

# Institute of Business Management

Catalog 2011-2012



Sixteen Years of Service to Business

## Mission Statement

The mission of IoBM 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 prepare students to excel in academics as well as in management skills. Students learn to function ethically, and take effective decisions in business and other endeavors of life. The Institute allows freedom of thought and expression by encouraging faculty and students to be independent and creative thinkers. We believe in pursuing leading-edge research. We are catalysts engaged in the development of innovative ideas, analytical, interpersonal and leadership skills. Our faculty is committed to using the best teaching and training methodologies. We are also committed to our stakeholders which include parents, the business community and professional organizations to create responsible corporate leaders of tomorrow.

## From the Chancellor



IoBM has come of age. There are pertinent reasons why this Institute has been awarded the top category status by the Higher Education Commission, Government of Pakistan, rated at the zenith of rankings of the Sindh Charter Inspection and Evaluation Committee and distinguished among the leading business schools of the world by the internationally accredited and valued Eduniversal organization.

The secret of IoBM's success is no secret. It is a blend of students' perseverance, faculty guidance and management's leadership inspiration. The net result is that IoBM alumni are placed in notable positions in leading national and multinational organizations. It is heartening to note that both IoBM students and alumni have earned a good name for themselves, their institution, their family and their country, both here and abroad through academic, extra-curricular, career and professional excellence. In fact, the grace of the brand called IoBM is reflected in its purpose-built campus with well-equipped labs and classrooms; current and contemporary IT facilities; state-of-the-art auditorium, conference rooms and Management Excellence Center; well-stocked and up-to-date library for research and reference; top class facilities for popular and trendy sports including an invigorating gymnasium, a modern squash court and a bustling Student Activity Center with a modern cafeteria.

Spacious walkways and smooth drive ways, with IoBM graceful administration, academic and maintenance buildings and Students Activity Center in the background are compelling reasons for a re-visit. In the backdrop of the overwhelming ambience and infrastructure are the emotional maturity, seriousness of purpose and perceptive thinking of persevering students and guiding faculty towards IoBM academic excellence and public image. IoBM's credibility, with accredited programs in business management and allied disciplines, lies in its students' career focused activities aimed at confidence and career building and inculcating in them the spirit to care for and share mutual rewards. The turning point in its students' creativity and confidence is that they themselves plan, organize and promote seminars, workshops, debates, exhibits, presentations and special occasions of national and international importance. That is why IoBM is a brand and a hallmark of reputation and credibility in the corporate sector.

The welcome to new entrants of the IoBM family is much more than a traditional gesture. They are welcomed with the trust of truly exploring and benefiting from IoBM's opportunities, being assets for their families and for the Institute. There is no alternative to punctuality, regularity and discipline in attendance, studies and revision and, of course, respect for parents and teachers, so instrumental towards academic and career excellence. May you thrive in your study and career pursuits. Ameen.

Aftab Ahmed Khan  
Chancellor

## Contents

• Welcome to IoBM: From the President	06
• An Introduction to the Institute of Business Management	07
• Why Choose IoBM?	10

### Life at IoBM

• Resources and Facilities	12
• Student Achievements and Awards	13
• Student Activities	14
• Convocation	19
• Global Linkages	20

### College of Business Management (CBM)

• BBA (Honors)	(Four-Year Program)	24
• BS (Honors) Economics and Finance	(Four-Year Program)	28
• BS (Honors) Accounting and Finance	(Four-Year Program)	30
• MBA after BBA and BS Joint (Honors)	(One-Year Program)	32
• MBA Advertising and Media Management after BBA (Honors)	(One-Year Program)	34
• MBA after BS Computer Science	(18 Months Program)	35
• MBA Finance and Risk Management after BBA / BS Joint (Honors)	(One-Year Program)	37
• MBA (Regular)	(Two-Year Program)	38
• MBA (Regular)	(Three-Year Program)	40
• MBA (Executive)	(Two-Year Program)	42
• MBA Health and Hospital Management	(Two-Year Program)	44
• MBA Advertising and Media Management	(Two-Year Program)	46
• MBA Educational Management	(Two-Year Program)	48
• MBA Finance and Risk Management	(Two-Year Program)	50
• MBA Environment and Energy Management	(Two-Year Program)	52
• MBA Educational Management	(Three-Year Program)	54
• MBA (Executive)	(Three-Year Program)	56
• MPhil Leading to PhD (Management Sciences) Program		58
• Elective Business Courses (MBA Regular, Executive and Health)		59

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

• BS Computer Science	(Four-Year Program)	62
• BS Industrial Engineering and Management	(Four-Year Program)	64
• BS Actuarial Science and Risk Management	(Four-Year Program)	66
• BE Electrical with Specialization in Telecommunication	(Four-Year Program)	68
• MS Computer Science	(One-Year Program)	70
• MBA Industrial Management after BS Industrial Engineering & Management	(One-Year Program)	71
• MBA Industrial Management	(Two-Year Program)	72
• MBA Telecommunication Management	(Two-Year Program)	74

### College of Economics and Social Development (CESD)

• BS (Honors) Commerce	(Four-Year Program)	78
• BS (Honors) Media Studies	(Four-Year Program)	80
• MSc Organizational Psychology and Human Resource Management	(Two-Year Program)	82
• MSc Media Psychology	(Two-Year Program)	84
• MSc Media Psychology	(Three-Year Program)	86
• MSc Leading to MS Economics and Finance		88
• MS/MPhil Leading to PhD in Business Psychology	(Two-Year Program)	90

### Internship and Placement Programs

• Internship Program		94
• Organizations where IoBM Students have Interned		95
• Placement Program		98
• Firms Employing IoBM Graduates		100

### Management Excellence Center

• Management Excellence Center		104
• Research at IoBM and MEC		106

### Administrative and Academic Requirements

• Comprehensive Examination		110
• Teaching and Learning at IoBM		111
• The Disciplinary Committee		113
• Readmission Policy		114
• Attendance Policy		114
• Examination Norms		115
• Mid-Term Policy		115
• Policy for Course Repetition		115
• Academic Dishonesty		115
• Definition of Plagiarism		116
• Dress Code Policy		116

### Admission and Finance

• Admission Requirements		118
• Financial Assistance Programs		119
• Fee Structure		120
• Students Refund Policy		121
• Organization		124
• Faculty		128
• Visiting Faculty at IoBM		143
• Administration		148
• Course Descriptions		152
• Certificate Courses		234
• Academic Calendar		236



## Welcome to IoBM From the President

Congratulations on joining the IoBM community. Since 1995 we have been engaged in building a Higher Education Institution of which Pakistan can be proud. IoBM has been internationally ranked as one of the two top Business Schools of Pakistan and is now aiming to become a leading Business School of Asia. Thousands of students have graduated from IoBM over the years and now occupy key positions in corporate and public sector institutions, nationally and around the world. Besides Business Education and Training, Applied Research has become one of our core competencies and our Management Excellence Centre (MEC) has developed an active working relationship with major national and multinational businesses for Management Consultancy and Training. We have recently collaborated to establish the Dubai Center of the MEC as a Training and Development Consultancy Hub for the Middle East.

While CBM is our flagship College and Business Education our primary forte, we have become Karachi's first full fledged city university with wide ranging programs in IT, Health Management, Industrial Management, Actuarial Sciences, Media Studies, Environmental Management, Education and Commercial and Professional studies. A major new initiative is the proposed establishment of an Engineering College with its own building and state of the art technological resources. We have recently established a Center for Area and Policy Studies (CAPS) which focuses on promoting linkages between the European Union's public support programmes and European business in Pakistan. CAPS also continues to promote the work of development of Sindh's economy which it initiated in 2008.

You have come to an Institution the primary concern of which is to foster initiative and entrepreneurial talent in you. Make full use of this unique opportunity to develop competencies that will enable you to make a significant contribution in your professional and personal life.

With best wishes for your future.

Shahjehan S. Karim  
President

## An Introduction to the Institute of Business Management

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

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

Administrative and financial information including opportunities for financial assistance and stipends are also included in the catalog. The catalog introduces you to the academic and administrative personnel at IoBM and its faculty. A detailed description of all courses taught at IoBM is also given.

Every effort has been made to keep the catalog up-to-date and to ensure that courses are offered as described. However, circumstances beyond IoBM's control may sometimes make this impossible. Changes in the curriculum may be necessary to keep abreast of professional developments. For that reason, the Institute reserves the right to make unavoidable alterations in courses offered, and in the structure.

## IoBM: 1994-2011

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 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 three constituent colleges, the College of Business Management (CBM), the College of Computer Science & Information Systems (CCSIS) and the College of Economics & Social Development (CESD). Since 2006 the Institute has been ranked as one of the top universities in the private sector, both by the Higher Education Commission of the Federal Government and the Sindh Provincial Government. During 2008 and 2009, 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 of Advanced Collegiate Schools of Business (AACSB) and other international and national organizations.



The Governor of Sindh is an ex-officio Patron and Mr. Aftab Ahmed Khan, former Federal Secretary Finance, is the Chairman of the Board of Governors of the Institute and also its Chancellor. The other members of the Board are:

- Chairman Higher Education Commission or his nominee
- President, Federation of Pakistan Chamber of Commerce and Industry
- President, Karachi Chamber of Commerce & Industry
- President, Karachi Stock Exchange (Guarantee) Ltd.
- Education Secretary, Government of Sindh
- Mr. Shahjehan S. Karim, President Foundation for Higher Education
- Mr. Justice @ G.H. Malik
- Mr. Basheer Janmohammad
- Mr. Abdul Ghaffar Adamjee
- Mr. Jahangir Siddiqui
- Mr. S.M.Muneer
- Mr. Muhammad Ali Tabba
- Mr. Salahuddin Qureshi
- Mr. Muhammad Shareef
- Dr. Zafar Saied Saifee
- Mr. Talib Syed Karim, Rector IoBM
- Mr. M. W. Jahangir, Secretary

The Institute, through its College of Business Management (CBM), offers a four year BBA (Honors) and a two/three year MBA degree program with specialization in Marketing, Finance, Human Resource Management and Management Information Systems, Health & Hospital Management, Pharmaceutical Administration, Media Management, Advertising & Communication Management, Industrial Management and Telecommunication Management. A research degree, an MPhil leading to PhD, is also offered in Finance, Human Resource Management, Marketing and Management Information Systems. A four year Bachelor of Computer Science (Honors) followed by a two years Master of Computer Science and MBA in Finance & Risk Management is offered through the College of Computer Science & Information Systems (CCSIS). The College also offers programs in Industrial Engineering & Management, Actuarial Science & Risk Management, Telecommunication Engineering & Management and Financial Mathematics & Statistics. The College of Economics and Social Development offers a BS program in Commerce, Media, MBA in Educational Management and MSc leading to MPhil in Economics.

The Institute emphasizes research and publishes HEC and internationally recognized Pakistan's first business policy and research journal, Pakistan Business Review. Students and faculty contribute regularly to its pages. A research seminar is organized on a weekly basis. The Institute is the only business school where foreign language courses, Arabic, French, Spanish 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 3300 students have graduated from the Institute. Most of them are placed in key positions in leading national and multinational firms including Citibank, Faysal Bank, Standard Chartered, PIA, Engro, Berger Paints, GeoTV, 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 300 students go for compulsory internships every summer to national and multinational organizations.

The Management Excellence Center (MEC) of the Institute organizes professional education, training and research programs for serving the corporate sector to enhance both its profitability and contribution to society. Support is provided in the areas of banking and finance, marketing, human resource development and information systems management.

The Institute has come a long way since 1995. There are over 4000 students on our campus which is large and purpose-built at Korangi Creek on a 10 acre site, comprising the Business College building, Administration and Management Excellence Center building, CCSIS building, a Convocation Center, Student Activity Center, a five-storeyed Library building, Industrial Engineering and Management building, a mosque and CESD building.

At the Institute's fourth convocation in December, 2001, an honorary degree of Doctorate of Philosophy was conferred upon Dr. Nafees Sadik, former Executive Director, United Nations Population Program. At the fifth convocation held in December, 2002, an honorary degree was conferred on our keynote speaker, Mr. Babar Ali, Pro-Chancellor, Lahore University of Management Sciences (LUMS), and at the ninth convocation an honorary degree was conferred on Dr. Goolam Mohamedbhai, President International Association of Universities (IAU). The sixth convocation was held in December 20, 2003 with Dr. Atta-ur-Rahman, Chairman, Higher Education Commission and Minister for Science & Technology as the Chief Guest and Ms. Musharaf Hai, Chairperson, Unilever Pakistan Limited as the keynote speaker. The seventh convocation was held on December 18, 2004 with the Governor Sindh as the Chief Guest and Mr. Hameed Haroon, Chief Executive Dawn Group of Newspapers as the keynote speaker. Over 300 students were awarded BBA (Hons), BCS (Hons), BS (Accounts), MBA and MCS degrees at this convocation. The eighth convocation was held on December 17, 2005 with the Minister for Education, Sindh, as the Chief Guest and Syed Ali Raza, President, National Bank of Pakistan, as the keynote speaker. Over 400 students were awarded degrees at this convocation. The ninth convocation of the Institute was held on December 16, 2006 with the Education Minister as the Chief Guest and Dr. Goolam Mohamedbhai President, IAU, as the keynote speaker. Over 450 students were awarded degrees at this convocation. The tenth convocation was held on December 8, 2007, where Mr. Jose Manuel Salazar-Xirinachs, Executive Director of the International Labour Organization, Geneva was the keynote speaker and over 500 students were awarded degrees. The eleventh convocation of the Institute was held on December 6, 2008 where the Governor, State Bank of Pakistan was the keynote speaker and Governor Sindh, Dr. Ishrat ul Ebad was the chief guest and over 700 degrees were awarded to students at this convocation. Syed Qaim Ali Shah, Chief Minister of Sindh and Mr. Nisar Ahmed Khuhro, Speaker Sindh Assembly attended the twelfth convocation of the Institute, held on December 05, 2009. The keynote Speaker was Mr. Shaharyar Muhammad Khan, former Foreign Secretary and former Chairman of the Pakistan Cricket Board. As many as 927 graduates were awarded degrees. The thirteenth convocation was held on December 4, 2010. The chief guests on the occasion were Dr. Abdul Hafeez Shaikh, Minister for Finance, Revenue, Economic Affairs & Statistics and the keynote speaker was Dr. Javaid R. Laghari, Federal Minister / Chairperson of the Higher Education Commission of Pakistan.

## Why Choose IoBM?

*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*

For the last four years, IoBM has been rated as one of the top universities in the private sector, both by the Higher Education Commission of the Federal Government and the Provincial Government of Sindh. Eduniversal, during its international conventions of Deans of Business Colleges from over sixty countries, held in 2008 at Paris, France and in 2009 at Cape Town, South Africa awarded IoBM 2 Palms as one of the two best Business Schools in Pakistan. The Institute has been an active member of the International Association of Universities (IAU), International Association of University Presidents (IAUP), Association of Advanced 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, 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 teachers excel in their respective fields. They pass on their expertise in research and scholarship to students enabling them to have an enhanced understanding of their respective disciplines.

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

IoBM has earned its reputation through an excellent internship and graduate employment record. The rigorous academic degree courses enable graduates to acquire breadth and depth in their chosen subjects and, therefore, enter a wide range of careers. A large number of its graduates join top business schools in Europe, USA and Canada.

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

Life at IoBM

## Resources and Facilities

Institute of Business Management has a purpose built ten acre campus located in the serene and secure surroundings of Korangi Creek, Karachi. The Business College building, covering an area of 74,000 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 Management Excellence Center building, with a covered area of 20,000sq.ft. was completed in 2001. Another centrally air-conditioned building with a covered area of 50,000sq.ft., houses the College of Computer Science and Information Systems and has been operational since 2002. The Convocation Center was completed in November, 2002, and the Students Activity Center building in September, 2003 which has a second floor housing 10 faculty residential suites for visiting scholars and was completed in January, 2006. The library building has been operational since January, 2005. A separate building houses the department of Industrial Engineering & Management. The Institute provides students with subsidized transportation to and from the campus through conveniently located pick and drop points all over Karachi. Girls are provided this facility to and from their homes. The campus also has ample car parking facilities.

### Computer 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 over two hundred workstations. It is fully equipped with satellite/ radio-linked e-mail, Wi-Fi facilities and internet facilities for all students, faculty and staff.

### Library

The IoBM library, an ideal setting for learning and research, serves as a repository for the rich array of both traditional and electronic information services. A distinctive strength is its rich spectrum of resources, including a large number of books, journals, periodicals, reference material, audio-visual material, government documents and reports catering to the scholarly needs of students, faculty and researchers. Its pleasant and conducive-to-learning environment accommodates 350 students and 25,000 books. All library books are searchable using OPAC (Online Public Access Catalog), 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. The library employs a dynamic and diverse staff offering innovative and flexible services to library users.



## Student Achievements and Awards

- IoBM team won the CIMA Global Business Challenge (GBC) Pakistan 2010. Out of 50 teams competing in the initial stages from universities from Lahore and Karachi, four teams qualified for CIMA Global Business Challenge (GBC) Pakistan Final 2010. Of these, two were from IoBM and two from LUMS. IoBM's team represented Pakistan in Malaysia where prestigious universities from all over the world participated including the UK, Ireland, Hong Kong, Sri Lanka, India, China, Philippines, Malaysia, Singapore, South Africa, UAE and Australia
- IoBM won the second prize in Unilever Lipton Hunt-a national completion between leading business schools of Pakistan
- IoBM won the Business Launch Challenge 2010/2011 by P&G Pakistan. The competition was a part of the P&G Pakistan's Human Resource Initiatives and was geared towards enhancing students' grasp of the industry in general and P&G Pakistan's business in particular. IoBM's team competed with over 50 teams across Pakistan
- IoBM team was the runner-up in the GIRC (Global Investment Research Challenge) 2010. The equity research competition was organized by CFA Association, Pakistan. The participating teams included 6 institutions (LUMS, IBA, IoBM, SZABIST, Bahria University and NUST Business School). The teams were required to prepare an equity research report on United Bank Ltd.
- IoBM won the Fourth P&G Business Launch Competition 2010, held at IBA. More than 250 teams from Karachi participated in this competition
- IoBM's team won the Brands' Anatomy, a Brand Building Competition held at SZABIST
- IoBM's team won The AD EFFECT Competition held at LUMS International Marketing Colloquium 2011
- IoBM team won the on-Campus Management Trainee Program organized by Telenor
- IoBM won the second & third prize in Digital Minds, 2010, an inter-university competition held by Symmetry Digital which is Pakistan's Largest Digital Agency



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

## Student Activities

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 & fun stalls, CBMUN, the Green Day, Drama festival and so much more. One can never get enough of it.

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

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

## Recent Events

### Dialogue Society

- The Dialogue Society invited Sheikh Kamaluddin, a faculty member from LUMS, to deliver a lecture on "The Dilemmas of the Muslim Youth".
- In August 2010, the Society organized a program in collaboration with GEO TV on Social and Islamic Welfare by Junaid Jamshed.

### Egalitarians Society

In March, the Egalitarians Society hosted a panel discussion on "Political Leadership and Vision of Pakistan" with Mr. Shahzeb Khanzada as the anchor and three well distinguished guests, Mr. Aqeel Karim Dehdhi, Ms. Fauzia Wahab and Syed Mustafa Kamal in collaboration with TV One.

### Entertainment Plus Society (EPS)

- IoBM celebrated the Jashan-e-Baharan festival in April, 2011. The theme of the event was the colors of spring. The event was filled with fun and excitement and it culminated in thrilling performances by students of IoBM and Ali Zafar which took the event to its zenith!
- The Entertainment Plus Society organized Cafe Tarka in February, 2011. The event kicked in with thrilling performances by Nuts & Bolts, Safar and few other students as well as food stalls
- The Society arranged Eid Milad Un Nabi with full fervor and dignity, where students faculty and administration heads were invited
- EPS organized in-house talent hunt in October, 2010
- Youm-e-Hussain comprising "marsia khuwani" and "majlis" was organized by EPS with full honor and respect

## Finance Society

- The Finance Society launched the second edition of its research publication named "Big Numbers 2010" in December 2010. The Chief Guest was Ms. Shazia Mari, Minister for Power, Government of Sindh and the Key Note Speaker was Mr. M. Ashraf Janjua, Advisor to the President, IoBM. PTV was the media partner of the event.
- In September 2010, the Finance Society organized an event in collaboration with CNBC Pakistan for the program, "MANG RAHA HAI PAKISTAN". The idea behind the program was to get the feedback from youth on what they think about Pakistan, its current situation and how they can contribute to making Pakistan a better place.
- The Finance Society organized a healthy debate on Budget FY10-11 in July 2010 in the Management Excellence Center. A discussion on Budget FY10-11 between students of IBA and IoBM was conducted. The discussion was aired on Business Plus. The Guest Speakers/ Judges were Mr. Ashraf Janjua, Ex- Deputy Governor State Bank and Advisor to the President, IoBM and Mr. Nadeem Naqvi, CEO, AKD Investment Management Limited. The discussion was moderated by Mr. Shahzad Iqbal, Director Business Programming & Anchor, Business Plus

## Strategic Human Resource Society (SHRS)

The third edition of Zenith this year was held at the Institute of Business Management (IoBM), from January 21 to January 23, 2011. It is the brainchild of the Strategic Human Resource Society (SHRS) of IoBM

Zenith'11 was a three day event which comprised interactive sessions, teamwork activities and career advisory sessions as well. The aim of Zenith'11 was to bridge the gap between the corporate world and student world. Day One of Zenith'11 consisted of the motivational gurus, Umair Jaliawala, Abid Bana and Syed Faraz Shahid. It ended with a Musical Night as a social event. Day 2 was no less interesting as it started off with discussion "Vision, Tameer and Embrace" by Urooj Mazhar, from School of Leadership (SoL). Mr. Farooq Hasan was our guest at Zenith'11 and shared some of his invaluable years of experience in the political and corporate world to give an idea to attendees what real life is all about. And then Muneeb Kidwai, the renowned trainer who promotes "out of the box" thinking, dazzled the participants with his split personalities as Dr.B and then Mr. Bond, the evil and good sides of the mind, respectively.

Day 3 only had one speaker session, which was conducted by Ali Khurram Pasha who not only kept the participants interactive but also very inquisitive.

## The Literary and Public Speaking Society

"The cost of peace is war, the cost of war is the world and in this world diplomacy is power".

Knowledge about current affairs has become a necessity of modern times. Hence the actual mechanisms of the United Nations are replicated and simulated in various renowned institutes globally.

The Literary and Public Speaking Society at IoBM has just recently had the third annual Model United Nations conference named CBMUN'11. The purpose has been to have multilateral debates and diplomatic discussions on a variety of subjects including international security, environment, society, culture, human rights, politics, science and economics and to come up with revolutionary and plausible solutions to worldwide issues and problems.

Students need to have more than just the basic curricular skills in order to progress.

