate Italian

**7 = Intermediate Russian

**8 = Intermediate Chinese

Communication

COM107 Academic English

COM202 Business and Professional Speech

COM203 Methods in Business Writing

Physics

ENG307 / PHY209 Basic Electronics

Political Sciences

PSC301 Pakistan Studies

Mathematics

MTH107 Calculus and Analytical Geometry

MTH204 Linear Algebra

MTH215 Differential Equations

MTH222 Discrete Structure

MTH224 Multivariable Calculus

MTH403 Numerical Computing

Statistics

STA203 Probability Theory and Statistics

Religious Studies

REL101 Islamic Studies

Computing (Core Courses)

CSC105	Data Structure and Algorithms
CSC111	Intro. to Info. & Communication Technologies (ICT)
CSC112	Object Oriented Programming
CSC213	Computer Communications and Networks
CSC113	Programming Fundamentals
CSC218	Operating Systems
CSC217	Digital Logic Design
CSC317	Introduction to Software Engineering
CSC220	Introduction to Database Systems
CSC320	Human Computer Interaction
CSC461	Project I
CSC462	Project II

Computer Science (Core Courses)

CSC205	Computer Architecture and Organization
CSC222	Computer Organization and Assembly Language
CSC315	Theory of Automata & Formal Languages
CSC318	Design & Analysis of Algorithm
CSC410	Data Communication and Networking
CSC411	Compiler Construction
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

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

Management

MAN101 Principles of Management

Marketing

MKT301 Principles of Marketing

MKT404 Methods in Business Research

Actuarial Science

ARM201 Introduction to Actuarial Science

ARM501 Stochastic Process/Modeling

ARM601 Models of Financial Economics-I

ARM602 Models of Financial Economics - II

Finance

FIN201 Introduction to Business Finance

FIN406 Financial Econometrics

FIN503 Corporate Finance

FIN507 Portfolio Management

FIN509 Financial Derivatives

Language

LAN 10* Foreign Language I

LAN 20** Foreign Language II

*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

**1 = Intermediate Arabic

**2 = Intermediate French

**3 = Intermediate Spanish

**4 = Intermediate German

**5 = Intermediate Japanese

**6 = Intermediate Italian

**7 = Intermediate Russian

**8 = Intermediate Chinese

LAW

LAW401 Business Law

Mathematics

MTH104 Calculus I
MTH105 Calculus II
MTH204 Linear Algebra
MTH209 Financial Mathematics I
MTH210 Financial Mathematics II
MTH211 Actuarial Mathematics
MTH403 Numerical Computing

Statistics

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

Pakistan Studies

PSC301 Pakistan Studies

Religious Studies

REL101 Islamic Studies

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

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

Computer Sciences

CSC103 Structured Programming Language

Course Structure

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

MS COMPUTER SCIENCE



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 on 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 candidates 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

Elective Courses

- | | |
|---|---|
| CSC531 Data Warehousing | CSC561 Advanced Software Engineering |
| CSC562 Object Oriented Software Engineering | CSC563 Software Quality Assurance |
| CSC564 Software Requirement Engineering | CSC565 Software Testing Strategies |
| CSC571 Advanced Database Management Systems | CSC573 Data Mining |
| CSC574 Distributed Systems | CSC575 Parallel and Distributed Computing |
| CSC576 Parallel and Distributed Algorithms | CSC578 Communication and Information Policy |
| CSC581 Neural Networks | CSC582 Pattern Recognition |
| CSC583 Fuzzy Systems | CSC591/592 Thesis |

Course Structure

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

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 for 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 for 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)

- MTS614 Mathematical Statistics
- MTS615 Dynamical System
- MTS617 Advanced Numerical Analysis
- MTS618 Statistical Modeling and Computing

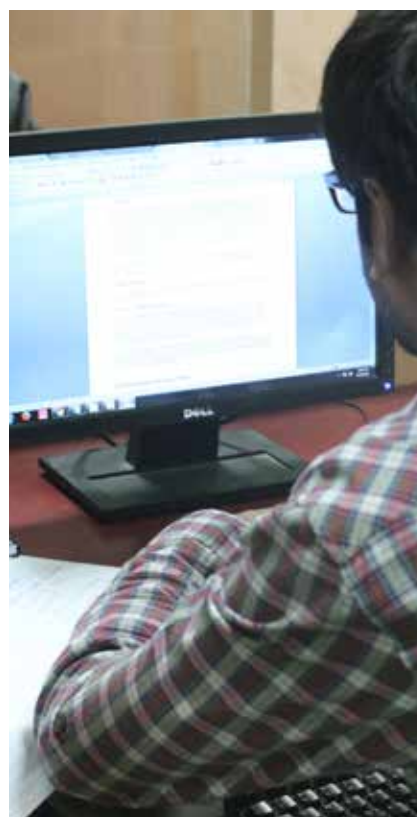
Elective Courses

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
- MTS640 Symmetry Methods for Differential Equations
- 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





I am writing as a proud student of IoBM because I achieved great things throughout my IoBM journey. In the last four years, IoBM gave me so much that no amount of words can sum up. I managed to maintain Merit Scholarship and scored a CGPA of 3.51 when graduating. I was also given the opportunity to attend Student Exchange Program at Hanyang University, Seoul, South Korea. My experience at IoBM has affected me in ways that will help me in shaping who I become in future. It is a place which teaches you to take responsibility of your own life and makes you realize that you always need to be ready to face the music. So make the most of this time, because when it is gone you are definitely going to miss it!

Muhammad Harris Sadiq

*Recipient of Merit Scholarship & Exchange Scholarship to South Korea
Management Trainee, Bol Channel*

- MTS633 Fundamental Algorithms
- MTS635 Information Retrieval and Data Mining
- MTS637 High Performance Computing
- MTS639 Principles in Parallel Computing
- MTS691/692 Thesis

**Course Structure
MS (Mathematics & Scientific Computing)**

Semester One Mathematical Statistics Advanced Numerical Analysis Dynamical Variable	Semester Two Statistical Modeling & Computing Mathematics Concentration I
Semester Three Mathematics Concentration II Computation Concentration I Computation Concentration II	Semester Four Thesis (Mathematics Oriented) <i>6 credit hours</i>

MS (Statistics & Scientific Computations)

Required Courses

Compulsory Courses (12 credit hours)

- MTS614 Mathematical Statistics
- MTS615 Dynamical System
- MTS617 Advanced Numerical Analysis
- MTS618 Statistical Modeling and Computing

CCSIS offers

“MS ACTUARIAL SCIENCE & FINANCIAL COMPUTING” from Fall- 2015

Elective Courses

Statistics Concentration (6 credit hours)

- | | |
|------------------------------------|--|
| MTS611 Statistical Inference | MTS613 Advanced Design of Experiments |
| MTS619 Time Series Analysis | MTS621 Stochastic Processes |
| MTS623 Applied Regression Models | MTS625 Theory and Practices of Forecasting |
| MTS627 Statistical Quality Control | MTS645 Multivariate Statistics |

Computation Concentration (6 credit hours)

- | | |
|---|--|
| MTS627 Machine Learning and Pattern Recognition | MTS629 Production Quality Software |
| MTS631 Fundamental Algorithms | MTS633 Information Retrieval and Data Mining |
| MTS635 Simulation and Modeling | MTS637 Principles in Parallel Computing |
| MTS691/692 Thesis | |

Course Structure

MS (Statistics & Scientific Computing)

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



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
- An interview conducted by the Institute
- 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 30 credits

A PhD student must additionally complete the following requirements:

- Comprehensive Exam
- PhD Proposal/Synopsis Development
- PhD Proposal/Synopsis Defense
- BASR Approval of PhD Proposal/Synopsis
- Continuous enrollment in supervised research courses for meeting the full-time residency requirements
- Completion of PhD Dissertation/Thesis
- Selection of External Evaluators by BASR
- Publication of at least one paper in an ISI indexed or an HEC recognized journal or an official acceptance of the paper
- Evaluation of PhD Dissertation by two foreign faculty members from developed countries as per HEC criteria
- Dissertation/Thesis Finalization
- Open defense of PhD dissertation
- Any other HEC requirement
- Final Dissertation/Thesis Submission to BASR





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 Advanced 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 Advanced 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
- PST701 Advanced Statistical Computing & Graphics
- PST703 Regression Modeling & Computation
- PST713 Nonlinear and Integer Programmng
- PMT850 Research Thesis



COLLEGE OF ENGINEERING AND SCIENCES

“Entrepreneurial Engineering with Excellence”

College of Engineering and Sciences (CES) was established to realize IoBM’s mission of creating an impact as a multidimensional institution of higher learning. The college strives to develop entrepreneurial engineers who have the technical skills and confidence to create new engineering technologies and design innovative engineering products and processes.

BS INDUSTRIAL ENGINEERING AND MANAGEMENT



Graduates of Industrial Engineering Department contribute to the growth of manufacturing and process industries through their technical expertise in creating innovative production processes and developing efficient facilities. Bachelor of Industrial Engineering degree is known as BS (IEM) and is accredited by PEC (see http://www.pec.org.pk/schedule_first.aspx) and automatically qualifies the graduates for MS/MBA programs at IoBM. BS (IEM) graduates are given attractive exemptions from the equivalent courses of the foundation stage of the MBA Industrial Management program. 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

ACC419 Financial Accounting

Computer Science

CSC310 Computer Simulations

Engineering

ENG101 Workshop Practices
ENG102 Engineering Mechanics
ENG103 Engineering Drawing
ENG105 Basic Industrial Engineering
ENG108 Introduction to Thermo-Fluids
ENG109 Industrial Chemistry
ENG201 Design of Machine Elements
ENG202 Production System Design
ENG203 Engineering Economics
ENG206 Manufacturing Process
ENG209 CAD/CAM Applications
ENG218 Metrology and Statistical Quality Control
ENG219 Industrial Maintenance and Safety
ENG220 Mechanics of Materials
ENG300 Electrical Technology and Instrumentation
ENG303 Production Planning and Control
ENG304 Automation and Robotics
ENG305 Work Study and Methods Engineering
ENG306 Basic Machine Design
ENG307 Basic Electronics
ENG403 Human Factor Engineering

Communication

COM107 Academic English
COM402 Business Communication

Human Resource Management

HRM410 Managing Human Capital

General Sciences

GSC101 Physics

Management Information Systems

MIS104 Computer Programming and Graphics
MIS406 Operations Research
SCM301 Introduction to ERP Systems

Management

MAN303 Production and Operations Management
MAN418 Management and Organizational Dynamics

Marketing

MKT302 Marketing Management

Mathematics

MTH202 Engineering Mathematics
MTH208 Differential Equation and Complex Variables
MTH403 Numerical Computing / Analysis
MTH406 Finite Element Analysis

Political Sciences

PSC301 Pakistan Studies

Statistics

STA204 Industrial Applications of Statistics

EEM412 Research and Survey Methodology

Religious Studies

REL101 Islamic Studies

Elective Courses

Engineering

ENG204 Plant Engineering

ENG216 Reliability Analysis

ENG401 Computer Integrated Manufacturing

ENG402 Manufacturing Strategies

ENG404 Tool Design

Management

MAN405 Strategic Management

MAN501 Total Quality Management

MAN503 Supply Chain Management

MAN509 Logistics and Inventory Control

Mathematics

MTH406 Finite Element Analysis

Course Structure

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

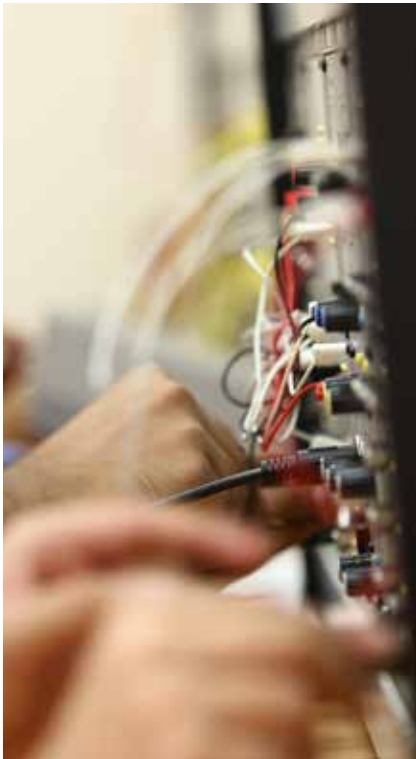


I am really privileged to be selected as an exchange student. I would like to thank IoBM for selecting me from a large pool of students for this exchange program to Erfurt, Germany. It was a memorable experience for me which will be cherished forever. From this trip, I gained a lot of experience and confidence to face and interact with strangers who became like a family. I attended various conferences and cultural events and represented Pakistan in the international program. I would like to express my gratitude towards IoBM and its management for giving me this opportunity and guiding me in every possible manner.

Sahar Sultan

Recipient of exchange scholarship to Germany

BE ELECTRICAL ENGINEERING IN ELECTRONIC AND TELECOMMUNICATION



EE department graduates are empowered to ensure the growth of electrical, electronic and telecommunication industry through their technical expertise and entrepreneurial spirit. BE (EE) program is accredited by PEC and students can specialize in either electronics or telecommunication streams. Successful completion of BE (EE) automatically qualifies the students for MS/MBA programs.

The program is Pakistan Engineering Council (PEC) approved (see http://www.pec.org.pk/schedule_first.aspx) 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 number of international universities.

Required Courses

Communication

- COM107 Academic English
- COM202 Business and Professional Speech
- COM403 Interpersonal Communication Skills

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

Electronic Engineering

- ELE200 Electronic Devices and Circuits
- ELE201 Digital Logic Design
- ELE202 Electronic Workshop Practices
- ELE370 Instrumentation and Measurements
- ELE419 Linear Control Systems
- ELE420 Power Electronics
- ELE450 Senior Design Project I
- ELE451 Senior Design Project II

Electrical Power Engineering

- EPE101 Linear Circuit Analysis
- EPE200 Electrical Network Analysis
- EPE201 Computer Aided Engineering Design
- EPE302 Electrical Machines

Telecommunication Engineering

TEC201 Communication System
TCE204 Electromagnetic Field Theory
TCE205 Signal and Systems
TCE301 Probability Methods in Engineering
TCE321 Wave Propagation and Antennas
TCE404 Digital Signal Processing
TCE415 Transmission and Switching Systems
TCE450 Senior Design Project I
TCE451 Senior Design Project II

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 / Ethics

REL101 Islamic Studies OR
SSC203 Ethical Behavior

General Sciences

GSC103 Applied Physics

Management

MAN403 Entrepreneurship and Small Business Management
MAN418 Management and Organizational Dynamics

Political Sciences

PSC301 Pakistan Studies

Community Service

MAN308 Social Advocacy and Community Service OR
SSC100 Community Service

Inter-Disciplinary Engineering

IDE401 Principles of Applied Mechatronics
IDE402 Renewable Energy Methods

Course Structure

First two years are common to both Electrical Engineering streamlines (Electronic and Telecommunications)

Semester One Applied Physics (3+1) Academic English (3+0) Linear Circuit Analysis (3+1) Fundamentals of Computing (2+1) Calculus & Analytical Geometry (3+0)	Semester Two Linear Algebra (3+0) Islamic Studies (2+0) Business and Professional Speech (3+0) Electronic Devices & Circuits (3+1) Electronic Workshop Practices (0+1) Computer Programming & Problem Solving (2+1)
Semester Three Pakistan Studies (2+0) Digital Logic Design (3+1) Electrical Network Analysis (3+1) Data Structure & Algorithms (3+1) Complex Variables & Transforms (3+0) Computer Aided Engineering Designs (0+1)	Semester Four Signals & Systems (3+1) Differential Equations (3+0) Interpersonal Communication Skills (3+0) Electromagnetic Field Theory (3+0) Microcontroller & Microprocessor Systems (3+1)

Course Structure

Stream 1: Electronic Engineering

Semester Five Electrical Machines (3+1) Numerical Analysis (3+0) Linear Control Systems (3+1) Instrumentation and Measurements (3+1) Probability Methods in Engineering (3+0)	Semester Six Elective I (3+1) Engineering Economics (2+0) Communication System (3+1) Digital Signal Processing (3+1) Power Electronics (3+1)
Semester Seven Elective II (3+1) Elective III (3+1) Management and Organizational Dynamics (3+0) Senior Design Project I (0+3) Renewable Energy Methods (3+0)	Semester Eight Elective IV (3+1) Community Service (0+1) Senior Design Project II (0+3) Entrepreneurship & Small Business Management (3+0) Principles of Applied Mechatronics (3+1)

Elective Courses

ELE415 Opto-Electronics	ELE417 Industrial Electronics
ELE423 Digital Control Systems	ELE422 VLSI Design
ELE429 Introduction to Nano Technology	ELE428 Digital Electronics
ELE433 Artificial Neural Networks	ELE430 Solid State Devices
ELE434 Introduction to Smart Grid Technology	ELE432 Wireless Power Transmission
CME414 Digital Image Processing	CME301 Computer Communication Networks

Course Structure

Stream 2: Telecommunication Engineering

Semester Five Numerical Analysis (3+0) Linear Control Systems (3+1) Communication Systems (3+1) Computer Communication Networks (3+1) Probability Methods in Engineering (3+0)	Semester Six Elective I (3+1) Engineering Economics (2+0) Digital Signal Processing (3+1) Management and Organizational Dynamics (3+0) Wave Propagation and Antennas (3+1)
Semester Seven Elective II (3+1) Elective III (3+1) Transmission and Switching System (3+0) Senior Design Project I (0+3) Renewable Energy Methods (3+0)	Semester Eight Elective IV (3+1) Social Advocacy and Community Service (1+1) Senior Design Project II (0+3) Entrepreneurship & Small Business Management (3+0) Principles of Applied Mechatronics (3+1)

Elective Courses

TCE416 Digital Communications	TCE420 Information Theory and Coding
TCE423 RF and Microwave Engineering	TCE424 Radar Systems
TCE425 Telecom Management	TCE426 Electromagnetic Compatibility
TCE427 Antenna Theory and Design	TCE428 Mobile and Pervasive Computing
TCE429 Teletraffic Engineering	TCE430 Satellite Communication
TCE431 Digital Filter Design	TCE432 Optical Networks
TCE433 Multimedia and Optical Fiber	TCE434 Wireless Sensor Networks
TCE461 Wireless and Mobile Communications	TCE471 Optical Fiber Communication
CME414 Digital Image Processing	

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

Duration:	2 years
Total credit 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

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





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

Required Courses

Accounting

- ACC102 Introduction to Financial Accounting I
- ACC103 Introduction to Financial Accounting II
- ACC202 Taxation I
- ACC203 Financial Accounting I
- ACC204 Taxation II
- ACC304 Financial Accounting II
- ACC305 Cost Accounting I
- ACC405 Internal Auditing
- ACC414 Auditing I
- ACC415 Cost Accounting II
- ACC416 Auditing II
- ACC417 Corporate Reporting
- ACC418 Performance Measurement and Decision Making
- ACC501 Advanced Financial Accounting
- ACC502 Advanced Managerial Accounting

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
- FIN511 Analysis of Financial Statements
- FIN601 Strategic Financial Analysis & Design

Economics

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

Law

- LAW101 Mercantile Law-I
- LAW102 Mercantile Law-II
- LAW103 Company Law-I
- LAW104 Company Law-II
- LAW301 Intellectual Property, Patents, Copyrights
- LAW400 Company Secretarial Practices
- LAW404 Arbitration
- LAW407 Statutory 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

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

Course Structure

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

BS (HONORS) MEDIA STUDIES



The BS (Honors) Media Studies program is designed to provide students with 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 world 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 for television, as well as new media content creation. It strengthens their prospects in a world where multi-platform communication and multi-format journalism are becoming the norm.

