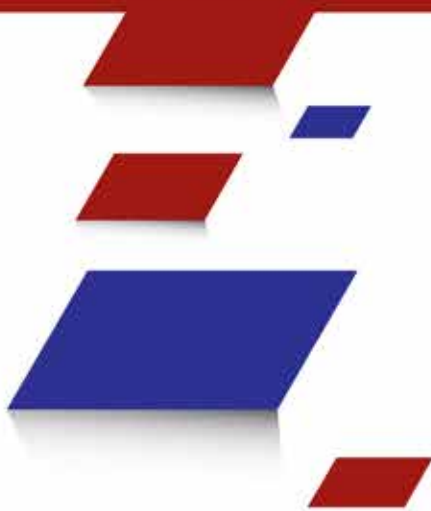




# Institute of Business Management



**Catalog  
2017-2018**

---

# Institute of Business Management

## Catalog 2017-2018



---

## VISION / MISSION STATEMENT

---



### Vision

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

### Mission

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

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



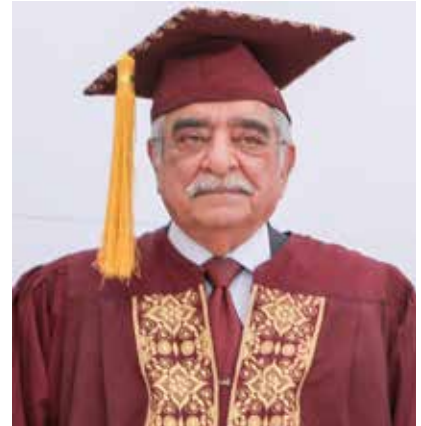
---

## FROM THE CHANCELLOR

---

As the Chancellor of the Institute of Business Management it gives me great pleasure to welcome the perusal of this catalogue by aspiring students, who having qualified for admission now seek to identify the courses they wish to pursue in an institute that has this year marked twenty one years of service to the cause of higher education in Karachi.

From a modest beginning in small rented premises IoBM has grown to occupy this 11- acre campus and a city centre campus. It has done so on the strength of its ability to provide high quality education in many distinct fields. It has done so because the calibre of its graduates has made them preferred candidates for internships and employment in major corporations in Pakistan and abroad. It has done so because it has sought to tailor the expansion of its educational programmes to the growing needs for business and finance managers, for civil engineers, for computer experts, for media managers. Perhaps it has been this facet of the IoBM that has prompted your decision to pursue your higher education here.



Increasingly the world is moving towards more knowledge-based activity, a world in which progress will come through innovation and creativity. Helping you to move in this direction will be one of the principal tasks of the faculty.

The ambition of IoBM management and experienced faculty however goes beyond providing you with the expertise that will make you easily employable or capable of starting your own enterprise. Education at IoBM must mean more. It must even while preparing you for the career you wish to pursue inculcate in you a sense of social responsibility, of recognising that you owe a duty to the betterment of the lot of the less fortunate in your city, your province and your country.

This is a task that needs not only faculty guidance, but active student participation. Numerous student forums exist on the campus. I urge you to be part of these forums. They will help develop your social skills and equally importantly inform you of the many ways in which, as privileged citizens, you can help enforce standards of ethical behaviour, help promote social cohesiveness and above all help improve the availability of better educational and health facilities for all our fellow Pakistanis.

IoBM will offer you state of the art facilities to enhance your intellectual capacity, to give you the required expertise in your special field and to develop your sense of social responsibility. But the primary responsibility will be yours. I am confident that if you choose to pursue your higher education in this institute you will live up to our expectations and with Allah's blessings leave this institute not only as experts in your field of endeavour but as well rounded citizens with a strong sense of civic responsibility.

**Najmuddin A. Shaikh**  
Chancellor

# CONTENTS

---

• Welcome to IoBM: From the President	08
• An Introduction to the Institute of Business Management	09
• Why Choose IoBM?	13
<b>Life at IoBM</b>	
• Resources and Facilities	16
• Student Activities	17
• Convocation	21
• Global Linkages	22
<b>College of Business Management (CBM)</b>	
• BBA (Honors)	28
• BS Joint (Honors) Economics and Finance	32
• BS Joint (Honors) Accounting and Finance	35
• BS Entrepreneurship	38
• BS Social Entrepreneurship and Social Leadership	42
• BS Logistics and Supply Chain Management	46
• Overview of MBA Program	48
• MBA after BBA (Honors), BS Joint (Honors) and BS (Honors) Accountancy Management & Law	50
• MBA (Regular) Program for Students with 16 Years Education	53
• MBA (Regular) Program for Students with 14 Years Education	56
• MBA (Regular) Weekend Program for Students with 16 Years Education	59
• MBA (Regular) Weekend Program for Students with 14 Years Education	62
• MBA (Regular) Evening Program for Students with 16 Years Education	65
• MBA (Regular) Evening Program for Students with 14 Years Education	67
• MBA Health and Hospital Management	71
• MBA Marketing and Media Management	73
• MBA Finance and Risk Management	75
• MBA Environment and Energy Management	77
• MBA Logistics and Supply Chain Management	79
• MBA Industrial Management	81
• MS in Business Management	83
• MPhil in Business Management	84
• PhD in Business Management	85
• PhD in Environment and Energy Management	87
• Elective Business Courses (MBA Health and Hospital Management)	89
<b>College of Computer Science and Information Systems (CCSIS)</b>	
• BS Computer Science	93
• BS Actuarial Science and Risk Management	95
• BS Mathematics & Economics	97
• BS Data Science	99
• MS Computer Science	101
• MS Mathematics and MS Statistics (Scientific Computing)	102
• MS Actuarial Science (AS) & Computational Finance (CF)	104
• PhD (Computer Science), PhD (Mathematics & Scientific Computing) and PhD (Statistics & Scientific Computing)	106
<b>College of Engineering and Sciences (CES)</b>	
• BS Industrial Engineering and Management	110
• BE Electrical Engineering in Electronic and Telecommunication	112
• MS Engineering Management	115

# CONTENTS

<b>College of Economics and Social Development (CESD)</b>	
• BS (Honors) Accountancy, Management and Law	118
• BS (Honors) Media Studies	120
• BS Economics, Law & International Relations (ELI)	123
• BS Economics, Media & International Relations (EMI)	125
• BS Joint (Honors) in Business & Psychology	127
• B.Ed (Honors) Elementary	129
• MBA Educational Management for Students with 16 Years Education	131
• MBA Educational Management for Students with 14 Years Education	133
• MSc Organizational Psychology and Human Resource Management for Students with 16 Years Education	135
• MSc Organizational Psychology and Human Resource Management for Students with 14 Years Education	137
• MSc in Energy Economics, Environment and Policy	139
• MPhil in Organizational Psychology	141
• MPhil in Educational Leadership and Management	142
• MS Economics	143
• MS in Education	144
• PhD in Psychology	145
• PhD in Education	146
• PhD in Economics	148
<b>Internship and Placement Programs</b>	
• Internship Program	152
• List of Companies Offering Internships to IoBM Students	153
• Placement Program	160
• List of Companies Employing IoBM Graduates	161
<b>Entrepreneurship &amp; Management Excellence Center</b>	
• ORIC / Entrepreneurship & Management Excellence Center	168
• Quality Enhancement Cell (QEC)	174
<b>Administrative and Academic Requirements</b>	
• Comprehensive Examination	176
• Procedure for Submitting MS, MPhil & PhD Thesis	177
• Teaching and Learning at IoBM	178
• Discipline	180
• Attendance Policy	182
• Dress Code Policy	182
• Examination Norms	183
<b>Admission and Finance</b>	
• Admission Requirements	188
• Scholarships and Financial Assistance Programs	191
• Fee Structure	192
<b>Organization</b>	196
<b>Faculty</b>	200
<b>Visiting Faculty at IoBM</b>	227
<b>Administration</b>	232
<b>Course Descriptions</b>	236
<b>Certificate Courses</b>	308
<b>Academic Calendar</b>	310

## WELCOME TO IOBM FROM THE PRESIDENT



Welcome to IOBM, the institution where you will experience a unique blend of rigorous yet rewarding experiential learning and plentiful opportunities to network with leading industry practitioners, erudite scholars and enlightened faculty members.

Now in our twenty-first year, we are fully cognizant of the demands of a rapidly transforming global environment. That is why we have been constantly upgrading our curriculum, methodology and infrastructure. In 2016, we introduced two new bachelor's degree programs - the 'Social Entrepreneurship & Social Leadership' and 'Mathematics & Economics' joint degree program.

Our relentless efforts to improve the quality of education is recognized by the Higher Education Commission (HEC) and other revered academic circles. We are also aligned with national and global accreditation agencies to foster quality assurance across all disciplines. Our partnership with over 60 universities in Asia and Europe continues to benefit our students and faculty through exchange programs and collaborative research projects.

In keeping with standard practice, we continue to offer merit and need-based scholarships to our regular students. Our Outreach Program for deserving and meritorious students of less privileged districts: Tharparkar, Umerkot, Badin, Thatta and Sujawal, initiated in Fall-2015, has been extended this year to district Sanghar and Lasbela becoming the first district in Balochistan to benefit from our fully-funded four year Engineering Degree Program.

The number of our alumni has now crossed the 8,000 mark. Many of them are holding mid-to-top level positions in private and public sector organizations in the country and overseas. Whereas others lead their own entrepreneurial ventures or run their family businesses. Based on our vision of institutional leadership and our core values of equality and social justice, we continue to optimize our programs so that all those who pass through this institution ascend to greater heights of success in their personal and professional endeavors.

**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 update information on courses in the catalog. However, changes in curricula may be necessary as part of a process of continuous improvement and the need to keep each program fully aligned with academic and professional developments. For 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 - 2017**

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. From 2010 to 2015, 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, Mr. Najmuddin A. Shaikh is also the Chairman of the Board of Governors of the Institute. The other members of the Board are:

- Chairman Higher Education Commission or his nominee
- 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 Sharif
- Dr. Zafar Saied Saify
- Mr. Masood Hashmi
- Mr. Muhammad Sikandar Sultan
- Ms. Aameena Saiyid
- Mr. Talib S. Karim Rector, IoBM
- Mr. M. W. Jahangir, Secretary BoG

The Institute, through its College of Business Management (CBM), offers a four year BBA (Honors) and a two/three year MBA degree program with specialization in Marketing, Finance, Human Resource Management and Management Information Systems, Health & Hospital Management, Pharmaceutical Administration, Media Management, Industrial Management and Telecommunication Management. BS (Honors) Economic & Finance, Accounting & Finance and BS Social Entrepreneurship and Social Leadership are also offered. A research degree, an MPhil leading to PhD, is offered in Finance, Human Resource Management, Marketing, Education, Psychology and Management Information Systems. A four year Bachelor of Computer Science (Honors) followed by a two years Master of Computer Science and MBA in Finance & Risk Management, BS in Mathematics & Economics and BS Data Science are offered through the College of Computer Science & Information Systems (CCSIS).

The College also offers programs in Industrial Engineering & Management, Actuarial Science & Risk Management, Telecommunication Engineering & Management and Financial Mathematics & Statistics. The College of Economics and Social Development offers a BS program in Commerce, Media, B.Ed, MBA in Educational Management and MSc leading to MPhil in Economics. College of Engineering and Sciences (CES) offers the 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. Pakistan Journal of Engineering Technology & Science by College of Computer Science & Information Systems and Journal of Education & 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 is the only business school where foreign language courses, Arabic, French, Spanish, Italian or Chinese are compulsory subjects in the BBA and BCS programs. The Institute has a competent and dedicated faculty with the majority holding foreign degrees. One international seminar funded by the HEC is organized on an annual basis. IoBM academic programs are up to date and comprehensive in concept and structure, resembling honors programs offered by UK and graduate programs of US Universities. It has extensive links with a number of North American and British universities. Professors from these universities have served as Chief Academic Officers of the Institute.



Since 1998, more than 8,000 students have graduated from the Institute. Most of them are placed in key positions in leading national and multinational firms including Habib Bank, Faysal Bank, Standard Chartered, PIA, Engro, Berger Paints, Geo TV, National Bank of Pakistan, Unilever, IBM, ICI, SmithKline & Beecham, Aga Khan University Hospital, Karachi Stock Exchange and several provincial and federal government agencies. Many graduates have proceeded for their post-graduate program to reputable universities in the UK and USA. More than 400 students go for compulsory internships every year to national and multinational organizations.



The Entrepreneurship & Management Excellence Center (EMEC) / ORIC 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 nine acre site has been purchase 1 km from the present campus. A new state-of-art Entrepreneurship and Management Excellence Center with over 150,000 sq.ft of covered area is under construction and is expected to be completed by June 2019.

At the Institute's fourth convocation in December, 2001, an honorary degree of Doctorate of Philosophy was conferred upon Dr. Nafees Sadik, former Executive Director, United Nations Population Program. At the fifth convocation held in December, 2002, an honorary degree was conferred on our keynote speaker, Mr. Babar Ali, Pro-Chancellor, Lahore University of Management Sciences (LUMS), and at the ninth convocation an honorary degree was conferred on Dr. Goolam Mohamedbhai, President, International Association of Universities (IAU). The sixth convocation was held in December 20, 2003 with Dr. Atta-ur-Rahman, Chairman, Higher Education Commission and Minister for Science & Technology as the Chief Guest and Ms. Musharaf Hai, Chairperson, Unilever Pakistan Limited as the keynote speaker. The seventh convocation was held on December 18, 2004 with the Governor Sindh as the Chief Guest and Mr. Hameed Haroon, Chief Executive Dawn Group of Newspapers as the keynote speaker. Over 300 students were awarded BBA (Hons), BCS (Hons), BS (Accounts), MBA and MCS degrees at this convocation.



The eighth convocation was held on December 17, 2005 with the Minister for Education, Sindh, as the Chief Guest and Syed Ali Raza, President, National Bank of Pakistan, as the keynote speaker. Over 400 students were awarded degrees at this convocation. The ninth convocation of the Institute was held on December 16, 2006 with the Education Minister as the Chief Guest and Dr. Goolam Mohamedbhai President, IAU, as the keynote speaker. Over 450 students were awarded degrees at this convocation. The tenth convocation was held on December 8, 2007, where Mr. Jose Manuel Salazar-Xirinachs, Executive Director of the International Labour Organization, Geneva was the keynote speaker and over 500 students were awarded degrees.

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

The fourteenth convocation was held on December 10, 2011 over 983 degrees were awarded to students 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 in this convocation.

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

## **Shahjehan S. Karim Center of Excellence**

A 7 Story (basement plus six floor) centrally air-conditioned building with a covered area of 152,000 sq.ft and open area of 15,000 sq.ft. houses 22 classrooms, 68 faculty offices, examination department with 2 examination halls of 1100 sq.ft, laboratories, media studio of 2,576 sq.ft, seminar rooms, training halls, gymnasium, 8 kiosk (food) with 180 seating capacity and 22 hostel rooms housing for students and faculty.



## WHY CHOOSE IOBM?

For the last four years, IOBM has been rated as one of the top universities/institutes and other academic sectors of Pakistan, 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 has awarded IOBM 2 Palms as one of the two best Business Schools in Pakistan since 2010. 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 faculty 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 research quarterly journal, Pakistan Business Review (PBR), which is recognized by the Higher Education Commission (HEC) as category X, 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. Pakistan Journal of Engineering Technology & Science and Journal of Education & Educational Development 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. A new 150,000 sq.ft building will be completed by June 2016. 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 four hundred & twenty workstations. It is fully equipped with satellite/ radio-linked e-mail, Wi-Fi facilities and internet facilities for all students, faculty and staff.

### Library

The IoBM library, an ideal setting for learning and research, serves as a repository for 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, the last year at IoBM has been no exception. following examples give you a glimpse of life at IoBM:

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

Literary and Public Speaking; Finance; Mathematics; The Club for 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; Mentors; SWAT and the 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; arranging seminars & workshops where they invite well known personalities from the business, government and corporate worlds. This provides them with an opportunities 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 sizable contribution, distributed to the needy in various hospitals of the city. Among other regular features are blood donation camps that are put up from time to time.

### Students' Achievements

- IoBM team won the Unilever Talent Hunt 2014
- IoBM team won 2nd position in HEC All Pakistan Intervarsity (Men) Table Tennis Championship 2016
- IoBM team won 2nd position at FAST Robotics competition, 2015
- IoBM team won Battle of the Bands at LUMS Music Festival, 2015
- IoBM team won 2nd prize at LUMS Leadership Marathon, 2015
- IoBM team won the 1st prize at Pakistan Tobacco's "Battle of Minds", 2015
- IoBM team was Runner-up in HEC Inter-varsity Table Tennis Zone "G" Championship 2015-2016
- IoBM team was Runner-up in Lays Inter-Regional Futsal Glory Cup Tournament 2016 in Lahore
- IoBM team Telecare secured 2nd Runner-up position in the Amanclinics Accelerator, 2016





## Recent Events

### Digicon

- Experia'16; a three day, multi-purpose events, December 2016

### Iobm Club for Entrepreneurs (ICE)

- Chatkhara Festival, November 2016
- OPEN eCON'17, January 2017

### Marketing Society

- MS MANIA
- When life gives you Lemons 2.0



### CBM Society of Health Managers (CSHM)

- SMART Hospitals of Tomorrow (New Delhi) March, 2016
- Consultative Workshop on Development of National Thalassemia Policy March, 2016
- World Hepatitis Day Guest Lecture by Dr. Saad Niaz; an awareness session, July, 2016
- Breast Cancer Awareness Session in collaboration with Shaukat Khanum Memorial Cancer Hospital, October, 2016
- Health Convention: Research & Project Poster Presentations, December, 2016
- World Conference on Educational Sciences 2017, France, February, 2017
- 4th Deans & Directors Conference: Business Education and its Context, Islamabad, February, 2017
- World Water Day event at Aghaaz School, March, 2017



## Sports Society

- Inter Society Sports Festival, September, 2016
- 14TH AKU Inter University Football Tournament, October, 2016
- Habib Inter University Futsal Tournament March, 2017
- HEC Inter-varsity Basketball Zone 'G' Tournament , March, 2017

## Entertainment Plus Society (EPS)

- Iobm 20 year celebrations, March 2016
- Milad 2017, February 2017

## Dialogue Society

- How to attain Allah's love by Ustadh Asif Uddin, December 2016
- Finding Allah in Modern Times by Shaykh Kamaluddin Ahmed, December, 2016
- The lost Identity by Brother Adnan Rashid, January, 2017

## Finance Society

- The all Society Open House, October, 2016
- ABC of Stock Marketing, January, 2017





### **Mentors Club**

- Mega Auto Show, April, 2016

### **Strategic Human Resource Society (SHRS)**

- Zenith Leadership and Development Conference 2016
- Cornetto PopRock Brand Activation

### **Society of Egñence and Technologies (SETs)**

- Seminar on “My Last Ten Years Of Robotics & Control Research”, October, 2016
- Seminar on “Industrial Automation And Control”, November 2016
- IoBM Sindh Outreach Program, November 2016
- Student Project Exhibition, December 2016
- Guest Speaker Session On “University: Catalyst for Change”, January, 2017



### **Social Welfare And Trust (SWAT)**

- Pink Ribbon Youth Awareness Drive, 2016
- Food Distribution Drives, 2016
- Project Pukaar, 2016



## CONVOCATION

In December 2016, IOBM held its nineteenth Convocation, awarding degrees to 278 BBA (Honors), 12 BE (Electrical), 9 BS (Actuarial Science and Risk Management), 16 BS (Computer Science), 13 BS (Honors) Accountancy, Management and Law, 7 BS (Honors) Commerce, 17 BS (Honors) Media Studies, 9 BS (Industrial Engineering and Management), 64 BS (Joint Honors), 17 MBA (Advertising and Media Management), 6 MBA (Educational Management), 4 MBA (Environment and Energy Management), 66 MBA (Evening), 79 MBA (Executive), 16 MBA (Finance and Risk Management), 32 MBA (Health and Hospital Management), 35 MBA (Industrial Management), 3 MBA (Logistics and Supply Chain Management), 1 MBA (Media Management), 244 MBA (Regular), 3 MBA (Telecommunication Management), 5 MBA (Weekend), 6 MSc (Organizational Psychology and HRM), 8 MPhil, 1 MS (Computer Science), 1 MS (Mathematics & Scientific Computing), PhD (Business Management) and 1 PhD (Education).

The guest of honor was Mr. Jam Mehtab Hussain Dahar, Minister for Education & Literacy, Government of Sindh, and the keynote speaker was Mr. Sirajuddin Aziz, President Habib Metropolitan Bank Ltd. Dr. Mukhtar Ahmed, Chairman Higher Education Commission (HEC) also attended the convocation.

### Gold Medals were awarded to the following students:



**Kashmala Riaz**  
BBA (Honors)  
S. H. Hashmi Memorial  
Gold Medal



**Huma Nasir**  
BBA (Honors)  
Westbury Group of Companies  
Gold Medal



**Muhammad Ammad Afzal**  
BE (Electrical)  
Imam Ali Kazi Memorial  
Gold Medal



**Basit Saleem**  
BS (AS & RM)  
Halima Fatima Memorial  
Gold Medal



**Kiran Nadeem**  
BS (Computer Science)  
Karachi Council on Foreign  
Relations (KCFR)  
Gold Medal



**Merym Saudagar**  
BS (Media Studies)  
Orient McCann  
Gold Medal



**Marina Arif**  
MBA (Regular)  
Janmohammad Dawood  
Gold Medal



**Shezza Razzaque Khan**  
MBA (Evening)  
Shan Foods  
Gold Medal



**Mohammad Noman Owais**  
MBA (Weekend)  
Standard Chartered  
Gold Medal



**Muhammad Kashif Amin**  
MBA (Industrial Mgmt.)  
Tabba Foundation  
Gold Medal



**Shahzad S/o Maher Ali**  
MBA (Health & Hospital Mgmt.)  
Dr. Essa's Laboratory  
Gold Medal



## GLOBAL LINKAGES

### International Relations Department

The Institute of Business Management (IoBM) has an 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.

### Eduuniversal Ranking

Eduuniversal, based in Paris, France, is a worldwide academic institution ranking organization which ranks the 4,000 best academic institutions from around the world. The expertise of IoBM is distinguished in the 2014 Eduuniversal Best Masters' Ranking in the context of 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, Ph.D and post doctoral students of Asian partner countries to benefit educationally, linguistically and culturally from studying at partner universities. Further, the project also provides opportunities to IoBM faculty members and staff to get training at partner higher educational institutions, which can 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 the following universities, which provide exchange of students, faculty and staff and promote joint research and consultancy.

Country	University
1. Albania	Eqrem Cabej University
2. Australia	MacQuarie University
3. Bangladesh	American International University
4. Bangladesh	University of Chittagong
5. Bhutan	Gaeddu College of Business Studies
6. Bosnia	International Burch University
7. China	Guilin University of Technology
8. China	Guangxi University of Finance and Economics
9. China	Guangxi University of Technology (GXUT)
10. China	Guizhou University (GZU)
11. China	Hainan University
12. China	Sanya University
13. China	Sias International University
14. China	Zhengzhou Institute of Science & Technology
15. China	Zhengzhou Xinlian University
16. Cambodia	IICUniversity of Technology
17. France	Financia Business School
18. Georgia	Caucasus University
19. Germany	Erfurt University of Applied Sciences
20. Germany	Eurasia Institute for International Education (EIIE)
21. Indonesia	University of Muhammadiyah Semarang Central Java
22. Italy	University of Florence
23. Japan	Nagoya University of Commerce and Business
24. Liberia	William V. S. Tubman University
25. Lithuania	Mykolas Romeris University
26. Lithuania	Vytautas Magnus University
27. Malaysia	University of Kuala Lumpur
28. Malaysia	Asia e University
29. Malaysia	Universiti Putra Malaysia
30. Mexico	Universidad Autonoma de Guadalajara
31. Mongolia	National University of Mongolia
32. Morocco	Groupe ISCAE
33. Nepal	Kathmandu University
34. Nepal	Kathmandu University School of Management (KUSOM)
35. Nepal	Pokhara University
36. North Cyprus	Girne American University
37. Phillipines	LPU Laguna
38. Phillipines	Lyceum of the Phillipines University
39. Portugal	Institute of Politecnico de Castelo Branco
40. Romania	Petre University of Lasi
41. Russia	Institute of Business Studies
42. Russia	Russian State University for the Humanities
43. South Korea	Dongseo University
44. South Korea	Hanyang University
45. Spain	University of Malaga
46. Srilanka	University of Kelaniya
47. Srilanka	University of Peradeniya
48. Taiwan	I-SHOU University
49. Thailand	Naresuan University
50. Thailand	Siam University
51. Turkey	Bilkent University
52. Turkey	Istanbul Kemerburgaz University
53. Turkey	Istanbul Sehir University
54. Turkey	Izmir University of Economics
55. Turkey	Yasar University
56. Ukraine	International Institute of Business
57. Ukraine	International Management Institute
58. United Arab Emirates	Al Dar University College
59. USA	Michigan Technological University
60. Vietnam	Vietnam National University





## Student and Faculty Exchange Program

IoBM students have gone to the following universities on student exchange programs:

- International Burch University, Bosnia
- Guilin University of Technology, China
- Sias International University, China
- Caucasus University, Georgia
- Erfurt University of Applied Sciences, Germany
- University of Florence, Italy
- Nagoya University of Commerce and Business, Japan
- Vytautas Magnus University, Lithuania
- University of Kuala Lumpur, Malaysia
- Groupe ISCAE, Morocco
- Girne American University, North Cyprus
- Institute of Politecnico de Castelo Branco, Portugal
- Institute of Business Studies (IBS- Moscow), Russia
- Dongseo University, South Korea
- Hanyang University, South Korea
- University of Malaga, Spain
- Naresuan University, Thailand
- Bilkent University, Turkey

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

### Senior Expert Services

A German NGO, Senior Expert Services (SES) has been sending technical experts and faculty to IoBM 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. The Institute of Business Management (IoBM) was selected in collaboration with Caucasus University, Georgia (CU) 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. OPEN, Karachi (Chairman)
15. Association of Management Development Institutions in Pakistan (AMDIP), (Chairman, Karachi)



**COLLEGE  
OF  
BUSINESS MANAGEMENT**





# COLLEGE OF BUSINESS MANAGEMENT

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

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

## BBA (HONORS)



The Bachelor of Business Administration (Honors) 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 the latest approaches in experiential learning to develop skills for interpersonal communication, team work, foreign languages and managing diversity. Students learn to think critically and to apply conceptual knowledge to real world challenges and design solutions. Graduates of the BBA program distinguish themselves with their personal and professional excellence as managers and entrepreneurs in their areas of specialization. They are well rounded professionals known as doers and go-getters and are in great demand in the industry. BBA is a four-year program which requires completion of 144 credit hours of course work and 2 credit hours of internship in a firm approved by the Institute. 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 degree.

To promote lifelong learning at IoBM, the program emphasizes Experiential Learning (EL) and developing readers and writers. The college's mission is reflected through courses designated with a suffix R, W or E in the program structure:

- An experiential learning course (E) requires an intensive experiential learning project focusing on a real life problem in a real life setting
- A writing-intensive course (W) has a substantial writing component and requires multiple writing assignments to be submitted at designated times during a semester
- A reading-intensive course (R) has a substantial reading component and requires multiple reading assignments that are evaluated at designated times during a semester

Students are provided with general business courses as part of their studies and select 5 electives and a capstone project from the following specializations:

- Accounting\*
- Entrepreneurship
- Finance and Banking
- Human Resource Management
- Industrial Management
- Management Information Systems
- Marketing
- Management
- Logistics and Supply Chain Management

Courses are divided into Foundation, Core and Electives.

*\*BBA program is recognized by ACCA which offers 5 course exemptions (F1 - F5) to BBA students of IoBM.*



## Foundation Courses

### Communication

COM100 Foundation English\*\*  
COM107 Academic English (W, R)  
COM202 Business and Professional Speech (E)  
COM205 Persuasive & Analytical Writing for Bus. Comm. (E, W)  
*\*\* This non-credit course will be taken by those students who have not been able to reach the desired level of competence in the admission test.*

### 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 Sciences

PSC301 Pakistan Studies (W)

### Social Science

SSC101 Introduction to Psychology  
SSC301 History of Ideas (W)  
SSC401 Business Ethics

### Religious Studies

REL101 Islamic Studies (R)

### Statistics

STA201 Quantitative Business Analysis  
STA202 Quantitative Skills and Managerial Statistics

## Core Business Courses

### Accounting

ACC101 Introduction to Financial Accounting  
ACC201 Intermediate Financial Accounting  
ACC320 Cost and Management Accounting

### Finance

FIN201 Introduction to Business Finance (R)  
FIN202 Financial Management  
FIN301 Financial Institutions (E)

### Entrepreneurship

MAN307 Entrepreneurial Leadership and Motivation  
MAN308 Social Advocacy and Community Service  
MAN403 Entrepreneurship and Small Business Management

### Human Resource Management

HRM301 Human Resource Management (E)

### Management

MAN101 Principles of Management  
MAN302 Organizational Behavior (E)  
MAN303 Production and Operations Management  
MAN405 Strategic Management (R)  
MAN408 Analysis of Pakistani Industries

### Management Information Systems

MIS303 IS Audit and Management (E)  
MIS305 CRM Systems and Applications (E)

### Marketing

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

### Logistics and Supply Chain Management

SCM310 Introduction to ERP Systems

## Elective Business Courses

### Accounting

ACC302 Accounting and Financial Information Systems  
ACC505 Auditing  
ACC506 Analysis of Financial Statements  
ACC520 Managerial Analysis and Decision Making  
ACC521 International Finance Reporting Standards  
ACC522 Strategic Management Accounting  
ACC523 Financial Regulatory Requirements for Business  
ACC524 Corporate Governance and Reporting



### **Finance and Banking\***

- 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
- FIN514 Asset Liability Management
- FIN520 Financial Risk Management
- FIN530 Commercial and Corporate Banking
- FIN531 Real Estate and Alternative Investments
- FIN533 Information Technology and Product Innovation in Financial Services
- FIN534 Retail and Consumer Banking
- FIN613 Financial Modeling for Investment Decisions

### **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 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 & Info. Systems

### **Entrepreneurship**

- ENT503 Startup Experience
- ENT504 Technology Support for Small Business
- ENT505 Innovative Internet Based Business Models
- ENT506 Emerging Entrepreneurial Environment
- ENT507 Affordable Design and Entrepreneurship
- ENT508 Getting to Market: Commercializing Your Idea
- ENT509 Building and Managing Start-Up Teams
- ENT510 Raising Capital Via Crowd Funding Venture Capital, Angel Funding and Debt
- ENT511 Managing a Growing Business
- ENT512 Startup Growth Strategies
- FIN603 Entrepreneurial Finance

### **Islamic Banking and Finance**

- ISF601 Economics for Islamic Finance
- ISF602 Islamic Banking Practices
- ISF603 Accounting fo Islamic Finance
- ISF604 Islamic Financial Services Marketing
- ISF605 Islamic Capital Markets
- ISF606 International Islamic Finance Standards
- ISF607 Small and Medium Enterprise Islamic Financing
- ISF608 Risk Management in Islamic Financial Institutions
- FRM514 Takaful and Risk Management in Islamic Products

### **Management**

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

### **Marketing**

- MKT405 Marketing Research
- MKT506 International Marketing
- MKT507 Services Marketing
- MKT508 Personal Selling
- MKT510 Direct and Digital Marketing
- MKT513 Media Planning
- MKT520 Merchandising and Sales Promotion
- MKT521 Distribution and Channel Management
- MKT526 Public Relations and Event Management
- MKT530 New Product Management
- MKT531 Retail Management
- MKT532 Principles of Advertising
- MKT608 Small Business Marketing

### **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 Fall and Spring semesters with an option for fewer courses in the latter and making up for the shortfall in the summer session.

## Course Structure

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

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



## BS (JOINT) HONORS IN ECONOMICS & FINANCE



BS (Joint) Honors in Economics and Finance prepares graduates for professional careers in economics and finance in the corporate sector, financial sector and public sector regulatory and planning organizations. It requires completion of 144 credit hours of course work and 2 credit hours of relevant internship of at least six weeks in an approved firm. The program offers 75 credit hours of business and social sciences courses with an intensive coverage of 69 credit hours of Economics and Finance related courses designed to develop well rounded professionals regarded as go-getters in industry. There are 25 business and social science courses with 9 Economics core courses and 6 Finance core courses. Students then select 4 economics electives and 4 Finance elective courses to complete degree requirements.

Students graduating with a CGPA of 2.5 automatically qualify for the MBA program offered by IoBM.

To promote lifelong learning at IoBM, the program emphasizes Experiential Learning (EL) and developing readers and writers. The college's mission is reflected in courses designated with a suffix R, W or E in the program structure:

- An experiential learning course (E) requires an intensive experiential learning project focusing on a real life problem in a real life setting
- A writing-intensive course (W) has a substantial writing component and requires multiple writing assignments to be submitted at designated times during a semester
- A reading-intensive course (R) has a substantial reading component and requires multiple reading assignments that are evaluated at designated times during a semester

### Foundation

COM100 Foundation English\*\*

COM107 Academic English (W,R)

PSC301 Pakistan Studies (W)

REL101 Islamic studies (R)

MTH101 College Algebra

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

### Business Core

#### Accounting

ACC101 Introduction to Financial Accounting

ACC201 Intermediate Financial Accounting

ACC320 Cost & Management Accounting

#### Communication

COM202 Methods in Business Writing

COM203 Business & Professional Speech (E)

#### Economics

ECO101 Principles of Microeconomics

ECO102 Principles of Macroeconomics

ECO208 Development Economics

ECO301 Managerial Economics

ECO303 Financial Economics

ECO304 Introduction to Econometrics

ECO311 General Equilibrium and Welfare Economics

ECO314 Contemporary Issues in Macroeconomics

ECO402 Pakistan Economic Policy





## Finance

- FIN201 Introduction to Business Finance (R)
- FIN202 Financial Management
- FIN301 Financial Institutions (E)
- FIN503 Corporate Finance
- FIN511 Analysis of Financial Statements
- FIN613 Financial Modeling

## Human Resource Management

- HRM301 Human Resource Management (E)

## 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

- LAW409 Corporate & Business Law

## Management

- MAN101 Principles of Management
- MAN302 Organizational Behavior (E)
- MAN403 Entrepreneurship & Small Business Management

## Management Information Systems

- MIS303 IS Audit & Management (E)

## Marketing

- MKT301 Principles of Marketing
- MKT302 Marketing Management
- MKT404 Methods in Business Research (E)

## Mathematics

- MTH103 Calculus for Business Decisions

## Statistics

- STA203 Probability Theory & Statistics
- STA301 Model & Inferences
- STA302 Methods of Data Analysis

## Social Sciences

- SSC101 Introduction to Psychology



2012 to 2016, the most precious and unforgettable years for me. 2012 was a turning point of my life, when I got admission in IoBM after A Levels, and another decisive event for me was 2016's convocation when I got BE(Elec) degree and a gold medal. I felt much more proud when I was told that it was for the first time any student of an Electrical Engineering department, managed to get a medal.

The constant support and prayers of my parents, teachers and my friends privileged me with being a gold medalist.

Thank you IoBM for making me, not only a good engineer, but also a good human.

**Muhammad Ammad Afzal**  
Gold Medalist  
Convocation 2016



## Major Electives

### Economics Electives (4 courses)

ECO312 Applied Econometrics  
 ECO307 Monetary Theory and Policy  
 ECO407 Analysis of Pakistani Industries  
 ECO206 Mathematical Economics  
 ECO310 History of Economic Thought  
 ECO411 Islamic Economics  
 ECO207 Game Theory  
 ECO410 Issues in Political Economics  
 ECO412 Public Economics  
 ECO418 Resource and Environmental Economics  
 ECO419 Agriculture & Food Security  
 ECO415 WTO, Disputes & Settlements

### Finance Electives (4 courses)

FIN403 Islamic Banking and Finance  
 FIN504 International Finance  
 FIN505 Treasury and Fund Management  
 FIN506 Investment Banking and Security Analysis  
 FIN507 Portfolio Management  
 FIN509 Financial Derivatives  
 FIN513 Project Appraisal  
 FIN514 Asset Liability Management  
 FIN520 Financial Risk Management  
 FIN530 Commercial & Corporate Banking  
 FIN531 Real Estate and Alternative Investments  
 FIN533 Info. Technology & Product Innovation in Financial Services  
 FIN534 Retail & Consumer Banking  
 FIN613 Financial Modeling for Decision Making

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 Fall and Spring semesters with an option for fewer courses in the latter and making up for the shortfall in the summer session.

## Course Structure

<b>Semester One</b> Principles of Management Introduction to Psychology Islamic Studies (R) College Algebra Principles of Microeconomics Academic English (W,R)	<b>Semester Two</b> Pakistan Studies (W) Principles of Marketing Introduction to Financial Accounting Calculus for Business Decisions Principles of Macroeconomics Methods in Business Writing
<b>Semester Three</b> Business & Corporate Law IS Audit & Management (E) Intermediate Financial Accounting Probability Theory & Statistics Development Economics Business & Professional Speech (E)	<b>Semester Four</b> Organizational Behavior (E) Introduction to Business Finance (R) Taxation Model & Inferences Managerial Economics Marketing Management
<b>Semester Five</b> Financial Economics Human Resource Management (E) Methods in Business Research (E) Financial Management Methods of Data Analysis Foreign Language I	<b>Semester Six</b> General Equilibrium and Welfare Economics Foreign Language II Analysis of Financial Statements Entrepreneurship & Small Business Management Introduction to Econometrics Financial Institutions (E)
<b>Semester Seven</b> Pakistan & Economic Policy Corporate Finance Contemporary Issues in Macroeconomics Financial Modeling Economics Elective I Finance Elective I	<b>Semester Eight</b> Economics Elective II Finance Elective II Economics Elective III Finance Elective III Economics Elective IV Finance Elective IV



## BS (JOINT) HONORS IN ACCOUNTING & FINANCE

BS (Joint) Honors in Accounting and Finance prepares graduates for professional careers in finance and accounting in the corporate sector and the financial. It requires completion of 144 credit hours of course work and 2 credit hours of audit and finance internship of at least six weeks in an approved firm. The program offers 84 credit hours of business and social sciences courses with an intensive coverage of 60 credit hours of Finance and Accounting related courses designed to develop well rounded professionals who are regarded as go-getters in industry. There are 28 business and social science courses with 5 Accounting core courses and 5 Finance core courses. Students then select 5 economics electives and 5 Finance elective courses to complete degree requirements.

Students graduating with a CGPA of 2.5 automatically qualify for the MBA program offered by IOBM.



To promote lifelong learning at IOBM, the program emphasizes Experiential Learning (EL) and developing readers and writers. The college's mission is reflected in courses designated with a suffix R, W or E in the program structure:

- An experiential learning course (E) requires an intensive experiential learning project focusing on a real life problem in a real life setting
- A writing-intensive course (W) has a substantial writing component and requires multiple writing assignments to be submitted at designated times during a semester
- A reading-intensive course (R) has a substantial reading component and requires multiple reading assignments that are evaluated at designated times during a semester

### Foundation

COM100 Foundation English\*\*

COM107 Academic English (W,R)

PSC301 Pakistan Studies (W)

REL101 Islamic studies (R)

MTH101 College Algebra

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

### Business Core

#### Accounting

ACC101 Introduction to Financial Accounting

ACC201 Intermediate Financial Accounting

ACC320 Cost & Management Accounting

ACC503 Taxation

ACC506 Analysis of Financial Statements

#### Communication

COM202 Methods in Business Writing

COM203 Business & Professional Speech (E)

#### Economics

ECO101 Principles of Microeconomics

ECO102 Principles of Macroeconomics

ECO301 Managerial Economics

ECO303 Financial Economics

ECO402 Pakistan Economic Policy

#### Finance

FIN201 Introduction to Business Finance (R)

FIN202 Financial Management

FIN301 Financial Institutions (E)

FIN503 Corporate Finance

FIN613 Financial Modeling





## Human Resource Management

HRM301 Human Resource Management (E)

### 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

LAW402 Corporate Law

### Management

MAN101 Principles of Management

MAN302 Organizational Behavior (E)

MAN403 Entrepreneurship & Small Business Management

### Management Information Systems

MIS303 IS Audit & Management (E)

### Marketing

MKT301 Principles of Marketing

MKT302 Marketing Management

MKT404 Methods in Business Research (E)

### Mathematics

MTH103 Calculus for Business Decisions

### Statistics

STA203 Probability Theory & Statistics

STA301 Model & Inferences

STA302 Methods of Data Analysis

### Social Sciences

SSC101 Introduction to Psychology



## Major Electives

### Accounting Electives (5 courses)

ACC302	Accounting & Financial Information Systems
ACC505	Auditing
ACC405	Internal Auditing and EDP Accounting
ACC501	Advanced Financial Accounting
ACC520	Managerial Analysis and Decision Making
ACC524	Corporate Governance & Reporting
ACC521	International Financial Reporting Standards
ACC522	Strategic Management Accounting & Control
ACC523	Financial Regulatory Requirements for Business
LAW202	Banking Laws in Pakistan
LAW203	Insurance Laws in Pakistan

### Finance Electives (5 courses)

FIN403	Islamic Banking and Finance
FIN504	International Finance
FIN505	Treasury and Fund Management
FIN506	Investment Banking and Security Analysis
FIN507	Portfolio Management
FIN509	Financial Derivatives
FIN513	Project Appraisal
FIN514	Asset Liability Management
FIN520	Financial Risk Management
FIN530	Commercial & Corporate Banking
FIN531	Real Estate and Alternative Investments
FIN533	Info. Technology & Product Innovation in Financial Services
FIN534	Retail & Consumer Banking
FIN613	Financial Modeling for Decision Making

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 Fall and Spring semesters with an option for fewer courses in the latter and making up for the shortfall in the summer session.

## Course Structure

<b>Semester One</b> Principles of Management Introduction to Psychology Islamic Studies (R) College Algebra Principles of Microeconomics Academic English (W,R)	<b>Semester Two</b> Pakistan Studies (W) Principles of Marketing Introduction to Financial Accounting Calculus for Business Decisions Principles of Macroeconomics Methods in Business Writing
<b>Semester Three</b> Business Law IS Audit & Management (E) Intermediate Financial Accounting Probability Theory & Statistics Financial Economics Business & Professional Speech (E)	<b>Semester Four</b> Organizational Behavior (E) Introduction to Business Finance (R) Cost & Management Accounting Model & Inferences Managerial Economics Foreign Language I
<b>Semester Five</b> Marketing Management Human Resource Management (E) Analysis of Financial Statements Financial Management Foreign Language II Methods of Data Analysis	<b>Semester Six</b> Financial Institutions (E) Methods in Business Research (E) Financial Modeling Corporate Finance Taxation Corporate Law
<b>Semester Seven</b> Pakistan & Economic Policy Entrepreneurship & Small Business Management Accounting Elective I Finance Elective I Accounting Elective II Finance Elective II	<b>Semester Eight</b> Accounting Elective III Finance Elective III Accounting Elective IV Finance Elective IV Accounting Elective V Finance Elective V





### **Entrepreneurial Ideation Stage - Semester 1:**

- Startup Garage I: Business Model and Business Research Method with supportive courses

### **Entrepreneurial Networking Stage - Semester 2:**

- Startup Garage II: Affordable Design Project with supportive courses

### **Entrepreneurial Experimentation Stage - Semester 3:**

- Startup Garage III: Test Phase Project with supportive courses

### **Entrepreneurial Execution Stage - Semester 4:**

- Lean Launchpad I: Launch Phase Project with supportive courses

### **Entrepreneurial Breakeven Stage - Semester 5:**

- Lean Launchpad II: Mitigation Phase Project with supportive courses

### **Entrepreneurial Growth Stage - Semester 6:**

- Lean Launchpad III: Expansion Phase Project with supportive courses

### **Entrepreneurial Investment Stage - Semester 7:**

- Capstone I: Pitch and Win Investors Project with supportive courses

### **Global Entrepreneurship Stage - Semester 8:**

- Capstone II: International Business Idea Competition Project with supportive courses

### **Entrepreneurial Ideation Stage:**

- ENI101 Idea Generation and Opportunity Recognition
- STA403 Statistics and Mathematics
- ENI103 Systems, disruptive and exponential thinking
- ENI104 Islamic Conception of Business & Entrepreneurship
- ENI105 Human-Centered Design Thinking
- ENI106 Startup Garage I: Business Model and Business Research Methods

### **Entrepreneurial Networking Stage:**

- ENN201 Marketing Tactics and Guerrilla Strategies in Business
- COM402 Business Communication: Survey of Investors
- ENN203 Psychology and Behavior of Entrepreneurship
- ENN204 History and Survey of Pakistani Business and Entrepreneurship
- ENN205 Design Methods in Industry
- ENN206 Startup Garage II: Affordable Design

### **Entrepreneurial Experimentation Stage:**

- ENX301 Idea Prototyping and Market Alignment
- ENX302 Lean Accounting and Finance
- EXP303 Effectuation Method
- ENX409 Business Economics
- ENX305 Design Strategy
- ENX306 Startup Garage III: Test





**Entrepreneurial Execution Stage:**

- MKT402 Marketing Management
- ACC301 Cost Accounting
- HRM410 Human Capital Management
- ENE404 Gig Economy and Strategy
- ENE405 Web development and Social Media Integration
- ENE406 Lean LaunchPad I: Launch

**Entrepreneurial Breakeven Stage:**

- ENB501 Thought Leadership and Customer Acquisition
- FIN202 Financial Management
- ENB503 Team Building and People Operations
- ENB504 Sustainable Family Business
- ENB505 Process Optimization
- ENB506 Lean LaunchPad II: Mitigation

**Entrepreneurial Growth Stage:**

- ENG601 Advanced Competitive Strategies
- ENG602 Legal Business Structure
- MAN503 Supply Chain Management
- ENG604 Family Business Growth Strategies
- ENG605 Lean Analytics
- ENG606 Lean LaunchPad III: Expansion



**Entrepreneurial Funding and Investment Stage:**

- ENF701 Attracting Investors: Marketing Approach
- ENF702 Angel and Venture Capital: Growth Partnerships
- HRM504 Negotiation Skills
- ENF704 Crowd Funding
- ENF705 Technology Investment
- ENF706 Capstone I: Pitch and Win Investors

**Global Entrepreneurship Stage:**

- ENO801 Dynamic Entrepreneurial Strategy
- ENO802 International Valuation and International Auditing standards
- ENO803 Innovation Acceleration and Co-Creation
- LAN10 Foreign Language
- ENO805 Exponential Organizations
- ENO806 Capstone II: International Business Idea competition





## Course Structure

<p><b>Entrepreneurial Ideation Stage - Semester 1:</b></p> <p><b>Startup Garage I: Business Model &amp; Business Research Methods</b>          Idea Generation and Opportunity Recognition          Statistics and Mathematics          Systems, Disruptive and Exponential Thinking          Islamic conception of business and entrepreneurship          Human-Centered Design Thinking</p>	<p><b>Entrepreneurial Networking Stage - Semester 2:</b></p> <p><b>Startup Garage II: Affordable Design</b>          Marketing Tactics and Guerrilla Strategies in Business          Business Communication: Survey of Investors          Psychology and Behavior of Entrepreneurs          History and Survey of Entrepreneurship          Design Methods in Industry</p>
<p><b>Entrepreneurial Experimentation Stage - Semester 3:</b></p> <p><b>Startup Garage III: Test</b>          Idea Prototyping and Market Alignment          Lean Accounting and Finance          Effectuation Method          Business Economics          Design Strategy</p>	<p><b>Entrepreneurial Execution Stage - Semester 4:</b></p> <p><b>Lean LaunchPad I: Launch</b>          Marketing Management          Cost Accounting          Human Capital Management          Gig Economy and Strategy          Web development and Social Media Integration</p>
<p><b>Entrepreneurial Breakeven Stage - Semester 5:</b></p> <p><b>Lean LaunchPad II: Mitigation</b>          Thought Leadership and Customer Acquisition          Financial Management          Team Building and People Operations          Sustainable Family Business          Process Optimization</p>	<p><b>Entrepreneurial Growth Stage - Semester 6:</b></p> <p><b>Lean LaunchPad III: Expansion</b>          Advanced Competitive Strategies          Legal Business Structure          Supply Chain Management          Family Business Growth Strategies          Lean Analytics</p>
<p><b>Entrepreneurial Investment Stage - Semester 7:</b></p> <p><b>Capstone I: Pitch and Win Investors</b>          Attracting Investors: Marketing Approach          Angel and Venture Capital: Growth Partnerships          Negotiation Skills          Crowd Funding          Technology Investment</p>	<p><b>Global Entrepreneurship Stage - Semester 8:</b></p> <p><b>Capstone II: International Business Idea competition</b>          Dynamic Entrepreneurial Strategy          International Valuation: International Auditing standards          Innovation Acceleration and Co-Creation          Foreign Language          Exponential Organizations</p>



## BS SOCIAL ENTREPRENEURSHIP AND SOCIAL LEADERSHIP



The objective of BS Social Entrepreneurship and Social Leadership program is to develop social leaders and social entrepreneurs who are able to create sustainable and impactful solutions to local and global problems.