## CBM Society of Health Managers (CSHM)

- CSHM was the Academic Partner in 6th Health Asia Conference with E Commerce Gateway and Pharma Asia held in April 2010 at Expo Center Karachi.
- I AM PROHEALTH – A cycling event held at Creek Road, Defence ,Phase 5 with AKHSP and I OWN KARACHI during the World Health in April 2010 to encourage the use of bicycles as against fueled transport and enhance pro activity in health.
- CSHM 'Flood Relief Drive' distributed donations worth of food, clothes, medicines and utilities to hundreds of flood victims located at Ibrahim Haidery and Korangi in Karachi along with Makli and Jhirk in interior Sindh.
- Medical camps for flood victims were established during August and September, 2010 at Makli and Jamshoro, where medical camps and mobile health facilities were provided. Over four health camps have been conducted and more than 350 patients have been assessed and treated for problems related to Skin, Eye, Respiratory and other infectious diseases.
- 2nd Health Assessment Camp "Me & My Health" was held at IOBM in December 2010 inaugurated by Dr Sagheer Ahmed, Minister of Health, Sindh. The event was graced by Mr. Shahjehan Karim, President IOBM, Ms Sabina Mohsin, Director Administration, IOBM and Mr. Talib Karim, Rector IOBM. The camp was located all over the institution offering free screening for Hepatitis, Thalassemia, Blood grouping, Diabetes, BMI, Bone Densitometry, free consultations on skin health, dental, mental, eye check up, female health, general health, diet and fitness, vaccinations, Dengue, and various infectious diseases. Renowned pharmaceutical companies, corporate organizations and public health promoting agencies contributed to this CSR activity.
- A healthy 'ProHealth Walk' was held at IOBM to celebrate the World Health Day in April 2011. Ms. Sabina Mohsin attended the event. A Q/A session was also conducted bringing in a renowned Physician, a Gynecologist and a Physical Trainer.

## Vanguard: The Social Science Club

- IOBM Social Enterprise Enrichment (I-SEE) is a unique initiative of Vanguard, the Social Science Club. It is an effort to bring together and provide mentorship to individuals with innovative solutions to society's most pressing social problems. The highlights of the three day (I-SEE) event were the social business plan contest. The contest entries included nonprofit, for-profit or hybrid model business plans. The winning prize was Rs. 100,000 and was shared between two teams this year.
- A photo essay contest which was judged by a panel of leading photographers of the country
- A workshop aimed at mentoring the young delegates on how to create and document a social business plan that evaluates all the aspects of economic viability
- Guest speaker sessions by renowned individuals and organizations such as Yousuf Bashir Qureshi, Arsalan Nara and the Acumen Fund, group discussions on Social Disparity in Education, team building exercises and I-SEE Olympics
- Social events such as a movie night and a play by the renowned Drama Mafia, I-SEE Rock Concert and a Grand Theme Dinner were organized to help the delegates relax. The event was a tremendous success and I-SEE is destined to get bigger and better in the upcoming years!



## The Management Society

Let's Polca: Sponsored by GSK, the inaugural event of TMS, featured the prominent trainer Umair Jaliawala to educate students on how the four key management principles of planning, leading, controlling, and organizing can be applied in our day to day lives. The event turned out to be a resounding success with a jam packed auditorium, and was praised by all the members of faculty involved.

The Concert was held at the end of 2010 year as an attraction for the society's first ever sign ups, and was performed by the vice president Moeed Ali's underground band called The Ashes.

TMS collaborated with MEC to organize the IOBM conference on corporate governance. The society helped MEC in terms of logistics of the event. Top CEOs and industrialists of Pakistan came together on one forum to discuss the various facets and issues of Corporate Governance, and practices in Pakistan. This was the first time TMS because had undertaken the organization of such a monumental task, and due praise was lavished not only by the Head of MEC, but the Dean himself.

The ice breakers were conducted earlier this year that called upon all the new recruits of TMS for orientation purposes. A host of activities were conducted, each relevant to their respective department, and tested the teamwork as well as individual skills of the participants.

THE YOUNG GENERATION---- Challenges for the Future: The Management Society in collaboration with other societies organized the visits of Mr. Imran Khan, the founder of Shaukat Khanum Cancer Hospital, a philanthropist, politician and the former captain of Pakistan Cricket team February 22, 2011.

## The Marketing Society

The IOBM Marketing Society acts as a platform to connect professional marketers and students, to provide an opportunity to interact, learn and grow. The society arranges various seminars and workshops.

- Brand Wars took place in October 2010. The event was a guest speaker session. The speaker was Mr. Umer Shaikh, Marketing Head of Tetley Tea. Mr. Shaikh spoke about the tactics close-competing brands use to survive in the marketplace.
- Brand Carnival was a two-day exquisite event organized in January 2011 on campus where various organizations showcased their brands and promoted them. More than 15 brands participated including Coca-Cola, Toyota, Telenor, UBL, Ideas by Gul Ahmed, HP Pakistan, Knorr, Vaseline, ISE Cards, PTCL, GSK's Sensodyne, FedEx, Shan Foods, Omore and others. The Brand Carnival was also attended by Mr. Masood Hashmi, President, Marketing Association of Pakistan (MAP). Who along with the Rector of IOBM, Mr. Talib Karim visited many of the stalls.
- Dimensions, the annual magazine published by the Marketing Society, was also formally launched in January 2011 by Mr. Masood Hashmi, President of Marketing Association of Pakistan. The magazine brings together articles and information about the latest trends in marketing. It includes, but is not limited to, marketing articles, researches, interviews, marketing buzz and more.



## The Sports Society

IoBM reached the semi final/final in the following matches:

- HEC Zonal Football Tournament 2010, held at NED University of Engineering & Technology. (7 Universities participated)
- 8th Inter-University Football Tournament 2010 at Aga Khan University (20 teams participated)
- HEC Inter-University Table Tennis Championship 2010 at NED University (8 Universities participated)
- 9th AKU Inter-University Basketball Tournament 2010 (11 Universities participated)

IoBM has been the winner in the following sports competitions:

- 3rd IoBM Inter-varsity Table Tennis Tournament (7 universities participated)
- The National University of Computer & Emerging Sciences Inter-varsity Table Tennis Tournament (11 universities participated)
- 2nd Bahria Inter-University Table Tennis Tournament 2010 (6 Universities participated)
- Inter-University Greenwich T20 Cricket Championship 2010 (6 Universities participated)
- HEC Inter-varsity Table Tennis Championship Zone "G" 2010 was organized by the Institute of Business Management where 13 universities participated from Karachi
- Inter-Society Sports Festival Fall 2010 was organized by IoBM Sports Society (Vanquishers) (19 societies and approximately 400 students participated)



## Convocation

In December, 2010, IoBM held its thirteenth Convocation, awarding degrees to 236 MBA (Regular), 125 MBA (Executive), 26 MBA (Health and Hospital Management), 20 MBA (Industrial Management), 13 MBA (Media Management), 16 MBA (Advertising and Communication Management), 01 MBA (Finance and Risk Management) 02 MPhil, 02 MCS, 294 BBA (Honors), 152 BS (Joint Honors), 03 BS (Computer Science), 06 BS (Industrial Engineering) and 02 BS (MIT). 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.

Gold Medals were awarded to the following students:



Maria Irshad  
BBA (Honors)

S. Moazzur Rab Memorial  
Gold Medal



Umair Aslam  
BBA (Honors)

Razzak Tabba Memorial  
Gold Medal



Maheen Jafri  
BS (Joint Honors)

Imam Ali Kazi Memorial  
Gold Medal



Abdul Ahad  
MBA (Regular)

Janmuhammad Dawood  
Gold Medal



Nazia Nasir  
MBA (Finance)  
Bank Alfalah  
Gold Medal



Farhan Asif  
MBA (IM)

Adamjee Foundation  
Gold Medal



Ayesha Hoda  
MBA (MM)

S. H. Hashmi Memorial  
Gold Medal



Mehar Younus  
MBA (Executive)

Halima-Fatima Memorial  
Gold Medal



Sayeeda Amber Hassan  
MBA (H&HM)

Sano-Aventis  
Gold Medal

## Global Linkages

To upgrade IoBM to an international level, it has initiated several multilateral and bilateral academic Agreements and Affiliation with Universities of Higher Education and Professional Bodies around the world. Some of the global linkages are as follows:

### 1. Erasmus Mundus Program of the European Union

Erasmus Mundus (EM) is a cooperation and mobility program in the field of Higher Education aimed at enhancing the quality of Higher Education in the European Union Universities and the Universities outside Europe in Asia, Africa and Latin America. IoBM has successfully formed a Consortium of leading Universities of Europe and Asia under which students, faculty members and management staff of IoBM will be able to pursue Higher Education and Training in European Universities funded by the E.M. Program. Last February, Mr. Shahjehan S. Karim, President and Dr. Khalid Amin, Head HRM & International Relations, IoBM, met Heads of leading Universities of Spain, France, Germany and Lithuania, and signed MoUs for bilateral and multilateral exchange of students and faculty. Formal meetings were also held with officials of the Erasmus Mundus Secretariat in Brussels, Belgium along with officials of the Consortium's Lead Partner, Mykolas Romeris University, Vilnius, Lithuania to have the E.M. Consortium approved. The European and Asian Partner Universities of the E.M. Consortium are as follows:

#### European Union Countries:

- Lithuania - Mykolas Romeris University, Vilnius (Lead Applicant)
- France - SciencesPo, Paris
- Spain - University of Malaga, Malaga
- Romania - Petre Andrei University of Iasi
- Portugal - Escola Superior de Educacao do Instituto Politecnico de Castelo Branco
- Italy - University of Bologna, Bologna
- Greece - University of Peloponnese, Peloponnese
- Sweden - University College of Malmo, Malmo Hogskola

#### Asian Countries

##### Group 'A'

- Pakistan - Institute of Business Management, Karachi
- Bangladesh - University of Chittagong, Chittagong
- Nepal - Pokhara University, Lekhnath
- Nepal - Kathmandu Royal University, Kathmandu
- Bhutan - Royal University of Bhutan, Bhutan

##### Group 'B'

- Thailand - Siam University, Bangkok
- Sri Lanka - University of Peradeniya, Kochi



## 2. Eduniversal, Paris, France

Eduniversal, based in Paris, France, is a worldwide academic institutions ranking organization which ranks the 1,000 best academic institutions from around the world. In its annual meeting held in October, 2010 in Prague, Eduniversal ranked IoBM as one of the two best business schools in Pakistan.

President, IoBM, held a meeting with the President, Eduniversal, Mr. Martial Guiette and his Management Team in Paris in March, 2011 and discussed further improvement of IoBM's academic ranking.

## 3. Bilkent University, Turkey

IoBM has entered into an understanding with Bilkent University (BU), Ankara, Turkey for exchange of students on full scholarship and provision of free hostel facilities. BU is Turkey's largest University in the private sector and is ranked 16th in Asia. Four IoBM students have been sent to BU for one semester each. Exchange of more students, faculty Members as well as Joint Research Projects are expected to follow.

## 4. Siam University, Thailand – "Sufficiency Economy" Project

IoBM is partnering with Siam University, Thailand in "Sufficiency Economy" Project initiated by His Majesty, King Bhumibol Adulyadej of Thailand and supported by UNESCO-UNITWIN. IoBM's Faculty will contribute its technical knowledge and experience in social welfare maximization promotion in business organizations on a global basis.

## 5. University of Kuala Lumpur, Malaysia

- IoBM and University of Kuala Lumpur, Malaysia have agreed to collaborate with each other in the following fields:
- A Conference on promotion of bilateral trade and investment between Malaysia and Pakistan in November-December, 2011 in Karachi
- Commencement of a split PhD Program in Economics for two of IoBM's Faculty Members who already have an M.Phil Degree
- Exchange of BBA/MBA students for one semester with exemption of tuition fees and provision of free hostel accommodation
- Exchange of faculty for one/two semesters in the disciplines of Finance/Marketing/HRM/Media Management. The visiting faculty would be provided free return air fare, boarding & lodging and a reasonable tax free remuneration in dollars.

## 6. International Finance Corporation

- International Finance Corporation (IFC) financing of Rs. 350 million for infrastructure and curriculum development



## 7. Memorandum of Understanding

IoBM has signed Memorandum of Understanding (MoU) for promotion of joint academic, research training and development activities with the following universities:

- Michigan Technological University, USA
- Mykolas Romeris University, Vilnius, Lithuania
- Sciences Po, Paris, France
- University of Malaga, Malaga, Spain
- Petre Andrei University of Iasi, Iasi, Romania
- Escola Superior de Educacao do Instituto Politecnico de Castelo Branco, Castelo Branco, Portugal
- Eqrem Cabej University, Gjirokastra, Albania
- International Burch University, Lidza, Bosnia
- University of Chittagong, Chittagong, Bangladesh
- Pokhara University, Lekhnath, Nepal
- Royal University of Bhutan, Chhukha, Bhutan
- Siam University, Bangkok, Thailand
- University of Peradeniya, Peradeniya, Sri Lanka
- Bilkent University, Ankara, Turkey
- University of Kuala Lumpur, Malaysia
- National University of Mongolia, Ulaanbaatar, Mongolia
- Kathmandu University, Lalitpur, Nepal
- University of Florence, Italy
- University of Bologna, Italy

## 8. Membership of Professional Bodies

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

- International Association of Universities (IAU), UNESCO, France
- International Association of University Presidents (IAUP), Thailand
- The Association of Commonwealth Universities (ACU), UK
- Association of Universities of Asia and the Pacific (AUAP), Thailand
- AACSB International - The Association to Advance Collegiate Schools of Business, USA
- Asian Media Information and Communication Centre (AMIC), Singapore
- Management Association of Pakistan (MAP), (Member, Executive Committee)
- Marketing Association of Pakistan (Vice President for the year 2010-2011)
- Employers Federation of Pakistan
- Institute of Corporate Governance
- International Finance Corporation (IFC)



College of Business Management

## BBA (Honors) (Four-Year) Program

Bachelor of Business Administration (Honors) is a professional and comprehensive management degree course which covers all areas of business including Marketing, HRM, Economics, Business Strategy, etc. It equips students with both soft and hard managerial skills in a balanced way and prepares them to undertake diverse, entry-level executive jobs. The emphasis of BBA is on applied management knowledge.

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

Students are provided with general business courses as part of their studies and are required to select one of the fields of specialization listed below:

- Accounting
- Finance and Banking
- Human Resource Management
- Industrial Management
- Management Information Systems
- Marketing
- Advertising and Communication Management
- Management
- Media Management

Courses are divided into Foundation, Core and Electives.

### Foundation Courses

#### Communication

- COM101 General English
- COM102 Business Communication I
- COM201 Business Communication II
- COM202 Business and Professional Speech

#### Language

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

- \*1 = Introduction to Arabic
- \*3 = Introduction to Spanish
- \*5 = Introduction to Japanese
- \*7 = Introduction to Russian

- \*2 = Introduction to French
- \*4 = Introduction to German
- \*6 = Introduction to Italian
- \*8 = Introduction to Chinese

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

- \*\*2 = Intermediate French
- \*\*4 = Intermediate German
- \*\*6 = Intermediate Italian
- \*\*8 = Intermediate Chinese

#### Economics

- ECO101 Principles of Microeconomics
- ECO102 Principles of Macroeconomics
- ECO402 Pakistan Economic Policy

#### Law

- LAW201 Corporate Law
- LAW401 Business Law

#### Mathematics

- MTH101 College Algebra
- MTH103 Calculus for Business Decisions

#### Political Science

- PSC301 Pakistan Studies

#### Social Science

- SSC101 Introduction to Psychology
- SSC301 History of Ideas
- SSC401 Business Ethics

#### Religious Studies

- REL101 Islamic Studies

#### Statistics

- STA201 Quantitative Business Analysis
- STA202 Quantitative Skills & Managerial Statistics



## Core Business Courses

### Accounting

- ACC101 Introduction to Financial Accounting
- ACC201 Intermediate Financial Accounting
- ACC301 Cost Accounting
- ACC410 Management Accounting
- ACC503 Taxation

### Finance

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

### Human Resource Management

- HRM301 Human Resource Management

### Management

- MAN101 Principles of Management
- MAN201 Personal Management
- MAN302 Organizational Behavior
- MAN303 Production and Operations Management
- MAN305 International Relations
- MAN403 Entrep. and Small Business Management
- MAN405 Strategic Management
- MAN408 Analysis of Pakistani Industries

### Management Information Systems

- MIS102 Computer Concepts
- MIS103 Computer Applications I
- MIS201 Computer Applications II

### Marketing

- MKT301 Principles of Marketing
- MKT302 Marketing Management
- MKT403 Sales Management
- MKT404 Methods in Business Research

## Elective Business Courses

### Accounting

- ACC502 Advanced Managerial Accounting
- ACC504 Accounting Information Systems
- ACC505 Auditing
- ACC506 Analysis of Financial Statements

### Finance and Banking

- FIN503 Corporate Finance
- FIN504 International Finance
- FIN505 Treasury and Fund Management
- FIN506 Invest. Banking and Security Analysis
- FIN507 Portfolio Management
- FIN508 Risk Management
- FIN509 Financial Derivatives
- FIN510 Investment Analysis
- FIN512 Money and Capital Markets
- FIN513 Project Appraisal
- FIN514 Asset Liability Management

### Human Resource Management

- HRM501 Recruitment and Selection
- HRM502 Industrial Relations and Labour Laws
- HRM503 Employee Training & Development
- HRM504 Negotiation Skills & CB
- HRM505 Org. Change and Development
- HRM506 Strategic Human Resource Management
- HRM507 Public Relations and Event Management
- HRM508 Salary and Compensation
- HRM509 Leadership Studies
- HRM510 Personnel Development
- HRM511 Performance Appraisal and Management

### Management

- MAN502\*Business Process Re-engineering
- MAN503 Supply Chain Management
- MAN507 Business Etiquette

\*Accepted as elective under all disciplines.

### Management Information Systems

- MIS503 System Analysis and Design
- MIS504 Oracle/Developer 2000
- MIS505 Software Engineering
- MIS506 Data Communication and 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 & Info. Systems

### Marketing

- MKT502 Graphic Design
- MKT503 Packaging and Printing
- MKT504 Advertising
- MKT505 Industrial Marketing
- MKT506 International Marketing
- MKT507 Services Marketing
- MKT508 Personal Selling
- MKT509 Consumer Behavior
- MKT510 Direct and Digital Marketing
- MKT511 Brand Management
- MKT512 Export Marketing
- MKT517 Media Marketing
- MKT519 Marketing of Financial Services
- MKT520 Merchandising and Sales Promotion
- MKT521 Distribution and Channel 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 would have to cover twelve courses in a year. Full load of six courses can be taken each in the Fall and Spring semesters with option for fewer courses in the latter and making up the shortfall in the summer session.

The Master's/Bachelor's degree programs offered at IoBM are based on a semester system. An academic year consists of a fall semester commencing in September and concluding in January, a spring semester commencing in January and concluding in May, and a summer session from June to August.

Enrollment in fall and spring sessions is compulsory with the summer session being optional. For the MBA executive program enrollment is also compulsory in the summer session.

IoBM does not encourage transfer of credits from other colleges. In case one feels that he/she deserves transfer of credit, the applicant should submit a request to the Dean/Rector at the time of admission.

## Course Structure

### Freshman

#### Semester One

- General English
- Principles of Microeconomics
- Principles of Management
- Computer Concepts
- College Algebra
- Islamic Studies

#### Semester Two

- Introduction to Financial Accounting
- Business Communication I
- Principles of Macroeconomics
- Computer Applications I
- Calculus for Business Decisions
- Introduction to Psychology

### Sophomore

#### Semester Three

- Intermediate Financial Accounting
- Business Communication II
- Corporate Law
- Computer Applications II
- Principles of Marketing
- Quantitative Business Analysis

#### Semester Four

- Business and Professional Speech
- Introduction to Business Finance
- Foreign Language I\*
- Personal Management
- Marketing Management
- Quantitative Skills and Managerial Statistics

### Junior

#### Semester Five

- Cost Accounting
- Financial Institutions
- Foreign Language II
- Organizational Behavior
- International Relations
- Methods in Business Research

### Semester Six

Financial Management  
 Human Resource Management  
 Production and Operations Management  
 Sales Management  
 Pakistan Studies  
 History of Ideas

### Senior

#### Semester Seven

Management Accounting  
 Business Law  
 Entrepreneurship and Small Business  
 Business Ethics  
 Elective I  
 Elective II

#### Semester Eight

Taxation  
 Pakistan Economic Policy  
 Strategic Management  
 Analysis of Pakistani Industries  
 Elective III  
 Elective IV  
 Internship (2 credit hours)

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



*The shy, quiet girl who entered the gates of IoBM in 2007 is a far cry from the self-assured, confident adult who is also the president of the most prestigious and happening society of the college!*

*This metamorphosis, though grueling and tedious, yielded dramatically positive results for me. Each interaction -- pleasant and sometimes not so pleasant, has been a learning experience for me. Needless to say, the contribution of my faculty in what I am today is priceless. I have made genuine friends here, whose friendship I will cherish forever.*

*Thank you IoBM for adding value to my formative years!*

*Sania Jamal Husain  
 BBA (Honors)*



## BS (Honors) Economics and Finance (Four-Year) Program

The BS (Honors) is designed to instill in students academic skills necessary for a professional career in Finance and Economics. It requires completion of 144 credit hours of course work and 2 credit hours of internship of at least six weeks in a firm approved by the College. Students graduating with a CGPA of 2.5 automatically qualify for MBA program offered by CBM.

Students must take a minimum load of twelve credit hours (four courses) or a maximum load of eighteen credit hours (six courses) in a semester. In order to obtain the BS degree in 4 years, a student is required to cover twelve courses in a year. Full load of six courses can be taken each in the Fall and Spring semesters with an option of four courses in the latter and making up the shortfall in the Summer session.

### Required Courses

#### Accounting

ACC101 Introduction to Financial Accounting  
ACC201 Intermediate Financial Accounting  
ACC503 Taxation

#### Communication

COM101 General English  
COM202 Business and Professional Speech  
COM203 Methods in Business Writing

#### Economics

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

#### Finance & Banking

FIN201 Introduction to Business Finance  
FIN202 Financial Management

FIN301 Financial Institutions  
FIN305 Internet Banking and EPS  
FIN503 Corporate Finance  
FIN504 International Finance  
FIN505 Treasury and Fund Management  
FIN506 Investment Banking and Security Analysis  
FIN507 Portfolio Management  
FIN509 Financial Derivatives  
FIN512 Money and Capital Markets  
FIN513 Project Appraisal

#### Human Resource Management

HRM301 Human Resource Management

#### Language

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

\*1 = Introduction to Arabic  
\*3 = Introduction to Spanish  
\*5 = Introduction to Japanese  
\*7 = Introduction to Russian

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

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

\*\*2 = Intermediate French  
\*\*4 = Intermediate German  
\*\*6 = Intermediate Italian  
\*\*8 = Intermediate Chinese

#### Law

LAW401 Business Law

#### Management

MAN101 Principles of Management  
MAN302 Organizational Behavior

#### Management Information Systems

MIS402 Computer Concepts & Applications

#### Marketing

MKT301 Principles of Marketing  
MKT404 Methods in Business Research

#### Mathematics

MTH101 College Algebra  
MTH103 Calculus for Business Decisions

### Political Sciences

PSC301 Pakistan Studies

### Religious Studies

REL101 Islamic Studies

### Social Sciences

SSC101 Introduction to Psychology

SSC201 Policy Studies\*

SSC202 Environmental Studies\*

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

### Statistics

STA203 Probability Theory and Statistics

STA301 Model and Inference

STA302 Methods of Data Analysis

## Course Structure

### Freshman

#### Semester One

General English

Principles of Microeconomics

Foreign Language I or Policy Studies

Computer Concepts and Applications

College Algebra

Islamic Studies

#### Semester Two

Introduction to Financial Accounting

Methods in Business Writing

Principles of Macroeconomics

Foreign Language II or Environmental Studies

Calculus for Business Decisions

Intermediate Microeconomics

### Sophomore

#### Semester Three

Intermediate Financial Accounting

Business and Professional Speech

Probability Theory and Statistics

Introduction to Business Finance

Introduction to Psychology

Principles of Management

### Semester Four

Intermediate Macroeconomics

Internet Banking and EPS

Business Law

Principles of Marketing

Pakistan Studies

Model and Inference

### Junior

#### Semester Five

International Trade

Introduction to Econometrics

Money and Banking

Financial Management

Financial Institutions

Methods of Data Analysis

#### Semester Six

Managerial Economics

Financial Economics

Corporate Finance

Money and Capital Markets

Organizational Behavior

Methods in Business Research

### Senior

#### Semester Seven

Taxation

Topics in Microeconomics

Monetary Theory and Policy

International Finance

Portfolio Management

Human Resource Management

#### Semester Eight

Topics in Macroeconomics

Pakistan Economic Policy

Treasury and Fund Management

Investment Banking and Security Analysis

Financial Derivatives

Internship (2 credit hours)

## BS (Honors) Accounting and Finance (Four-Year) Program

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

Students must take a minimum load of twelve credit hours (four courses) or a maximum load of eighteen credit hours (six courses) in a semester. In order to obtain the BS degree in 4 years, a student is required to cover twelve courses in a year. Full load of six courses can be taken each in the Fall and Spring semesters with an option of four courses in the latter and making up the shortfall in the Summer session.