The program has benefited tremendously from the constant and ongoing support it receives from media experts and practitioners - specialists in the field of journalism and filmmaking – who make up the bulk of the teaching faculty. This is in addition to the collaboration the department receives 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 6-week 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 & Ethics

Management
MAN305 International Relations



Media Studies

MMM301 Photo Journalism
MMM303 Outline of Political Science
MMM307 World Civilization & Culture
MMM310 News Writing & Reporting
MMM312 Introduction to Advertising & PR
MMM314 Online Journalism
MMM316 Sub Editing
MMM320 Editing & Post Production
MMM322 Current Affairs
MMM327 Studio Production
MMM329 Creative Writing Workshop
MMM332 News Production/ News Anchoring
MMM335 Magazine Production
MMM337 Investigative Journalism (Thesis)
MMM340 Cinematography III
MMM344 Screenplay
MMM354 Introduction to Sound Design
MMM356 Ad-Film Production
MMM360 Introduction to Photography
MMM362 History of Filmmaking
MMM364 Introduction to Mass Communication
MMM366 Filmmaking – The Art & Craft II (Thesis)

Pakistan Studies

PSC301 Pakistan Studies

Statistics

STA100 Basic Statistical Methods

MMM302 Logic & Critical Thinking
MMM304 Media Literacy
MMM308 Contemporary World Media
MMM311 Introduction to Broadcast Media
MMM313 Theater Arts
MMM315 Feature, Article & Column Writing
MMM318 Economic Journalism
MMM321 Development Communication
MMM324 Media Management & Marketing
MMM328 Methods in Media Research
MMM330 Appreciation of Vernacular Literature
MMM333 Sports Journalism
MMM336 Human Rights & Gender Reporting
MMM339 Cinematography II
MMM342 Filmmaking – The Art & Craft I
MMM351 Production Management
MMM355 Production of Documentary
MMM357 Sound Design II
MMM361 Fashion Journalism
MMM363 Introduction to Design Tools
MMM365 Filmmaking – The Art & Craft II (Studio)
MMM367 Digital Journalism

Social Sciences

SSC101 Introduction to Psychology
SSC104 Principles of Sociology
SSC302 Important Concepts in Philosophy

Course Structure

Common Courses for Journalism & Production Majors:

Semester One English I Urdu I Introduction to Mass Communication Introduction to Psychology Principles of Sociology Introduction to Design Tools	Semester Two English II Urdu II Islamic Studies Introduction to Photography History of Filmmaking Media Literacy
Semester Three News Writing & Reporting Basic Economics Theater Arts Important Concepts in Philosophy Pakistan Studies Basic Statistical Methods	Semester Four International Relations Appreciation of Vernacular Literature World Civilization & Culture Studio Production Logic & Critical Thinking Creative Writing Workshop

<p>Semester Five Current Affairs Cinematography II Introduction to Advertising & PR News Production/ News Anchoring Production Management Editing & Post-production</p>	<p>Semester Six Sub-Editing Feature, Article & Column Writing Cinematography III Economic Journalism Methods in Media Research Media Law & Ethics</p> <p><i>Summer Internship</i></p>
<p>Semester Seven Human Rights & Gender Reporting Introduction to Sound Design Production of Documentary Filmmaking – The Art & Craft I (6C)* Development Communication Sports Journalism</p>	<p>Semester Eight Ad-Film Production Filmmaking – The Art & Craft II (Studio) Filmmaking – The Art & Craft II (Thesis) Investigative Journalism (Thesis) Media Management and Marketing Sound Design II Digital Journalism Photojournalism</p>

*Credit Hours: 6



MBA EDUCATIONAL MANAGEMENT FOR STUDENTS WITH 16 YEARS EDUCATION

The MBA Educational Management program provides knowledge, skills and tools required for 21st century leadership and management for educational institutions in the fast changing economy.

This MBA program is a 72 credit hours 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 and project dealing with strategy and educational transformation. The program covers areas such as accounting, finance, marketing, economics, quantitative analysis, ethics, HRM, management and education and consists of foundational course work necessary for the higher level MBA courses.

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).

Applicants from non-business disciplines of IoBM may avail up to 6 course exemptions from foundation stage courses equivalent to their bachelor's program courses.

Required Courses

Accounting

ACC419 Financial Accounting

Educational Management

EDM407 Educational Policy and Economics

EDM415 Educational Philosophy and Ethics

EDM419 Managing Teaching and Learning

EDM420 Academic Writing and Seminar Skills

EDM429 Research Methods in Education I (Quantitative)

EDM430 Research Methods in Education II (Qualitative)

EDM518 Evaluation and Assessment in Education

EDM520*Strategic Management of Schools and School Systems

EDM526*Curriculum Management and Planned Change

EDM624*Innovations and Technology in Education

EDM689*Thesis Writing-Capstone Project I

EDM690*Thesis Writing-Capstone Project II

Finance

FIN404 Financial Management

FIN603 Entrepreneurial Finance





"I am grateful for the need that IoBM fulfilled in my life. The excellence of its faculty, the strength of its research programs, and its commitment to the

education of future generations of leaders have placed IoBM at the forefront of higher education".

Masood Ahmed Khan
Project Manager
Habib Metropolitan Bank

Human Resource Management

- HRM410 Managing Human Capital
- HRM606* Leadership, Ethics and Change

Management

- MAN418 Management and Organizational Dynamics

Marketing

- MKT402 Marketing Management
- MKT601* Marketing Strategies and Value Innovation

Social Sciences

- SSC406 Psychology and Learning

Elective Courses

Educational Management

- EDM650 Quality Assurance in Education
- EDM652 Knowledge Management
- EDM654 Lifelong Learning in Changing Contexts
- EDM656 Teacher Education
- EDM658 Gender Disparity in Education
- EDM660 Inclusive Education

**Indicates MBA level courses*

Course Structure

<p>Foundation Stage</p> <p>Semester One</p> <p>Psychology and Learning Financial Accounting Educational Philosophy and Ethics Academic Writing and Seminar Skills</p>	<p>Semester Two</p> <p>Managing Teaching and Learning Management and Organizational Dynamics Marketing Management Research Methods in Education I (<i>Quantitative</i>)</p>
<p>Semester Three</p> <p>Research Methods in Education II (<i>Quantitative</i>) Educational Policy and Economics Managing Human Capital Financial Management</p>	<p>MBA Stage</p> <p>Semester Four</p> <p>Strategic Management of Schools and School Systems Leadership, Ethics and Change Curriculum Mgmt. and Planned Change Evaluation and Assessment in Education</p>
<p>Semester Five</p> <p>Marketing Strategies and Value Innovations Innovations and Technology in Education Thesis Writing-Capstone Project I Elective I</p>	<p>Semester Six</p> <p>Entrepreneurial Finance Thesis Writing-Capstone Project II Elective II Elective III</p>

MBA EDUCATIONAL MANAGEMENT FOR STUDENTS WITH 14 YEARS EDUCATION

The MBA Educational Management program provides knowledge, skills and tools required for 21st century leadership and management for educational institutions in the fast changing economy.

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 educational transformation. The program covers areas such as accounting, finance, marketing, economics, quantitative analysis, ethics, HRM, management and education management and consists of foundational course work necessary for the higher level MBA courses. 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

ACC419 Financial Accounting

Communication

COM403 Interpersonal Communication Skills

COM407 English Language Development

Educational Management

EDM402 Applied Linguistics

EDM403 Critical Thinking and Reading

EDM407 Educational Policy and Economics

EDM414 Creativity in Education

EDM415 Educational Philosophy and Ethics

EDM417 Educational Counseling

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

EDM429 Research Methods in Education I (Quantitative)

EDM430 Research Methods in Education II (Qualitative)

EDM436 Classroom Management

EDM518 Evaluation and Assessment in Education

EDM520*Strategic Management of Schools and School Systems

EDM526*Curriculum Management and Planned Change

EDM624*Innovations and Technology in Education

EDM689*Thesis Writing-Capstone Project I

EDM690*Thesis Writing-Capstone Project II

**Indicates MBA level courses*





Finance

- FIN404 Financial Management
- FIN603* Entrepreneurial Finance

Human Resource Management

- HRM410 Managing Human Capital
- HRM606* Leadership, Ethics and Change

Management

- MAN418 Management and Organizational Dynamics

Marketing

- MKT402 Marketing Management
- MKT601* Marketing Strategies and Value Innovation

Social Sciences

- SSC402 Introduction to Psychology
- SSC406 Psychology and Learning

Statistics

- STA403 Statistics and Mathematics

Elective Courses

Educational Management

- EDM650 Quality Assurance in Education
- EDM652 Knowledge Management
- EDM654 Lifelong Learning in Changing Contexts
- EDM656 Teacher Education
- EDM658 Gender Disparity in Education
- EDM660 Inclusive Education

**Indicates MBA level courses*

Course Structure

<p>Foundation Stage Semester One Applied Linguistics Critical Thinking and Reading English Language Development Introduction to Psychology</p>	<p>Semester Two Reflective Inquiry in Education Learners and Learning Styles Interpersonal Communication Skills Statistic and Mathematics</p>	<p>Semester Three Classroom Management Educational Counseling Sociology of Education Creativity in Education</p>
<p>Semester Four Psychology and Learning Financial Accounting Educational Philosophy and Ethics Academic Writing and Seminar Skills</p>	<p>Semester Five Managing Teaching and Learning Management & Organizational Dynamics Marketing Management Research Methods in Education I <i>(Quantitative)</i></p>	<p>Semester Six Research Methods in Education II <i>(Qualitative)</i> Educational Policy and Economics Managing Human Capital Financial Management</p>
<p>MBA Stage Semester Seven Strategic Management of Schools and School Systems Leadership, Ethics and Change Curriculum Mgmt. and Planned Change Evaluation and Assessment in Education</p>	<p>Semester Eight Marketing Strategies & Value Innovation Innovations and Tech. in Education Thesis Writing-Capstone Project I Elective I</p>	<p>Semester Nine Entrepreneurial Finance Thesis Writing-Capstone Project II Elective II Elective III</p>



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

PSY402 Counseling Psychology

PSY405 Group Dynamics

PSY406 Research Methods in Organizational Psychology

PSY407 Personnel Psychology

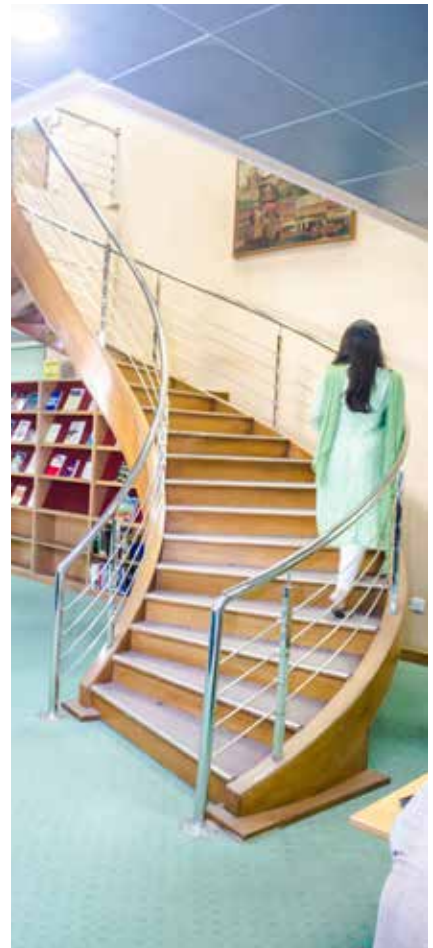
PSY408 Consumer Psychology

PSY430 Psychological Testing-I

PSY431 Psychological Testing-II

PSY432 Behavior Modification in Industry

PSY433 Leadership and Strategic Change





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

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

Human Resource Management

- HRM531 Pay for Performance and Reward
- HRM614 Salary and Compensation
- HRM615 Leadership Studies
- HRM616 Performance Appraisal and Management

Course Structure (Career Option I Majors Psychology)

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

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

MAN615 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

COM403 Interpersonal Communication Skills

COM405 Organizational Consulting Skills

Social Sciences

SSC104 Principles of Sociology

SSC401 Business Ethics

Management Information System

MIS401 Computer Applications



My four years at IoBM were one of the best years of my life. Life at IoBM taught me a lot. In fact it made me a better person. I got the privilege to learn from great teachers, who emphasized on understanding and thinking. I also had the opportunity to work with the best people in my term projects and undertaking great research work, which not only was challenging, but made us achieve great results as a whole team, which would have been impossible individually.

The best part of IoBM is you learn a lot, in several different ways, whether it be your courses, teachers, course mates or even the atmosphere itself; which is a true learning environment.

I firmly believe that if you do not challenge yourself in life, then you have not lived, because to live is to challenge yourself to achieve what you think you cannot and which IoBM as a perfect platform provided the opportunity to.

Adil Shamsi

Marketing Executive, Credence Independent



"IoBM as a business school is more than just classes which make us specialists in the business sciences. It is a holistic experience which instills the values of responsibility, integrity and entrepreneurial spirit in its students.

Before I could step out into the business world, I wanted to play a role in the construction and positive progress of my country. IoBM encourages its students to become Teach for Pakistan Fellows and my experience has been exceptionally rewarding. Reaching out to the children of Pakistan has been a life changing act. It has enabled me to understand the grass root realities of the education system. I am grateful that I can share my learning as an IoBM graduate with the future generations of Pakistan."

Fatima Jamil Khan
Fellow at Teach For Pakistan

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
- HRM505 Organizational Change & Development
- HRM506 Strategic HRM
- HRM511 Performance Appraisal
- HRM530 Research Practicum in HRM

Elective Courses

Psychology

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

Human Resource Management

- HRM531 Pay for Performance and Reward
- HRM614 Salary and Compensation
- HRM615 Leadership Studies
- HRM616 Performance Appraisal and Management

Course Structure

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

Course Structure

Semester One

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

Semester Two

- MPP607 Independent Study in Organizational Psychology
- MPP609 Personnel Psychology in the Work Place
- MPP611 Human Factors in Work Environment

Semester Three

- MPP613 Organizational Conflict & Management
- MPP615 Project Practicum in Organizational Psychology

Semester Four

- MPP620 MPhil Thesis (6 credit hours)

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



"Studying at IoBM has been a life changing experience for me. It not only paved way towards a successful career so far, but also tailored my skills both personally and professionally. I will always cherish the faculty-student relationship which enabled apt mentoring and better understanding of the subjects. My experience at IoBM made me who I am today, as I got my first Job Offer through IoBM Campus Drive and from then on, I have been ramping up the ladder of success from being Graduate Trainee (Abudawood Pakistan) to escalate as a Section Manager CBD, Abudawood Group, Bahrain, and amplifying chances to grasp all opportunities. It has been an absolute honor for me to be a part of IoBM, memories that will stay with me for the rest of my life. IoBM, for me, will always be home away from home. Thank you IoBM!"