### Program:

BS Social Entrepreneurship and Social Leadership program inspires and equips graduates to demonstrate leadership through creation of sustainable social advocacy enterprises focused on solving real life problems. This is an innovative and fully experiential learning program focusing on PBL; Project Based Learning and Problem Based Learning. It provides an inter-disciplinary understanding of real life problems from humanities and liberal arts perspectives, and additionally enables

students to envision and create enterprise solutions through managerial and leadership skills imparted in the program. The projects involve field work to explore real life social enterprises advocating solutions in areas such as education, health, violence, poverty, women empowerment, environment and “glocalization”. These projects integrate course work of leadership and enterprise management studies with perspectives from several inter-linked subject areas such as philosophy, psychology, history, sociology, economy, power, culture, religion, ethics, arts, literature and aesthetics. This integration enables students to design sustainable solutions to local challenges that reflect their internal desires to benefit themselves and the community and that can give them confidence to take on the global challenges.

The Bachelor Program requires completion of 144 credit hours of course work in a total of 8 semesters or 4 years. Student’s graduation with CGPA of 2.5 automatically qualifies for MBA program offered by CBM. Students must complete an internship and comprehensive exam as part of their degree requirements.

In addition to a full-time internship during the final year, there are additional fieldwork and internships spread across the semesters to provide the students with field experience.

### Distinctive Feature of the Program:

#### Experiential Learning:

Learning by doing via PBL; Project based Learning and Problem Based Learning: Eight thematic projects on real life problems. Projects are exploratory and descriptive during the earlier part of the program and are prescriptive and implementation oriented during the later semesters. These projects include fieldwork and internships as a mandatory part of the semester work as described below.

#### Focus on Social Problems:

During each semester, students work on a major experiential learning project dealing with a real life problem. Each thematic project consists of multiple sub-projects corresponding to the six threads linking the courses across the semesters:

Semester-1: Foundational Projects

Semester-2: Projects related to social enterprises in education

Semester-3: Projects related to social enterprises in health

Semester-4: Projects related to social enterprises dealing with poverty issues.

Semester-5: Projects related to social enterprises in environment sector

Semester-6: Projects related to social enterprises dealing with violence & peace

Semester-7: Projects related to social enterprises dealing with globalization issues

Semester-8: Capstone Projects and creation of social enterprise



### **Course design:**

Courses designed around PBL sub-projects with deliverables requiring application, analysis/evaluation and creation levels of Bloom's taxonomy.

### **Integrated Curriculum:**

Courses in each thread integrate perspectives from multiple subject areas. Every semester has a course from each one of the following threads:

Thread-1: Social Enterprise Design (SED) from philosophical and psychological perspectives.

Thread-2: Social Enterprise Challenges (SEC): Social advocacy challenges from socio-economic, political, governmental and other power structures across civilizations and history

Thread-3: Social Change Management (CMS) from ethical, cultural and religious perspectives

Thread-4: Social Advocacy Communication (SAC) through aesthetics, artistic and literary expression

Thread-5 Social Enterprise Management (SEM) thread covers management, HR, finance, marketing negotiations, and strategies.

Thread-6: Social Leadership thread covers from personal mastery to the development of change and ethical leadership

### **Portfolio based assessment:**

Self Assessment, Peer Assessment, Teacher Assessment and External Assessment of the assignments and projects executed by students.

### **Pedagogy:**

Faculty members are project supervisors, facilitators and mentors rather than lecturers.

### **Internship/Field Work:**

The program consists of extensive field work, visits, surveys, interviews, and internships with social work organizations as an integral and mandatory part of the semester work. During the initial semesters this internship/field work spans 2 days per semester that will increase to 3 days per week. During the last year, the fieldwork/internship may constitute 4 days per week. Social Entrepreneurship Center facilitates the organization and enablement of these internship placements. In addition, the student would also do a full-time internship of 6-8 weeks during the final year.

### **Capstone Projects:**

18 credit hours of projects spread over 7th and 8th semester, requiring establishment of a functioning social enterprise. Each course will represent implementing a particular aspect of the implementation process such as organizational design consultations, niche research, planning, establishing the organization, creating a presence through networking, launching and creating awareness, funding, execution, advocacy, management, control. IoBM's Entrepreneurship Center facilitates this field work.

### **Services for Designing Successful Careers of Graduates:**

Entrepreneurship Center offers several services to enable the graduates of BS Social Entrepreneurship and Social Leadership to design a successful career in the social sector, public sector and CSR initiatives of the corporate sector and include:

**Linkages with Industry Organizations:** PBL design of the curriculum ensures that students start connecting with the social sector organizations and social leaders right from the first semester. Connection is through projects requiring field work, observations, interviews, case studies and internships and would help them identify a cause for which they are passionate. Students will be connected to public and social sector organizations working in the areas of education, health, poverty alleviation, peace, environment, globalization etc.

**Projects in Collaboration with Social Networks:** Student projects are designed in collaboration with the wide network of industry contacts of IoBM and through consultation with the advisory committee members of this program belonging to organizations such as Aman Foundation, OPEN, Acumen Fund, TCF, Indus Hospital, SEF etc.

**Social Enterprise Start-up Incubation:** Students start working on the design of their social enterprise from third year through carefully designed projects. The incubator at IoBM hosts these organizations during the start up phase and connects them with external funding sources in addition to its own incubator fund.



**Career in Public Service, Social Sector and Corporate Sector:** In addition to the Internship and Placement department of IoBM, the entrepreneurship centre guides the students in preparing for the CSS exams and for placement in social sector, public sector and CSR initiatives of the corporate sector organizations to enable the graduates to pursue their strategic visions.

**Establishing Collaborations of Student Start-ups:** Entrepreneurship centre provides guidance and enabling of the startup of the student enterprises through strategic collaborations with existing social organizations.

## Required Courses

### **Social Enterprise Design: Philosophical and Psychological Foundations**

- SED101 Research Methodology for Social Projects
- SED102 Philosophy and Psychology of Education
- SED201 Philosophy and Psychology of Human Nature and Wellbeing
- SED202 Philosophy of Development and Psychology of Poverty
- SED301 Anthropocentricity and Environmental Issues
- SED302 Violence, Will and Human Psyche: A Critical Investigation
- SED401 Neoliberal Foundations of “Glocalization” and Social Issues

### **Social Enterprise Challenges: Socio-Economic, Political and Power Structures in History**

- SEC101 Quantitative Analysis for Social Data
- SEC102 Social, Political and Economic Dynamics of Education in History
- SEC201 Historical Foundations of Health Care Institutions
- SEC202 Socioeconomic, Political Institutions and History of Development
- SEC301 Socioeconomic Transformation and Threat to Environment
- SEC302 History and Kinds of Violence: Socio-Economic and Power Structures
- SEC401 Socioeconomics and Political Impacts of “Glocalization”

### **Social Advocacy Communication; Aesthetics, Arts and Literature - Studio Based Workshops**

- SAC101 Visual Storytelling: Photography and Documentary in Advocacy
- SAC102 Computer Arts and Graphics Designing for Advocacy
- SAC201 Recitations/Readings Related to Health and Well Being
- SAC202 Poverty/Development: Advocacy through Performing Arts
- SAC301 Literary Writings and Expression as Antidote to Violence
- SAC302 Street Art/Art Activism for Environmental Awareness
- SAC401 Aesthetics Approach to Urbanization and Ghettos

### **Social Change Management; Ethical, Cultural & Religious Context**

- CMS101 History of Social Advocacy: Pakistan and Subcontinent
- CMS102 Creativity, Novelty and Beauty via Education
- CMS201 Health Issues Across Cultures and Ideologies/Language-1
- CMS202 Poverty and Women Empowerment/Language-2
- CMS301 Artificial vs Natural/Self Sustainable Design
- CMS302 Cultural Roots of Violence: Religion, Ethics and Law
- CMS401 Fusion of Global and Local Horizons, Emerging Trends in Fashion and Design

### **Social Entrepreneurship; Study of Social Enterprises and Management**

- SEM101 Results Based Project Management
- SEM102 Social Enterprises in Education: HRM
- SEM201 Study of Social Enterprises in Health Care: Operations and Processes
- SEM202 Study of Social Enterprises: Finance and Accounting
- SEM301 Study of Social Enterprises: Marketing
- SEM302 Conflict Management and Negotiation Skills
- SEM401 Strategic Issues of Social Enterprises



### Social Entrepreneurship; Challenge of Leadership

- SEM103 Ethics and Society: Islamic Perspective
- SEM104 Entrepreneurial Leadership and Motivation
- SEM203 Leadership in Healthcare
- SEM204 Leadership in Social Transformation
- SEM303 Leadership in Environmental Project
- SEM304 Leadership issues in Violent Areas
- SEM402 Sustainability of a Social Enterprise

### Social Entrepreneurship; Capstone Projects

- SCP501 Capstone Project I
- SCP502 Capstone Project II
- SCP503 Capstone Project III
- SCP504 Capstone Project IV
- SCP505 Capstone Project V
- SCP506 Capstone Project VI

## Course Structure

<p><b>Semester One</b>  <b>Foundational Projects</b>            Research Methodology for Social Projects            Quantitative Analysis for Social Data            Visual storytelling: Photography and Documentary in Advocacy            History of Social Advocacy: Pakistan and Subcontinent            Results Based Project Management            Ethics and Society: Islamic Perspective</p>	<p><b>Semester Two</b>  <b>Project on Educational Issues</b>            Philosophy and Psychology of Education            Social, Political &amp; Economic Dynamics of Education in History            Computer Arts and Graphics Designing for Advocacy            Creativity, Novelty and Beauty Via Education            Social Enterprise in Education: HRM            Entrepreneurial Leadership and Motivation</p>
<p><b>Semester Three</b>  <b>Project on Health Issues</b>            Philosophy and Psychology of Human Nature and Wellbeing            Historical Foundations of Health Care Institutions            Recitations/Readings Related to Health and Well Being            Health Issues Across Cultures and Ideologies/Language I            Study of Social Enterprises in Health Care: Operations &amp; Processes            Leadership in Health Care</p>	<p><b>Semester Four</b>  <b>Project on Poverty / Development Issues</b>            Philosophy of Development and Psychology of Poverty            Socioeconomic, Political Institutions &amp; History of Development            Poverty/Development Advocacy through Performing Arts            Poverty and Women Empowerment/Language-II            Study of Social Enterprises: Finance and Accounting            Leadership in Social Transformation</p>
<p><b>Semester Five</b>  <b>Project on Environment Issues</b>            Anthropocentricity and Environmental Issues            Socioeconomic Transformation and Threat to Environment            Literary Writing and Expression of Environmental Impact            Artificial vs Natural/Self Sustainable Design            Study of Social Enterprises: Marketing            Leadership in Environmental Projects</p>	<p><b>Semester Six</b>  <b>Project on Violence Issues</b>            Violence, Will and Human Psyche: A Critical Investigation            History &amp; Kinds of Violence: Socio-Eco. &amp; Power Structures            Street Art/Art Activism as Antidote to Violence            Cultural Roots of Violence: Religion, Ethics and Law            Conflict Management and Negotiation Skills            Leadership Issues in Violent Areas</p>
<p><b>Semester Seven</b>  <b>Capstone / Globalization Project</b>            Neoliberal Foundations of “Glocalization” and Social Issues            Socioeconomics and Political Impacts of “Glocalization”            Aesthetics Approach to Urbanization and Ghettos            Capstone Project-1            Capstone Project-2            Capstone Project-3</p>	<p><b>Semester Eight</b>  <b>Capstone / Globalization Project</b>            Fusion of Global &amp; Local Horizons; Trends in Fashion &amp; Design            Strategic Issues of Social Enterprises            Sustainability of a Social Enterprise            Capstone Project-4            Capstone Project-5            Capstone Project-6</p>



## BS LOGISTICS AND SUPPLY CHAIN MANAGEMENT



The Bachelor of Supply Chain Management is a professional and comprehensive management degree providing conceptual knowledge and in-depth exposure to functional areas in business management including accounting and finance, marketing, management, and MIS along with special emphasis on Supply Chain Management and all modules like Logistics and warehousing and Risk management. In a 4-year Bachelor of BS in Supply Chain Management program, students explore the business aspects of the transportation, distribution and warehousing activities of various corporations. The program employs the latest approaches in experiential learning to develop skills for interpersonal communication, team work, foreign languages and managing diversity.

### Throughout Program Criteria:

BS 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 Institute. 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 degree.

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

### Required Courses:

#### Accounting

ACC101 Introduction to Financial Accounting  
ACC201 Intermediate Financial Accounting

#### Communication

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

#### Economics

ECO301 Managerial Economics  
ECO402 Pakistan Economic Policy  
ECO405 Seminar in Economics Policy

#### Finance

FIN201 Introduction to Business Finance

#### Management

MAN101 Principles of Management  
MAN302 Organizational Behavior  
MAN403 Entrepreneurship & Small Business Management  
MAN406 Production and Operations 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

#### 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

**Human Resource Management**

HRM301 Human Resource Management

**Statistics**

STA201 Quantitative Business Analysis

STA202 Quantitative Skills and Managerial Statistics

**Management Information Systems**

MIS405 Computer Applications - E-Business

**Social Science**

SSC401 Business Ethics

**Law**

LAW409 Corporate and Business Law

**Elective Courses:**

SCM513 Quantitative Methods in Production in Logistics

SCM515 IT applications in Logistics and SCM

SCM517 Demand Management

SCM519 e-business Strategies in SCM

SCM521 Sustainability &amp; Env. Aspects in Managing Supply Chains

**Logistics and Supply Chain Management**

SCM101 Supply Chain Management

SCM102 Logistics and Operations Management

SCM103 Import Export Management

SCM201 Shipping, Ocean Freight and Port Operations

SCM202 Supply Chain Finance

SCM303 Logistical Projects in ERP

SCM304 Food Security and Sustainability

SCM305 Lean Six Sigma and Lean Manufacturing

SCM306 Innovation Management in Supply Chain &amp; Logistics

SCM307 Globalization and Outsourcing Strategies

SCM308 Mobile Commerce and Mobile Logistics

SCM310 Introduction to ERP Systems

SCM401 Storage and Warehouse Techniques

SCM402 Transportation Techniques and Management

SCM403 Procurement and Inventory Management

SCM514 Business Process Mgmt. in Supply Chain &amp; Logistics

SCM516 Life Cycle Enterprise Asset Management

SCM518 Packaging design-Environmental aspects

SCM520 Contract Management

SCM522 Negotiation strategies in supply chain management

**Course Structure**

<b>Semester One</b> Academic English Principles of Management Supply Chain Management Pakistan Studies College Algebra Islamic Studies	<b>Semester Two</b> Introduction to Financial Accounting Managerial Economics Principles of Marketing Calculus for Business Decisions Logistics and operations management Import-Export Management	<b>Semester Three</b> Intermediate Financial Accounting Persuasive & Analytical Writing for Bus. Com. Introduction to ERP systems Computer Applications-E-Business Quantitative Business Analysis Shipping, Ocean Freight & Port Operations
<b>Semester Four</b> Business and Professional Speech Introduction to Business Finance Business Ethics Supply Chain Finance Quantitative Skills & Managerial Statistics Organizational Behavior	<b>Semester Five</b> Logistical projects in ERP Food Security and Sustainability Foreign Language I Methods in Business Research Human Resource Management Mobile Commerce and Mobile Logistics	<b>Semester Six</b> Lean Six Sigma & Lean Manufacturing Foreign Language II Innovation Mgmt. in Supply Chain & Logistics Corporate and Business Law Globalization and Outsourcing strategies Pakistan Economic Policy
<b>Semester Seven</b> Storage and warehouse techniques Entrepreneurship & Small Business Mgmt. Procurement and Inventory Management Elective I Elective II Elective III	<b>Semester Eight</b> Seminar in Economic Policy Production and Operations Management Transportation Techniques & Mgmt. Elective IV Elective V Elective VI  <i>Internship (2 credit hours)</i>	



## OVERVIEW OF MBA PROGRAMS



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

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

The standard MBA program is a 72 credit-hour program that most students can complete in two years. It is designed for students with a minimum of 16 years of education with degrees in a wide range of disciplines such as business, commerce, engineering, law, science, medicine, the arts and pharmacy.

The program is divided into a foundation stage of 36 credit hours followed by the 36-credit hours of rigorous MBA level courses and a 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 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 a minimum of 2 years and consists of 72 credit hours followed by 36 credit hours of rigorous MBA level courses.
  - 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
- All variants of the CBM MBA programs share a unified structure consisting of a foundation stage followed by the MBA stage. The Foundation Stage of the MBA program fulfills the minimum eligibility requirements of HEC to switch from a non-business major at the bachelor stage to a master program in business. Foundation stage consists of eleven course; one each from the following areas: Communications, Economics, Quantitative Analysis, Behavior/ Psychology, Accounting, Finance, Law/Ethics, Management, HRM, Marketing, Research. The MBA stage of the course consists of courses in Technology/ Operations, Entrepreneurship, Marketing Strategy, Organizational Processes, Analytics for decision making, Strategic Finance, Strategic Management, and Leadership. In addition there are two real life capstone projects to be completed during the final year.



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



*My journey at iobm was exciting and dynamic. Working full time with studying was none less like a demon sitting in front of me and telling me to smile...*

*yet in the end it paved the way to perfection by transforming me in all aspects. In actual, loBM developed my thinking abilities and enhanced my thought processes in a way that I have my own path my own assessment and analysis to everything either it's work, life, religion, politics or whatsoever. Today I am not the follower of anyone but the developer of my own thoughts, path, values, visions, principles and stances, and I believe that's the best that any Educational Institute can give to any student.*

*loBM, unlike the traditional institution is the grinding machine that makes you a "Real You" so as you will envy your own self. loBM didn't shape our mind, in-fact nurtured it in a way that it actually grew and we learned to raise our thoughts, our voices and our own self to the level where it tagged "impossible". There is nothing by "luck", you get everything after your hard-work and struggles or either you get in advance for what you have to pay for in future.. on that practical life approach loBM teaching are based on that makes you street smart; a "real you" yet not the copy of what is born or dead.*

*Allhamdulillah! that I chose iobm, Thanks to loBM family especially my Faculty for shaping a nugget like me into a Gold Medalist. Thanks to my family for pushing me and baring me and to my friends for being there all the time with their endless support.*

**Shezza Razzaque Khan**  
Gold Medalist  
Convocation 2016

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

This Program consists of 36-credit hours of rigorous MBA level courses dealing with strategy and business transformation and includes a Capstone Project. Students who have obtained their BBA and BS Joint (Honors) degree from CBM, are exempted from the 36 credit hours of the foundation stage of the standardized 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 2 years.

A distinguishing feature of the program is the academic ecosystem of experiential learning which immerses the student in a cycle of "learning by doing" through reflection. Case studies and project work are among the pedagogies used for delivery of the curriculum content. A significant value adding feature 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 Capstone Project report has to be converted into a publishable case study as a part of the degree requirement.

*Students are eligible to take two electives from BBA Program provided they have not taken those electives in BBA.*

MBA students can specialize in the following areas:

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

### Required Course

#### Finance

FIN601\* Strategic Financial Analysis and Design

#### Human Resource Management

HRM606\*Leadership, Ethics and Change



## Management

MAN604\* Management Strategies and Emerging Organizations

MAN606\* Business Analytics for Decision Making

MAN608\* Technology, Operations and Innovation

## Marketing

MKT610\* 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. They can also select from BBA (Hons) electives (maximum two courses) of 500 level or above:

### Majors in Accounting

ACC302 Accounting and Financial Information Systems

ACC505 Auditing

ACC506 Analysis of Financial Statements

ACC520 Managerial Analysis and Decision Making

ACC521 International Finance Reporting Standards

ACC522 Strategic Management Accounting

ACC523 Financial Regulatory Requirements for Business

ACC524 Corporate Governance and Reporting

### Majors in Finance and Banking

FIN602 Behavioral Finance

FIN603 Entrepreneurial Finance

FIN608 Project Appraisal

FIN610 Debt and Equity Markets

FIN612 SME and Micro-Financing

FIN613 Financial Modeling for Investment Decisions

FIN630 Options, Swaps and Futures

FIN631 Applied Corporate Finance

FIN632 Fixed Income Securities

FIN633 Mergers, Acquisitions and Restructuring

FIN634 Enterprise Risk Management

FIN635 Risk Management with Derivatives

### 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

### Majors in Islamic Banking and Finance

ISF601 Economics for Islamic Finance

ISF602 Islamic Banking Practices

ISF603 Accounting for Islamic Finance

ISF604 Islamic Financial Services Marketing

ISF605 Islamic Capital Markets

ISF606 International Islamic Finance Standards

FRM514 Takaful and Risk Management in Islamic Products



Students doing majors in Finance & Banking can also opt for Islamic Banking & Finance electives.





### Majors in Marketing

- MKT501 Strategic Marketing and Planning
- MKT602 Marketing Analytics
- MKT605 Pricing Models and Strategies
- MKT611 Integrated Marketing Communications
- MKT613 Marketing of Financial Services
- MKT615 Brand Management
- MKT618 Advertising Management and Strategy
- MKT620 Competitive Strategies
- MKT621 Marketing Strategies for Emerging Economies
- MKT622 Marketing Strategies for Bottom of the Pyramid (BOP)
- MKT623 Pharmaceutical Marketing & Quality Assurance / MHM508/608
- MKT625 Business to Business Marketing
- MKT626 Marketing for Social Impact

### 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
- SCM615 Contract Management for Supply Chain & Negotiations
- SCM616 Life Cycle Enterprise Asset Management
- SCM617 Mobile Commerce and Mobile Logistics

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.

## Course Structure

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



## MBA (REGULAR) PROGRAM FOR STUDENTS WITH 16 YEARS EDUCATION

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

The program is a 72 credit hours program that most students can complete in two years. It is designed for students with a minimum of 16 years of education and 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 proficiency in the language. Students need to clear a comprehensive examination in order to complete the degree requirements.

A distinguishing feature of the program is the academic ecosystem of experiential learning which immerses the student in a cycle of “learning by doing” through reflection. Case studies and project work are among the pedagogies used for delivery of the curriculum content. A significant value adding feature 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 Capstone Project report has to be converted into a publishable case study as a part of the degree requirement.

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
- Islamic Banking and Finance

***Applicants with 4-year bachelor's degree from IoBM in non-business disciplines can claim up to 6 course exemptions from the foundational stage for the equivalent courses completed in the bachelor program.***



*I have done my Bachelors in Economics and Finance and my MBA- Finance from IoBM, both on a 100% merit Scholarship. Spending more than 5 years of my Life at this institution has been an ecstatic experience. I have interacted with people from different background, religion and culture and have grown immensely as a person. While the bachelors program has allowed me to get a command on the foundations of business, the MBA program has taught me its practical implementation.*

**Marina Arif**  
Gold Medalist  
Convocation 2016



## Required Courses

### Accounting

ACC419 Financial Accounting

### Communication

COM107+Academic English

COM402 Business Communication

*+Less Proficient Students*

### Economics

ECO409 Business Economics

### Finance

FIN408 Theory and Practice of 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. They can also select from BBA (Hons) electives at most two courses of 500 level or above.

### Majors in Accounting

ACC302 Accounting and Financial Information Systems

ACC505 Auditing

ACC506 Analysis of Financial Statements

ACC520 Managerial Analysis and Decision Making

ACC521 International Finance Reporting Standards

ACC522 Strategic Management Accounting

ACC523 Financial Regulatory Requirements for Business

ACC524 Corporate Governance and Reporting

### Marketing Electives for MBA

MKT501 Strategic Marketing and Planning

MKT602 Marketing Analytics

MKT605 Pricing Models and Strategies

MKT611 Integrated Marketing Communications

MKT613 Marketing of Financial Services

MKT615 Brand Management

MKT618 Advertising Management and Strategy

MKT620 Competitive Strategies

MKT621 Marketing Strategies for Emerging Economies

MKT622 Marketing Strategies for Bottom of the Pyramid (BOP)

MKT623 Pharmaceutical Marketing & Quality Assurance /  
MHM508/608

MKT625 Business to Business Marketing

MKT626 Marketing for Social Impact

### 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

MKT610\* 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

FIN608 Project Appraisal

FIN610 Debt and Equity Markets

FIN612 SME and Micro-Financing

FIN613 Financial Modeling for Investment Decisions

FIN630 Options, Swaps and Futures

FIN631 Applied Corporate Finance

FIN632 Fixed Income Securities

FIN633 Mergers, Acquisitions and Restructuring

FIN634 Enterprise Risk Management

FIN635 Risk Management with Derivatives

### 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  
SCM615 Contract Management for Supply Chain & Negotiations  
SCM616 Life Cycle Enterprise Asset Management  
SCM617 Mobile Commerce and Mobile 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

### Majors in Islamic Banking and Finance

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

*Students doing majors in Finance & Banking can also opt for Islamic Banking & Finance electives.*

## Course Structure

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



## MBA (REGULAR) PROGRAM FOR STUDENTS WITH 14 YEARS EDUCATION



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

This program is designed for students with 14 years of education and degrees in a wide range of disciplines such as business, commerce, law, science, and the arts. The 108 credit-hour 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 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 on 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. Students need to clear a comprehensive examination in order to complete degree requirements.

A distinguishing feature of the program is the academic ecosystem of experiential learning which immerses the student in a cycle of “learning by doing” through reflection. Case studies and project work are among the pedagogies used for delivery of the curriculum content. A significant value adding feature of the CBM MBA is the 6 credit-hour 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 Capstone Project report has to be converted into a publishable case study as part of the degree requirement.

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
- Islamic Banking and Finance

### Required Courses

#### Accounting

ACC401 Introduction to Managerial and Cost Accounting

ACC419 Financial Accounting





### Communication

COM107<sup>+</sup> Academic English  
COM409 Business and Professional Speech  
COM408 Persuasive & Analytical Writing for Business Comm.  
<sup>+</sup>Less Proficient Students

### Finance

FIN408 Theory and Practice of Financial Management  
FIN601\* Strategic Financial Analysis and Design

### Economics

ECO405 Seminar in Economic Policy  
ECO409 Business Economics

### 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. They can also select from BBA (Hons) electives at most two courses of 500 level or above.

### Majors in Accounting

ACC302 Accounting and Financial Information Systems  
ACC505 Auditing  
ACC506 Analysis of Financial Statements  
ACC520 Managerial Analysis and Decision Making  
ACC521 International Finance Reporting Standards  
ACC522 Strategic Management Accounting  
ACC523 Financial Regulatory Requirements for Business  
ACC524 Corporate Governance and Reporting

### Majors in Finance and Banking

FIN602 Behavioral Finance  
FIN603 Entrepreneurial Finance  
FIN608 Project Appraisal  
FIN610 Debt and Equity Markets  
FIN612 SME and Micro-Financing  
FIN613 Financial Modeling for Investment Decisions  
FIN630 Options, Swaps and Futures  
FIN631 Applied Corporate Finance  
FIN632 Fixed Income Securities  
FIN633 Mergers, Acquisitions and Restructuring  
FIN634 Enterprise Risk Management  
FIN635 Risk Management with Derivatives

### Law

LAW409 Corporate and Business Law

### 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  
MKT610\* Marketing Strategies and Value Innovation

### Management Information Systems

MIS226 Introduction to Enterprise Resource Planning Systems

### Statistics and Mathematics

STA403 Statistics and Mathematics  
STA404 Statistical Inference

### Social Sciences

SSC401 Business Ethics  
SSC402 Organizational Psychology  
SSC408 Political Sociology

### Capstone Project

BPR601\* Capstone Project I  
BPR602\* Capstone Project II

### Majors in Islamic Banking and Finance

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

### Marketing Electives for MBA

MKT501 Strategic Marketing and Planning  
MKT602 Marketing Analytics  
MKT605 Pricing Models and Strategies  
MKT611 Integrated Marketing Communications  
MKT613 Marketing of Financial Services  
MKT615 Brand Management  
MKT618 Advertising Management and Strategy  
MKT620 Competitive Strategies  
MKT621 Marketing Strategies for Emerging Economies  
MKT622 Marketing Strategies for Bottom of the Pyramid (BOP)  
MKT623 Pharmaceutical Marketing & Quality Assurance /  
MHM508/608  
MKT625 Business to Business Marketing  
MKT626 Marketing for Social Impact



### 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

*Students doing majors in Finance & Banking can also opt for Islamic Banking & Finance electives.*

### 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
- SCM615 Contract Management for Supply Chain & Negotiations
- SCM616 Life Cycle Enterprise Asset Management
- SCM617 Mobile Commerce and Mobile Logistics

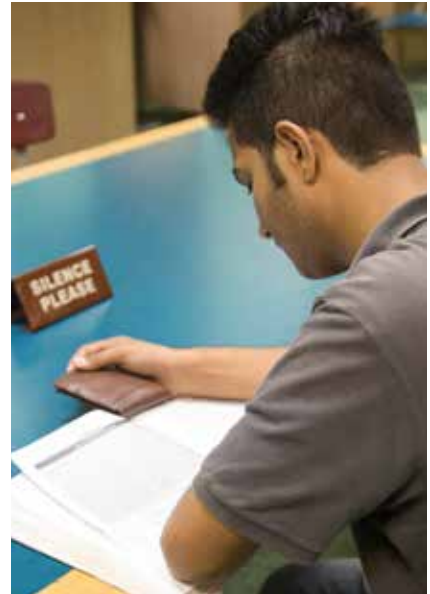
<p><b>Foundation Stage</b>  <b>Semester One</b>                      Persuasive and Analytical Writing for Business Communication                      Financial Accounting                      Principles of Management                      Marketing Management                      Statistics and Mathematics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



## MBA (REGULAR) WEEKEND PROGRAM FOR STUDENTS WITH 16 YEARS EDUCATION

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

The program is a 72 credit-hour program that most students can complete in two years. It is designed for students with a minimum of 16 years of education and degrees in a wide range of disciplines such as business, commerce, engineering, law, science, medicine, arts and pharmacy. The program is divided into a foundation stage of 36 credit hours followed by the 36-credit hours of rigorous MBA level courses and a 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. Students need to clear a comprehensive examination in order to complete degree requirements.



A distinguishing feature of the program is the academic ecosystem of experiential learning which immerses the student in a cycle of “learning by doing” through reflection. Case studies and project work are among the pedagogies used for delivery of the curriculum content. A significant value adding feature of the program 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. Capstone Project report has to be converted into a publishable case study as a part of the degree requirement.

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
- Islamic Banking and Finance

***Applicants with 4-year bachelor's degree from IoBM in non-business disciplines can claim up to 6 course exemptions from the foundational stage for the equivalent courses completed in the bachelor program.***



## Required Courses

### Accounting

ACC419 Financial Accounting

### Communication

COM107<sup>+</sup> Academic English

COM402 Business Communication

<sup>+</sup>Less Proficient Students

### Economics

ECO409 Business Economics

### Finance

FIN408 Theory and Practice of 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. They can also select from BBA (Hons) electives at most two courses of 500 level or above.

### Majors in Accounting

ACC302 Accounting and Financial Information Systems

ACC505 Auditing

ACC506 Analysis of Financial Statements

ACC520 Managerial Analysis and Decision Making

ACC521 International Finance Reporting Standards

ACC522 Strategic Management Accounting

ACC523 Financial Regulatory Requirements for Business

ACC524 Corporate Governance and Reporting

### Marketing Electives for MBA

MKT501 Strategic Marketing and Planning

MKT602 Marketing Analytics

MKT605 Pricing Models and Strategies

MKT611 Integrated Marketing Communications

MKT613 Marketing of Financial Services

MKT615 Brand Management

MKT618 Advertising Management and Strategy

MKT620 Competitive Strategies

MKT621 Marketing Strategies for Emerging Economies

MKT622 Marketing Strategies for Bottom of the Pyramid (BOP)

MKT623 Pharmaceutical Marketing & Quality Assurance /  
MHM508/608

MKT625 Business to Business Marketing

MKT626 Marketing for Social Impact

### 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

MKT610\* 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

FIN608 Project Appraisal

FIN610 Debt and Equity Markets

FIN612 SME and Micro-Financing

FIN613 Financial Modeling for Investment Decisions

FIN635 Risk Management with Derivatives

### 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

*Students doing majors in Finance & Banking can also opt for Islamic Banking & Finance electives.*



### 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
- SCM615 Contract Management for Supply Chain & Negotiations
- SCM616 Life Cycle Enterprise Asset Management
- SCM617 Mobile Commerce and Mobile 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

### Majors in Islamic Banking and Finance

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



### Course Structure

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



## MBA (REGULAR) WEEKEND PROGRAM FOR STUDENTS WITH 14 YEARS EDUCATION



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

This program is designed for students with 14 years of education and degrees in a wide range of disciplines such as business, commerce, law, science, and the arts. The 108 credit hours MBA program is divided into a foundation stage of 72 credit hours followed by the 36 credit-hour 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 must maintain a 3.0 CGPA for MBA level courses for the conferment of degree. The program may be completed in a minimum of 3.5 years depending on 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. Students need to clear a comprehensive examination in order to complete degree requirements.

A distinguishing feature of the program is the academic ecosystem of experiential learning which immerses the student in a cycle of “learning by doing” through reflection. Case studies and project work are among the pedagogies used for delivery of the curriculum content. A significant value adding feature of the program 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 Capstone Project report has to be converted into a publishable case study as a part of the degree requirement.

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
- Islamic Banking and Finance

### Required Courses

#### Accounting

ACC401 Introduction to Managerial and Cost Accounting

ACC419 Financial Accounting



### Communication

COM107+Academic English  
COM409 Business and Professional Speech  
COM408 Persuasive & Analytical Writing for Business Comm.  
+Less Proficient Students

### Finance

FIN408 Theory and Practice of Financial Management  
FIN601\* Strategic Financial Analysis and Design

### Economics

ECO405 Seminar in Economic Policy  
ECO409 Business Economics

### 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. They can also select from BBA (Hons) electives at most two courses of 500 level or above

### Majors in Accounting

ACC302 Accounting and Financial Information Systems  
ACC505 Auditing  
ACC506 Analysis of Financial Statements  
ACC520 Managerial Analysis and Decision Making  
ACC521 International Finance Reporting Standards  
ACC522 Strategic Management Accounting  
ACC523 Financial Regulatory Requirements for Business  
ACC524 Corporate Governance and Reporting

### Majors in Finance and Banking

FIN602 Behavioral Finance  
FIN603 Entrepreneurial Finance  
FIN608 Project Appraisal  
FIN610 Debt and Equity Markets  
FIN612 SME and Micro-Financing  
FIN613 Financial Modeling for Investment Decisions  
FIN630 Options, Swaps and Futures  
FIN631 Applied Corporate Finance  
FIN632 Fixed Income Securities  
FIN633 Mergers, Acquisitions and Restructuring  
FIN634 Enterprise Risk Management  
FIN635 Risk Management with Derivatives

### Law

LAW409 Corporate and Business Law

### 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  
MKT610\* 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

SSC401 Business Ethics  
SSC402 Organizational Psychology  
SSC408 Political Sociology

### Capstone Project

BPR601\* Capstone Project I  
BPR602\* Capstone Project II

### Majors in Islamic Banking and Finance

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

### Marketing Electives for MBA

MKT501 Strategic Marketing and Planning  
MKT602 Marketing Analytics  
MKT605 Pricing Models and Strategies  
MKT611 Integrated Marketing Communications  
MKT613 Marketing of Financial Services  
MKT615 Brand Management  
MKT618 Advertising Management and Strategy  
MKT620 Competitive Strategies  
MKT621 Marketing Strategies for Emerging Economies  
MKT622 Marketing Strategies for Bottom of the Pyramid (BOP)  
MKT623 Pharmaceutical Marketing & Quality Assurance /  
MHM508/608  
MKT625 Business to Business Marketing  
MKT626 Marketing for Social Impact



### 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

*Students doing majors in Finance & Banking can also opt for Islamic Banking & Finance electives.*

### 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
- SCM615 Contract Management for Supply Chain & Negotiations
- SCM616 Life Cycle Enterprise Asset Management
- SCM617 Mobile Commerce and Mobile Logistics

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





## MBA (REGULAR) EVENING PROGRAM FOR STUDENTS WITH 16 YEARS EDUCATION

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

The program is a 72 credit-hour program that most students can complete in two years. The program is designed for students with a minimum of 16 years of education and degrees in a wide range of disciplines such as business, commerce, engineering, law, science, medicine, arts and pharmacy. The 72 credit hours 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. Students need to clear a comprehensive examination in order to complete degree requirements.

A distinguishing feature of the program is the academic ecosystem of experiential learning which immerses the student in a cycle of learning by doing through reflection. Case studies and project work are among the pedagogies used for delivery of the curriculum content. A significant value adding feature of the program 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 Capstone Project report has to be converted into a publishable case study as a part of the degree requirement.

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
- Islamic Banking and Finance

***Applicants with 4-year bachelor's degree from IoBM in non-business disciplines can claim up to 6 course exemptions from the foundational stage for the equivalent courses completed in the bachelor program.***



## Required Courses

### Accounting

ACC419 Financial Accounting

### Communication

COM107<sup>+</sup> Academic English

COM402 Business Communication

<sup>+</sup>Less Proficient Students

### Economics

ECO409 Business Economics

### Finance

FIN408 Theory and Practice of 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. They can also select from BBA (Hons) electives at most two courses of 500 level or above.

### Majors in Accounting

ACC302 Accounting and Financial Information Systems

ACC505 Auditing

ACC506 Analysis of Financial Statements

ACC520 Managerial Analysis and Decision Making

ACC521 International Finance Reporting Standards

ACC522 Strategic Management Accounting

ACC523 Financial Regulatory Requirements for Business

ACC524 Corporate Governance and Reporting

### Marketing Electives for MBA

MKT501 Strategic Marketing and Planning

MKT602 Marketing Analytics

MKT605 Pricing Models and Strategies

MKT611 Integrated Marketing Communications

MKT613 Marketing of Financial Services

MKT615 Brand Management

MKT618 Advertising Management and Strategy

MKT620 Competitive Strategies

MKT621 Marketing Strategies for Emerging Economies

MKT622 Marketing Strategies for Bottom of the Pyramid (BOP)

MKT623 Pharmaceutical Marketing & Quality Assurance /  
MHM508/608

MKT625 Business to Business Marketing

MKT626 Marketing for Social Impact

### 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

MKT610\* 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

FIN608 Project Appraisal

FIN610 Debt and Equity Markets

FIN612 SME and Micro-Financing

FIN613 Financial Modeling for Investment Decisions

FIN635 Risk Management with Derivatives

### 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

*Students doing majors in Finance & Banking can also opt for Islamic Banking & Finance electives.*



### 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
- SCM615 Contract Management for Supply Chain & Negotiations
- SCM616 Life Cycle Enterprise Asset Management
- SCM617 Mobile Commerce and Mobile 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

### Majors in Islamic Banking and Finance

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

### Course Structure

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



*I believe that choosing Media Studies at IoBM was indeed one of the best choices that I made. Reason being, the experience and learning environment it provides is truly impeccable. Things I learnt here are definitely helping me in my career as a Freelancer. One of the major things that I cherish about this department was the opportunities that came my way. Even if they weren't that big, it still helped me get what I actually wanted rather than settling for something that was not meant for me.*

**Merym Saudagar**  
 Gold Medalist  
 Convocation 2016



## MBA (REGULAR) EVENING PROGRAM FOR STUDENTS WITH 14 YEARS EDUCATION



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

This program is designed for students with 14 years of education and 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-hour 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 on 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. Students need to clear a comprehensive examination in order to complete degree requirements.

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

A significant value adding feature of the program 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 Capstone Project report has to be converted into a publishable case study as a part of the degree requirement.

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
- Islamic Banking and Finance

### Required Courses

#### Accounting

ACC401 Introduction to Managerial and Cost Accounting

ACC419 Financial Accounting



### Communication

COM107<sup>+</sup> Academic English  
COM409 Business and Professional Speech  
COM408 Persuasive & Analytical Writing for Business Comm.  
<sup>+</sup>Less Proficient Students

### Finance

FIN408 Theory and Practice of Financial Management  
FIN601\* Strategic Financial Analysis and Design

### Economics

ECO405 Seminar in Economic Policy  
ECO409 Business Economics

### 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. They can also select from BBA (Hons) electives at most two courses of 500 level or above.

### Majors in Accounting

ACC302 Accounting and Financial Information Systems  
ACC505 Auditing  
ACC506 Analysis of Financial Statements  
ACC520 Managerial Analysis and Decision Making  
ACC521 International Finance Reporting Standards  
ACC522 Strategic Management Accounting  
ACC523 Financial Regulatory Requirements for Business  
ACC524 Corporate Governance and Reporting

### Majors in Finance and Banking

FIN602 Behavioral Finance  
FIN603 Entrepreneurial Finance  
FIN608 Project Appraisal  
FIN610 Debt and Equity Markets  
FIN612 SME and Micro-Financing  
FIN613 Financial Modeling for Investment Decisions  
FIN630 Options, Swaps and Futures  
FIN631 Applied Corporate Finance  
FIN632 Fixed Income Securities  
FIN633 Mergers, Acquisitions and Restructuring  
FIN634 Enterprise Risk Management  
FIN635 Risk Management with Derivatives

### Law

LAW409 Corporate and Business Law

### 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  
MKT610\* 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

SSC401 Business Ethics  
SSC402 Organizational Psychology  
SSC408 Political Sociology

### Capstone Project

BPR601\* Capstone Project I  
BPR602\* Capstone Project II

### Majors in Islamic Banking and Finance

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

### Marketing Electives for MBA

MKT501 Strategic Marketing and Planning  
MKT602 Marketing Analytics  
MKT605 Pricing Models and Strategies  
MKT611 Integrated Marketing Communications  
MKT613 Marketing of Financial Services  
MKT615 Brand Management  
MKT618 Advertising Management and Strategy  
MKT620 Competitive Strategies  
MKT621 Marketing Strategies for Emerging Economies  
MKT622 Marketing Strategies for Bottom of the Pyramid (BOP)  
MKT623 Pharmaceutical Marketing & Quality Assurance /  
MHM508/608  
MKT625 Business to Business Marketing  
MKT626 Marketing for Social Impact



**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

*Students doing majors in Finance & Banking can also opt for Islamic Banking & Finance electives.*

**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
- SCM615 Contract Management for Supply Chain & Negotiations
- SCM616 Life Cycle Enterprise Asset Management
- SCM617 Mobile Commerce and Mobile Logistics

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



## 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 mind the needs, demands and behavior of the 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 the best teaching methodologies which cater to the capacity-building of future healthcare leaders, sensitive to the needs of society and able 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 effectively and develop technically competent and socially sensitive managers for leadership roles in global health systems hospitals, the 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-hour 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 with 4-year bachelor's degree from IoBM in non-business disciplines can claim up to 6 courses exemption from the foundational stage for the equivalent courses completed in the bachelor program.**

### Core Business Courses

#### Accounting

ACC419 Financial Accounting

#### Human Resource Management

HRM410 Managing Human Capital

#### Communication

COM402 Business Communication

#### Management

MAN418 Management and Organizational Dynamics



*Taking the MBA-MHM program at IoBM was the smartest decision that I made in my life. The challenges that I faced during the program helped me to find my professional strengths and to grow as a person, which was key for me to succeed in this competitive and performance-orientated workplace. It was a challenging program especially the research project but an incredibly rewarding one. It has taken me towards being the Gold Medalist of the MHM Faculty, a 'WOW' moment that I shall cherish throughout my life. I owe my successes, achievements and milestones to my parents first then IoBM, its dedicated faculty and the incredible management.*

*Shahzad Maher Ali  
Gold Medalist  
Convocation 2016*



## Finance

FIN408 Theory and Practice of Financial Management  
FIN411 Finance for Entrepreneurial Ventures

## Elective Business Courses\*

\*Refer to Page No. 89.