### Required Courses

#### Accounting

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

#### Communications

COM101 General English  
COM202 Business and Professional Speech  
COM203 Methods in Business Writing

#### Economics

ECO101 Principles of Microeconomics  
ECO102 Principles of Macroeconomics  
ECO301 Managerial Economics  
ECO402 Pakistan Economic Policy  
ECO406 Money and Banking

#### Finance and Banking

FIN201 Introduction to Business Finance  
FIN202 Financial Management  
FIN301 Financial Institutions  
FIN305 Internet Banking and EPS  
FIN501 Advanced Financial Management  
FIN503 Corporate Finance  
FIN504 International Finance  
FIN505 Treasury and Fund Management  
FIN506 Investment Banking and Security Analysis  
FIN507 Portfolio Management  
FIN509 Financial Derivatives  
FIN511 Analysis of Financial Statements  
FIN513 Project Appraisal

#### Human Resource Management

HRM301 Human Resource Management

#### Language

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

\*1 = Introduction to Arabic  
\*3 = Introduction to Spanish  
\*5 = Introduction to Japanese  
\*7 = Introduction to Russian

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

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

\*\*2 = Intermediate French  
\*\*4 = Intermediate German  
\*\*6 = Intermediate Italian  
\*\*8 = Intermediate Chinese

#### Law

LAW401 Business Law

#### Management

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

#### Management Information Systems

MIS402 Computer Concepts & Applications

#### Marketing

MKT301 Principles of Marketing  
MKT404 Methods in Business Research

### Mathematics

MTH101 College Algebra  
MTH103 Calculus for Business Decisions

### Political Sciences

PSC301 Pakistan Studies

### Religious Studies

REL101 Islamic Studies

### Social Sciences

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

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

### Statistics

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

## Course Structure

### Freshman

#### Semester One

General English  
Principles of Microeconomics  
Foreign Language I or Policy Studies  
Computer Concepts and Applications  
College Algebra  
Islamic Studies

#### Semester Two

Introduction to Financial Accounting  
Methods in Business Writing  
Principles of Macroeconomics  
Foreign Language II or Environmental Studies  
Calculus for Business Decisions  
Pakistan Studies

### Sophomore

#### Semester Three

Intermediate Financial Accounting  
Business and Professional Speech  
Probability Theory and Statistics  
Business Law  
Principles of Marketing  
Introduction to Psychology

### Semester Four

Accounting & Financial Information Systems  
Internal Audit & EDP Accounting  
Introduction to Business Finance  
Internet Banking & EPS  
Model and Inferences  
Principles of Management

### Junior

#### Semester Five

Advanced Financial Accounting  
Managerial Economics  
Financial Management  
Financial Institutions  
Money and Banking  
Methods of Data Analysis

#### Semester Six

Cost Accounting  
Corporate Finance  
Treasury & Fund Management  
Advanced Financial Management  
Organizational Behavior  
Methods in Business Research

### Senior

#### Semester Seven

Auditing  
Analysis of Financial Statements  
Portfolio Management  
International Finance  
Human Resource Management  
Entrepreneurship and Small Business Management

#### Semester Eight

Advanced Managerial Accounting  
Taxation  
Pakistan Economic Policy  
Investment Banking and Security Analysis  
Financial Derivatives  
Project Appraisal  
Internship (2 credit hours)



## MBA after BBA and BS Joint (Honors) (One-Year) Program

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

### Required Course

#### Accounting

ACC501\* Advanced Financial Accounting

*\*for BS Joint (Honors) students only*

#### Economics

ECO405 Seminar in Economic Policy

#### Finance

FIN502 Strategic Financial Management

FIN510 Investment Analysis\*

*\*for BS Joint (Honors) students only*

#### Management

MAN501 Total Quality Management

MAN508 Comparative Management

#### Management Information Systems

MIS501 Information Systems Management

MIS502 Electronic Commerce

#### Marketing

MKT402 Marketing Management\*

MKT501 Strategic Marketing and Planning

*\*for BS Joint (Honors) students only*

### Business Elective Courses

#### Majors in Accounting\*

ACC502 Advanced Managerial Accounting

ACC505 Auditing

ACC506 Analysis of Financial Statements

#### Majors in Finance and Banking\*

FIN503 Corporate Finance

FIN504 International Finance

FIN505 Treasury and Fund Management

FIN506 Investment Banking and Security Analysis

FIN507 Portfolio Management

FIN508 Risk Management

FIN509 Financial Derivatives

FIN510 Investment Analysis

FIN512 Money and Capital Markets

FIN513 Project Appraisal

FIN514 Asset Liability Management

*\*for BBA (Honors) students only*

#### Majors in Human Resource Management

HRM501 Recruitment and Selection

HRM502 Industrial Relations and Labour Laws

HRM503 Employee Training and Development

HRM504 Negotiation Skills & CB

HRM505 Organizational Change and Development

HRM506 Strategic HRM

HRM507 Public Relations and Event Management

HRM508 Salary and Compensation

HRM509 Leadership Studies

HRM510 Personnel Development

HRM511 Performance Appraisal and Management

#### Majors in Management Information Systems

MIS503 System Analysis and Design

MIS504 Oracle/Developer 2000

MIS505 Software Engineering

MIS506 Data Communication & Networking

MIS507 Relational Database Management 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 & Info. Systems



### Majors in Marketing

MKT502	Graphic Design
MKT503	Packaging and Printing
MKT504	Advertising
MKT505	Industrial Marketing
MKT506	International Marketing
MKT507	Services Marketing
MKT508	Personal Selling
MKT509	Consumer Behavior
MKT510	Direct and Digital Marketing
MKT511	Brand Management
MKT512	Export Marketing
MKT517	Media Marketing
MKT519	Marketing of Financial Services
MKT520	Merchandising and Sales Promotion
MKT521	Distribution and Channel Management
MKT527	Integrated Marketing Communication

### Majors in Supply Chain and Logistics Management

SCM501	Supply Chain Management
SCM502	ERP Systems Design and Implementation
SCM503	Strategic Supply Chain Management
SCM504	Procurement and Inventory Management
SCM505	Storage and Warehouse Techniques
SCM506	Transportation Techniques & 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. Full load of six courses can be taken each in the Fall and Spring semesters with an option for fewer courses in the latter and making up the short fall in Summer session.

### Course Structure

#### Semester One

Advanced Financial Accounting\*  
 Investment Analysis\*\*  
 Strategic Financial Management  
 Total Quality Management  
 Strategic Marketing and Planning\*  
 Marketing Management\*\*  
 Elective I  
 Elective II

\* for BBA (Honors) students only

\*\* for BS Joint (Honors) students only

#### Semester Two

Seminar in Economic Policy  
 Comparative Management  
 Information Systems Management  
 Electronic Commerce  
 Elective III  
 Elective IV



## MBA Advertising and Media Management after BBA (Honors) (One-Year) Program

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

### Required Courses

#### Accounting

ACC501 Advanced Financial Accounting

#### Advertising

ADV504 Advertising Management & Strategy  
ADV505 Creative Planning and Development

#### Law

LAW405 Media Law and Business Ethics

#### Management

MAN501 Total Quality Management  
MAN508 Comparative Management

#### Marketing

MKT501 Strategic Marketing and Planning  
MKT509 Consumer Behavior  
MKT511 Brand Management  
MKT526 Public Relations & Event Management  
MKT527 Integrated Marketing Communication

#### Media

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

### Course Structure for MBA Advertising Management

#### Semester One

Advertising Management and Strategy  
Brand Management  
Public Relations and Event Management  
Digital Media  
Consumer Behavior  
Media Planning

#### Semester Two

Integrated Marketing Communication  
Creative Planning and Development  
Advanced Financial Accounting  
Comparative Management  
Strategic Marketing and Planning  
Total Quality Management

### Course Structure for MBA Media Management

#### Semester One

Introduction to Media in Pakistan  
Print Media  
Electronic Media  
Brand Management  
Comparative Management  
Advertising Management and Strategy

#### Semester Two

Public Relations and Event Management  
Media Research and Public Opinion  
Specialized Communication Skills  
Digital Media  
Media Law and Business Ethics  
Role of Media in World Affairs

## MBA after BS Computer Science (18 Months) Program

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

### Foundation Courses

#### Communication

COM402 Business Communication

#### Law

LAW401 Business Law

#### Social Sciences

SSC401 Business Ethics

### Core Business Courses

#### Accounting

ACC401 Introduction to Managerial & Cost Accounting

#### Finance

FIN404 Financial Management

#### Management

MAN402 Organizational Behavior

MAN403 Entrepreneurship & Small Business Management

MAN405 Strategic Management

MAN501 Total Quality Management

#### Marketing

MKT402 Marketing Management

MKT404 Methods in Business Research

### Business Elective Courses

#### Majors in Accounting

ACC501 Advanced Financial Accounting

ACC502 Advanced Managerial Accounting

ACC504 Accounting Information Systems

ACC505 Auditing

#### Majors in Finance and Banking

FIN502 Strategic Financial Management

FIN503 Corporate Finance

FIN504 International Finance

FIN505 Treasury and Fund Management

FIN506 Investment Banking and Security Analysis

FIN507 Portfolio Management

FIN508 Risk Management

FIN509 Financial Derivatives

FIN510 Investment Analysis

FIN511 Analysis of Financial Statements

FIN512 Money and Capital Markets

FIN513 Project Appraisal

FIN514 Asset Liability Management

#### Majors in Human Resource Management

HRM501 Recruitment and Selection

HRM502 Industrial Relations and Labour Laws

HRM503 Employee Training & Development

HRM504 Negotiation Skills & CB

HRM505 Organizational Change & Development

HRM506 Strategic HRM

HRM507 Public Relations

HRM508 Salary and Compensation

HRM509 Leadership Studies

HRM510 Personnel Development

HRM511 Performance Appraisal and Management

#### Majors in Management

MAN502\* Business Process Re-engineering

MAN504 Business Balanced Scorecard

MAN507 Business Etiquette

MAN508 Comparative Management

*\* Accepted as elective under all disciplines.*

#### Majors in Management Information Systems

MIS502 Electronic Commerce

MIS504 Oracle/Developer 2000

MIS507 Relational Database Management Systems

MIS509 Software Project Management

MIS521 Record Management

MIS522 Business Information Systems

MIS523 Decision Systems

MIS524 Decision Support Systems

- MIS525 Enterprise Systems
- MIS526 Enterprise Resource Planning Systems
- MIS 527 Information Security
- MIS 528 Advanced Information Security
- MIS 530 Information Systems Research
- MIS 532 New Perspectives on Organization Info. Systems

#### Majors in Marketing

- MKT501 Strategic Marketing and Planning
- MKT502 Graphic Designing
- MKT503 Packaging and Printing
- MKT504 Advertising
- MKT505 Industrial Marketing
- MKT506 International Marketing
- MKT507 Services Marketing
- MKT508 Personal Selling
- MKT509 Consumer Behavior
- MKT510 Direct and Digital Marketing
- MKT511 Brand Management
- MKT512 Export Marketing
- MKT514 Public Relations and Event Management
- MKT519 Marketing of Financial Services
- MKT520 Merchandising and Sales Promotion
- MKT521 Distribution and Channel Management
- MKT527 Integrated Marketing Communication

#### Majors in Supply Chain and Logistics Management

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

## Course Structure

### Semester One

- Introduction to Managerial and Cost Accounting
- Business Communication
- Organizational Behavior
- Total Quality Management
- Marketing Management
- Business Ethics

### Semester Two

- Financial Management
- Business Law
- Entrepreneurship and Small Business Management
- Strategic Management
- Methods in Business Research

### Semester Three

- Elective I
- Elective II
- Elective III
- Elective IV



*During my years at IoBM, I believe that I have acquired the right set of skills to succeed in life. By leveraging these skills, I was crowned as the national champion of the CIMA Global Business Challenge 2010. This victory gave me the opportunity to represent Pakistan in the Global Final that was held in Malaysia. The remarkable achievement would not have been possible without the contribution of IoBM.*

*Zaid Imad  
BBA (Honors)*



## MBA Finance and Risk Management after BBA / BS (Joint Honors) (One-Year) Program

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

### Required Courses

#### Economics

ECO408 Applied Financial Economics

#### Finance

FIN511 Analysis of Financial Statements

#### Finance and Risk Management

FRM401 Principles of Risk Management

FRM402 Computational Methods in Risk

FRM403 Introduction to Financial Risk Management

FRM404 Risk Financing Techniques

FRM405 Advanced Financial Risk Management

#### Mathematics

MTH409 Financial Mathematics I

MTH410 Financial Mathematics II

#### Social Sciences

SSC405 Business Ethics and Financial Responsibility

### Elective Courses

#### Finance and Risk Management

FRM501 Property Risk Management

FRM502 Management of Insurance Institutions

FRM503 Corporate Risk Management

FRM504 Theory of Risk and Insurance

### Course Structure

#### Semester One

Financial Mathematics I

Principles of Risk Management

Computational Methods in Risk

Business Ethics and Financial Responsibility

#### Semester Two

Introduction to Financial Risk Management

Financial Mathematics II

Applied Financial Economics

Elective I

#### Semester Three

Risk Financing Techniques

Advanced Financial Risk Management

Analysis of Financial Statements

Elective II



## MBA (Regular) (Two-Year) Program

The challenging and inspiring MBA program provides graduates an in-depth focus on cutting edge issues in business.

This Master's program requires completion of 78 credit hours of course work, including 26 courses, 2 credit hours of internship of at least six weeks in a firm approved by the College and the comprehensive examination. Students must maintain a CGPA of 3.0 for the conferment of the degree. This program is designed for students with a background in a wide range of disciplines such as, commerce, engineering, law, science, medicine, arts and pharmacy.

Students can take a minimum load of 12 credit hours (four courses) or a maximum of eighteen credit hours (six courses) in a regular semester (Fall / Spring).

Students who are weak in English and Communication Skills are required to take an additional "Business English" course to enhance their language skills.

### Foundation Courses

#### Communication

- COM401 Business English\*
- COM402 Business Communication
- COM403 Interpersonal Communication Skills

\*less proficient students

#### Economics

- ECO403 Macroeconomics
- ECO404 Micro and Managerial Economics
- ECO405 Seminar in Economic Policy

#### Law

- LAW401 Business Law

#### Social Sciences

- SSC401 Business Ethics

#### Statistics

- STA403 Statistics and Mathematics
- STA404 Statistical Inference

### Core Business Courses

#### Accounting

- ACC401 Introduction to Managerial & Cost Accounting
- ACC402 Introduction to Financial Accounting

#### Finance

- FIN404 Financial Management
- FIN501 Advanced Financial Management

#### Human Resource Management

- HRM401 Human Resource Management

#### Management

- MAN401 Principles of Management
- MAN402 Organizational Behavior
- MAN405 Strategic Management

#### Management Information Systems

- MIS401 Computer Applications
- MIS502 Electronic Commerce

#### Marketing

- MKT401 Principles of Marketing
- MKT402 Marketing Management
- MKT404 Methods in Business Research

### Elective Business Courses\*

\*Refer to Page No. 59.

### Courses Structure

#### Semester One

- Introduction to Financial Accounting
- Business English\*
- Business Communication
- Macroeconomics
- Principles of Management
- Principles of Marketing
- Statistics and Mathematics

\*less proficient students



### Semester Two

Financial Management  
Organizational Behavior  
Computer Applications  
Marketing Management  
Methods in Business Research  
Statistical Inference

### Semester Three

Introduction to Managerial and Cost Accounting  
Micro and Managerial Economics  
Advanced Financial Management  
Human Resource Management  
Business Law  
Electronic Commerce  
Business Ethics

### Semester Four

Interpersonal Communication Skills  
Seminar in Economic Policy  
Strategic Management  
Elective I / Sales Management\*  
Elective II  
Elective III  
Elective IV  
*Internship (2 credit hours)*

*\*Sales Management is a compulsory course for students who wish to do majors in Marketing. These students will be required to take three electives instead of four.*



*For me, IoBM was a journey in which my life took a 180 degree turn because there is a big difference between life at IoBM and life out of it. I have developed myself not only academically and professionally but also personally and socially. Apart from fulfilling the academic requirements with the top notch faculty, it provides students with the ability to think beyond limits and gifts them with the confidence and power of imagination. The privilege of studying at IoBM has given me the right to succeed in my life.*

*Ravi Srishand Talib  
BBA (Honors)*



## MBA (Regular) (Three-Year) Program

This Master's Program requires completion of 108 credit hours of course work, including 36 courses, 2 credit hours of internship of at least six weeks in a firm approved by the College and clear the comprehensive examination. Students must maintain a CGPA of 3.0 for the conferment of the degree. The program is designed for students who have passed BA/BCom/ BSc or 2-Year Bachelor's degree recognized by the Higher Education Commission of Pakistan.

Students can take a minimum load of 12 credit hours (four courses) or a maximum of eighteen credit hours (six courses) in a regular semester (Fall & Spring). Students who are weak in English and Communication Skills are required to take an additional "Business English" course to enhance their language skills.

### Foundation Courses

#### Communication

- COM401 Business English\*
- COM402 Business Communication
- COM403 Interpersonal Communication Skills

\*less proficient students

#### Economics

- ECO403 Macro Economics
- ECO404 Micro and Managerial Economics
- ECO405 Seminar in Economic Policy

#### Law

- LAW402 Corporate Law

#### Mathematics & Statistics

- MTH400 Mathematics for Business
- STA401 Introduction to Statistics
- STA404 Statistical Inference

### Core Business Courses

#### Accounting

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

#### Finance

- FIN404 Financial Management
- FIN503 Corporate Finance

#### Human Resource Management

- HRM401 Human Resource Management
- HRM505 Organizational Change and Development
- HRM506 Strategic Human Resource Management

#### Management

- MAN401 Principles of Management
- MAN402 Organizational Behavior
- MAN403 Entrepreneurship & Small Business
- MAN405 Strategic Management
- MAN406 Production and Operations Management
- MAN411 Project Management
- MAN413 Corporate Social Responsibility
- MAN416 Corporate Governance
- MAN501 Total Quality Management

#### Management Information Systems

- MIS410 Business & Information Technology
- MIS512 Management Information Systems

#### Marketing

- MKT401 Principles of Marketing
- MKT402 Marketing Management
- MKT404 Methods in Business Research
- MKT501 Strategic Marketing and Planning
- MKT509 Consumer Behavior

### Elective Business Courses\*

\*Refer to Page No. 59.



## Course Structure

### Semester One

Introduction to Financial Accounting  
 Business English\*  
 Business Communication  
 Macroeconomics  
 Principles of Management  
 Business & Information Technology  
 Mathematics for Business

*\*less proficient students*

### Semester Two

Introduction to Managerial and Cost Accounting  
 Interpersonal Communication Skills  
 Micro and Managerial Economics  
 Corporate Social Responsibility  
 Principles of Marketing  
 Introduction to Statistics

### Semester Three

Financial Management  
 Corporate Law  
 Organizational Behavior  
 Marketing Management  
 Consumer Behavior  
 Statistical Inference

### Semester Four

Corporate Finance  
 Human Resource Management  
 Production and Operations Management  
 Total Quality Management  
 Management Information Systems  
 Methods in Business Research

### Semester Five

Organizational Change and Development  
 Strategic Human Resource Management  
 Entrepreneurship and Small Business  
 Strategic Marketing and Planning  
 Elective I / Sales Management\*  
 Elective II

### Semester Six

Seminar in Economic Policy  
 Project Management  
 Corporate Governance  
 Strategic Management  
 Elective III  
 Elective IV  
*Internship (2 credit hours)*

*\*Sales Management is a compulsory course for students who wish to do majors in Marketing. These students will be required to take three electives instead of four.*



## MBA (Executive) (Two-Year) Program

In addition to the regular MBA program, an executive MBA program is offered on the weekend to accommodate working professionals. Its curriculum is current/ updated and comprehensive providing all the tools and techniques suited to the needs of mid-career and senior level executives. Enrollment in the executive program requires a minimum load of 6 credit hours (2 courses) and the maximum load of 12 credit hours (4 courses) in each of the 3 sessions (Fall, Spring, Summer). MBA (Executive) students in the regular program sponsored by their organizations are not required to take up an internship. The program consists of three groups of courses: Foundation, Core and Electives.

### Foundation Courses

#### Communication

COM401 Business English\*  
COM402 Business Communication  
COM403 Interpersonal Communication Skills

\*less proficient students

#### Economics

ECO403 Macroeconomics  
ECO404 Micro and Managerial Economics  
ECO405 Seminar in Economic Policy

#### Law

LAW401 Business Law

#### Social Science

SSC401 Business Ethics

#### Statistics

STA403 Statistics and Mathematics  
STA404 Statistical Inference

### Core Business Courses

#### Accounting

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

#### Finance

FIN404 Financial Management  
FIN501 Advanced Financial Management

#### Human Resource Management

HRM401 Human Resource Management

#### Management

MAN401 Principles of Management  
MAN402 Organizational Behavior  
MAN405 Strategic Management

#### Management Information Systems

MIS401 Computer Applications  
MIS502 Electronic Commerce

#### Marketing

MKT401 Principles of Marketing  
MKT402 Marketing Management  
MKT404 Methods in Business Research

### Business Elective Courses\*

\*Refer to Page No. 59.

### Course Structure

#### Semester One

Introduction to Financial Accounting  
Business English\*  
Business Communication  
Principles of Marketing  
Statistics and Mathematics  
\*less proficient students

#### Semester Two

Macroeconomics  
Principles of Management  
Marketing Management  
Statistical Inference

### Semester Three

Introduction to Managerial and Cost Accounting  
Financial Management  
Organizational Behavior  
Computer Applications

### Semester Four

Advanced Financial Management  
Human Resource Management  
Business Law  
Methods in Business Research

### Semester Five

Interpersonal Communication Skills  
Micro and Managerial Economics  
Electronic Commerce  
Business Ethics

### Semester Six

Seminar in Economic Policy  
Strategic Management  
Elective I / Sales Management\*  
Elective II  
Elective III  
Elective IV

*\*Sales Management is a compulsory course for students who wish to do majors in Marketing. These students will be required to take three electives instead of four.*



*My years at IoBM are one of the most memorable in my life. My goal was to recognize my true potential and make my dreams come true, and at all times IoBM has provided me with the best resources to assist me in achieving these goals. As head of publications of the Marketing Society of IoBM, I can say without an iota of doubt that it is due to IoBM that I was honored to represent Pakistan at the CIMA Global Business Challenge 2010 in Malaysia and win laurels for me, myself, institute and my country.*

*Hayat Omer Malik  
BBA (Honors)*



## MBA Health and Hospital Management (Two-Year) Program

The program is geared to professionals who aspire to be health care managers. This is a specialized program that amalgamates management skills and knowledge of economics, finance, statistics, and epidemiology and health policy, relevant to those working within the private and government sectors. The program has an integrated and multidisciplinary approach in preparing graduates for the provision of necessary expertise to manage health services most effectively and develop technically competent and socially sensitive managers for leadership roles in hospitals, health systems management, pharmaceutical industries and population programs. The teaching methodology includes case studies and research projects.