Abdur Rehman Saleemi
Section Manager CBD, Abu Dawood Bahrain

MS ECONOMICS



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

- ECO501 Microeconomics
- ECO502 Macroeconomics
- ECO503 Econometrics and Research Methods
- ECO505 Theory and Practice of Economic Policy
- ECO507 Development Economics
- ECO510 Mathematical Economics

Elective Courses

Economics

- ECO516 Monetary Economics

Finance

- 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)

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



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
- Candidates who do not have a teaching degree (BEd/MEd/Masters in Education) will have to opt for at least four deficiency courses as per the HEC policy

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

Core Courses

MPE603 Policies and Education in Pakistan
MPE604 Developing a Research Project
MPE610 Philosophical Foundations in Education
MPE611 Readings in Education
MPE615 Qualitative Research Methods in Education
MPE617 Statistical Testing and Inferences in Education

Elective Courses

MPE702 Managing Higher Education Institutions
MPE705 Economics of Education
MPE706 Global Issues in Education
MPE714 Early Childhood Development
MPE790 Research Thesis

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



PhD IN PSYCHOLOGY

PhD in Psychology is a program that will promote scholarship, research, and service at an academic level. The doctoral program is one of the highest degrees 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
- An interview conducted by the Institute
- 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 30 credits

A PhD student must additionally complete the following requirements:

- Comprehensive Exam
- PhD Proposal/Synopsis Development
- PhD Proposal/Synopsis Defense
- BASR Approval of PhD Proposal/Synopsis
- Continuous enrollment in supervised research courses for meeting the full-time residency requirements
- Completion of PhD Dissertation/Thesis
- Selection of External Evaluators by BASR
- Publication of at least one paper in an ISI indexed or an HEC recognized journal or an official acceptance of the paper
- Evaluation of PhD Dissertation by two foreign faculty members from developed countries as per HEC criteria
- Dissertation/Thesis Finalization
- Open defense of PhD dissertation
- Any other HEC requirement
- Final Dissertation/Thesis Submission to BASR

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

PSS705 Seminar in Multidisciplinary Studies
PSS707 Independent 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 is one of 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.
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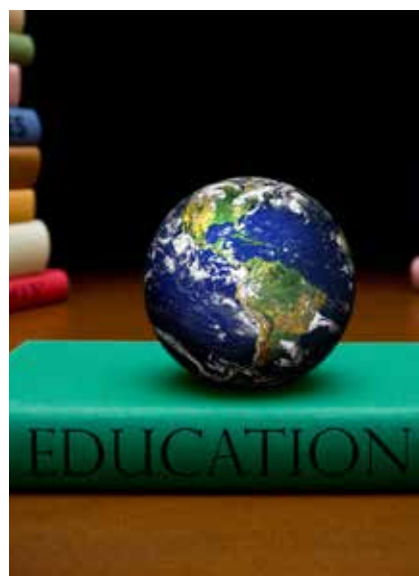
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- Dissertation/Thesis Finalization
- Open defense of PhD dissertation
- Any other HEC requirement
- Final Dissertation/Thesis Submission to BASR





Course Structure

Core Courses

PED701 Methods and Issues in Advanced Qualitative Research
PED702 Advanced Educational Philosophy
PED703 Methods and Issues in Advanced Quantitative Research
PED705 Developing and Conducting Independent Research

Electives

PED810 Planning Developing and Evaluating Curriculum
PED812 Educational Policies and Organizational Development
PED814 Managing Educational Projects and Interventions
PED820 Teacher Professional Development

PED990 Research Thesis

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



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 / 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

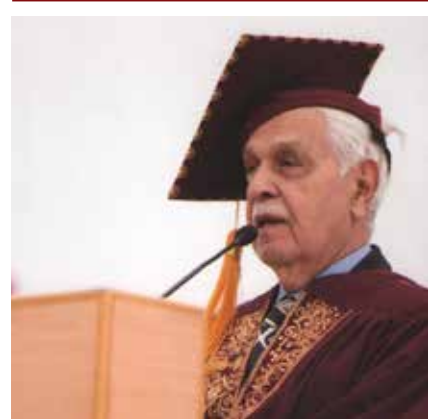
Program Requirements

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 30 credits

A PhD student must additionally complete the following requirements:

- Comprehensive Exam
- PhD Proposal/Synopsis Development
- PhD Proposal/Synopsis Defense
- BASR Approval of PhD Proposal/Synopsis
- Continuous enrollment in supervised research courses for meeting the full-time residency requirements
- Completion of PhD Dissertation/Thesis
- Selection of External Evaluators by BASR
- Publication of at least one paper in an ISI indexed or an HEC recognized journal or an official acceptance of the paper
- Evaluation of PhD Dissertation by two foreign faculty members from developed countries as per HEC criteria
- Dissertation/Thesis Finalization
- Open defense of PhD dissertation
- Any other HEC requirement
- Final Dissertation/Thesis Submission to BASR





Required Courses

- PDE701 Advanced Research Methodology
- PDE702 Advanced Applied Econometrics
- PDE703 Development Economics
- PDE704 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

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

INTERNSHIP AND PLACEMENT PROGRAMS

INTERNSHIP PROGRAM



The Internship & Placement office of IoBM ensures that students get 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.

Eligibility for Internship

MBA: Minimum CGPA = 2.8
BBA / BS (Honors): Minimum CGPA = 2.4

Semesters of Study Completed at IoBM = Two
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 suggest 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.



LIST OF COMPANIES IN WHICH IOBM STUDENTS DO INTERNSHIPS

AAG TV	Bank of Punjab
Abbott Laboratories Pakistan Ltd.	BASF Pakistan Pvt. Limited
Abudawood Pakistan	Bayer Pakistan Pvt. Limited
ACCA Pakistan	BBCL Pvt. Ltd
Access Communication Solution	Berger Paints Pakistan Limited
Adamjee Insurance	Blitz Advertising Pvt. Limited
Adcom (Pvt) Ltd.	BMA Capital Pvt. Limited
ADVANS Micro Finance Bank	BOC Pakistan Limited
Afroze Textiles	Bosch Pharmaceuticals (Pvt.) Ltd.
Agility Logistics	BP Pakistan Exploration & Production
AIESEC Pakistan	BR&W Pvt. Limited
Airmen Golf Course & Recreational Park	Brookes Pharmaceutical Laboratories
Aisha Steel Mills	Burj Bank
AKD Investments	Burque Corporation Pvt. Ltd
AKD Securities	Byco Petroleum Pakistan Ltd.
AKD Trade	Central Depository Company of Pakistan
Al Baraka Bank (Pakistan) Ltd.	Chevron (Formerly Caltex)
Al Ghazi Tractors Limited	CIM Shipping
Al Karam Textiles Limited	Circuit Advertising
Al Meezan Investment Management Ltd.	Citi FM 89
Al Zeb Industries	Citibank N.A.
Al Zohaib Textile Mills	Clariant Pakistan Limited
Ali Gohar Pharmaceuticals	Coca-Cola Beverages Pakistan Ltd.
Allied Bank Pakistan Limited	Commercial Union Assurance PLC.
Allied Engineering & Services	Continental Biscuits Limited
Amerli Steels Ltd.	Cox & Kings (Agents) Limited
Anjum Asim Shahid Associates Ltd.	Creativedge Communications
Apna TV	Credit & Commerce Consultants
Arif Habib Commodities	Crescent Bank Limited
Arif Habib Investments Limited	Crescent Steel and Allied Products Ltd.
Arif Habib Securities Limited	Cres-Soft Pvt. Limited
Arpatech (Pvt) Ltd.	Cupola Pakistan Limited
Artistic Milliners	Cybernet
ARY Digital Network	Dalda Foods Pvt. Limited
Asia Petroleum Ltd.	DAMCO Pakistan (Pvt) Ltd.
Asiatic Public Relations Network	Dawlance Pvt. Limited
Askari Commercial Bank Limited	Dawn Group of Newspapers
Atco Laboratories (Pvt) Limited	Dawn News TV
Atlas Group of Companies	Dawood Hercules Corporation
Attock Cement Pakistan Limited	Deloitte
Automobile Corporation of Pakistan	Deutsche Bank A.G.
Bhanbhore Ceramic Industries	Dewan Cement
Bank Al Habib Ltd.	Dewan Mushtaq Group
Bank Alfalah Limited	DG Harbour
Bank Islami Limited	DHL Global Forwarding

Dreamworld Resort
Dubai Islamic Bank
Dupont Far East Inc.
Efroze Chemical Industries Pvt. Ltd.
EFU Insurance
Eli Lilly Pakistan (Pvt.) Limited
Elixir Securities
Emirates Investment & Development, Dubai
English Biscuits Manufacturers Ltd.
Engro Corp.
ENI Pakistan Limited
Etihad Airways
ETON FINANCIAL
Express News
Express Tribune
Fauji Fertilizer Company Ltd.
Fauji Foundation Securities
Faysal Asset Management Ltd.
Faysal Bank Limited
Ferguson's Associates
First Women Bank Ltd.
FM 107 Pvt. Limited
FM Radio 91
Gatron Industries
Geo TV
Gerry's Information Technology
Gestetner Pvt. Limited
Getz Pharma
Ghandhara Nissan Diesel Ltd.
Gillette Pakistan Limited
GlaxoSmithKline Pakistan Ltd.
Global Food Marketing
Gravity Communications
Green Star Social Marketing
GroupM
Gul Ahmed Textile Mills
Habib Bank AG Zurich
Habib Bank Limited
Habib Metropolitan Bank Limited
Habib Oil Mills
Harvest Topworth International
Helium Pvt. Ltd.
Herbion Pakistan Limited
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.

Hum TV
Hyeworth Renault Petersen Pak Pvt. Ltd.
IAL Saatchi & Saatchi
IBEX Global (Formerly TRG)
IBM – Pakistan
ICI Pakistan Limited
Icon Securities (Private) 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 Industries Limited
ITOCHU Corporation
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
JCR-VIS Credit Rating Company
Jofa International
Johnson & Johnson Pakistan
JS Bank Limited
JS Global
JS Investments Limited
Jubilee Life Insurance
JWT Pakistan
K-Electric (Formally KESC)
Karachi International Container Terminal Ltd.
Karachi Stock Exchange Limited
KASB Securities Limited
Khadim Ali Shah Bukhari & Co.
Knoll Pharmaceuticals Limited
Kolson Pakistan
KPMG Taseer Hadi & Co.
Lakson Business Solutions Ltd.
Lakson Group of Companies
Li Fung (Singapore) Pte. Limited
Liberty Books
Lisco Pakistan
Logicose
L'oreal Pakistan
Lowe & Rauf Pvt. Limited
Lucky Cement Ltd.



Macter Pharma
Maersk Pakistan Pvt. Ltd.
Magnus Investment Advisors Limited
Management Association of Pakistan
Manhattan Leo Burnett
Marriott Hotel
Martin Dow Pharmaceuticals (Pak) Ltd.
MCB Bank Limited
MCR Pvt. Limited – Pizza Hut
Meezan Bank Ltd.
Merck Pharmaceutical
Merck Sharp & Dohme of Pakistan Limited
Merit Packaging Ltd
Metlife Alico
MicroSoft Pakistan
Midas Safety
Mindshare Pakistan Pvt. Ltd.
Mobil Askari Lubricants
Mobilink
Muller & Phipps Pakistan Ltd.
Multinet Pakistan Ltd.
Nabi Qasim Industries
National Bank of Pakistan
National Foods Limited
National Industrial Parks Ltd.
National Marketing Services
National Refinery Ltd.
Naveena Exports Pvt. Ltd.
Nedo Corporation
Nestle Pakistan
NIB Bank Limited
Nielsen Pakistan
NIFT
Nippon Paint
Novartis Pharma Pakistan Ltd.
Novo Nordisk Pharma
Octara Pvt Ltd.
Ogilvy & Mather
Oman International Bank
OMD Pakistan
Opal Laboratories Pvt. Ltd
Orient Communications
Orient Energy Systems
Orix Investment Bank
Orix Leasing Pakistan Limited
Osaka Lighting
OTSUKA
P&O Nedlloyd
Pak Brunei Investment Company
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 Beverages 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
Parke Davis & Co. Limited
PEL
Pepsi Cola International Limited
Pfizer Laboratories Limited
PharmEvo Private Limited
Philip Morris International
Philips Electrical Industries Limited
Port Qasim Authority
Prime Human Resource Services (Pvt) Ltd
Procter & Gamble Pakistan Limited
Punjab Oil Mills Limited
Qasim International Container Terminal Ltd.
Qatar Airways
Qubee
Reckitt Benckiser Pakistan Limited
Regent Plaza Hotel
Reuters Limited
Rhone Poulenc Rorer Pakistan
Roche Pakistan Limited
Rocket Internet
Sanofi-Aventis Pakistan Ltd.
Sapphire Textile Mills Limited
Schneider Electric
Searle Pakistan Limited
Shadman Cotton Mills Limited
Shan Foods Limited
Shell Pakistan Limited
Movenpick Hotel (Formally Sheraton Hotel)
Shield Pakistan
Sidat Hyder Morshed Associates
Siemens Pakistan Limited
Silk Bank Ltd.
Sindh Bank Ltd.
Sindh Technical Edu. and Vocational Training Authority

Soneri Bank Ltd.
Standard Capital Securities
Standard Chartered Bank Limited
State Bank of Pakistan
Strongman Medline
Sui Southern Gas Company Limited
Summit Bank Ltd.
Synergy Advertising Pvt. Limited
Tapal Tea Pvt. Limited
Target Resourcing
Taurus Securities Limited
TCS Pakistan Ltd.
Trade Development Authority Pakistan
Teach For Pakistan
Telenor Pakistan Pvt. Limited
Tetra Pak
Tharparker Sugar Mills
The Financial Daily
The Aga Khan Health Services
The Aga Khan University
The Citizens Foundation
The First Micro Finance Bank Ltd.
3M Pakistan Pvt. Limited
Toyota Motor Corporation
TPL Trakker
Tradekey Pvt, Ltd.Total Lubricants
Tri-Emmm Textile Products
Ufone
Unilever Pakistan Limited
Unisys Pakistan Pvt. Limited
United Bank Limited
USAID
W Woodwards Pakistan Ltd.
Warid Telcom Pvt. Limited
Wavetec Pakistan (Pvt) Limited
Westminster & Eastern Financial. Services
WorldCall
Wyeth Pakistan Limited
Xenith Public Relations (Pvt.) Limited
Yapı Kredi Invest, Istambool
Yunus Textile Mills Limited
Zafa Pharmaceutical Laboratories Ltd.
ZIL Limited
Zong

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.

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.



LIST OF COMPANIES IN WHICH IOBM GRADUATES ARE EMPLOYED

A.F. Ferguson & Co. Chartered Accountants	Bank Islami Limited
Aaj TV	Bank of Punjab
AASA Consulting (Pvt) Ltd.	BASF Pakistan
Aba Ali Habib Securities	Bayer Pakistan
Abacus-Global	Berger Paints Pakistan Limited
ABAMCO Limited	Bhoja Air (Pvt.) Limited
Abbott Laboratories Pakistan Ltd.	Blitz Advertising (Pvt.) Limited
Abudawood Pakistan	BMA Capital Management Limited
ACCA Pakistan	Boom Group Pakistan
ACM Gold Pvt. Ltd.	Bosch Pharmaceuticals
Adam Motor Co. Limited	BP Pakistan Exploration & Production
Adamjee Life Insurance Company	Bridgestone Tires Pakistan Limited
Adcom Pvt. Limited	Burj Bank Ltd.
ADVANS Micro Finance Bank	Business Plus
Agfa Gaveart Pakistan	Business Recorder
Ahmed Foods	Byco Petroleum Pakistan Ltd.
AIG Pakistan	Cadbury Pakistan Ltd.
Airmen Golf Course & Recreational Park	Candyland Industries Limited
Aisha Steel Mills Ltd.	Capital Management (Pvt.) Limited
AKD Commodities	Carbonated TV
AKD Securities	Centegy Technologies (Pvt.) Ltd.
Al Marai, Saudia Arabia	Central Depository Company of Pakistan
Al Meezan Investment Management Limited	Citibank N.A.
Alfalah Securities	Citizens Foundation
Ali Asghar Textile Mills Ltd.	Clariant Pakistan Limited
Allianz EFU Health Insurance Limited	Coats Pakistan Pvt. Ltd.
Aman Foundation	Coca-Cola Beverages Pakistan Ltd.
American Pacific Enterprises LLC	Colgate Palmolive Pakistan Ltd.
AMFCO International	Continental Biscuits Pvt. Limited
Amreli Steels Limited	Creek Developers
Apna Karachi FM 107	Crescent Insurance
Arif Habib Bank Limited	Crescent Steel and Allied Products Limited
Artistic Milliners	Cupola Pakistan Limited
ARY Communications	Cybernet
ARY Digital Television Network	Dadex
AsiaCare Health & Life Insurance	Dalda Foods Pvt. Ltd.
Asiatic Public Relations Network Ltd.	DAMCO Pakistan (Pvt) Ltd.
Askari Bank Limited	Dawlance (Pvt.) Limited
Atco Laboratories (Pvt) Limited	Dawood Hercules Corporation
Atlas Honda	DAWN Group of Newspapers
Attock Cement Pvt. Limited	Deloitte Pakistan
Automobile Corporation Pakistan	Descon Engineering
Aventis Pharma Pakistan Limited	Deutsche Bank
Bank Alfalah Limited	Dewan Group
Bank Al Habib Limited	Dewan Mushtaq Trade Ltd.