## Core Health Courses

MHM529 Health Policy and Analytics for Decision Making  
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  
MKT610 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  
MHM621 Supply Chain & Prod. Mgmt. in Pharma. Inds.  
MHM622 Quality Management in Healthcare  
MHM623 Pharmaceutical Branding  
MHM624 Occupational Health and Safety  
MHM625 Knowledge Management for Health Managers  
MHM626 Workplace Well-being for Healthcare Managers

## Course Structure

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





## MBA MARKETING AND MEDIA MANAGEMENT

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

It is a 72 credit-hour program divided into a foundation stage of 36 credit hours covering the traditional management disciplines, followed by 36 credit hours of rigorous advanced level courses focusing on leadership strategies, strategic management, business analytics, digital marketing, and strategic media marketing. The program is rounded off with a media-focused Capstone Project.

### Required Courses

#### Accounting

ACC419 Financial Accounting

#### Communication

COM410 Digital Business Communication

#### Economics

ECO409 Business Economics

#### Finance

FIN408 Theory and Practice of 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\* Capstone Project I
- BPR602\* Capstone Project II

*\*Indicates MBA level course*

### Elective Courses

#### Media

- MMM605 Advanced Documentary Filmmaking
- MMM606 Media Psychology

## Course Structure

<b>Foundation Stage</b> <b>Semester One</b> Quantitative Analysis for Decision Making Financial Accounting Consumer Behavior Digital Business Communication	<b>Semester Two</b> Theory and Practice of Management Marketing Management Methods in Business Research Business Economics
<b>Semester Three</b> Financial Management Business and Corporate Law Managing Human Capital Media and Social Change	<b>MBA Stage</b> <b>Semester Four</b> Leadership, Ethics and Change Strategic Management Digital Marketing Screen Writing for Film and TV
<b>Semester Five</b> Business Analytics and Decision-Making Integrated Marketing Communication Global Media Marketing Strategies Capstone Project I	<b>Semester Six</b> Entrepreneurship and Ecommerce Seminar in Media Marketing Elective 1 Capstone Project II



## MBA FINANCE AND RISK MANAGEMENT

Financial Managers are expected to have knowledge of principles and practices of Financial Risk Management. The MBA in Finance and Risk Management program is consequently 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-hour of course work comprising 24 courses. Students require maintaining 3.0 CGPA on a scale of 4 for the conferment of degree.

*Applicants with a 4-year bachelor's degree from IoBM in non-business disciplines can claim up to 6 courses exemption from the foundational stage for the equivalent courses completed in the bachelor program.*

### 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

FIN408 Theory and Practice of 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





*"The two years I spent at IoBM will always be remembered. Taking weekend classes with full load along with a job being a hosteller was not easy. The main motivational factor I found was the practically and diversely experienced faculty. They offered so much to learn in all fields of management that later on proved to be very implementable. I made some great friends for life at IoBM, received merit scholarships and at the end stepped out with a Gold Medal. IoBM was a blessing indeed."*

**M. Kashif Amin**  
Gold Medalist  
Convocation 2016

### 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

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



## MBA ENVIRONMENT AND ENERGY MANAGEMENT

IoBM offers the first of its kind of MBA in 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 and 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 with a 4-year bachelor's degree from IoBM in non-business disciplines can claim up to 6 courses exemption from the foundational stage for the equivalent courses completed in the bachelor program.***

### 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

FIN408 Theory and Practice of 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  
MKT610\* 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

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



## MBA LOGISTICS AND SUPPLY CHAIN MANAGEMENT

The Master of Business Administration in Logistics and Supply Chain Management degree program is solution-oriented and addresses strategic economic and process oriented technical problems in industry, administration and commerce. The Major subjects of study are national and international global oriented enterprises in collaboration with national and international partners. The program exercises the latest business oriented thinking and provides international expert knowledge on logistical engineering and technologies as well as application knowledge in process automation, material management and leading software solutions in ERP (enterprise resource planning), process simulation and e-Commerce. In common projects in local and international industry as well as logistical service provider theoretical knowledge is applied in realistic problem solving projects. The MBA program is aimed at developing professionals in management functions like logistics, supply chain management, enterprise resource planning production planning, controlling, and procurement or material management in industrial, manufacturing and service enterprises.

This program is a 72 credit-hour program and is designed for students with a minimum of 16 years of education and degrees in a wide range of disciplines such as business, commerce, engineering, and science. The 72 credit-hour MBA program is divided into a foundation stage of 36 credit hours followed by the 36 credit-hour of rigorous MBA level courses and project dealing with strategy and SCM transformation. The program covers areas such as accounting, finance, marketing, quantitative analysis, law, economics, HRM, management and SCM and consists of foundational course work necessary for the higher level MBA courses.

***Applicants with a 4-year bachelor's degree from IoBM in non-business disciplines can claim up to 6 courses exemption from the foundational stage for the equivalent courses completed in the bachelor program.***

### Required Courses

#### Accounting

ACC419 Financial Accounting

#### Communication

COM402 Business Communication

#### Finance

FIN408 Theory and Practice of Financial Management

#### Economics

ECO409 Business Economics

#### Human Resource Management

HRM410 Managing Human Capital

HRM606\* Leadership, Ethics and Change



Supply Chain Management – Main Components





**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
- MKT610\* 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><b>Foundation Stage</b>  <b>Semester One</b>          Business Economics          Quantitative Methods for Logistics &amp; SCM          Financial Accounting          Business Communication</p>	<p><b>Semester Two</b>          Management and Organizational Dynamics          Supply Chain Management          Theory and Practice of Financial Management          Managing Human Capital</p>
<p><b>Semester Three</b>          Corporate and Business Law          Marketing Management          Methods in Business Research          Introduction to ERP Systems</p>	<p><b>MBA Stage</b>  <b>Semester Four</b>          Entrepreneurship and Small Business Management          Innovation Management in Supply Chain          Production &amp; Operations Management          Design of Business Processes - Workflow Management</p>
<p><b>Semester Five</b>          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><b>Semester Six</b>          Strategic Supply Chain Management          Elective          Corporate Consultancy project in Logistics (<i>Capstone II</i>)          Marketing Strategies and Value Innovation</p>





## MBA INDUSTRIAL MANAGEMENT

The 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 with a 4-year bachelor's degree from IoBM in non-business disciplines can claim up to 6 courses exemption from the foundational stage for the equivalent courses completed in the bachelor program.***

### 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

FIN408 Theory and Practice of Financial Management

#### Human Resource Management

HRM410 Managing Human Capital

#### Law

LAW401 Business Law

#### 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

#### Marketing

MKT402 Marketing Management  
MKT404 Methods in Business Research  
MKT610\* 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



## 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

FIN602 Behavioral Finance  
 FIN603 Entrepreneurial Finance  
 FIN608 Project Appraisal  
 FIN610 Debt and Equity Markets  
 FIN612 SME and Micro-Financing  
 FIN613 Financial Modeling for Investment Decisions  
 FIN630 Options, Swaps and Futures  
 FIN631 Applied Corporate Finance  
 FIN632 Fixed Income Securities  
 FIN633 Mergers, Acquisitions and Restructuring  
 FIN634 Enterprise Risk Management  
 FIN635 Risk Management with Derivatives

### HRM / Management

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

### Marketing

MKT615 Brand Management  
 MKT624 New Product Development Management  
 MKT625 Business to Business Marketing

### Supply Chain and Logistics Management

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

## Course Structure

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



## MS IN BUSINESS MANAGEMENT

MS program in Business Management is a research route for a PhD in Business Management and is designed for students with a 4-year BBA qualification or those meeting the HEC criteria for MS in management science i.e. 16 years of education with degree in relevant business field with 1st division/CGPA 3.0.

### Program Structure

MS in Business Management is a 36 credit-hour 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 course work, students are required to carry out research study for the thesis under the guidance of a research supervisor assigned by IoBM. In lieu of a 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) on Page 79.

Thesis (06 credit hours)

*It is mandatory for research students of MS 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 traditional and emerging trends to meet the growing market demand for various specialist areas in business management.

### Eligibility

Students with a 4-year BBA qualification or those meeting the HEC criteria for MS/MPhil in management science i.e. 16 years of education with degree in relevant business field with 1st division/CGPA 3.0.

### 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 the Institute. The students must convert the research thesis into a publishable paper as part of a degree requirement.

### 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 (on Page No. 86) in lieu of any four of the above mentioned courses.

Thesis (06 Credit hours)

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



## PhD IN BUSINESS MANAGEMENT

The mission of the 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 in their thinking. The outcome of this research program is the creation of a real and measurable impact on society and industry through quality research published in impact factor journals and recognized by industry.

### Eligibility

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

- A minimum CGPA of 3.00 on a scale of 4.00 (or overall 60% marks) or equivalent
- A minimum of 18 years of schooling that corresponds to MS / MPhil or equivalent degree from HEC recognized institutions in a relevant discipline. Students with HEC recognized MBA have to do at least four pre-requisite courses (HEC equivalency required)
- 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 three years and maximum is five 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 rigorous, interdisciplinary and multidisciplinary. 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. They will be expected to develop breadth 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 dissertations that evidence original research and proficiency in 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 identify solutions to these problems  
To foster collaborative, interdisciplinary and multidisciplinary research amongst researchers from various disciplines

### Eligibility

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

- A minimum CGPA of 3.00 on a scale of 4.00 (or overall 60% marks) or equivalent
- A minimum of 18 years of schooling that corresponds to MS / 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

- ACC302 Accounting and Financial Information Systems
- ACC505 Auditing
- ACC506 Analysis of Financial Statements
- ACC520 Managerial Analysis and Decision Making
- ACC521 International Finance Reporting Standards
- ACC522 Strategic Management Accounting
- ACC523 Financial Regulatory Requirements for Business
- ACC524 Corporate Governance and Reporting

#### Majors in Finance and Banking

- FIN602 Behavioral Finance
- FIN603 Entrepreneurial Finance
- FIN608 Project Appraisal
- FIN610 Debt and Equity Markets
- FIN612 SME and Micro-Financing
- FIN613 Financial Modeling for Investment Decisions
- FIN630 Options, Swaps and Futures
- FIN631 Applied Corporate Finance
- FIN632 Fixed Income Securities
- FIN633 Mergers, Acquisitions and Restructuring
- FIN634 Enterprise Risk Management
- FIN635 Risk Management with Derivatives

#### 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





### **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
- SCM615 Contract Management for Supply Chain & Negotiations
- SCM616 Life Cycle Enterprise Asset Management
- SCM617 Mobile Commerce and Mobile Logistics

### **Majors in Marketing**

- MKT501 Strategic Marketing and Planning
- MKT513 Media Planning
- MKT602 Marketing Analytics
- MKT605 Pricing Models and Strategies
- MKT608 Small Business Marketing
- MKT611 Integrated Marketing Communications
- MKT612 Distribution and Channel Management
- MKT613 Marketing of Financial Services
- MKT615 Brand Management
- MKT616 International Marketing
- MKT618 Advertising Management and Strategy
- MKT619 Marketing Research
- MKT620 Competitive Strategies
- MKT621 Marketing Strategies for Emerging Economies
- MKT622 Marketing Strategies for Bottom of the Pyramid (BOP)
- MKT623 Pharmaceutical Marketing & Quality Assurance
- MKT624 New Product Development Management
- MKT625 Business to Business Marketing
- MKT626 Marketing for Social Impact





COLLEGE OF COMPUTER SCIENCE  
&  
INFORMATION SYSTEMS



# **COLLEGE OF COMPUTER SCIENCE AND INFORMATION SYSTEMS**

## BS COMPUTER SCIENCE

The program emphasizes the need for overall development including exposure to an integrated series of courses in technology, methodology, social sciences, liberal arts and management. Project-based software development along with research assignments are also emphasized. These courses seek to impart a broad and deep knowledge of 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

MAN411 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	Distributed Systems	CSC443	Mobile Computing
CSC445	Network Security	CSC448	Digital Signal Processing
CSC451	Telecommunication Systems	CSC463	Operations Research
CSC464	Wireless Network	CSC465	Data Warehousing
CSC467	Neural Network	CSC466	Fuzzy Systems

## Course Structure

<b>Semester One</b> 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)	<b>Semester Two</b> Object Oriented Programming (2+1) Discrete Structure (3+0) Multivariable Calculus (3+0) Probability Theory and Statistics (3+0) Methods in Business Writing (3+0) Micro and Macroeconomics (2+1)	<b>Semester Three</b> Digital Logic and Design (2+1) Data Structures and Algorithms (2+1) Linear Algebra (3+0) Business and Professional Speech (3+0) Numerical Computing (2+1) Intro. to Financial Accounting (3+0)
<b>Semester Four</b> 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)	<b>Semester Five</b> 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)	<b>Semester Six</b> 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)
<b>Semester Seven</b> Project I (0+3) CS Elective I (2+1) Operations Research (3+0) CS Elective II (3+0) Compiler Constructions (2+1)	<b>Semester Eight</b> 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

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



### Required Courses

#### Accounting

ACC101 Introduction to Financial Accounting

#### Communication

COM107 Academic English

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

### Political Sciences

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

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





## BS MATHEMATICS AND ECONOMICS

BS (Mathematics & Economics) is an inter-disciplinary undergraduate program for students with robust mathematical skills and a keen interest in economics. This program is a perfect blend of pure and applied mathematics which does not only ensure a solid quantitative foundation for both disciplines but also provides coverage of Statistics, Actuarial sciences and Finance. The training this degree provides is a unification of critical economic analysis and strong mathematical skills, which can help student pursue an esteemed position in financial services industry, growth and development centers, business enterprises, as well as the public sector. Graduates with this degree are increasingly valued by employers because of their critical reasoning and sound knowledge as much as for economic theory as currently presented in terms of mathematical models. This opens more career options than the ones traditionally available to either mathematics or economics majors. This degree is also a paragon for those who aim for Master/ Doctoral degree in Economics, Finance, Mathematics, Statistics, Actuarial Sciences or other related fields.



The BS (Mathematics & Economics) is a four-year program. Applicants who have successfully completed H.Sc with minimum 50% marks in Pre-Engineering or in General Group (with Mathematics) or A-Levels with a minimum 2 Cs in three principal subjects (with Mathematics) are eligible to apply for admission. Graduation requirement is the completion of 141 credit hours of course work and 3 credit hours of project approved by college. Students must take a minimum load of 12 credit hours (four courses) or a maximum load of 18 credit hours (six courses) in a semester. In order to obtain the BS degree in four years, a student is required to cover twelve courses in a year. Full load of six courses can be taken each in the Fall and Spring semesters with an option of four courses in the latter and making up for the short fall in summer session. Students must maintain a CGPA of 2.5 for the conferment of degree.

### Required Courses

#### Mathematics

MTH104 Calculus I  
MTH105 Calculus II  
MTH203 Introduction to Formal Mathematics  
MTH204 Linear Algebra  
MTH213 Introduction to Computing  
MTH224 Multivariable Calculus  
MTH251 Number theory  
MTH301 Real Analysis I  
MTH311 Real Analysis II  
MTH344 Introduction to Differential Equations  
MTH346 Partial Differential Equations  
MTH350 Topics in Mathematical Economics  
MTH403 Numerical Analysis  
MTH427 Topology  
MTH401 Complex Analysis  
MTH433 Optimization Techniques  
MTH437 Functional Analysis

#### Economics

ECO101 Principles of Microeconomics  
ECO102 Principles of Macroeconomics  
ECO103 Intermediate Microeconomics  
ECO105 Intermediate Macroeconomics  
ECO207 Game Theory  
ECO208 Development Economics  
ECO301 Managerial Economics  
ECO302 International Trade  
ECO303 Financial Economics  
ECO307 Monetary theory and Policy  
ECO402 Pakistan Economic Policy  
ECO410 Econometrics I  
ECO412 Econometrics II

#### Management Information System

MIS402 Computer Concepts and Applications



### Political Sciences

PSC301 Pakistan Studies

### Religious Studies

REL101 Islamic Studies

### Statistics

STA203 Probability Theory and Statistics

STA301 Model and Inference

STA302 Methods of Data Analysis

STA303 Time Series Analysis

STA305 Applied Regression Analysis

### Elective Courses

#### Mathematics

MTH211 Actuarial Mathematics

MTH205 Financial Mathematics

MTH207 Stochastic Models and Mathematical Finance

MTH421 Abstract Algebra

MTH423 Combinatorics

MTH430 Operations Research

MTH439 Introduction to Dynamical Systems

### Communication

COM107 Academic English

COM202 Business and Professional Speech

COM203 Methods in Business Writing

### 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

ECO305 Topics in Microeconomics

ECO306 Topics in Macroeconomics

ECO414 Islamic Economics

ECO416 Growth Theories

ECO418 Resource & Environmental Economics

ECOXXX Energy Economics

ECOXXX Public Finance

ECOXXX Economics of Logistics

ECOXXX History of Economics Idea

ECOXXX Agronomics

### Course Structure

<b>Semester One</b> Islamic studies Academic English Principles of Microeconomics Calculus I Foreign Language I Computer concepts and applications	<b>Semester Two</b> Pakistan Studies Methods in Business Writing Principles of Macroeconomics Calculus II Foreign Language II Probability & Statistics	<b>Semester Three</b> Business and Professional Speech Intermediate Microeconomics Model and inference Introduction to Formal Mathematics Multivariable Calculus Introduction to Computing
<b>Semester Four</b> Intermediate Macroeconomics Development Economics Game Theory Methods of Data Analysis Number theory Linear Algebra	<b>Semester Five</b> International Trade Managerial Economics Applied Regression Analysis Topics in Mathematical Economics Real Analysis I Introduction to Differential Equations	<b>Semester Six</b> Monetary theory & Policy Financial Economics Econometrics I Numerical Analysis Real Analysis II Partial Differential Equations
<b>Semester Seven</b> Econometrics II Pakistan Economic Policy Topology Complex Analysis Economics Elective I Mathematics Elective I	<b>Semester Eight</b> Time Series Analysis Optimization Techniques Functional Analysis Economics Elective II Mathematics Elective II Project	



## BS DATA SCIENCE

BS (Data Science) has a dual emphasis on basic principles of statistics and computer science, with foundational training in statistical and mathematical aspects of data analysis. This program, in addition, develops its foundations on broad computer science principles, including algorithms, data structures, data management and machine learning. The program is suitable for students interested either in a career in industry or more specialized graduate study. This program will prepare students for a career in data analysis, combining foundational statistical concepts with computational principles from computer science. A major component of this degree is the final year two-semester project that teaches students how to apply statistical and computational principles for solving large-scale, real-world data analysis problems. BS (Data Science) is a four year degree program. It requires completion of 144 credit-hour of course work and 2 credit hours of internship of at least six weeks at an organization approved by the Institute.



### Data Science students learn to:

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

### Learning Outcomes for Data Science students include:

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

## Required Courses

### Accounting

ACC101 Introduction to Financial Accounting

### Communication

COM107 Academic English

COM203 Methods in Business Writing

COM403 Interpersonal Communication Skills

### Economics

ECO104 Micro and Macroeconomics

ECO304 Introduction to Econometrics

### Language

LAN 10\* Foreign Language I

\*1 = Introduction to Arabic

\*2 = Introduction to French

\*3 = Introduction to Spanish

\*4 = Introduction to German

\*5 = Introduction to Japanese

\*6 = Introduction to Italian

\*7 = Introduction to Russian

\*8 = Introduction to Chinese

### Management

MAN101 Principles of Management

MAN411 Project Management



## Data Science

BDS101 Introduction to Data Science  
 BDS201 Business Process Analysis  
 BDS301 Data Mining-I  
 BDS302 Data Mining -II  
 BDS401 Data Visualization  
 BDS402 Big Data Concept & Techniques  
 BDS403 Big Data & Analytics  
 BDS404 Machine Learning

## Mathematics

MTH107 Calculus and Analytical Geometry  
 MTH204 Linear Algebra  
 MTH215 Differential Equations  
 MTH222 Discrete Structures  
 MTH224 Multivariable Calculus  
 MTH403 Numerical Computing/Analysis

## Statistics

STA203 Probability Theory & Statistics I  
 STA204 Probability Theory & Statistics II  
 STA301 Model & Inference  
 STA302 Methods of Data Analysis  
 STA305 Applied Regression Analysis  
 STA303 Time Series Analysis

## Computer Science

CSC105 Data Structures and Algorithms  
 CSC111 Intro. to Information & Communication Technology  
 CSC112 Object Oriented Programming  
 CSC113 Programming Fundamentals  
 CSC205 Computer Architecture  
 CSC217 Digital Logic Design  
 CSC220 Introduction to Database Management Systems  
 CSC315 Theory of Automata and Formal Language  
 CSC317 Introduction to Software Engineering  
 CSC318 Design & Analysis of Algorithms  
 CSC410 Data Communication and Networking  
 CSC412 Artificial Intelligence  
 CSC428 Web Engineering  
 CSC443 Mobile Computing  
 CSC445 Network Security  
 CSC461 Project I  
 CSC462 Project II  
 CSC463 Introduction to Data Warehousing

## Religious Studies

REL101 Islamic Studies

## Political Sciences

PSC301 Pakistan Studies

## Course Structure

<b>Semester One</b> Introduction to Data Science Programming Fundamentals (2+1) Probability theory & Statistics I Calculus and Analytical Geometry Islamic Studies Academic English	<b>Semester Two</b> Multivariable Calculus Object Oriented Programming (2+1) Probability Theory & Statistics II Methods in Business Writing Discrete Structures Pakistan Studies	<b>Semester Three</b> Linear Algebra Intro. to Info. & Comm. Tech. (2+1) Model & Inference Interpersonal Communication Skills OR Foreign Language I Data Structures and Algorithms (2+1) Micro and Macroeconomics
<b>Semester Four</b> Differential Equations Computer Architecture & Org. (2+1) Methods of Data Analysis Business Process Analysis Data Communication & Networking (2+1) Intro. to Database Management Systems	<b>Semester Five</b> Numerical Computing/Analysis (2+1) Data Mining -I Applied Regression Analysis Intro. to Software Engineering (2+1) Mobile Computing Theory of Automata & Formal Language	<b>Semester Six</b> Principles of Management Introduction to Econometrics Data Mining -II Design & Analysis of Algorithms (2+1) Artificial Intelligence Network Security
<b>Semester Seven</b> Data Visualization Digital Logic Design (2+1) Time Series Analysis Project I Big Data Concept & Techniques Introduction to Financial Accounting	<b>Semester Eight</b> Project II Introduction to Data Warehousing Big Data & Analytics Project Management Machine Learning (2+1) Web Engineering (2+1)	



## 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 years 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 an equivalent of 6 credit-hour of 2 courses in order to fulfill 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

CSC465 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
CSC467 Neural Networks	CSC582 Pattern Recognition
CSC466 Fuzzy Systems	CSC591/592 Thesis

### Course Structure

<b>Semester One</b> Advanced Research Methodology Advanced Computer Architecture Advanced Analysis of Algorithm	<b>Semester Two</b> Decision Theory Elective I Elective II
<b>Semester Three</b> Elective III Elective IV	<b>Semester Four</b> 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 qualify successfully 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 their interest and depending 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
- MTS624 Advanced Fluid Dynamics
- MTS626 Advanced Convex Analysis
- MTS628 Advanced Numerical Optimization
- MTS630 Advanced Mathematical Physics
- MTS632 Advanced Variational Inequalities
- MTS634 Advanced Numerical Linear Algebra
- MTS636 Advanced Hilbert Space
- MTS640 Symmetry Methods for Differential Equations
- MTS641 Continuum Mechanics
- MTS642 Geometric Methods in Mechanics and Physics



### Computation Concentration (6 credit hours)

MTS622 Fundamental Algorithms  
MTS637 High Performance Computing  
MTS657 Machine Learning and Pattern Recognition  
MTS691/692 Thesis

MTS635 Information Retrieval and Data Mining  
MTS639 Principles in Parallel Computing  
MTS658 Production Quality Software

### Course Structure

#### MS (Mathematics & Scientific Computing)

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

#### MS (Statistics & Scientific Computing)

##### Required Courses

##### Compulsory Courses (12 credit hours)

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

##### Elective Courses

##### Statistics Concentration (6 credit hours)

MTS647 Advanced Design of Experiments  
MTS649 Stochastic Processes  
MTS651 Theory and Practices of Forecasting

MTS648 Time Series Analysis  
MTS650 Applied Regression Models  
MTS652 Statistical Quality Control

##### Computation Concentration (6 credit hours)

MTS622 Fundamental Algorithms  
MTS645 Decision Theory  
MTS658 Production Quality Software  
MTS662 Principles in Parallel Computing

MTS635 Information Retrieval and Data Mining  
MTS657 Machine Learning and Pattern Recognition  
MTS661 Simulation and Modeling  
MTS691/692 Thesis

### Course Structure

#### MS (Statistics & Scientific Computing)

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



## MS ACTUARIAL SCIENCE (AS) & COMPUTATIONAL FINANCE (CF)



The MS (AS&FC) degree program is for those candidates who have demonstrated high academic ability at BS level programs in the fields of Actuarial Science, Economics, Mathematics, Statistics, Computer Science, and Physics and are interested in exploring actuarial science, risk management, financial mathematics and computing sciences in insurance and finance. The field of computational finance along with actuarial science is in demand nationally and internationally in banks, financial institutions and insurance companies.

### Eligibility

1. Sixteen years of schooling or 4 year education (130 credit hours) after HSSC/F.A/ F.Sc./Grade 12 equivalent will be required for admission in the MS (AS&CF).
2. Taking the test conducted by IoBM Admission Dept. or some equivalent agency acceptable to HEC (NTS) with a minimum of 50% cumulative score will be a requirement at the time of admission to MS (AS&CF). The test is valid for a period of two years.

### MS (AS&CF)

- For the award of MS (AS&CF) candidates be required to complete 30 credit hours with 24 credit hours of course work along with a minimum of 6 credit hours for a thesis.
- (\*1. 6 credit hours may be exempted only for those disciplines where research is not possible)
- (\*2. The HoD may allow students to do course work of 6 credit hours in lieu of 6 credit hours of research work. This exemption can only allowed if students wish to terminate their course work at MS and not pursue PhD.)
- Course work of 12 credit hours has to be completed in two semesters and thesis should be completed within a year after completion of course work. All examinations and grading will be as per the Institute's rules.



### Required Courses

#### Compulsory Courses (12 credit hours)

- ACF601 Financial Mathematics and Computational Finance
- ACF602 Finance and Financial Reporting
- ACF603 Life Insurance Mathematics and Computing
- ACF604 Advanced Life Insurance Mathematics and Computing





## Elective Courses

(12 credit hours)

### Actuarial Science Concentration

- ACF605 Economics of Risk and Insurance
- ACF606 Statistical Methods (for Insurance and Risk Management) with Computing
- ACF607 Stochastic modeling (for Insurance and Risk Management) with Computing
- ACF608 Survival Models & Theory of Reliability
- ACF609 Risk Theory (for life insurance)
- ACF610 Financial Economics
- ACF611 Introduction to Model Office Building in Life Insurance
- ACF612 Social Insurance in Emerging Markets
- ACF613 Hedge Funds
- ACF614 Risk Assessment and Decision Analysis Using Bayesian Network (BAN)

### Computing Concentration

- ACF615 Time Series Modeling & Forecasting
- ACF616 Simulation & modeling
- ACF617 Machine Learning
- ACF618 Actuarial Computing Using R or Other Software
- ACF619 Financial Soft Computing /Advances in Computational Finance



### Thesis Writing and Evaluation (6 credit courses)

Thesis writing and evaluation will be done as per rules of IoBM (BASR). Thesis should be Mathematics of Insurance and Computing oriented

### Course Structure

MS (Actuarial Science & Computational Finance)

<b>Semester One</b> Financial Mathematics and Computational Finance Finance and Financial Reporting Life Insurance Mathematics and Computing	<b>Semester Two</b> Advanced Life Insurance Mathematics and Computing Elective I Elective II
<b>Semester Three</b> Elective III Elective IV	<b>Semester Four</b> MS Thesis (6 credit hours)



## PhD (COMPUTER SCIENCE)

## PhD (MATHEMATICS & SCIENTIFIC COMPUTING)

## PhD (STATISTICS & SCIENTIFIC COMPUTING)



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





INDUSTRIAL ENGINEERING & MANAGEMENT



# 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 the 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. The Bachelor of Industrial Engineering degree is known as BS (IEM) and is accredited by PEC (see [http://www.pec.org.pk/schedule\\_first.aspx](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. BS (IE&M) program is spread over 18 session per semester.

### Required Courses

#### 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
- ENG503 Project I
- ENG504 Project II

#### Accounting

- ACC101 Introduction to Financial Accounting

#### Computer Science

- CSC310 Computer Simulations

#### Communication

- COM107 Academic English
- COM205 Persuasive & Analytical Writing for Business Comm.

#### Human Resource Management

- HRM301 Human Resource Management

#### General Sciences

- GSC101 Physics

#### Management Information Systems

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

#### Management

- MAN101 Principles of Management
- MAN303 Production and Operations Management

#### Marketing

- MKT302 Marketing Management



### 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

### Political Sciences

PSC301 Pakistan Studies

### Mathematics

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

## Course Structure

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



## BE ELECTRICAL ENGINEERING IN ELECTRONICS AND TELECOMMUNICATION



Electrical Engineering graduates are empowered to ensure the growth of the electrical, electronics 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](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 on 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, the 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 139 credit hours with 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. IOBM course credits are easily transferable to a number of international universities. BE (EE) program is spread over 18 session per semester.

### 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

TCE201 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)

<b>Semester One</b> Applied Physics (3+1) Academic English (3+0) Linear Circuit Analysis (3+1) Fundamentals of Computing (2+1) Calculus & Analytical Geometry (3+0) Electronic Workshop Practices (0+1)	<b>Semester Two</b> Linear Algebra (3+0) Islamic Studies (2+0) Business and Professional Speech (2+0) Basic Electronics (3+1) Computer Programming & Problem Solving (2+1) Electrical Network Analysis (3+1)
<b>Semester Three</b> Pakistan Studies (2+0) Digital Logic Design (3+1) Data Structure & Algorithms (3+1) Complex Variables & Transforms (3+0) Computer Aided Engineering Designs (0+1) Electronic Devices and Circuits (3+1)	<b>Semester Four</b> 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

<b>Semester Five</b> Electrical Machines (3+1) Numerical Analysis (3+0) Linear Control Systems (3+1) Instrumentation and Measurements (3+1) Probability Methods in Engineering (3+0)	<b>Semester Six</b> Elective I (3+1) Engineering Economics (2+0) Communication System (3+1) Digital Signal Processing (3+1) Power Electronics (3+1)
<b>Semester Seven</b> 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)	<b>Semester Eight</b> 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

<b>Semester Five</b> Numerical Analysis (3+0) Linear Control Systems (3+1) Communication Systems (3+1) Computer Communication Networks (3+1) Probability Methods in Engineering (3+0)	<b>Semester Six</b> 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)
<b>Semester Seven</b> 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)	<b>Semester Eight</b> 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 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 addressed 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's 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 the MS degree in the discipline of Engineering Management. A minimum of four courses from core subjects and four courses from optional subjects are opted.

### 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)

- MEM600 Thesis / Project (6+0)
- MEM601 Thesis I / Project I (2+0)
- MEM602 Thesis II / Project II (4+0)

### 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

<b>Semester One</b> Project Management (3+0) Quality Processes for Design & Production (3+0) Research Methodology (3+0)	<b>Semester Two</b> Design, Patents, Contract & Legal Engineering (3+0) Elective I (3+0) Elective II (3+0)
<b>Semester Three</b> Elective III (3+0) Elective IV (3+0) Thesis-I / Project-I (2+0)	<b>Semester Four</b> 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 social science and liberal arts college with graduate and undergraduate programs in the areas of accountancy, management and 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 an MBA or a professional accountancy qualification. The BS (Hons.) Accountancy, Management and Law degree has been accredited by two of the world renowned accountancy bodies, namely, the Institute of Chartered Accountants of Pakistan (ICAP) and the Association of Chartered Certified Accountants (ACCA), United Kingdom. Students opting for the ICAP qualification may get exemption from all four papers of Assessment of Fundamental Competencies (AFC) and the first four papers of Certificate in Accounting and Finance (CAF). Students opting for the ACCA qualification may get exemption from the following five subjects:

- |    |                           |    |                               |
|----|---------------------------|----|-------------------------------|
| 1. | F1-Accountant in Business | 2. | F2-Management Accounting      |
| 3. | F3-Financial Accounting   | 4. | F4-Corporate and Business Law |
| 5. | F5-Performance Management | 6. | F6-Taxation                   |
| 7. | F7-Financial Reporting    | 8. | F9-Financial Management       |

### Required Courses

#### Accounting

- ACC102 Introduction to Accounting I (ICAP-CAF-1)
- ACC103 Introduction to Accounting II (ICAP – CAF-1)
- ACC202 Taxation I (ICAP – CAF-6)
- ACC203 Financial Accounting I (ICAP – CAF-5)
- ACC204 Taxation II (ICAP – CAF-6)
- ACC303 Financial Reporting I (ICAP – CAF-7)
- ACC304 Financial Accounting II (ICAP – CAF-5)
- ACC306 Financial Reporting II (ICAP – CAF-7)
- ACC307 Cost and Management Accounting I (ICAP – CAF-8)
- ACC308 Cost and Management Accounting II (ICAP – CAF-8)
- ACC405 Internal Auditing
- ACC414 Auditing I (ICAP – CAF-9)
- ACC416 Auditing II (ICAP – CAF-9)
- ACC417 Corporate Reporting
- ACC418 Performance Measurement and Decision Making
- ACC501 Advanced Financial Accounting
- ACC520 Managerial Analysis and Decision Making

#### Communication

- COM103 Functional English I (ICAP – AFC-1)
- COM104 Functional English II (ICAP – AFC-1)
- COM105 Business Communication I (ICAP – AFC-2)

#### Economics

- ECO202 Introduction to Economics & Finance I (ICAP-CAF-2)
- ECO203 Introduction to Economics & Finance II (ICAP-CAF-2)
- ECO204 The Pakistan Economy

#### Finance

- FIN201 Introduction to Business Finance
- FIN202 Financial Management
- FIN511 Analysis of Financial Statements
- FIN601 Strategic Financial Analysis and Design

#### Human Resource Management

- HRM301 Human Resource Management
- HRM502 Industrial Relations and Labour Laws

#### Management Information Systems

- MIS413 Information Technology I (ICAP-AFC-4)
- MIS416 Information Technology II (ICAP-AFC-4)

#### Management

- MAN101 Principles of Management (ICAP- CAF-4)
- MAN403 Entrepreneurship and Small Business Management
- MAN411 Project Management
- MAN416 Corporate Governance



### Social Sciences

SSC103 Behavioral Studies (ICAP -CAF-4)  
 SSC202 Environmental Studies  
 SSC401 Business Ethics

### Law

LAW105 Mercantile Law (ICAP-CAF-3)  
 LAW106 Company Law (ICAP-CAF-3)  
 LAW301 Intellectual Property, Patents, Copyrights  
 LAW400 Company Secretarial Practices  
 LAW404 Arbitration  
 LAW407 Statutory Compliance

### Language

LAN 10\* Foreign Language I

\*1 = Introduction to Arabic      \*2 = Introduction to French  
 \*5 = Introduction to Japanese      \*6 = Introduction to Italian

### Marketing

MKT301 Principles of Marketing  
 MKT404 Methods in Business Research

### Statistics

STA101 Quantitative Methods-I (ICAP -AFC-3)  
 STA102 Quantitative Methods-II (ICAP -AFC-3)

### Logistics and Supply Chain Management

SCM310 Introduction to ERP Systems

### Religious Studies

REL101 Islamic Studies

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

### Course Structure

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



## 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 film-making for television, and 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

COM111 Critical Reading & Creative Writing

COM112 Appreciation of Literary Texts

#### 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 Photojournalism  
MMM303 Outline of Political Science  
MMM307 World Civilization & Culture  
MMM310 News Writing & Reporting  
MMM313 Theater Arts  
MMM315 Feature, Article & Column Writing  
MMM318 Business Journalism  
MMM321 Development Journalism  
MMM324 Media Marketing  
MMM328 Methods in Media Research  
MMM330 Appreciation of Vernacular Literature  
MMM333 Sports Journalism  
MMM336 Human Rights & Gender Reporting  
MMM338 Cinematography I  
MMM342 Filmmaking – The Art & Craft I\*  
MMM345 Screenplay II  
MMM354 Introduction to Sound Design  
MMM356 Ad-Film Production  
MMM361 Fashion Journalism  
MMM363 Introduction to Design Tools  
MMM366 Filmmaking – The Art & Craft II (Thesis)\*  
MMM368 Director's Toolkit

MMM302 Logic & Critical Thinking  
MMM304 Media Literacy  
MMM308 Contemporary World Media  
MMM312 Introduction to Advertising & PR  
MMM314 Online Journalism  
MMM316 Sub Editing & Page Design  
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)  
MMM339 Cinematography II  
MMM344 Screenplay I  
MMM351 Production Management  
MMM355 Production of Documentary  
MMM360 Introduction to Photography  
MMM362 History of Filmmaking  
MMM364 Introduction to Mass Communication  
MMM367 Digital Journalism

\*Credit Hours: 6

## Political Sciences

PSC301 Pakistan Studies

## Statistics

STA100 Basic Statistical Methods

## Social Sciences

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

## Course Structure

### Common Courses for Journalism & Production Majors:

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



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

\*Credit Hours: 6



## BS ECONOMICS, LAW & INTERNATIONAL RELATIONS (ELI)

This multidisciplinary undergraduate program combines Economics and International Relations with Law. This can result in a better appreciation of the forces that affect our business and personal lives today. Economics today relies more on mathematical and statistical models for substantiation of its theoretical base, international relations has extended beyond its intellectual parameters to embrace real-world dynamics. The program includes core courses in the respective disciplines as well as current issues and hotly debated topics like food security, Genetically Modified Organism (GMOs) versus organic farming, political economy issues, trade routes and economic corridors, CPEC, etc. This will not only makes the courses interesting, but increases the marketability of students. The law courses would equip the students with a working knowledge of the legal issues which they are likely to encounter in their careers. Select law courses would not only give students a strong foundation of legal theory based on traditional mercantile law and company law but also provide them with a working knowledge of such practical areas as patent laws, banking laws, insurance laws and compliance issues.



The BS Economics, Law and International Relations (ELI) program will require students to complete 48 courses i.e. 144 credit hours of coursework. Internship of six weeks duration in a firm approved by the Institute is also obligatory.

### Foundation Courses

COM107 Academic English

COM202 Business and Professional Speech

COM203 Methods in Business Writing

PSC301 Pakistan Studies

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

### Core Business Courses

#### Economics

ECO101 Principles of Microeconomics

ECO102 Principles of Macroeconomics

ECO206 Mathematical Economics

ECO207 Game Theory

ECO301 Managerial Economics

ECO304 Introduction to Econometrics

ECO307 Monetary Theory and Policy

ECO310 History of Economic Thought

ECO314 Contemporary Issues in Macroeconomics

ECO315 Microeconomic Analysis

ECO316 Macroeconomic Analysis

ECO321 General Equilibrium and Welfare Economics

ECO322 Applied Econometrics

ECO323 Development Economics

ECO402 Pakistan Economic Policy

ECO407 Analysis of Pakistani Industries

#### Mathematics

MTH103 Calculus for Business Decisions

#### Statistics

STA203 Probability Theory & Statistics

STA402 Model and Inferences



### International Relations

- BIR301 Introduction to IR
- BIR302 Political Geography
- BIR303 World Politics
- BIR305 Religion, Culture and International Relations
- BIR306 Borders in a Globalized World
- BIR307 Energy Politics
- BIR308 Peace Building and Conflict Zones
- BIR309 Trade Routes and Economic Corridors
- BIR311 Strategic Studies
- BIR312 Globalization
- BIR313 History and Practices of Diplomacy
- BIR314 Confidence Building Measures

### Islamic Studies

- REL101 Islamic Studies

### Course Structure

### Law

- LAW105 Mercantile Law
- LAW106 Company Law
- LAW202 Banking Laws in Pakistan
- LAW203 Insurance Law in Pakistan
- LAW301 Intellectual Property, Patents, Copyrights
- LAW400 Company Secretarial Practices
- LAW404 Arbitration
- LAW407 Statutory Compliance

### Elective Courses

- ECO406 Money and Banking
- ECO415 WTO, Disputes & Settlement
- ECO418 Resources and Environmental Economics
- ECO419 Agriculture and Food Security
- ECO508 Issues and Political Economy
- ECO509 Islamic Economics
- ECO518 Governance and Public Policy
- BIR501 Science and Technology in IR

<b>Semester One</b> Academic English Calculus for Business Decisions Foreign Language I Principles of Microeconomics Introduction to IR Principles of Macroeconomics	<b>Semester Two</b> Methods in Business Writing Foreign Language II Pak Studies Microeconomic Analysis Probability Theory & Statistics Political Geography
<b>Semester Three</b> Business and Professional Speech Macroeconomic Analysis Globalization World Politics Mercantile Law Model & Inferences	<b>Semester Four</b> Development Economics Mathematical Economics Introduction to Econometrics History and Practices of Diplomacy Confidence Building Measures Company Law
<b>Semester Five</b> Managerial Economics Game Theory History of Economic Thought Strategic Studies Islamic Studies Banking Laws in Pakistan	<b>Semester Six</b> Applied Econometrics General Equilibrium and Welfare Economics Contemporary Issues in Macroeconomics Religion, Culture and International Relations Borders in a Globalized World Intellectual Property, Patents and Copyrights
<b>Semester Seven</b> Pakistan Economic Policy Monetary Theory and Policy Energy Politics Peace Building and Conflict Zones Insurance Law in Pakistan Company Secretarial Practices	<b>Semester Eight</b> Analysis of Pakistani Industries Trade Routes and Economic Corridors Statutory Compliance Arbitration Elective I Elective II



## BS ECONOMICS, MEDIA & INTERNATIONAL RELATIONS (EMI)

This multidisciplinary undergraduate program combines two key social science disciplines, Economics and International Relations with Media, adding a third dimension that can result in a better appreciation of forces that affect our business and personal lives today. From an academic standpoint all three disciplines have evolved significantly in recent years. Economics today relies more on mathematical and statistical models for substantiation of its theoretical base, international relations has extended beyond its intellectual parameters to embrace real-world dynamics, and media studies having found an ally in science and technology, in this digital age.

The program includes core courses in the respective disciplines as well as current issues and hotly debated topics like food security, Genetically Modified Organism (GMOs) versus organic farming, Political Economy Issues, Trade Roots and Economic Corridors, CPEC, etc. This will not only makes the courses interesting, but increases the marketability of the students.

The BS Economics, Media and International Relations (EMI) program will require students to complete 48 courses i.e. 144 credit hours of coursework. Internship of six weeks duration in a firm approved by the Institute is also obligatory.



### Foundation Courses

COM107 Academic English  
COM202 Business and Professional Speech  
COM203 Methods in Business Writing  
PSC301 Pakistan Studies

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

### Core Business Courses

#### Economics

ECO101 Principles of Microeconomics  
ECO102 Principles of Macroeconomics  
ECO206 Mathematical Economics  
ECO207 Game Theory  
ECO301 Managerial Economics  
ECO304 Introduction to Econometrics  
ECO307 Monetary Theory and Policy  
ECO310 History of Economic Thought  
ECO314 Contemporary Issues in Macroeconomics  
ECO315 Microeconomic Analysis  
ECO316 Macroeconomic Analysis  
ECO321 General Equilibrium and Welfare Economics  
ECO322 Applied Econometrics  
ECO323 Development Economics  
ECO402 Pakistan Economic Policy  
ECO407 Analysis of Pakistani Industries

#### Mathematics

MTH103 Calculus for Business Decisions

#### Statistics

STA203 Probability Theory & Statistics  
STA402 Model and Inferences



### International Relations

- BIR301 Introduction to IR
- BIR302 Political Geography
- BIR303 World Politics
- BIR305 Religion, Culture and International Relations
- BIR306 Borders in a Globalized World
- BIR307 Energy Politics
- BIR308 Peace Building and Conflict Zones
- BIR309 Trade Routes and Economic Corridors
- BIR311 Strategic Studies
- BIR312 Globalization
- BIR313 History and Practices of Diplomacy
- BIR314 Confidence Building Measures

### Islamic Studies

- REL101 Islamic Studies

### Media

- MMM304 Media Literacy
- MMM310 News Writing and Reporting
- MMM316 Sub-Editing and Page Design
- MMM318 Business Journalism
- MMM328 Methods in Media Research
- MMM329 Creative Writing Workshop
- MMM360 Introduction to Photography
- MMM367 Digital Journalism

### Elective Courses

- ECO406 Money and Banking
- ECO415 WTO, Disputes & Settlement
- ECO418 Resources and Environmental Economics
- ECO419 Agriculture and Food Security
- ECO508 Issues and Political Economy
- ECO509 Islamic Economics
- ECO518 Governance and Public Policy
- BIR501 Science and Technology in IR

### Course Structure

<b>Semester One</b> Academic English Calculus for Business Decisions Introduction to Photography Principles of Microeconomics Introduction to IR Principles of Macroeconomics	<b>Semester Two</b> Methods and Business Writing Pak Studies Microeconomic Analysis Probability Theory & Statistics Political Geography Foreign Language I
<b>Semester Three</b> Business and Professional Speech Macroeconomic Analysis Globalization Foreign Language II World Politics Media Literacy	<b>Semester Four</b> Development Economics Mathematical Economics History and Practices of Diplomacy Confidence Building Measures Model & Inferences Creative Writing Workshop
<b>Semester Five</b> Managerial Economics Game Theory Strategic Studies News Writing and Reporting Introduction to Econometrics Islamic Studies	<b>Semester Six</b> General Equilibrium and Welfare Economics Religion, Culture and International Relations Borders in a Globalized World History of Economic Thought Contemporary Issues in Macroeconomics Sub-Editing and Page Design
<b>Semester Seven</b> Pakistan Economic Policy Monetary Theory and Policy Energy Politics Peace Building and Conflict Zones Applied Econometrics Business Journalism	<b>Semester Eight</b> Analysis of Pakistani Industries Trade Routes and Economic Corridors Methods in Media Research Digital Journalism Elective I Elective II



## BS JOINT (HONORS) IN BUSINESS & PSYCHOLOGY

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

The four-year program requires completion of 144 credit hours of coursework, and 02 credit hours of compulsory internship. Students can take a minimum load of 12 credit hours (4 courses per semester) or max load of 18 credit hours (6 courses per semester).