The two-year MBA-Health Management Program is designed to provide students with ten business core courses and an opportunity to select four/five business electives. The business core courses provide students with a sound management base, while the business base is complemented by four core Health Management courses and six/seven Health electives (amongst a choice of twenty two listed health electives). A supervised research project of three credit hours provides students with an opportunity to apply curricular concepts and hand-on skills to provide solutions to the problems that occur in an organizational setting.

The semester structure integrates complementing health core and elective courses providing a concentrated approach that gives students an opportunity to relate and draw parallels between health and business courses.

### The Program

The two-year MBA Health Management (Health Services, Hospital, and Pharmaceutical Management) program is offered on weekends. Students are required to complete 24 courses of 3 credit hours each in order to fulfill the degree requirements. Students must maintain a 3.0 CGPA for the conferment of the degree.

The courses are divided into three modules:

1. Health Services Management
2. Hospital Administration
3. Pharmaceutical Administration

Students weak in English and Communication Skills are required to take an additional "Business English" course to enhance their language skills.

### Core Business Courses

#### Accounting

- ACC401 Introduction to Managerial & Cost Accounting
- ACC402 Introduction to Financial Accounting

#### Communication

- COM401 Business English\*
- COM402 Business Communication
- COM403 Interpersonal Communication Skills

*\*less proficient students*

#### Economics

- ECO401 Micro and Macroeconomics

#### Finance

- FIN404 Financial Management

#### Human Resource Management

- HRM401 Human Resource Management

#### Management

- MAN401 Principles of Management
- MAN402 Organizational Behavior

#### Management Information Systems

- MIS401 Computer Applications

#### Marketing

- MKT401 Principles of Marketing

### Elective Business Courses\*

*\*Refer to Page No. 59.*

## Core Health Courses

MHM401 Introduction to Health Policy, Planning & Management  
 MHM402 Quantitative Analysis  
 MHM403 Health Mgmt. Information Systems  
 MHM404 Research and Survey Methodology  
 MHM517 Research Project (3 credit hours)

## Elective Health Courses

MHM501 Pharmaceutical Branding  
 MHM502 Health Economics  
 MHM503 Financial Management of Health Services  
 MHM504 Strategic Mgmt. of Health Services  
 MHM505 Concepts of Primary Health Care  
 MHM506 Managing Professional Health Care  
 MHM507 Introduction to Epidemiology  
 MHM508 Pharmaceutical Marketing & Quality Assurance  
 MHM509 Marketing of Health Services  
 MHM510 Intro. to Demography Methods  
 MHM511 Population and Health  
 MHM512 Economics & Management of Pharmaceutical Industry  
 MHM513 Managing Physicians  
 MHM514 Environmental Health Assessment & Management  
 MHM515 Hospital Administration  
 MHM516 Health Program Evaluation  
 MHM518 Regulatory Affairs at Healthcare Ind.  
 MHM519 Financial Applications in Pharmaceutical Marketing  
 MHM520 Product Management  
 MHM521 Pharmaceutical Sales Management  
 MHM522 Project Management of Health Services  
 MHM523 Health Ethics

## Course Structure

### Semester One

Business English\*  
 Business Communication  
 Principles of Management  
 Quantitative Analysis  
 Computer Applications

\*less proficient students

### Semester Two

Introduction to Health Policy, Planning and Management  
 Micro and Macroeconomics  
 Principles of Marketing  
 Research and Survey Methodology

### Semester Three

Introduction to Financial Accounting  
 Organizational Behavior  
 Health Management Information Systems  
 Health Elective I

### Semester Four

Introduction to Managerial Accounting  
 Financial Management  
 Human Resource Management  
 Health Elective II

### Semester Five

Business Elective I  
 Business Electives II  
 Health Elective III  
 Health Elective IV

### Semester Six

Business Elective III  
 Business Elective IV  
 Interpersonal Communication Skills  
 Research Project (3 credit hours)



## MBA Advertising and Media Management (Two-Year) Program

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

### Accounting

ACC402 Introduction to Financial Accounting

### Communication

COM402 Business Communication

### Economics

ECO401 Micro and Macroeconomics

### Finance

FIN404 Financial Management

### Human Resource Management

HRM401 Human Resource Management

### Management

MAN401 Principles of Management

MAN402 Organizational Behavior

### Management Information Systems

MIS401 Computer Applications

### Marketing

MKT401 Principles of Marketing

MKT404 Methods in Business Research

MKT509 Consumer Behavior

MKT532 Principles of Advertising

### Media

MMM435 Print Media

MMM436 Electronic Media

MMM438 Introduction to Media in Pakistan

### Statistics

STA403 Statistics and Mathematics

## Elective Courses

### Advertising

ADV403 International Advertising and Promotions

ADV504 Advertising Management and Strategy

ADV505 Creative Planning and Development

### Law

LAW405 Media Law and Business Ethics

### Management Information Systems

MIS511 E-Commerce and Graphic Designing

### Marketing

MKT511 Brand Management

MKT526 Public Relations and Event Management

MKT527 Integrated Marketing Communication

### Media Management

MMM427 Citizen Journalism

MMM428 Script Writing

MMM429 Digital Media

MMM430 Time, Priorities and Conflict Management

MMM434 Media Planning

MMM437 Role of Media in World Affairs

MMM439 Media Research and Public Opinion

MMM511 Multimedia and Film Production





## Course Structure

### Common Courses

#### Semester One

Business Communication  
Principles of Management  
Computer Applications  
Introduction to Media in Pakistan

#### Semester Two

Organizational Behavior  
Principles of Marketing  
Principles of Advertising  
Statistics and Mathematics

#### Semester Three

Introduction to Financial Accounting  
Micro and Macroeconomics  
Methods in Business Research  
Electronic Media

#### Semester Four

Financial Management  
Human Resource Management  
Consumer Behavior  
Print Media

### Elective Courses for MBA Advertising Management

#### Semester Five

International Advertising and Promotions  
Advertising Management and Strategy  
Public Relations and Event Management  
Digital Media

#### Semester Six

Creative Planning and Development  
Brand Management  
Media Planning  
Integrated Marketing Communication

### Elective Courses for MBA Media Management

#### Semester Five

Multimedia and Film Production  
Media Research and Public Opinion  
Citizen Journalism  
Script Writing

#### Semester Six

Media Law and Business Ethics  
E-Commerce and Graphic Designing  
Role of Media in World Affairs  
Time, Priorities and Conflict Management

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

*(Marketing Management is a Pre-Requisite for SMP).*



## MBA Educational Management (Two-Year) Program

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 the HEC requirements. The course is particularly designed for schools and school system manager, administrators, principals and coordinators.

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

### Required Courses

#### Accounting

ACC402 Introduction to Financial Accounting

#### Educational Management

EDM406 Education Policy and Planning  
 EDM412 Marketing Education Services  
 EDM416 Comparative Education Systems  
 EDM419 Managing Teaching and Learning  
 EDM420 Academic Writing and Seminar Skills  
 EDM424 Teacher Education  
 EDM425 Developing Leadership and Management Skills  
 EDM426 Curriculum Management and Planned Change  
 EDM427 Research Methods in Education I (Qualitative)  
 EDM428 Research Methods in Education II (Quantitative)  
 EDM431 Writing and Presenting Educational Research  
 EDM432 Literature Review  
 EDM433 Data Collection  
 EDM434 Thesis Writing

#### Finance

FIN404 Financial Management

#### Human Resource Management

HRM401 Human Resource Management

#### Management

MAN401 Principles of Management  
 MAN402 Organizational Behavior

#### Marketing

MKT401 Principles of Marketing

#### Social Sciences

SSC406 Psychology and Learning

### Elective Courses

#### Educational Management

EDM502 Managing Higher Education Systems  
 EDM503 Quality Assurance in Education  
 EDM504 Managing Schools & School Systems  
 EDM508 Knowledge Management  
 EDM511 Lifelong Learning in Changing Contexts  
 EDM512 Career Planning and HRM in Education  
 EDM513 Strategic Management Issues in Education





## Course Structure

### Semester One

Managing Teaching and Learning  
Academic Writing and Seminar Skills  
Principles of Management  
Psychology and Learning

### Semester Two

Teacher Education  
Curriculum Management and Planned Change  
Organizational Behavior  
Introduction to Financial Accounting

### Semester Three

Developing Leadership and Management Skills  
Research Methods in Education I (Qualitative)  
Human Resource Management  
Principles of Marketing

### Semester Four

Comparative Education Systems  
Education Policy and Planning  
Research Methods in Education II (Quantitative)  
Financial Management

### Semester Five

Marketing Education Services  
Elective I  
Elective II  
Elective III

### Semester Six

Writing and Presenting Educational Research  
Literature Review  
Data Collection  
Theses Writing



*"It is by far the profoundest decision of my life choosing to study at the esteemed Institute of Business Management. I must say, my experience has been dynamically challenging yet rewarding. I have been able to hone my management and leadership skills further along with creating and strengthening professional relationships as well as developing the ability to view public health through the lens of the business perspective. Total hats off to the program for enabling me to better serve the residents of the state. "Learning" & "Inspiration" have perhaps been the core of the program, whereby students have gained a great deal from the professors who have instilled in us a better comprehension of the world. The constant constructive feedback motivated me to break through new horizons. Holding dear to my heart are also the acquaintances and friendships that I have developed with my tutors, my colleagues and the university staff. All in all, it has been a remarkable experience, truly one of a kind. To me, the MBA in Health and Hospital Management is about simply pushing back the horizon, deepening the contemplation and expanding the possibilities."*

*Dr. Sayeeda Amber Hassan  
Senior Study Coordinator Community  
Health Sciences Department, Aga Khan University*



## MBA Finance and Risk Management (Two-Year) Program

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

### Required Courses

#### Accounting

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

#### Communication

COM402 Business Communication

#### Economics

ECO401 Micro and Macroeconomics  
ECO409 Financial Economics

#### Finance

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

#### Finance and Risk Management

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

#### Law

LAW403 Business and Insurance Law

#### Management

MAN401 Principles of Management  
MAN405 Strategic Management  
MAN421 Organizational Behavior and HRM

#### 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 Risk Management

FRM501 Property Risk Management  
FRM502 Management of Insurance Institutions  
FRM503 Corporate Risk Management  
FRM504 Theory of Risk and Insurance

### Course Structure

#### Semester One

Introduction to Financial Accounting  
Business Communication  
Principles of Management  
Model and Inferences

#### Semester Two

Micro and Macroeconomics  
Financial Management  
Principles of Marketing  
Financial Mathematics I

### Semester Three

Introduction to Managerial and Cost Accounting  
Principles of Risk Management  
Computational Methods in Risk  
Financial Mathematics II

### Semester Four

Advanced Financial Management  
Introduction to Financial Risk Management  
Business and Insurance Law  
Organizational Behavior and HRM

### Semester Five

Financial Economics  
Analysis of Financial Statements  
Business Ethics and Financial Responsibility  
Elective I

### Semester Six

Risk Financing Techniques  
Advanced Financial Risk Management  
Strategic Management  
Elective II



## MBA Environment and Energy Management (Two-Year) Program

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

The program is intended for graduates with a clear affinity for management and/or technology, as well as for decision-makers in companies, government and non-governmental organizations who wish to become environmental and energy specialists. This is a weekend 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, Liberal Arts and Environment Science.

### Core Business Courses

#### Accounting

ACC402 Introduction to Financial Accounting

#### Communication

COM402 Business Communication

#### Statistics

STA404 Statistical Inference

#### Human Resource Management

HRM401 Human Resource Management

#### Management

MAN401 Principles of Management

MAN402 Organizational Behavior

MAN405 Strategic Management

MAN411 Project Management

MAN501 Total Quality Management

#### Marketing

MKT401 Principles of Marketing

#### Finance

FIN404 Financial Management

#### Environmental and Energy Management

EEM401 Environmental Issues & Management

EEM402 Air and Noise Pollution Management

EEM403 Energy Sources and Environment

EEM404 Industrial & Municipal Waste Management

EEM405 Renewable Energy & Energy Conservation

EEM406 Coastal Environment & Management

EEM407 Green Technology and Energy Analysis

EEM408 Safety, Health & Environmental Management

EEM409 Risk and Disaster Management

EEM410 Environmental Impact Assessment

EEM411 Environmental Rules, Laws & Regulations

EEM412 Research and Survey Methodology

### Elective Courses

#### Environmental and Energy Management

EEM501 Climatic Changes and its Impact

EEM502 Natural Resources Management

EEM503 Hospital Waste Management

EEM504 Solid and Hazardous Waste Management

EEM505 Energy Audit

EEM506 Energy Conservation

EEM507 Energy Planning

EEM508 Environmental Ethics

EEM509 Public Awareness for Environment & Energy Sector



## Course Structure

### Semester One

Environmental Issues and Management  
Principles of Management  
Business Communication  
Air and Noise Pollution Management

### Semester Two

Energy Sources and Management  
Industrial & Municipal Waste Management  
Introduction to Financial Accounting  
Statistical Inference

### Semester Three

Renewable Energy and Energy Conservation  
Coastal Environment and Management  
Principles of Marketing  
Organizational Behavior

### Semester Four

Green Technology and Energy Analysis  
Safety Health and Environmental Management  
Financial Management  
Human Resource Management

### Semester Five

Risk and Disaster Management  
Environmental Impact Assessment  
Strategic Management  
Elective I

### Semester Six

Environmental, Rules, Laws and Regulations  
Research and Survey Methodology  
Elective II  
Project



*"Making the decision to come to IoBM four years ago was one of the wisest I have made. It is a place that puts you in the real world and allows you to get out and take on challenges of your own. My time at CBM equipped me with the technical and business skills that are helping me today. I personally believe that the last four years have been very enriching and have helped me grow personally and professionally."*

M. Shaheer Mehkari  
BBA (Honors)



## MBA Educational Management (Three-Year) Program

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

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

### Required Courses

#### Accounting

ACC402 Introduction to Financial Accounting

#### Communication

COM403 Interpersonal Communication Skills

COM407 English Language Development

#### Educational Management

EDM402 Applied Linguistics

EDM403 Critical Thinking and Reading

EDM406 Education Policy and Planning

EDM412 Marketing Education Services

EDM415 Educational Philosophy and Ethics

EDM416 Comparative Education Systems

EDM417 Educational Counseling

EDM418 Testing in Education

EDM419 Managing Teaching and Learning

EDM420 Academic Writing and Seminar Skills

EDM423 Reflective Inquiry in Education

EDM424 Teacher Education

EDM425 Developing Leadership and Management Skills

EDM426 Curriculum Management and Planned Change

EDM427 Research Methods in Education I (Qualitative)

EDM428 Research Methods in Education II (Quantitative)

EDM431 Writing and Presenting Educational Research

EDM432 Literature Review

EDM433 Data Collection

EDM434 Thesis Writing

#### Finance

FIN404 Financial Management

#### Human Resource Management

HRM401 Human Resource Management

#### Management

MAN401 Principles of Management

MAN402 Organizational Behavior

#### Management Information Systems

MIS400 Computer Applications and System

#### Marketing

MKT401 Principles of Marketing

#### Social Sciences

SSC402 Introduction to Psychology

SSC403 Social Psychology

SSC406 Psychology and Learning

#### Statistics

STA403 Statistics and Mathematics

### Elective Courses

#### Educational Management

EDM502 Managing Higher Education Institutions

EDM503 Quality Assurance in Education

EDM504 Managing Schools and School Systems

EDM508 Knowledge Management

EDM511 Lifelong Learning in Changing Contexts

EDM512 Career Planning and HRM in Education

EDM513 Strategic Management Issues in Education



## Course Structure

### Semester One

Introduction to Psychology  
Educational Philosophy and Ethics  
Applied Linguistics  
English Language Development

### Semester Two

Critical Thinking and Reading  
Reflective Inquiry in Education  
Statistics and Mathematics  
Interpersonal Communication Skills

### Semester Three

Educational Counseling  
Testing in Education  
Computer Applications and Systems  
Social Psychology

### Semester Four

Managing Teaching and Learning  
Academic Writing and Seminar Skills  
Principles of Management  
Psychology and Learning

### Semester Five

Teacher Education  
Curriculum Management and Planned Change  
Organizational Behavior  
Introduction to Financial Accounting

### Semester Six

Developing Leadership and Management Skills  
Research Methods in Education I (Qualitative)  
Human Resource Management  
Principles of Marketing

### Semester Seven

Comparative Education Systems  
Education Policy and Planning  
Research Methods in Education II (Quantitative)  
Financial Management

### Semester Eight

Marketing Education Services  
Elective I  
Elective II  
Elective III

### Semester Nine

Writing and Presenting Educational Research  
Literature Review  
Data Collection  
Thesis Writing



## MBA (Executive) (Three-Year) Program

In addition to the three-year regular MBA program, an Executive MBA program is offered to executives with 2-year Bachelor's degree on weekend. Enrollment in the executive program requires a minimum load of 6 credit hours (2 courses) and a maximum load of 12 credit hours (4 courses) in each of the 3 semesters (Fall, Spring and Summer).

This Master's program requires completion of 108 credit hours of course work, including 36 courses. Students must maintain a CGPA of 3.0 for the conferment of the degree.

MBA curriculum is current/updated and comprehensive. The program provides all the tools and techniques required for a successful career in business management. The program consists of three groups of courses Foundation, Core and Electives.

### Foundation Courses

#### Communication

- COM401 Business English\*
- COM402 Business Communication
- COM403 Interpersonal Communication Skills

\*less proficient students

#### Economics

- ECO403 Macroeconomics
- ECO404 Micro and Managerial Economics
- ECO405 Seminar in Economic Policy

#### Law

- LAW402 Corporate Law

#### Mathematics

- MTH400 Mathematics for Business

### Core Business Courses

#### Accounting

- ACC401 Introduction to Managerial & Cost Accounting
- ACC402 Introduction to Financial Accounting

#### Finance

- FIN404 Financial Management
- FIN501 Advanced Financial Management

#### Human Resource Management

- HRM401 Human Resource Management
- HRM505 Organizational Change and Development
- HRM506 Strategic Human Resource Management

#### Management

- MAN401 Principles of Management
- MAN402 Organizational Behavior
- MAN403 Entrepreneurship & Small Business
- MAN405 Strategic Management
- MAN406 Production and Operations Management
- MAN411 Project Management
- MAN413 Corporate Social Responsibility
- MAN416 Corporate Governance
- MAN501 Total Quality Management

#### Management Information Systems

- MIS410 Business and Information Technology
- MIS512 Management Information Systems

#### Marketing

- MKT401 Principles of Marketing
- MKT402 Marketing Management
- MKT404 Methods in Business Research
- MKT501 Strategic Marketing and Planning
- MKT509 Consumer Behavior

#### Statistics

- STA401 Introduction to Statistics
- STA404 Statistical Inference

### Business Elective Courses\*

\*Refer to Page No. 59.

### Course Structure

#### Semester One

- Business English\*
- Business Communication
- Macroeconomics
- Principles of Management
- Mathematics for Business

\*less proficient students



### Semester Two

Introduction to Financial Accounting  
Interpersonal Communication Skills  
Micro and Managerial Economics  
Corporate Social Responsibility

### Semester Three

Introduction to Managerial and Cost Accounting  
Business and Information Technology  
Principles of Marketing  
Introduction to Statistics

### Semester Four

Financial Management  
Organizational Behavior  
Marketing Management  
Statistical Inference

### Semester Five

Corporate Law  
Methods in Business Research  
Strategic Marketing and Planning  
Consumer Behavior

### Semester Six

Human Resource Management  
Production and Operations Management  
Total Quality Management  
Management Information Systems

### Semester Seven

Advanced Financial Management  
Organizational Change and Development  
Strategic Human Resource  
Entrepreneurship and Small Business

### Semester Eight

Strategic Management  
Corporate Governance  
Elective I / Sales Management\*  
Elective II

### Semester Nine

Seminar in Economic Policy  
Project Management  
Elective III  
Elective IV

*\*Sales Management is a compulsory course for students who wish to do majors in Marketing. These students will be required to take three electives instead of four.*



## MPhil Leading to PhD (Management Sciences) Program

The MPhil program is especially beneficial for middle level executives and university teachers with experience in teaching and policy analysis. It is meant to foster intellectual curiosity and to promote research in the field of management sciences.

### Requirements

Candidates with 16 years of education holding MBA/MCS degree from IoBM or Master's degree holders in the relevant subject with 1st division/CGPA with at least 3 on a scale of 4 from a HEC recognized university are eligible for admission to the MPhil program at IoBM. Experience in research or teaching, or executive positions in firms and banks, will be considered as an additional qualification.

### Course Structure

MPhil leading to PhD 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, the students are required to undertake research for the thesis under the guidance of a research supervisor assigned by IoBM.

### Required Courses

GEN601 GRE Preparatory Course (for those who have not passed GRE general)  
ECO601 Theory of Economic and Social Policy (for students who have passed GRE general)  
MAN601 Advanced Qualitative Research  
MAN602 Survey of Current Research Literature in Management  
MAN603 Advanced Quantitative Research

### Four Electives in Finance, Economics, Psychology, HRM Management and Marketing

#### Theses completed at IoBM:

1. Foucauldian Critique and Justification of Capitalist order
2. Assessing the Existence of Preconditions for the Effectiveness of Monetary Policy in Pakistan
3. Succession Planning in National and Multinational Firms in Pakistan
4. The Endogeneity of Money Supply in Pakistan
5. Determining Effectiveness of Monetary Policy Transmission Mechanism in Pakistan
6. Employee Training in the Private Sector in Pakistan
7. Prospects for Universalizing the Capitalist State

## Elective Business Courses MBA (Regular, Executive and Health)

### Majors in Accounting

ACC501 Advanced Financial Accounting  
ACC502 Advanced Managerial Accounting  
ACC504 Accounting Information Systems  
ACC505 Auditing

### Majors in Finance and Banking

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

### Majors in Human Resource Management

HRM501 Recruitment and Selection  
HRM502 Industrial Relations and Labour Laws  
HRM503 Employee Training and Development  
HRM504 Negotiation Skills and CB  
HRM505 Organizational Change and Development\*  
HRM506 Strategic Human Resource Management\*  
HRM507 Public Relations and Event Management  
HRM508 Salary and Compensation  
HRM509 Leadership Studies  
HRM510 Personnel Development  
HRM511 Performance Appraisal and Management

### Majors in Management

MAN502 Business Process Re-engineering\*\*  
MAN507 Business Etiquette  
MAN508 Comparative 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 Management 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 Organization Information Systems

### Majors in Marketing

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

### Majors in Supply Chain and Logistics Management

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

\* Core courses for three-year students

\* Core courses for three-year students

\*\*Accepted as elective under all disciplines





College of Computer Science and Information Systems



## BS Computer Science (Four-Year) Program

Keeping abreast of technological advances in the information technology industry, the BS (Computer Science) program has been designed to fulfill the need for a rigorous and enriching academic experience. The program emphasizes the need for an overall development that includes exposure to an integrated series of courses in technology, methodology, social sciences, liberal arts and management. Project-based software development along with research assignments have also been emphasized. These courses seek to impart a broad and deep knowledge of theory, design and application of digital computers and information processing techniques. The curriculum has been designed to prepare students to serve the productive needs of Pakistan's software industry.