DG Harbour
DGS Pvt. Ltd.
DHL Global Forwarding
DHL Pakistan Limited
DMK Consultancy
Dollar Industries
Dolmen Group
Dubai Islamic Bank Limited
Dupont Pakistan
EDGE Financials
EFU General Insurance Limited
EFU Life Assurance Limited
Eli Lilly Pakistan (Pvt) Ltd.
Elixir Securities Pakistan Ltd.
English Biscuits Manufacturers Ltd.
Engro Corporation
ENI Pakistan Limited
Epoxy Industries (Pvt.) Limited
Etihad Airways
Express News
Faysal Asset Management Ltd.
Faysal Bank Limited
Fidelity Insurance
First Capital Equities Pvt. Limited
First Women Bank Ltd.
Forte Pakistan Pvt. Ltd.
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
Green Star Social Mkt. Pvt. Ltd.
Gul-Ahmed Textile Mills Pvt. Ltd.
Habib Bank AG Zurich
Habib Bank Limited
Habib Metropolitan Bank Ltd.
Habib Oil Mills Limited
Habib University Foundation
Haleeb Foods
Hasnain Tanveer Associates (Pvt) Ltd.
HBL Asset Management Ltd.
Herbion International Inc.
Hilal Confectionary Pvt. Ltd.
Himont Pharmaceutical Pvt. Ltd.
Hinopak Motors Limited
HRS Global
HRS International

HSBC Bank Middle East Ltd.
HUBCO
Hum TV
IAL Satchi & Satchi
IBEX Global (Formerly TRG)
IBL Group
IBM Pakistan
ICI Pakistan Limited
Icon Global
ICS Group of Companies
IGI Financial Services
IJARA
Inbox Business Technology
Indus Bank Limited
Indus Motors Company
Industrial & Commercial Bank of China
Industrial Development Bank of Pakistan
Intel Pakistan
Interflow Communications Pvt. Ltd.
International Advertising Pvt. Ltd.
International Asset Management Company Ltd.
Invest & Finance Securities Limited
Islamic Investment Bank
J. Walter Thompson Asiatic (Pvt.) Ltd.
Jaag Broadcasting Systems Pvt Ltd.
Jaffer Brothers Limited
Jahangir Siddiqui & Co. Limited
Jason Group of Companies
JCR -VIS
Johnson & Johnson Pakistan Ltd.
Jotun Paints
JS Bank Limited
JS Global Capital Limited
JS Investment
Karachi International Container Terminal Ltd.
Karachi Stock Exchange Limited
KASB Capital
KASB Funds Limited
KASB Securities
K-Electric (Formerly KESC)
Kopak Shipping Company
KPMG Taseer Hadi & Co.
Lakson Group of Companies
Land O'Lakes Inc.
Liberty Books
Lo'real Pakistan
Lowe & Rouf
Lucky Cement Ltd.
Maersk
Magnus Investment Advisors Ltd.
MAL Pakistan Limited

Manhattan Leo Burnett
Maple Pharmaceuticals Pvt. Ltd.
Marie Stopes Society
Martin Dow Pharmaceutical
MCB Bank Limited
Meezan Bank Ltd.
Merck Marker Pvt. Ltd.
Merit Packaging Pvt. Ltd.
Metlife Alico
Metro Cash & Carry Pakistan
Metropolitan Bank Limited
MGH Group
Microsoft Corporation
Midas Safety
Mindshare Pakistan Pvt. Limited
Mitsubishi Corporation
Mobil Askari Lubricants
Mobilink
Mobitel, KSA
Muller & Phipps Pakistan Pvt. Ltd.
Multinet Pakistan Pvt. Ltd.
Nabiqasim Industries
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
Nedo Corporation
Nestle Pakistan
New Era Industries
New Jubilee Insurance Co. Limited
NIB Bank Ltd.
Nielsen Pakistan
Nike Pakistan Limited
Novartis Pharma Pakistan Limited
OBS Group
Oman National Electronics, Dubai
OMD Pakistan
OMV Pakistan Exploration
Orient Public Relations
Orix Investment Bank Pakistan Ltd.
Orix Leasing Pakistan Limited
Oxford University Press
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 (British American Tobacco)
Pakistan Vehicle Engineering (Pvt) Ltd.
Pak-Kuwait Investment Co. Ltd.
Pak-Suzuki Motors Co. Limited
Parke Davis & Co. Limited
Pfizer Laboratories Limited
Pharmatec
Philip Morris International
Philips Electrical Co. of Pakistan
PIRANA Group
Pizza Hut – MCR (Pvt) Ltd.
Pizza Next - MFC Pvt. Ltd.
Price Solution Pvt. Ltd.
Procter & Gamble
Qubee
Reckitt Benckiser Pakistan Ltd.
Rhone Poulenc Rorer Pakistan Ltd.
Roche Pharmaceuticals Limited
Rocket Internet
Samba Bank Ltd.
Sanofi Aventis Pakistan Ltd.
Sapphire Textile Mills Limited
Schneider Electric
School of Leadership
Searle Pharmaceuticals
Shaheen Airlines
Shan Foods Pvt. Ltd.
Shangrila Pvt. Ltd.
Shell Pakistan Limited
Sidat Hyder Morshed Associates Private Limited
Siemens Pakistan Engineering Co. Limited
Sindh Education Foundation
Singer Pakistan Limited
Snack Bites Company
Standard Chartered Bank Limited
Starcom Pakistan
Starcrest Communications
State Bank of Pakistan
Summit Bank Limited
Tameer Micro Finance Bank Ltd.
Tapal Tea Pvt. Ltd.
Target Resourcing

Tata Group of Industries
Tata Textile Mills Ltd.
TCS (Pvt.) Limited
Teach for Pakistan
TeleCard Ltd.
Telenor Pakistan Limited
The Aga Khan Education Services
The Aga Khan Health Services
The Aga Khan University The Bank of Khyber
The Express Tribune
The First Micro Finance Bank Ltd.
3M Pakistan Pvt. Limited
360 Training
TNI - Worldwide Partners Inc.
Total Lubricants
Toyota Indus Motor Company
TPL Trakker Limited
TradeKey
TV One - Airwaves Media Pvt. Ltd.
UBL Fund Manager
UBL Insurers
Ufone
Uniferoz
Unilever Pakistan Limited
United Assets Management Co. Ltd.
United Bank Limited
United Energy Pakistan Ltd.
United Marine Agencies
United Registrar of Systems Limited
US Consulate, Karachi
USAID Pakistan
Versa Canada Inc.
Visa International (Asia Pacific) Ltd.
Ward Howell International
Warid Telecommunication
Waterlink Group of Companies
Wavetec Pvt. Ltd.
Weekend World Marketing Limited
Winstar Pvt. Ltd.
World Tel
World Wildlife Fund for Nature Pakistan
WorldCall Broadband Limited
WWF Pakistan
Xenith Public Relations (Pvt.) Ltd.
Yunus Brothers Group
Yunus Textile Mills Ltd.
ZIL Limited
Zong





ENTREPRENEURSHIP & MANAGEMENT EXCELLENCE CENTER

EMEC's vision is to provide innovative training solutions by continually exceeding customer expectations.

EMEC's mission is to create a perfect training program every time, catering to all the needs of the clients using best of resources and technologies.

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 training programs. These programs are designed for professionals, business personnel and leaders from various public and private sector organizations who aspire to seek new perspectives and insights on Management Issues. These training programs are conducted by our distinct faculty members 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 in to realistic achievable target determining in what areas the training is needed with a clear outcome. This process helps EMEC develops customized training programs for its clients.

Open Enrolment Training

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

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



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) for grant making 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 Thornton - 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 Planning, Financial Management, Monitoring & Evaluation, Compliance, Project Management, Proposal Writing, Leadership, Public Outreach, Human Resources and Admin & Procurement.



e-con' 2014

OPEN Karachi 3rd Annual Conference "eCON'2014" held on Saturday, December 20, at Institute of Business Management (IoBM), Karachi. The theme of the conference was "Economic Sustainability through Entrepreneurship"

The conference provided the participants, an opportunity to listen to and network with successful entrepreneurs, industry champions and thought leaders helping to build the Entrepreneurial Ecosystem for Pakistan. It not only provided a platform to connect with leading professionals among the industry and academia but it also served as an ideal opportunity for young entrepreneurs to seek guidance from established entrepreneurs.



Mr. S. M. Muneer -Chief Executive – Trade Development Authority of Pakistan was the Chief Guest of the event. Speakers from diversified backgrounds also contributed to the learning of the participants. The key speakers of the event were, Mr. John A. Tucknott, MBE, British Deputy High Commissioner to Pakistan and Director of Trade & Investment. Tommy Hutchison, Founder & CEO of i-genious UK. Sunita Singh, Sr. Director Wadhvani Foundation, Co-founder NEN. Mr. Shahid Mahmud, Chief Executive Officer, Interactive Group and others.





Activities at EMEC

- Not for Profit Management course, June, 2014
- Certified Supply Chain Analyst (CSCA) Program, December, 2014
- e-con'2014, December, 2014
- Certified Supply Chain Analyst (CSCA) Program, February, 2015
- Certified Demand Driven Planner (CDDP) Program, March, 2015
- Certified Supply Chain Manager (CSCM) Program, April, 2015
- Orientation of IFC - IoBM collaboration, April, 2014
- Emerging Trends in Talent Management, HR Diploma Module, February, 2015
- Developing Aligned, Engaged and Innovative Organizations Workshop by Sean A. Culey, in association with MAP, February, 2015
- Managing for Development Results, March, 2015
- 5th International Conference on Business Management, March, 2015
- Orientation of IFC - IoBM collaboration at KATI, April, 2015

Institute of Business Management signs a contract of collaboration with International Supply Chain Education Alliance (ISCEA) WHQ USA

The Entrepreneurship and Management Excellence Center (EMEC) at IoBM signed a five year agreement with International Supply Chain Education Alliance (ISCEA)-USA whereby, ISCEA authorizes EMEC as ISCEA's Authorized Knowledge Provider (AKP) to operate ISCEA program in Pakistan.



5th International Conference on Business Management (ICoBM)

Institute of Business Management organized the 5th International Conference on Business Management (ICoBM), 11-12 March, 2015. At the International Conference on Business Management (ICoBM), eminent national and international speakers focused on specialized tracks towards endeavors in business and academic excellence, socio-economic stability, scientific and technological development with focus on Pakistan.

The first track was Human Development and Marketing Issues in Big Cities and Businesses: Marketing, Human Resource Development, Leadership, Organization Development, Organization Science, Public Policy and Corporate Governance. The second track was highlighted by Management, Total Quality Management, Information Systems Management and Operations Management. The third track examined the Role of Financial Institutions and Markets: Economics and Finance. Competitive Business Strategies: General Management, Entrepreneurship, Knowledge Management, and Globalization. The fourth track was Up-gradation in Technology and Environment.

With Mr. S.M. Muneer, Chairman Trade Development Authority of Pakistan (TDAP) and Chief Guest on this occasion, the inaugural session was characterized by thought-provoking addresses by Dr. Hasan Sohaib Murad, Rector – UMT and Mr. Nisar Ahmed Siddiqui, Director – Sukkur IBA pertaining to pertinent, innovative and mutually sharing conference tracks and emphasized on the need for mutual cooperation among academic, corporate sector, business circles and government in this regard. Mr. Talib S. Karim, while welcoming delegates, dignitaries and participants, shared with participants how IoBM has come of age in imparting career focused education in business management and allied disciplines and that how it pursues the spirit of Entrepreneurship and Entrepreneurial Co-operation. Sharing in the preliminary session fresh ideas and insights in educational and corporate excellence towards socio-economic stability and technological development of a society, especially in the Pakistani context, were Chairperson –Dr. Imran Ali, Rector and Dean-KSBL, Dr. Javed Ashraf, Vice Chancellor –Quaid e Azam University and Mr. Saeed Allawala, MD –ATCO Laboratories.

Presenting thought-provoking papers in the segment pertaining to “Human Development & Marketing Issues in Big Cities and Businesses” were Dr. S. Sohail H Naqvi, Vice Chancellor, LUMS, Mr. Prem Shankar Jha, Senior International Journalist & Former Information Advisor to Indian Prime Minister, Mr. Shoaib Siddiqui, Commissioner- Karachi and Dr. Mehtab S. Karim, Senior Faculty, George Mason University. “Competitive Business Strategies” segment had Mr. M. Aliuddin Ansari, President, Engro Corporation and Mr. Talib Karim as panalist. The panel members for the session “Up-gradation in Technology” were Dr. Syed Irfan Hyder, Dean, CBM, Dr. S. M. Aqil Burney, Professor, IoBM, Mr. Michel Sacleux, Consultant and Prof. Dr. Zabair A. Sheikh, Director, FAST/NUST.

The Conference closing remarks and vote of thanks was given by Talib S. Karim, Rector – IoBM, address by Mr. Salman Burney, MD – GSK. Mr. Nisar Ahmed Khuhro, Sindh’s Senior Minister for Education was the Chief Guest at the concluding session and gave away souvenirs to best papers’ presenters and to organizers of the conference.





Karachi Council on Foreign Relations (KCFR) & China Institute of Contemporary International Relations (CICIR) delegate's Visit to IoBM

Members of Karachi Council on Foreign Relations with a four-member delegation from China Institute of Contemporary International Relations (CICIR) visited Institute of Business Management on Sunday, March 22, 2015 to discuss the benefits of the China-Pakistan Economic Corridor.

The meeting was hosted by Mr. Talib Karim Syed, Rector, IoBM and Corporate Member of KCFR.

IFC-IoBM Partnership

Business Edge, IFC has recently collaborated with the Institute of Business Management (IoBM) to offer courses specially for SMEs. Business Edge, an innovation of IFC, is a world-class proprietary training solution designed to improve management capacity and business performance. Business Edge has been used to train hundreds of thousands of individuals globally. Impact studies show that Business Edge has significant impact on workplace performance, real-world application, employability, bankability, revenues, investment, and job support.

List of courses offered in this regard belong to the following categories:

- Marketing Management
- Financial Management & Accounting
- Personal Productivity Skills
- Human Resource Management
- Tourism and Hotel Management
- General & Operations Management



Pakistan Business Review (PBR)

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.

Pakistan Journal of Engineering, Technology & Science (PJETS)

In 2010, the College of Computer Science & Information Systems (CCSIS) was asked to add value in its programs and come up with innovative ideas. The faculty of CCSIS, after few brainstorming sessions decided to launch a new journal to publish original research in the fields of Science and Engineering. CCSIS started working on this project and started a bi-annual, peer reviewed, journal by the name PJETS (Pakistan Journal of Engineering, Technology & Science). PJETS is published in June and December of each year. Editorial Board consists of two groups, Editorial Advisory Board (EAB) and Editorial Review Board (ERB). ERB consists of scholars with good academic background and proven research interest from reputed institutes. Many ERB members are associated with universities/institutes abroad, e.g. Malaysia, US, Canada, UAE, and Oman. The mission of this journal is to promote innovative ideas and original research in the fields of Science and Engineering. This journal aims at publishing authentic research papers to create a culture of innovation and scientific development. In 2013, the HEC recognized PJETS and placed it in Z-category.

Journal of Education and Educational Development (JoEED)

The Journal of Education and Educational Development (JoEED) is a bi-annual peer reviewed journal published by the Department of Education, Institute of Business Management. It publishes local, national, and international research papers: empirical researches, action researches, case studies, research briefs, critical reviews, debates, and book reviews focused on interdisciplinary themes of education and educational development. The aim of this journal is to publish original and unpublished contributions that focus on both theoretical and applied research studies in education and related disciplines, offering diversity and a variety to its readers. The journal in each issue through publishing difference articles, case studies, book reviews, and critical reviews intends to present its audience with interdisciplinary themes on education and educational development.

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 IoBM are regularly presented at the annual meetings of the Pakistan Society for Development Economics, Islamabad.

Online Accessibility

IoBM 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.



QUALITY ENHANCEMENT CELL (QEC)



QEC is an independent department at IoBM established in 2008 under the directive of Higher Education Commission (HEC) and is headed by a Director. The purpose of QEC is to implement the guidelines provided by the HEC. It is also involved in planning, guiding and monitoring quality assessment and enhancement activities. QEC has been successfully functioning over the last 7 years with an excellent record and from its existence was able to contribute to the implementation of qualitative and quantitative data of several academic programs, on the basis of which HEC awarded ranking of QEC. QEC has the honor of scoring 99% in 2014. Earlier ratings varied from 85 to 96 %, on yearly basis.

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

QEC is rated very highly by the Asia Pacific Quality Network (APQN). It has received best Internal Quality Assurance Award from APQN, in its conference held in Taiwan in 2013. APQN has recognized post graduate diploma of Quality Assurance in tertiary education to be conducted to locally and internationally.

QEC is responsible for setting up Standard Application and Products (SAP) university alliance linkages with an Australian University with the help of German experts and it is among the few institutions in the world which is providing SAP training to its students in the area of Supply Chain, Human Capital Management, Finance and Accounting, etc.

IoBM, in coordination with QEC, was able to get accreditation by NBEAC for its BBA and MBA programs, accreditation by Pakistan Engineering Council (PEC) for its BS-Industrial Engineering and Electrical Engineering programs, and is assisting acquiring AACSB accreditation.

QEC is also responsible for developing policy, procedure and its revisions. HEC utilizes the services of QEC in assessment of Institutional Performance Evaluation of other HEI's on regular basis. QEC is also conducting workshop in areas of quality and in preparation of Self Assessment report of the program of other institution.

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 / Dissertation

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

- 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 experiential learning, cooperative learning, directed class discussions and activities in critical thinking.