### Compulsory Courses

#### Communication

COM100 Foundation English\*\*  
COM107 Academic English (W, R)  
COM202 Business & Professional Speech  
COM205 Persuasive and Analytical Writing for Business Communication (E, W)

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

#### Language

##### LAN 10\* Foreign Language I

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

##### LAN 20\*\* Foreign Language II

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

#### Political Sciences

PSC301 Pakistan Studies

#### Social Sciences

SSC104 Principles of Sociology  
SSC301 History of Ideas  
SSC401 Business Ethics

#### Psychology Core Courses

PSY300 Introduction to Psychology  
PSY302 Writing Business Psychology Research  
PSY304 Experimental Psychology  
PSY306 Understanding Individual: Personal Construct  
PSY308 Psychological Aspects of Advertising  
PSY310 Positive Psychology  
PSY312 Psychology Capstone Project

#### Religious Studies

REL101 Islamic Studies

#### Statistics

STA201 Quantitative Business Analysis  
STA202 Quantitative Skills and Managerial Statistics



## Business Core Courses

### Accounting

ACC101 Introduction to Financial Accounting  
ACC201 Intermediate Financial Accounting

### Economics

ECO101 Principles of Microeconomics  
ECO102 Principles of Macroeconomics

### Entrepreneur

MAN307 Entrepreneurial Leadership and Motivation  
MAN308 Social Advocacy and Community Service

### Finance

FIN201 Introduction to Business Finance  
FIN202 Financial Management

### Management

MAN101 Principles of Management  
MAN302 Organizational Behavior

### Marketing

MKT301 Principles of Marketing  
MKT302 Marketing Management

### Law

LAW409 Corporate and Business Law

## Elective Courses

Any FIVE courses from each discipline may be opted from the following in the last two semesters.

### Elective Psychology

#### Psychology

PSY501 Work Motivation and Attitude  
PSY515 Projective Methods  
PSY506 Quality of Work Life  
PSY507 Cyber Psychology, Behavior and Social Networking  
PSY508 Health Promotion in Corporate Setting  
PSY509 Psychology of Judgment and Decision

### Elective Business

HRM501 Organizational Change & Development  
MAN405 Strategic Management  
MKT403 Sales Management  
MKT511 Brand Management  
FIN511 Analysis of Financial Statements  
FIN602 Behavioral Finance

## Course Structure

<b>Semester One</b> Foundation English Academic English (W, R) Principles of Microeconomics Principles of Management Introduction to Psychology Principles of Sociology Islamic Studies	<b>Semester Two</b> Introduction to Financial Accounting Principles of Macroeconomics Principles of Marketing Research Methods in Business Psychology Pakistan Studies Entrepreneurial Leadership & Motivation	<b>Semester Three</b> Intermediate Financial Accounting Persuasive Analytical Writing for Business Communication (E,W) Quantitative Business Analysis Contemporary Social Psychology History of Ideas Social Advocacy And Community Service
<b>Semester Four</b> Business and Professional Speech Introduction to Business Finance Developmental Psychology Business Ethics Organizational Behavior Quantitative Skills & Managerial Statistics	<b>Semester Five</b> Language I Psychological Aspects of Advertising Experimental Psychology Writing Business Psychological Research Consumer Psychology Introduction to Psychological Testing	<b>Semester Six</b> Understanding Individual: Personal Const. Language II Psychology of Organizational Change Positive Psychology Corporate & Business Law Financial Management
<b>Semester Seven</b> Elective I Elective II Elective III Elective IIV Elective V Psychology Capstone Project	<b>Semester Eight</b> Elective VI Elective VII Elective VIII Elective IX Elective X Internship (2 credit hours)	





## B.Ed (HONORS) ELEMENTARY

This is a four-year program designed to provide opportunities to prospective teachers to carry out action research, engage in critical thinking, study contemporary problems, and accomplish field work. Moreover, the prospective teachers will visit schools for practicum and interact with the communities in order to gain insight from practical experiences. These trained teachers after intensive education, will be able to transform the teaching and learning scenario in Pakistan. HEC has announced that from 2015, four-year B.Ed. program will be implemented and the previous shorter duration program will be considered obsolete. Hence, these trained teachers will be able to benefit from this degree by getting better professional options in various educational institutions.

### Eligibility Criteria

FA/F.Sc/A Levels or equivalent with minimum 2nd Division.

### Program details

Duration:	4 years (8 semesters)
Semester duration:	16 – 18 weeks
Semesters:	8
Course load per semester	15 – 18 credit hours
Number of courses per semester	5-6 (not more than 3 lab / practical courses)

### Structure of the Scheme

Courses	Credit Hours
Compulsory Courses	25
Professional Courses	36
Foundation Courses	30
Content Courses	24-33
Teaching Practice	12
<b>Total Credit Hours</b>	<b>127 - 136</b>

### Required Courses

#### Compulsory Courses

##### Communication

COM103 Functional English I  
COM104 Functional English II  
COM110 English III

##### Islamic Studies

REL101 Islamic Studies

##### Political Sciences

PSC301 Pakistan Studies

##### Mathematics

MTH112 General Mathematics

##### Computer Science

CSC114 Computer Literacy



## Foundation Courses

BED201	Child Development
BED203	General Methods of Teaching
BED205	Classroom Management
BED207	Classroom Assessment
BED209	School, Community and Teachers
BED211	Foundation of Education
BED213	Curriculum Development
BED215	Educational Psychology

## Content Courses

BED401	Urdu/Regional Languages
BED403	General Science Contents
BED405	Arts, Crafts and Calligraphy
BED407	Content course I Selected discipline I
BED409	Content course I Selected discipline II
BED411	Content course II Selected discipline I
BED413	Content course II Selected discipline II
BED415	Content course III Selected discipline I
BED417	Content course III Selected discipline II

## Course Structure

<b>Semester One</b> Functional English-I (3 cr. hr) Islamic Studies/Ethics (2 cr. hr) Child Development (3 cr. hr) Urdu / Regional Languages (3 cr. hr) General Science (3 cr. hr) General Methods of Teaching (3 cr. hr)	<b>Semester Two</b> English-II (3 cr. hr) Computer Literacy (3 cr. hr) Class Room Management (3 cr. hr) General Mathematics (3 cr. hr) Pakistan Studies (2 cr. hr) Methods of Teaching Islamic Studies (3 cr. hr)	<b>Semester Three</b> Teaching Literacy Skills (3 cr. hr) Arts, Crafts and Calligraphy (3 cr. hr) Teaching of Urdu/Regional Languages (3 cr. hr) Teaching of G. Science (3 cr. hr) Instructional and Comm. Technology (ICT) in Education (2 cr. hr) Teaching Practice (Short Term) (3 cr. hr)
<b>Semester Four</b> Classroom Assessment (3 cr. hr) Teaching of English (3 cr. hr) Teaching of Mathematics (3 cr. hr) School, Community and Teacher (2+1 cr. hr) Teaching of Social Studies (3 cr. hr) Teaching Practice (3 cr. hr)	<b>Semester Five</b> English – III (3 cr. hr) Foundation of Education (3 cr. hr) Content Course – 1 (from selected discipline – I) (3 cr. hr) Content Course – 1 (from selected discipline – II) (3 cr. hr) Curriculum Development (3 cr. hr) Educational Psychology (3 cr. hr)	<b>Semester Six</b> Contemporary Issues and Trends in Education (3 cr. hr) Content Course – II (from selected discipline – I) (3 cr. hr) Content Course – II (from selected discipline – II) (3 cr. hr) Comparative Education (3 cr. hr) Introduction to Guidance and Counseling (3 cr. hr)
<b>Semester Seven</b> Content Course – III (from selected discipline – I) (3 cr. hr) Content Course – III (from selected discipline – II) (3 cr. hr) Pedagogy – I (3 cr. hr) Pedagogy – II (3 cr. hr) Research Methods in Education (3 cr. hr) Teaching Practice (Short Term) (3 cr. hr)	<b>Semester Eight</b> School Management (3 cr. hr) Test Development and Evaluation (3 cr. hr) Teaching Practice (Long Term) (6 cr. hr) Research Project (3 cr. hr)	

## Professional Courses

BED301	Methods of Teaching in Islamic Studies
BED303	Teaching Literacy Skills
BED305	Teaching Urdu/Regional Languages
BED307	Teaching General Science
BED309	Instructional and Communication Technology
BED310	Teaching of English
BED311	Teaching of Mathematics
BED313	Teaching of Social Studies
BED315	Contemporary Issues and Trends in Education
BED317	Comparative Education
BED319	Introduction to Guidance and Counseling
BED321	Research Methods in Education
BED323	School Management
BED325	Test Development and Evaluation
BED327	Research Project

## Teaching Practices

BED501	Teaching Practice Short term
BED503	Teaching Practice
BED505	Pedagogy I Methods of Teaching related to Specialization I
BED507	Pedagogy II Methods of Teaching related to Specialization II
BED509	Teaching Practice (Short term)
BED511	Teaching Practice Long term



## 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-hour program designed for students with a minimum of 16 years of education with degrees in a wide range of disciplines such as business, commerce, engineering, law, science, medicine, 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 projects 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 the bachelor's program courses.*

### Required Courses

#### Accounting

ACC419 Financial Accounting

#### Educational Management

EDM406 Educational Policy and Economics  
EDM415 Educational Philosophy and Ethics  
EDM419 Managing Teaching and Learning  
EDM420 Academic Writing and Seminar Skills  
EDM427 Research Methods in Education II (Qualitative)  
EDM429 Research Methods in Education I (Quantitative)  
EDM518 Evaluation and Assessment in Education  
EDM514\*Early Childhood Development  
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

FIN408 Theory and Practice of Financial Management  
FIN411 Finance for Entrepreneurial Ventures





**Human Resource Management**

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

**Management**

MAN418 Management and Organizational Dynamics

**Marketing**

MKT402 Marketing Management  
 MKT610\* 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 Studies in Education  
 EDM660 Inclusive Education  
 EDM689 Thesis Writing (Capstone I)  
 EDM690 Thesis Writing (Capstone II)

*\*Indicates MBA level courses*

**Course Structure**

<p><b>Foundation Stage</b>  <b>Semester One</b>          Psychology and Learning          Financial Accounting          Educational Philosophy and Ethics          Academic Writing and Seminar Skills</p>	<p><b>Semester Two</b>          Managing Teaching and Learning          Theory and Practice of Management          Marketing Management          Research Methods in Education I (Quantitative)</p>
<p><b>Semester Three</b>          Research Methods in Education II (Quantitative)          Educational Policy and Economics          Managing Human Capital          Theory and Practice of Financial Management</p>	<p><b>MBA Stage</b>  <b>Semester Four</b>          Early Childhood Development          Leadership Ethics and Change          Curriculum Mgmt. and Planned Change          Evaluation and Assessment in Education</p>
<p><b>Semester Five</b>          Marketing Strategies and Value Innovations          Innovations and Technology in Education          Thesis Writing (Capstone I)          Elective I</p>	<p><b>Semester Six</b>          Finance for Entrepreneurial Ventures          Thesis Writing (Capstone 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 with 14 years of education with degrees in a wide range of disciplines such as business, commerce, law, science, and arts. The 108 credit hours 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

EDM406 Educational Policy and Economics

EDM413 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)

EDM416 Comparative Education Systems

EDM518 Evaluation and Assessment in Education

EDM514\* Early Childhood Development

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**

FIN408 Theory and Practice of 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  
 MKT610\* Marketing Strategies and Value Innovation

**Social Sciences**

SSC406 Psychology and Learning

**Statistics**

STA403 Statistics and Mathematics

**Elective Courses**

**Educational Management**

EDM650 Quality Assurance in Education  
 EDM654 Lifelong Learning in Changing Contexts  
 EDM658 Gender Studies in Education

EDM652 Knowledge Management  
 EDM656 Teacher Education  
 EDM660 Inclusive Education

*\*Indicates MBA level courses*

**Course Structure**

<p><b>Foundation Stage</b>  <b>Semester One</b>            Applied Linguistics            Critical Thinking and Reading            English Language Development            Introduction to Psychology</p>	<p><b>Semester Two</b>            Reflective Inquiry in Education            Learners and Learning Styles            Interpersonal Communication Skills            Statistics and Mathematics</p>	<p><b>Semester Three</b>            Comparative Education Systems            Educational Counseling            Sociology in Education            Creativity in Education</p>
<p><b>Semester Four</b>            Psychology and Learning            Financial Accounting            Educational Philosophy and Ethics            Academic Writing and Seminar Skills</p>	<p><b>Semester Five</b>            Managing Teaching and Learning            Management &amp; Organizational Dynamics            Marketing Management            Research Methods in Education I            (Quantitative)</p>	<p><b>Semester Six</b>            Research Methods in Education II            (Qualitative)            Educational Policy and Economics            Managing Human Capital            Theory &amp; Practice of Financial Mgmt.</p>
<p><b>MBA Stage</b>  <b>Semester Seven</b>            Early Childhood Development            Leadership Ethics and Change            Curriculum Mgmt. and Planned Change            Evaluation and Assessment in Education</p>	<p><b>Semester Eight</b>            Marketing Strategies &amp; Value Innovations            Innovations and Technology in Education            Thesis Writing-Capstone 1            Elective I</p>	<p><b>Semester Nine</b>            Entrepreneurial Finance            Thesis Writing-Capstone 2            Elective II            Elective III</p>



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

The program is intended for professionals looking for a better understanding of the organization they work for. It is concerned with the social and psychological processes operating in organizations, and how these processes relate to organizational systems and structures.

This two-year weekend program requires successful completion of 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 successfully complete of research projects for 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

HRM410 Managing Human Capital

### Statistics

STA410 Introduction to Behavioral Statistics

## Core Courses

### Psychology

PSY402 Counseling Psychology

PSY405 Group Dynamics

PSY406 Research Methods in Organizational Psychology

PSY407 Personnel Psychology

PSY408 Consumer Psychology

PSY430 Psychological Testing-I

PSY431 Psychological Testing-II

PSY432 Behavior Modification in Industry

PSY433 Leadership and Strategic Change





### Human Resource Management

- HRM408 Human Resource Issues in Pakistan
- HRM409 Organizational Consulting Skills
- 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)

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

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





## **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 successfully complete of research projects for 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**

HRM410 Managing Human Capital

#### **Marketing**

MKT401 Principles of Marketing

#### **Statistics**

STA410 Introduction to Behavioral Statistics

#### **Communication**

COM402 Business Communication

COM403 Interpersonal Communication Skills

#### **Social Sciences**

SSC401 Business Ethics

SSC407 Principles of Sociology

#### **Management Information System**

MIS401 Computer Applications





## 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
- HRM409 Organizational Consulting Skills
- 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

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

*\*Note: For the 9th Semester students are required to choose 2 Psychology electives and 2 HRM electives.*



## MSc IN ENERGY ECONOMICS, ENVIRONMENT AND POLICY

The program is intended for postgraduate Masters of Sciences in Energy Economics, Environment and Policy will be offered to two different groups.

### Group I: Full-Time Students

The Time length for Group I will be of 2 years, comprising three semesters and 3 months of Dissertation writing.

### Group II: Part-Time Students

Students will be given between 2 to 3 years to complete the degree allowing them to choose their own work load with a minimum of three courses in the first semester and two onwards. They will also be allowed a time period of 3-6 months for the completion of their dissertations (though strict compliance with initial deadline submitted by them will be enforced).

### Requirements for the Program:

An undergraduate degree in any of the following:

- Economics or an Undergrad with minor in economics, finance or business
- Science (including Environmental science) and/or engineering

Also, all applicants will be required to fulfil the requirements outlined by the Department of Economics.

### Program Aims:

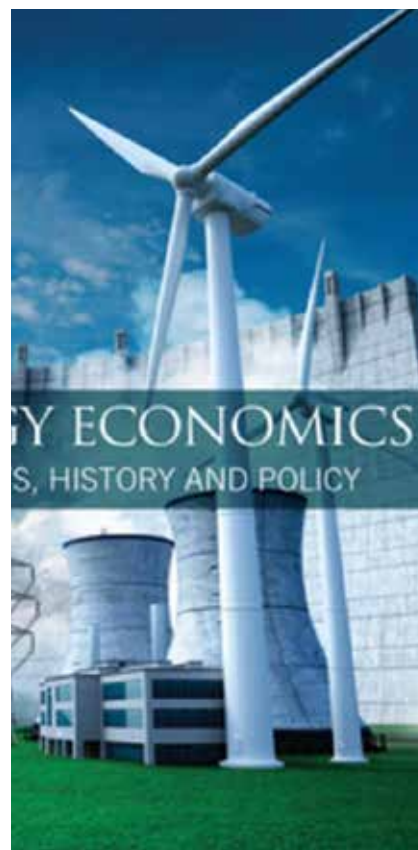
The aim of the program is to provide:

- A thorough understanding of the economics of energy supply, demand and policy (both in Pakistan and Internationally)
- The graduates not only technical, but also analytical understanding of the global energy economy, and its sectors.
- Them with the ability to make complex decisions in the industry given the environmental constraints and the know-how to resolve problems
- An understanding of different economic, political and policy dynamics or energy and related problems

The program is unique to Pakistan and will focus on the areas that have gained importance in the global energy economic agenda:

- 1- Environment and Climate
- 2- Energy Economics
- 3- Modelling
- 4- Regulations and Policy
- 5- Efficiency and Security

There is a need for specially qualified professionals who have the aptitude required to apply their knowledge and skills to a variety of issues and are able to relate the results to policy making and planning.



## Required Courses

### Accounting

ACC419 Financial Accounting

### Economics

ECO410 Econometrics I

ECO412 Econometrics II

ECO511 Micro and Macro Analysis

ECO512 Quantitative Methods in Economics

ECO513 Research Methods and Dissertation

ECO514 Energy Economics and Technology

ECO515 Theory and Practice of Public Policy

ECO516 Industry Economics

ECO517 Economics of International Energy and Its Issues

### Energy Management

EEM403 Energy Sources and Management

EEM510 Economics of Energy Management

EEM511 Energy Regulation and Policy Analysis

EEM601 Environmental Management and Green Technology

## Course Structure

Semester One	Semester Two	Semester Three
Micro and Macro Analysis Econometrics I Quantitative Methods in Economics Research Methods and Dissertation Energy Economics and Technology	Econometrics II Theory and Practice of Public Policy Industry Economics Energy Sources and Management Financial Accounting	Economics of Energy Management Energy Regulation and Policy Analysis Environmental Mgmt. & Green Technology Economics of Inter. Energy & Its Issues

### Dissertation

#### Method of Assessment:

All the Energy courses will consist of 75% written examination and 25% assignment. The rest will follow the same procedure as followed by the Department of Economics. The Research Methods course will consist of 25% assignment and 75% dissertation.



## MPhil IN ORGANIZATIONAL PSYCHOLOGY

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

### Eligibility

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

### 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 at Workplace  
MPP611 Human Factors in Work Environment

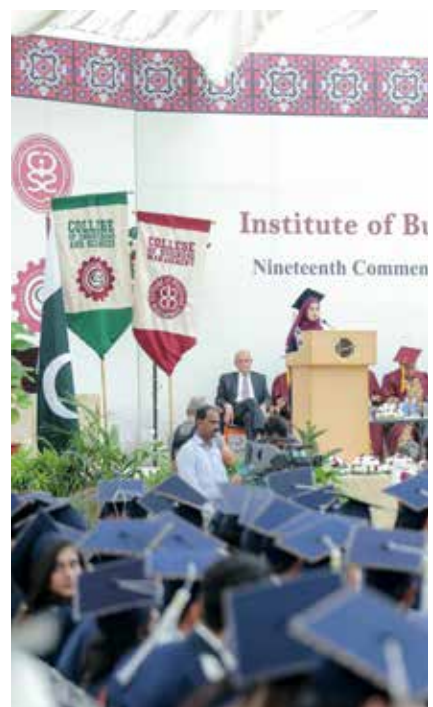
#### Semester Three

MPP613 Organizational Conflict & Management  
MPP615 Project Practicum in Organizational Psychology

#### Semester Four

MPP620 MPhil Thesis (6 credit hours)

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



## MPhil IN EDUCATIONAL LEADERSHIP AND MANAGEMENT



The program has been designed to equip the participants with essential knowledge and skills to lead organizational change and development. MPhil in Educational Leadership and Management (ELM) will be of interest to those in education related settings who carry or aspire to reach senior and middle leadership and management positions. This program aims to integrate practical knowledge, theories, and state-of-the-art research by providing an opportunity to the participants to develop specialized research skills for professional investigation in the substantive areas of educational leadership and management.

### Eligibility

- As per HEC policy, 16 years of education in the relevant field of study with a minimum of 3.0
- CGPA or B-Grade.
- Candidates must clear NTS test or university developed test.
- Candidates must have a relevant degree in Education/Leadership/Management

### Program Structure

The MPhil is a 1.5 to 4 year program and has 30 credit hours with 8 courses and one thesis (20000-25000 words) 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 selected by the students and approved by the institute. The student must convert the research thesis into a publishable paper as part of the degree requirement.

### An MPhil student must additionally complete the following requirements while at IoBM:

- MPhil Proposal/Synopsis Development
- BASR Approval of MPhil Proposal/Synopsis
- Completion of MPhil Thesis
- Open Defense of MPhil Thesis
- Any other HEC Requirement
- MPhil Proposal/Synopsis Defense
- Continuous Enrollment in Supervised Research
- Selection of External Evaluators and Examiner by BASR
- Final MPhil Thesis Submission to BASR

### Course Structure

#### Core Courses

ELM616 Developing a Research Project  
ELM613 Readings in Education  
ELM607 Philosophical Foundations in Education  
ELM601 Qualitative Research Methods in Education  
ELM604 Statistical Testing and Inferences in Education  
ELM610 Policies and Education in Pakistan

#### Elective Courses (Any Two Courses)

ELM730 Leading and Managing Educational Change  
ELM733 Contemporary Issues in Educational Leadership  
ELM736 Education Governance Policy and Practice  
ELM739 Education Leadership Theories Principles and Practices  
ELM742 Strategic Communication in Educational Leadership  
ELM790 Research Thesis

*It is mandatory for research students of MPhil and PhD program to attend at least 5 sessions of the Multi-disciplinary Research Seminar Series in each semester.*



## MS ECONOMICS

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

### Required Courses

#### Economics

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

### Elective Courses

#### Economics

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

Thesis writing (6 credit hours)

### Course Structure

#### Semester One

- Microeconomics
- Macroeconomics
- Econometrics and Research Methods

#### Semester Two

- Theory and Practice of Economic Policy
- Development Economics
- Financial Econometrics

#### Semester Three

- Elective I
- Elective II
- Thesis Writing (6 credit hours)

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



## MS IN EDUCATION



The MS in Education is specially designed for teachers of 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 of four years. Coursework is offered in the first year while the second year of candidature is devoted to thesis writing. At the end of the first year, candidates are required to produce extended research proposals (approximately 2500-3000 words). Upon acceptance of a research proposal, candidates are guided to conduct research and are finally examined on the basis of defense of a thesis of an upper limit of 15000-20000 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

### An MPhil student must additionally complete the following requirements:

- MPhil Proposal/Synopsis Development
- MPhil Proposal/Synopsis Defense
- BASR Approval of MPhil Proposal/Synopsis
- Continuous enrollment in supervised research
- Completion of MPhil Thesis
- Selection of External Examiner by BASR
- Open defense of MPhil Thesis
- Any other HEC requirement
- Final MPhil Thesis Submission to BASR

### Course Structure

#### Core Courses

MPE604 Developing a Research Project  
MPE608 Readings in Education  
MPE610 Philosophical Foundations in Education  
MPE615 Qualitative Research Methods in Education  
MPE617 Statistical Testing and Inferences in Education  
MPE618 Policies and Education in Pakistan

#### Elective Courses

MPE702 Managing Higher Education Institutions  
MPE704 Strategic Management of Schools & Schools Systems  
MPE705 Economics of Education  
MPE706 Global Issues in Education

#### Thesis

MPE790 Research Thesis





## PHD IN PSYCHOLOGY

PhD in Psychology is a program that promotes scholarship, research, and service at an academic level. The doctoral program is one of the highest and most prestigious degrees at the Institute of Business Management and enables faculty and candidates alike to remain current in research literature, and conduct socially relevant and competent research in specialized areas.

### Eligibility

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

- A minimum CGPA of 3.00 on a scale of 4.00 (or overall 60% marks) or equivalent
- A minimum of 18 years of schooling that corresponds to MS / MPhil or equivalent degree from HEC recognized institutions in a relevant discipline.
- GRE subject specific or GAT subject test conducted by the NTS, 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 credit hours

**A PhD student must additionally complete the following requirements:**

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

### 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 a 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 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 credit hours

**A PhD student must additionally complete the following requirements:**

- Comprehensive Exam
- PhD Proposal/Synopsis Development
- PhD Proposal/Synopsis Defense
- BASR Approval of PhD Proposal/Synopsis
- Continuous enrollment in supervised research courses for meeting the full-time residency requirements
- Completion of PhD Dissertation/Thesis
- Selection of External Evaluators by BASR
- Publication of at least one paper in an ISI indexed or an HEC recognized journal on 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

### 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 Innovations and Pedagogies in Teacher Education

PED990 Research Thesis



*It is mandatory for research students of MPhil and PhD program to attend at least 5 sessions of the Multi-disciplinary Research Seminar Series in each semester.*





## PHD IN ECONOMICS

The PhD in Economics focuses on providing 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 or equivalent graduates from HEC recognized institutions meeting the following criteria:**

- A minimum CGPA of 3.00 on a scale of 4.00 (or overall 60% marks) or equivalent
- A minimum of 18 years of schooling that corresponds to MS / M.Phil or equivalent degree from HEC recognized institutions in a relevant discipline
- GRE subject specific or GAT subject test conducted by the NTS, or equivalent in the relevant discipline. A minimum of 60% (percentage) marks is required
- Pass interview conducted by the Institute
- Meet all other HEC stipulated requirements

### Program Requirements

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

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

**A PhD student must additionally complete the following requirements:**

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

## 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.*





**STUDENT ACTIVITY CENTER**

# **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. 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, acquiring an edge over other candidates in the highly 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 having completed 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 OFFERING INTERNSHIPS TO IoBM STUDENTS

---

A.F. Ferguson & Co. Chartered Accountants	APTECH Computers Education
A.I. MIR LLC	Arif Habib Bank Limited
Aaj TV	Arif Habib Limited
AASA Consulting (Pvt) Ltd.	ARMTECH Business Solutions (Pvt.) Ltd.
Aba Ali Habib Securities	Arpatech Pvt. Ltd.
Abacus-Global	Artal Group of Companies
ABAMCO Limited	Artistic Milliners
Abbott Laboratories Pakistan Ltd.	ARY Communications
Abudawood Trading Company	ARY Digital Television Network
ACCA Pakistan	AsiaCare Health & Life Insurance
Ace Insurance Limited	Asiatic Public Relations Network Ltd.
ACM Gold Pvt. Ltd.	Askari Bank Limited
Adam Motor Co. Limited	Asktourism
Adamjee Life Insurance Company	Atco Laboratories (Pvt) Limited
Adcom Pvt. Limited	Atlas Honda
ADM Denim	Attock Cement Pvt. Limited
ADVANS Micro Finance Bank	Auspak
Aftab Associates	Automobile Corporation Pakistan
Aga Khan Education Services	Avanza Solutions
Aga Khan Health Services	Aventis Pharma Pakistan Limited
Aga Khan University	Axis Communications
Agha Steel	Bandhani Group
Ahmed Foods	Bank Alfalah Limited
AIG Pakistan	Bank Al-Habib Limited
Airmen Golf Course & Recreational Park	Bank Islami Limited
Aisha Steel Mills Ltd.	Bank of Punjab
Akber Ali & Sons	Barclays Bank Limited
AKD Commodities	BASF Pakistan
AKD Securities	Bayer Pakistan
Albaraka Bank Limited	BDO Ebrahim & Co. Chartered Accountants
Al Marai, Saudia Arabia	BenchMatrix
Al Meezan Investment Management Limited	Bentham Science Publishers
Alfalah Securities	Berger Paints Pakistan Limited
Ali Asghar Textile Mills Ltd.	Beyond Profits
Ali Gohar & Co. Limited	Blitz Advertising (Pvt.) Limited
Allianz EFU Health Insurance Limited	Blue Communications
Al-Mughal Trading Corporation	BMA Capital Management Limited
Alstom Pakistan (Pvt.) Limited	BOC Pakistan Limited
Alternate Research Pvt. Ltd.	Boom Group Pakistan
Aman Foundation	Bosch Pharmaceuticals
American Pacific Enterprises LLC	BOL Network
AMFCO International	Bottomline Pvt. Ltd.
Amreli Steels Limited	Bounty Studio
Anjum Asim Shahid Associates Limited	Brand Mileage
APL Pakistan Pvt. Ltd.	Brand Synario
Apna Karachi FM 107	Breezecom Pvt. Ltd



Bridgestone Tires Pakistan Limited  
Bullseye 360  
Burj Bank Ltd.  
Business Plus  
Business Recorder  
Byco Petroleum Pakistan Ltd.  
Cadbury Pakistan Ltd.  
Calibre Vintage  
Candyland Industries Limited  
Capital Management (Pvt.) Limited  
Carbonated TV  
Celentas Digital Solutions  
Centegy Technologies (Pvt.) Ltd.  
Central Depository Company of Pakistan  
CIM Shipping  
Citi Security  
Citibank N.A.  
Citizen Archive of Pakistan  
Citizens Foundation  
Clariant Pakistan Limited  
Classic Designs  
Clicktrade  
Cloud BPO  
CM Pak Ltd.  
Coats Pakistan Pvt. Ltd.  
Coca-Cola Beverages Pakistan Ltd.  
Colgate Palmolive Pakistan Ltd.  
Collective Wizdom  
CommTel Digital  
Contact Plus  
Continental Biscuits Pvt. Limited  
Contract Advertising  
Converge Technologies Pvt Ltd.  
Creative Chaos Pvt. Ltd.  
Creative Edge Communications  
Creative Factor  
Creek Developers  
Crescent Insurance  
Crescent Steel and Allied Products Limited  
Crystal-Lite  
Cubix Labs  
Cupola Pakistan Limited  
Custom HR Solutions  
Cybernet  
Dadabhoy Investments Pvt. Ltd.  
Dadex  
Dalda Foods Pvt. Ltd.  
DAMCO Pakistan (Pvt) Ltd.  
Daraz Pakistan  
Dawlance (Pvt.) Limited  
Dawood Hercules Corporation  
DAWN News  
Deal Club

Deal Today  
Dealon  
Deloitte Pakistan  
Descon Engineering  
Deutsche Bank  
Dewan Group of Companies  
Dewan Mushtaq Trade Ltd.  
DG Harbour  
DGS Pvt. Ltd.  
DHL Global Forwarding  
DHL Pakistan Limited  
Digital Tribe  
Directing Edge  
DMK Consultancy  
Dollar Industries  
Dolmen Group  
Dot Images  
Drug Information Systems  
Dubai Islamic Bank Limited  
Duleaf  
Dupont Pakistan  
EDGE Financials  
EFU General Insurance Limited  
EFU Life Assurance Limited  
Elixir Securities Pakistan Ltd.  
Empact  
Engage 24X7  
Engage Consulting  
English Biscuits Manufacturers Ltd.  
Engro Corp.  
ENI Pakistan Limited  
EPFirms  
Ephlux  
EPlanet Communication  
Epoxy Industries (Pvt.) Limited  
eSys Pakistan  
Etihad Airways  
Etilize Pvt. Ltd.  
Evaluation Factor (Pvt) Ltd.  
Evernew Entertainment  
Evolution Advertising  
Excelerate  
Express News  
Faysal Asset Management Ltd.  
Faysal Bank Limited  
Fidelity Insurance  
First Capital Equities Pvt. Limited  
First Women Bank Ltd.  
Fitness Republic  
Flight Connections  
Folio 3  
Food Connections Pakistan



Forex Financial Products  
 Forte Pakistan Pvt. Ltd.  
 Foundation Public School  
 14th Street Pizza  
 Freight Systems Co. Ltd.  
 Friends of Literacy & Mass Education  
 FYSL Trade  
 Gatron Industries Ltd./Novatex Ltd.  
 GEMCO Pakistan Ltd.  
 General Tyre & Rubber Company Ltd.  
 Genix Pharma Private Limited.  
 Getz Pharma  
 Ghulam Farooq Group  
 Giga Group of Companies  
 GlaxoSmithKline Pakistan Limited  
 Global Food Marketing  
 Global Securities Pvt. Ltd.  
 Goodcore Technologies  
 Greaves Airconditioning (Pvt) Ltd.  
 Green Cherry Solutions  
 Green Star Social Mkt. Pvt. Ltd.  
 Gul-Ahmed Textile Mills Pvt. Ltd.  
 Gumcorp Pvt. Ltd.  
 Habib Bank AG Zurich  
 Habib Bank Limited  
 Habib Metropolitan Bank Ltd.  
 Habib Oil Mills Limited  
 Habib University Foundation  
 Habitt  
 Haleeb Foods,  
 HANDS Pakistan  
 Hasnain Tanveer Associates (Pvt) Ltd.  
 HBL Asset Management Ltd.  
 Herbion International Inc.  
 Hilal Confectionary Pvt. Ltd.  
 Himont Pharmaceutical Pvt. Ltd.  
 Hinopak Motors Limited  
 Hirelabs  
 Home Express  
 HRS Global  
 HRS International  
 HSBC Bank Middle East Ltd.  
 HUBCO  
 Hum TV  
 Human Resource Solutions  
 HURD  
 IAL Satchi & Satchi  
 IBEX Global  
 IBL Group  
 IBM Pakistan  
 ICE Animation  
 ICI Pakistan Limited  
 Icon Global  
 ICS Group of Companies  
 Ifrasoft Technology Limited  
 IGI Financial Services  
 IGI Life Insurance  
 IJARA  
 imrooz.com  
 Inbox Business Technology  
 Indus Bank Limited  
 Indus Motors Company  
 Industrial & Commercial Bank of China  
 Industrial Development Bank of Pakistan  
 Information Technology Services  
 Institute of Chartered Accountants of Pakistan  
 Intel Pakistan  
 Interactive Cell  
 Interactive Health Solutions  
 Interflow Communications Pvt. Ltd.  
 International Advertising Pvt. Ltd.  
 International Asset Management Company Ltd.  
 INVATERRA  
 Invest & Finance Securities Limited  
 Invortex Technologies  
 Iris Communication  
 Islamic Investment Bank  
 Ismail Industries  
 Ismail Iqbal Securities  
 IT Link Online  
 J. Walter Thompson Asiatic (Pvt.) Ltd.  
 Jaag Broadcasting Systems Pvt Ltd.  
 Jaffer Brothers Limited  
 Jahangir Siddiqui & Co. Limited  
 Jason Group of Companies  
 JCR -VIS  
 Jeem Solutions  
 Johnson & Johnson Pakistan Ltd.  
 Jotun Paints  
 JS Bank Limited  
 JS Global Capital Limited  
 JS Investment  
 Junctionz  
 KalSoft (Pvt.) Limited  
 Karachi Deals  
 Karachi International Container Terminal Ltd.  
 Karachi Stock Exchange Limited  
 Karachi Vocational Training Institute  
 KASB Capital  
 KASB Funds Limited  
 KASB Securities  
 K-Electric  
 Khaliq Fashion



KNYSYS  
 Kopak Shipping Company  
 KPMG Taseer Hadi & Co.  
 Khwaja Ghareeb Nawaz Trust  
 KZR Associates  
 Lakson Group of Companies  
 Lalani & Associates  
 Land O'Lakes Inc.  
 Lane 12  
 Lasmo Oil Pakistan Limited  
 LGS Matrix  
 Liberty Books  
 Lilly Pakistan (Pvt) Ltd.  
 Live Securities Pvt. Ltd.  
 Lo'real Pakistan  
 Logic Information's  
 Logicose  
 Lootlo.pk  
 Lucky Cement Ltd.  
 Lucky Knits  
 M. Yousuf Adil Saleem & Co. Chartered Accountants  
 Maersk Sealand  
 Magnus Investment Advisors Ltd.  
 Majsons Corporation  
 MAL Pakistan Limited  
 Manhattan Leo Burnet  
 Manzar Pakistan  
 Maple Pharmaceuticals Pvt. ltd.  
 Marie Stopes Society  
 Markemetics Pvt. Ltd.  
 Martin Dow Pharmaceutical  
 Mass Advertising Pvt. Ltd.  
 Mazars  
 MCB Bank Limited  
 Meat One  
 Media Axis  
 Media Max Pvt. Limited  
 Media Pulse Pvt. Limited  
 Meezan Bank Ltd.  
 Mehran Enterprises  
 Merck Marker Pvt. Ltd.  
 Merit Packaging Pvt. Ltd.  
 Meritocracy  
 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  
 Monsieur  
 MS Associates  
 MullenLowe & Rauf  
 Muller & Phipps Pakistan Pvt. Ltd.  
 Multinet Pakistan Pvt. Ltd.  
 Mustafa & Co. Pvt. Limited  
 Nabiqasim Industries  
 Najmi Bilrami Collaborative Pvt. Ltd.  
 Nanosoft Technologies Pvt. Ltd.  
 Narejo Human Resources  
 National Bank of Pakistan  
 National Clearing Company of Pakistan Ltd.  
 National Commodity Exchange  
 National Foods Limited  
 National Fullerton Asset Management Ltd.  
 National Industrial Parks Ltd. (NIP)  
 National Insurance Company  
 National Investment Company of Pakistan  
 National Investment Trust  
 National Marketing Services  
 Naveena Export Pvt. Limited  
 Nedo Corporation  
 Nestle Pakistan  
 Net Space Systems  
 New Era Industries  
 New Jubilee Insurance Co. Limited  
 Next Degree  
 Next Generation Innovations  
 NIB Bank Ltd.  
 Nielsen Pakistan  
 Nike Pakistan Limited  
 Novartis Pharma Pakistan Limited  
 OBS Group  
 Oman National Electronics, Dubai  
 OMD Pakistan  
 OMV Pakistan Exploration  
 Oratech Systems Pvt. Limited  
 Orient Public Relations  
 Orix Pakistan Limited  
 Oxford University Press  
 Oxygene Pakistan  
 P&O Nedlloyd  
 Packages Limited  
 Pak Mediacom Pvt. Limited  
 Pak-Arab Refinery Limited  
 Pakistan Institute of Corporate Governance  
 Pakistan Institute of Management  
 Pakistan Petroleum Ltd.  
 Pakistan Refinery Ltd.  
 Pakistan Services Limited  
 Pakistan State Oil Company Ltd.  
 Pakistan Telecommunication Co. Ltd.  
 Pakistan Television Corporation



Pakistan Tobacco Company (British American Tobacco)  
Pakistan Vehicle Engineering (Pvt) Ltd.  
Pak-Kuwait Investment Co. Ltd.  
Pak-Petrochemical  
Pak-Suzuki Motors Co. Limited  
Parke Davis & Co. Limited  
Pastel Communications  
Path Group of Companies  
PCI Group  
Pearl Packages  
Pegasus Consultancy (Pvt.) Ltd.  
Pfizer Laboratories Limited  
Pharmatec  
Philip Morris International  
Philips Electrical Co. of Pakistan  
PIRANA Group  
Pixarch  
Pizza Hut – MCR (Pvt) Ltd.  
Pizza Next - MFC Pvt. Ltd.  
Plastech Products (Pvt.) Ltd.  
Polaris  
Premier Systems Pvt. Ltd.  
Prestige Communications Ltd.  
Prestige Grey  
Price Solution Pvt. Ltd.  
Prime HR  
Procter & Gamble  
Promotech Media Solution (Pvt) Ltd.  
Protege Global  
Qineqt  
Qubee  
Rain Bargain  
Reckitt Benckiser Pakistan Ltd.  
Red Tape Media  
Reveal Pakistan  
Rhone Poulenc Rorer Pakistan Ltd.  
Rising Technologies  
Robotics Labs  
Roche Pharmaceuticals Limited  
Rocket Internet  
Rohi International Pvt. Ltd.  
Roshan Media  
S13 - Systems Innovations Pvt. Ltd.  
Sach International  
Sagacious Business Consultancy  
Salsoft Technologies Pvt. Ltd  
Samba Bank Ltd.  
Sanofi Aventis Pakistan Ltd.  
Sapphire Textile Mills Limited  
SBT Japan  
Schneider Electric  
School of Leadership  
SCT Group

Searle Pharmaceuticals  
Service Sales Co.  
Shabbir Tiles & Ceramics Ltd.  
Shafi-Reso Chemicals  
Shaheen Airlines  
Shajar Capital  
Shamrock  
Shan Foods Pvt. Ltd.  
Shangrila Pvt. Ltd.  
Sharaf Shipping Agency  
Shell Pakistan Limited  
SibiSoft Inc.  
Sidat Hyder Morshed Associates Private Limited  
Siemens Pakistan Engineering Co. Limited  
Signium International  
Sindh Education Foundation  
Singer Pakistan Limited  
SKF Pakistan Pvt. Ltd  
Snack Bites Company  
So Safe Pakistan  
Social Sell  
Socially Global  
Solutionicks  
Soorty Enterprises  
Spark Communication  
SSG Consulting  
Stancos Pvt. Limited  
Standard Chartered Bank Limited  
Starcom Pakistan  
Starcrest Communications  
State Bank of Pakistan  
Statuspro Inc.  
STEP Consultants  
Stitchers International  
Stork Prints Pakistan  
Streebo  
Strongman Medline  
Sufi Brothers  
Sui Southern Gas Company Ltd.  
Summit Bank Limited  
Sun Consultants  
Sun Enterprises  
Sun Systems  
Super Trading Inc.  
Symbios.pk  
Synapse Consulting  
Sysnet Pakistan Pvt. Ltd.  
Systems Limited  
Talent Optimizers  
Tameer Micro Finance Bank Ltd.  
Tapal Tea Pvt. Ltd.  
Target Resourcing  
Tata Group of Industries



Tata Textile Mills Ltd.  
Taurus Securities Ltd.  
TBH Employment and Consulting Services  
TCS (Pvt.) Limited  
Teach for Pakistan  
Teamants  
Teamz International  
TeleCard Ltd.  
Telenor Pakistan Limited  
TenPearls  
The Bank of Khyber  
The Express Tribune  
The First Micro Finance Bank Ltd.  
The Learning Organisation  
The Leatger Grandeur  
The Recruiters  
The Snack Bites Company  
Thinkline  
Third Eye Managed Services  
3M Pakistan Pvt. Limited  
360 Training  
Time & Vision Advertising  
Times Consultant (Pvt) Ltd.  
TIPU Associates  
TNI - Worldwide Partners Inc.  
Top Boss  
Total Lubricants  
Touchpoint (Pvt) Ltd.  
Toyota Indus Motor Company  
TPL Trakker Limited  
TPS  
TradeKey  
Transit HR Consulting  
Transworld Associates  
Travel Mate  
Travel Solutions  
Travelport  
Triple E Pvt. Limited  
TV One - Airwaves Media Pvt. Ltd.  
UBL Fund Manager  
UBL Insurers  
Ufone  
Uniferoz  
Unilever Pakistan Limited  
Unique Pakistan  
Unisys Pakistan Pvt. Limited  
United Assets Management Co. Ltd.  
United Bank Limited  
United Consultants Pvt. Limited  
United Energy Pakistan Ltd.  
United Marine Agencies

United Registrar of Systems Limited  
United Sales Pvt. Limited  
Universal Brush Ware Pvt. Ltd.  
Urbanite  
US Consulate, Karachi  
USAID Pakistan  
Versa Canada Inc.  
Visa International (Asia Pacific) Ltd.  
Vision Express  
Ward Howell International  
Warid Telecom  
Waterlink Group of Companies  
Wavetec Pvt. Ltd.  
Weekend World Marketing Limited  
Westminster & Eastern Financial Services Ltd.  
Winstar Pvt. Ltd.  
World Tel  
WorldCall Broadband Limited  
Wrap n Roll  
WWF Pakistan  
Xenith Public Relations (Pvt.) Ltd.  
Younus Brothers Group  
Yunus Textile Mills Ltd.  
ZAP Infotech Inc.  
ZEPCOM  
ZH Technologies Inc.  
ZIL Limited  
Zishan Engineers Pvt. Ltd  
Zong China Mobile  
ZRG International



## 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 the requirements of both multinational and local organizations.

Emphasis is placed on the requirement of career fairs and seminars. These provide a meeting ground between the corporate world and graduates allowing for the provision of resumes to HR representatives and the possibility of students being selected for jobs against their requirements immediately, or at a later stage. It is important that their personal data of students remain readily available to such organizations. In career seminars, graduates are given fresh insights into the corporate world with detailed discussions on the writing of resumes and methodology in performing well during interviews.