The program comprises four years of study over at least eight semesters. It requires completion of 144 credit hours of course work. Students are required to take 48 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. On successful completion, students are required to undergo 2 credit hours of internship of at least six weeks with a business organization, approved by the Institute before a BS (Computer Science) degree is awarded to them.

BS (Computer Science) program consists of three groups of courses: foundation, core and elective.

### Foundation Courses

#### Accounting

ACC101 Introduction to Financial Accounting  
ACC201 Intermediate Financial Accounting

#### Communication

COM101 General English  
COM202 Business and Professional Speech  
COM203 Methods in Business Writing

#### Economics

ECO104 Micro and Macroeconomics

#### Finance

FIN201 Introduction to Business Finance

### Language

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

\*1 = Introduction to Arabic  
\*3 = Introduction to Spanish  
\*5 = Introduction to Japanese  
\*7 = Introduction to Russian

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

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

\*\*2 = Intermediate French  
\*\*4 = Intermediate German  
\*\*6 = Intermediate Italian  
\*\*8 = Intermediate Chinese

### General Science

GSC101 Physics

### Human Resource Management

HRM301 Human Resource Management

### Management

MAN101 Principles of Management

### Marketing

MKT301 Principles of Marketing

### Mathematics

MTH104 Calculus I  
MTH105 Calculus II  
MTH201 Discrete Mathematics  
MTH204 Linear Algebra

### Political Sciences

PSC301 Pakistan Studies

### Religious Studies

REL101 Islamic Studies

### Statistics

STA203 Probability Theory and Statistics  
STA301 Model and Inferences

### Core Courses (Computer Science)

CSC102 Introduction to Computer Science  
CSC103 Structured Programming Language  
CSC105 Data Structures and Algorithms  
CSC201 Low Level Programming Language  
CSC202 Digital Computer Logic

CSC203 Object Oriented Programming Language  
 CSC205 Computer Architecture and Organization  
 CSC206 Database Management Systems  
 CSC208 Network Programming Framework  
 CSC301 Theory of Automata  
 CSC303 Computer Graphics  
 CSC305 Systems Analysis and Design  
 CSC308 Operating Systems Concepts  
 CSC309 Microprocessor and Applications  
 CSC313 Numerical Computing  
 CSC410 Data Communication & Networking  
 CSC411 Compiler Construction  
 CSC412 Artificial Intelligence  
 CSC414 Visual Programming Language  
 CSC417 Project  
 CSC425 Advanced Operating Systems  
 CSC427 Software Engineering  
 CSC442 Human Computer Interface

### Elective Courses

CSC302 Multimedia Technology  
 CSC422 Parallel Computing  
 CSC345 Digital Image Processing  
 CSC430 Decision Support Systems  
 CSC434 Software Quality Assurance  
 CSC435 Distributed Systems  
 CSC436 Business Process Re-engineering  
 CSC443 Mobile Computing  
 CSC444 Electronic Commerce  
 CSC445 Network Security  
 CSC447 Object Oriented Database Management System  
 CSC448 Digital Signal Processing  
 CSC510 Wireless Communication

### Course Structure

#### Semester One

General English  
 Introduction to Computer Science  
 Structured Programming Language  
 Foreign Language I  
 Calculus I  
 Discrete Mathematics

#### Semester Two

Methods in Business Writing  
 Object Oriented Programming Language  
 Micro and Macroeconomics  
 Physics  
 Foreign Language II  
 Calculus II

#### Semester Three

Introduction to Financial Accounting  
 Business and Professional Speech  
 Data Structure and Algorithms  
 Digital Computer Logic  
 Network Programming Framework  
 Probability Theory and Statistics

#### Semester Four

Low Level Programming Language  
 Database Management Systems  
 Theory of Automata  
 Introduction to Business Finance  
 Linear Algebra  
 Model and Inferences

#### Semester Five

Intermediate Financial Accounting  
 Computer Architecture and Organization  
 Computer Graphics  
 Numerical Computing  
 Principles of Management  
 Islamic Studies

#### Semester Six

Operating Systems Concepts  
 Systems Analysis and Design  
 Microprocessor and Applications  
 Human Resource Management  
 Pakistan Studies  
 Principles of Marketing

#### Semester Seven

Data Communication and Networking  
 Artificial Intelligence  
 Visual Programming Language  
 Human Computer Interface  
 Elective I  
 Elective II

#### Semester Eight

Compiler Construction  
 Project  
 Advanced Operating Systems  
 Software Engineering  
 Elective III  
 Elective IV

## BS Industrial Engineering and Management (Four-Year) Program

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

This program requires completion of 144 credit hours of course work, including 48 courses. Students graduating with a CGPA of 2.5 automatically qualify for the MBA program offered by IoBM. Students can also proceed further for postgraduate work in Industrial / Management Engineering at leading international schools.

### Required Courses

#### Accounting

ACC101 Introduction to Financial Accounting

#### Communication

COM101 General English

COM402 Business Communication

#### Engineering

ENG101 Workshop Practices

ENG102 Engineering Mechanics

ENG103 Engineering Drawing

ENG104 Applied Chemistry

ENG105 Basic Industrial Engineering

ENG106 Fluid Mechanics

ENG107 Basic Thermodynamics

ENG201 Design of Machine Elements

ENG202 Production System Design

ENG203 Engineering Economics

ENG204 Plant Engineering

ENG205 Metrology and Gauging

ENG206 Manufacturing Process

ENG208 Reliability Engineering

ENG209 CAD / CAM Applications

ENG210 Strength of Material

ENG300 Electrical Technology and Instrumentation

ENG301 Industrial Safety and Health

ENG302 Industrial Maintenance

ENG303 Production Planning and Control

ENG304 Automation and Robotics

ENG305 Work Study & Methods Engineering

ENG306 Basic Machine Design

ENG307 Basic Electronics

#### General Sciences

GSC101 Physics

#### Human Resource Management

HRM301 Human Resource Management

#### Management

MAN101 Principles of Management

MAN303 Production and Operations Management

MAN501 Total Quality Management

MAN503 Supply Chain Management

#### Management Information Systems

MIS104 Computer Programming & Graphics

MIS409 Computer Applications and MIS

#### Marketing

MKT301 Principles of Marketing

#### Mathematics

MTH202 Engineering Mathematics

MTH208 Diff. Equation & Complex Variables

MTH403 Numerical Computing / Analysis

MTH406 Finite Element Analysis

#### Political Sciences

PSC301 Pakistan Studies

#### Religious Studies

REL101 Islamic Studies

#### Statistics

STA204 Industrial Applications of Statistics



## Elective Courses

### Engineering

ENG401 Computer Integrated Manufacturing  
 ENG402 Manufacturing Strategies  
 ENG403 Human Factor Engineering  
 ENG404 Tool Design

### Management

MAN402 Organizational Behavior  
 MAN509 Logistics and Inventory Control

## Course Structure

### Semester One

Engineering Mathematics  
 Computer Programming and Graphics  
 Physics  
 Workshop Practices  
 General English  
 Islamic Studies

### Semester Two

Basic Thermodynamics  
 Engineering Mechanics  
 Engineering Drawing  
 Applied Chemistry  
 Basic Industrial Engineering  
 Differential Equation and Complex Variables

### Semester Three

Fluid Mechanics  
 Business Communication  
 Pakistan Studies  
 Design of Machine Elements  
 Principles of Management  
 Electrical Technology and Instrumentation

### Semester Four

Industrial Applications of Statistics  
 Strength of Material  
 Production System Design  
 Introduction to Financial Accounting  
 Basic Electronics  
 Computer Applications and MIS

### Semester Five

Production and Operations Management  
 Human Resource Management  
 Plant Engineering  
 Metrology and Gauging  
 Principles of Marketing  
 Manufacturing Process

### Semester Six

Basic Machine Design  
 Reliability Engineering  
 Total Quality Management  
 CAD/CAM Applications  
 Engineering Economics  
 Numerical Computing / Analysis

### Semester Seven

Industrial Safety and Health  
 Finite Element Analysis  
 Industrial Maintenance  
 Supply Chain Management  
 Elective I  
 Elective II

### Semester Eight

Production Planning and Control  
 Automation and Robotics  
 Work Study and Methods Engineering  
 Project  
 Elective III  
 Elective IV  
 Internship (2 credit hours)



## BS Actuarial Science and Risk Management (Four-Year) Program

BS in Actuarial Science and Risk Management program is intended to provide students with the tools of risk analysis, transfer, and financing that are critical to the operation of private and public institutions, and to prepare them for careers in risk management and insurance. As a risk management major, student will gain a broad business background with an emphasis in accounting, finance and law, as well as a thorough knowledge of all types of insurance.

BS in Actuarial Science and Risk Management is a four year degree program. It requires completion of 144 credit hours of course work and 2 credit hours of internship of at least six weeks in an organization approved by the Institute. Students graduating with a CGPA of 2.5 on the scale of 4 are eligible to apply for MBA program offered by the Institute.

### Required Courses

#### Accounting

ACC101 Introduction to Financial Accounting

#### Communication

COM101 General English  
COM202 Business and Professional Speech  
COM203 Methods in Business Writing

#### Computer Sciences

CSC313 Advanced Computing

#### Economics

ECO101 Principles of Microeconomics  
ECO102 Principles of Macroeconomics  
ECO103 Intermediate Microeconomics  
ECO105 Intermediate Macroeconomics  
ECO304 Introduction to Econometrics

#### Finance

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

#### 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

#### Language

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

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

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

\*\*2 = Intermediate French  
\*\*4 = Intermediate German  
\*\*6 = Intermediate Italian  
\*\*8 = Intermediate Chinese

#### Law

LAW401 Business Law

#### Management

MAN101 Principles of Management  
MAN321 Organizational Behavior and HRM

#### Management Information Systems

MIS402 Computer Concepts & Applications

#### Marketing

MKT301 Principles of Marketing  
MKT404 Methods in Business Research

#### Mathematics

MTH103 Calculus  
MTH203 Financial Mathematics I  
MTH204 Linear Algebra  
MTH210 Financial Mathematics II  
MTH211 Actuarial Mathematics

### Pakistan Studies

PSC301 Pakistan Studies

### Religious Studies

REL101 Islamic Studies

### Statistics

STA203 Probability Theory and Statistics  
 STA205 Probability Theory and Statistics II  
 STA210 Sampling Theory  
 STA301 Model and Inferences  
 STA302 Methods of Data Analysis  
 STA305 Applied Regression Analysis  
 STA307 Decision Theory  
 STA309 Loss Models  
 STA311 Operations Research & Management

### Elective Courses

#### Finance and Risk Management

FRM501 Property Risk Management  
 FRM502 Management of Insurance Institutions  
 FRM503 Corporate Risk Management  
 FRM504 Theory of Risk and Insurance

### Course Structure

#### Semester One

General English  
 Principles of Microeconomics  
 Foreign Language I  
 Computer Concepts and Applications  
 Calculus  
 Probability Theory and Statistics

#### Semester Two

Introduction to Financial Accounting  
 Methods in Business Writing  
 Foreign Language II  
 Principles of Macroeconomics  
 Financial Mathematics I  
 Islamic Studies

#### Semester Three

Principles of Marketing  
 Business and Professional Speech  
 Intermediate Microeconomics  
 Introduction to Business Finance  
 Probability Theory and Statistics II  
 Methods of Data Analysis

#### Semester Four

Intermediate Macroeconomics  
 Financial Mathematics II  
 Business Law  
 Principles of Management  
 Pakistan Studies  
 Model and Inferences

#### Semester Five

Introduction to Econometrics  
 Actuarial Mathematics  
 Principles of Risk Management  
 Numerical Computing  
 Linear Algebra  
 Organizational Behavior and HRM

#### Semester Six

Financial Econometrics  
 Life and Other Contingencies  
 Enterprise Risk Management  
 Sampling Theory  
 Financial Derivatives  
 Methods in Business Research

#### Semester Seven

Institutional Investments  
 Portfolio Management  
 Applied Regression Analysis  
 Computational Methods in Risk  
 Corporate Finance  
 Elective I

#### Semester Eight

Decision Theory  
 Loss Models  
 Risk Financing Techniques  
 Productions and Operations Management  
 Project  
 Elective II

## BE Electrical with Specialization in Telecommunication (Four-Year) Program

BE Electrical with specialization in Telecommunication at IoBM is geared towards those who want to integrate engineering skills with managerial know-how; enhance job opportunities and accessibility to higher technical and managerial positions; design and manage telecommunication networks at the national and international level and find new and exciting ways to use their expertise.

The one of its kind BE Electrical with specialization in Telecommunication accredited by Pakistan Engineering Council (PEC) is designed in close consultation with leading telecommunication firms. A blend of management and engineering courses makes this program distinct from other engineering courses emphasizing 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 telecommunication engineering organization.

Completion of 138 credit hours of course work (with 2.5 CGPA) and 2 credit hours of 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, Electronics, Electrical Engineering and Computer Systems Engineering at leading universities and organizations throughout the world as IoBM course credits are easily transferred to reputable international universities.

### Required Courses

#### Accounting

ACC101 Introduction to Financial Accounting (3+0)

#### Communication

COM101 General English (3+0)

COM402 Business Communication (3+0)

#### Computer Science

CSC109 Introduction to Computing (3+1)

CSC202 Digital Computer Logic (2+1)

CSC211 Programming for Engineers (3+1)

CSC213 Computer Communication and Networks (3+1)

CSC309 Microprocessor and Applications (2+1)

CSC448 Digital Signal Processing (2+1)

#### Engineering

ENG203 Engineering Economics (3+0)

ENG211 Basic Electrical Engineering (3+1)

ENG215 Introduction to CAD Applications (1+2)

ENG303 Production Planning and Control (3+0)

ENG307 Basic Electronics (3+1)

#### Finance

FIN201 Introduction to Business Finance (3+0)

#### Human Resource Management

HRM301 Human Resource Management (3+0)

#### Management

MAN101 Principles of Management (3+0)

MAN302 Organizational Behavior (3+0)

MAN411 Project Management (3+0)

#### Mathematics

MTH109 Applied Calculus (3+0)

MTH204 Linear Algebra (3+0)

MTH208 Differential Equations and Complex Variables (3+0)

#### Pakistan Studies

PSC301 Pakistan Studies (2+0)

#### Physics

GSC103 Applied Physics (2+1)

#### Religious Studies

REL101 Islamic Studies (2+0)

#### Statistics

STA207 Statistics for Engineers (3+0)

#### Telecommunication Management

TCM201 Electromagnetic Theory (3+0)

TCM203 Amplifier and Oscillators (3+1)

TCM204 Signals and Systems (3+0)

TCM206 Analog Communication (3+0)

TCM301 Digital Communication (3+1)

TCM302 Antenna and Wave Propagation (3+1)

TCM303 Transmission and Switching Systems (3+0)

TCM304 Optical Fiber Communication (3+0)

TCM306	Wireless and Mobile Communications (3+0)
TCM309	Microwave Engineering (3+0)
TCM313	Principles of Tele-Traffic Engineering (3+0)
TCM407	Broadband Communications (3+0)
TCM450	Project (6+0)
TCM522	Information Theory and Coding (3+0)
TCM527	Satellite Communication (3+0)

## Elective Courses

### Telecommunication Management

TCM305	Telecommunication Regulation and Policy (3+0)
TCM515	Multimedia Communication (3+0)
TCM516	Error Control Coding (3+0)
TCM517	Multimedia Systems (3+0)
TCM518	Video and Channel Coding (3+0)
TCM519	Speech Coding (3+0)
TCM520	Network Security and Cryptography (3+0)
TCM521	Voice over IP (3+0)
TCM523	Wireless Adhoc Networks (3+0)
TCM525	Mobile and Pervasive Computing (3+0)
TCM526	Next Generation Networks (3+0)

## Course Structure

### Semester One

Applied Calculus (3+0)
Applied Physics (2+1)
Basic Electrical Engineering (3+1)
General English (3+0)
Introduction to Computing (3+1)

### Semester Two

Basic Electronics (3+1)
Business Communication (3+0)
Differential Equations & Complex Variables (3+0)
Introduction to CAD Applications (1+2)
Programming for Engineers (3+1)

### Semester Three

Amplifier & Oscillator (3+1)
Digital Computer Logic (2+1)
Electromagnetic Theory (3+0)
Linear Algebra (3+0)
Pakistan Studies (2+0)
Principles of Management (3+0)

### Semester Four

Analog Communication (3+0)
Computer Communication & Networks (3+1)
Introduction to Financial Accounting (3+0)
Islamic Studies (2+0)
Signals and Systems (3+0)
Statistics for Engineers (3+0)

### Semester Five

Digital Communication (3+1)
Engineering Economics (3+0)
Human Resource Management (3+0)
Introduction to Business Finance (3+0)
Microprocessor & Applications (2+1)

### Semester Six

Antenna & Wave Propagation (3+1)
Digital Signal Processing (2+1)
Organizational Behavior (3+0)
Production Planning & Control (3+0)
Project Management (3+0)

### Semester Seven

Microwave Engineering (3+0)
Optical Fiber Communication (3+0)
Principles of Tele-Traffic Engineering (3+0)
Transmission & Switching System (3+0)
Project (3+0)
Elective I (3+0)

### Semester Eight

Broadband Communication (3+0)
Information Theory & Coding (3+0)
Satellite Communication (3+0)
Wireless & Mobile Communication (3+0)
Project (3+0)
Elective II (3+0)
<i>Internship (2 credit hours)</i>

## MS Computer Science (One-Year) Program

The Master of Science program in Computer Science provides an intensive preparation in the concepts and techniques related to the design, programming and application of computing systems. The program requires students to take a broad spectrum of courses and simultaneously allows for emphasis in the desired areas of specialization. The program is based on the HEC guidelines. The program comprises one-year of study over at least 3 semesters. It requires completion of 30 credit hours of course work. Students are required to complete 8 courses and a thesis of 6 credit hours equivalent of 2 courses in order to fulfill their degree requirements. Students must maintain a CGPA of 3.0 for the conferment of the degree.

### Eligibility

BS(CS) / MCS / BE in Computer Engineering or they 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  
CSC547 Analysis of Algorithms

### Elective Courses

CSC531 Data Warehousing  
CSC561 Advanced Software Engineering  
CSC562 Object Oriented Software Engineering  
CSC563 Software Quality Assurance  
CSC564 Software Requirement Engineering  
CSC565 Software Testing Strategies  
CSC571 Advanced Database Mgmt. Systems  
CSC573 Data Mining  
CSC574 Distributed Systems  
CSC575 Parallel & Distributed Computing  
CSC576 Parallel & Distributed Algorithms  
CSC578 Communication and Info. Policy  
CSC581 Neural Networks  
CSC582 Pattern Recognition  
CSC583 Fuzzy Systems

### Course Structure

#### Semester One

Advanced Research Methodology  
Advanced Computer Architecture  
Analysis of Algorithm

#### Semester Two

Decision Theory  
Elective I  
Elective II

#### Semester Three

Elective III  
Elective IV  
MS Thesis (6 credit hours)



## MBA Industrial Management after BS Industrial Engineering and Management (One-Year) Program

IoBM students who have completed BS (Industrial Engineering and Management) four-year program have the option to complete MBA in Industrial Management in one-year. The students are exempted from core and basic courses and they are required to complete 12 courses, including two elective courses.

The course is particularly designed to provide the business expertise essential for senior managers by combining specific management and engineering subjects.

### Core Courses

#### Accounting

ACC401 Introduction to Managerial & Cost Accounting

#### Engineering

ENG408 Facilities Planning

#### Finance

FIN404 Financial Management

#### Human Resource Management

HRM502 Industrial Relations and Labor Laws

#### Management

MAN405 Strategic Management

MAN410 Industrial Management

MAN411 Project Management

#### Marketing

MKT530 New Product Development

#### Supply Chain and Logistics Management

SCM502 ERP Systems Design and Implementation

#### Statistics

STA404 Statistical Inference

### Elective Courses

#### Engineering

ENG405 Env. Impact Assessment & Management

ENG407 Manufacturing Process and Systems

ENG410 Maintenance Management

ENG501 Technology Management

#### Finance

FIN510 Investment Analysis

#### Management

MAN408 Analysis of Pakistani Industries

MAN502 Business Process Re-engineering

MAN509 Logistics and Inventory Control

#### Management Information Systems

MIS501 Information Systems Management

#### Marketing

MKT505 Industrial Marketing

### Course Structure

#### Semester One

Introduction to Managerial and Cost Accounting

Industrial Management

ERP Systems Design and Implementation

Statistical Inference

#### Semester Two

Facilities Planning

Financial Management

Industrial Relations and Labor Laws

Project Management

#### Semester Three

Strategic Management

New Product Development

Elective I

Elective II

## MBA Industrial Management (Two-Year) Program

Master of Business Administration in Industrial Management degree program is designed to address and solve real life problems relating to industrial set-ups. Collaboration with relevant industries and financial institutes is its modus operandi. This course is one of the very few aimed at mid-career professionals who wish to make the move to senior management within industrial and manufacturing organizations. It is designed to provide the business expertise essential for all senior managers by integrating specific engineering subjects with the management of technology and manufacturing systems.

The program also examines the latest business thinking and provides expert knowledge on engineering and technology issues and theories. Topics such as finance, marketing, management strategy are integrated with modern industrial issues such as project and quality management, manufacturing effectiveness, advanced manufacturing technology and supply chain management. This combination of subjects has been specifically designed to reflect the challenges faced by traditional manufacturing organizations.

### Required Courses

#### Accounting

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

#### Communication

COM402 Business Communication

#### Economics

ECO401 Micro and Macroeconomics

#### Engineering

ENG405 Environmental Impact Assessment & Management  
ENG408 Facilities Planning

#### Finance

FIN404 Financial Management

#### Human Resource Management

HRM401 Human Resource Management  
HRM502 Industrial Relations & Labor Laws

#### Management

MAN303 Production & Operations Management  
MAN401 Principles of Management  
MAN405 Strategic Management  
MAN410 Industrial Management  
MAN411 Project Management  
MAN501 Total Quality Management  
MAN502 Business Process Re-engineering  
MAN503 Supply Chain Management

#### Management Information System

MIS401 Computer Applications

#### Marketing

MKT401 Principles of Marketing  
MKT402 Marketing Management

#### Statistics

STA404 Statistical Inference

### Elective Courses

#### Engineering

ENG407 Manufacturing Process and Systems  
ENG410 Maintenance Management  
ENG501 Technology Management

#### Finance

FIN510 Investment Analysis

#### Management

MAN403 Entrepreneurship & Small Business Management  
MAN408 Analysis of Pakistani Industries  
MAN509 Logistic and Inventory Control

#### Marketing

MKT502 Services Marketing  
MKT505 Industrial Marketing  
MKT530 New Product Development



### Supply Chain and Logistics Management

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

### Course Structure

#### Semester One

- Business Communication
- Environmental Impact Assessment & Management
- Principles of Management
- Industrial Management

#### Semester Two

- Facilities Planning
- Introduction to Financial Accounting
- Computer Applications
- Statistical Inference

#### Semester Three

- Introduction to Managerial and Cost Accounting
- Industrial Relations and Labor Laws
- Human Resource Management
- Principles of Marketing

#### Semester Four

- Production and Operations Management
- Micro and Macroeconomics
- Project Management
- Marketing Management

#### Semester Five

- Financial Management
- Total Quality Management
- Supply Chain Management
- Elective I

#### Semester Six

- Strategic Management
- Business Process Re-engineering
- Elective II
- Elective III



Unlike the orthodox method of education, IoBM supports and provides a platform for young individuals to bring out and develop their creative, interactive and managerial skills. Being one of the four founding members of the official Economics Society of IoBM, Egalitarians, I still take pride and interest in every achievement, milestone and challenge the society deals with. This attachment has been inculcated and is a gift to us, Alumni, from IoBM. Support and confidence trickles from the very top of the management, giving individuals like myself motivation to go the extra mile and learn through such unconventional means.