- Experiential Learning methodology enables industry engagement through “Learning by Doing” approach. Adoption of Experiential Learning in all programs is a strategic initiative of IoBM.
- The case method of instruction continues to be a significant classroom teaching strategy at IoBM 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
A	91-95	3.89
A-	87-90	3.78
B+	84-86	3.67
B	79-83	3.33
B-	74-78	3.00
C+	68-73	2.75
C	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.



"After getting done with my Bachelor and Master from IoBM I was able to understand that I had gotten one gift from this institution, a gift no education could have given me and which many tend to ignore. It was the gift of perspective; a perspective on how to take my life forward, how to change lives of others, how to make the most of every opportunity that comes my way. What we fail to understand is that it is never how we start, it is always how we what we end up with. We may not be the best of students, but we must become the best of human beings. Alhamdulillah! Today I am able to lead the world's largest youth run organization AIESEC's Chapter in Pakistan, and I cannot forget the support I got from my institution. Most of my achievements are because of my institution, it is my teacher, my guide, my savior. Thank you IoBM for everything."

Ali Bin Shaeen
Country Manager, AIESEC in Pakistan



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



No student of IoBM shall breach any regulation

- a) relating to the use of the libraries or the information and communication technology facilities at IoBM;
- b) relating to conduct in examinations;
- c) assist or encourage directly or indirectly any person or persons to act in breach of 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;
6. 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 owe all my academic and professional achievements to the teachers and management of IoBM who have strived to provide us all a great learning environment. The experience and learning I got from my teachers and the course projects enabled me to work at top companies such as Unilever, JWT & Starcom, MediaVest Group."

Syed Zain Najam
Junior Associate
Media Buying, Starcom Media Vest Group

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 traditionally 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



Studying at IoBM has been a tremendous experience. The teaching methodology along with bouts of practical exposure for reporting and production courses helped in developing strong concepts.

Moreover, with the establishment of a full-fledged, industry-standard studio and Media Lab, the students were exposed to work environment during their academics which made the graduates of IoBM stand apart from competition provided by other media schools across the country.

It is indeed because of the academic excellence provided by IoBM that almost every student of media studies program had a job even before graduation, keeping in mind the tough competition there is in the field of media. For me, four years at IoBM were the best days and memories that I will cherish forever. I wish IoBM and all the newcomers best of luck!

Umer Bin Ajmal

Asst. Multimedia Producer
DAWN.com

IoBM is a no smoking campus. Any violation of this rule can lead to serious consequences. The penalty for this can amount to the extent of cancellation of registration.



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, 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 (Executive) Programs:

The admission for MBA Executive 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 Executive).
- 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
OR
- Four years overseas bachelor's degree or equivalent recognized by HEC

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 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.

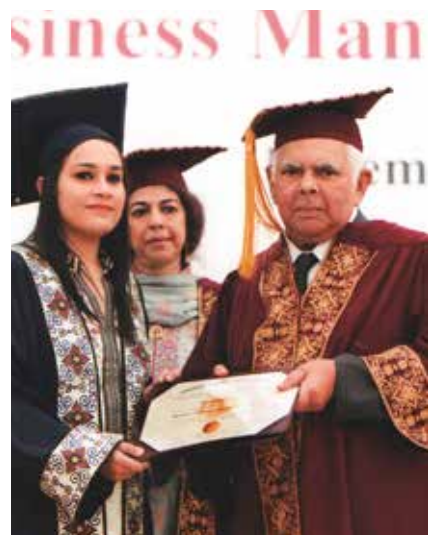
External

Following external financial assistance are being provided to students:

- HEC - French Scholarships
- Endowment Fund - Education Department, GOS
- IoBM Endowment Fund
- Shahjehan Karim & Family Endowment Fund
- Janmohammad Dawood Trust
- Tabba Foundation
- Endowment Fund - Shan Foods
- Sui Southern Gas Company Ltd. Scholarships
- Ihsan Trust (Meezan Bank)

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
- University of Kaula Lumpur, Malaysia
- Universidad Autonoma de Guadalajara, Mexico
- Mykolas Romeris University, Lithuania



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 (Executive & 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 executive 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.
3. 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 prorated) 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





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
- Secretary, Education and Literacy Department, Government of Sindh
- Mr. Muhammad Ali Tabba
- Mr. Salahuddin Qureshi
- Mr. Masood Hashmi
- Mr. Talib Syed 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
- Mr. Sani Ahmad
- Dr. Mehtab Syed Karim
- Dr. Mussarrat Hassan
- Mr. Mohsin Furqan
- Mrs. Sabina Mohsin
- Mr. Talib S. Karim
- Dr. Ahmer S. Karim
- Mr. Mehboob Syed Karim
- Mr. Nabhan Shah Karim
- Mr. M. W. Jahangir, Secretary



FACULTY



Rector IoBM & Executive Director, Corporate Affairs & EMEC



Talib S. Karim, Rector & Executive Director, 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 President of 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

Dr. Muhammad Mahmud, Senior Fellow and Head of Department. Before joining IoBM, Dr. Mahmud served at Institute of Business Administration (IBA), Karachi for twenty-four years in various capacities (teaching, research and administrative). Dr. Mahmud has completed MBA degree from the IBA Karachi and PhD 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 awarded him third prize in 2002 and fourth prize in 2003 for participating in research essay competition.



H. Jamal Zubairi, Senior Fellow 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 35 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 15 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.



Sharique Ayubi, Associate Professor of Finance and Accounting, 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.



Dr. Imam Uddin, Associate Professor holds a PhD in Islamic Business & Finance from University of Karachi with emphasis on rules and regulations of Islamic Banking & Finance in Pakistani context. His areas of expertise include Islamic Banking & Finance, Islamic Jurisprudence, Int. Law & Humanities. He has more than ten years of experience in teaching, research, product development, product management and Sharia' compliance. He has authored various articles on Islamic Economics and Finance. Previously, he worked with DHA Suffa University, Mohammad Ali Jinnah University, University of Balochistan Quetta & Center for Islamic Economics (CIE). He tries to contribute towards development of intellectually sound human capital for the Islamic Banking industry by delivering lectures, conducting workshops and organizing seminars.





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.



Samina Riaz, Assistant Professor in Accounting & Finance, holds MBA and MPhil in Finance. Her research interests are in the areas of Banking and Risk Management and intend to pursue PhD in the same. She has also presented research papers in the National and International Conferences.



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 a visiting faculty member.



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.



Misbah Iqbal, Senior Lecturer Accounting and Finance, holds a BBA (Hons.) and MBA degree from the Institute of Business Management and is currently pursuing her MPhil 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. She is a trainer for USAID's and TAF's program on Training NPO personnel. 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 8 years of corporate banking experience, 2 years of consulting and 4 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 with her 9 years of teaching experience of teaching various Accounting and Finance courses. She has been associated with IoBM since 2007 serving as visiting faculty and joined in permanently in 2012. Her research interests are Financial Management and Analysis Techniques.



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 MPhil in Business Management from CBM, and has research interests in contemporary accounting and finance



Communication

Fareeda Ibad, Associate Professor and Senior Fellow, Communication Skills and Languages, holds an MPhil Degree in Education from the Institute of Business Management, Karachi and a Master's degree from the University of the Punjab, Lahore in English. Her professional experience of 40 years includes teaching English and Communication to adult learners in diversified contexts. She has worked at the Pakistan American Cultural Center 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 19 years includes teaching at both BBA and MBA levels. Her additional training experience is in the field of testing in ELT and professional and academic writing. She is on the Editorial Review Board of International Journal of Education and Culture (IJEC), Untested Ideas Research Center, Niagara, N.Y, USA and also Journal of Education and Educational Development, Institute of Business Management (IoBM). Her research interests lie in the areas of Communication and Education. She has worked in the areas of Soft skills development, teacher training in pedagogy, and as an ELT trainer.



Muhammad Asif Khan, Assistant Professor, Communication, is an MA in English Literature and an MA in English Linguistics from the University of Karachi. He has also done his MBA in HRM 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 Interpersonal Skills, Business Communication and Training and Development. He is a recipient of the Group Study Exchange Program Fellowship 2010 for Nebraska, USA, hosted by the Rotary Foundation, International. After successful completion of his MPhil in education, he is currently working on his PhD thesis at IoBM.



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 MPhil fellow and is currently working on his research thesis. He has developed a website "Webell" for ELT and research purposes.



Shumaila Omar, Senior Lecturer of Communication and CELTA qualified teacher and a trainer, holds double masters in English Literature and Linguistics from Karachi University and MPhil (Social Sciences) from Hamdard University. She has a diverse and rich teaching experience of 6 years in Academic English and Business Communication. She taught at various universities prior to working at IOBM. In addition to teaching, she held workshops in ELT across UAE Universities and was working part-time at Collegiate American school, Dubai. Shumaila has also attended courses related to Leadership and Management at Dubai Men's College, Dubai. She is a member of TESOL (Teaching English to Speakers of Other Languages) Arabia and Al-Noor Training Centre for Children With special Needs.



Rana Naem Akhtar, Senior Lecturer and PhD Scholar, Department of Communication, holds an MPhil degree in Education (ELT) from Iqra University, Karachi. He did his MA in English Linguistics & Literature from the National University of Modern Languages, Islamabad in 2009. Currently he is pursuing his PhD in Education from the Institute of Business Management. He has been associated with various public and Private sector universities as a faculty member from 2010 to 2014. He has a rich experience of teaching English, Communication and Education subjects. He is a professional trainer and has conducted numerous workshops and has given series of Teachers Trainings at various schools and Institutes. He has produced six Research papers the domains of Language, Communication and Education. His areas of interest include Linguistics, Literature, Interpersonal Skills, Business Communication, Educational Psychology & Philosophy, Education Research and Training and Development.



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 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 Masters 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.



Ishtiaq Ahmed Kolachi, Lecturer Communication Skills is an MA in English Literature and Master of Education from Shah Abdul Latif University Khairpur. He also holds diploma in linguistics from National University of Modern language, Islamabad. In addition to this, he has successfully completed his course work of MPhil in Education and now working on his thesis. He has a rich experience of teaching English language and business communication skills both oral and written. He has been associated with the top most educational institution of the city in the past. His areas of interest include teaching English for Specific Purpose (ESP) Business Communication and Teachers' Training and Development.



Abdul Nazeem, Junior Lecturer in Communication skills 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. He has worked as Interpreter to French researchers with CSSK (Center of Social Sciences Karachi). He has been attending training programmes and conferences arranged by l'Alliance Française de Karachi & Consulate General of France and Goethe Institute in Karachi.



Environment and Energy Management

Dr. Shahid Amjad, is a Professor and Head of the Department, Environment & Energy Management and Industrial 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. He 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 and Hospital 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 her PhD program at IoBM.



Dr. Humeira Jawed Abidi, Senior 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



Abdul Qadir Molvi, Associate Professor and Head of Department 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. He has recently completed his MPhil in Business Management at IoBM.



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, is a PhD Research Scholar and holds MPhil degree in Business Management and brings along a vast experience of research and 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 9 years.



Shiraz Ahmed, is a Senior Lecturer in department of HRM and holds MPhil 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 a visiting 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.



Omar Javaid, Coordinator Entrepreneurial Initiatives, Senior Lecturer & PhD student at IoBM, has a BE in Industrial & Manufacturing Engineering from NED University, Executive MBA from IoBM with majors in Marketing and MS in Management Sciences from KIET. Mr. Javaid has a total of 11 years of experience of working in corporate, non-profit and education sector. His core competence is mentoring new startups and ventures; during previous five years he has helped hundreds of students in their entrepreneurial ambitions. He has also been empowering students to setup micro businesses for poor unemployed folks, and have successfully initiated around 450 such projects during his academic career up till now. He has also published various research articles and editorials in various journals, magazines and news papers; and is a reader of Islamic Economics & Finance, Micro-finance & Entrepreneurship, Social Entrepreneurship, Political Theory, and Philosophy of Economics and Business Management. Apart from teaching at IoBM he is also responsible to mentor IoBM students to setup the entrepreneurial ventures and facilitate in the process of developing of an entrepreneurial ecosystem within the Institute.





Juveria Baig, Lecturer in Human Resource Management has more than 6 years of diversified experience in the areas of Project Management, Recruitment, Training, Coaching and Mentoring and Performance Management. Her education includes BSc (Hons) from Textile Institute of Pakistan, MBA from Hamdard University and Master 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 is Sr. Fellow and Head of Department. He is a IFC accredited Board Director & certified trainer. FCIM-Fellow of the Chartered Institute of Marketing (UK), FCMI-Fellow of the Chartered Management Institute (UK), Member of Mensa and a UK Chartered Engineer. He has a MBA with Distinction from Lancaster University Management School (empirical research awarded 1st prize by the British Institute of Management) and a BScEng (London). He brings to academia 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 served on the Jury of the EFP Prime Ministers' Corporate Award of Excellence and is the recipient of the IAUP award for Faculty Excellence 2013. He is case research active in corporate & market strategy and has supervised CBMs' MPhil Marketing Research. He has written two research based dissertations, published 16 papers and articles and delivered 23 professional presentations and workshops.



Kausar Saeed, Associate Professor in Marketing possesses over 28 years of diversified experience of corporate, academic, entrepreneurial and developmental sector. She has served in various organizations at different positions including Aga Khan Foundation, Interflow Communications and Gtz. Kausar teaches various courses of marketing and management at undergraduate, graduate and executive level. She is an experienced academic, researcher and consultant in the field marketing and management. She has presented her research papers in four International Conferences. Currently, she is pursuing her PhD 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.



Riaz Khan, Senior Fellow, Marketing holds Bachelor degrees from Florida International Industrial Engineering Technology and also in Electronics Engineering Technology and Marketing from the University of Houston, Texas, USA. He possesses over 32 senior level, mainly as international marketer working for various multinational companies 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 presented papers at various international conferences and seminars held in Mexico, New York and other venues. He has been a visiting Professor in MBA Programs at various universities in USA.

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 management training programs for various organizations and has undertaken several market research projects at a national level.



Mohammad Ekhlaque Ahmed, Assistant Professor, Marketing holds a Master degree in Business Administration from Institute of Business Administration, Karachi. He has over 30 years of working in Corporate Sectors on Senior Management positions in both multinational and local companies. He worked for Philips, Osram, Dadabhoy Cement and Rajby Industries before joining IoBM as permanent faculty. Besides basic marketing courses like Marketing Management, Principles of Marketing, Sales Management he has been teaching Strategic Marketing Planning, Marketing Strategies with Value Innovation, Distribution and Channel Management. He is also pursuing MPhil in Business Management from IoBM. Mr. Ekhlaque is also a Corporate Trainer in the field of Marketing & Management.



Syed Amir Saeed, Assistant Professor in Marketing, has done his MBA from University of Peshawar. Subsequently he joined Gulf Ship chandlers Dubai, where he was responsible for managing marketing activities and supplies to United Arab Shipping Corporations. He joined teaching in year 2000, secure MPhil in Marketing degree, and executed multiple research projects in collaboration with Gallup Pakistan, for the major clients including world bank and British council. He also provided advertising consultancy for different national and multinational brands. He is currently pursuing his PhD in Marketing from Institute of Management Sciences, Peshawar.



Amber Raza, Senior Lecturer, Marketing holds an MPhil and MBA (IoBM) and is part of IoBM's Doctoral program in 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 7 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.



Muhammad Adnan Bashir, is working as PhD Research Fellow at IoBM. He is an awardee of HEC Indigenous Scholarship for 5000 Scholars. He holds M.Phil, MBA degrees in Business Administration from Iqra University and B.Sc (Hons) & M.Sc degrees in Microbiology from University of Karachi. He has over 7 years of work experience in both multinational and national pharmaceutical companies. He worked for GlaxoSmithKline, Atco Laboratories and Novartis Pharma Pakistan. Research area includes Branding and Customer Engagement through Online Social Media.



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 40 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. He received his ME degree in Software Engineering and Intelligent system from University of Alberta, Edmonton Canada. He also possesses MSc in Applied Physics with specialization in electronics from University of Karachi, and has also completed his MPhil 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 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 ten years of teaching experience.



Muhammad Waqar Khan is 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 Post Graduate Diploma in Computer and Information Sciences from Karachi University. He is doing Master's in Engineering from Usman Institute of Technology, Hamdard University. He has a mix of over sixteen years experience of working in industry including Pakistan Telecommunication Company Limited (PTCL), Wateen Telecom Pvt Ltd, Comstar ISA Ltd, PEMRA, National University of Science and Technology as Lecturer and worked as a visiting faculty in different institutes and universities .



Asim Iftikhar, Senior 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, Senior 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.



Mohammed Ather Akhlaq, Lecturer, Computer Science has done his MPhil 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 has a couple of of international publications to his credit. His research is mainly focused on information communication technologies.





Rabab Naqvi, 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 possesses 16 years of 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 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.



Dr. Muhammad Danish, Assistant Professor, Mathematics Khan holds BS in Computer Science from Petroman Training Institute, MSc in Mathematics from Federal Urdu University and PhD from Lahore University of Management Sciences. He has taught at Lahore University of Management Sciences, Lahore School of Economics and University of Punjab prior to joining IOBM. Dr. Danish has several publications in leading international journals.



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 MA 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 completed her MSc in Applied Mathematics from Karachi University. She is enrolled in MPhil leading to PhD 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.