IoBM's Internship & Placement Department makes a firm commitment to its graduates in relation to the developing of their careers. This begins from the moment at which 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 this:

### 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 immediate employment, in case jobs are available with the organization concerned or alternatively, arranging for resumes to be 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 EMPLOYING IOBM GRADUATES

A.F. Ferguson & Co. Chartered Accountants	Apna Karachi FM 107
A.I. MIR LLC	APTECH Computers Education
Aaj TV	Arif Habib Bank Limited
AASA Consulting (Pvt) Ltd.	Arif Habib Limited
Aba Ali Habib Securities	ARMTECH Business Solutions (Pvt.) Ltd.
Abacus-Global	Arpatech Pvt. Ltd.
ABAMCO Limited	Artal Group of Companies
Abbott Laboratories Pakistan Ltd.	Artistic Milliners
Abudawood Trading Company	ARY Communications
ACCA Pakistan	ARY Digital Television Network
Ace Insurance Limited	AsiaCare Health & Life Insurance
ACM Gold Pvt. Ltd.	Asiatic Public Relations Network Ltd.
Adam Motor Co. Limited	Askari Bank Limited
Adamjee Life Insurance Company	Asktourism
Adcom Pvt. Limited	Atco Laboratories (Pvt) Limited
ADM Denim	Atlas Honda
ADVANS Micro Finance Bank	Attock Cement Pvt. Limited
Aftab Associates	Auspak
Aga Khan Education Services	Automobile Corporation Pakistan
Aga Khan Health Services	Avanza Solutions
Aga Khan University	Aventis Pharma Pakistan Limited
Agha Steel	Axis Communications
Ahmed Foods	Bandhani Group
AIG Pakistan	Bank Alfalah Limited
Airmen Golf Course & Recreational Park	Bank Al-Habib Limited
Aisha Steel Mills Ltd.	Bank Islami Limited
Akber Ali & Sons	Bank of Punjab
AKD Commodities	Barclays Bank Limited
AKD Securities	BASF Pakistan
Albaraka Bank Limited	Bayer Pakistan
Al Marai, Saudia Arabia	BDO Ebrahim & Co. Chartered Accountants
Al Meezan Investment Management Limited	BenchMatrix
Alfalah Securities	Bentham Science Publishers
Ali Asghar Textile Mills Ltd.	Berger Paints Pakistan Limited
Ali Gohar & Co. Limited	Beyond Profits
Allianz EFU Health Insurance Limited	Blitz Advertising (Pvt.) Limited
Al-Mughal Trading Corporation	Blue Communications
Alstom Pakistan (Pvt.) Limited	BMA Capital Management Limited
Alternate Research Pvt. Ltd.	BOC Pakistan Limited
Aman Foundation	Boom Group Pakistan
American Pacific Enterprises LLC	Bosch Pharmaceuticals
AMFCO International	BOL Network
Amreli Steels Limited	Bottomline Pvt. Ltd.
Anjum Asim Shahid Associates Limited	Bounty Studio
APL Pakistan Pvt. Ltd.	Brand Mileage



Brand Synario  
Breezecom Pvt. Ltd  
Bridgestone Tires Pakistan Limited  
Bullseye 360  
Burj Bank Ltd.  
Business Plus  
Business Recorder  
Byco Petroleum Pakistan Ltd.  
Cadbury Pakistan Ltd.  
Calibre Vintage  
Candyland Industries Limited  
Capital Management (Pvt.) Limited  
Carbonated TV  
Celentas Digital Solutions  
Centegy Technologies (Pvt.) Ltd.  
Central Depository Company of Pakistan  
CIM Shipping  
Citi Security  
Citibank N.A.  
Citizen Archive of Pakistan  
Citizens Foundation  
Clariant Pakistan Limited  
Classic Designs  
Clicktrade  
Cloud BPO  
CM Pak Ltd.  
Coats Pakistan Pvt. Ltd.  
Coca-Cola Beverages Pakistan Ltd.  
Colgate Palmolive Pakistan Ltd.  
Collective Wizdom  
Commтел Digital  
Contact Plus  
Continental Biscuits Pvt. Limited  
Contract Advertising  
Converge Technologies Pvt Ltd.  
Creative Chaos Pvt. Ltd.  
Creative Edge Communications  
Creative Factor  
Creek Developers  
Crescent Insurance  
Crescent Steel and Allied Products Limited  
Crystal-Lite  
Cubix Labs  
Cupola Pakistan Limited  
Custom HR Solutions  
Cybernet  
Dadabhoy Investments Pvt. Ltd.  
Dadex  
Dalda Foods Pvt. Ltd.  
DAMCO Pakistan (Pvt) Ltd.  
Daraz Pakistan  
Dawlance (Pvt.) Limited

Dawood Hercules Corporation  
DAWN News  
Deal Club  
Deal Today  
Dealon  
Deloitte Pakistan  
Descon Engineering  
Deutsche Bank  
Dewan Group of Companies  
Dewan Mushtaq Trade Ltd.  
DG Harbour  
DGS Pvt. Ltd.  
DHL Global Forwarding  
DHL Pakistan Limited  
Digital Tribe  
Directing Edge  
DMK Consultancy  
Dollar Industries  
Dolmen Group  
Dot Images  
Drug Information Systems  
Dubai Islamic Bank Limited  
Duleaf  
Dupont Pakistan  
EDGE Financials  
EFU General Insurance Limited  
EFU Life Assurance Limited  
Elixir Securities Pakistan Ltd.  
Empact  
Engage 24X7  
Engage Consulting  
English Biscuits Manufacturers Ltd.  
Engro Corp.  
ENI Pakistan Limited  
EPFirms  
Ephlux  
EPlanet Communication  
Epoxy Industries (Pvt.) Limited  
eSys Pakistan  
Etihad Airways  
Etilize Pvt. Ltd.  
Evaluation Factor (Pvt) Ltd.  
Evernew Entertainment  
Evolution Advertising  
Excelerate  
Express News  
Faysal Asset Management Ltd.  
Faysal Bank Limited  
Fidelity Insurance  
First Capital Equities Pvt. Limited  
First Women Bank Ltd.  
Fitness Republic



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

IBM Pakistan  
ICE Animation  
ICI Pakistan Limited  
Icon Global  
ICS Group of Companies  
Ifrasoftware Technology Limited  
IGI Financial Services  
IGI Life Insurance  
IJARA  
imrooz.com  
Inbox Business Technology  
Indus Bank Limited  
Indus Motors Company  
Industrial & Commercial Bank of China  
Industrial Development Bank of Pakistan  
Information Technology Services  
Institute of Chartered Accountants of Pakistan  
Intel Pakistan  
Interactive Cell  
Interactive Health Solutions  
Interflow Communications Pvt. Ltd.  
International Advertising Pvt. Ltd.  
International Asset Management Company Ltd.  
INVATERRA  
Invest & Finance Securities Limited  
Invortex Technologies  
Iris Communication  
Islamic Investment Bank  
Ismail Industries  
Ismail Iqbal Securities  
IT Link Online  
J. Walter Thompson Asiatic (Pvt.) Ltd.  
Jaag Broadcasting Systems Pvt Ltd.  
Jaffer Brothers Limited  
Jahangir Siddiqui & Co. Limited  
Jason Group of Companies  
JCR -VIS  
Jeem Solutions  
Johnson & Johnson Pakistan Ltd.  
Jotun Paints  
JS Bank Limited  
JS Global Capital Limited  
JS Investment  
Junctionz  
KalSoft (Pvt.) Limited  
Karachi Deals  
Karachi International Container Terminal Ltd.  
Karachi Stock Exchange Limited  
Karachi Vocational Training Institute  
KASB Capital  
KASB Funds Limited  
KASB Securities



K-Electric  
 Khaliq Fashion  
 KNYSYS  
 Kopak Shipping Company  
 KPMG Taseer Hadi & Co.  
 Khwaja Ghareeb Nawaz Trust  
 KZR Associates  
 Lakson Group of Companies  
 Lalani & Associates  
 Land O'Lakes Inc.  
 Lane 12  
 Lasmo Oil Pakistan Limited  
 LGS Matrix  
 Liberty Books  
 Lilly Pakistan (Pvt) Ltd.  
 Live Securities Pvt. Ltd.  
 Lo'real Pakistan  
 Logic Information's  
 Logicose  
 Lootlo.pk  
 Lucky Cement Ltd.  
 Lucky Knits  
 M. Yousuf Adil Saleem & Co. Chartered Accountants  
 Maersk Sealand  
 Magnus Investment Advisors Ltd.  
 Majsons Corporation  
 MAL Pakistan Limited  
 Manhattan Leo Burnet  
 Manzar Pakistan  
 Maple Pharmaceuticals Pvt. Ltd.  
 Marie Stopes Society  
 Markematics Pvt. Ltd.  
 Martin Dow Pharmaceutical  
 Mass Advertising Pvt. Ltd.  
 Mazars  
 MCB Bank Limited  
 Meat One  
 Media Axis  
 Media Max Pvt. Limited  
 Media Pulse Pvt. Limited  
 Meezan Bank Ltd.  
 Mehran Enterprises  
 Merck Marker Pvt. Ltd.  
 Merit Packaging Pvt. Ltd.  
 Meritocracy  
 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  
 Monsieur  
 MS Associates  
 MullenLowe & Rauf  
 Muller & Phipps Pakistan Pvt. Ltd.  
 Multinet Pakistan Pvt. Ltd.  
 Mustafa & Co. Pvt. Limited  
 Nabiqasim Industries  
 Najmi Bilrami Collaborative Pvt. Ltd.  
 Nanosoft Technologies Pvt. Ltd.  
 Narejo Human Resources  
 National Bank of Pakistan  
 National Clearing Company of Pakistan Ltd.  
 National Commodity Exchange  
 National Foods Limited  
 National Fullerton Asset Management Ltd.  
 National Industrial Parks Ltd. (NIP)  
 National Insurance Company  
 National Investment Company of Pakistan  
 National Investment Trust  
 National Marketing Services  
 Naveena Export Pvt. Limited  
 Nedo Corporation  
 Nestle Pakistan  
 Net Space Systems  
 New Era Industries  
 New Jubilee Insurance Co. Limited  
 Next Degree  
 Next Generation Innovations  
 NIB Bank Ltd.  
 Nielsen Pakistan  
 Nike Pakistan Limited  
 Novartis Pharma Pakistan Limited  
 OBS Group  
 Oman National Electronics, Dubai  
 OMD Pakistan  
 OMV Pakistan Exploration  
 Oratech Systems Pvt. Limited  
 Orient Public Relations  
 Orix Pakistan Limited  
 Oxford University Press  
 Oxygene Pakistan  
 P&O Nedlloyd  
 Packages Limited  
 Pak Mediacom Pvt. Limited  
 Pak-Arab Refinery Limited  
 Pakistan Institute of Corporate Governance  
 Pakistan Institute of Management  
 Pakistan Petroleum Ltd.  
 Pakistan Refinery Ltd.



Pakistan Services Limited  
Pakistan State Oil Company Ltd.  
Pakistan Telecommunication Co. Ltd.  
Pakistan Television Corporation  
Pakistan Tobacco Company (British American Tobacco)  
Pakistan Vehicle Engineering (Pvt) Ltd.  
Pak-Kuwait Investment Co. Ltd.  
Pak-Petrochemical  
Pak-Suzuki Motors Co. Limited  
Parke Davis & Co. Limited  
Pastel Communications  
Path Group of Companies  
PCI Group  
Pearl Packages  
Pegasus Consultancy (Pvt.) Ltd.  
Pfizer Laboratories Limited  
Pharmatec  
Philip Morris International  
Philips Electrical Co. of Pakistan  
PIRANA Group  
Pixarch  
Pizza Hut – MCR (Pvt) Ltd.  
Pizza Next - MFC Pvt. Ltd.  
Plastech Products (Pvt.) Ltd.  
Polaris  
Premier Systems Pvt. Ltd.  
Prestige Communications Ltd.  
Prestige Grey  
Price Solution Pvt. Ltd.  
Prime HR  
Procter & Gamble  
Promotech Media Solution (Pvt) Ltd.  
Protege Global  
Qineqt  
Qubee  
Rain Bargain  
Reckitt Benckiser Pakistan Ltd.  
Red Tape Media  
Reveal Pakistan  
Rhone Poulenc Rorer Pakistan Ltd.  
Rising Technologies  
Robotics Labs  
Roche Pharmaceuticals Limited  
Rocket Internet  
Rohi International Pvt. Ltd.  
Roshan Media  
S13 - Systems Innovations Pvt. Ltd.  
Sach International  
Sagacious Business Consultancy  
Salsoft Technologies Pvt. Ltd  
Samba Bank Ltd.

Sanofi Aventis Pakistan Ltd.  
Sapphire Textile Mills Limited  
SBT Japan  
Schneider Electric  
School of Leadership  
SCT Group  
Searle Pharmaceuticals  
Service Sales Co.  
Shabbir Tiles & Ceramics Ltd.  
Shafi-Reso Chemicals  
Shaheen Airlines  
Shajar Capital  
Shamrock  
Shan Foods Pvt. Ltd.  
Shangrila Pvt. Ltd.  
Sharaf Shipping Agency  
Shell Pakistan Limited  
SibiSoft Inc.  
Sidat Hyder Morshed Associates Private Limited  
Siemens Pakistan Engineering Co. Limited  
Signium International  
Sindh Education Foundation  
Singer Pakistan Limited  
SKF Pakistan Pvt. Ltd  
Snack Bites Company  
So Safe Pakistan  
Social Sell  
Socially Global  
Solutionicks  
Soorty Enterprises  
Spark Communication  
SSG Consulting  
Stancos Pvt. Limited  
Standard Chartered Bank Limited  
Starcom Pakistan  
Starcrest Communications  
State Bank of Pakistan  
Statuspro Inc.  
STEP Consultants  
Stitchers International  
Stork Prints Pakistan  
Streebo  
Strongman Medline  
Sufi Brothers  
Sui Southern Gas Company Ltd.  
Summit Bank Limited  
Sun Consultants  
Sun Enterprises  
Sun Systems  
Super Trading Inc.  
Symbios.pk  
Synapse Consulting



Sysnet Pakistan Pvt. Ltd.  
Systems Limited  
Talent Optimizers  
Tameer Micro Finance Bank Ltd.  
Tapal Tea Pvt. Ltd.  
Target Resourcing  
Tata Group of Industries  
Tata Textile Mills Ltd.  
Taurus Securities Ltd.  
TBH Employment and Consulting Services  
TCS (Pvt.) Limited  
Teach for Pakistan  
Teamants  
Teamz International  
TeleCard Ltd.  
Telenor Pakistan Limited  
TenPearls  
The Bank of Khyber  
The Express Tribune  
The First Micro Finance Bank Ltd.  
The Learning Organisation  
The Leatger Grandeur  
The Recruiters  
The Snack Bites Company  
Thinkline  
Third Eye Managed Services  
3M Pakistan Pvt. Limited  
360 Training  
Time & Vision Advertising  
Times Consultant (Pvt) Ltd.  
TIPU Associates  
TNI - Worldwide Partners Inc.  
Top Boss  
Total Lubricants  
Touchpoint (Pvt) Ltd.  
Toyota Indus Motor Company  
TPL Trakker Limited  
TPS  
TradeKey  
Transit HR Consulting  
Transworld Associates  
Travel Mate  
Travel Solutions  
Travelport  
Triple E Pvt. Limited  
TV One - Airwaves Media Pvt. Ltd.  
UBL Fund Manager  
UBL Insurers  
Ufone  
Uniferoz  
Unilever Pakistan Limited  
Unique Pakistan

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





# ENTREPRENEURSHIP & MANAGEMENT EXCELLENCE CENTER

## ORIC / ENTREPRENEURSHIP & MANAGEMENT EXCELLENCE CENTER (EMEC)



The Office of Research, Innovation & Commercialization (ORIC)/EMEC supports IoBM's vision of lifelong learning, as well as its long term goal of seeking AACSB's accreditation which believes in innovation, engagement and impact. ORIC/EMEC works as a bridging unit between the university and public, private as well as international not for profit sector to engage its faculty, staff and students by commercializing IoBM's initiatives.

### ORIC/EMEC Mission

Synonymous with IoBM's mission of lifelong learning, the work of ORIC is devoted to building the capacity of faculty, staff and management and utilizing such capacity to work on the consultancy and training projects of the corporate, private, not for profit and public sectors of the country. Under the aegis of ORIC and its capacity, IoBM pursues the following ventures:

1. Research Consultancy
2. Capacity Building Training Consultancy for NPOs
3. Proposal Writing Capacity Building for IoBM faculty and students
4. Open enrolment training programs for the corporate sector as well as IoBM staff and faculty
5. Tailor made training programs for the corporate sector as well as IoBM staff and faculty



### International Union for Conservation of Nature (IUCN) Project

IoBM executed a research project "Valuation of Mangroves in PQA Indus Delta: An Econometric Approach" awarded by International Union for Conservation of Nature (IUCN). This project was done under the Mangroves for Future", initiative by IUCN.

### UNDP Research Project

A social attitude survey research project with the title "Tolerance on Factory Floors" is being executed by IoBM. This research project is awarded by United Nations Development Program (UNDP).



### USAID - GEP Project

In order to strengthen the capacity of Aurat Foundation sub-grantees, ORIC/EMEC conducted ten rounds of a six day workshop of GEP (Gender Equity Program) with the support of USAID. The total number of participants trained across Pakistan was 238. Two sessions were conducted in Islamabad and one in Lahore. The training sessions started on 26th December 2016 and the project was closed on 28th February 2017. The participants were trained on Project Cycle Management, Financial Management, Gender Sensitization and Women Friendly Laws, GEP Specific Reporting, Branding & Marketing Guidelines and Introducing Fundraising Techniques.





## 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 (TDEA), The Asia Foundation (TAF), and Grant Thornton - Amjum Asim Shahid Rehman (GT-AASR).

ORIC / EMEC conducts NPO (Not for Profit Organization) Management Course training and since October 2012 to date EMEC has conducted 12 NPO Management Course trainings and has built the capacity of more than sixty participants of thirty different NPO's across the country. The 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.



## Activities at EMEC (Workshops and Conferences)

- Recruitment Interviewing & Selection, HR Diploma Module, March 2016
- Competency Based People Management, HR Diploma Module, April 2016
- Compensation & Benefits, HR Diploma Module, May 2016
- Organization Change & HR Transformation, HR Diploma Module, May 2016
- Talent Management & Employer Branding, HR Diploma Module, July 2016
- International Conference on Entrepreneurial Engineering (ICEE), held on 27th – 28th August 2016
- International Conference on State of Pakistan's Economy, held on September 27-28, 2016
- Getting Ready for the Leadership Role, HR Diploma Module, October 2016
- Performance Management, HR Diploma Module, November 2016
- Management of Contract Labor Workshop by Dr. Afaq Kazi, November 2016
- Management of Contract Labor Workshop by Dr. Afaq Kazi, January 2017
- International Conference on Multidisciplinary Engineering Research & Technology: Harnessing the Power of R&D". March, 2017



## Karachi Council on Foreign Relations (KCFR) & China Institute of Contemporary International Relations (CICIR) delegates 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, which 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 the 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 'X' 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 University of Malaya, the International Burch University, the University of Brescia, the University of Rostock, the University of Kelaniya, the University of Karachi, the University of Malaga, the Columbia University, the University of Chittagong, the Kathmandu University, etc. are also represented on the board. All full-time faculty members at IoBM contribute research papers on a regular basis. Pakistan Business Review is in its fifteenth year of continuous publication.

## **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 a 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. The Editorial Board consists of two groups, the 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 objective 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 variety to its readers. The journal in each issue aims through publishing difference articles, case studies, book reviews, and critical reviews to present its readers with interdisciplinary themes on education and educational development. JoEED is an HEC approved 'Z' category Journal.

## **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, UNDP, 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.



## Center for Islamic Business and Finance (CIBF)

Growth of Islamic banking and financial institutions in Pakistan and around the world has increased the demand for business managers with expertise in Islamic business and finance. To address this demand, the Center for Islamic Business and Finance (CIBF) at IoBM offers specially designed certificate courses, post-graduate diploma programs and degree specializations. The center has developed a strong research culture around committed MPhil and PhD students working on state-of-the-art issues of Islamic business, Islamic finance, and economics under the supervision of highly qualified faculty. The Center organizes conferences, workshops, and research seminars to support and strengthen the research and innovation at IoBM. A specialized research group in Islamic Business, Finance and Economics led by Dr Imamuddin is now working with several students that meet regularly to discuss and deliberate on research ideas and publications.

## Multidisciplinary Research Seminar Series (MRSS)

MRSS is a multidisciplinary platform where researchers share their research findings, methodologies, tools and experiences to encourage students and faculty to pursue high quality research. It helps in making research accessible and productive for scholars from different backgrounds. MRSS actively organizes weekly sessions on research presentations, case studies, research training and workshops, and motivational talks. It also facilitates in organizing open defenses and seminars for MPhil and PhD synopsis/proposals and final theses/dissertations. Over the last two years, MRSS has emerged as an interactive platform that provides opportunities to faculty, researchers, students as well as practitioners to present their researches and exchange ideas for making the research relevant to our organizations, industry and economy. The MRSS team also organizes yearly conferences such as the International Conference on Experiential Learning (ICEL)."



---

## QUALITY ENHANCEMENT CELL (QEC)

---

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

QEC has been successfully functioning over the last seven 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 to QEC. QEC has the honor of scoring 99% in 2014. Earlier ratings varied from 85 to 96% on a 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 is among the few institutions in the world to be 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 in acquiring AACSB accreditation.

QEC is also responsible for developing policy, procedure and its revisions. HEC utilizes the services of QEC in its assessment of Institutional Performance Evaluation of other HEI's on a regular basis. QEC is also conducting workshop on areas of quality and preparation of self-assessment reports of the programs of other institutions.



# **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 their MBA. Preparation for the comprehensive examination would develop a broader understanding of the significance of the major chosen by the students within the framework of their overall educational experience.

### Structure

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

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

1. To pass the comprehensive examination, a student must get satisfactory grades in one of his/her majors and in one non-major. The examination is to be conducted thrice a year in the months of January, May and September. Students will be charged Rs. 5,000 as comprehensive examination fee. Passing the comprehensive examination is a mandatory requirement for obtaining the MBA degree.
2. Students are allowed a maximum of two attempts to qualify for the comprehensive examination. A third attempt may be availed only after the Dean's permission. The comprehensive examination is taken only after the student has completed all course requirements and attained a CGPA of at least 3.0 in his/her program.
3. A refresher course will be arranged by EMEC in the month of August for students who will appear in the comprehensive exam in September and will be conducted by faculty from within IoBM or hired from outside. Students will be charged a nominal fee for attending the refresher course.





## PROCEDURE FOR SUBMITTING MS, MPhil & PhD THESIS

### MS / MPhil Thesis

- Candidates must pass NTS (50% or more marks in General Exam) or equivalent test taken by IoBM / GRE
- Candidates must pass 08 courses (24 credit hours) with a minimum CGPA of 3.0. D grades will not be considered
- Qualified candidates 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 (60% or more marks in subject exam) or equivalent test i.e. GRE or by IoBM
- Candidates must pass 06 courses (18 credit hours) with a minimum CGPA of 3.0. D grades will not be considered
- Qualified candidates 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 method 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 the 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 topic of interest related to real business situations.
- Specially-designed class rooms 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 aim to identify gaps in student learning. IoBM's approach to learning is rooted deeply in assessment that fosters understandings 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).



## 'I' Grade

The grade of 'I' (incomplete) may be recorded to indicate that while the requirements of a course may have been substantially completed, a small component of work (final examination) remains for a legitimate reason, 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 "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. For detail visit the link: <http://www.examination.iobm.co/>

## Weightage

A student can apply for Weight-age for a course after satisfying the following criteria.

If he/she misses any of the two hourly exams for a course due to a genuine reason such as, serious illness/death in immediate family or important official assignment may apply for Weight-age within a week from the date of the missed hourly paper, after submitting sufficient documentary evidence in support of his/her request. Weight-age applicability will be determined on the basis of at least 60 percent marks secured in the final exam of the course. No request for weight-age will be entertained after one week of the date of the paper.

For detail visit the link: <http://www.examination.iobm.co/>

## Rechecking (Scrutiny) of Final Exam Script

After the final exam results have been posted, a student can apply for rechecking of his answer script in the final exam or term project if he/she has doubt about the marking of the said answer script/term project by his faculty member.

For further detail visit the link: <http://www.examination.iobm.co/>

## Leave for Absences

A student shall apply for leave for his/her absence from class in advance duly supported with concrete evidence, for approval of Rector.

Following tables shows the approved absences for a course during a semester.

Regular Semester:	Approved Absences:
Weekdays	4 days
Weekend	2 days

Summer Semester:	
Weekdays (Crash)	3 days
Weekend	2 days

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

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

A student will not be eligible to apply for weightage or "I" grade in case the absences exceed the allowed limit.

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

<http://www.examination.iobm.co/>



## 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 as may be considered expedient for effectively maintaining the highest standards of conduct. The regulations set out below are IoBM's General Regulations for discipline.

### **The General Regulations provide that: No student of IoBM shall**

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



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

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

## The Disciplinary Committee

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

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

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

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

### Appeal / Review of the decision:

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



## ATTENDANCE POLICY



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

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

## DRESS CODE POLICY



Appropriate attire enhances the personality and contributes to successful nonverbal communication in the workplace.

IoBM expects its students to reflect its values & 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 and 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 variation or violation 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. Mark distribution is explained to the students at the beginning of the semester. Traditionally 15 marks are given for each hourly exam and 40 marks for the final exam. 30 marks are assigned for quizzes and assignments. In some cases, there might be a slight variation if the concerned faculty so desires.

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

- Impersonation may lead to permanent expulsion from the Institute.
- Cell phones are strictly prohibited in the exam hall/ room. Defying this rule may result in confiscation or a fine of Rs. 1000/=.
- Valid college ID card is mandatory for entry to the exam room/hall. There is absolutely no relaxation in this rule.
- Punctuality is most important at all times. Students are expected to 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 exam before they are allowed entry. Students arriving late by more than 15 minutes will not be allowed to appear in the exam.
- As per Institute's policy all question papers are to be returned along with answer scripts.
- Students are required to bring their own stationary and calculators as no lending or borrowing is permitted during examinations.
- Programmable calculators or 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-term exams, as the aggregate of these would be included in the final grade. The Institute does not exempt students from completing course requirements on medical grounds nor is leave granted for any personal reasons. This is to ensure the market credibility of the Institute's teaching programs and degrees.

### Policy for Course Repetition

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





## Grade Improvement

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

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

MBA and MPhil students are expected to maintain a CGPA of 2.5 to remain in good standing. Any deficiency should be made up in the following semester; otherwise the concerned student may be dropped from the rolls of the College. The cumulative GPA should be 3.0 in order for a student to receive the degree. MBA and MS students are required to repeat those courses in which they receive F and D grades. For further detail visit the link: <http://www.examination.iobm.co/>

## Umrah Leave

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

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

## Hajj Leave

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

## Below Good Standing Policy

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

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

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





## Academic Dishonesty

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

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

## Definition of Plagiarism

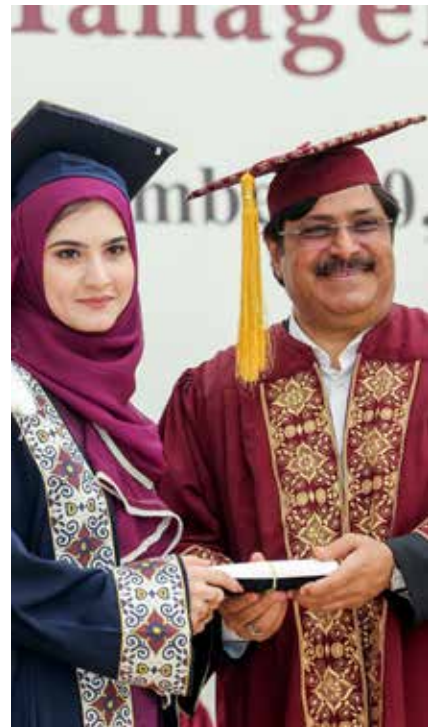
Students are required to submit original work. Papers and/or projects submitted as part of a group effort must be clearly identified, with the team members specifically acknowledged. Ideas, data, direct quotations, paraphrasing, or any other indirect incorporation of the work of others must be clearly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

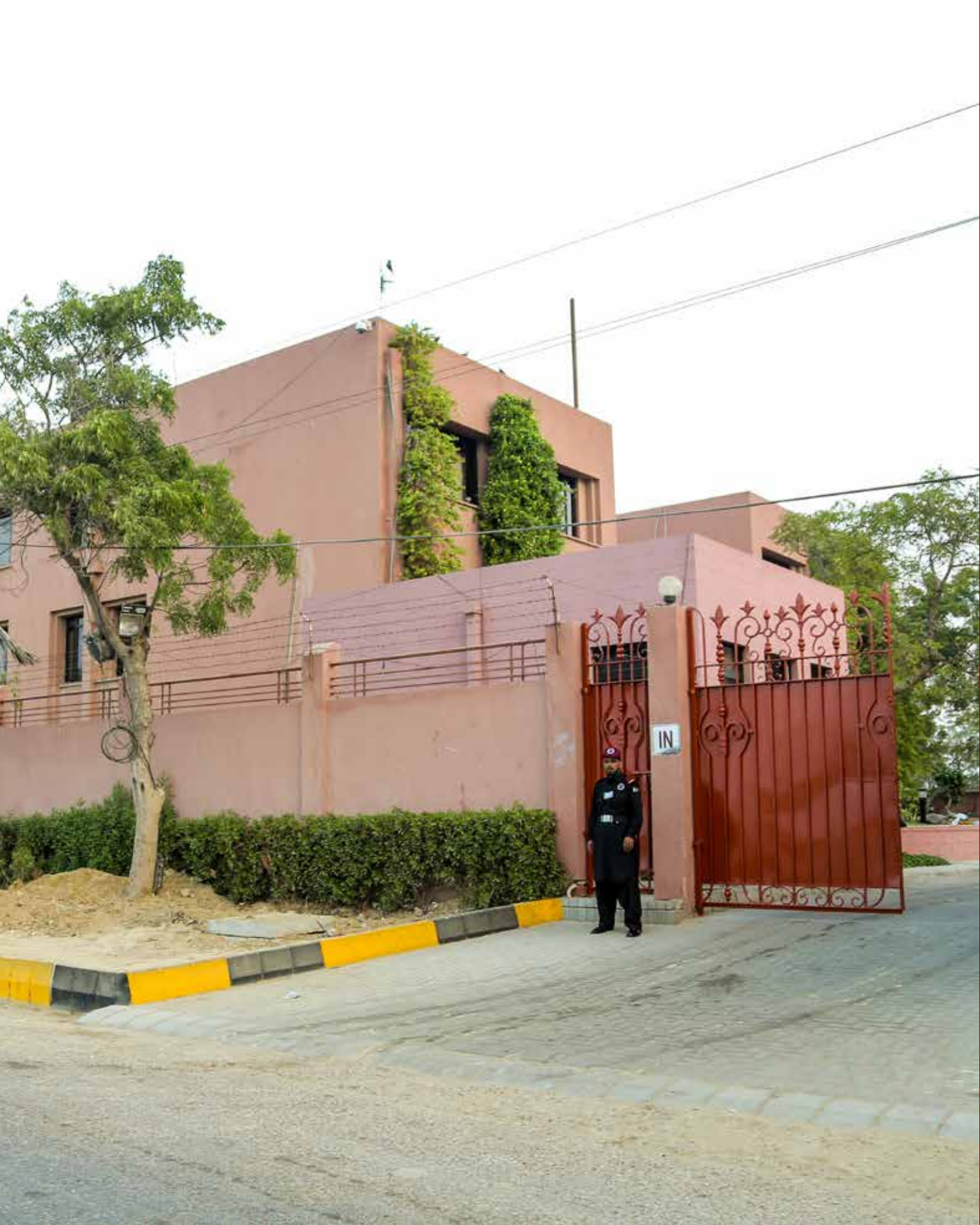
- Direct quotation or paraphrasing from published sources that are not properly acknowledged;
- The use of other persons or services to prepare work that is submitted as one's own;
- The use of previously submitted papers or work, written by other students or individuals;
- Misappropriation of research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

Cheating is unacceptable. Examples of cheating are:

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

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





# **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 \*55% 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
- IBCC equivalence will be required for A-Level and other foreign qualifications

### In addition:

- Atleast 5C's in O-Level exam or minimum 55% 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
- American High School Diploma with CGPA 2.5 or any other qualifications
- Any other qualification if an authority has issued an equivalence certificate
- IBCC equivalence certificate will be required for A-Levels and other foreign qualifications

### 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 55% marks in overall academic career in annual examination system or 5C's in O-Level and 3 A-level with minimum 2C's excluding General Paper and Urdu or equivalent
- Minimum CGPA 2.5 on a scale of 4 in semester system
- 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 (Regular) Weekend Programs:

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

- A four year Bachelor's degree in Arts, Science, Law, Commerce, Engineering, Medicine, Pharmacy or any other degree with high second division or equivalent from HEC/Provincial Government approved Institutes/Colleges/Universities in Pakistan
- A final qualification examination of a professional body recognized by the Higher Education Commissions of Pakistan, for example, ACMA, CA, ACCA
- Four years overseas bachelor's degree or equivalent recognized by HEC
- Students with 2/3-year Bachelor's degree are eligible for MBA (3-year) program

### In addition:

- Minimum one-year post qualification work experience in Multinational or domestic corporation is required (only for MBA Regular on Weekend). Candidate must be working while applying online for admission and also during the period of study. Experience in unknown or unregistered companies will not be considered.
- Minimum 55% marks in last qualification in annual examination system
- Minimum CGPA 2.5 on a scale of 4 in semester system
- Success in aptitude test and interview conducted by IoBM

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

## Eligibility for entrance to MS Program:

It is based on any one of the following:

- Sixteen years of education in relevant field with high second division or equivalent from HEC recognized Institutes/Universities in Pakistan
- OR**
- Four years overseas bachelor's degree or equivalent recognized by HEC

### In addition:

- Minimum 55% marks in overall academic career in annual examination system or 5C's in O-Level and 3 A-level with minimum 2C's excluding General Paper and Urdu or equivalent
- Minimum CGPA 2.5 on a scale of 4 in semester system
- Success in aptitude test and interview conducted by IoBM
- Candidates must score minimum 50% marks in exam conducted by IoBM





## Admission Requirements for PhD Programs:

- Candidate having 18 years of education from an HEC recognized university is eligible to apply. For admission into the PhD minimum CGPA 3.0 on scale of 4 or First Division in MPhil/MS/ degree is required
- Minimum CGPA 2.5 is required for candidates having MBA or equivalent degree
- Students with HEC recognized MBA have to do at least four pre-requisite courses (HEC equivalency required)

### In addition:

- Success in interview conducted by IoBM
- Candidates must pass NTS (60% or more marks in subject exam) or equivalent test i.e. GRE or by IoBM

## 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 soon after their admission formalities have been completed. 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
- Transfer application can be submitted once and in the first semester, late applications for transfer of credits will not be considered
- Student must have secured B or better grade as per IoBM grading plan in each course meant to be transferred and the course title /outline must match with IoBM course plan
- Maximum of 3 courses can be transferred in MPhil/PhD program as per the procedure mentioned above
- Courses of two semesters can be accepted in bachelors / masters program 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

## Re-Admission and Continuation Policy

- Students who stop attending classes at the Institute, for any reason, without informing the concerned authorities about their absence for more than one semester, their admission shall be suspended.
- Admissions can be deferred for maximum of two semesters with justification and approval of the Executive Director Admissions. Any relaxation not beyond two years is subject to approval of Executive Director Admissions.
- Students who complete their Bachelor from IoBM are eligible to register for MBA. However, if Security Deposit has been withdrawn, candidates may apply for restoration of admission to office of the Executive Director.
- Students dropped due to below good standing (for Master's program below 2.5 CGPA and for Bachelor's below 2 CGPA) may also apply for re-admission and to qualify both the entry test and interview.
- Students dropped out from the Institute for any reason will not be considered for enrollment as an external candidate
- On successful completion of readmission process in undergraduate and graduate program: the degree/transcript section will consider transfer of previous courses completed in IoBM based on grades and their relevancy.
- If a MPhil/PhD student has completed course work with minimum CGPA 3.00 and left with thesis may be given exemption in Entry Test if he is required to apply for readmission but to qualify panel Interview would be mandatory.
- If a MPhil/PhD student dropped due to below good standing (i.e CGPA below 2.5) or he/she is absent for more than two years and CGPA is below 3.00 may also apply for readmission and to qualify both the entry test and Interview.
- After readmission the student will follow current program structure and obsolete courses will not be considered. However, the Program Head and OGS Office may recommend transfer of previous courses having minimum C+ grades to degree/transcript section for consideration.
- MPhil/PhD students will be assigned a new enrollment/student ID on 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 the basis of merit and need. Currently, about 25% of the students are receiving some form of financial aid.

### External

Following external financial assistance are being provided to students:

- HEC - Japanese Scholarships
- 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

Scholarships are also available on reciprocal basis to:

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



## FEE STRUCTURE\*



IOBM operates on a self-financing basis as a non-profit institution. All students are required to pay a one-time CAUTION MONEY of Rs. 15,000.00 which is refundable only as per the policy.

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

	Registration Fee	Tuition Fee* (per course)	Tuition Fee Full Load**	Total Fee* (per semester)
All Bachelor's Programs	10,000.00	13,900.00	83,400.00	93,400.00
All Master's (Regular) Programs	10,000.00	15,000.00	90,000.00	100,000.00
All Master's (Executive & Weekend) Programs	7,000.00	15,000.00	60,000.00	67,000.00

\* Subject to change

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

The summer session fee is charged on the basis of courses taken. A convocation fee of Rs. 12,500.00 is charged on completion of the degree program, inclusive of degree charges of Rs. 4,000.00. MBA executive and weekend students, planning to take less than a full load, would be charged registration and tuition fees accordingly. However, caution money will remain the same.

Post Graduate Programs	Registration Fee (1-2 Courses)	Tuition Fee Per Course	Thesis, External Examiner, Viva Voce, Exam, Supervisors and Foreign Examiner Fee
MS / MPhil Programs	3,500.00	11,500.00	63,000.00
PhD Programs	5,000.00	12,500.00	270,000.00

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 eligible after completion of their respective programs to claim refund of caution money within one year from the date of convocation. The caution money is subject to forfeiture if it is not claimed within the stipulated time.
- Any amount receivable from a student for whatsoever reason will be deducted from the amount due to that student on account of caution money.
- In cases other than above, caution money is nonrefundable and nontransferable.

### Tuition Fees

1. Tuition fees for courses dropped with in due date(without penalty) will be transferred to the next semester and will not be refundable or alternatively, they may on written request of a student, be relocated, after due approval by the competent authority, to the account of his/her sibling in the case of an on board student.
2. Tuition Fees for courses dropped after due date (with penalty) will be forfeited.

### Registration Fee

Registration fees paid is nonrefundable and nontransferable.

### Fresh Entrants

If Fresh entrants after getting admission, decides to withdraw from the Institute, the tuition fees paid will be refunded as per Higher Education Commission(HEC) refund policy as outlined hereunder, provided that the application submitted is duly acknowledged by an Authorized officer of the Institute.

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

### Provisional Admission

Students the results of whose last required qualification are awaited are provisionally admitted provided they qualify in the written test as well as interview. If such a student fails to meet admission criteria after declaration the last required results, he/she will be refunded tuition fees. If application for refund is submitted within seven days of declaration of results/grades along with a copy of result/grades. Failure to submit the refund application in time will result in forfeiture of tuition fees.

### Deferment of Admission-Fresh Entrants

1. If, for whatsoever reason on the written request of a candidate the Institute defers the admission of the candidate till the next semester, tuition fee will be carried forward to the next semester. If a candidate later decides not to join, the fees so paid shall be forfeited.
2. If any candidate is allowed a second attempt to improve his/her grade/percentage of his/her required qualification in order to qualify for the admission, he/she may do so on signing of an Affidavit duly notarized. If the candidate fails in the second attempt or does not avail the opportunity of second attempt, the fees so paid shall be forfeited.
3. A candidate will remain a candidate until he is allowed to register on completion of formalities.

### Dispute

In case of any dispute/dis agreement regarding interpretation of any clause of the Refund Policy, the decision of the Management of the Institute would be final and binding.





ADMINISTRATIVE  
&  
MANAGEMENT EXCELLENCE CENTER

# ORGANIZATION



## Board of Governors

The Board of Governors exercises the powers to hold, control and administer the property, funds and resources of the Institute. It also approves the Annual Report, Plan of Work, Statements of Accounts and the Annual Budget Estimates as recommended by the Executive Council. It is also responsible for ensuring the effectiveness of the Institute's operations and the continuity and preservation of its autonomy.

**Members of the Board of Governors (listed on Page 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, President, IoBM
- Mr. Justice Irfan Saadat Khan
- Chairman Higher Education Commission
- Secretary, Education & Literacy Department, Govt. of Sindh
- Mr. Muhammad Ali Tabba
- Mr. Salahuddin Qureshi
- Mr. Masood Hashmi
- Mr. Talib S. Karim
- Deans of respective Colleges
- Mr. M. W. Jahangir, Secretary

## Academic Council

The Academic Council is responsible for:

- Advising the Executive Council on academic matters
- Regulating the conduct of teaching, research, publications and examinations
- Regulating the admission of students to courses of studies and examinations at the Institute
- Regulating the conduct and discipline of the students of the Institute
- Regulating award of financial assistance, exhibitions, medals and prizes
- Formulating courses of study, syllabi and outlines of all examinations conducted by the Institute

## External Members of the Council:

- Mr. Mazhar ul Haq Siddiqui
- Ms. Rukhsana Asghar
- Mr. Khalid M. Nagra



## Board of Advanced Studies and Research

IoBM has a Board of Studies which reports to the Academic Council. It supervises teaching research and academic discipline. It has three sub-committees on curriculum, resources and discipline. External members on the Board of Studies are:

### External Members of the Board:

- Dr. Muhammad Saleem
- 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 MS from the 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, as well as 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.

### Advisor



**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

**Tazeen Arsalan**, Assistant Professor and Head of Department of Accounting and Finance holds MPhil in Business Administration and a Master's degree in Business Administration from the Institute of Business Management. She has over 16 years of experience in corporate sector and academia. She has worked for Saudi Pak Leasing, SMEDA and various reputed business schools as visiting faculty before joining IoBM as a permanent faculty. Besides teaching Accounting & Finance courses, she is also actively involved in capstone projects where she has supervised more than twelve projects related to Financial Institutions and Markets. She is a faculty advisor of Finance Society of IoBM and has been performing the duties of the Coordinator – BBA program for the last four years.



**Dr. Muhammad Mahmud**, Senior Fellow has served at the Institute of Business Administration (IBA), Karachi for twenty-four years in various capabilities (teaching, research and administrative). Dr. Mahmud has 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. When serving at KASBIT he organized many seminars and workshops for students and faculty members. He was awarded third prize in 2002 and fourth prize in 2003 in a research essay competition by the Institute of Bankers of Pakistan.



**H. Jamal Zubairi**, Associate Professor of Accounting and Finance, holds a BE degree from the Dawood College of Engineering & Technology and an MBA from IBA, Karachi. He also holds a banking diploma (DAIBP) from the Institute of Bankers of Pakistan. He possesses over 30 years of professional experience, mainly as a development banker with the National Development Finance Corporation and has also worked for other leading financial institutions such as ORIX Leasing. He has taught core as well as elective courses in Accounting and Finance for over 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 Oxford University Press, Pakistan in the year 2005.



**Sharique Ayubi**, Associate Professor of Finance and Accounting. He holds a Master in Business Administration (MBA) from IBA, Karachi and another Master's degree in Economics from the University of Karachi. He also holds a Banking Diploma from the Institute of Bankers, Karachi. Currently, he is enrolled in the MS/PhD program. His experience in industry has been in the National Development Finance Corporation, 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.



**Dr. Imam Uddin**, Associate Professor of Finance and Accounting is an active academician and a researcher in the field of Islamic Banking & Finance. He has more than ten years of experience in teaching, research, product development, product management and Sharia' compliance and has authored many books as well as numerous research papers that have been published in the International Journal of Islamic Finance recognized by the AAOFI, IRTI, and IDB etc. He holds a PhD in Islamic Banking & Finance from the University of Karachi, doctoral degree in Islamic Jurisprudence from Jamia Darul Uloom, Karachi, LL.B in International Law & PGD in Islamic Banking & Finance from Center for Islamic Economics (CIE). He has served the Islamic Banking Division (IBD) of the National Bank of Pakistan (NBP) as Vice President in the capacity of a member, Sharia' committee.





**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 in 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 an MBA in Finance from Bahria University and MPhil in Banking & Finance. Currently, she is pursuing her PhD in Finance from Malaysia. Her research interests are in the areas of banking and risk management. She is actively involved in research & teaching and believes in fostering a learner centered environment which takes in text books and experiential learning. Her research papers have been published in various national and international journals, news papers and magazines. She has also presented her research papers at various national and international conferences. She is also a member of the Editorial Review Board of the "Journal of Emerging Issues in Economics, Finance and Banking (JEIEFB)", internal reviewer board member of Pakistan Business Review (PBR) and has been a reviewer of various international conferences. She has been faculty advisor of IoBM student Finance Society for five years and organized various seminars, conferences and workshops.