Bilal Tahir  
MBA (Regular)

## MBA Telecommunication Management (Two-Year) Program

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

MBA in Telecommunication Management, offered by IoBM, is designed to provide the management skills and technical knowledge required to plan, acquire, evaluate and operate telecommunication system. Students learn the structure and environment of the telecommunication industry, total quality management, strategic planning and financial management with emphasis in critical management concepts. This program can prepare students for careers in the telecommunication industry. The course has been designed by Telecommunication experts with experience at the international level, keeping in view the requirements of the country.

This is a weekend program with a minimum load of 6 credit hours (2 courses) and a maximum load of 12 credit hours (4 courses) in each of the 3 sessions (Fall, Spring and Summer).

### Required Courses

#### Accounting

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

#### Communication

COM402 Business Communication

#### Economics

ECO401 Micro and Macroeconomics

#### Finance

FIN404 Financial Management

#### Human Resource Management

HRM401 Human Resource Management

#### Management

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

#### Marketing

MKT401 Principles of Marketing

#### Telecommunication

TCM401 Introduction to Technology Management  
TCM402 Introduction to Teletraffic Engineering  
TCM403 Global Comm: Industry & Policy  
TCM404 Management of Telecommunications  
TCM405 Optical Communication Network  
TCM406 Network Design  
TCM407 Broadband Communication  
TCM408 Advanced Mobile & Wireless Communication  
TCM409 Customer Service & Call Center Technology  
TCM410 Management of Network Security  
TCM411 Telecommunication Marketing

### Elective Courses

TCM 501 Management of Telecommunication Regulatory System  
TCM 502 The Future of Emerging Technology  
TCM 503 Electronic Business, System & Technology  
TCM 504 Management of Physical Security Technology System  
TCM 505 Telecom. Business Continuity Process & Crisis Mgmt.  
TCM 506 Telecommunication Business Process  
TCM 507 Optimization of Telecommunication Systems  
TCM 508 Managing Telecommunication in Media Application  
TCM 509 Internet Telephony  
TCM 510 Managing the Creative Process

### Course Structure

#### Semester One

Business Communication  
Principles of Management  
Introduction to Technology Management  
Introduction to Teletraffic Engineering

#### Semester Two

Introduction to Financial Accounting  
Organizational Behavior  
Global Communication Industry and Policy  
Management of Telecommunication

**Semester Three**

Principles of Marketing  
 Introduction to Managerial & Cost Accounting  
 Advanced Mobile and Wireless Communication  
 Network Design

**Semester Four**

Financial Management  
 Micro and Macroeconomics  
 Broadband Communication  
 Optical Communication Network

**Semester Five**

Human Resource Management  
 Total Quality Management  
 Customer Service and Call Center Technologies  
 Management of Network Security

**Semester Six**

Telecommunication Marketing  
 Strategic Management  
 Project Management  
 Elective



Many students apply to prestigious business schools to acquire an excellent education that provides them with the skills to survive in the real world. IoBM is one of the leading institutes in Pakistan that believes in excellence and innovation. IoBM not only provides knowledge but also teaches the application of that knowledge in real world scenarios. This is done so by the active societies at IoBM that provide the student body with many platforms from which they can learn a lot. Learning from these educational forums, seminars and extracurricular activities is essential for the grooming of students. I am currently part of an active society called Vanguard: The SS Club, which is a Social Sciences Society, operating not only to add value to our country but also to its members. Through this society, I am proud to be a part of an educational platform called IoBM Social Enterprise Enrichment (ISEE) which is a social business plan contest that hunts for business plans that add value to our society. I hope that this legacy of IoBM started by my batch is continued by the many more intellectual students yet to be a part of IoBM. As a senior student, my advice to newcomers would be to be optimistic and see the glass as half full rather than half empty.

Zainab J. Chouhan  
 BS (Joint Honors)









College of Economics and Social Development (CESD)

## BS (Honors) Commerce (Four-Year) Program

The College of Economics and Social Development (CESD) is a liberal arts college with graduate and undergraduate programmes in the areas of commerce and professional studies, education, economics, media studies and psychology. Research is a core competence of CESD.

BS (Honors) Commerce 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. BS Commerce is a weekday program. Students may take a maximum of six courses per semester with Summer as an optional semester. BS Commerce will lead to MBA in Finance, Marketing or CA. Students have the option of passing the Institute of Chartered Accountants of Pakistan (ICAP) foundation and intermediate examinations simultaneously while obtaining the BS Commerce degree.

### Required Courses

#### Accounting

ACC102 Introduction to Financial Accounting I\*  
 ACC103 Introduction to Financial Accounting-II\*  
 ACC202 Taxation-I\*  
 ACC203 Financial Accounting-I\*  
 ACC204 Taxation-II\*  
 ACC304 Financial Accounting-II\*  
 ACC305 Cost Accounting-I\*  
 ACC414 Auditing-I\*  
 ACC415 Cost Accounting-II\*  
 ACC416 Auditing-II\*

#### Communication

COM103 Functional English-I\*  
 COM104 Functional English-II\*  
 COM105 Business Communication & Behavioral Studies-I\*  
 COM106 Business Communication & Behavioral Studies-II\*  
 COM405 Organizational Consulting Skills

#### Economics

ECO101 Principles of Microeconomics  
 ECO102 Principles of Macroeconomics  
 ECO202 Introduction to Economics and Finance-I\*  
 ECO203 Introduction to Economics and Finance-II\*  
 ECO204 The Pakistan Economy

#### Finance and Banking

FIN101 Financial Markets in Pakistan  
 FIN201 Introduction to Business Finance  
 FIN506 Investment Banking and Security Analysis  
 FIN511 Analysis of Financial Statements

#### Law

LAW101 Mercantile Law-I\*  
 LAW102 Mercantile Law-II\*  
 LAW103 Company Law-I\*  
 LAW104 Company Law-II\*

#### Human Resource Management

LAW400 Foundation of Human Resource Management

#### Management

MAN101 Principles of Management  
 MAN201 Personal Management  
 MAN302 Organizational Behavior  
 MAN403 Entrepreneurship and Small Business Management  
 MAN405 Strategic Management  
 MAN407 Organizational Management  
 MAN410 Industrial Management  
 MAN417 Services Management  
 MAN503 Supply Chain Management  
 MAN510 Management Infrastructure

#### Management Information Systems

MIS413 Information Technology-I\*  
 MIS415 Computer Practical Training-I\*  
 MIS416 Information Technology-II\*  
 MIS417 Computer Practical Training-II\*

#### Marketing

MKT301 Principal of Marketing  
 MKT302 Marketing Management  
 MKT404 Methods in Business Research  
 MKT403 Sales Management  
 MKT405 Marketing Research  
 MKT501 Strategic Marketing and Planning

### Mathematics

- MTH011 Business Maths and Statistics I  
MTH012 Business Maths and Statistics II

### Social Sciences

- SSC101 Introduction to Psychology  
SSC103 Business Ethics & Corporate Governance  
SSC201 Policy Studies  
SSC202 Environmental Studies

### Supply Chain Management

- SCM501 Supply Chain Management

### Religious Studies

- REL101 Islamic Studies

### Statistics

- STA101 Quantitative Methods-I\*  
STA102 Quantitative Methods-II\*

## Course Structure

### Semester One

- Functional English I\*  
Quantitative Methods I\*  
Information Technology I\*  
Introduction to Economics and Finance I\*  
Introduction to Financial Accounting I\*  
Mercantile Law I\*

### Semester Two

- Introduction to Economics and Finance II\*  
Introduction to Financial Accounting II\*  
Mercantile Law II\*  
Quantitative Methods II\*  
Functional English II\*  
Business Communication and Behavioral Studies I\*

### Semester Three

- Financial Accounting I\*  
Taxation I\*  
Business Communication and Behavioral Studies II\*  
Company Law I\*  
Cost Accounting I\*  
Auditing I\*

### Semester Four

- Company Law II\*  
Financial Accounting II\*  
Cost Accounting II\*  
Auditing II\*  
Information Technology II\*  
Taxation II\*

### Semester Five

- Computer Practical Training I\*  
The Pakistan Economy  
Business Maths and Statistics I, or Organizational Management  
Introduction to Psychology  
Policy Studies  
Principles of Management

### Semester Six

- Business Maths and Statistics II, or Industrial Management  
Principles of Marketing  
Computer Practical Training II\*  
Business Ethics and Corporate Governance  
Islamic Studies  
Principles of Microeconomics

### Semester Seven

- Strategic Marketing and Planning  
Financial Markets in Pakistan  
Methods in Business Research, or Strategic Management  
Supply Chain Management, or Foundation of HRM  
Marketing Management, or Personal Management  
Principles of Macroeconomics

### Semester Eight

- Introduction to Business Finance  
Entrepreneurship and Small Business Management  
Environmental Studies, or Organizational Behavior  
Management Infrastructure, or Services Management  
Organizational Consulting Skills or Investment Banking or  
Marketing Research  
Analyses of Financial Statements, or Sales Management

*\*These courses are same for ICAP Foundation and Intermediate Examinations.*



## BS (Honors) Media Studies (Four-Year) Program

The BS (Honors) Media Studies program is designed to enable students to develop a sound and broad academic base for a professional career in the media, gain insight into how people perceive, interpret, use, and respond to the media-rich world by emphasizing on the way media create and change the social environments, prepare themselves for professional work in a variety of media related fields.

The program has been developed in collaboration with several media channels, including PEMRA (Pakistan Electronic Media Regulatory Authority), Samaa TV, Dawn News, CNBC Pakistan, Hum TV, Aag TV, ARY, GEO News & Entertainment, Awaz TV, Aaj News & Entertainment, Haq TV, Herald News & Entertainment, Play TV, Express News & Entertainment, Sun Biz, Apna Channel, KTN, Sindh TV, Indus Vision & Music, etc.

The four-years program requires completion of 144 credit hours of course work, including 48 courses and continuous interaction with media agencies through-out the program.

### Required Courses

#### Communication

COM103 Functional English I  
COM209 Communication Skills  
COM203 Methods in Business Writing

#### Economics

ECO106 Basic Economics

#### Islamic Studies

REL101 Islamic Studies

#### Language

LAN401 Functional Urdu

#### Law

LAW405 Media Law and Business Ethics

#### Management

MAN305 International Relations

#### Management Information System

MIS402 Computer Concepts and Applications  
MIS411 Graphics and Animation

#### Marketing

MKT404 Methods in Business Research

#### Media Psychology

MPY301 Introduction to Mass Communication  
MPY302 Media and Society

#### Media Studies

MMM301 Photo Journalism  
MMM302 Logic and Critical Thinking  
MMM303 Outline of Political Science  
MMM304 Media Literacy  
MMM305 Videography  
MMM306 Mass Media in Pakistan  
MMM307 World Civilization and Culture  
MMM308 Contemporary World Media  
MMM309 Creative Writing  
MMM310 News Writing and Reporting  
MMM311 Introduction to Broadcast Media  
MMM312 Introduction to Advertising and Public Relations  
MMM313 Theater Studies  
MMM314 Online Journalism  
MMM315 Feature, Article and Column Writing  
MMM316 Sub Editing and Page Design  
MMM317 Theories of Communication  
MMM318 Economic Journalism  
MMM319 Film Studies  
MMM320 Post Production and Editing  
MMM321 Development Communication  
MMM322 Current Affairs  
MMM323 International Communication  
MMM324 Media Management and Marketing  
MMM325 Research Report

#### Pakistan Studies

PSC301 Pakistan Studies

### Social Sciences

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

### Statistics

STA201 Quantitative Business Analysis

## Elective Courses

### Electronic Media

MMM501 Radio News Writing and Production  
 MMM502 Radio Program Production  
 MMM503 TV News Writing and Production  
 MMM504 TV Program Production

### Print Media

MMM505 Specialized Journalism  
 MMM506 Newspaper Production  
 MMM507 Magazine Journalism  
 MMM508 Book Production

### Advertising and Public Relations

ADV504 Advertising Management and Strategy  
 MMM509 Creative Concepts in Advertising  
 MMM510 Media Planning and Marketing

### Marketing

MKT526 Public Relations and Event Management

## Course Structure

### Semester One

Functional English I  
 Computer Concepts and Applications  
 Introduction to Mass Communication  
 Photo Journalism  
 Introduction to Psychology  
 Principles of Sociology

### Semester Two

Communication Skills  
 Islamic Studies  
 Logic and Critical Thinking  
 Outline of Political Science  
 Media Literacy  
 Videography

### Semester Three

Methods in Business Writing  
 Basic Economics  
 International Relations  
 Graphics and Animation  
 Mass Media in Pakistan  
 Pakistan Studies

### Semester Four

Functional Urdu  
 World Civilization and Culture  
 Contemporary World Media  
 Creating Writing  
 Important Concepts in Philosophy  
 Quantitative Business Analysis

### Semester Five

Media and Society  
 News Writing and Reporting  
 Introduction to Broadcast Media  
 Introduction to Advertising and Public Relations  
 Theater Studies  
 Online Journalism

### Semester Six

Feature, Article and Column Writing  
 Sub Editing and Page Design  
 Theories of Communication  
 Economic Journalism  
 Film Studies  
 Post Production and Editing

### Semester Seven

Media Law and Business Ethics  
 Methods in Business Research  
 Development Communication  
 Current Affairs  
 Elective I  
 Elective II

### Semester Eight

International Communication  
 Media Management and Marketing  
 Research Report  
 Elective III  
 Elective IV  
 Elective V  
 Internship (2 credit hours)

## MSc Organizational Psychology and Human Resource Management (Two-Year) Program

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

This two-year weekend program requires successful completion of 72 credit hours of course work, including 23 courses plus a research project or internship of 3 credit hours each spread over six semesters. Students are expected to maintain a CGPA of 3.0 and successful completion of internship or research project for the conferment of the degree. This program combines study in psychology with courses in human resource management, workplace relations, leadership and team dynamics, and management strategy.

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

### Option I

consists of 36 credits hours of Psychology and 15 credits hours of HRM.

### Option II

consists of 36 credits hours of HRM and 15 credits hours of Psychology

*(Both the options include 3 credit hours of Research project /Internship).*

Both options include all required subjects approved by Department of Management and Social Sciences.

## Foundation Courses

### Accounting

ACC410 Management Accounting

### Communication

COM405 Organizational Consulting Skills

### Law

LAW406 Professional Ethics & Legal Issues

### Management

MAN401 Principles of Management

MAN402 Organizational Behavior

### Psychology

PSY400 Introduction to Organizational Psychology

### Statistics

STA406 Statistical Methods in Social Sci.

## Core Courses

### Human Resource Management

HRM400 Foundation of HRM

HRM405 Research Methods in HRM

HRM406 Conflict Management & Negotiation

HRM407 Seminar in HRM

HRM408 Human Resource Issues in Pakistan

HRM409 Mgmt. of Excellence & Innovation in Organization

HRM501 Recruitment and Selection

HRM502 Industrial Relations & Labor Laws

HRM503\* Employee Training and Development

HRM505 Organizational Change and Development

HRM506 Strategic Human Resource Management

HRM510 Personnel Development

*\* This course of HRM can also be taken as an elective of Psychology.*

### Psychology

PSY401 Psychometric Testing

PSY402 Counseling Psychology

PSY403 Consumer and Advertising Psychology

PSY404 Research Methods in Organizational Psychology

PSY405 Group Dynamics

PSY406 Psychology of Industrial Relations

PSY407 Personnel Psychology

PSY408 Seminar in Organizational Psychology

PSY409 Special Topics in Organizational Psychology

## Elective Courses

### Human Resource Management

- HRM507 Public Relations
- HRM508 Salary and Compensation
- HRM509 Leadership Studies
- HRM511\* Performance Appraisal and Management
- HRM517 Personnel Management & Industrial Relations
- HRM518 Coaching Skills and Techniques
- HRM519 International HRM

\*This course of HRM can also be taken as an elective of Psychology.

### Psychology

- PSY501 Work Motivation and Attitude
- PSY502 Career Counseling and Development
- PSY503 Organizational Leadership & Strategic Change
- PSY504 Quality of Work Life

### Course Structure (Career Option I Majors Psychology)

#### Semester One

- Principles of Management
- Introduction to Organizational Psychology
- Statistical Methods in Social Sciences
- Foundation of Human Resource Management

#### Semester Two

- Theories of Personality
- Management Accounting
- Organizational Consulting Skills
- Group Dynamics

#### Semester Three

- Counseling Psychology
- Research Methods in Organizational Psychology
- Psychometric Testing
- Organizational Behavior

#### Semester Four

- Psychology of Industrial Relations
- Organizational Change and Development
- Consumer and Advanced Psychology
- Professional Ethics and Legal Issues

### Semester Five

- Personnel Psychology
- Seminar in Organizational Psychology
- Human Resource Issues in Pakistan
- Research Project / Internship (3 credit hours)

### Semester Six

- Special Topics in Organizational Psychology
- Elective I
- Elective II
- Elective III
- Research Project (Cont...)

### Course Structure (Career Option II Majors HRM)

#### Semester One

- Principles of Management
- Introduction to Organizational Psychology
- Statistical Methods in Social Sciences
- Foundation of Human Resource Management

#### Semester Two

- Group Dynamics
- Organizational Behavior
- Management Accounting
- Organizational Consulting Skills

#### Semester Three

- Psychometric Testing
- Research Methods in HRM
- Recruitment and Selection
- Industrial Relations and Labor Laws

#### Semester Four

- Employee Training and Development
- Strategic HRM
- Conflict Management and Negotiation
- Organizational Change and Development

#### Semester Five

- Personnel Development
- Applied Industrial Psychology and Behavior Modi.
- Management of Excellence & Innovation in Org.
- Research Project / Internship (3 credit hours)

#### Semester Six

- Seminar in HRM
- Elective I
- Elective II
- Elective III
- Research Project (Cont...)

## MSc Media Psychology (Two-Year) Program

This Master's program is designed to develop a sound and broad academic base for a professional career in media psychology. It requires completion of 72 credit hours of course work, including 24 courses and 2 credit hours of internship (in Media Psychology) of at least six weeks in an organization approved by the College and a comprehensive examination. Students must maintain a CGPA of 3.0 for the conferment of the degree. The program is designed for students who have passed BA (Hons)/ BSc (Hons)/ BBA (Hons) or 3-year Bachelor's degree recognized by the Higher Education Commission of Pakistan.

Students can take a minimum load of six credit hours (two courses) or a maximum load of twelve credit hours (four courses) in a regular semester (Fall, Spring and Summer). In order to obtain the Master's degree in 2 years, a student is required to cover twelve courses in a year. Full load of four courses can be taken each in the Fall, Spring and Summer semesters.

### Required Courses

#### Advertising

ADV401 Principles of Advertising

#### Marketing

MKT509 Consumer Behavior

#### Media

MMM435 Print Media

MMM436 Electronic Media

MMM439 Media Research and Public Opinion

#### Media Psychology

MPY404 Media Writing

MPY406 New Media Rhetoric

MPY408 Media Technology: Sound and Music

MPY409 Capstone Project

#### Psychology

PSY412 Media Psychology and Social Change

PSY414 Psychology of Gender

PSY415 Culture and Psychology

PSY416 Counseling Psychology

PSY417 Media and Forensic Psychology

PSY418 Personality Psychology

PSY419 Psychological Impact of Film & TV

PSY420 Work Psychology

PSY422 Psychological Assessment

#### Statistics

STA403 Statistics and Mathematics

STA404 Statistical Inference

### Elective Courses

#### Media Psychology

MPY501 Media Technology: Games

MPY502 Adobe Photoshop

MPY503 Role of Media in Environment

MPY504 Electronic Broadcasting

MPY505 Contemporary Issues in Media Studies

MPY506 New Media Technologies: Audio, Video and Multimedia

#### Psychology

PSY503 Organizational Leadership and Strategic Change

PSY505 Psychology of Religion

PSY506 Psychology of Attitude Change

PSY507 Cognitive Psychology

PSY508 Health Psychology

PSY510 Contemporary Issues in Psychology

PSY511 Psychological Impact of Internet & Mobile Technology

### Course Structure

#### Semester One

Media Writing

Media Psychology and Social Change

Statistics and Mathematics

Psychology of Gender

#### Semester Two

Culture and Psychology

Statistical Inference

New Media Rhetoric

Counseling Psychology

#### Semester Three

Principles of Advertising

Media and Forensic Psychology

Electronic Media

Psychological Impact of Film and Television

#### Semester Four

Work Psychology  
Print Media  
Personality Psychology  
Media Research and Public Opinion

#### Semester Five

Media Technology: Sound and Music  
Consumer Behavior  
Elective I (Media Studies)  
Elective II (Psychology)

#### Semester Six

Psychological Assessment  
Capstone Project  
Elective III (Media Studies)  
Elective IV (Psychology)  
*Internship (2 credit hours)*



*The spirit to explore the horizon of the business world is what drove me to pursue an MBA program. Credibility, integrity and recognition is what led me to the Institute of Business Management. It has been an astounding experience being part of such a great hub of knowledge and a true learning experience. Great faculty, learning opportunities and exposure to the industry, all of these aspects have greatly polished my skills and turned me from a young boy to a business professional crafted to take up the challenges of practical life confidently. Thanks IoBM!*

*Faizan Saeed  
MBA (Regular)*



*IoBM has developed in me a knack of handling the co curricular activities, equipping me not only with the academic knowledge but a realization of my hidden talent. The journey that started by representing IoBM at a national level entrepreneurship summit led to my selection for an International scholarship under the first partnership with Bilkent University, Turkey. Being there in one of the top European universities, studying with not only national but 150+ other international students, was a milestone which could not have been achieved without the Institute's contribution.*

*Syeda Zainab Haider  
BBA (Honors)*

## MSc Media Psychology (Three-Year) Program

Master's in Media Psychology is particularly designed to develop a sound and broad academic base for a professional career in media psychology. This program provides an understanding of how people perceive, interpret, use, and respond to the media-rich world by emphasizing on the way the media creates and changes psycho-cultural environments. The program will help students gain an insight into media psychology and technology, their cultural contexts, and their influences on both the individual behavior and psychological aspect of society. Students examine 'media psychology' theory within cultural, historical, political, legal, economic and social contexts, and explore aesthetic properties of media psychology artifacts. In sum, students will learn how to create meaning from their study of mediated psychological experiences.

Using diverse research methods, both qualitative and quantitative, students will be trained to learn to question effectively, research, and analyze critical media psychology issues and problems that impact their daily lives as well as the world. Students will be empowered with the skills and curiosity to become avid researchers in education and industry, and prepare them for both graduate and professional work in a variety of media psychology related fields. The course work will emphasize on collaboration with the media channels for their assignments and projects.

This program is particularly designed to develop a sound and broad academic base for a professional career in media psychology. It requires completion of 108 credit hours of course work, including 36 courses and 2 credit hours of internship (in Media Psychology) of at least six weeks in an organization approved by the College and clear a comprehensive examination. Students must maintain a CGPA of 3.0 for the conferment of the degree. The program is designed for students who have passed B.A./B.Com./B.Sc or 2-year Bachelor's degree recognized by the Higher Education Commission of Pakistan.