Kashif Shafiq, Senior lecturer in Supply chain and logistics management holds a Master's degree in supply chain and logistics management from University of Warwick, United Kingdom. He also holds an MBA degree from Institute of Business Management (IoBM). He has international industrial experience in the field of supply chain for more than eight years. He has been a certified supply chain trainer in Europe and Pakistan for the last five years.



Actuarial Science and Risk Management

Dr. S. M. Aqil Burney is Professor at College of Computer Science and Information Systems and HoD (AS & RM). He holds MSc (Statistics), MPhil (Risk Theory and Insurance -Statistics) from University of Karachi (UoK) and PhD (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 UoK and extensively delivered lectures at other institutions and universities of Pakistan and abroad. He also holds extensive experience of academic management and organization as Provost, Registrar, Project Director Development of Computer Science and Institute of Information technology and founding Director of Main Communication Network of University of Karachi. Dr. Aqil Burney was Meritorious Professor at Dept of Computer Science University of Karachi prior to joining at 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 as approved HEC Supervisor. Dr. Aqil Burney 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 was Fellow Royal Statistical Society UK) for 30 years or so.





Fakhir Musharaf, Assistant Professor holds a Master 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 in Cotton Export Corporation, Central Depository Company and 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 MSc 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, holds MS in Financial Mathematics from Technical University Kaiserslautern, Germany. He has more than 5 years of teaching experience at PAF KIET. He has also worked at Daimler (Germany).



Syed Adeel Hussain, Assistant Professor in Actuarial Science & Risk Management holds an MBA in Finance from the Coventry Business School, UK with an overall Merit Class & Distinction Award in his Dissertation. He has considerable expertise in the area of Financial Risk Management and has worked extensively both as a Head of Risk Management and as an Enterprise Risk Culture Builder at both Asset Management and Commercial Banking Institutions within and outside Pakistan. He has an exhaustive understanding of Enterprise -wide Financial Risks that exist in both Shariah Compliant and Conventional Investment Securities and Financing Products. He in his most recent Banking Sector Assignment, had worked as Head and Director of Quantitative Risk Analytics at Tadhamon International Islamic Bank Ltd. (TIIB).

College of Engineering and Sciences (CES)

The Dean

Prof. Dr. Irfan Hyder, (See Profile on Page No. 164).

Electrical Engineering & Telecommunication Management

Seema Ansari, Head of Electrical Engineering Department, is a PhD candidate, in Telecommunication Engineering at University of Malaga, Spain. She has done MS/CS-Telecomm. from University of Missouri, KC, USA and BE Electronic Engineering from NED University of Engineering & Technology, Karachi, Pakistan. During her academic career, she has been involved in teaching, research, management & administration and has held various positions at institutes of high repute. She is an author and co-author of 50 plus research papers published in both national and International Journals and magazines. She also participated and presented papers in national and International conferences. She contributed chapters in books titled: "Wireless Sensor Networks and Energy Efficiency: Protocols, Routing and Management" and "Handbook of Research on Trends and Future Directions in Big Data and Web Intelligence," both published by IGI GLOBAL, USA in Jan. 2011 and 2015 respectively. She is associated with the research group of Dr. Javier Ponceña González, Member of R&D group TIC-102, ETSI Telecomunicación, University of Malaga Spain.



Dr. Muhammad Farhan, Assistant Professor, Electrical Engineering Department, received his PhD and MSc degrees with distinction in Signal and Image Processing in 2014 and 2010, respectively, from Tampere University of Technology, Tampere, Finland. He obtained his BE Electronic Engineering from NED University of Engineering and Technology, Karachi, Pakistan in 2006. During 2009-2014 he worked as Researcher and Lecturer in Department of Signal Processing, Tampere University of Technology. He has also worked as Assistant Manager at SUPARCO during 2007-2008. He has published several articles in high quality international scientific journals and conference proceedings. He also participated and presented in International conferences and summer schools. In recognition of his research work during PhD, Nokia Foundation awarded him research scholarship. His research interests include signal and image processing, biomedical image analysis, systems biology, machine learning, pattern recognition and embedded systems.



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 Advanced 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.



Waqas 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, Electrical Engineering, 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 PJETS (Pakistan Journal of Engineering Technology & Science), an HEC recognized journal of IoBM.



Industrial Engineering

Dr. Shahid Amjad, is a Professor and Head of the Department, Industrial Management.
(See Profile on Page No. 169)



Dr. Mohammad Irshad Khan, Senior Fellow 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 a 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 and Management, holds an MBA degree from Institute of Business Management and a degree in BE (Industrial & Manufacturing) from NEDUET. She is currently enrolled in PhD program and has presented her research articles in couple of international conferences. She also has six years of industrial experience in leading automotive industries as a head of production and purchase department. She is a certified ISO lead auditor and possesses expertise on SAP in PP, MM and CO module.



Saima Yaqoob, Lab Engineer / Assistant Lecturer, holds a BE degree in Industrial & Manufacturing from NEDUET. She 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 Ltd" & one year of teaching experience with Hamdard University. She is currently enrolled in ME Industrial Management in NEDUET.



Maria Iruj, Assistant Lecturer/Lab Engineer, Industrial Engineering, holds an ME degree from NEDUET, with specialization in Manufacturing Engineering. She has done BE in Industrial & Manufacturing Engineering from NEDUET. She has worked as a visiting faculty at SSUET. She has the experience of projects related to production planning, scheduling & manufacturing.

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 BCom 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 UK 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.



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 PhD in Economics from the University of East Anglia, Norwich, England. She has served as the Editor of the Pakistan Journal of Applied Economics and Director 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.



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. In addition, he is a PhD scholar at IoBM.



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 Masters 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. Currently he is pursuing PhD 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 at various public and private academic institutions.



Muhammad Zubair, Lecturer in the Department of Economics holds a 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 MPhil 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 on economic issues in a renowned newspaper, Express Tribune for two 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 Master in Economics from Islamia University of Bahawalpur. He has 34 publications to his credit out of which 31 are international and 3 are local publications.



Irfan Lal, Research Fellow in Economics is currently enrolled in MPhil Program at IOBM. He has done MAS from Applied Economics Research Centre, University of Karachi and Master's (Economics) University of Karachi.



Sabeen Anwar, Lecturer, holds MAS (Applied Economics) from Applied Economics Research Center (University of Karachi) and MSc (Hons) from the University of Karachi. She has four international publications. Her MPhil (Economics) is in progress from IOBM.



Zia Ullah, Lecturer holds Master in Applied Sciences (MAS Economics) from the Applied Economics Research Center University of Karachi and MSc in Economics from Quaid-i-Azam University Islamabad. His research areas include International Economics and Macroeconomics.



Education

Dr. Nasreen Hussain, Senior Fellow and HoD Education 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.



Dr. Muhammad Yousuf Sharjeel, Associate Professor Education, holds a PhD in Measurement & Evaluation and BEd, MEd and MPhil from Hamdard University. He was awarded three gold medals for his Bachelor, Master and MPhil 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 Programmes 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 programmes. 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 and MPhil in social Sciences from SZABIST. 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 Education.





Dr. Muhammad Abid Ali, Assistant Professor of Education Department holds a PhD in Education from International Islamic University Malaysia, and MBA from Pakistan Institute of Management Karachi in affiliation with IBA Karachi. His Bachelor's degree is in Philosophy, Islamic History and Islamic Studies from Karachi University. He is also a Master Mariner in Merchant Navy and has sailed as captain on VLCCs (Very Large Crude Carriers) for seventeen years. His management experience extends to 30 years of which 17 years are served in leading positions. His qualification includes lead auditor ISO 9000. His experience includes initiating and establishment of various social and educational organizations, which include two educational research institutes in Pakistan.



Dr. Shahida Mohiuddin, Assistant Professor of Education Department holds PhD in Education from Hamdard University and an MPhil in Education from Karachi University. She has also done BA Hons (first position) and MA in Psychology from Karachi University. She had completed a diploma program in Muslim Civilizations from The Ismaili Tariqah and Religious Education Board (ITREB) and served the institute as an educationist for thirty seven years. She conducts workshop and sessions for teacher educators and adult learners in Pakistan and abroad. Her research interest is in early childhood development, Educational Psychology and globalization studies. She has presented her research papers in various national and international conferences and few of them were published in journals. Her practice of Early Childhood Development 0-3 years selected by Asia Pacific Regional Network for Early Childhood as best practices of Asia Pacific and published in its journal 'Connection' Volume 5.



Sarwat Nauman, Senior Lecturer in Education, holds an MA in English Literature from the University of Karachi. She has successfully completed her MPhil in Education and is now a PhD scholar at the Education Department, IoBM. She has teaching experience of 11 years and has been associated with Greenwich University and Defence Authority College for Women. She also holds the position of the sub-editor for the Journal of Education and Educational Development which is published biannually by Department of Education, College of Economics and Social Development, Institute of Business Management.

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. 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 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. Leenah 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".



Tehzeeb Sakina Amir, Senior Lecturer, Business Psychology Department, holds MPhil degree in Organizational Psychology from University of Karachi. She has worked as a visiting faculty member in one of the private universities of Karachi for six years. In addition to this, she has almost ten years corporate working experience in the fields of Human Resource Management and Marketing/Advertising in various organizations.



Falak Zehra Mohsin, Lecturer, Department of Business Psychology, holds an MPhil degree in Organizational Psychology from the Institute of Business Management. She has previously worked as visiting faculty in one of the private universities of Karachi. Her research interests focus on areas such as Psychometric Testing, Social Psychology, Family, Marriages and Relationship dynamics, Educational Psychology, Personality, Gender Roles, Gender Perspective, Interpersonal Psychology, Socio-Cultural Psychology, and Media Psychology. Her research has been published internationally as well in the Japanese Psychological Research. Additionally, she was part of the organizing committee for the Third Annual Conference on Industrial and Organizational Psychology: Better Organizations through collaboration in Education, Research and Practice. She has worked as a counselor in some clinical organizations as well as at underprivileged schools and continues to be associated with different welfare programs in the society.



Islamic Studies / Philosophy Unit



Asad Shahzad, Assistant Professor in Philosophy Unit, has earned his MA in English Literature from the University of Karachi and MPhil from IoBM. 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, Acting Head of Media Studies & Sr. 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 the Middle-East, 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.



Dr. Erum Hafeez Aslam, Assistant Professor Media Studies, holds a PhD degree in Mass Communications with specialization in Social and Cultural Dynamics of Media from the University of Karachi, Pakistan. Before Joining the Institute (IoBM) in August 2014, she headed Corporate Communications and Public Affairs Department at the Institute of Business Administration (IBA) Karachi for more than six years. She was also engaged as faculty media studies in the Social Sciences Department of IBA Karachi for two years. She has worked in the Dawn Group of Newspapers and MNJ Advertising as an editor and concept writer respectively in the beginning of her career.



Sabeen Jamil, Lecturer, Media Studies, holds an MA in Mass Communication from University of Karachi and MBA in Advertising and Media Management from IoBM. She has worked as a journalist at a leading English language newspaper and a freelance contributor for leading newspapers and magazines including The News, Dawn, Express Tribune and Newsline for three years before she joined academics. She was also associated with a private university as a faculty before she joined IoBM in September 2011.

VISITING FACULTY AT INSTITUTE OF BUSINESS MANAGEMENT (IoBM)

Aamir Gul Paracha MBA, Asian Institute of Technology	Asim Qadri MBA (Media) IoBM	Dr. Khawer Saeed MBBS, MBA
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Abdul Hameed Khan MBA	Atta - ur- Rehman MBA, IoBM, MA, KU	Dr. Muhammad Saleem PhD Economics
Abdul Khaliq Aboya MA Philosophy, Karachi University	Azadar Hussain MBA in Marketing	Dr. Muhammad Yahya Noori PhD, University of Glassgow
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Adnan Alam Khan MCS, Hamdard	Brig [®] Dr. Ahmed Rashid Khan MBBS, MHM, MPH, MHPM (AKU)	Dr. Nosheen Zehra MBA, MBBS
Ahsan Malik MSc, London	Col. Dr. Rashid Iqbal MBBS, MBA	Dr. Nuzhat Khan MSc (Analytical Chemistry), Sindh
Ali Zulqarnain MS, NED	Dr. Adnan Kanpurwala MBBS, MBA, MPhil, PhD	Dr. Sarmad Maqbool MBBS, MBA
Alia Hassan MBA, IBA	Dr. Ali Masood MBBA, MBA	Dr. Shahid Iqbal PhD in Clinical Psychology from KU
Ambreem Bashir MBA, IoBM	Dr. Amir Iqbal PhD (Mechanical Engg)	Dr. Shahida Mirza MBBS, MBA, IoBM
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Fareen Razzak MBA, IBA	Kamal Siddiqui MSc Media / Communication, LSE	Muhammad Ali Sheikh MBA, IBA
Farooq Baloch MA, Uni of Nabraska	Khalid Durrani MBA, USA	Muhammad Amir MS (Electronic Engineering)
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Imran Masood Ahmed BA, KU	Mariam Hassan MBA, IBA	Muhammad Umer MA in IR, KU
Irfan Muhammad MPhil in Philosopy, KU	Mehr Fatima Riaz Khan CFA (CFA Institute), MBA, IoBM	Muhammad Zia Kayani LLB, 1963
Ishrat Hussain Zuberi LLB, KU	Mirza Salman Beg MS, NED, MSC Math	Munazza Khan MA in IR, KU
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Zaki Ahmed Kamali
MBA, ICMA

Zara Islam
MBA, IoBM

ADMINISTRATION



ADMINISTRATION
&
MANAGEMENT EXCELLENCE CENTER

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.



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MS, US International University, Nairobi, Kenya



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BS, Industrial Engineering, University of Arizona, USA
MS, Industrial Engineering, University of Arizona, USA



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



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



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Syed Ajaz Ahmed
Controller of Examinations
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Manager, Public Relations
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Graduate of PMA, Kakul



Samra Javed
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Muhammad Adnan
Assistant Manager, IT
MBA, MIS (KU)



Dr. Capt. Agha Iqbal Ahmed
Medical Advisor & Incharge SAC
MBBS, (Liaquat Medical Hyd.)

Muhammad Hassan Sayeed Senior Admissions Officer-II MBA	Humayun Rashid Senior Sport Officer-II MSc, MA & BEd (KU)	Masood Hasan Senior Accountant-II MBA (Biztek)
Mehmood Ahmed Senior Accountant-II B.Com (India)	Mohammad Arif Shaikh Senior Maintenance Officer II Diploma of Associate Engg.	Mohammad Masood Khan Senior Personnel Officer I BSc, (KU)
Abdul Khaliq Sr. Officer I, Internships & Placements MBA, (IBA)	Munawar Ahmed Senior Administrative Officer I BA	Mahtab Alam Senior Maintenance Officer I B.Tech, (NEC)
Muhammad Kamran Senior Examination Officer I MCS, (KU)	Syed Mustafa Hussain Academics Officer-II MA (KU)	Vara Syed Student Counselor & IR Officer MBA (IoBM)
Bismah Mirza EMEC Officer MBA (IoBM)	Barira Amin HR Officer MBA (Hamdard University)	Abid Ali Accounts Officer II CA (Intermediate)
Muhammad Asim Accounts Officer II ACCA	Rashid Aqeel Officer II, Internal Audit CA Finalist	Muhammad Zahid Accounts Officer II ACCA
Naeem Mirza Assistant Librarian MLIS, (KU)	Samiullah Khan HR Officer BA (KU)	Masood Samee Qureshi Senior Purchase Officer B.Com
Muhammad Umar Ehtesham System Support Officer MS, CE (SSUET)	Nabhan Shah Karim Coordinator Media Sciences Bachelor of Arts, (USA)	Hafiz Humayun Baig Officer, Registrar Office MA, (KU)
Sarah Asghar Officer, Internships & Placements MBA, (IoBM)	Mobina Ahmed Officer, Admissions MBA, (PAF-KIET)	Midhat Nadeem Officer II, EMEC MBA, (IoBM)
Kiran Farooq Officer, EMEC MBA, (IoBM)	Ghulam Asif PeopleSoft Database Analyst Intermediate	Saba Raza PS Functional Officer BE, CS, (NED)
Asim Ahmed Khan Yousfi Assistant Officer II Registration		

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.

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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.

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.

Pre-requisite: ACC 101

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 Cost Accounting

The course is designed to equip students with cost accounting concepts related to job order costing, process costing and standard costing with emphasis on cost determination and control.

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

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

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 investments 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

ACC501/601 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

ACC502/602 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

ACC505/603 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

ACC506/604 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.

Actuarial 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 Kolmogorov 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 help organizations 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

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 203/205

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 is 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/O synchronization, 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.

Pre-requisite: ELE201

CME301 Computer Communication and Networks

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.

Pre-requisite: TCE404

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, Karnaugh 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

CSC220 Introduction to Database Systems

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 Organization 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.

Pre-requisite: CSC102, CSC109

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-and-conquer; 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 human factors 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 overview, 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

CSC412 Artificial Intelligence

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 space 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 quality 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 they 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.

Pre-requisite: CSC102

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

CSC448 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: 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.

Pre-requisite: CSC410

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 encouraged to work under close faculty supervision, on real-world problems of sufficient magnitude. Project implementation and documentation are the main concerns.

Pre-requisite: CSC414, CSC305

CSC510 Wireless Communication

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 set design, advanced pipelining, instruction level 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-throughs 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 examines 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 years and ADP), 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. The role of 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, decision-making 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 key ideas, 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) market-oriented economy, capitalism; liberalism, b) marxism, socialism including economic theory of socialism, and c) Keynes and social democratic policies; an appraisal of contemporary social democratic regimes is included 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. Also a brief overview of the stages of language acquisition and bilingual development is given.