**Muhammad Arsalan**, Assistant Professor, Finance is a Chevening Scholar (2014-15), with an MS in Islamic Finance with distinction, from Durham University, UK. Previously he has worked with FAST-NUCES in the same capacity. He has 7 years of Corporate Banking experience working with Allied Bank and Bank Alfalah Limited. He received Bachelor of Engineering from NED University, and an MBA from the Institute of Business Administration Karachi. He also holds Diploma in Islamic Finance from CIMA, UK. He has served as an Adjunct faculty and corporate trainer in premier organizations. He has delivered international and domestic training programs on Islamic Banking, Islamic Accounting Standards, Credit Analysis, Corporate Banking and Corporate Finance etc. He has contributed articles in renowned practitioner's publications and newspapers. He teaches Finance Courses, such as Financial Management, Islamic Finance, Financial Institutions etc.



**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.



**Misbah Iqbal**, Senior Lecturer in 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, and has approximately 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 on these subjects. 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 the Development & History of Sindh.



**Muhammad Asim Khan**, Senior Lecturer in Accounting and Finance, received his MBA from the Karachi University Business School, MCom from the University of Karachi and is currently pursuing an MPhil leading to a PhD program. He has served with Siemens Pakistan, Shaheen Air International and Aga Khan Education Service Pakistan in commercial, corporate planning and education management capacities for more than fourteen years. He had also been associated with several prestigious institutions as a visiting faculty member. His areas of interest include management accounting practices and diversifying learning strategies.



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



**Ali Sajid**, Lecturer for Accounting and Finance, CBM, holds an MBA Finance from Bahria University and an MBA from Coburg University Germany, with specialization in Financial Management. He has worked for four years for diversified sectors in Pakistan, UAE and Germany, before joining the institute, full time in 2017. He teaches Accounting, Finance and Treasury Management courses and has a keen interest in integrating the course outlines with industrial practices. His research areas include Crowdfunding, IFRS and Value added Accounting.



## Communication

**Aliya Sikandar**, Assistant Professor and HoD, 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. Currently, she is a PhD scholar, and her area of specialization is Academic literacies, and Critical Discourse analysis. 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 as Assistant Professor and Head, Centre of English Language, before joining the Institute full time in 2013. Currently, she is engaged in teaching and researching in the area of Business Communication courses. Her areas of interest are Business Writing and Speech, Critical Discourse Analysis, Academic Literacies and Spoken Discourse. She contributes effectively in the enhancement of knowledge and skills of IoBM's Business and Media Studies learners through use of the most effective and latest strategies. Her academic and professional career is evident of intellectual contribution to teaching, research, and scholarship, in the form of intensive and extensive nation-wide research studies, classroom research, and qualitative exploratory research that are directly related to her academic and professional pursuits. In recognition of her research and professional pursuits she has been awarded with various distinction awards. The impact of these scholarly endeavors is evident in her teaching, writing and research, and is aligned with IoBM's mission to enhance research and scholarship.



**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 43 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 26 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. Her research interests lie in the areas of Communication and Education. She has worked in the areas of curriculum development, soft skills development, teacher training in pedagogy, business communication, and as an ELT trainer. Currently, she is working on her PhD degree in Education.





**Dr. Adrian A. Husain** is currently Senior Fellow, Communication. He was educated in England and Switzerland. He did his BA (Hons.) at New College, Oxford. He later received PhD for a thesis on Shakespeare and Machiavelli from the University of East Anglia and authored the critically acclaimed *Politics and Genre in Hamlet* (OUP, 2004). His area of special interest is the Renaissance. He also has several published academic articles to his credit. He is a winner of the prestigious Guinness Poetry Prize. A selection of his verse was published under the title *Desert Album* as part of OUP's Jubilee Poetry in English series (1997). He is a prolific writer. Much of his work - a substantial body of verse, a novel and a book on Richard II - is still to be published.



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



**Muhammad Irfan Sheikh**, Assistant Professor 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 holds an MPhil and is currently working on his research thesis. He has developed a website "Webell" for ELT and research purposes.



**Shumaila Omar**, Senior Lecturer, Communication, is a CELTA and IELTS qualified teacher and a trainer, holds MA in English Literature and MA in Linguistics from Karachi University and M-Phil (Linguistics) from Hamdard University. Currently, she is enrolled in the PhD program (Linguistics) at Hamdard University. She has a diverse and rich teaching experience in Academic English and Business Communication. In addition to teaching, she has held workshops in ELT across UAE Universities and was working part-time at Collegiate American school, Dubai. She is a member of TESOL (Teaching English to Speakers of Other Languages) International and Arabia, IATEFL (International Association of English as a Foreign Language) and SPELT (Society for Pakistan English Language Teachers) and her research interests are 'Motivational strategies in the classroom,' 'Learners' Autonomy' and 'Language Assessment'.



**Farhan Uddin Raja**, Senior Lecturer, Communication, is currently pursuing an MPhil degree in English Linguistics from the University of Karachi and has already submitted his thesis. He holds a Master's degree in English Linguistics from the University of Karachi as well. His interests include teaching, training and research and has contributed a few research articles to HEC recognized journals. He has been associated with both public and private sector universities of high repute for more than 5 years. He is also a professional trainer and has trained numerous executives from different sectors.



**Syed Muhammad Sajid Siraj**, Senior Lecturer, Communication, holds a Master's degree in English Linguistics from University of Karachi and is currently enrolled in MS Applied Linguistics program at NED University of Engineering and Technology. He has also earned CELTA certification from University of Cambridge and ESP certification from Aga Khan University. He has worked locally and internationally at different reputable organizations as a teacher, lecturer, trainer in ESL, ESP and EAP contexts. He is an active member of Society of the Pakistan English Language Teachers (SPELT) and Cambridge English UK. He has presented at International EFL conference and has been associated with British Council programs.



**Akhlaq Ghouri**, Senior Lecturer, Communication, holds a Master's degree in International Relations from Karachi University and completed his MPhil course work at ASCE Karachi. He has done a two-year Diploma in French Language from University of Karachi. He also obtained DELF-Diplôme d'études en langue française from République Française Ministère de l'Éducation Nationale. He has a vast experience of teaching French language. His areas of interest include Communication Skill and playing table tennis. In the near future he plans to pursue his MPhil and PhD in Applied Linguistics.



**Mehvish Saleem**, Assistant Professor, Communication, has completed her PhD in the field of ELT Methodology from the University of Graz, Austria and holds a Master's degree in English Linguistics from the University of Karachi. She has been teaching since 2005. Her professional experience includes teaching varied English language and Communication courses in diverse higher education contexts. She was a committee member of the IATEFL ReSIG and worked as the Joint Events Coordinator. Her key academic and professional achievements include receiving a PhD fellowship from the HEC, Pakistan, working as an editor, ELT Graz Working Paper at the University of Graz, Austria, working as a support teacher trainer for EDLINKS-USAID and studying as a visiting postgraduate student at the University of Warwick, UK. Her research interests include psychology of language learning and teaching, Complex Systems Theory and teaching English in 'difficult circumstances'.



**Pir Muhammad**, Lecturer, Communication, holds a master degree in Arabic and Islamic Studies from the University of Karachi, a Master's degree in English Literature and Applied Linguistics from the National University of Modern Languages (NUML). He completed his Dars-e-Nizami (Aalim-e-Deen) course of eight years and one year specialization course in Islamic Jurisprudence from Jamia Darul Uloom Karachi. He has an MPhil and is currently working on his research thesis. He is also a student of PGD in Islamic Banking And Finance at CIE Karachi. He had been teaching at IoBM as a visiting faculty since 2012 before joining the Institute as a full time faculty.



**Roshana Kamran**, Lecture, Communication, holds a Master's Degree in English literature from Karachi University and is Aptis qualified. Currently she is pursuing her MPhil in English Literature from Iqra University. She has worked in various private universities and O Level schools as senior Language teacher and facilitator. She is currently engaged in teaching Business Communication courses at IoBM. Her area of interest is teaching different strategies of business writing.



## 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 towards directing and advancing 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.



## Entrepreneurship



**Omar Javaid**, Coordinator Entrepreneurial Initiatives, Senior Lecturer & Phd fellow at IoBM, has a BE in Industrial & Manufacturing Engineering from NED University, MBA from IoBM with majors in Marketing and MS in Management Sciences from KIET. He 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, since 2010 he has helped hundreds of students in their entrepreneurial ambitions. He has also been empowering students to setup micro businesses for poor unemployed persons. 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 & philosophy, and philosophy of economics and business management. Apart from teaching at IoBM he is also responsible for mentoring IoBM students for the setting up of entrepreneurial ventures and the development of an entrepreneurial ecosystem within the institute. He is also a member of the executive committee of OPEN Karachi.



**Noman Mahmood**, Lecturer in Entrepreneurship department, has done his MBA from PAF KIET and is currently pursuing a PhD in Business Management from IoBM. He started working as an O-level Faculty at The City School and Visiting Faculty at PAF-KIET where he taught Social Advocacy and Current Affairs. He has also worked at Manhattan Communications. Research interests include Entrepreneurial Marketing, Social Entrepreneurship, Work-Life Balance, Creativity and Innovation.

## Health and Hospital Management



**Dr. Asima Faisal**, Head of the Department, Health & Hospital Management Program at IoBM holds an MBBS, in addition to MBA in Health and Hospital Management and MPhil from IoBM. She has served at the Dow University of Health Sciences (DUHS) in different capacities, i.e., as Director Media & Marketing and later as Director Programs for the Institute of Health Management. She is also a Member of the subject Committee for pharmaceutical representatives and assessment from the National Testing Service. She has been a counselor for the British High Commission to universities in the United Kingdom for pursuing avenues of internationalization of Higher education. She has also been associated with the Sind Education Foundation where she arranged Health Camps and Health Trainings of teachers (TOTs). She has been actively involved in CSR activities such as free health camps, flood relief activities and conducting programs on various medical and health management issues of the society. She served as Manager Administration for more than 5 years in South City Hospital and is at present, doing consultancies for health education in GlaxoSmithKline, for their Continuing Medical Education programs (CME) all over Pakistan. She is currently pursuing her PhD at IoBM.



**Dr. Ather Akhlaq** has done his PhD in eHealth (Health Informatics) from The University of Edinburgh, Scotland UK. He is currently working at IoBM as an Assistant Professor of eHealth in the department of Health and Hospital Management. He did his MPhil in Management (digital commerce) and also received a Master's degree in Computer Sciences from IoBM. At IoBM, he is teaching Advanced Qualitative Research and Health Management Information Systems to PhD, MPhil and MBA students. His research interests include health information technology (HIT) / eHealth and telehealth to enhance safety, efficiency and quality of healthcare.



**Dr. Humeira Jawed Abidi**, Senior Lecturer in Health and Hospital Management, holds an MBA (Health Management) from IoBM and MBBS from Sindh Medical College. 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 plans to enhance her academic qualifications by enrolling in a PhD program.



**Abdur Rahman Aleemi** is Senior Lecturer and Research Consultant to the MHM Research Cell (MRC) in the department of Health & Hospital Management. He holds an MPhil from IQRA University and MBA from Virtual University of Pakistan in Finance. He is also pursuing his PhD in Business Management from IoBM, where his research interests fall in the area of amalgamation between Prospect Theory and Portfolio Theory. He has more than seven years of diversified experience of industry and academia. He has served both in academia and industry in different positions for various projects and responsibilities. He is an experienced researcher and consultant in the field of Islamic and Conventional Finance, Economics, Management, Operations and Health Management. He has published several research papers in HEC recognized peer reviewed journals and has also presented his research work at several national and international conferences. He is also leading Capstone Projects.



## 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 at Fullerton College, California, USA.



**Dr. Aamir Firoz shamsi**, Associate Professor at CBM, is a seasoned academician, researcher, trainer and consultant. He did his PhD in Management Science from Hamdard University, Karachi. Before this he did MS from SZABIST and earned gold Medal from Karachi University. He is HEC Registered Supervisor and Referee Panel Member in four local and international peer reviewed journals. He has 20 publications to his credit in both local and international journals. His areas of research are management, HRM, corporate performance management and Balanced Scorecard.



**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.





**Javaid Ahmed** is Senior Fellow Strategy and Marketing and has been Chairperson of the departments of Marketing and Management-HRD at CBM from 2003 to 2015. He is a (IFC) Certified Board Director, FCMI-Fellow of the Chartered Management Institute (UK), FCIM-Fellow of the Chartered Institute of Marketing (UK), Member of Mensa and a UK Chartered Engineer. He has MBA with Distinction from Lancaster University Management School where his empirical research was awarded 1st prize by the now Chartered Management Institute, and a BSc Engineering from King's College, 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 is the recipient of the 2013 Faculty Excellence Award of the International Association of Universities Presidents and has served on the Jury of the Prime Ministers' Corporate Award of Excellence. Javaid Ahmed is case research active in competitive strategy and value innovation, has supervised CBM's MPhil research and taught the pre-doctoral course on strategy and governance at IoBM. He has written two research based dissertations, published nineteen papers and cases and delivered twenty one selected professional presentations and workshops. Javaid Ahmed says he is a facilitator, not a teacher nor an entertainer. A believer in collaborative learning, his sessions engage participants in reflection and action leading to practical knowledge and skills.



**Dr. Afaq Ahmed Kazi**, is a senior Human Resources and Industrial Relations professional with over 27 years of professional experience. He has served the industry in the HR field at C-level positions at leading multinational companies in Pakistan and abroad. Dr. Kazi got professional trainings from IIP International Quality Centre UK. ASI /Exemplis Consultants UK, New HR Competency Training -by Global Learning Program Warner Lambert USA, Total Productivity Management - Wavin Overseas Holland, "Making the Merger Work" - Certified Trainer by Pritchett Associates USA, Change Management and Business Process Restructuring by Catalyst Consulting Group USA. As a researcher, academician and trainer, he has been associated with a number of universities in Pakistan including IBA Karachi and CBM besides providing consultancy services to the Industry. Based on his experiences at companies like Parke Davis, Pfizer and Dadex, Dr. Kazi has developed a research based model specific to the HR environment in Pakistan 'HR Model for Improved Productivity". As a Consultant, he has helped a number of businesses implement this model as a business improvement tool. Dr. Kazi is also a specialist in labor management relations, collective bargaining, contract labor and its legal implications besides Human Resources. Currently he is associated as Consultant with Entrepreneurship and Management Excellence Center, Institute of Business Management Karachi.



**Shagufta Rafif Ghauri**, Assistant Professor in Management and HR, holds an MPhil degree in Business Management from the Institute of Business Management and is currently pursuing her PhD in Business Management. She has worked with different business universities and has been associated with IoBM for the past nine years, teaching Management courses and has been involved with curriculum development and training manuals. Her research interest areas are Organization Behavior, Job satisfaction, Contemporary issues in Management; Leadership styles, Motivation and Creativity, and has several research publications and conference presentations. She is also the faculty advisor of Strategic Human Resource Society at IoBM and has organized the Zenith Leadership & Development Conference on an annual basis since the last six years.



**Shiraz Ahmed**, Assistant Professor in HRM, 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 at and facilitated sessions for local and foreign dignitaries including a 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 visiting faculty in leading business schools.





**Afshan Rauf**, Senior Lecturer Management and HRM, holds a Master's Degree from Edge Hill University, UK in HRM and Master's in Economics from Karachi University. She has worked for diversified industries both local and abroad mainly FMCG, Telecom, Brokerage and Retail for almost 8 years both in Customer Services and HR. She became Academician by choice and is currently pursuing her Doctorate from Iqra University.



**Juveria Baig**, Senior 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 qualifications include a BSc (Hons) from the Textile Institute of Pakistan, an MBA from the Hamdard University and a Master's in Human Resource Management from the University of New South Wales, Sydney, Australia. After working with a Swiss Multinational and USAID, she turned her focus to academia and taught at her alma mater in Sydney, Australia. She is seriously committed to pursuing a career in research, learning & development and teaching. Her research focus lies in the areas of Knowledge Management and Workforce Development.



**Saba Gulzar**, Lecturer in Human Resource Management, holds MS degree in Human Resource Management from PAF-KIET Karachi. She has 8 years of teaching, research and consultancy experience in different Organizations of Karachi, she also holds experience of multiple managerial positions in academics. Her area of interest includes Academics, Training, Coaching, Leadership, Business Education, Research, and Organizational Development. Her main focus is research work and development of innovative tools to increase the efficiency of Human Resource professionals in various industries.



**Farheen Khalid** is currently working as Lecturer in Management & HRM Department. She completed her BBA(H) & MBA from IoBM as well. Currently she is enrolled in PhD Business Management Program. Before that Farheen has worked at Allied Bank (Corporate Investment Banking), Continental Biscuits, Dewan Mustaq Group and Brand Image. Her main interest of Research areas are Neuro Marketing, Consumer Behavior, Experiential Learning, and Strategic Marketing & Branding.



## Marketing



**Mohammad Ekhlaque Ahmed**, Assistant Professor, Head of Department and Lead Capstone Course Projects. He holds a Master's degree in Business Administration from the Institute of Business Administration, Karachi. He has over 30 years of working experience in the Corporate Sector at various Senior Management positions in both multinational and local companies. He worked for Philips, Osram, Dadabhoy Cement and Rajby Industries before joining IoBM as permanent faculty. Besides basic marketing courses like Marketing Management, Principles of Marketing, Sales Management, he has also been teaching Strategic Marketing Planning, Marketing Strategies and Value Innovation, Distribution and Channel Management. Currently he is pursuing his MPhil in Business Management from IoBM. He is also a corporate trainer in the field of Marketing & Management. He has been instrumental in bridging the gap between academia and the corporate world by implementing experiential learning course programs at IoBM.



**Kausar Saeed**, Associate Professor, Marketing, has over 28 years of diversified experience of the corporate, academic, entrepreneurial and developmental sectors. She has served with various organizations in different positions these include the Aga Khan Foundation, Interflow Communications and Gtz (Deutsche Gesellschaft für Internationale Zusammenarbeit – a German NGO). She teaches various courses of marketing and management at undergraduate, graduate and executive level. She is an experienced academician, researcher and consultant in the field of marketing and management. She has presented research papers at several International Conferences and has the credit of several published papers. 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 helped hone his management, leadership, and communication skills. He has also been involved in conducting sales training at a national level.



**Saadiyeh Said**, Assistant Professor has an MBA from IBA, Karachi. She has over 30 years of Academic, Marketing and market research experience, having worked in organizations such as Johnson and Johnson and as Executive Director for Aftab Associates. She has also worked as a marketing consultant for Ferozsons 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.



**Dr. Syed Amir Saeed**, Assistant Professor, Marketing, has completed his PhD in Marketing from the Institute of Management Sciences, Peshawar. He has done his MBA from the 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 secured his MPhil in Marketing, and has executed multiple research projects in collaboration with Gallup Pakistan. Clients for those projects include the World Bank and British Council. He has also provided advertising consultancy services to different national and multinational brands.



**Nawaz Ahmad**, Assistant Professor & Research Consultant holds a Bachelors in Commerce, a Master's in Finance, and an MPhil in Management Sciences. He has completed his PhD (management sciences) course work and tenure. He started his teaching career in 1999 and research career in 2006. He has been associated with different universities during the tenure, and also worked as Principal Consultant with a research firm for three years. He has 84 research publications in national and international reputed journals and conferences and 92 citations. He is leading IFJ (impact factor journal) Publication Consultancy Support Center and editing IJELCS – International Journal of Experiential Learning & Case Studies.



**Dr. Muhammad Adnan Bashir**, Assistant Professor, Marketing has done his PhD in Marketing from the Institute of Business Management and an MPhil & MBA from Iqra University, Karachi. He holds B.Sc (Hons) & MSc degrees in Microbiology from the University of Karachi. He has over 6 years of work experience in both multinational and national pharmaceutical companies. He has worked for GlaxoSmithKline, Atco Laboratories and Novartis Pharma Pakistan. Research area includes Branding and Customer Engagement through Online Social Media.



**Amber Raza**, Senior Lecturer, Marketing holds an MPhil and MBA (IoBM) and is currently enrolled in IoBM's PhD (Business Management) program. She has worked with AKESP in the field of Education Research in Pakistan, and was part of the team that developed evaluating and monitoring instruments for the project QUAID (Quality Advancement through Institutional Development). She has 10 years of teaching experience at University level; supporting, 100 plus, students in their research projects which were based on diverse topics with focus on Management and Marketing.



**Fareen Razzak**, Senior Lecturer, Marketing, has done her MBA from IBA and is currently pursuing her MPhil from IoBM. She teaches Consumer Behavior, Brand Management and Marketing Management. She has a corporate experience related to Brand Management in Colgate Palmolive and Candy Land. She is also the founding partner in an entrepreneurial venture called Rashk Fashions, a designer brand which sold premium designer wear in various high end multi -designer stores in Dubai, Toronto, Bangladesh and Chicago with branches in Karachi including Brand just Pret, The Designers, Shabis and Labels.



**Muhammad Tabish**, Lecturer, Marketing, holds an MBA in Marketing and Finance from MA Jinnah University. He has five years of academic and professional experience. He is currently pursuing his PhD in Management Sciences from IoBM. Research area includes Consumer Behavior and Brand Management.



**Marium Mateen Khan**, Lecturer in Marketing Department, has done her MBA from PAF KIET and is currently enrolled in the PhD (Business Management) program at IoBM. She has three years of research experience. She started working in academia as a Subject Coordinator and teacher at APSAC (Army Public School and College). She has also worked at Askari Bank Ltd. and Metaphor Consultancy. She has freelance working experience of academic and creative writing. She has a number of international and national research publications in Scopus, X category and Y category research journal. Research interests include Design Thinking, Consumer Behavior, Neuromarketing, Creativity and Innovation.



## College of Computer Science and Information Systems (CCSIS)

### The Dean



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

### Computer Science and MIS



**Dr. Muhammad Mansoor Alam** is Associate Professor in CCSIS. He has had 19 years of research and teaching experience in Canada, England, France, Malaysia, Saudi Arabia and Bahrain. He has had the honor of working as an online laureate (facilitator) for the MSIS program run by Colorado State University, USA and Saudi Electronic University, KSA. Dr. Muhammad Mansoor Alam has also engaged in research collaboration with the Universiti Kuala Lumpur (UniKL) and Universiti Malaysia Pahang (UMP). Currently, he is supervising six PhD students at UniKL and UMP. Dr. Alam holds a PhD degree in Computer Engineering, a PhD in Electrical and Electronic Engineering, an ME in Systems Engineering and MSc in Computer Science. He is an active researcher in the field of Telecommunication and Network. He has authored more than 60 research articles published in ISI indexed journals, as book chapters and in peer reviewed conferences. He is also an author of the book "Study guide of Network Security" copyrighted by Open University Malaysia and Open University Hong Kong. Dr. Muhammad Alam is also an active reviewer of ISI indexed journal "Pertanika journal of science and technology (JST)".



**Dr. Fatima Riaz**, Assistant professor of Mathematics holds a PhD degree in applied mathematics in the field of fluid dynamics which she received from the University of Karachi in 2016. She has almost 12+ international publications to her credit. She had been made presentations in national and international conferences and workshops. She has almost 3 years of experience in teaching at different levels and at different universities and has served as a lecturer at Indus University, visiting lecturer at different universities.



**Syed Farhan Mazhar**, Assistant Professor in Computer Science, is a professional educator with over 10 years of experience in the educational and professional services industry including national and international organizations; some of these being: NED University, Concordia University College, Canada, Capital Health, Edmonton, Canada. He received his M.Eng degree in Software Engineering and intelligent system from the University of Alberta, Edmonton Canada. He also holds an MSc in Applied Physics with specialization in electronics from University of Karachi, He 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).



**Dr. Adeel Ansari** Assistant Professor, holds a PhD in Information Technology, from Universiti Teknologi PETRONAS, Malaysia. He has done his BSc (Hons) in Computing with First Class Honors from Staffordshire University, in the United Kingdom, Master in Business Administration in Management Information Sciences and MS in Software Engineering from Karachi Institute of Economics & Technology, Karachi Pakistan. He has had diverse work experience, as a Software engineer at Siemens Pakistan for one year, as an Assistant Quality Assurance Manager for two years (for Consumer Credit Card products) and Assistant Policy Manager (for Consumer Personal Loan products) at Habib Bank Limited. He has worked as an Associate Consultant in the IT Assurance and Advisory at A. F. Ferguson & Co, a member firm of Price Waterhouse Coopers, UK. He has taught programming languages and software development related subjects for three years at the Universiti Teknologi PETRONAS, Malaysia. He has also presented research papers at various International and national conferences and also has publications in high impact factor, IEEE and Springer journals.



**Engr. Muhammad Asghar Khan**, Assistant Professor with a Master's degree in Network and e-business centered computing from University of Reading (UK), an MBA and Master of HRM from the Australian Catholic University (Aus), MS in Computer Software Engineering from NUST and BS Computer Engineering from Sir Syed University. He has seven years of teaching and industrial experience of various national and international organizations. His areas of interest are Cyber Security; Open Source ERP and IS Audit. He is a member of many professional bodies such as Pakistan Engineering Council, Australian Endeavour Network, ISACA and Australian Human Resources Institute.



**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.



**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 has a Master's in Computer Science from the University of Karachi and an MBA in Banking & Finance from MA Jinnah University with first class first position. He has proficiency in programming of languages specially Object Oriented Programming, Computer Graphics, Engineering Drawings, Computer Aided Designing, Multimedia Technologies, Relational Database Management Systems and Finance related courses. He has a mix of over thirteen years of experience working in industry including Dawlance (Pvt) Ltd and Pakistan Petroleum Ltd and also served as Manager IT.



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



**Muhammad Waqar Khan**, is Senior Lecturer Computer Science, has a Bachelor of Engineering degree from the NED University of Engineering & Technology and a member of Pakistan Engineering Council. He also has a Master's in Computer Science from the University of Karachi and a 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 proficiency in Data Communication and Networking, Digital Communication, Programming Languages, System Analysis and Designing, Information Management System, E-Commerce, Mobile Communication System, Satellite Communication, Signal Processing, Relational Database Management Systems and communication networking related courses.



**Asim Iftikhar**, Senior Lecturer in Computer Science, holds a Master's degree in Computer Science and is currently enrolled in MS program leading to a 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.





**Syed Mubashir Ali**, Lecturer of Computer Science and MIS holds a Bachelor's degree in Computer Engineering from FAST-NUCES Karachi and a Master's degree in Information Technology from SZABIST Dubai. He is currently pursuing his PhD in Computer Science from IoBM. Prior to joining IoBM as a full time lecturer, he worked as an IT Administrator and Computer Teacher at American International School, Dubai. He has published 10 research papers in various national and international conferences and journals. His research interests are in the areas of Information Technology Standards, Electronic Commerce, Big Data, Ubiquitous Computing, Internet of Things and Gamification.



**Azam Hashmi**, Lecturer, holds a Master's Degree in Statistics from Karachi University and a Master's Degree in Business Administration from Institute of Business Administration. He has passed ISO 9000 Lead Auditor Course conducted by the British Standard Institution. He has attended six-week management training program at Ashridge Management College, England. Prior to joining IoBM in 2002, he was working at a public sector Management Training and Development Institution. He has over 30 years of experience in teaching training and management consulting services. Presently he is teaching Statistics and Mathematics courses to BBA (H) and MBA students.

## 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 an MSc in Statistics majoring in in Operations Research from the University of Karachi, MBA from IBA and a PhD from Hamdard University. He has 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 taught at IBA, Hamdard University, ICMAP, Bahria University, CAMS, Textile Institute of Pakistan and has been associated with IoBM for 14 years as visiting faculty before joining the Institute on a permanent basis. He has conducted several marketing research and business development studies in Pakistan and abroad. His areas of interests are Operations Research for Management, Operations and Production Management, Quantitative Analysis for Business and Management, Statistical Inference and Mathematics.



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



**Dr. Tajuddin Islamuddin** is an Associate Professor at IOBM since September 2014. He received his PhD in Statistics from the University of Windsor, Canada in 1984. He has taught for about 8 years at the University of Karachi and IBA and over 30 years outside Pakistan. He received number of merit scholarships throughout his academic career. He has to his credit a number of publications in reputed international journals and has developed a new measure of skewness. He has refereed a number of papers for well known international journals.



**Dr. Muhammad Danish**, Assistant Professor, Mathematics, 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.



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



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



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





**Sumaira Khan**, Senior Lecturer in Mathematics department has an MSc in Applied Mathematics from Karachi University. She is currently enrolled in an MPhil program leading to a PhD in Operational Research at 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.



**Attra Ali**, Lecturer in Mathematics, has an MSc in Mathematics from Federal Urdu University. She received 3 gold medals, for departmental position, being the highest achiever in the university. A BSc (Hons) in Mathematics from Federal Urdu University. She joined IoBM, after teaching for 2 years at NUST Karachi campus. In addition, she has done an Educational Development course from PNS BAHADUR and actively attended many workshops related to teaching and education.

## Logistics and Supply Chain Management



**Muhammad Moin Uddin Ali Khan**, Senior Fellow & Head of Supply Chain Management has BSc and BE degrees from the University of Karachi and MS in Engineering from the University of Missouri, USA. He has been trained in the 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 industry and education for over 34 years. He is a 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**, Assistant Professor in Supply chain and logistics Management holds a master's degree in supply chain and logistics management from university of Warwick, United Kingdom. He holds MBA degree from the Institute of Business Management. He had more than eight years international industrial experience in the field of supply chain and 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 a Professor at and Head of AS & RM Dept. He holds an MSc (Statistics), an MPhil (Risk Theory and Insurance -Statistics) from the University of Karachi (UoK) and a PhD (Mathematics) from the Strathclyde University, Glasgow-UK along with many courses he has done in Population Studies of UN and Computing. He has taught for more than 45 years at UoK and extensively delivered lectures at other institutions and universities of Pakistan and abroad. He has also had extensive experience of academic management and organization as Provost, HoD Computer Science for 10 years, Registrar, Project Director Development of Computer Science and Institute of Information Technology and founding Director of Main Communication Network of University of Karachi. He was Meritorious Professor and Head at Dept of Computer Science, University of Karachi, prior to joining IoBM. He has published more than 140 research papers and 7 books nationally and internationally in ICT, Mathematics, Statistics and Computer Science. He has supervised more than 12 PhD and 5 MS/M.Phil in Mathematics/Computer Science/Statistics as approved HEC Supervisor. He has more than 496 citations on his research work and frequently delivers lectures on ICT/CS/ASRM and Data Science. He is Chairman(elect) National ICT Committee for Standard PSQCA- Ministry of Science & Technology Govt. of Pakistan and member National Computing Education Accreditation Council (NCEAC) at HEC, Member IEEE(USA), Member ACM(USA) and was Fellow Royal Statistical Society UK).



**Sohail Ahmed Khan**, Assistant Professor holds an 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, joined the Institute in August, 2013. He holds an 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).



**Mushtaq Ahmad Khan Barakzai** holds MS in Actuarial Science from Heriot Watt University, UK. He also holds a Master's degree in Statistics from University of Peshawar, Peshawar. He is also a member of the Society of Actuaries, USA and Institute and Faculty of Actuaries, UK. He has a mix of professional and teaching experience. He has worked at the prominent organizations of the country such as Ministry of Finance, Securities & Exchange Commission of Pakistan and State Bank of Pakistan in the capacity of Senior Actuary, Assistant Director Insurance and Statistical Officer respectively. Before joining IoBM, he was working as Actuary at Ministry of Finance. In addition to his professional work, he has taught courses of Actuarial Science & Risk Management at University of Karachi and University of the Punjab. He has a great interest in carrying out research in the field of Actuarial Mathematics and Risk Management. He is also a PhD Scholar at IoBM.



## College of Engineering and Sciences (CES)

### The Dean

**Prof. Dr. Irfan Hyder**, (See Profile on Page No. 200).

### Electrical Engineering & Telecommunication Management



**Seema Ansari** is the Head of Electrical Engineering Department. She is a PhD scholar in Telecommunication Engineering at the University of Malaga, Spain. She did her MS-CS / Telecommunication from University of Missouri Kansas City, USA and B.E. in Electronics from NED-University of Engineering & Technology. Her research includes publications in JCR Impact factor journals, international journals & Conferences and book chapters. 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 2011 and 2015 respectively. She is associated with the R & D research groups, TIC102 and TIC128, ETSI Telecommunication, University of Malaga Spain. Her research area is Underwater Communications, Analytical Analysis of MAC protocols for Underwater Acoustic Wireless Sensor Networks.



**Dr. Muhammad Imran Majid** Associate Professor holds a BSc in Electrical Engineering from UET Lahore an MSc in Space Engineering from Umea University, Sweden and a Commonwealth PhD in Electrical Engineering from University of Surrey, UK. He has worked at various international telecom small satellite and high tech entities as well as in University of Toronto, Canada. He was elected as Founding Regional Coordinator for Asia Pacific, Space Generation Advisory Council (1999-2008) and helped set up various engineering entities including IET on Campus, Surrey (UK), IET Karachi amongst others. He joined the Institute in August 2016 and currently teaches Communication System, Opto-Electronics, Project Management and coordinates MS Thesis for MS in Engineering Management.



**Engr. Dr. Zeeshan Shahid** has a PhD and MSc degrees in Electrical and Electronics Engineering from International Islamic University Malaysia. He obtained his B.E from Usman Institute of Technology (UIT). He has published number of research articles in high quality international scientific journals and conference proceedings. He has numerous years’ experience in industrial and academic field. His research interest is in power engineering specialized in grid-tied inverters, multi-level inverters, DC-DC converters, Integration of renewable energy sources (RES) with utility grids and Power quality improvement.



**Dr. Bilal A. Siddiqui**, Assistant Professor in Electrical Engineering, obtained PhD in Systems Engineering (Controls and Instrumentation) and MSc in Aerospace Engineering both from King Fahd University of Petroleum and Minerals in Saudi Arabia, and Bachelor’s in Mechanical Engineering from NED University of Engineering and Technology, Karachi. He has previously been an Assistant Professor and Deputy Head of Mechanical Engineering at DHA Suffa University, the Director of Aircraft Engineering at Saudi Aerospace Technologies and as an Assistant Manager at Space and Upper Atmosphere Research Commission of Pakistan. He is founder and CEO of AeroX, a startup in aerospace systems in Pakistan. He is the developer of the first hybrid rocket engine in Pakistan, the third in Asia. He has taught Digital Image Processing, Machine Design, Measurements and Instrumentation, Numerical Analysis, Aerodynamics, Introduction to Computing and Programming, Linear Control Systems etc.



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



## Industrial Engineering

**Dr. Shahid Amjad**, is a Professor and Head of the Department, Industrial Management.  
(See Profile on Page No. 205)

**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 Lecturer. He has 4 years working experience with Roti Corporation of Pakistan as Deputy Manager, Technical.



**Fahad Bin Abdullah**, Senior Lecturer Industrial Engineering, holds an MSC From University of South Bank-London. He has specialized 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**, Senior Lecturer Industrial Engineering, holds an MBA degree from Institute of Business Management. She has done BE (Industrial & Manufacturing) from NEDUET. She also has six years of industrial experience 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 Mohsin**, Lecturer, holds M.E degree in Industrial Management from NED University of Engineering and Technology. She has done BE in Industrial and Manufacturing Engineering from NEDUET. She has six years of combined professional and teaching experience with reputable organizations. Her area of interest is Supply Chain Management.



## College of Economics and Social Development (CESD)

### The Dean



**Dr. Shahida Wizarat**, Dean of College of Economics & Social Development and Head of the Department, Economics 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 of Directors of the Karachi Stock Exchange. She is also on advisory boards and research councils of several organizations and universities.

### Commercial and Professional Studies



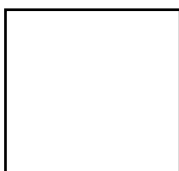
**Sartaj Qasim**, Head of the Department of Commercial and Professional Studies is a qualified Chartered Management Accountant (FCMA) from England. He is a Fellow Member of the Chartered Institute of Logistics and Transport (FCILT, U.K). He did his MBA from the Institute of Business Administration, Karachi, and was awarded the MBA Gold Medal, BSc (Hons) in Mathematics First Class with Distinction from Karachi University. He is currently enrolled as a candidate for MPhil (Business Management) at the IoBM. He had over thirty years of experience in international aviation financial management prior to joining IoBM in 2011. He has been posted in the Netherlands and Saudi Arabia as Head of Finance. He has travelled extensively to several countries in Europe, North America, Asia and Africa on official assignments. He holds several airline industry qualifications from IATA including the IATA/UFTAA International Travel Consultant Diploma. His area of research is airline service quality. He has conducted several training courses in airline finance and accounting for middle and senior management levels.



**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.



**M. Rashid Jamil**, Senior Fellow, Commercial and Professional studies did his MBA from the Institute of Business Administration, Karachi. He has almost thirty years of experience in international aviation financial management. He was permanently posted as Finance Manager at Manila, the Philippines. He has traveled widely concerning official assignments in Europe, America and Asia. Besides educational qualifications, he holds a Diploma in Cargo Proration from Geneva, Switzerland. In addition to aviation finance he has experience in financial analysis of different projects in public and private sectors. He has been teaching several courses in airline finance and accounting and has been a visiting faculty at IoBM since 2015. He joined as Senior Fellow Commercial and Professional studies on January 12 2016.



**Shayaan Essa** is an English qualified barrister called to Lincoln's Inn, with experience advising in corporate and commercial legal matters in the UAE and Pakistan. Shayaan is currently legal adviser to IoBM and senior lecturer for law at the institute.



## Economics

**Dr. Shahida Wizarat**, is a Professor and Head of the Department, Economics.  
(See Profile on Page No. 220)

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



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



**Dr. Ayesha Shoukat**, Assistant Professor, Economics has a PhD in Political Economy from the University of Malaya, Malaysia. She has multi-craft experience in Teaching, Research and Management. She has been associated with public and private sector higher education institutes for the last 16 years. To provide quality education services to her community she believed in continuous growth and knowledge up-gradation. For it she continuously, kept improving her personal academic portfolio and secured her first Master's degree in Economics and the next in Business Administration with marketing specialization, along with an MPhil in Business Finance from Bahauddin Zakariya University Multan. Because of her diversified academic background and teaching experience, she is interested in research in political, social and business oriented domains. Her specialization is in qualitative research. She has represented Pakistan in many international conferences and achieved best paper/ presenter awards. Her thesis is on Power reconfigurations and Enterprise development in Pakistan.



**Dr. Shujaat Abbas**, Assistant Professor Economics, holds a Bachelor's degree and Master's degree in Business Management with specialization in Finance, from Federal Urdu University of Arts, Sciences, and Technology, Pakistan, and PhD degree in Economics with specialization in International trade and development issues from the University of Karachi. He has worked for the University of Karachi as adjunct faculty for one and a half year before joining the institute as a full-time faculty in 2016. His areas of research interest are international trade and finance, open-economy macroeconomics, and international political economics. He has published various research articles in reputed national and international refereed journals. His research aim's to address international economic issues of developing and least developed economies.



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





**Muhammad Zubair**, Senior Lecturer in Economics, holds Master's degree in Economics & Finance from the University of Karachi. He has also secured his post graduate diploma in Economics & Finance and BA (Hons) with Economics and statistics from University of Karachi. He is also enrolled in MPhil at IoBM. He has experience of four years of Broadcasting with Radio Pakistan in the capacity of Business anchor and reporter covering economic policy and stock market etc. He is contributing regularly his article on economic issues in renowned newspaper Express Tribune for two years.



**Sadia Mansoor**, Lecturer in Economics, holds MAS Economics from the Applied Economics Research Center (AERC) and MSc Economics from the Quaid e Azam University (QAU), Islamabad. She has been working with IoBM for last one and a half year. She has also worked for two years as Lecturer and Economist in different private academic Institutions. She is currently doing her MS Economics from IoBM and her area of interest and research is Financial Economics. She did her MSc thesis on Determinants of Suicide in Pakistan which had been first ever empirical study in Pakistan.



**Irfan Lal**, Senior Lecturer 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

**Prof. Dr. Nasreen Hussain**, Chairs the Education Department. She is also the Editor-in-Chief of the Journal of Education and Educational Development published by the institute. Dr Hussain brings to academia over 35 years of diverse teaching, administrative, research, and consultancy experience. She has edited books as well as written articles and book chapters. Dr Hussain is the External Moderator for the University of Cambridge and has received British Council, Hornby Trust, USIS, USAID, Aga Khan University, and Aga Khan Development awards to pursue her academic career and research projects at national as well as international levels in diversified areas. Her forte is in qualitative research methods with a special focus in field research. Inter alia, her specialization includes teacher education, strategic planning / educational planning, leadership development, and organizational learning.



**Dr. Muhammad Abid Ali**, Assistant Professor in Education, earned his PhD in Education Administration from International Islamic University Malaysia, and MBA in Human Resource Management and Finance from Pakistan Institute of Management. He has 30 years of administrative experience at higher management levels. He is qualified lead auditor ISO quality systems. He is initiator and founder member of two educational research institutes and is actively pursuing the cause of education reforms at different platforms. His areas of specialization are designing and development of education on Iqbal's educational thought and philosophy.



**Dr. Shelina Bhamani** completed her PhD in Education, specializing in early childhood and program monitoring from the Institute of Business Management recently. She is currently working as an Assistant Professor at the Dean's office at College of Business Management in capacity of accreditation and quality enhancement. Also, she is Editor of International Journal of Childhood Studies, IoBM and Assistant Professor in Dept of Education. In the past, she has been associated with USAID, Aga Khan Development Network and City District Government, Karachi in various education project capacities. She has published her research in various national and international journals and has presented her work in quite a few international conferences. Her areas of research interest lie in Qualitative research, advocacy, ECD and Program quality assurance and monitoring and evaluation.



**Sarwat Nauman**, Assistant Professor 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 a teaching experience of 11 years and has been associated with various universities. She also holds the position of the sub-editor for the Journal of Education and Educational Development which is published biannually by the Department of Education.



**Samer Iqbal**, is a Junior Lecturer and Coordinator, Journal of Education and Educational Development (JoEED). She earned MBA in Educational Management from IoBM and Masters from the University of Karachi. She is currently pursuing MPhil in Education from IoBM. She has been involved with different educational projects, especially with the British Council and Intel Education Program as a master trainer. She has been awarded Intel Education Award and secured 2nd position in overall Sindh. She has been awarded as the Best Teacher, Best Coordinator and the Most Active Teacher in different educational settings. She has research interests in ICT in education, marketing education services, and management.



## Center for Policy and Area Studies



**Dr. Talat A. Wizarat**, Professor and HoD, Center for Policy and Area Studies holds PhD Degree from University of Karachi and Master's in Government and International Studies from the University of South Carolina where she went on Fulbright Hayes Scholarship. Her first Masters in International Relations is from the University of Karachi. She served as Professor at the Department of International Relations at KU and at the Department of Social Sciences and Liberal Arts at IBA Karachi. Dr. Wizarat has been part of several track-II channels including Nimrana Dialogue of which she was a regular member for several years. She has contributed over thirty research articles to renowned journals and has also contributed chapters to books and edited two books on Middle East and South Asia. She is regularly invited to evaluate research papers for various journals. She is also invited as guest speaker by various TV and radio Channels and has also been invited by NIM and various other staff colleges and other centers of higher education. Her areas of interest include track-II diplomacy, conflict Resolution and crises Management, South Asia, Middle East and Political geography.



**Dr. Ghazala Aleem**, Assistant Professor, is PhD in Islamic Studies from Karachi University and is a certified Arabic teacher. She has completed Masters in Islamic Studies and Arabic, and BEd from Karachi University and DHMS in Homeopathic Medical System. She has also worked as faculty of medicine at Hamdard University. In addition, she has taught at several other places before joining IoBM. Moreover, she has also worked as a freelance journalist with Daily Jang and other magazines.



**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.



**Syed Hasan Habib**, Senior Fellow, Center for Policy and Area Studies, holds a Master Degree in Science. He has worked four years in chemical process industry before joining Central Superior Services in 1983. He joined Foreign Services in 1986. He attended the Chinese Language Course from Beijing University of Language and Culture (1989-91). In his over 30 years of diplomatic career, he had worked in different capacities at Pakistan's foreign missions in China, Iran, The Netherlands, Morocco, Switzerland, Chengdu (China) and North Korea. Also he has been Pakistan's representatives at several international organizations and conferences. He remains deeply involved in Chinese and North Korean affairs. He is part of several local and international bodies in social and international affairs.





## Business Psychology

**Dr. Nadia Ayub**, Head & Associate Professor, completed Post-doctoral Fellowship from School of Psychology, University of Queensland, Australia, and 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 identity issues in adolescents, organizational issues, family and marriages, cross-cultural psychology, educational psychology, 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, 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 International Education Faculty Achievement Award from the International Association of University Presidents for 2014 and HEC Best University Teacher Award for 2011. She has visited Caucasus University, Tbilisi, Georgia in 2014 on Leadership Development for Higher Education Reform (LEADHER) project funded by International Association of University Presidents.



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



**Dr. Syed Shameem Ejaz**, Assistant Professor, earned a Doctor of Philosophy in Psychology in 2011 from the University of Karachi, Pakistan. He has been practicing Psychology for more than 18 years as psychotherapist, researcher, and educator in and outside Pakistan. He was the only member of QRCA-USA from Pakistan in 90's. He wrote books on research writing and diversity. Dr. Ejaz is a professional software designer; it defines his personal research interest well i.e., artificial intelligence and emotional machines. He has designed several psychological and analytical software. He likes to write about person-environment integration, issues, and reform.