Students can take a minimum load of six credit hours (two courses) or a maximum load of twelve credit hours (four courses) in a regular semester (Fall, Spring and Summer). In order to obtain the Master's degree in 3 years, a student is required to cover twelve courses in a year. Full load of four courses can be taken each in the Fall, Spring and Summer semesters.

### Required Courses

#### Advertising

ADV401 Principles of Advertising

#### Communication

COM402 Business Communication

COM403 Interpersonal Communication Skills

#### Language

LAN401 Functional Urdu

#### Management

MAN401 Principles of Management

MAN412 Personal Management

#### Management Information Systems

MIS401 Computer Applications

#### Marketing

MKT401 Principles of Marketing

MKT509 Consumer Behavior

#### Media

MMM435 Print Media

MMM436 Electronic Media

MMM439 Media Research and Public Opinion

#### Media Psychology

MPY401 Introduction to Mass Communication

MPY402 Media and Society

MPY404 Media Writing

MPY405 Media Literacy

MPY406 New Media Rhetoric

MPY408 Media Technology: Sound and Music

MPY409 Capstone Project



### Psychology

- PSY411 Introduction to Psychology
- PSY412 Media Psychology and Social Change
- PSY413 Social Psychology
- PSY414 Psychology of Gender
- PSY415 Culture and Psychology
- PSY416 Counseling Psychology
- PSY417 Media and Forensic Psychology
- PSY418 Personality Psychology
- PSY419 Psychological Impact of Film & TV
- PSY420 Work Psychology
- PSY422 Psychological Assessment

### Statistics

- STA403 Statistics and Mathematics
- STA404 Statistical Inference

### Elective Courses

#### Media Psychology

- MPY501 Media Technology: Games
- MPY502 Adobe Photoshop
- MPY503 Role of Media in Environment
- MPY504 Electronic Broadcasting
- MPY505 Contemporary Issues in Media Studies
- MPY506 New Media Technologies: Audio, Video & Multimedia

### Psychology

- PSY503 Organizational Leadership and Strategic Change
- PSY505 Psychology of Religion
- PSY506 Psychology of Attitude Change
- PSY507 Cognitive Psychology
- PSY508 Health Psychology
- PSY509 Organizational Psychology
- PSY510 Contemporary Issues in Psychology
- PSY511 Psychological Impact of Internet & Mobile Technology

### Course Structure

#### Semester One

- Business Communication
- Principles of Management
- Computer Applications
- Introduction to Psychology

#### Semester Two

- Social Psychology
- Personal Management
- Introduction to Mass Communication
- Functional Urdu

#### Semester Three

- Media and Society
- Media Literacy
- Principles of Marketing
- Interpersonal Communication Skills

#### Semester Four

- Media Writing
- Media Psychology and Social Change
- Statistics and Mathematics
- Psychology of Gender

#### Semester Five

- Culture and Psychology
- Statistical Inference
- New Media Rhetoric
- Counseling Psychology

#### Semester Six

- Principles of Advertising
- Media and Forensic Psychology
- Electronic Media
- Psychological Impact of Film and Television

#### Semester Seven

- Work Psychology
- Print Media
- Personality Psychology
- Media Research and Public Opinion

#### Semester Eight

- Media Technology: Sound and Music
- Consumer Behavior
- Elective I (Media Studies)
- Elective II (Psychology)

#### Semester Nine

- Psychological Assessment
- Capstone Project
- Elective III (Media Studies)
- Elective IV (Psychology)
- Internship (2 credit hours)*

## MSc Leading to MS Economics and Finance

MS Economics and Finance is a much sought after degree, currently being offered by both public and private sector universities. However, program to be offered by IoBM will be more advanced and sensitive to the needs of the market.

The program is particularly designed to achieve the following aims:

- > To provide thorough education and training in economics and finance.
- > Prepare students for a career in academia, government departments, financial institutions, private companies, regulatory institutions, etc.
- > Apply knowledge and understanding of economics and finance.
- > To enhance learning skills and personal development in order to encourage independence and originality and contribute to business and society through further study at the doctoral level, etc.
- > To integrate students' understanding of theoretical microeconomics, applied finance and econometric methodology.

### Career Opportunities

The program will be a major source of opportunities in banks, financial institutions, finance department at the federal and provincial level, universities, academic institutes, international agencies, consultancies and economic research institutes.

### MSc Leading to MS Economics and Finance

Students completing the BS (Economic and Finance) program can obtain an MSc (Economic and Finance) degree after completion of 30 credit hours. An MS degree requires a further 6 credit hours of thesis writing.

### MS Economics and Finance (Three-Year, 102 Credit Hours)

This program is proposed for BA/BCom/BSc students who have 14 years of prior education. In the first 2 years of the program the students will do pre-requisite courses. Upon completion of the first 3 years, students enrolled in the program will get an MSc degree. An MS degree requires a further 6 credit hours of thesis writing.

### MSc Leading to MS Economics and Finance (Two-Year)

This program is proposed for MA/MSc students who have 16 years of prior education and those with equivalent qualifications. The students enrolled will complete one year of course work for 24 credit hours for obtaining an MSc degree. Six further credit hours of work will lead to the award of an MS degree.

### Required Courses

#### Economics

- ECO501 Microeconomics
- ECO502 Macroeconomics
- ECO503 Econometrics
- ECO505 Theory & Practice of International Economic Policy

#### Finance

- FIN406 Financial Econometrics
- FIN517 Theory and Practice of Finance

### Elective Courses

#### Economics

- ECO506 Monetary Economics
- ECO507 Development Economics
- ECO508 Mathematical Economics
- ECO509 Industrial Organization
- ECO510 Mergers, Acquisitions & Restructuring
- ECO511 Taxation and Business Strategy
- ECO512 Trade and Globalization

## Finance

- FIN503 Corporate Finance  
 FIN518 Current Issues in Islamic Finance  
 FIN519 Industrial and Financial Economics  
 FIN520 Financial Risk Management  
 FIN521 International Financial Management

## Course Structure

### Semester One

- Microeconomics  
 Macroeconomics  
 Econometrics

### Semester Two

- Theory and Practice of Finance  
 Theory and Practice of International Economic Policy  
 Financial Econometrics

### Semester Three

- Elective I  
 Elective II



*It is a daunting task to sum up in a few words my five years' stay at the Institute of Business Management which is the most crucial learning period of my life. IoBM is one of the best universities in Pakistan and its degree is well recognized abroad. It endorses a culture of diversity and inclusiveness which sets it apart from the rest. IoBM is invariably geared towards grooming and preparing its students for the corporate world in the best possible manner so that they can have an edge compared to others. Having a CGPA of 3.70 and an analyst job at KASB Securities Limited, I can say it with pride that IoBM has undoubtedly built a culture that is conducive to performance over the years.*

Mehra Jehangir  
 MBA (Regular)



*Studying at IoBM was an overall transformative journey, as it broadened the vision and exposed us to the limitless educational experience. IoBM provided us with the platform that helped us in grooming our personalities, shaping our lives, making us strong enough to stand up against all the hardships in our practical lives. It was further augmented by the quality teaching staff and the visiting staff members who were professionals in their respective field. This helped us in believing in ourselves and building our self confidence. Attending seminars, meeting deadlines for the term reports, group work and presentations have helped us in developing ourselves.*

*Heading forward in my life, I can never forget the tremendous support that I have gained from the faculty, friends and colleagues at IoBM and these are certainly the days that will be high up on the list of memories. I wish IoBM all the best for the future endeavors.*

Fatima Ahmed  
 Valedictorian of Convocation 2010

## MS/MPhil Leading to PhD in Business Psychology (Two-Year) Program

This MS / MPhil program is designed to develop a sound and broad academic base for a professional career in business psychology. In an increasingly complex and highly competitive and business environment, it is vital to look at the varying approaches to applying psychological principles to the workplace and how these ideas can increase organizational, team and individual performance in today's business environment.

MPhil in Business Psychology at IoBM is geared towards those who wish to:

- Excel as business psychologists, HR professionals, teachers, independent consultants and advisors
- Acquire the skills and knowledge that will enable them to apply psychological principles within the business world
- Gain a range of knowledge-based analytical and problem solving skills and competencies
- Train themselves in the most advanced and innovative research methods in Business Psychology as well as in writing research papers
- Hone their academic writing skills to be able to publish their research in peer reviewed journals
- Focus on individualized research in specialized areas

MS / MPhil leading to PhD in Business Psychology Program is especially beneficial for middle level executives, medical health professionals and university teachers with considerable experience. This program provides intensive professional training to facilitate students in the applied areas of the subject. It is a 30 credit hour 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, the students are required to carry out research study for the thesis under the guidance of a research supervisor assigned by IoBM.

### Eligibility

Candidates with 16 years of education holding BBA/MBA degree from IoBM or Master's degree holders in the relevant subject with 1st division/CGPA with at least 3 on a scale of 4 from a HEC recognized university. Experience in research or teaching, or executive positions in media, firms and banks, will be considered as an additional qualification.

### Required Core Courses

GEN601 GRE Preparatory Course (Optional)  
 MAN609 Advanced Research Methods Qualitative  
 MAN610 Advanced Research Methods Quantitative  
 BPY601 Advanced Psychometric Testing  
 BPY602 Survey of Current Research Literature in Business Psychology

### Elective Courses in Areas of Specialization in Business Psychology

Candidates are allowed to choose four courses in varied disciplines of Business Psychology such as; Advanced Educational Psychology, Advanced Organizational Psychology, Advanced Health Psychology, Advanced Forensic Psychology, Advanced Consumer Psychology, Advanced Media Psychology, Advanced Managerial Psychology, Advanced Attitude Psychology, Advanced History of Psychological Thought & Advanced Human Resources Psychology.

BPY603 Advanced Educational Psychology  
 BPY604 Advanced Organizational Psychology  
 BPY605 Advanced Health Psychology  
 BPY606 Advanced Forensic Psychology  
 BPY607 Advanced Consumer Psychology  
 BPY608 Advanced Media Psychology  
 BPY609 Advanced Managerial Psychology  
 BPY610 Advanced Attitude Psychology  
 BPY611 Advanced History of Psychological Thought  
 BPY612 Advanced Human Resources Psychology

## Course Structure

### Semester One

Preparation of GAT / GRE General (Optional)  
Advanced Research Methods Qualitative  
Survey of Current Research Literature in Business Psychology

### Semester Two

Advanced Research Methods Quantitative  
Advanced Psychometric Testing  
Elective in Business Psychology I

### Semester Three

Elective in Business Psychology II  
Elective in Business Psychology III  
Elective in Business Psychology IV

### Semester Four

MS / MPhil Thesis



*While seeking admission for higher education, I strongly desired getting into an institution that did not restrict me to memorizing books for the next four years. Education to me has always been a practical aspect and IoBM provided the whole some experience of getting educated through practical learning. I organized events, launched and designed magazines, lead a team of 25+ members, dealt with matters concerning budget and logistics even before graduating. Feeling part of any organization doesn't come easily, but IoBM's methodology towards multi-dimensional education instills this feeling of ownership and interestingly, every graduate has a different story to tell. Yet, all are thankful for the realistic and 'not-so-pampered' environment that rightly grooms us for the practical world. IoBM churns out a variety of graduates, each one being a master of his/her own different trade.*

Hira Mansoor  
BBA (Honors)







## Internship and Placement Programs



## Internship Program

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

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

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

### 2. Decide on Right Careers Prior to Graduation

An internship provides a more accurate picture of what individuals do in certain professions. After experiencing a particular job environment and observing what it entails, students may decide if this is the right career for them.

The internship is compulsory for all MBA, BBA, and BS final year students, and has a minimum duration of six consecutive weeks. Executive students are exempted from the internship program.

### Eligibility for Internship

Minimum CGPA		Semesters of Study Completed at IoBM	
MBA	2.8	Two	
BBA / BS (Honors)	2.4	Six	

- > MBA & BBA (Honors) students should have passed the Methods in Business Research (MBR) course.
- > The Institute selects the organization for internship for the student.
- > A student has to select and write a case study on an intriguing problem faced by the organization or department where the student interns and has to 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.

## Organizations where IoBM Students have Interned

360 Training  
 3M Pakistan (Pvt.) Limited  
 3M Pakistan Private Limited  
 A.F Ferguson & Co.  
 Abbot Laboratories (Pakistan) Limited  
 Abudawood Trading Company Pakistan (Pvt) Ltd.  
 AC. NELSON  
 ACCA Pakistan  
 AdCom Private Limited  
 Aden Builder & Developers  
 Agility  
 AKD Investments  
 AKD Trade  
 Al Karam Textile Mills Ltd.  
 Alfalah Securities  
 Algorithm  
 Ali Gohar Pharmaceuticals  
 ALICO  
 Allied Bank Pakistan Limited  
 Al-Raiz Green System  
 Aman Foundation  
 Anjum Asim Shahid Associates. (Pvt.) Ltd.  
 Apna Tv  
 AREVA  
 Arif Habib Investments Limited  
 Arif Habib Securities Limited  
 ARY Digital Network  
 Asia Marine  
 Asiatic Public Relations Network  
 Askari Commercial Bank Limited  
 Atlas Group of Companies  
 Atlas Honda Limited  
 Atlas Lease Limited  
 Attock Cement Pakistan Limited  
 Avanza Solutions (Pvt.) Limited  
 Aventis Pharma (Pvt.) Limited  
 Axact  
 Bank Alfalah Limited  
 Bank Al-Habib Limited  
 Bank Islami Limited  
 Barclays Bank Limited  
 Barrett Hodgson Pakistan Limited  
 BASF Pakistan (Pvt.) Limited  
 Bayer Pakistan (Pvt.) Limited  
 BBCL (Pvt) Ltd  
 Berger Paints Pakistan Limited  
 Blitz Advertising (Pvt.) Limited  
 BMA Capital (Pvt.) Limited  
 BOC Pakistan Limited  
 BOOM BOOM SPORTS  
 BP Industries Limited  
 BP Pakistan Exploration & Production  
 BR&W (Pvt.) Limited  
 Brands Image  
 BYCO  
 Cadbury  
 Career Consulting Services  
 Central Depository Company  
 Celeritous Technical Services  
 Chevron (Formerly Caltex)  
 CIM Shipping  
 Circuit Advertising  
 Citibank N.A.  
 Clariant Pakistan Limited  
 Commercial Union Assurance Co. Plc.  
 Continental Biscuits Limited  
 Cox & Kings (Agents) Limited  
 Crescent Bank Limited  
 Cres-Soft (Pvt.) Limited  
 CROSBY  
 Cupola Pakistan Limited  
 Cybernet  
 Cynamid (Pakistan) Limited  
 DADEX  
 Dalda Foods (Pvt.) Limited  
 DAMCO  
 Dawlance (Pvt.) Limited  
 Dawn Group of Newspapers  
 Dawn News TV  
 Design Shahzad Nawaz  
 Deutsche Bank A.G.  
 Dewan Mushtaq Group  
 DHL  
 Direct Solution  
 Dubai Islamic Bank  
 Dupont Far East Inc.  
 DYL Motorcycles Ltd

EDP Services (Pvt.) Limited  
Efro Tech Services  
Efroze Chemical Industries (Pvt.) Ltd.  
EFU Insurance  
Eli Lilly Pakistan (Pvt.) Limited  
Emaculate Solutions  
Emirates Global Islamic Bank Ltd.  
Emirates Investment & Development, Dubai  
English Biscuits Manuf. (Pvt) Ltd.  
Engro Asahi Polymer & Chemicals Ltd.  
Engro Chemicals Pakistan Ltd.  
Engro Energy  
Engro Fertilizer  
Engro Foods  
Engro Vopak Terminal Ltd.  
ENI Pakistan Limited  
Event Fashion Production  
Express News  
Faysal Asset Management  
Faysal Bank Limited  
Ferguson's Associates  
Financial Daily  
First Women Bank  
FM 107 Private Limited  
Fontandalia  
Genesis Direct  
Genix Pharma  
Geo Television  
Gerry's Information Technology  
Gestetner (Pvt.) Limited  
Ghandhara Nissan Diesel Ltd.  
Ghani Usman Securities  
Gillette Pakistan Limited  
Glaxo Smithkline Pakistan Ltd.  
Globe Dyeing  
Godil Cold Chain(Pvt.) Ltd.  
Gravity Communications  
GREAVES  
GroupM  
Gulf Commercial Bank Ltd.  
Habib Asset Management  
Habib Bank AG Zurich  
Habib Bank Limited  
Habib Metropolitan Bank Limited  
Harvest Topworth International  
Hawk Adv.  
Helium  
Higher Education Commission  
Hilton Pharmaceutical (Pvt.) Ltd.  
Hinopak Motors Limited  
HireLabs  
Hoechst Marion Roussel (Pakistan)  
HSBC Bank Middle East Limited  
IBM – Pakistan  
ICI Pakistan Limited  
ICON Advertising Agency  
ICON Securities  
Idrees Textile Mills Ltd.  
IGI Financial Services  
Indus Motors Company Limited  
Indus Pharma (Pvt) Ltd  
Intel Pakistan Corporation  
Inter Trade Distributors  
Interflow Communications (Pvt.) Ltd.  
InterGraphics C&A (Pvt.) Ltd.  
International Advertising Private Limited  
International Asset Mgmt. Co. Ltd.  
International Brands Limited  
International Industries  
Invest & Finance Securities Limited  
Invest Capital (Pvt.) Ltd.  
Ismail Industries Limited  
Itochu  
J & P Coats Pakistan (Pvt.) Ltd.  
J. Walter Thompson Asiatic (Pvt.) Ltd.  
Jaffer Brothers Limited  
Jaffer Business Systems (Pvt.) Ltd.  
Jahangir Siddiqui & Co. Ltd.  
JCR-VIS Credit Rating Company  
Jofa International  
Johnson & Johnson Pakistan  
JS Bank Limited  
JS Global  
JS Investments Limited  
Kalsoft (Pvt.) Limited  
Karachi Chemical Industries  
Karachi International Container Terminal Ltd.  
Karachi Stock Exchange Limited  
KASB Bank Limited  
KASB Securities Limited  
Karachi Electric Supply Corporation  
Khadim Ali Shah Bukhari & Company  
Khyber Bank  
Knoll Pharmaceuticals Limited  
KALSOFT  
Kopak Shipping

KPMG Pakistan  
Lakson Group of Companies  
Li Fung (Singapore) Pte. Limited  
Lowe & Rauf (Pvt.) Limited  
Lucky Cement  
Manhattan Leo Burnett  
Marksman Advertising  
Marriott Hotel  
Maxim Group of Companies  
MCB Bank Limited  
MCR (Pvt.) Limited – Pizz Hut  
Mediacom  
Meezan Bank  
Meher Associates (Pvt.) Limited  
Merck Pharma  
Merck Sharp & Dohme of Pakistan Limited  
Millennium Software (Pvt.) Ltd.  
Mindshare Pakistan (Pvt.) Ltd.  
Mitsubishi Corporation  
Mobil Askari Lubricants  
Mobilink  
MSM FINANCIALS (Pvt) Ltd.  
Muller & Phipps Pak (Pvt.) Ltd.  
Nabi Qasim Industries  
Narejo Human Resources  
National Bank of Pakistan  
National Foods Limited  
National Industrial Parks Ltd.  
National Medical Centre  
Naveena Exports (Pvt.) Ltd.  
Nayab Agencies  
National Clearing Company of Pakistan Limited  
NCR  
Nestle' Milkpak Limited  
NIB Bank Limited  
Nini Securities  
Novartis Pharma Pakistan Ltd.  
Novo Nordisk Pharma Private Ltd.  
Oglivy  
Oman International Bank  
Orient Advertising  
Orient McCann-Erickson  
Orix Investment Bank  
Orix Leasing Pakistan Limited  
Outsource Consultants  
Oxford University Press  
P&O Nedlloyd  
Packages Ltd.

Pak Mediacom (Pvt.) Limited  
Pak Oman International Bank  
Pakistan Credit Rating Agency  
Pakistan International Airlines  
Pakistan Petroleum Limited  
Pakistan Refinery Limited  
Pakistan State Oil Co. Limited  
Pakistan Tobacco Company Limited  
Pak-Kuwait Investment Co.  
Paragon Construction  
Parke Davis & Co. Limited  
Pepsi Cola International Limited  
Pfizer Laboratories Limited  
Pharma EVO  
Philips Electrical Industries Limited  
PICIC Commercial Bank  
PICIC Insurance  
pkstudent.com  
Popular Group of Industries  
Prestige Communications (Pvt.) Ltd.  
Prime Coat Pvt. Ltd  
Printech Packages  
Procter & Gamble Pakistan Limited  
Qasim Int. Container Terminal Co.  
Qatar Airways  
Qubee  
Reckitt Benckiser Pakistan Limited  
Red Bull  
Reliance Insurance  
Reuters Limited  
Rhone Poulenc Rorer Pakistan  
Roche Pakistan Limited  
Saatchi & Saatchi  
Salsoft Tech.  
Sama TV  
Sanofi-Aventis  
Sapphire Textile Mills Limited  
Saudi Pak Commercial Bank Limited  
School of Leader Ship  
Searl Pakistan Limited  
Shadman Cotton Mills Limited  
Shell Pakistan Limited  
Sheraton Hotel  
Shield Pakistan  
Sidat Hyder  
Siddiq Sons Denim Mills Ltd.  
Siemens Pakistan Limited  
Silchem

Silk Bank  
 Silver Surgical Complex  
 Sindh Education Foundation  
 Skynet World Wide Express  
 Sogo Group  
 Soneri Bank  
 Spectrum Communications  
 Standard Chartered Bank Limited  
 Standard Group  
 State Bank of Pakistan  
 Sui Southern Gas Company  
 Summit Bank  
 Sun Consulting  
 Symmetry  
 Synapse Consulting  
 Synergy Advertising (Pvt.) Limited  
 Tapal Tea (Pvt.) Limited  
 Target Resourcing  
 Tariq Abdul Ghani & Co.  
 Taurus Securities Limited  
 Telenor Pakistan (Pvt.) Limited  
 Ten Perals  
 Tetrapak  
 Thatta Cement  
 The Aga Khan University & Hospital  
 The First Micro Finance Bank Ltd.

Topline Sec.  
 Total Computer Solutions  
 Toyota - Indus Motors  
 Tradekey  
 Trading Corporation Pakistan  
 TRG  
 UBL Funds Managers  
 UBL Insurers  
 Ufone  
 Unilever Pakistan Limited  
 Union Bank Limited  
 Union Leasing Limited  
 Unisys Pakistan (Pvt.) Limited  
 Uni-Tech Pharma  
 United Bank Limited  
 Warid Telcom (Pvt.) Limited  
 Westminster & Eastern Fin. Services  
 World Call  
 Wyeth Pakistan Limited  
 Xenith Public Relations (Pvt.) Limited  
 Zafa Pharmaceuticals  
 Zafar Moti Capital  
 Zamzam-TV  
 Zong  
 Zulfiqar Industries

## Placement Program

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

Emphasis has been placed on the requirement of Career Fair Seminars. They provide a meeting ground between the corporate world and graduates with the provision of resumes to HR representatives where students are selected for jobs against their requirements immediately, or at a later stage since their personal data remains easily available with such organizations for possible employment. In Career Seminars, graduates are given fresh insight into the corporate world with detailed discussions on the writing of resumes and methodology in performing well during interviews. IoBM's Internship & Placement Department provides a firm commitment to its graduates for developing careers. This begins from the point the student is inducted and continues with a life long partnership. In the past we have assisted our graduates in finding careers for our alumni as well. Some of the activities designed for placing students include, but are not limited to:

### 1. On Campus Recruitment Drives

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

## 2. Publishing Bi-Annual Graduate Directory

MBA graduates are invited to showcase their resumes in IoBM's bi-annual Graduate Directory. This publication is circulated to about 150 national and multinational companies and is an essential tool for being placed in the market. The Internship & Placement department recently conducted a survey to determine the efficacy of this document. It was found that 62% of the respondents were contacted for interviews and 69% of these were able to secure positions.