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.

EDM407 Educational Policy and Economics

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 in the ever-changing global economy.

EDM414 Creativity in Education

This course provides participants with the conceptual and practical understanding of various components of classroom and school management. Furthermore, the participants engage in analysis of case studies and give solutions for the problems faced in an educational organization.

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, such as counseling in the sphere of educational and behavioral problems and students' career growth.

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 also focuses on teacher beliefs along with the practical application of peer observation, microteaching, and simulation.

EDM420 Academic Writing and Seminar Skills

This course develops participants' skills, English writing skills along with basic understanding 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. It attends to the complex interrelations between schooling and the social, cultural, historical, political, and economic contexts within which learning institutions operate. It also highlights the inter relationship among education, family, community and the society at large.

EDM422 Learners and Learning Styles

This course orients participants with learners' psychology and their learning styles by providing in depth understanding of various learner centered approaches. In addition, it focuses upon the concept of multiple intelligence, developmentally appropriate curriculum, and individual oriented lesson planning. Particular attention is given to the recent contemporary concepts of diversity, pluralism and globalization. For better understanding, participants are given an opportunity to reflect on their teaching styles and its impact on their students' learning styles.

EDM423 Reflective Inquiry in Education

This course introduces the concept of reflective inquiry in teaching. It brings together essential perspectives of researchers, practitioners and theoreticians about reflective inquiry.

EDM429 Research Methods in Education I (Quantitative)

The course focuses 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.

EDM430 Research Methods in Education II (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 qualitative research in their own professional settings.

EDM518 Evaluation and Assessment 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 helps participants use testing as an important tool in the process of teaching and learning.

EDM520 Strategic Management of Schools and School Systems

This course covers 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.

EDM526 Curriculum Management and Planned Change

This course covers concepts, processes, and principles of curriculum planning, development, and evaluation. This helps the participants to develop their performance competencies needed to engage in curriculum planning and decision-making as an administrator, a supervisor or a teacher.

EDM624 Innovations and Technology in Education

This course provides the participants with hands-on practice of understanding the appropriate use of technology in the milieu of education. Moreover, it helps participants to plan, design, integrate and evaluate technology for educational program development by using webinars, moodles, blogs etc.

EDM650 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.

EDM652 Knowledge Management

This course introduces a range of organizational practices specifically to identify, create, represent, distribute and adopt insights and experiences. It focuses on application of knowledge management processes and student alumni services.

EDM654 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 is central to the analysis of lifelong learning.

EDM656 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 teacher education models.

EDM658 Gender Disparity in Education

This course addresses the nature of gender inequalities in education has changed profoundly over recent decades and, with regard to attainment in particular. Apart from the injustice inherent in all gender stereotyping, gender differences in education can also negatively affect economic growth and social inclusion.

EDM660 Inclusive Education

Inclusive Education provides teachers with basic training in special education. The course reflects contemporary practice in the field and positions graduates at the forefront of current thinking while retaining a broad-based focus on the traditional scope of preparation in special education.

EDM689 Thesis Writing-Capstone Project I

This course makes participants undergo the whole process of completing a research project starting from brain storming to writing a comprehensive research report. The course is practical with hands-on activities to contribute to the overall aim of the course.

EDM690 Thesis Writing-Capstone Project II

The participants are 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's laws, 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, earthing 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, poly-phase 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, Planar 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, Hall 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 nano-structures, nanowires, nanostructured, materials, self-assembly, 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).

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 to 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 knowledge of stoichiometry and chemical equilibrium is applied to simple 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: ENG 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.

Pre-requisite: ECO 104

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.

Pre-requisite: MIS 001/104

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.

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: ENG217

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 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.

Pre-requisite: MIS 001/104

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 / PHY209 Basic Electronics

The course is designed to understand and troubleshoot electrical and electronic circuits found in modern applications of technology.

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 decision-making process.

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.

ENG410/601 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.

ENG412/602 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.

ENG501/603 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.

ENG604 Enterprise Asset Management and Financial Analysis

The course focuses on the strategic and financial life cycle of enterprise assets covering all the stages including planning, commissioning, maintenance, asset financial analysis, disposal and replacement. Tools and techniques used for the analysis, planning, monitoring and evaluation of the financial feasibility of the assets during the life cycle.

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 its 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.

EEM402/603 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

EEM406/604 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.

EEM408/614 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.

EEM409/615 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.

EEM501/605 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.

EEM502/606 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.

EEM503/607 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.

EEM504/608 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 manage solid and hazardous waste properly and efficiently. The course covers different modern methods of waste disposal, composting and incinerating etc.

EEM505/609 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.

EEM506/610 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.

EEM507/611 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, socio-economic 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.

EEM508/612 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.

EEM509/613 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. Will look at how energy markets have historically developed and why they have been subject to extensive government intervention. Will analyze the effects of traditional policy measures such as price controls and regulation; and we 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.

Pre-requisite: EEM401

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.

Pre-requisite: EEM401

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. Socio-economic 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 PhD 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.

EEM801 Advance Environmental Toxicology & Epidemiology

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.

EEM802 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.

EEM803 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.

EEM804 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.

EEM805 Trade and Environment

The objective of the 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.

EEM806 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

FIN201 Introduction to Business Finance

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

FIN202 Financial Management

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.

Pre-requisite: FIN 201

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

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.

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 performed 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 non-financial 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

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

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

FIN513/608 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 & performance of Islamic finance industry, analysis on Islamic 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, ijthad, riba & its types, commercial interest, usury, simple & compound interests, markup, profit, gharar and gambling.

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

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.

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.

Pre-requisite: FIN202/404

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.

Pre-requisite: FIN202/404

FIN601 Strategic Financial Analysis and Design

The objective of this course is to enhance the candidate's conceptual financial management knowledge and its modern application practices with focus on real world business finance decision making scenarios. The course attempts to develop strategic decision making abilities by aligning theory and practical evidence.

Pre-requisite: FIN202/404

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: FIN202/404

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.

Pre-requisite: FIN202/404

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: FIN202/404

FIN610 International Islamic Finance Standards

This course is designed to provide the students an understanding of AAOIFI standards and the key accounting issues that they are trying to address. Through a review of the twenty-three (23) AAOIFI Standards delegates will gain an understanding of how this provides a picture of the financial health and Sharia'a compliance of the institution? Some key differences to International Accounting Standards (IAS) will also be highlighted to enable counterparty credit risk comparisons to be undertaken.

FIN611 Islamic Capital Market

This course is designed to enable participants to acquire a working knowledge of the principles driving Islamic Capital Market (ICM). This course covers the concepts and principles of Islamic Finance, and to distinguish the differences between Conventional and Islamic Finance, exploring the concepts of Riba', Gharar and gambling in Islamic Finance. As recognize the Islamic Finance as an alternative form of investment that acquire knowledge of regulatory framework governing Islamic Banking, Takaful and Islamic Capital Market (ICM) activities.

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-at-risk 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 hedge, 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 and 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.

Health Management

MHM401/529 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.

MHM402/530 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

MHM403/531 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, report formats, 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

MHM404/532 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

MHM501/623 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

MHM503/605 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

MHM504/601 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

MHM505/606 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

MHM507/607 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

MHM508/608 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

MHM509/609 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

MHM511/610 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.

MHM514/611 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

MHM515/612 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.

Pre-requisite: MAN401 / MHM401

MHM517 / BPR601/602 Capstone Project I and II

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

MHM518/613 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

MHM520/614 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

MHM521/615 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

MHM522/616 Project Management of Health Services

In this course, students will be able to learn planning for quality, performing quality assurance 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

MHM524/619 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

MHM525/620 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

MHM526/604 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

MHM527/621 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

MHM528/622 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

MHM529 Health Psychology

This course provides an overview about the health psychology and behavioral factors (workload, diet, exercise, substance use, medical condition, sleep and family issues etc.) that contribute to sickness or wellness of health. This course will enable students in recognizing the commonly prevailing psychological and social issues like depression, anxiety, confusion, chronic illness and social phobia and it will also help them in examining the behavior change strategies that can aid in improving the health habits.

Pre-requisite: MAN418, MHM501

MHM535 Business and Health Economics

This course will help students in understanding the current economic status of Pakistan Healthcare industry from global perspective. Topics include scarcity of medical resource, medical products and health industry financial fluctuations, inflation, health budget financing deficit and incentives allowing for any differences peculiar to health.

MHM602 Health Service Delivery and Operation Management

This course will introduce student about the operational issues encountered in Hospital setting. The course will enhance multi managerial skills of students like supply chain management, inventory management, project management, human resource management and quality management etc. The course will also help student in managing the location and layout strategies, improving the productivity, reducing the conflicts and enhancing the reliability of the Hospital.

Pre-requisite: MAH418, MHM501, MHM506

MHM603 Health Ethics, Law and Jurisprudence

This course highlights about the concept of ethical, legal and medical regulations of various Health industries of Pakistan. The course has cover various topics related to rights of patients, rules and regulations of health organizations physicians malpractices, work's compensation, certificate of death, etc. The course enables students to implement legal, ethical and medical knowledge into real life practices.

Pre-requisite: MAN418, MHM501, MHM506

MHM617 Seminar in Health Policy Management

This is a multidisciplinary course focusing on all aspects of health care policy management including organizational strategies and practical and emerging trends relating to successful health care organizations around the world. It will cover policy, rationale and practices related to business of successful organizations laying special emphasis of 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.

MHM618 Health Communications

This is a homogenous mix of verbal and written communication related to the health care industry. Health communication is the study of how health information is generated and disseminated and how that information affects individuals, community groups, institutions and public policy. The field includes the study of secular communication, as well as the strategic communication of evidence-based health information to professional and non-professional audiences. The course covers practical experiential learning models of communication in hospitals, NGOs, pharmaceuticals, media etc. using innovative learning techniques and direct interaction with health care personnel.

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

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.

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.

HRM410 Managing Human Capital

The course moves the discourse from managing humans as resources to managing them as capital. Challenges of recruitment and placement, training and development, compensation, career planning, organizational growth are viewed as investment rather than as costs. In addition, contemporary management challenges related to leadership and strategic role of human capital in innovation and competitiveness.

HRM501/607 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

HRM502/608 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

HRM503/609 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

HRM504/610 Negotiation Skills

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

HRM505/611 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.

HRM506/612 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 HR-effectiveness in real life situations and what options does an organization has to avoid these traps.

Pre-requisite: HRM 301/401/402

HRM507/613 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

HRM508/614 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

HRM509/615 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

HRM511/616 Performance Appraisal

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.

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.

HRM606 Leadership, Ethics and Change

Changes in business environment and the technologies create challenges in motivating and leading the employees and other stakeholders in the face of uncertain future. This course will enable the students to develop visions, orientation, skills, personality, and ethical values that will enable them to assume leadership roles in transforming national and multinational organizations and managing change resistance. Ethical and responsible leadership is necessary in championing entrepreneurial and entrepreneurial ventures in the emerging areas of humanoid robotics, genetics and neuroscience related biological ventures.

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.

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 French speaking countries.

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 China.

LAN112 Urdu I

Urdu I is a foundation level course meant to stimulate students' curiosity in a language that serves as the primary vehicle of communication in the country's journalistic environment. Focused first on strengthening structural elements of grammar and composition, the course helps develop vocabulary and writing skills, through reading of short essays, poems, and articles of general interest.

LAN113 Urdu II

Urdu II is geared to enhance the students' language competency by introducing them to classical and contemporary literature, in some measure, and encouraging structured discussion and debate in class. Writing exercises alternate reading of text that gets more extensive and challenging as the semester progresses.

Pre-requisite: LAN112

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.

LAW409 Corporate and Business Law

Course not only helps students develop a thorough understanding of the legal environment of business, but also enhances their ability to engage in critical thinking and ethical analysis, and ultimately survive in an increasingly competitive global environment.

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.

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

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.

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.

Pre-requisite: MAN 201

MAN307 Entrepreneurial Leadership and Motivation

The course aims at inspiring students to become successful entrepreneurs and attain leadership in their respective fields of endeavor. The course involves extensive interactions with startup and renowned entrepreneurs for inspiring passion and enabling "mentorship" for the conception, identification, and implementation of entrepreneurial personality and projects.

MAN308 Social Advocacy and Community Service

The course objective is to contribute to the development of the society and to enable social entrepreneurship for issues afflicting the society. The course covers practical hands on projects involving students helping the community through experiential learning projects and would involve setting up of the micro-businesses for the needy families and establishment and support of organizations involved in social work.

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.

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

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..

MAN411/611 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.

MAN413/615 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 to 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.

MAN416/613 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.

MAN418 Management and Organizational Dynamics

This course provides a higher level exposure to the management process and organizational behavior from a social science and behavioral perspective. Emphasis is on the analysis and understanding of individual and group behavior in organizations with special attention to managerial and policy implications. Students will study organizational processes both theoretically and in an experiential environment through exercises, case-studies and the experiential-learning projects.

Pre-requisite: MAN 401

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.

MAN508/614 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 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.

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.

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.

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 business advantage particularly in the emerging organizations. As organizations become global and increase their reach through internet and mobile technologies, they are undergoing transformation of their assumptions regarding reporting structures, lines of communications, and management of their resources.

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.

MAN606 Business Analytics for Decision Making

Business Analytics refers to the ways enterprises use data to gain insights and make better decisions. This course will develop students' skills in the use of Big Data to develop business insights and predictive capabilities, using machine learning, data mining and forecasting techniques, as well as optimization techniques to make business sense from corporate databases and internet data from corporate websites, social networks and other data sources.

MAN608 Technology, Operations and Innovation

Technological trends are modifying and challenging business operations and production of value as well as business interactions with customers and society. These challenges require innovation and technologies to make the organizations nimble and efficient. As manufacturing moves towards nano-technologies and atomic level production, the production processes would change. Information explosion at an exponential rate is creating challenges of business analytics in understanding and managing the changing world. Neuron level technologies are posing challenges in managing perception and control of human beings.

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 and 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

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 microcomputer-based applications. It emphasizes on design principles of transaction processing, management reporting, decision support, and executive support.

Pre-requisite: MIS 103

MIS303 Information Systems Auditing and Management

The course provides fundamental concepts related to an information systems audit and management. Principles and practices related to secure operation of existing information technology. Information security management and accountability, development of internal control objectives and framework. Management, Security, Control of Information Systems: Break-downs, vulnerability, hazards. Physical, application, networks, access controls. Role of Internal, External and IT auditors, risk Based Auditing, Internal Controls, SW Controls and their Evaluations, Technology Controls, Information Security and Evaluation, Business Continuity Planning and Evaluation.

MIS305 Customer Relation Management Systems

This course examines customer relationship management (CRM) as a key strategic process within organizations with special emphasis on systems generating and capturing the data, linking them to various activities and enabling a one window resolution of all customer related issues and concerns. 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 support systems. It emphasizes on 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

MIS407 Programming in JAVA

Introduction to object oriented methods, fundamental programming structure in JAVA, GUIs, applets, 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.

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

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.

Pre-requisite: MIS 103, MIS 201, MIS 401

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.

Pre-requisite: MIS 103, MIS 201, MIS 401

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.

Pre-requisite: MIS 103, MIS 201, MIS 401

MIS507 Relational Database Management Systems

The course includes continuation of data structure covering file structures & databases, random, indexed sequential inverted & multi-list 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.

Pre-requisite: MIS 401, MIS 406, MIS 505

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.

Pre-requisite: MIS401

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.

Pre-requisite: MIS102/MIS401/MIS402

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 cross-functional integrated computer-based 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 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. The course would involve an in-depth study of parameters, options, customizations and tuning features available in selected ERP modules. Business requirements, implementation methodologies and distinctive features would be analyzed. Hands-on application of ERP concepts in a real-life scenario would be studied.

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

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

MKT405/619 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.

Pre-requisite: MKT302

MKT501 Strategic Marketing and Planning

This 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

MKT504/618 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

MKT505/617 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

MKT506/616 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 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

MKT511/615 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

MKT517/614 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.

Pre-requisite: MKT302

MKT519/613 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

MKT521/612 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.

Pre-requisite: MKT 302/402

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

MKT530/610 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.

Pre-requisite: MKT302

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.

Pre-requisite: MKT302

MKT601 Marketing Strategies and Value Innovation

This course examines different marketing-led strategies to develop and grow a business. It explores the links between the business strategy and marketing strategies. It would involve application of concept and tools learned in various core courses and would sharpen the managerial intuition by developing and implementing a growth strategy for a business in a competitive market environment.

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.

Pre-requisite: MKT302

MKT608 Small Business Marketing

The course is specially designed to help small businesses with limited resources to design effective and competitive marketing programs.

Pre-requisite: MKT302

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 derivatives 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, disjunctive analysis, logistic regression, canonical co-relation analysis. Principal components, will also be covered.

Pre-requisite: MTH 204

MTH207 Stochastic Models and Mathematical 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; multiple-decrement 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, Cramer'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; error analysis, unequal spaced values, 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.

Pre-requisite: MTH 105/ MTH 208

MTH406 Finite Element Analysis (FEA)

The course includes variation function, interpolation function, one-dimensional finite elements, two-dimensional finite elements; boundary-value problems, variational principles, Galerkin 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 Advanced 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.

MTS617 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.