**Falak Zehra Mohsin**, Senior Lecturer 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 focuses on Psychometric Testing, Social Psychology, Personality, Gender Roles, Gender Perspective, Family, Marriages and Relationship dynamics, Interpersonal Psychology, Socio-Cultural Psychology, Attitudes and Emotion and Educational Psychology. She has presented her research in various national and international conferences and her work has been published nationally and internationally in different journals. 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 and the Women in Development Conference. She has worked as a counselor in clinical organizations as well as at underprivileged schools and continues to be associated with different welfare programs in the society.



**Tehzeeb Sakina Amir**, Senior Lecturer, is currently a PhD scholar, University of Karachi. She completed MPhil in Psychology, University of Karachi in year 2014. She secured first class first position in her masters in Organizational Psychology. Her research focuses on Organizational dynamics, Consumer Psychology, Psychometrics, and Human Factors at work place. She has published two papers with few in reviewing process. She is on the editorial board of Pakistan Business Review and Journal of Education & Social Sciences.



## Islamic Studies / Philosophy Unit



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

## Media Studies



**Ejaz Wasay**, Head, Media Studies and Senior Fellow Marketing, joined IoBM as a permanent faculty in January 2010. He has over 37 years of industry experience in Marketing, Corporate Communications and Advertising, having worked with leading MNCs and local companies, including Glaxo, Unilever, Gillette, Philips, Orient McCann-Erickson and United Bank Limited (UBL). With Gillette he held senior positions in Pakistan, Brazil and the Middle-East. He has led two major research projects during his tenure at IoBM: a Consumer Perception Study for Indus Motor Company (IMC) and a Media Responsibility & Independence Index Research for USAID. He has been Council Member of the Marketing Association of Pakistan (MAP) for about 15 years, and its President in 2005. He has been writing for *Aurora* and *Marketing Review* for over 20 years, and has been a Jury Member of the Pakistan Advertising Society Awards since its inception.



**Dr. Erum Hafeez Aslam**, Assistant Professor, Media Studies, holds a PhD degree in Mass Communication with specialization in Social and Cultural Dynamics of Media from the University of Karachi, Pakistan. Before Joining the Institute, 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 M.A in Mass Communication from University of Karachi and is pursuing MBA in Advertising and Media Management from IoBM. She has worked as a journalist at a leading English language newspaper and has been contributing for leading newspapers and magazines including *The News*, *Dawn*, *Express Tribune* and *Newsline* for three years now. She was associated with a private university as a faculty before she joined IoBM in September 2011.



## VISITING FACULTY AT INSTITUTE OF BUSINESS MANAGEMENT (IoBM)

Abdul Ahad MBA, IoBM	Amjad Hussain MIM, Minnesota , MSC , Staistics , KU	Dr. Bilal Muhammad Khan Post Doc, University of Sussex
Abdul Basit CA, ACA, CISA (2005), CIA 2004	Anum Fatima MA Economics, KU	Dr. Farah Ahmed MSBE (Biostatistics and Epidemiology)
Abdul Hameed Khan MBA	Anwer Malik MBA, IBA	Dr. Faraz Arif MBA, IoBM-MHM, FCPS, MBBS, DMC
Abdul Khaliq Aboya MA Philosophy, KU	Arif Ashraf Ali MA Marketing, Middlesex University	Dr. Farooq Arby PhD in Economics, PIDE
Abdul Qadir Sheikh MS Environmental Engineering, NED	Arsalan Hussain MBA, IoBM	Dr. Hassan Danish Masters of Public Health, USA
Adnan Alam Khan MCS Telecom., Hamdard	Asad Hassan ACMA. MBA, IBA	Dr. Imtiaz Ahmed MBA, IoBM
Adnan Azam MBA, LUMS	Asim Qadri MBA (Media), IoBM	Dr. Manzoor Hashmani PhD in High Speed Communication, NIST
Afzal Shahabuddin MBA, IBA	Assad Nawaz Gondal MBA, Imperial College of Business Studies	Dr. Mehboob Ul Hassan Bukhari PhD, KU
Ahmed Jamal MBA, IBA	Atif Rafeeq MBA, IoBM	Dr. Muhammad Saleem PHD, Australian National University
Ajmal Khan MPhil Education, Iqra University	Atta-ur-Rehman MBA, IoBM, MA KU	Dr. Muhammad Yahya Noori PhD, University of Glassgow
Alenah Younus MCom in Finance, KU	Azadar Hussain MBA in Marketing	Dr. Munira Ameer Ali PhD in Education, Aga Khan University
Ali Zulfarnain Master in Mech. Eng., NED	Baber Saad Khairi MBA, (Boston USA)	Dr. Nosheen Zehra MBA
Alia Hassan MBA, IBA	Brig ® Dr. Ahmed Rashid Khan MPH, Baqai Medical University	Dr. Nuzhat Khan PhD, Sindh University
Ambrin Noor Ali Jiwani MBA, IoBM	Danish Gazdar ACCA Member 2014 – UK,	Dr. Qazi Afaq Ahmed PhD HR
Amber Saleem MBA, IBA	Danish Rais Khan Bachelor in Commerce, KU	Dr. Samina Kidwai MPhil in Marine Biology, MSc in Marine
Ambreen Bashir MBA, IoBM	Dr. Abdul Rahim Afaki PhD in Philosophy, KU	Dr. Shahida Mirza MBA, IoBM
Amir Ahmed Khan MS, SZABIST	Dr. Adnan Kanpurwala M.Phil, MBBS	Dr. Tahseen Ahmed Jilani MBA, IBA
Amir Bashir MBA, IoBM	Dr. Amir Iqbal PhD., The University of Manchester. UK	Dr. Talha Shahid MBA in PBA, Bahria University
Amir Zia MA in English Literature, KU	Dr. Atif Mahmood MBA, IoBM, MPhil Philosophy, DUHS	Fahad Ashfaq Khan MSc (Telecom), University of London



Fahad Fahim MA, Risk Management	Harish Chander MBA, IoBM	Maira Akhtar MBA, IoBM
Faisal Ali Sheikh MBA, SZABIST	Haseen Bano MPhil, KU	Malic Mansoor Kabani MBA/MPhil, Iqra
Faisal Dhedhi MBA, IoBM	Hassan Sardar MBA, IBA	Malik Mansoor MBA, IoBM
Faisal Jalal MBA, KU	Humayun Zafar MA, KU	Maria Kamran Masters, Queensland University
Faisal Masood MBA, IoBM	Imran Masood Ahmed BA, KU	Mehr Fatima Riaz Khan CFA (CFA Institute), MBA, IoBM
Faiza Hammad MSc, University of Warwick	Iqbal A Khan MSc, Quaid-e-Azam University	Mehreen Kausar Azam MEM, NED
Faiz-ul-Islam MBA, IBA	Irfan Muhammad Mphil, KU	Mirza Salman Beg MS, NED, MSC Math
Farahnaz Moazzam MA English, KU	Ishrat Hussain Zuberi LLB, KU	Moazzam Hussain MBA, LUMS
Farhan Iqbal MPhil, IoBM	Jahanzaib Haque BA Mass Communication, Cyprus	Mohammad Ali Shah MBA, Forman Christian College Univesity
Farooq Baloch MA, Uni of Nebraska	Javaid H Zuberi Chartered Accountant	Moin Uddin Ahmed MA English (Literature & Linguistics)
Farooq Sheikh MBA (Finance), IBA	Javed Akhtar Khan MPhil, Hamdard University	Momiza Bawany LLM
Fawad Afridi MBA, Greenwich University	Jibran Zafar MBA, IoBM	Mufti Ehsan Waqar MBA (Finance), IoBM
Fawad Fazal MBA (Banking), IBA. CFA	Kamal Qureshi MBA, Greenwich	Muhammad Ahsan Irshad MBA, IoBM
Ghulam Jilani Kothari MBA, IoBM	Kamal Siddiqui MSc Media / Communication, LSE	Muhammad Ali MBA, LUMS
Gohar Alam Siddiqui MBA	Kashif Rasool MBA, IBA	Muhammad Ali Sheikh MBA, IBA
Hafiz Muhammad Zakaullah MA(Arabic and Islamic Studies), KU	Khalid Durrani MBA (USA)	Muhammad Amir MS, Sir Syed University
Hafiz Syed Hussain MA Islamic Studies, KU	Khalid Hussain MBA, IBA	Muhammad Asadullah M.Com, KU
Hamza Khalil MBA, Sind University	Khalid Siraj MBA	Muhammad Barkatullah MA, Balouchistan University
Hamza Nizam Kazi MBA, IoBM	Khurram Ansari MBA, University of Texas	Muhammad Danial MBA, IoBM
Haris Inam MBA (Suuply Chain), IoBM	Maham Durrani LLM, George Washington University	Muhammad Haseeb MSc (Economics), KU



Muhammad Irfan MS, KU	Obaid-ur-Rehman CA, LLB	Sameen Wasif MBA, Szabist
Mohammad Raza Husain MBA, IBA	Ovais Ahmed Tanveer MBA, PAF-KIET	Sanam Aftab MBA, IBA
Muhammad Salman Masters, UN mandated University	Pervaiz Sadiq MSC Engineering UK	Sanam Azeem MPhil, Management Sciences
Muhammad Shahbaz Khan MS, IoBM	Rafia Ayub MS in Science	Sarah Irfan MBA, IoBM
Muhammad Shahid Iqbal PhD Economics, KU	Rahat Aziz LLM	Sarah Yousuf MSC, KU
Muhammad Tahir MSC, University of Essex UK	Raheel Yousuf MBA, IoBM	Shah M Saad Hussain MS, Michigan. MBA, IBA
Muhammad Tahir Siddiqui MA in Mass Communication	Raja Rab Nawaz Post Graduate, IBA	Shah Saleem MBA, KU
Muhammad Umer MA in IR, KU	Ravi Srichand Talib MBA, IoBM	Shahid Amin Masters in IR, (USA)
Muhammad Zia Kayani LLB	Rais Ahmed MBA (Finance), KU	Shahid Suleman Jan Master of Engineering, NED
Mukhtar Ahmed Khan MBA	Romana Parvez Akhtar Mphil, IoBM	Shahida Kazi MA, KU
Munazza Khan MA in IR, KU	Saad Hassan MBA, IBA	Shahzad Zuberi MBA, Szabist
Nabeel Latif MBA, IoBM	Saad Hayat ACCA, SAE, UK	Shahzaib Aijaz MBA, KSBL
Nabeela Naeem MBA, LUMS	Saad Rafi MBA, IoBM	Shamimuddin Ahmed Zubairi FCMA
Nabhan Shah Karim MA, Kingston University of London	Sabah Ibrahim MBA, IoBM	Shazia Baig MBA, IBA
Nadia Aftab MBA, Szabist	Sabera Suleman MS, Management Sciences	Shazia Hashmi MBA, IoBM
Navaid A. Khan Masters of Arts, KU	Sabin Agha Masters of International Relations, KU	Shazia Hassan MBA, International University
Naveed Illyas MBA, IoBM	Saghir Ahmed Khan MA Economics, LLB	Sheikh M Faraz Naseem MBA, IoBM
Nayyer Nizam MBA, Arizona State Unvi. USA	Salah Uddin MA, University of Punjab	Sheikh Zahid Masood MPA, Harvard
Nazia Azfar EMBA, SZABIST	Salman Ahmed MA, Williams College	Shoaib Khan MPA, UK
Noman Siddique Educational Consultant	Sameen Ghani MBA, IBA	Shoaib Rizvi MBA, IoBM



Shujaat Saleem  
MS, PAF-KIET

Siddiq Khatri  
MBA, IBA. MSC , KU

Sohail Sultan Ali Sawani  
MBA, IoBM

Subul Naqvi  
MBA, IBA

Suman Valeecha  
MBA, IoBM

Syed Abdul Basit  
MBA, IoBM

Syed Ahmed Abbas Zaidi  
MSc (Economics), KU

Syed Ahmed Subhan  
MBA, IoBM

Syed Ahsen Ali  
Bachelors in Media Sciences

Syed Aqeel Zafar ul Hassan  
MA, Government College Lahore

Syed Asghar Reza  
MBA, IoBM

Syed Asif Raza  
MPhil, KU

Syed Kamran Abbas  
MAS, (Eco), KU

Syed Mohsin Iqbal  
Masters, KU

Syed Mubashir Ali  
MS, Information Technology, SZABIST

Syed Muhammad Fahim  
MS (Management Sciences) from Biztek

Syed Qaiser Hussain  
MA in Linguistics and Literature

Syed Qutub Ahmed  
MBA, ILM

Syed Sajjad Ahmed  
MBA, IBA

Syed Sarwar Kazim  
MSc Statistics, KU

Syed Shahzad Raza  
PhD in Mathematics, USA

Syed Zia Abbas Rizvi  
MPhil in Economics, AERC

Syeda Dur-e-Afshan Ali  
MBA, IoBM

Taha Durrani  
MBA (Media), IoBM

Taha Saleem  
MBA (Finance and Risk Management)

Tahseen Valjee  
MBA, IBA

Taimur Sikander  
BA International Studies, Texas (USA)

Tajdar Hashmani  
MBA, IoBM

Tanveer Ishrat  
MA, KU

Tauseef Latif  
ELD, Government of Sindh

Taqi Shaheen  
Bachelors of Arts NCA

Tarique Aslam Qureshi  
MBA, IoBM

Umair Saeed  
MBA, Hamdard

Usman Ali  
PhD/Mphil, Iqra

Yasir Malik  
MBA, IoBM

Zafer Mehdi  
MPhil, KU

Zahid Khan  
MBA, IoBM, MA Economics , KU

Zain ul Abydeen Khandwani  
MBA, IoBM

Zaki Ahmed Kamali  
MBA, ICMA

Zara Islam  
MBA, IoBM

Zebunisa Burki  
MSc, University of Punjab

Zeeshan ul Haq  
MBA, Hamdard University

Zunair Hussain Khan  
MBA, IoBM



# ADMINISTRATION

## ADMINISTRATION



The administrative staff of IoBM is highly skilled and qualified to perform multifarious tasks, vital for the smooth running of the Institute. The administration implements the policies formulated by the Governing Board and the Academic Council. It is responsible for organizing academic programs, ensuring student progress, providing adequate support facilities to the faculty and students, and liaison with business and industry to arrange internships, ensure career development and placement of students on the completion of their degree. It is also responsible for the organization and supervision of examinations.

### Members of the Administration



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



**Sabina Mohsin**

Executive Director

Administration, Admissions and Finance

BBA, University of Arizona, USA

MS, US International University, Nairobi, Kenya



**Dr. Amanat Ali Jalbani**

Advisor to President & HoD  
Office of Research, Innovation  
and Commercialization (ORIC) &  
Graduate Studies  
PhD (Edinburgh University,  
Scotland, UK)



**Muhammad Waziruddin Jahangir**

Senior Manager & HoD, Corporate Affairs  
BCom, (Sindh University)  
CA Finalist, (ICAP)



**Dr. Khalid Amin**

Senior Manager & HoD Alumni,  
Placement & International Cooperation  
PhD in Business Administration



**Muhammad Misbahuddin**

Senior Manager & HoD  
HR & Administration  
MBA, LLB





**Aslam Kurban Ali**  
Senior Manager & HoD, Finance  
ACMA



**Syed Maqbool ur Rehman**  
Controller of Examinations  
MBA



**Parvez Jamil**  
Manager, Public Relations  
MA



**Syed Aley Ahmed**  
Manager, Projects  
BE Civil, FIE, PE



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



**Syed Irshad Karim**  
HoD SAC & Housekeeping  
BA (Honors)



**Riaz Akbar Contractor**  
Proctor & Manager Sports &  
Students Affairs  
BCom



**Syed Adnan Faisal**  
Senior Assistant Manager-II &  
HoD Maintenance  
BE, Electrical Engineering



**Asim Farooq**  
Senior Assistant Manager-II & HoD  
Information Technology  
BCS



**Imdad Ali Mugheri**  
Senior Assistant Manager-I &  
HoD Admissions  
MBA, LLB



**Shaikh Muhammad Sharif Nasir**  
Librarian  
MLIS



**Malik Barolia**  
Senior Assistant Manager-II  
HR & Finance  
MBA, ACMA-II



**Lt. Cdr. (R) Sartaj Hussain**  
Senior Assistant Manager-I  
Security  
BA



**Nadeem Ahmed Khan**  
Internal Auditor  
MBA, CIMA Finalist (England)  
Chartered/Corporate Secretary FCIS  
(Pak/England)



**Yasir Jamal Pasha**  
Assistant Manager II  
Head of MBA Evening Program  
MBA



**Fesal Bin Naseem**  
Senior Assistant  
Controller of Examinations  
MS IT, MS Applied Physics



**Abdul Khaliq**  
Assistant Manager-I, Placement  
MBA



**Muhammad Adnan**  
Assistant Manager-I  
Information Technology  
MBA, MIS



**Muhammad Hassan Sayeed**  
Assistant Manager I, Admissions  
MBA, Finance



**Dr. Capt. Agha Iqbal Ahmed**  
Medical Advisor  
MBBS, Liaqat Medical College  
Hyderabad



<b>Humayun Rashied</b> Senior Sports Officer II MSC, MA & B.Ed	<b>Masood Hasan</b> Senior Accountant II MBA	<b>Mehmood Ahmed</b> Senior Accountant II BCom
<b>Mohammad Arif Shaikh</b> Senior Maintenance Officer II Diploma of Associate Engineering	<b>Rashid Iqbal</b> Senior Maintenance Officer II BTech Electrical	<b>Abdul Sajid Khan</b> Oracle Database Administrator, IT MCS, MBA
<b>Muhammad Munib Mohsin</b> PeopleSoft Team Lead, Senior Officer II Bachelor Software Engineering	<b>Mohammad Masood Khan</b> Senior officer, Inventory Control BSC	<b>Munawar Ahmed</b> Admin Coordinator BA
<b>Barira Amin</b> Senior Officer, HR MSC (Org. Psychology), MBA	<b>Abid Ali</b> Senior Accountant I CA (Intermediate)	<b>Muhammad Kamran</b> Senior Officer MCS
<b>Ameer Ali</b> Assistant Librarian MLIS	<b>Muhammad Omar Iftikhar</b> Senior Officer I MBA	<b>Syed Asif Hasnain</b> Senior Officer, Purchase Department B.Com
<b>Ghulam Dastagir</b> Executive Secretary, Dean Office BA	<b>Syed Mustafa Hussain</b> Academics Officer II MA	<b>Muhammad Zahid</b> Accounts Officer II ACCA
<b>Muhammad Asim</b> Accounts Officer II ACCA	<b>Rashid Aqeel</b> Internal Audit Officer II CA Finalist (ICAP)	<b>Midhat Nadeem</b> Officer II, EMEC MBA
<b>Farooq Ahmed</b> Executive Secretary to President BA	<b>Samiullah Khan</b> HR Officer II BA	<b>Naeem Mirza</b> Assistant Librarian MLIS
<b>Hafiz Humayun Baig</b> Officer, Registrar's Office MA	<b>Mobina Ahmed</b> Officer I, Admissions MBA	<b>Sarah Asghar</b> Officer, Alumni, Placement & International Cooperation & Student Counselor MBA
<b>Saadia Karim</b> Webmaster/Programmer MS/MPhil	<b>Dr. Azeem Rauf</b> Officer, Health & Hospital Management MBBS	<b>Zohaib Ian</b> HR Officer MBA
<b>Syed Noman Reyaz</b> Network Support Officer BA	<b>Muhammad Sajjad</b> Officer HVAC B.Tech Mechanical	<b>Muhammad Faisal Nisar</b> Officer I, IT B.Com
<b>Asad Hussain</b> Outreach Officer BCom	<b>Amir Ali Khan</b> Officer I, Admissions BA	<b>Farah Habib</b> Officer OGS BE (Bio-Medical)
<b>Asim Ahmed Khan Yousfi</b> Assistant Officer II BCom		



# **COURSE DESCRIPTIONS**

## COURSE DESCRIPTIONS

The courses offered by the Institute, covering a wide range of fields, are especially designed to help students gain an insight into the subject matter. The contents of the courses not only cover an international perspective of the concept taught but also place a special emphasis on the local/national content.

### Course Abbreviations and Sequence

		Page No.
Accounting	ACC	237
Actuarial Science	ARM	239
Communication	COM	239
Computer Engineering	CME	240
Computer Science	CSC	241
Data Science	BDS	244
Economics	ECO	245
Educational Management	EDM	248
Electrical Power System Engineering	EPE	250
Electronic Engineering	ELE	250
Engineering	ENG	251
Entrepreneurship	ENT	254
Environment and Energy Management	EEM	254
Finance and Banking	FIN	258
Finance and Risk Management	FRM	261
General Sciences	GSC	262
Health Management	MHM	263
Human Resource Management	HRM	265
Islamic Banking and Finance	ISF	267
Languages	LAN	268
Law	LAW	269
Management	MAN	270
Management Information Systems	MIS	272
Marketing	MKT	276
Mathematics	MTH	278
Maths & States (Scientific Computing)	MTS	281
Media	MMM	283
MPhil Leading to PhD in Business Management	MPM	288
MPhil Leading to PhD in Organizational Psychology	MPP	289
MPhil in Educational Leadership and Management	ELM	289
MS in Education Leading to PhD	MPE	290
MS Engineering and Management	MEM	291
Policy Studies	PLY	292
Pakistan / Islamic Studies	PRL	292
Political Sciences	PSC	292
PhD (Business Management)	PBM	293
PhD (Computer Science)	PCS	294
PhD (Mathematics & Scientific Computing)	PMT	295
PhD (Statistics & Scientific Computing)	PST	295
PhD in Economics	PDE	296
Psychology	PSY	297
Religious Studies	REL	299
Supply Chain and Logistics Management	SCM	299
Social Sciences	SSC	300
Statistics	STA	301
Telecommunication Engineering	TCE	303
Telecommunication Management	TCM	304

- 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 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

Explain the terminology, basic concepts and principles of cost accounting. Fundamentals addresses all key cost accounting topics, including inventory valuation, job order costing, process costing, activity based costing and standard costing. This course also covers the role of the cost accountants in setting prices.

Pre-requisite: ACC 201

### ACC302 Accounting and Financial Information Systems

This course provides an understanding of information systems demonstrates how information technology can support the business activities in the areas of accounting and finance and describes the problems associated with controlling and auditing such information systems. This course focuses on business cycles and internal control through software based accounting.

Pre-requisite: ACC 201

### ACC303/306 Financial Reporting I & II

To provide candidates with an understanding of the fundamentals of accounting theory and basic financial accounting with particular reference to international pronouncements. The second part of the course will broaden the knowledge base of basic accounting acquired in earlier modules with emphasis on International Financial Reporting Standards.

Pre-requisites: ACC 102/103

### 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

### ACC320 Cost and Management Accounting

This course seeks to give an understanding of the ways in which management accountants can provide relevant information for a variety of decisions to be made in managing any organization. On completion of this course, students should be able to identify, use and interpret the results of costing techniques appropriate to different activities and decisions; formulate and use standards and budgets for planning and control purposes.

Pre-requisite: ACC 201

### ACC401 Introduction to Managerial and Cost Accounting

This course will cover cost accumulation concepts and techniques for product and service costing and planning and control. Modern management accountants are not only concerned with how cost data are transformed into cost accounting information but more importantly how to use cost data to management goals. This course should develop the student's understanding, skill, and analytical ability in management accounting to the level where he or she can function effectively as a professional management accountant.

Pre-requisite: ACC419

### 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

The objective of this course is to explain how managerial accounting information is used by managers in various types of business organizations. The emphasis is on the development, interpretation, and application of managerial accounting information for planning activities, controlling operations, and making decisions. This course covers cost behavior, CVP analysis, variable and absorption costing, budgeting, decision making, and accounting for decentralized operations.

Pre-requisite: ACC301

### ACC414/416 Auditing I & II

The purpose of these courses is to give students theoretical and to a limited extent, technical knowledge and skills of auditing and review of historical financial information. It will provide a foundation for acquiring intensive knowledge required for professional competence.

Pre-requisite: ACC 102/103



### **ACC417 Corporate Reporting**

This is an advanced course in the field of Financial Accounting. The course includes preparation of financial statements, consolidated accounts and their disclosures; accounting for investment in subsidiaries and associated undertakings; reporting on investments in joint ventures.

Pre-requisite: ACC 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 203/304/305/415

### **ACC419 Financial Accounting**

This is an introductory financial accounting course which will introduce and enable students to examine and understand the accounting concepts, the accounting model, analysis process leading to the preparation and presentation of financial statements of a Sole Proprietorship firm as well as a Corporation, in accordance with Generally Accepted Accounting Principles. Furthermore it would enlighten the students to understand in detail, the accounting for all currents and fixed assets (tangible and intangible), current and long term liabilities, and equity structures of proprietorships and corporations.

### **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: ACC203/201/304/419

### **ACC502/602 Advanced Managerial 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: ACC203/201/304/419

### **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: ACC201/419

### **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 201/419

### **ACC520 Managerial Analysis & Decision Making**

This course is designed to develop an appreciation for the uses of cost information in the administration and control of business organizations. Emphases are on how accounting data can be interpreted and used by management in planning and controlling business activities. Upon completion students should be able to analyze and interpret cost information and present this information in a form that is usable by management.

Pre-requisite: ACC305/401/410

### **ACC521 International Financial Reporting Standards**

The primary purpose of the course is to develop knowledge of International Financial Reporting Standards including the standards' history, new standard adoption, the recording of financial transactions, and financial statement presentation. In addition, IFRS for SMEs and Comparison of IFRS with GAAP will also be discussed.

Pre-requisite: ACC201/419

### **ACC522 Strategic Management Accounting & Control**

The course is designed for the development of basics of Management accounting to align with the strategic objectives of a business. It aims to provide an understanding of strategic management accounting and control issues for the business and assist management in implementing the firm's operational and strategic goals with success.

Pre-requisite: ACC201/419

### **ACC523 Legal Requirements for Business**

The course aims to provide an overview of the legal concepts and principles that impact a business. It gives a broad view on the information needed to develop relevant skills for the transactional and functional aspects of the business. The course is designed for students to get familiar about the Law needed for Business along with its various interactions in the legal environment.

Pre-requisite: ACC201/419

### **ACC524 Corporate Governance & Reporting**

This course will teach the fundamental theories and practice of corporate governance. It covers the history of the corporations, role of boards of directors, the division of profit sharing and various forms of employee ownership and equity ownership among insiders, regulation, shareholder activism, the impact of takeovers and mergers and acquisitions on governance, ethical issues such as conflicts of interest and insider trading, international corporate governance, and policy developments likely to impact the corporation.

Pre-requisite: ACC201/419



## 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.

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.

Pre-requisite: ARM601/FIN509

## Communication

### COM100 Foundation English

This basic level integrated skills course aims to prepare students for university education. It mainly focuses on developing students' receptive (reading and listening) and productive skills (writing and speaking) and grammar in context. It also gives intensive input to develop students' study skills and to make them independent learners.

### COM103 Functional English I

The objective of this course is to ensure that students select, use and apply the functional skills of reading writing and comprehending in a range of purposeful situations. It will provide compelling learning experiences so that students engage more profoundly in what they are learning and internalize the skills they are developing.

### COM104 Functional English II

This course has been designed to enhance the students' understanding and use of writing skills in English. It will provide compelling learning experiences so that students engage more profoundly with what they are learning and internalize the skills they are developing. The course introduces the elements of critical reading, building on a clear understanding of thoughts processes.

Pre-requisite: COM103

### 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. It also analyzes the strategies and tactics in which organizations achieve their goals.

### COM106 Business Communication and Behavioral Studies II

This course aims to create awareness of the current norms and conventions of written business communication among students. It teaches students how to plan, organize and write correct and effective business documents for use in today's global business environment.

Pre-requisite: COM105

### COM107 Academic English

This course aims to enhance students' writing skills in English based on critical reading and thinking. The course follows an integrated academic reading and writing approach to enable students to cope with their university studies.

### COM111 Critical reading and creative writing

This course is designed for the Media Studies students to enhance their critical thinking skills, thereby inculcating a maturity of thought in their freshmen year. The course aims at developing the students' critical reading skills by introducing them to various genres and styles of writing. The focus of the course is to introduce the students to elements of creative writing and to develop the aspects of originality of thought and innovation of ideas.

### COM112 Appreciation of Literary Texts

This course for the Media Studies students aims to introduce different genres of literature to the students. The course focuses on developing the students' taste for literary texts through readings in literature in English. The aim is to develop the students' awareness about various literary genres, and to create an aesthetic insight needed in their studies.

Pre-requisite: COM111

### COM202 Business and Professional Speech

This course is designed to improve the students' interpersonal, intrapersonal and public communication abilities. The course aims at developing the students' critical thinking and problem-solving skills to enable them to argue logically in business contexts. Students learn to apply these skills in public speaking, board meetings, interviewing, and group interaction.

Pre-requisite: COM107\*/203/205

\*For BE (EI Eng & Tele)

### 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: COM107

### COM205 Persuasive and Analytical Writing for Business Communication

The course aims at developing messages at all levels of business communication focusing on mechanics, style, and tone of writing. The main emphasis is on critical thinking in order to analyze and evaluate situations to solve complex business problems. This course will enable students to write effective emails, memos, letters, proposals as well as formal and informal business reports.

Pre-requisite: COM107

### 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.



### **COM403 Interpersonal Communication Skills**

This MBA course aims at developing students' personal and professional skills through enhancement of personal as well as interpersonal management. It focuses on the development of critical thinking skills in social and professional forums. The course also aims at developing students' elocution and personal grooming.

Pre-requisite: COM402

### **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.

### **COM410 Digital Business Communication**

This course aims to develop students' proficiency based on the requirements of today's technologically enhanced workplace. It builds on the overall communication skills acquired by students in terms of structure, reasoning, building arguments and graphics, and aims to apply them in a digital media environment. Students will therefore learn to design and develop content for websites, Facebook, Instagram and other platforms, culminating in a complete digital campaign.

## **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.

### **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.

Pre-requisite: CME102

### **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.

Pre-requisite: ELE202

### **CME203 Data Structures & Algorithms**

Data types, Array, Records, Set structure, Abstract data types, Sequential allocation, Linked allocation. Stacks (sequential as well as linked Implementation) Queues. (Sequential as well as linked implementation), Linked Lists, Traversal, Insertion, Deletion, Doubly linked lists, Root Node, Terminal Node, Branch Node, Level of a Node, Degree of a node, Binary tree, Tree traversal, (In-order/Pre-order/post-order traversal).

### **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.

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.

Pre-requisite: TCE201

### **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





## 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.

Pre-requisite: CSC113, MTH222

### **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.

Pre-requisite: CSC113

### **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.

Pre-requisite: CSC217

### **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.

Pre-requisite: CSC112

### **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.

Pre-requisite: ENG307

### **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.,

### **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.

Pre-requisite: CSC217

### **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: CSC112

### **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: 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: MTH222

### **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.

Pre-requisite: CSC105, MTH222

### **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

### **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: CSC315

### **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: CSC218

### **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: CSC317

### **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

### **CSC443 Mobile Computing**

The course includes Mobile Information Device Profile (MIDP 2.0) programming using J2ME (de facto standard for mobile devices) to supplement the introduction to wireless Internet (WAN, LAN and PAN) covered in the classes. By the end of this course, students will have acquired a deep understanding of various wireless programming concepts and APIs and developed extensive knowledge that you can use to develop sophisticated MIDP applications.

Pre-requisite: CSC410

### **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: CSC410

### **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

### **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

### **CSC465 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, markov 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-through's and reviews in support of software testing.

#### **CSC571 Advanced Database Management Systems**

This course begins with a study of advanced relational theory, followed by the SQL Application Programming Interface (API) standards. Students will also study Data Warehousing, OLTP and OLAP integration, and database distributed architectures.

#### **CSC573 Data Mining**

The objective of this course is to serve as an introduction to the techniques, tools and applications of data mining (DM). Also covered is the relationship between DM and other fields such as artificial intelligence, Knowledge Discovery for Databases (KDD), data warehousing and Online Analytical Processing (OLAP). By the end of the course, students should be able to learn any commercial DM tools easily and apply DM techniques to a variety of research and application projects.

#### **CSC574 Distributed Systems**

This course aims to provide students with a deeper understanding of distributed systems. In particular, we focus on the principles, techniques, and practices relevant to the design and implementation of such systems. The course takes a systems-oriented view of distributed systems, concentrating on infrastructure software and providing hands-on experience implementing distributed systems.

#### **CSC575 Parallel and Distributed Computing**

Parallel and distributed systems. Speedup and Amdahl's Law, Hardware architectures: multiprocessors (shared memory), networks of workstations (distributed memory), clusters (latest variation). Software architectures: threads and shared memory, processes and message passing, Distributed Shared Memory (DSM), Distributed Shared Data (DSD), etc.

#### **CSC576 Parallel and Distributed Algorithms**

The topics to be covered are parallel/distributed algorithms, coarse-grain parallel algorithms and applications, parallel scientific computation, interconnection networks, parallel and distributed computing on network of workstations, scheduling, languages and compiler techniques for parallel programming and theory of parallel/distributed computing.



### **CSC578 Communications and Information Policy**

This course provides an introduction to the technology and policy context of public communications networks, through critical discussion of current issues in communications policy and their historical roots. The course focuses on underlying rationales and models for government involvement and the complex dynamics introduced by co-evolving technologies, industry structure, and public policy objectives.

### **CSC467 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.

### **CSC466 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.

### **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.

### **CSC467 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.

### **CSC466 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.

## **Data Science**

### **BDS101 Introduction to Data Science**

Data science history and context, technology landscape commerce and research are being transformed by data-driven discovery and prediction. The Introduction to Data Science class will survey the foundational topics in data science, namely: Data Manipulation , Data Analysis with Statistics and Machine Learning , Data Communication with Information Visualization , Data at Scale -- Working with Big Data. Tour the basic techniques of data science, including both SQL and NoSQL solutions for massive data management (e.g., MapReduce and contemporaries), algorithms for data mining (e.g., clustering and association rule mining), and basic statistical modeling (e.g., linear and non-linear regression).

### **BDS201 Business Process Analysis**

This course introduces concepts of business process modeling using the Business Process Model and Notation (BPMN) industry standard. Participants will learn the elements of process models and their precise meaning. Cover business processes within organizations and also interacting processes involving several organizations, i.e., investigate process orchestrations and process choreographies. Will also look at techniques to analyze business processes from a formal perspective.

### **BDS401 Data Visualization**

Learn how to transform information from a format efficient for computation into a format efficient for human perception, cognition, and communication. Explore elements of computer graphics, human-computer interaction, perceptual psychology, and design in addition to data processing and computation.



#### **BDS402 Big Data Concept and Techniques**

Big data is data that, by virtue of its velocity, volume, or variety (the three Vs), cannot be easily stored or analyzed with traditional methods. Spreadsheets and relational databases just don't cut it with big data. In this course, all methods that do work, introducing all the techniques and concepts involved in capturing, storing, manipulating, and analyzing big data, including data mining and predictive analytics. It explains big data's relationship to data science, statistics, and programming; its uses in marketing, scientific research, and tools like Amazon's recommendation engine; and the ethical issues that lie behind its use.

#### **BDS403 Big Data & Analytics**

This course is related to advanced tools used to wrangle and analyze big data. In this course you will be guided in basic approaches to querying and exploring data using higher level tools built on top of a Hadoop Platform. Will be able to identify the kinds of analysis one can get of big data and how to interpret these results.

#### **BDS404 Machine Learning**

This course provides a broad introduction to machine learning, data mining, and statistical pattern recognition. Supervised learning (parametric/non-parametric algorithms, support vector machines, kernels, neural networks). Unsupervised learning (clustering, dimensionality reduction, recommender systems, deep learning). Best practices in machine learning (bias/variance theory; innovation process in machine learning and AI). The course will also draw from numerous case studies and applications, to apply learning algorithms to building smart robots (perception, control), text understanding (web search, anti-spam), computer vision, medical informatics, audio, database mining, and other areas.

## **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.

### **ECO207 Game Theory**

The course introduces the main concepts and tools of game theory. Ideas such as dominance, backward induction, Nash equilibrium, evolutionary stability, commitment, credibility, asymmetric information, adverse selection and signaling are discussed and applied to games played in class and to examples drawn from economics, politics and elsewhere.

### **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

#### **ECO409 Business Economics**

This course covers the core economics that will be needed as a business student. Business economics is the application of economic theory and methodology to decision making problems within various organizational settings such as a firm or a government agency. The emphasis in this course will be on demand/supply analysis and estimation, production and cost analysis under different market conditions, forecasting and decision making under uncertainty. Students taking this course are expected to relate and analyse what they observe around them in terms of economic development and growth. It also gives them an excellent grounding to take sensible business decisions.

#### **ECO414 Islamic Economics**

This course provides basic knowledge of the principles of Islamic economics and the Islamic economic system, developing skills necessary to appreciate an alternative to a commonly familiar approach of interpreting the economic behavior of men and women in the society, and helping the students probe liberally outside the frontiers of familiar forms of capitalist and socialist systems.

#### **ECO416 Growth Theories**

The key learning goal associated with this course is to equip students with the necessary tools for analyzing the sources of economic growth and trends in productivity. Students will gain an understanding of why living standards vary across countries and over time. This course will also enable them to evaluate the impact of government policy on growth and create an awareness of current debate in growth policy.

#### **ECO418 Resource and Environmental Economics**

This course is designed to give students a solid understanding of the application of economic models to manage resources subject to environmental policy. It deals with the exploitation of exhaustible, renewable and environmental resources and the public policy issues that arise in seeking their efficient use. It also examines problems of environmental degradation and natural area conservation, with a focus on alternative policy tools and evaluation procedures available to governments to moderate pollution and other forms of environmental damage.

#### **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 principle 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.

### **EDM403 Critical Thinking and Reading**

This course introduces participants to critical reading as a process of analyzing and evaluating the context and purpose of written texts by focusing on the four basic methods of critical thinking: analysis, interpretation, evaluation, and synthesis.

### **EDM406 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.

### **EDM413 Creativity in Education**

This course provides participants with the conceptual and practical understanding of various components of classroom and school management.

### **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.

### **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 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.

### **EDM420 Academic Writing and Seminar Skills**

This course develops participants' 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.

### **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.





#### **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.

#### **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.

#### **EDM427 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.

#### **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. It also addresses the problems of research design and sampling. Through the use of SPSS, students learn to analyze quantitative data.

#### **EDM416 Comparative study of Education Systems**

In this course participants understand the commonalities, differences, and connections between global and comparative education, and the meaning and significance of globalization for both fields. One distinctive characteristic of the course is the service learning element, i.e., practical experience in educational institutions with focus on issues of change juxtaposing nationalism and globalism.

#### **EDM514 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.

#### **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.

#### **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.

#### **EDM689 Thesis Writing-Capstone 1**

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 2**

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.

#### **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. A debate 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 Studies in Education**

This course addresses the nature of gender inequalities in education. Apart from the injustice inherent in all gender stereotyping, gender differences in education can also negatively affect economic growth and social inclusion, which is what this course focuses upon.

#### **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.



## 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.

### 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. Pre-requisite: GSC103, EPE101

### 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.

Pre-requisite: EPE200, TCE204

## Electronic Engineering

### 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: GSC103

### 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).

Pre-requisite: ELE200

### ELE202 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.

Pre-requisite: CME102

### ELE370 Instrumentation & Measurements

Introduces the concepts, methods and instruments for the measurement of electrical and non-electrical quantities.

Pre-requisite: EPE200, ELE200

### 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: CME205, ELE201

### ELE415 Opto-Electronic

Nature of light, basic laws of light, optical fiber, types of optical fiber, fiber material, fabrication and components, Planner waveguides and applications, laser principle, operation, characterization and classes of lasers. optical transmitter, semiconductor light sources, light emitting diodes, semiconductor laser diodes (SLDs), Link Budget Analysis, optical receivers, wavelength division multiplexing (WDM), FDM versus benefits of WDM, dense wavelength division multiplexing and optical networks..

Pre-requisite: ELE200

### 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: ELE200

### 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

### ELE420 Power Electronics

Introduction to power electronics; solid-state devices used in power electronics: power diode, power BJT, power MOSFET, SCR, GTO, IGBT, TRIAC, DIAC; semi-controlled, fully-controlled and uncontrolled rectifiers: single-phase and three-phase, six-pulse, twelve-pulse and twenty-four pulse rectifiers; single-phase and three-phase inverters; pulse-width-modulated (PWM) inverters; UPS; types of converters; switched mode power supplies, AC and DC motor drives

Pre-requisite: ELE200

### ELE422 VLSI Design

Teach VLSI system design including system specification, verification, and fabrication.

Pre-requisite: ELE200



### **ELE423 Digital Control Systems**

Basics of digital control, theory of sampling, sampled data systems, discrete signals and sampling, difference equation, discrete transfer functions, z transform analysis, frequency response methods, state equations, time-discrete representation of time-continuous systems, discrete control algorithms, design methods of digital controllers, stability of digital control systems, discrete equivalents for continuous controllers, pulse transfer functions of feedback systems, digital-to-analog conversion, digital filtering of systems.

Pre-requisite: ELE419

### **ELE428 Digital Electronics**

This course covers combinational and sequential logic circuits. Topics include number systems, Boolean algebra, logic families, MSI and LSI circuits, A/D and D/A converters, and other related topics. Upon completion, students should be able to construct, analyze, verify, and troubleshoot digital circuits using appropriate techniques and test equipment.

Pre-requisite: ELE419

### **ELE429 Introduction to Nanotechnology**

Introduction, Nano scale phenomena, nanoparticles, carbon nanostructures, nanowires, nanostructured materials, self-assembly, surface probe microscopy, other Nano scale characterization, nanolithography, Nano scale devices and systems, applications of nanotechnology.

Pre-requisite: ELE422

### **ELE430 Solid-State Device**

Solid-state device is an electronic device in which electricity flows through solid semiconductor crystals (silicon, gallium arsenide, and germanium) rather than through vacuum tubes. The first solid-state device was the "cat's whisker" in 1906 in which a fine wire was moved across a solid crystal to detect a radio signal. Transistors made of one or more semiconductors are at the heart of modern solid-state devices in the case of integrated circuits, millions of transistors can be involved.

### **ELE432 Wireless Power Transmission**

Wireless power transmission is the transmission of electrical power from a power source to a consuming device without using discrete manmade conductors. It is a generic term that refers to a number of different power transmission technologies that use time-varying electromagnetic fields. Wireless transmission is useful to power electrical devices in cases where interconnecting wires are inconvenient, hazardous, or are not possible.

### **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).

Pre-requisite: All courses up to semester six

### **ELE451 Senior Design Project II**

To give students a chance for enhancing their Technical capabilities by implementing their theoretical & practical knowledge in the field of Research & Development. (For Semester VIII).

Pre-requisite: ELE450

## **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.

### **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 of 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 first course are: production and operations strategy, subjective and objective forecasting -such as Delphi method, trend-based methods, and methods for seasonal series, deterministic inventory planning and control, etc.

Pre-requisite: MAN 304

### **ENG304 Automation and Robotics**

The course focuses on the general principles of operation and programming of automated systems, automated assembly, automated manufacturing, and inspection systems. Control of automated manufacturing, industrial logic systems and programmable logic controllers, etc. are also a part of the course.

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.



## Entrepreneurship

### ENT507 Affordable Design and Entrepreneurship

The course focuses on creating entrepreneurial solutions for solving economic needs for lower segments of the society. The course runs as a virtual firm where students will work on distributed teams to develop social ventures by engaging with partner organizations, prioritizing programs and pursuing goals while deploying modest amounts of seed capital.

### ENT508 Getting to Market: Commercializing Your Idea

The course exposes student entrepreneurs to some of the best innovations in the industry. The course entails the strategies for guerilla marketing, market research and product development processes, pricing, etc. Students will be trained to use variety of tools and techniques to address the challenges faced in initial development phase of the business.

### ENT509 Building and Managing Start-Up Teams

This course is expected to provide participants with a solid understanding of how to overcome key challenges by addressing four critical themes: organizational architecture, leadership and motivation, team building, and negotiation in entrepreneurial settings. The course revolves around challenges faced by the company in knowing what type of human resource to recruit, how to recruit and how to retain and develop the human asset.

### ENT510 Raising Capital Via Crowd Funding Venture Capital, Angel Funding And Debt

Raising capital for your entrepreneurial venture is a unique hands-on course which addresses key questions that challenge all entrepreneurs: how much money can and should be raised; when should it be raised and from whom; what is a reasonable valuation of the company; and how should funding be structured? The course comprehensively explores the financial tools needed by an entrepreneur in funding his or her own business.

### ENT511 Managing A Growing Business

This course helps participants explore the critical framework required to build effective processes involving all key business functions in a startup. The course addresses issues of particular importance to rapidly growing companies including: getting the right people and systems in place, managing with limited resources, cash flow planning, leadership and delegation, professionalizing the business, turning around a troubled business, establishing and communicating culture, and creating a vision to drive the organization toward the future.

### ENT512 Startup Growth Strategies

This course aims to help participants apply the tools and techniques to develop appropriate action plans to address strategic growth challenges. The structure of the course will facilitate the students to analyze and evolve an appropriate structured approach to undertake them effectively.

## 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 as well as 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, diesel 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, 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. We will look at how energy markets have historically developed and why they have been subject to extensive government intervention. We will analyze the effects of traditional policy measures such as price controls and regulation; and we will examine current policy issues arising from the relationships among energy use, economic growth, and the environment (carbon storage and the policy measures). The course will also look at energy demand and supply analysis, efficiency measures as well as current issues both local and international. The course is designed both for students interested in energy economics specifically, and for those interested in applied economics as well as oil and gas sector in general.

### **EEM601 Environmental Management and Green Technology**

The world is facing increasing environmental and climatic threats which are posing severe scientific, social and economic challenges to the human race. These challenges include: the depletion of natural resources, the loss of diversity and the need to develop new forms of energy generation whilst efficiently utilizing existing energy sources. Tackling these environmental problems and establishing a sustainable environment requires the adoption of appropriate policies and managerial strategies. The interdisciplinary nature of this course provides a broad understanding of environmental problems. The course aims to provide basic managerial and generic skills for a career in the environmental sustainability sector.