MTS645 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 foundation 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, graph algorithms, 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 hands-on 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 / Management

MMM301 Photo Journalism

This advanced level course aims to polish students' visual storytelling skills, and enhance their capacity to present stories in an impactful manner, through the use of pictures and words, with the proficiency 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 takes 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/ MMM364

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: SSC104]

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: MMM304

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 provides them with a comprehensive understanding of the historical, technical, legal and commercial aspects of radio and television broadcasting.
[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: SSC101

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: MMM310

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.

Pre-requisites: MMM310

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

MMM320 Editing & Post-Production

This Editing & Post-Production course will provide students with deep understanding of video editing and special effects using Adobe Premier Pro and other relevant applications.

Pre-requisite: MMM327

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: MMM318

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: MAN305

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 the craft of writing, editing and producing studio based programs for TV. Emphasis is on understanding the tools and techniques of studio production by playing the roles of news-writers, anchors, directors, and studio crew.

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.

Pre-requisite: STA100

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.

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 or MMM363

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

MMM339 Cinematography II

This course will familiarize students with the tools and techniques of studio lighting as well as external lighting. The class shall teach students lighting through lecture sessions, workshops, and screenings. Students will get ample opportunity to develop their technical skills, and practice them to produce a short film focused on lighting techniques. .

Pre-requisite: MMM338

MMM340 Cinematography III

This advanced level course will build on the learnings of the previous course, Cinematography II, to provide students with a deeper understanding of the technical properties of lenses, filters, and the application of lighting techniques primarily through lecture sessions, and workshops. Students will sharpen their technical skills, practice video image making, develop critical thinking skills, and their own film language and style.

Pre-requisite: MMM339

MMM342 Advanced Filmmaking – The Art & Craft I

This course is designed as a precursor to the final course in Filmmaking, and by that token it will include all aspects of filmmaking including idea creation, screenwriting, story-boarding, and selection of music and sound.

Pre-requisite: MMM340

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

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

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 non-linear 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: MMM320

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 for scripting or 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 Sound Design II

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

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: MMM360

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: MMM360

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.

Pre-requisite: MMM360

MMM364 Introduction to Mass communication

This is an introductory level course that provides an overview of the historical and social context of mass media. Students learn about the process of Mass Communication and the relationship between Media and Society.

MMM365 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.

Pre-requisite: MMM342

MMM366 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

MMM367 Digital Journalism

This capstone course will draw on students’ integrated knowledge, This course will encourage students to explore the shift towards digital journalism, and learn digital-specific news production tools and techniques. Students will be required to set up and manage a news website, complete with news, opinion pieces and blogs, and also set up and manage social media accounts to support the site.

Pre-requisite: MMM315

MMM401 Media & Social Change

This new course will explore the linkages between development, media and social change. Beginning with an overview of contemporary development challenges, it will assist the students in exploring ways in which media has and can bring about social, political and economic change. The role of governments responsible for policy-making, civil society as champions of the marginalized segments of the population, and various media tools such as documentaries, digital storytelling, blogging and social networking will also be discussed.

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.

MMM601 Digital Video Production

This introductory course is designed for students not familiar with digital video production. It will briefly introduce them to the history of filmmaking, as well as the major artistic and technological advances in the art form. In this course students will become familiar with the specialized vocabulary of film and television, the process for developing ideas, turning them into scripts, and using scripts to learn the basics of practical video production. The final project will be a video product based on the students' approved scripts.

MMM602 Global Media Marketing Strategies

Building on the fundamentals of marketing, this course is designed to introduce students to media marketing within the context of the global environment. The course therefore would delve into the cultural, social, legal, political, financial and geographic dimensions of global marketing and understand their impact on marketing programs and strategies. Case studies of global media organizations will form part of the course.

MMM603 Seminar in Strategic Media Marketing

The objective of this course is to develop an in-depth understanding of how Strategic Marketing concepts and theories are applied in the real world of media. Hence the time allocated to this course will be evenly split between understanding textbook concepts and theories, reviewing case studies, and learning from direct face-to-face interaction with leading scholars and practitioners in leading media organizations.

MMM604 Screenwriting for TV & Cinema

The objective of this course is to introduce students to the essence of film and television screenplay structure, and develop their ability to analyze strategies in film and television, apply the correct script forms of screenwriting, and creatively engage them in the various stages of original scriptwriting for TV. The assignments will include writing of scenes, treatments of up to a half-hour script, with a view to develop a final, usable screenplay.

MMM606 Media Psychology

Media psychology has emerged as a significant field of study in recent years spurred by the major developments in media technologies. This course will not only assist students in understanding the impact of psychological theory and research on media, but also how it can be used to create impact and optimize the potential of media. As technologies become more sophisticated, media professionals need to understand what is aptly described as the psychology of media experience.

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

MPE603 Policies and Education in Pakistan

The topics in the course include empirical and legal research on educational issues of Pakistan at the local and state level. Participants gain an in depth knowledge of 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.

MPE604 Developing a Research Project

This course enables candidates to identify their own area of research interest in the field of Education to develop a synopsis for their projected thesis.

MPE610 Philosophical Foundation in Education

This course introduces the conceptual and ethical questions that global change is bringing about in contemporary education. Participants 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. Through this course, the participants will understand the commonalities, differences, and connections between global and comparative education, and the meaning and significance of globalization for both fields.

MPE611 Readings in Education

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. It also helps the readers form their own opinions upon education issues through extensive reading. The focus is also given to written skills through production of book reviews and discussion articles.

MPE615 Qualitative Research Methods in Education

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.

MPE617 Statistical Testing and Inferences in Education

This course aims to provide participants with a broad range of quantitative research methods and skills that are relevant across educational psychology, management, human resources, marketing, economics, finance and social sciences.

MPE702 Managing Higher Education Institutions

The course assesses the performance of higher education institutions and obstacles encountered in academic and administrative work. It provides participants an opportunity to visit higher education institutions for a briefing to experience and critique the management systems in operation.

MPE705 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, for example, investment, labor, productivity, cost, efficiency, supply and demand in the context of education.

MPE706 Global Issues in Education

This course introduces the fundamental, conceptual, and ethical questions that global change is bringing about in contemporary education. The participants will understand the importance, commonalities, differences, and connections between global and comparative education.

MPE714 Early Childhood Development

This course orients participants with the basic concepts of early childhood education and development. It helps them to explore and analyze various models in place. Furthermore, the course enhances the participants' concepts and analysis pertinent to childhood studies in Pakistani and global contexts.

MS in Engineering Management

MEM501 Project Management

The course will help students gain insight into the concept of a project and its definition, Introduction to planning, scheduling and control of projects, Network model and its applications. Probabilistic and Deterministic Approaches. Gantt charts, PERT and CPM. Network simulation, latest software on project management, Determination of resources requirements of a project.

MEM502 Design, Patents, Contract And Legal Engineering

The course provides an in-depth understanding of Design, its process and optimization, Patent development, its types and authentication, Legal procedures and principles of interest to engineers, The Pakistani patent legal systems and agencies, contracts, its specifications, and liability, Patent and proprietary rights.

MEM503 Quality Process For Design And Production

This course aims to cover the theoretical foundations of Quality and its definition, selecting quality parameters for inspections including limits, tolerances and fits, Product standards and references (national and international), in-process and off-process inspection, Performance tests (destructive and non-destructive tests), Statistical design of engineering experiment.

MEM504 Research Methodology

This course provides an opportunity for participants to establish or advance their understanding of research through critical exploration of research language, ethics, and approaches. The course introduces the language of research, ethical principles and challenges, and the elements of the research process within quantitative, qualitative.

MEM505 Applied Engineering Analysis

This course presents a range of practical modeling and analysis methods that are used to solve engineering problems. Differential equations, series solutions of differential equations (special functions), boundary-value problems and characteristic function representation, Laplace transforms, Fourier analysis, partial differential equations, formulating and solving problems in engineering for systems of differential equations and partial differential equations.

MEM506 Facility Planning And Layout

The course introduces Location and site selection criteria, Equipment and utilities layout, Latest tools and software for facility layouts, work cell layout and job shop layout, Types of Layout, Types of Production, Group / Cellular Technology, Material Handling Systems, Type of flows, Material Requirement Planning (MRP-II).

MEM507 Operations Analysis & Resource Allocation

This course aims to provide an overview of the functional activities necessary for the creation/delivery of goods and services. Topics covered include: productivity; strategy in a global business environment; project management; quality management.

MEM508 Operation Management

This course covers essentials of Introduction to Operations Management, Operation system inputs and outputs, Generic model of Operation System, Operations Strategy for Competitive Advantage, Operations in a global environment, Designing Operations, Plant location and layout. Types of production and material handling.

MEM509 Simulation & Modeling

The course focuses on Introduction and importance of simulation in engineering, Different levels of simulation in engineering applications (components level, system level and event level simulation), Dynamic and static simulation.

MEM510 Production Planning And Control

This course exposes students to the Production system, its inputs, conversation and output, objectives and evaluation of production planning and control, Aggregate Production Planning, scheduling, shop loading, Low and high volume production, Ordering / sequencing and progress controlling, work flow and its balancing.

MEM511 Advance Practices In Engineering Management

The course emphasizes on emerging trends in the field of engineering management.

MEM512 Environmental And Safety Management

The course introduces students to the physical aspects of odor, noise and vibration and its effect on human. Physical sources of noise, pollution and vibration and their control.

MEM513 Industrial Costing Management

This course particularly caters to the Cost and Value concept, Types of costs and its calculations. Money-time relation, Return on investment, Present and future worth of money. Cost centers, costing organization, and responsibilities. Appreciation and depreciation analysis.

MEM514 Technology Management

The course helps to gain an insight into Technology Management, The Role of Technology in the Creation of Wealth, Critical Factors in Managing Technology, Technology Life Cycles.

MEM515 Lean Six Sigma & Lean Manufacturing

The course focuses on developing a broad understanding of Lean/Six Sigma principles and practices, Build capability to implement Lean/Six Sigma initiatives in manufacturing operations.

MEM516 Marketing Management

The course is designed to serve as an introduction to the theory and practice of marketing. Students will improve their ability to develop effective marketing strategies and assess market opportunities, as well as design strategy implementation programs.

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 words. 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, empirical 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 a 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 in-depth 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 theory of computation such as randomization, 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, artificial 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, knowledge-based 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 $sl(2, \mathbb{C})$. 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.

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 PhD 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 procedures used 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.

PSS712 Educational Policies and Organizational Development

This course educates participants to develop high-standards in an organization through carefully looking through the education policies that help to reflect the standards and goals for which the education community is responsible. Developing a standards-based policy requires changes in the way teachers teach and schools are run, so care must be taken to build capacity for all educators and to provide adequate time for implementation, monitoring, and evaluation of the imposed standards.

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.

PED701 Methods and Issues in Advanced Qualitative Research

The course focuses on developing a working knowledge of a range of qualitative methods, methodological approaches, theoretical framework of research, an use of data analysis software to enable the participants to conduct qualitative research within the social sciences.

PED702 Advanced Educational Philosophy

This course is to understand the category of education from a wide variety of perspectives. The course explicates the development of education from local through modern to postmodern cultural perspectives. Placing education in these cultural and political frameworks enhances critical acumen of participants and widens their perspective of understanding education.

PED703 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 by using software to complete a research project.

PED705 Developing and Conducting Independent Research

This course provides 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 is different from the main PhD research study and will be beneficial for the candidates in providing them with experience to pursue their major work of investigation.

PED814 Managing Educational Project and Interventions

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.

PED820 Teacher Professional Development

This is a holistic course which encompasses the spirit of learning and teaching. It will cultivate specialized knowledge and skills regarding the design and implementation of programs of pre-service teacher preparation, induction of novice teachers, and the ongoing professional development of in-service teachers. The course will introduce skills to enable educators to integrate the teaching curriculum standards and desired learning outcomes during the training.

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.

SCM501/605 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

SCM306/603 IT Applications in Logistics & SCM

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 .

SCM309/604 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.

SCM502/606 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.

SCM503/607 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

SCM504/608 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.

SCM505/609 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.

SCM506/610 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.

SCM507/601 Quantitative Methods in Production and 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.

SCM508/615 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).

SCM510/616 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 techniques s.a. in- memory-computing with HANA, Cloud Computing.

SCM511/612 Risk Management in Supply 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, Total Supply Chain Risk Management TSCRM – holistic approach, Business continuity management.

SCM512/613 Innovation Management in 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.

SCM513/614 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

STA303 Time Series Analysis and Forecasting

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.

Pre-requisite: ARM601, STA305

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.

Pre-requisite: STA205

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

STA310 Loss Models II

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

STA406 Statistical Methods in Social Sciences

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.

STA407 Design of Experiments

This course explains 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.

Pre-requisite: MTH107

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, 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

TCE422 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

TCE426 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.

Pre-requisite: TCE321

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

TCE429 Tele-Traffic Engineering

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: TCE404

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 disadvantages 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, additivity 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 and mobile radio propagation model.

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 2015

Registration and Fee Payment <ul style="list-style-type: none"> New students On board students 	Saturday, July 25, 2015 to Saturday, August 15, 2015 Monday, August 17, 2015 to Monday, September 28, 2015
Orientation	Saturday, September 05, 2015
Commencement of Regular Classes	Monday, September 07, 2015
Commencement of Executive Classes	Saturday, September 12, 2015
Eid-ul-Azha*	Thursday, September 24 to Saturday, September 26, 2015
Last day to drop courses without penalty	Monday, September 28, 2015
Muharram*	Thursday, October 22 &, Friday October 23, 2015
Iqbal Day	Monday, November 09, 2015
Last day to drop courses with penalty	Friday, November 20, 2015
Classes End	Sunday, December 13, 2015
Break	Monday, December 14 to Sunday, December 20, 2015
Eid-e-Milad-un-Nabi (SAW)	Wednesday, December 23, 2015
Quaid-e-Azam's Birthday	Friday, December 25, 2015
Final Exam	Monday, December 21, 2015 to Monday, January 4, 2016

Exam Schedule for Regular and Executive Students

Week	Exams	Regular	Executive
6th	1st Hourly	10/12 - 10/15	10/17 - 10/18
11th	2nd Hourly	11/16 - 11/19	11/21 - 11/22
16th	Final	12/21/2015 to 01/04/2016	

* Subject to the appearance of moon.

Note:

All dates are subject to change. Students will be informed of the changes well in advance.



SPRING 2016

Registration and Fee Payment <ul style="list-style-type: none"> • New students • On board students 	Saturday, December 26, 2015 to Tuesday, January 26, 2016 Saturday, January 2, 2016 to Saturday, January 09, 2016
Commencement of Executive Classes	Saturday, January 16, 2016
Commencement of Regular Classes	Monday, January 18, 2016
Last day to drop courses without penalty	Monday, February 01, 2016
Last day to drop courses with penalty	Thursday, March 31, 2016
Classes End	Sunday, April 24, 2016
Break	Monday, April 25, 2016 to Sunday, May 01, 2016
Labor Day	Sunday, May 01, 2016
Final Exam	Monday, May 02, 2016 to Sunday, May 15, 2016

Exam Schedule for Regular and Executive Students

Week	Exams	Regular	Executive
6th	1st Hourly	2/22 - 2/25	2/27 - 2/28
11th	2nd Hourly	3/28 - 3/31	4/02 - 4/03
16th	Final	5/2/2016 to 5/15/2016	

* Subject to the appearance of moon.

Note:

All dates are subject to change. Students will be informed of the changes well in advance.

SUMMER 2016

Registration and Fee Payment <ul style="list-style-type: none"> New students On board students 	Saturday, April 18, 2016 to Saturday, April 23, 2016 Tuesday, April 26, 2016 to Thursday, May 26, 2016
Commencement of Executive Classes	Saturday, May 21, 2016
Orientation	Saturday, May 21, 2016
Last day to drop courses without penalty	Thursday, May 26, 2016
Last day to drop courses with penalty	Sunday, July 03, 2016
Eid-ul-Fitr*	Wednesday, July 06 to Friday, July 08, 2016
Independence Day	Sunday, August 14, 2016
Classes End	Sunday, August 21, 2016
Break	Monday, August 22, 2016 to Friday, August 26, 2016
Final Exam	Saturday, August 27, 2016 & Saturday, September 03, 2016 Sunday, August 28, 2016 & Sunday, September 04, 2016

Exam Schedule

Week	Exams	Executive
6th	1st Hourly	6/25 - 6/26
11th	2nd Hourly	7/30 - 7/31
15th	Final	8/27 & 8/28 to 9/3 & 9/4

SUMMER CRASH 2016

Registration and Fee Payment <ul style="list-style-type: none"> New students On board students 	Saturday, April 18, 2016 to Saturday, April 23, 2016 Tuesday, April 26, 2016 to Thursday, May 26, 2016
Commencement of Regular Classes	Monday, June 06, 2016
Last day to drop courses without penalty	Thursday, June 09, 2016
Eid-ul-Fitr*	Wednesday, July 06 to Friday, July 08, 2016
Last day to drop courses with penalty	Saturday, July 09, 2016
Classes End	Thursday, August 04, 2016
Independence Day	Sunday, August 14, 2016
Break	Friday, August 05, 2016 to Sunday, August 14, 2016
Final Exam	Monday, August 15, 2016 to Thursday, August 18, 2016

Exam Schedule

Week	Exams	Crash Program
6th	Mid-Term	7/11 - 7/14
11th	Final	8/15/2016 to 8/18/2016

* Subject to the appearance of moon.

Note:

All dates are subject to change. Students will be informed of the changes well in advance.





Muhammad Owais Khan Jadoon

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Catalog 2015 -16

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