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. Socioeconomic developments and Sustainable Management of ecologically sensitive areas, Communities etc.





#### **EEM704 Independent Study in Environment and Renewable Energy Management**

This course will provide space to the participants coming from different scientific disciplines to propose a research topic in their field of interest. The research work should be completed within one semester for publication preferably in an impact factor journal. For independent study, the participants will be provided a suitable adjunct faculty member of the university, who is able to facilitate in completing the process of research and publication. This independent study course will be different from the main 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 Trade & Environment course is to raise awareness on the linkages between trade, the environment and sustainable development, to promote greater dialogue between trade and environment policy makers. WTO, Introduction to environmental economics. Impact of trade on the environment, Impact of environmental regulation on trade, CBD and the Biosafety Protocol, CITES. Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and their Disposal.

#### **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 fundamental concepts of finance and aims to provide the basics of time value of money, valuation of current assets, financial forecasting and planning, ratio analysis and common size statements, and risk measurement techniques.

Pre-requisite: ACC102/103/201

### **FIN202 Financial Management**

This course is a step above Introduction to Business Finance and covers decision making through forecasting, discounted cash flows, capital budgeting techniques, leverage, capital structure determination, etc.

Pre-requisite: 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: FIN201

### **FIN403 Islamic Banking and Finance**

This course is designed after taking into account the changing market requirements of the financial sector not only in Pakistan but also worldwide. The course contents comprises of different contracts involved in Islamic finance and their relation with contemporary Islamic banking industry.

Pre-requisite: ECO 401 FIN202/408

### **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, FIN408/501

### **FIN408 Theory and Practice of Financial Management**

The objective of the course is to introduce fundamental concepts underlying financial management. The main concepts examined include financial planning & forecasting financial statements, time value of money, bond and stock valuation, cost of capital, and capital budgeting. Students will be able to understand the specific techniques and decision rules that are used to help maximize the value of the firm.

### **FIN410 Finance for Entrepreneurial Ventures**

The aim of this course is to prepare the student in understanding the dynamics of handling the finances of their small business(s). This course is one of several courses to prepare the individual to become more aware of all the aspects of planning, researching, and utilizing their finances for their small businesses more effectively.

Pre-requisite: FIN408

### **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 408

### **FIN503 Corporate Finance**

Main topics included are advanced capital budgeting, valuation of securities, risk return relationship; cost of capital estimation techniques, capital structure. Specialized topics like Mergers & Acquisitions and International Financial Management are also covered.

Pre-requisite: FIN202/408

### **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 202/408

### **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: FIN202/408

### **FIN506 Investment Banking and Security Analysis**

The objective of this course is to teach students how the investment industry works and the role played by investment banks. Students are taught to ascertain the investment objectives of the investors in light of the investor's appetite for risk and return. Students learn the techniques for valuing different kind of securities. Role of stock market, their procedures for company listing, operations and regulations are also included in the course.

Pre-requisite: FIN202/408

### **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: FIN202/408



### **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: FIN202/408

### **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 202/408

### **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 and sectors' financial statements. It develops a road map of financial analysis from both the creditor and equity investor's point of view.  
Pre-requisite: FIN 202/408/501

### **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 202/408

### **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: FIN202/408/601

### **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 202/408

### **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 202/408

### **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, etc.  
Pre-requisite: FIN 202/408/501/601

### **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.  
Pre-requisite: FIN 202/408

### **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: FIN202/408

### **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: FIN202/408

### **FIN530 Commercial & Corporate Banking**

Commercial Banking is a comprehensive study of commercial banks and their role in the economy. The course emphasizes the practical application of business and economic principles as they relate to bank management and regulatory policy, and examines the role that commercial banks perform in an economy and highlights the basic principles of commercial bank management. The course also aims to empower the students with practical knowledge about the branch and corporate banking and its functions.  
Pre-requisite: FIN202/408



### **FIN531 Real Estate & Alternative Investments**

Increased volatility in traditional financial products and financial markets has led investors to include nontraditional investments in their portfolio. The course aims at developing comprehensive understanding of alternative investments including hedge funds, private equity, commodity and real estate. The course will utilize real world cases to gain experience in order to develop skills necessary to prepare, analyze and evaluate alternative investments.

Pre-requisite: FIN202/408

### **FIN533 Information Technology and Product Innovation in Financial Services**

Financial technology, i.e. Fintech, is an economic industry composed of companies that use technology to make financial services more efficient. Financial technology companies are generally startups trying to overcome incumbent financial systems and challenge traditional corporations that are less reliant on software. FinTech innovation is an important component of economic development and financial inclusion, especially for emerging economies. FinTech is reshaping the financial experience of millions of people and businesses around the world today, and has the potential to dramatically alter our understanding of financial services tomorrow.

Pre-requisite: FIN202/408

### **FIN534 Retail & Consumer Banking**

This course is the study of the provision of products and services to meet the financial needs of individuals with a steady and verifiable income flow. Students are introduced to the operation of the financial services industry, the products and services available, and how they are effectively marketed to satisfy the needs of Retailers.

Pre-requisite: FIN202/408

### **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: FIN202/408

### **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.

### **FIN613 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: FIN202/601



## 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.



## 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.

### **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.

### **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: MHM401 or MHM529, MHM530 or MHM402

### **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 or MKT402

### **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: ACC419 or ACC402, FIN408 or FIN404

### **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: MAN401/418, MHM401/529

### **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 401/529

### **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 or 530, MHM404 or MHM532

### **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 or MKT402

### **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 or MKT402

### **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 /529

### **MHM602 Health Service Delivery & Operation Management**

The course addresses major functions and issues surrounding supervision of hospitals and pharmaceutical establishments relationships/differences between line and staff functions. Likert Scale, Peter Principle, McGregor's Theory X and Y are also discussed.

Pre-requisite: MAN401 or MAN418, MHM401 or MHM529



#### **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 or MHM530, MHM404 or MHM532

#### **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: MHM401 or MHM529, MHM602 or MHM515

#### **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: MHM533 or ECO401

#### **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 or MAN418

#### **MHM522/616 Project Management of Health Services**

In this course, students will be able to learn planning for quality, performing quality assurances activities, and closing project contracts keeping in view ethics, professional knowledge, stakeholder's interests and cultural diversities. By the end of the course, students will be proficient in organizing and executing complex health-care projects using techniques of project management software tools.

Pre-requisites: MAN401 or MAN418, MHM531 or MHM403

#### **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: HRM410, MAN401 or MAN418

#### **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: MHM401/529

#### **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: MHM602 or MMHM515

#### **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 or MAN418

#### **MHM529 Health Policy and Analytics for Decision Making**

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.





### **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: MAN401 or MAN418, MHM401 or MHM529

### **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.

### **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 and Management**

The success of an organization depends on its results, which are achieved by its employees. Unless organizations select, develop & retain the best talent, they cannot succeed. Organizations plan, coordinate and review the activities of employees so as to achieve the desired results. The purpose of this course is to understand the links between human resource planning, performance and compensation.

Pre-requisite: HRM 301/401/402



### **HRM517 Personnel Management & Industrial Relations**

This course aims to cover the theoretical foundations and empirical practice of HRM and IR. It provides students exposure to a wide variety of organizational practices; to manage and develop employees, ensure their welfare and understand changing employment legislation essential to business survival. This course enables students to develop practical skills in the subject area to equip them for a career in HR/IR.

### **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.

## **Islamic Banking and Finance**

### **ISF601 Economics for Islamic Finance**

This course aims to provide a basic knowledge regarding the development of Islamic theory and finance and aiming to enhance the student's knowledge in economics of Islamic finance. It refers to all the relevant information available in Quran and Surrah as well as related economics and finance theories.

Pre-requisite: FIN202/601

### **ISF602 Islamic Banking Practices**

The course will explore the fundamental concepts relating to Shariah principles and Islamic banking. The course explains the operations of Islamic banking and institutions while discussing its regulatory and legal aspects.

Pre-requisite: FIN202/601

### **ISF603 Accounting for Islamic Finance**

This course revolves around the accounting concepts in Islamic and conventional banking by a detailed comparative analysis between AAOIFI (Accounting and Auditing Organization for Islamic Financial Institutions) and IFRS (International Financial Reporting Standards). This will be followed by a comparative analysis of Islamic Financial Institutions in order to understand the financial statement and notes to financial statements relevant to Islamic finance transactions.

Pre-requisite: FIN202/601

### **ISF604 Islamic Financial Services Marketing**

This course discusses the fundamental concepts of marketing and relates it to the Shariah principles by elaborating various instruments of marketing Islamic financial services to ensure ethical selling and promotion, such as strategic planning, pricing strategy, marketing mix and distribution channels, etc.

Pre-requisite: FIN202/601

### **ISF605 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 students will gain an understanding of how this provides a picture of the financial health and Shariah 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.

Pre-requisite: FIN202/601

### **ISF606 Islamic Capital Market**

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

Pre-requisite: FIN202/601



## 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 France.

### **LAN103 Introduction to Spanish**

This is an introductory course in Spanish. It is structured for those who have no prior knowledge of the Spanish language. It starts from the basics and brings the students to a level at which they can develop phrases and understand spoken Spanish.

### **LAN104 Introduction to German**

This is an introductory course in German language. It is structured for those who have no prior knowledge of the German language. It starts from the basics and brings students to a level at which they can develop phrases and understand spoken German.

### **LAN105 Introduction to Japanese**

This is an introductory course in the Japanese language. It is structured for those who have no prior knowledge of the Japanese language. It starts from basics and brings students to a level at which they can develop phrases and understand spoken Japanese.

### **LAN106 Introduction to Italian**

This is an introductory course in Italian. It is structured for those who have no prior knowledge of the Italian language. It starts from basics and brings the students to a level at which they can develop phrases and understand spoken Italian.

### **LAN107 Introduction to Russian**

Introductory course structured for beginners. Students will learn basic grammar, pronunciation and dialogue interaction so as to develop phrases and understand spoken language.

### **LAN108 Introduction to Chinese**

This course is designed for those who do not have any prior knowledge of this language. It enables students to carry out basic conversation in Chinese. Students are prepared in a manner that they can put the message across. This course is designed to bring about awareness about the business taking place between Pakistan and the Chinese countries.

### **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: MMM364

### **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.

### **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 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**

This 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: MKT302/402

### **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: MKT302/402, 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: MKT302/402, STA 202/403/404

### **MKT501 Strategic Marketing and Planning**

This course will provide a general understanding of the strategic marketing process, its relationship with the corporate strategy and the particular role of market driven strategies. It will provide an understanding of the concept of market orientation and role of distinctive capabilities to deliver value to different product-markets.

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 taking into consideration the impact of social, cultural and economic factors.

Pre-requisite: MKT 302/402

### **MKT507 Services Marketing**

This course focuses on the unique challenges of marketing for delivering quality services to customers. It covers attraction, retention, and building of strong customer relationships through quality services. The course is equally applicable to organizations whose core product is service (e.g., banks, hotels, hospitals, educational institutions, professional services, telecommunication etc.) and to organizations that depend on service excellence for competitive advantage (e.g., high technology manufacturers, automotive, industrial products, etc.).

Pre-requisite: MKT 302/402

### **MKT508 Personal Selling**

This course focuses on the theoretical and practical techniques used in selling goods and services in a B2B as well as in a B2C environment. Emphasis is given to developing practical skills in presenting goods and services to prospective buyers. Attention is devoted to the art of persuasion as a life-skill and to the need to develop professional relationships in business. The importance of the sales professional in the business community and the need for ethical behavior is emphasized. The overriding sales philosophy is relationship focused and the customer approach is consultative.

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 focus on emerging segmentation and targeting. The course further aims at describing and analyzing how consumers make decisions and identify how the featured organization used insights about the consumer decision-making process and decision-making units to design a marketing program.

Pre-requisite: MKT 302/402, MKT404

### **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 over competitors. It differentiates various elements of communication mix and explains where they are used to access targeted consumers.

Pre-requisite: MKT 302/402

### **MKT511/615 Brand Management**

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.

Pre-requisite: MKT 302/402



### **MKT513 Media Planning**

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: MKT302/402

### **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 with challenge of retaining an ever so mobile consumer has a profound impact on competition in the sector hence the role of marketing is of creating and sustaining a competitive advantage.

Pre-requisite: MKT302/402

### **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 promotion. 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: MKT302/402

### **MKT521/612 Distribution and Channel Management**

Channel Management is a vital element of marketing models. 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 multi-national and national companies, keeping in view the key elements of Pakistani markets.

Pre-requisite: MKT302/402

### **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

### **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, retail merchandising, advertising, promotion and other important elements.

Pre-requisite: MKT302/402

### **MKT532 Principles of Advertising**

This course is designed to provide a fundamental understanding of advertising, with a sharp focus on the creative process. It will introduce students to the structure and functioning of different areas in a typical advertising agency viz. Strategic Planning, Client Service, Creative and Media Planning, and their role in servicing their clients' needs.

Pre-requisite: MKT 302/402

### **MKT534 Marketing for Social Impact**

This course aims to develop students' knowledge and skills in the application of traditional marketing concepts to social issues and related behaviors. The course enables students to consider the nature of social marketing as well as the theoretical foundations that underpin the social marketing discipline. In particular, the course provides an opportunity to understand theory and its application via communication and behavioral change strategies to achieve positive social change.

Pre-requisite: MKT302/402

### **MKT535/624 New Product Management**

The objective of this course is to familiarize students with applications of relatively recent new product planning techniques. The course will emphasize the use of market research data and marketing models for new product management. The main topics to be covered in this course are product positioning, market segmentation, market share estimation, product packaging, advertising, testing, pricing, brand name selection, brand equity, and global product planning

Pre-requisite: MKT302/402

### **MKT602 Marketing Analytics**

The aim of this course is to prepare future managers who appreciate the importance of competitive advantages leveraged by analytics, understand the existence of the tools, the advantages and limitations of each tool; apply these tools, interpret the input and communicate the output from these tools and models, and apply them to assist business decisions.

Pre-requisite: STA202/403/404

### **MKT608 Small Business Marketing**

The course is specially designed to help small businesses with limited resources to develop effective and competitive marketing programs. Students will learn to position a small business by designing and executing innovative marketing strategies covering product, pricing, channel and communication aspects.

Pre-requisite: MKT302/402



### **MKT610 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 keeping in view the concepts of Value Innovation in particular.

Pre-requisite: MKT302/402

### **MKT618 Advertising Management & Strategy**

The objective of this advanced level course is to develop an appreciation of advertising from a strategic perspective, and the processes involved in developing, evaluating and managing effective advertising campaigns. Students will be exposed to the tools and techniques of contemporary advertising, and their application using examples of local and international campaigns. Case study analyses, as well as assignments and a term project will round off the semester's work.

Pre-requisite: MKT301/401

### **MKT620 Competitive Strategies**

This course illuminates the dynamics of companies in competition and offers a process for planning and executing marketing strategies to compete in a rapidly changing marketplace. It will also enable marketers to make decisions that account for competitors' likely responses.

Pre-requisite: MKT302/402

### **MKT621 Marketing Strategies for Emerging Economies**

The focus of this course is to encourage the students to study the institutions of emerging economies that are relevant for managers. Analyze opportunities presented by emerging economies. Analyze the additional marketing challenges which necessitate a different marketing mix and a more aggressive business approach.

Pre-requisite: MKT302/402

### **MKT622 Marketing Strategies for Bottom of the Pyramid (BOP)**

Currently companies are facing saturated markets with limited growth potential and a highly competitive business landscape. A growing number of companies are now viewing the base of the pyramid as one of the most exciting market opportunities of the early part of the new millennium.

Pre-requisite: MKT302/402

### **MKT623 Pharmaceutical Marketing & Quality Assurance**

This course examines the nature of pharmaceutical industry and analyses customer procurement strategy, product policy, pricing, distributing strategy and sales force management strategy.

Pre-requisite: MKT302/402

### **MKT625 Business to Business Marketing**

This course includes the nature of B2B market, analysis of customer procurement strategy, product policy, pricing, distribution strategy, sales force management and key account selling strategy.

Pre-requisite: MKT 302/402

## **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.

### **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

### **MTH104 Calculus I**

This course is designed to develop the topics of differential and integral calculus. It covers functions, limits, continuity, derivatives and its applications including linear differentials, optimization problems, L'Hospital's rule and the mean value theorem, integrals and techniques of integration, the fundamental theorem of calculus.

### **MTH105 Calculus II**

This course is a continuation of Calculus I, covering definite integrals, Riemann integral, area between curves, arc length of curves, volume of surface of revolutions, parametric equations and polar coordinates, proper and improper integrals, infinite sequences and series, test for convergence, power series and Taylor series with remainder.

### **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  $R^3$ , planes, cylindrical and spherical coordinates, surfaces, cylinders and 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.

### **MTH203 Introduction to Formal Mathematics**

This course aims to bridge the gap between school and university mathematics, by beginning with some rather concrete techniques where the emphasis is on calculation, and gradually moving towards abstraction and proof.



#### **MTH204 Linear Algebra**

This course covers, algebra of matrices, determinants, system of linear equations, vector space, subspace, basis, dimension, row space, column space, null space, rank and nullity, inner product spaces, orthonormal basis, change of basis, orthogonal matrices, eigenvalues and eigenvectors, diagonalization, Euclidean vector space, linear transformation, general linear transformations, kernel and Range.

Pre-requisite: MTH107

#### **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.

Pre-requisite: STA 301

#### **MTH206 Multivariate Analysis**

This course is designed to provide an integrated, in-depth, but applied approach to multivariate data analysis and linear statistical models in behavioral science research. The topics will include regression analysis, univariate and multivariate ANOVA and ANCOVA, disarmament analysis, logistic regression, canonical co-relation analysis. Principal components, will also be covered.

Pre-requisite: MTH204

#### **MTH207 Stochastic Models and Math. Finance**

The course is an introduction to mathematical modeling, analysis, and solution procedures applicable to uncertain (stochastic) production systems, including probability theory and stochastic processes.

Pre-requisite: MTH 205

#### **MTH208 Differential Equations and Complex Variables**

Solution of first order ODEs, Second and Higher order Linear ODEs, System of DEs, Homogeneous linear systems, Series Solution of ODE. PDEs methods with applications and complex numbers,

Pre-requisite: MTH 202

#### **MTH209/409 Financial Mathematics I**

The measurement of interest, Solution of problems in interest, Basic annuities, More general annuities, Amortization schedules and sinking funds.

Pre-requisite: MTH104

#### **MTH210/410 Financial Mathematics II**

Bonds and other securities, Yield rates, Practical applications, More advanced financial analysis, The term structure of interest rates, Duration, convexity and immunization, Stochastic approaches to interest.

Pre-requisite: MTH209/409

#### **MTH211 Introduction to Computing**

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

#### **MTH213 Actuarial Mathematics**

This course is designed to introduce software preferably MATLAB in mathematical computing. Topics includes, assignments, variables, vectors, matrices, for loops, conditional operators, logical operators, while loops, nested loop, structured programming, subroutines, functions, 2D graphics and 3D graphics.

#### **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 216

#### **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 204

#### **MTH224 Multivariable Calculus**

In this course we will study real-valued functions of several variables, vector-valued functions of several variables, partial derivatives, optimization problems of functions of two variables, Lagrange multipliers, double integrals, triple integrals, vector fields, line integrals, Green's theorem, surface integrals, the divergence theorem and Stoke's theorem.

Pre-requisite: MTH105

#### **MTH251 Number Theory**

This course provide an introduction to the elementary theory of numbers. Topics included are mathematical induction, divisibility, prime numbers, greatest common divisor, Euclidean algorithm, fundamental theorem of arithmetic, factorization and Fermat numbers, linear Diophantine equations, congruence, Chinese remainder theorem, Wilson theorem, Fermat's little theorem, Euler's theorem.

#### **MTH301 Real Analysis I**

This course will serve as a bridge between calculus and analysis. In this course we will cover fundamental concepts such as limit, continuity, and differentiation but with much more rigor than it is done in basic calculus courses. Main topics include: The real number system, sequences and series, limits, continuous functions, differentiation.

Pre-requisite: MTH105, MTH203



#### **MTH401 Complex Analysis**

In this course, student will learn theory of functions of a complex variable. Topics are complex numbers, the complex plane and Riemann sphere, Möbius transformations, elementary functions and their mapping properties, conformal mapping, holomorphic functions, Cauchy's theorem and integral formula. Taylor and Laurent series, maximum modulus principle, Schwarz' lemma, residue theorem and residue calculus.

Pre-requisite: MTH311

#### **MTH403 Numerical Analysis**

This course analyzed the basic techniques for the efficient numerical approximation of the solution of problems in science and engineering. Topics includes approximation of roots of  $f(x)=0$ , solving linear systems of equations, polynomial interpolation, curve fitting, numerical differentiation and integration, numerical solution of ordinary differential equations.

Pre-requisite: MTH105, MTH204, MTH213

#### **MTH311 Real Analysis II**

In this course we will cover advance topics such as theory of Riemann Integration, uniform convergence and the Real line topology with adequate rigor.

Pre-requisite: MTH301

#### **MTH344 Introduction to Differential Equations**

The course is an introduction to differential equations. Topics covers, Definitions and terminologies, first order differential equations, modeling with first order differential equations, higher order differential equations, modeling with higher order differential equations, series solutions and special functions, Laplace transform, system of linear first order differential equations, Sturm-Liouville problems.

Pre-requisite: MTH105

#### **MTH346 Partial Differential Equations**

This course introduces the theory of initial and boundary value problems for partial differential equations (PDEs) with emphasis on linear equations. Topics covered include characteristic method for linear PDEs, heat equation, wave equation, Laplace equation, non-linear first-order equations, conservation laws, Hamilton-Jacobi equations, Fourier transform, Sobolev spaces.

Pre-requisite: MTH204, MTH344

#### **MTH350 Topics in Mathematical Economics**

A course in advanced economic theory designed to provide students the fundamental mathematical tools necessary to prepare for graduate work in economics or business administration. Topics include the development of portions of consumer, producer and macro (fiscal and monetary) theory. The material includes comparative static analysis, single and multiple agent unconstrained and constrained optimization problems and dynamic analysis.

Pre-requisite: MTH105, MTH204

#### **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 ( $\Delta$ ) Newton's Forward (NF) polynomial, backward differences ( $\nabla$ ), Newton's Backward (NB) polynomial; error analysis, unequally 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: MTH215

#### **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.

#### **MTH421 Abstract Algebra**

This course covers advanced topics in algebra that deal with abstract algebraic structures rather than the usual number systems. Topics include sets and relations, binary operations, groups, fundamental theorems about groups, cyclic groups, subgroups, symmetric groups, equivalence relations, cosets, theorem of Lagrange, normal subgroups, homomorphism, isomorphism, isomorphism theorems, rings, fields, integral domain.

Pre-requisite: MTH203

#### **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.

#### **MTH423 Combinatorics**

The aim of the course is to introduce students to the theory of discrete structures. Topics covered includes mathematics of choice, binomial and multinomial coefficients, combinatorial identities, partitions, symmetric functions, combinatorics of finite functions, Stirling numbers, Bell numbers, principle of inclusion/exclusion, ordinary and exponential generating functions, applications, enumeration in Graphs.





### **MTH427 Topology**

This course aims to mathematical study of shapes and topological spaces. It will cover the basics of point set topology that includes topological spaces and continuous mappings, separation, compactness, connectedness, fundamental group and covering spaces, Brouwer's fixed-point theorem.

Pre-requisite: MTH311

### **MTH433 Optimization Techniques**

This course covers, linear programming, duality and sensitivity analysis, Lagrange multipliers, Kuhn-Tucker conditions, convexity and calculus of variations.

Pre-requisite: MTH105, MTH204

### **MTH437 Functional Analysis**

This course is the study of vector spaces endowed with a topology. Topics include review of metric spaces, normed spaces, normed linear spaces, Banach spaces, convex sets, quotient spaces, equivalent norms, linear operators, linear functional, finite dimensional normed spaces.

Pre-requisite: MTH204, MTH311

### **MTH439 Introduction to Dynamical Systems**

This course provides the study of time dependent systems. Topics include flows on the line, bifurcation of one dimensional systems, flows on the circle, two dimensional flows, linear systems of ODEs, nonlinear systems and phase plane analysis, higher dimensional systems, chaos, strange attractors, one dimensional maps, fractals.

Pre-requisite: MTH204, MTH344

### **MTH430 Operations Research**

This course provides scientific study of decision making. In this course student will learn the simplex algorithm, duality, slackness, sensitivity analysis, transportation and assignment problems, transportation simplex method, network models, network simplex method, CPM & PERT, queuing models, Markov chains.

Pre-requisite: MTH204

## **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 Advanced 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.

### **MTS622 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.

### **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 Advanced 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 Advanced 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.

### **MTS632 Advanced 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.

### **MTS634 Advanced 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.

### **MTS636 Advanced 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.



### **MTS639 Principles in Parallel Computing**

This course introduces applied mathematicians, engineers, and physicists to the most useful symmetry methods for differential equations. It is aimed primarily at postgraduates and those involved in research. The topics include introduction and derivation of Lie symmetries, optimal system and methods for obtaining analytical solutions of ODEs and PDEs.

### **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.

### **MTS657 Machine Learning & Pattern Recognition**

This course is a foundational course for anyone pursuing machine learning, or interested in the intelligent utilization of machine learning methods. The primary aim of the course is enable the student to think coherently and confidently about machine learning problems, and present the student with a set of practical tools that can be applied to solve real-world problems in machine learning, coupled with an appropriate, principled approach to formulating a solution.

### **MTS658 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.

## **Media**

### **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: COM112

### **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 or 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 TV, 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 health-care 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 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.

#### **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 in Educational Leadership and Management**

#### **ELM601 Qualitative Research Methods in Education**

The course focuses on developing a working knowledge of a range of qualitative methods and methodological approaches of research to enable the participants to conduct qualitative research within the social sciences. Participants will read research articles to identify research methodologies and issues and plan a study of their own selected inquiry. The participants will conduct a small scale investigation designed to evaluate the usefulness of a research method that they select to investigate a real empirical phenomenon.



#### **ELM604 Statistical Testing and Inferences in Education**

This course provides opportunities for developing educationists to increase understanding of, and ability to use quantitative research methods for scientific inquiry. The course also focuses on 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 quantitatively obtained results of the analysis efficiently.

#### **ELM618 Policies and Education in Pakistan**

The course aims to enable the participants to critically analyze educational policies since independence. It also encourages the participants to understand the limitations underpinning the policies and how a positive role can be played by the stake holders for its implementation.

#### **ELM613 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 given to written skills through production of book reviews and discussion articles.

#### **ELM610 Philosophical Foundation in Education**

The course will explicate the concepts and principles of philosophy and the branches of philosophy; its meaning and scope, as well its relevance to education and its modes. It will also focus on the contributions of important philosophical schools to the theory and practice of education. It will discuss Modernism, Post-modernism, Colonialism, Post-colonialism, Religion and Science and their effects on education. It will expand upon the application of philosophical methods to educational theory and practices.

#### **ELM616 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. The course assists participants to chalk out the research design for BASR approval.

#### **ELM730 Leading and Managing Educational Change**

This course provides a critical understanding of the cultural, social, political and temporal contexts within which educational managers and leaders work. Realizing the fact that change is constant in a healthy and dynamic educational enterprise, the present course will aim to examine how educational leaders and policy-makers create sustainable environment to bring about a viable and positive change, particularly in large education systems where adjustments have traditionally been imposed by the state. This course will analyze the current and emerging issues and trends impacting education emphasizing the nature, characteristics, responsibilities and contextual determinants that influence a leader's role in changing educational organizations.

#### **ELM733 Contemporary Issues in Educational Leadership**

This course provides a critical understanding of the cultural, social, political and historical contexts within which educational managers and leaders work. It examines current and emerging cultural and political issues and trends impacting education, develops cognizance of the issues and how these issues can be most effectively addressed in a leading role to address the complexity of contemporary contexts. The course will increase the understanding of the participants by inspecting contemporary issues and possible means of amelioration.

#### **ELM739 Education Leadership Theories Principles and Practices**

This course is designed to enable participants to identify and examine contemporary and classic theories of leadership and to apply these to the problems of practice in education-specific settings. It will enable the participants to appreciate the challenges faced by modern educational leaders working at school and tertiary levels and the reasons why a multitude of theories interplay to improve the management of an institute.

#### **ELM742 Strategic Communication in Educational Leadership**

The course examines the strategic role of leaders in communication in terms of creating a vision of learning, developing organizational culture, creating a positive environment, encouraging staff development and achieving positive outcomes. It covers key aspects of communication management, including how to plan, implement and measure strategic communication initiatives. The course will include the use of social media communication tools and approaches to make communication reach at all levels and directions by making pedagogical and philosophical shifts.

#### **ELM739 Education Governance Policy and Practice**

This course is designed to help the aspiring educational leaders to effectively engage with the policy environment and to support institutional success. This understanding will be built as the participants acquire knowledge and skills from theories, research and current practices related to governance in education. The participants during the course will develop an understanding of how they, as educational leaders, fit within the bigger system of policies and governance and how decisions made at the provincial and state levels affect what happens in the classrooms.

### **MS in Education**

#### **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.

#### **MPE608 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.



### **MPE610 Philosophical Foundation in Education**

This course introduces the fundamental 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.

### **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 provides opportunities for developing educationists to increase understanding of, and ability to use, quantitative research methods for scientific inquiry. The course also focuses on applications for data analysis, including construction of data files, SPSS for data analysis, and development of an analysis plan. In addition, students are expected to learn how to document and communicate the quantitatively obtained results of the analysis efficiently.

### **MPE618 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 policy-makers, statutes and case law related to liability, student rights, employee relations and property use.

### **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.

### **MPE704 Strategic Management of Schools and School Systems**

This course is particularly based on elements of school systems by utilizing system analysis in identifying system input, operations, outputs, and feedback processes that offer clear criteria for development and improvement in both public and private school systems.

### **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 (e.g., 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 students understand the importance, commonalities, differences, and connections between global and comparative education.

## **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 hegemon and global policy; policy making in Pakistan, state policy makers; the State Bank; the impact of de-regulation and privatization. Private sector policy makers associations NGO's, the media and the influence of global policy on national policy making in Pakistan.

## **Pakistan / Islamic Studies**

### **PRL301 Pakistan / Islamic Studies**

The course covers various movements which led to the creation of the Islamic Republic of Pakistan. The history of Pakistan is discussed with an analysis of the various leaders and their contributions to the development process. The course discusses how different messengers of Allah came to spread His word. It further discusses the need for Islam: its five pillars, the life of the Prophet Muhammad (PBUH), the companions of the Prophet (PBUH), and the several Surahs, Ahadiths, and Ayats.

## **Political Sciences**

### **PSC301 Pakistan Studies**

The course on Pakistan Studies is an in-depth course covering various movements which led to the creation of the Islamic Republic of Pakistan. The history of Pakistan is discussed with an analysis of various leaders and their contributions to the process of national development. It also discusses the two nation theory in detail.

### **PSC401 Pakistan Studies and Current Affairs**

The course is an in-depth study covering the various movements which led to the creation of the Islamic Republic of Pakistan. The history of Pakistan is discussed with an analysis of the various leaders and their contributions to the development process. Issues related to current affairs will also be discussed.



## PhD (Business Management)

### **PBM701 Philosophy of Business Management**

The objective of the course is to link the philosophy of the researcher's area of specialization to the theoretical and philosophical foundations of management sciences. It links the selected area with the classical, modern and postmodern discourses and sources of management. It explores past and present of management sciences in terms of epistemology, metaphysics, ethics, knowledge systems and political economy and helps in developing a sound and productive vision of future in the area of research.

### **PBM703 Multivariate Analysis**

The course enables the identification of a set of techniques for analyzing data sets with more than one variable in the student's chosen area of research. Students would explore and identify relevant techniques from univariate analysis, bivariate analysis, analysis of variance, categorical data analysis, multivariate linear regression, discriminant analysis, canonical correlation, multivariate analysis of variance, principal component analysis, factor analysis, cluster analysis and logistic regression. This would lead the student to develop multivariate analysis techniques for their area of research and their justification.

### **PBM705 Readings in Business Research**

This course enables the students to study high quality PhD dissertations and their research methodology in their chosen area of research. The students are expected to study the qualitative and quantitative research methodologies undertaken in their field and develop a template that they would use for their research plans, methodology, outcomes, results and research writing.

### **PBM707 Replication of Business Research Design and Results**

Replication involves the process of repeating a study using the same methods, different subjects, and different experimenters. A qualitative assessment of the result comparison is carried out to identify similarities and differences and to discover assumptions or parameters underlying any variances. The applied research leads to the proposal of how the selected research may be extended and enhanced.

### **PBM801 Marketing Models**

This course describes theoretical and empirical models used to analyze marketing management issues in the areas of product introduction and positioning, pricing, advertising, and distribution channels. The theoretical structure in the course comes from microeconomics of firm and consumer decision making, with special consideration of competitive issues. Theoretical, operational models in marketing, with emphasis on recent advances; in-depth criticism of models, participation in model development project. The empirical work draws from conjoint analysis, choice modeling, and multivariate techniques.

### **PBM803 Marketing Theory**

Recent and classic research contributions to marketing theory development. The course addresses conceptual development and current practice in marketing decision-making. Topics critically examined include marketing orientation, competitive interaction, product development and introduction, channel relationship management, customer relationship management, advertising and promotion, pricing and revenues, and sales, service and quality.

### **PBM805 Advanced Topics in Marketing**

Current state of knowledge in Marketing Research. As an introductory seminar, coverage will include current topics appearing in top marketing journals. Discussions will revolve around the reference disciplines and theories used in the marketing literature. This course will provide an in-depth introduction to a particular methodology or a particular setting that is relevant to research.

### **PBM811 Advanced Topics in Strategic Management**

Current state of knowledge in strategic management. Topics may include the sources of competitive advantage, the role of industry evolution and technology, the organization of top management, and managerial decision-making and cognition. The course allows students to research alternative theoretical perspectives and available empirical evidence related to these topics.

### **PBM813 Advanced Topics in Organization Theory**

This course introduces students to the major schools of thought in organization and management theory. It considers the development of the field, major and foundational works in these schools of thought, and provides a cognitive map with which to evaluate contemporary research and debates. At the end of the course the student will have an understanding of the strengths and weaknesses of each major perspective from the research.

### **PBM815 Advanced Topics in Human Behavior in Organization**

This seminar examines theory and original research within the field of organizational behavior. The course covers a range of topics, including job performance, work attitudes (e.g., organizational commitment, job satisfaction), motivation, trust, justice, individual differences (e.g., personality), team structure and processes, power, leadership, and organizational culture. The primary emphasis is on the field's classic, ground-breaking, 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 as mathematical background the equivalent of upper-level undergraduate or first-year graduate courses in optimization and probability or stochastic modeling. This course may be appropriate for some graduate students in engineering or computing science.



### **PBM823 Advanced Research Topics in Operations Management**

This course will provide an in-depth introduction to a particular methodology or a particular setting that is relevant to research in operations management. The topic may vary from year to year. Possible topics include optimization modeling and formulation, stochastic modeling and optimization, behavioural research in operations management, and health care operations management. The required background for students will vary depending on the topic. This course may be appropriate for some graduate students in engineering or computing science.

### **PBM825 Advanced Research Topics in Management Information Systems**

As an introductory seminar, coverage will include current and historical topics appearing in top information systems journals. Discussions will revolve around the reference disciplines and theories used in the MIS literature. This course will provide an 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, 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 of 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 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**

### **PSY300 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.

### **PSY301 History of Psychology**

This course examines the history of psychology from the time of the early Greeks until the present. Starting from the evolution of psychology from speculations to science. It provides a comprehensive understanding of development of psychology as a science.

### **PSY302 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

### **PSY303 Writing Business Psychology Research**

This course will develop the crucial writing skills for the preparation of psychological research report. Participants will learn how to integrate scattered ideas and data and theories into a meaningful write up. They will learn about the world standards in writing and report layout.

### **PSY304 Statistics - I in Psychology**

This course introduces the core concepts and philosophy of statistics. Participants will learn to understand what data is and how it carries meanings, what role statistics plays in developing meaningless numbers into powerful facts, how data is cleaned, coded, entered into computers, and analyzed and described through software.

### **PSY305 Statistics - II in Psychology**

This course is the extension of Statistics-I. It discusses the relationships and differences and how these characteristics can be explored through inferential statistics using different sets of formulae and techniques. It requires extensive use of software in statistical analyses.

### **PSY306 Ethical Issues in Psychology**

This course outlines the ethical and moral responsibilities when carrying out research. The main focus is to protect participants from any harm and also safe guard the reputation of psychology as a science.

### **PSY307 IT in Behavioral Sciences**

Dissemination of information was never limited to any particular discipline. We have evolved new technologies and tools to disseminate information; and the modern tool is a computer. This course introduces the participant to different use of computers in psychological sciences whether it is clinical, educational, or business. It will discuss about understanding phenomena through simulations and sharing information on global network.

### **PSY308 Introduction to Psychological Testing**

This is an introductory course that presents the principles of testing, including requirements for validity, reliability, norm samples, and examples of psychological tests. Emphasis is placed on familiarizing the student with the basics of psychological testing and the major components of how to judge and understand a test.

### **PSY309 Experimental Psychology**

This is an undergraduate psychology course intended to deliver knowledge about experimental research methods in psychology. Students will study the technicalities related to conducting an experiment – they will learn how to plan, conduct, and analyze experimental research, and how to communicate the results of research to others

### **PSY310 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.

### **PSY311 Developmental Psychology**

This course is a study of human growth and development. It describes the nature and context of development as well as the research methods used to study human development. Emphasis is on major theories and perspectives as they relate to the biological, cognitive, social, emotional, and moral aspects of development. The course examines fundamental theories, perspectives and critical thoughts about historical and current arguments in the field.



### **PSY312 Individual Differences**

The course studies the individual differences focuses on the extent and kind of variations or similarities among people on some of the important psychological aspects such as intelligence, personality, interest, and aptitude. factors. ... personal qualities, behaviors and abilities of individuals.

### **PSY313 Positive Psychology**

This course entails the scientific study of human flourishing, and an applied approach to optimal functioning. It has also been designed as the study of the strengths and virtues that enable individuals, communities and organizations to thrive.

### **PSY314 Cross-Cultural Psychology**

This course will explore how social and cultural forces shape human experiences. Cross-cultural psychology offers an opportunity to develop an appreciation of the interplay of individual, ethnic, and cultural contributions to personal and group growth and well-being and their role in psychotherapy and cross-cultural interactions. The course will explore topics such as differences in worldviews, communication, the acculturation process, stereotyping, prejudice discrimination, racism and the development of cultural identity. An important aspect of multicultural psychology is the impact of research; therefore it will explore research outcomes and methodologies as well.

### **PSY317 Capstone Project**

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.

### **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**

This 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 technics 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.

## **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 Behavioral Studies**

This course is designed to provide students with the knowledge and significance of human behavior at work place. The course will offer an understanding of human behavior along with organizational design & culture, structure, leadership, motivation and other management concepts.

### **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.

### **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.

### **SSC408 Political Sociology**

This course focuses on the relationship between power, civil society and the state. It addresses the modern and postmodern socio-political approaches to power and society at both national and global levels. It also explores political culture between place and space, the power of networks as well as the complexity theory. It is also concerned with the role of media, democracy, capitalism, and the power of identity. It investigates governance with and without states and explores the prospects both of global civil society and cosmocracy.

### **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

#### **STA411 Quantitative Analysis for Decision Making**

The course is designed to make students integrate the theoretical knowledge of statistics and its application with the help of data analysis with the help of a software SPSS. The main focus of the course is on valid interpretations and conclusions drawn as a result of data analysis.

## **Telecommunication Engineering**

#### **TCE201 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: MTH216

#### **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, hyper geometric, normal, uniform and exponential).

Pre-requisite: MTH215

#### **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: TCE201

#### **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: TCE205

#### **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 principles of analysis and designing of modern digital communication systems.

Pre-requisite: TCE201

#### **TCE420 Information Theory and Coding**

Information, Entropy, Relative & mutual Entropy, Chain rules for entropy and mutual information, Source coding, Data compression, Examples of compression codes, Huffman codes, Lempel-ziv codes, Types of channels: discrete memory-less, Binary Symmetric, Binary Erasure, Gaussian channel capacity, Shannon's Theorem, Prefix and Block codes(fixed and variable length).

Pre-requisite: TCE201



#### **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: TCE204/205

#### **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: TCE201

#### **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

#### **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

#### **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).

#### **TCE430 Satellite Communication**

To acquaint the students with the principle of operation of satellite communication, its benefits and the technology involved.

Pre-requisite: TCE201

#### **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: TCE416

### **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**

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 2016-2017:

### **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 2017

Registration and Fee Payment <ul style="list-style-type: none"> <li>• New students</li> <li>• On board students</li> </ul>	Saturday, July 22, 2017 to Saturday, August 12, 2017 Tuesday, August 1, 2017 to Monday, September 11, 2017
Orientation for newly admitted students	Saturday, August 26, 2017
Commencement of Regular Classes	Monday, September 04, 2017
Commencement of Weekend/Evening Classes	Saturday, September 09, 2017
Eid-ul-Azha*	Friday, September 01 to Sunday, September 03, 2017
Last day to drop courses without penalty	Monday, October 16, 2017
Muharram*	Saturday, September 30 & Sunday, October 01, 2017
Last day to drop courses with penalty	Monday, November 20, 2017
Classes End	Monday, December 11, 2017
Break	Monday, December 11 to Sunday, December 17, 2017
Eid-e-Milad-un-Nabi (SAW)	Friday, December 01, 2017
Quaid-e-Azam's Birthday	Monday, December 25, 2017
Final Exam	Monday, December 18, 2017 to Monday, January 01, 2018

### Exam Schedule for Regular and Executive Students

Week	Exams	Regular	Executive
6th	1st Hourly	09/10 - 12/10	14/10 - 15/10
11th	2nd Hourly	13/11 - 16/11	18/11 - 19/11
16th	Final	18/12/2017 to 01/01/2018	

\* Subject to the appearance of moon.

**Note:**

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



## SPRING 2018

Registration and Fee Payment <ul style="list-style-type: none"> <li>• New students</li> <li>• On board students</li> </ul>	Saturday, December 30, 2017 to Saturday, January 06, 2018 Monday, December 11, 2017 to Saturday, January 20, 2018
Commencement of Weekend/Evening Classes	Saturday, January 13, 2018
Commencement of Regular Classes	Monday, January 15, 2018
Last day to drop courses without penalty	Monday, February 26, 2018
Last day to drop courses with penalty	Saturday, March 31, 2018
Classes End	Sunday, April 22, 2018
Break	Monday, April 23, 2018 to Sunday, April 29, 2018
Labor Day	Tuesday, May 01, 2018
Final Exam	Saturday, April 28, 2018 to Monday, May 14, 2018

### Exam Schedule for Regular and Executive Students

Week	Exams	Regular	Executive
6th	1st Hourly	19/2 - 22/2	17/2 - 18/2
11th	2nd Hourly	26/3 - 29/3	24/3 - 25/3
16th	Final	28/4/2018 to 14/5/2018	

\* Subject to the appearance of moon.

**Note:**

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



## SUMMER 2018

Registration and Fee Payment <ul style="list-style-type: none"> <li>New students</li> <li>On board students</li> </ul>	Saturday, April 28, 2018 to Thursday, May 10, 2018 Saturday, May 12, 2018 to Monday, June 11, 2018
Commencement of Weekend/Evening Classes	Saturday, May 19, 2018
Orientation for newly admitted students	Saturday, May 19, 2018
Last day to drop courses without penalty	Monday, June 25, 2018
Last day to drop courses with penalty	Saturday, July 14, 2018
Eid-ul-Fitr*	Friday, June 15 to Sunday, June 17, 2018
Independence Day	Tuesday, August 14, 2018
Classes End	Sunday, August 19, 2018
Break	Monday, August 20, 2018 to Friday, August 24, 2018
Final Exam	Saturday, August 25, 2018 & Sunday, August 26, 2018 Saturday, September 01, 2018 & Sunday, September 02, 2018

### Exam Schedule

Week	Exams	Weekend
6th	1st Hourly	23/6 to 24/6
11th	2nd Hourly	28/7 to 29/7
15th	Final	25/8 & 26/8 to 1/9 & 2/9

## SUMMER CRASH 2018

Registration and Fee Payment <ul style="list-style-type: none"> <li>New students</li> <li>On board students</li> </ul>	Saturday, April 14, 2018 to Saturday, April 21, 2018 Tuesday, April 24, 2018 to Thursday, May 24, 2018
Commencement of Regular Classes	Monday, June 04, 2018
Last day to drop courses without penalty	Monday, June 25, 2018
Eid-ul-Fitr*	Friday, June 15 to Sunday, June 17, 2018
Last day to drop courses with penalty	Saturday, July 14, 2018
Classes End	Thursday, August 02, 2018
Independence Day	Tuesday, August 14, 2018
Break	Friday, August 3, 2018 to Sunday, August 12, 2018
Final Exam	Monday, August 13, 2018 to Friday, August 17, 2018

### Exam Schedule

Week	Exams	Crash Program
6th	Mid-Term	09/7 to 12/7
11th	Final	13/8/2018 to 17/8/2018

\* Subject to the appearance of moon.

**Note:**

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





---

**Institute of Business Management**

Korangi Creek, Karachi-75190, Pakistan

Tel: +92-21 111-002-004, Fax: +92-21 35090968

Email: [iobm@iobm.edu.pk](mailto:iobm@iobm.edu.pk)

Website: <http://www.iobm.edu.pk>

[www.facebook.com/official.iobm](http://www.facebook.com/official.iobm)

[www.twitter.com/iobm\\_official](http://www.twitter.com/iobm_official)