## 3. Career Counseling

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

## 4. Guest Lectures by Industry Experts

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

## 5. Workshops Related to Career Management

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

## 6. Career Fair

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

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

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



## Firms Employing IoBM Graduates

A C Nielsen Aftab  
ABAMCO Limited  
ABN Amro Bank N.V  
Abu Dawood Trading Company  
ACCA  
Ace Insurance Limited  
Adam Motor Co., Limited  
Adcom Pvt. Limited  
Aga Khan Education Services  
Agfa Gaveart Pakistan  
AIG Pakistan - New Hampshire Ins.  
AKD Securities  
Al Falah Securities  
Ali Asghar Textile Mills Ltd.  
Ali Gohar & Co. Limited  
Al-Meezan Bank Limited  
Al-Mughal Trading Corporation  
Alstom Pakistan (Pvt.) Limited  
American Pacific Enterprises LLC  
Anjum Asim Shahid Associates Limited  
APTECH Computers Education  
Artal Group of Companies  
ARY Communications  
ARY Digital Television Network  
ARY Shopping Channel  
Asiatic Public Relations Network Ltd.  
Askari Bank Limited  
Attock Cement Private Limited  
Australian Education Commission  
Aventis Pharma Pakistan Limited  
Aexact Cyber Solutions  
Axis Communications  
Bank Al-Falah Limited  
Bank Al-Habib Limited  
Bank Islami Limited  
Barclays Bank Limited  
BASF  
Bayer Pakistan  
BDO Ebrahim & Co. Chartered Acc.  
Berger Paints Pakistan Limited  
Bhoja Air (Pvt.) Limited  
Blitz Advertising (Pvt.) Limited  
BMA Capital Management Limited  
Bosch Pharmaceuticals  
BP Pakistan (UTP)  
Bridgestone Tires Pakistan Limited  
British Oxygen  
Business Plus  
Cadbury Pakistan Ltd.  
Candyland Industries Limited  
Capital Management (Pvt.) Limited  
Caresse Cosmetics, Santcos Limited  
Citi Security  
Citibank N.A.  
Clariant Pakistan Limited  
Clicktrade  
Coca Cola  
Colgate Palmolive Pakistan Ltd.  
Contact Plus  
Continental Biscuits Private Limited  
Contract Advertising  
Creative Chaos Pvt. Ltd.  
Creative Factor  
Crescent Commercial Bank Limited  
Crescent Insurance  
Cupola Pakistan Limited  
Dadabhoy Investments Pvt. Ltd.  
Dadex  
Dawlance (Pvt.) Limited  
DAWN Group of Newspapers  
Descon Engineering  
Deutsche Bank  
Dewan Group  
DHL Pakistan Limited  
DMK Consultancy  
Dubai Islamic Bank  
Dupont Pakistan  
EDGE Financials  
EFU General Insurance Limited  
Eli Lilly Pakistan (Pvt.) Limited  
Emirates Bank Ltd.  
Emirates Global Islamic Bank Limited  
English Biscuits Manufacturers Ltd.  
Engro Foods Ltd.  
Engro Pak Tank Terminals Limited  
ENI Pakistan Limited  
Epony Industries (Pvt.) Limited



Etilize Pvt. Ltd.  
Evernew Entertainment  
Faysal Asset Management Ltd.  
Faysal Bank Limited  
Ferguson Associates  
First Capital Equities (Pvt.) Limited  
Forex Financial Products  
Forte Pakistan Pvt. Ltd.  
Freight Systems Co. Ltd.  
Friends of Literacy & Mass Education  
Gatron Industries Ltd. / Novatex Ltd.  
GEMCO Pakistan Ltd.  
Giga Group of Companies  
Glaxo Smithkline Pakistan Limited  
Global Securities Pvt. Ltd.  
Green Star Social Mkt. (Pvt.) Ltd.  
Gul-Ahmed Textile Mills (Pvt.) Ltd.  
Habib Bank AG Zurich  
Habib Bank Limited  
Habib Metropolitan Bank Ltd.  
Habib Oil Mills Limited  
Haleeb Foods, Lahore  
Hinopak Motors Limited  
Home Express  
HRS Global  
Hum TV  
I. T. Link Online  
IAL Satch & Satchi  
IBM – Pakistan  
ICI Pakistan Limited  
IGI Financial Services  
Indus Bank Limited  
Indus Motors Company  
Industrial Development Bank of Pakistan  
Infoline / Dow Jones  
Intel Pakistan  
Interflow Communications (Pvt.) Ltd.  
International Advertising (Pvt.) Ltd.  
International Asset Mgmt. Company  
INVATERRA  
Invest & Finance Securities Limited  
Islamic Investment Bank  
J. Walter Thompson Asiatic (Pvt.) Ltd.  
Jaffer Brother Limited  
Jahangir Siddiqui & Co. Limited  
Jason Group of Companies  
Johnson & Johnson Pakistan (Pvt.) Ltd.  
JS Bank Limited

JS Investment  
KalSoft (Pvt.) Limited  
Karachi International Terminal Ltd.  
Karachi Stock Exchange Limited  
KASB Bank Limited  
KASB Capital  
KASB Funds Limited  
KASB Securities  
Khadim Ali Shah Bukhari & Co. Ltd.  
KPMG Taseer Hadi & Co.  
KZR Associates  
Lakson Tobacco  
Land O'Lakes, Inc.  
Lasmo Oil Pakistan Limited  
Live Securities Pvt. Ltd.  
Maersk Sealand  
Majsons Corporation  
Manhattan Leo Burnett  
Maple Pharmaceuticals Pvt. Ltd.  
Mass Advertising Pvt. Ltd.  
MCB Bank Limited  
Media Max (Pvt.) Limited  
Merck Marker Pvt. Ltd.  
Metropolitan Bank Limited  
Mind-Share Pakistan (Pvt.) Limited  
Mobil Askari Lubricants  
Mobilink  
Mobitel, KSA  
Monsieur  
MS Associates  
Muller & Phipps Pakistan (Pvt.) Ltd.  
Mustafa & Co. (Pvt.) Limited  
Nabiqasim Industries  
National Commodity Exchange  
National Foods Limited  
National Fullerton Asset Mgmt. Ltd.  
National Industrial Parks Ltd. (NIP)  
National Insurance Company  
National Investment Trust  
Naveena Export (Pvt.) Limited  
NDLC – IFIC Bank Limited (NIB)  
Nestle<sup>1</sup> Milkpak Limited  
Net Space Systems  
New Era Industries  
New Jubilee Insurance Co. Limited  
Nike Pakistan Limited  
Novartis Pharma Pakistan Limited  
Oman National Electronics, Dubai

Oratech Systems (Pvt.) Limited  
Orient Public Relations  
Orix Investment Bank Pakistan Ltd.  
Orix Leasing Pakistan Limited  
P & O Nedlloyd  
Packages Limited  
Pak Mediacon (Pvt.) Limited  
Pakistan Petroleum  
Pakistan Services Limited  
Pakistan State Oil Company Ltd.  
Pakistan Telecommunication Co.  
Pakistan Television Corporation  
Pak-Kuwait Investment Co. Ltd.  
Pak-Suzuki Motors Co. Limited  
Paktel  
Parke Davis & Co. Limited  
Pastel Communications  
Pegasus Consultancy (Pvt.) Ltd.  
Pfizer Laboratories Limited  
Philips Electrical Co. of Pakistan  
Pizza Next - MFC Pvt. Ltd.  
Plastech Products (Pvt.) Ltd.  
Premier Systems Pvt. Ltd.  
Prestige Communications Ltd.  
Reckitt Benckiser Pakistan Ltd.  
Rhone Poulenc Rorer Pakistan Ltd.  
Rising Technologies  
Roche Pharmaceuticals Limited  
Rohi International Pvt. Ltd.  
S13 - Systems Innovations Pvt. Ltd.  
Sanofi Aventis  
Sapphire Textile Mills Limited  
Saudi Pak Commercial Bank Ltd.  
Saudi Pak Leasing Co. Limited  
Searle Pharmaceuticals  
Shafi-Reso Chemicals  
Shaheen Airlines  
Shangrila Pvt. Ltd.  
Shell Pakistan Limited  
Siemens Pakistan Limited  
Sindh Education Foundation  
Singer Pakistan Limited  
Stanco (Pvt.) Limited  
Standard Chartered Bank Limited  
Starcom Pakistan  
State Bank of Pakistan  
STEP Consultants  
Stitchers International  
Sun Consultants  
Sun Systems  
Super Trading Inc.  
Sysnet Pakistan Pvt. Ltd.  
Target Resourcing  
Taurus Securities Ltd.  
TCS (Pvt.) Limited  
Telenor Pakistan Limited  
The Aga Khan University & Hospital  
The Bank of Khyber  
The First Micro Finance Bank  
Thinkline  
Third Eye Managed Services  
Time & Vision Advertising  
TNI - Worldwide Partners Inc.  
Total Lubricants  
Triple E (Pvt.) Limited  
TV One - Airwaves Media Pvt. Ltd.  
Uniferoz  
Unilever Pakistan Limited  
Union Bank Limited  
Unisys Pakistan (Pvt.) Limited  
United Assets Management Co.  
United Bank Limited  
United Consultants (Pvt.) Limited  
United Registrar of Systems Limited  
United Sales (Pvt.) Limited  
US Consulate, Karachi  
Versa Canada Inc.  
Visa International (Asia Pacific) Ltd.  
Vision Express  
Warid Telecommunication  
Wavetec Pvt. Ltd.  
Weekend World Marketing Limited  
Westminster & Eastern Financial Services Ltd.  
World Tel  
World Wildlife Fund for Nature Pak  
WorldCALL Broadband Limited  
Xenith Public Relations (Pvt.) Ltd.  
ZAP Infotech Inc.  
Zeppelin Communications  
Zulfeqar Industries Limited



Management Excellence Center

## Management Excellence Center

The Institute of Business Management (IoBM) proudly announces the launch of its Management Excellence Center (MEC) – a prized product of its successful evolution as a top-rated business and management school. Over the last fifteen years, IoBM has endeavored relentlessly to enhance its image and reputation, and made strategic diversifications and investments in disciplines that add value to its offerings.

We enter our seventeenth year with the same sense of confidence and trust in ourselves. The MEC follows an immersive approach to service excellence, whether customized or generic, aimed at organizational change. It provides consultancy to organizations on the development and implementation of effective strategies. Its training programs are designed with excellence and rigor to make every organization's experience with it, a valuable one.

### Programs at MEC

#### Leadership Management Excellence Program (LME) offers Customized Training & Need Assessment Services

MEC's LME program intends to provide a better understanding of the actual and perceived training and support needs of the organization by employing a need assessment tool specifically designed for each client. The comprehensive and effective need analysis would translate the organizational goals into a reality, determine whether training is needed and, if needed, specify what that training should accomplish, and gather information about present practices and compare these practices to the desired way of doing business. This will help the MEC team to develop customized trainings for the concerned organization and its employees using the extensive resource pool available to MEC.

#### Management Excellence Training Program (MET)

##### Open Enrolment Trainings

Driven by the passion for enhancing professional capabilities and skills of the corporate sector in Pakistan, MEC offers an overarching range of training programs and interaction opportunities with the excellence and rigor that is designed to add substantive value to an organization.

##### Initiatives by MEC

- Seminars and Conferences
- Public & Private Partnerships
- Lectures by Foreign Experts on Specialized Topics
- Administration of Entrance Tests
- Collaboration with Relevant Organizations, Institutes and Associations
- Advisory/Consultancy Services
- Entrepreneur Skills Development

The Federation of Pakistan Chambers of Commerce and Industry (FPCCI) commissioned MEC to prepare a comprehensive review on the performance and prospects of the large scale manufacturing sector. The study was published by FPCCI in December, 2010. Beside analysis of overall manufacturing sector performance, it reviewed progress during 2010 in the pharmaceutical, engineering, automobile, textile and wearing apparel sub-sectors on the basis of an econometric forecasting model. The study was appreciated in the national press and among policy making circles.

On behalf of the Planning and Development Department, Government of Sindh, MEC successfully conducted Third Party Validation Assessment on proposals submitted by NGOs / CSOs in the areas of health, water and sanitation, education, skills development, legal aid and multi sectorial projects in Sindh.

### Activities at MEC

- Seminar on World Environment Day - June, 2010
- An Eight Week Training Course on Adobe Photoshop and Adobe Illustrator - July, 2010 to September, 2010
- 1st Annual International Business Psychology Conference - November, 2010
- Seminar on Non-Performing Loans - November, 2010
- Conference on Corporate Governance I Strategy and Competitiveness - November, 2010
- Seminar on Population Strategies in Sindh: New Developments under the 18th Amendment - January, 2011
- Workshop on Research Methodology - December, 2010 & January, 2011
- Diploma in HR Management, Module I - January 2011
- Visit of Dr. Dale Murphy, delivered a lecture on "Entrepreneurship" - January, 2011
- Workshop on Stress Management - January, 2011
- Seminar on EU Trade Concessions to the Textile Industry of Pakistan - January, 2011
- An Eight Week Training Course on "Adobe After Effects" - January to March, 2011
- Diploma in HR Management Module II - February 2011
- Seminar on Environmental and Energy Management - February 2011
- Imran Khan's talk on "The Young Generation - Challenges for the Future - February 2011
- Visit of Dr. Abbas Mirakhor, Former Executive Director of International Monetary Fund (IMF), Speaks on "The Philosophy of Islamic Finance" - February 2011
- Visit of Iranian Delegation - February 2011
- PMP Exam Preparation Course - March 2011
- Workshop on The Win Win Negotiations - April 2011
- Diploma in HR Management Module III - April 2011
- Workshop on Credit Risk Management - April 2011
- Workshop on Leading A Team - April 2011
- Conference on Floods 2010, Causes, Impact, Relief and Rehabilitation - April 2011
- Effective Marketing Management - April 2011



## Research at IoBM and MEC

- > Research being a core competence, is accorded top priority at the Institute of Business Management.
- > All full time faculty members have a contractual obligation to complete one major research study per year.
- > MBA at CBM is research intensive and every optional course is designed to include a research component.
- > IoBM's Research Director is Honorary Economic Advisor to the Federation of Pakistan Chambers of Commerce and Industry.

### Pakistan Business Review

IoBM publishes Pakistan's first refereed academic business research quarterly. PBR is abstracted and indexed by the American Economic Association in the ECONLIT, the Journal of Economic Literature, USA and recognized by the Higher Education Commission (HEC). It is supervised by an International Advisory Board of Business Academics from national and international organizations such as the London School of Economics, the University of Sussex, the University of San Diego, Bochun University, Germany, the United Nations Industrial Development Organization, the International Association for Clean Technology, Austria, the Institute of Cost and Management Accountants of Pakistan, the Institute of Chartered Accountants of Pakistan, the Pakistan Institute of Development Economics, the Applied Economic Research Center, the University of Karachi, Indiana University and The Aga Khan University, Karachi. All full time faculty members are on the editorial board and contribute research papers on a regular basis. Pakistan Business Review is in its twelfth year of continuous publication.

### International Conferences

An international Conference, funded by the HEC is held on an annual basis. The Second Sindh International Conference was held in January 2010 to discuss the Sindh Economic Survey 1972-2008 prepared at IoBM. Two international conferences are planned for the current academic year 2010-2011, one on Management Capacities and the other on Labor Policies in Pakistan. These conferences will provide a platform for the presentation of research at IoBM.

### Textbooks

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

1. Money and Banking in Pakistan (now in its sixth edition)
2. Financial Management in Pakistan
3. Business Ethics in Pakistan

Another textbook on Financial Institutions in Pakistan is under preparation and will be published by the Oxford University Press in 2011.

### External Research

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

## Online Accessibility

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.

## Quality Enhancement Cell (QEC)

IoBM regularly monitors quality of teaching. All courses are approved by departmental Board of Studies, all course outlines and teaching plans have to be approved by departmental heads and the Dean at the beginning of each semester. Each course is audited at the end of the semester. A comprehensive curriculum review to align teaching with market needs and academic best practices is currently under process.

The Quality Enhancement Cell of IoBM, set up to enhance the quality of teaching and learning of various programs of the university, has been successfully functioning over the last few years. Recently, IoBM has been rated by the Higher Education Commission as one of the top institutions in terms of the performance of its QEC (i.e., course files and audit procedures) which scored 82 out of a total of 100 on the basis of desk monitoring through quality process reports and SARs submitted by QEC.







## Administrative and Academic Requirements

## Comprehensive Examination

After completion of their MBA program all students are required to pass a comprehensive examination conducted by the Institute. The comprehensive examination provides students an opportunity to integrate, synthesize and apply the various aspects of academic achievements and overall work done in their chosen majors and the core courses studied during the MBA. Preparation for the comprehensive examination would develop a broader understanding of the significance of the major chosen by the students within the framework of their overall educational experience.

Students of MBA Executive program are exempted from this examination.

### Structure

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

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

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

Students are allowed a maximum of two attempts to qualify for the comprehensive examination. A third attempt may be availed only after the Dean's permission. The comprehensive examination is taken only after the student has completed all course requirements and attained a CGPA of at least 3.0 in his/her program.



## Teaching and Learning at IoBM

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

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

## Performance Evaluation and Standards

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

Grade	Marks	Grade Points
A+	96-100	4.00
A	91-95	3.89
A-	87-90	3.78
B+	84-86	3.67
B	79-83	3.33
B-	75-78	3.00
C+	69-74	2.67
C	64-68	2.5
D	60-63	1.5
F	<60	0.00

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

The grade of 'I' (Incomplete) may be recorded to indicate that the requirements of a course have been substantially completed, but for a legitimate reason, a small component of the work (final examination) remains to be completed and the record of the student justifies the expectation that he or she will obtain a passing grade upon completion. The instructor should be notified of the reason for the non-completion of work in order to ascertain the legitimacy of that reason and in turn to grant an incomplete grade. In order to complete the "I" grade, students must appear in the final examination in the following semester. Failure to do so will result in an 'F' grade. The incomplete grade is not counted in the computation of the CGPA for the semester in which the incomplete grade was permitted. The instructor assigning an incomplete grade files with the Dean a signed form indicating the reason for the incomplete grade.

Only courses for which grades C, D or F are received may be repeated for credit. Only one repetition is permitted, unless authorized in writing by the Dean. On the repetition of a course, the credit hours are applied towards a degree only once.

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

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

## Discipline

IoBM stands out among other universities for its special emphasis on maintaining good order and discipline among its students. It reserves the right to prescribe such regulations from time to time that may be considered expedient for effectively maintaining the highest standards. The regulations set out below are IoBM's General Regulations for discipline.

The General Regulations provide that:

No student of IoBM shall

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

No student of IoBM shall breach any regulation

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

## The Disciplinary Committee

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

- (a) impose a fine of such amount as it thinks fit;
- (b) order the student to pay compensation to any person or body suffering injury, damage, or loss as a result of the student's conduct;
- (c) make an order banning the student from specified premises or facilities for a certain period or on such terms as it thinks fit;
- (d) rusticate the student for such period as it thinks fit;
- (e) expel the student;
- (f) award 'F' (fail) grade to a student cheating in an examination or a part of the examination concerned;
- (g) 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.





## Readmission Policy

- Students are allowed to take a semester break without any formal approval.
- Registration may be deferred for maximum of 2 semesters with justification and approval of the Executive Director Admissions, with a copy given to the student and one in student's file. Beyond this period another application is required to extend the leave period.
- A break of two – three semesters is allowed if a student is going on official work like on a project or training. Advance information and official letter from the employer is necessary.
- Maximum break allowed for rejoining the Institute is two years with justification and approval from the Executive Director Admissions. If they come back after more than 2 years, they are required to reapply and go through the admissions process.
- Students who complete their Bachelor's from IoBM can register for one year MBA without appearing for the Aptitude Test and Interview. However, if after Bachelor's they have withdrawn their Security Deposit, they have to reapply for admission to Master's program.

## Attendance Policy

Ensure 100% attendance for each course. 20% absences are permissible, only in case of illness, or emergencies. These have to be approved by the Management. Approval is contingent upon the evidence provided. 20% means that a student is allowed a maximum of six approved absences in a course during a regular semester and three 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.





## Examination Norms

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

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

- > Impersonation may lead to permanent expulsion from the Institute.
- > Cell phones are strictly prohibited in the exam hall/ room. Defying this rule may result in confiscation or a fine of Rs. 1000/=.
- > Valid college ID card is mandatory for entry to the exam room / hall. There is absolutely no relaxation in this rule.
- > Punctuality is most important at all times. Students are expected to check their exam location and be seated at least 10 minutes prior to the exam time. Late comers will be made to wait for 5 minutes in case of hourlies and 15 minutes in the final exams before they are allowed entry.
- > As per college policy all question papers are to be returned along with the answer script.
- > Students are required to bring their own stationary & calculators as no lending or borrowing is permitted during examination.
- > Programmable calculators or any other kind of electronic devices are strictly prohibited inside the exam area.
- > Indiscipline in the exam hall/ room will not be tolerated. Such cases are to be reported to the Controller of Examinations immediately for appropriate action.
- > Possession of any written material related to the subject or communication with their fellow students, will result in disciplinary action through the decision of the Disciplinary committee.

## Mid-Term Policy

Students are required to take two mid-terms and one final examination. There would be no N-1 given to a student. All students must take both the mid-terms, as the aggregate of these would be included in the final grade.

The Institute does not exempt students from completing course requirements on medical grounds nor is leave granted for any personal reasons. This is done to ensure the market credibility of the Institute's teaching programs and degrees.

## Policy for Course Repetition

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

## Academic Dishonesty

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

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

## Definition of Plagiarism

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

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

Cheating is unacceptable. Examples of cheating are:

- > Any written or oral communication among students during an examination
- > Providing information about the content of an examination
- > Impersonation by another student during an examination

*IoBM is 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.*

## Dress Code Policy

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

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

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

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

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

## Admission and Finance

## Admission Requirements

Admission to IoBM is on a highly competitive basis, and only those who compete successfully in their academic careers, showing excellent results 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:

*Admission Eligibility for Entrance into the BBA (Honors), BS (Computer Science), BS (MIT), BS Industrial Engineering and Management, BS Joint (Honors) in Economics and Finance/Banking, Accountancy and Finance/Banking - Leading to MBA Finance, Financial Mathematics and Statistics programs, is based on any one of the following:*

- > A Higher Secondary School (HSC) Certificate with at least 50% marks awarded by a recognized Provincial Intermediate Board
- > '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  
*Success in aptitude test and interview conducted by IoBM*

*Eligibility for Entrance into the MBA Program is based on any one of the following:*

- > A 4-year Bachelor's degree in Arts, Science, Law, Commerce, Engineering, Medicine or Pharmacy, with high second division from HEC/Provincial Government recognized and Institute's approved Universities in Pakistan
- > A final qualification examination of a professional body recognized by the University, for example, ACMA, ACA
- > Recognized overseas degree
- > One-year work experience (only for MBA Executive)  
*Success in aptitude test and interview conducted by IoBM*  
*\* Students with 2-year Bachelor's degree are eligible for MBA (3-year) program*

*Eligibility for Entrance into the MS (Computer Science) Program is based on any one of the following:*

- > BS (Computer Science),/MCS/16 year\* Engineering or Arts, with high second division from HEC/Provincial Government recognized and Institute's approved Universities in Pakistan  
*\*Education in Science/Engineering/relevant field*
- > Recognized overseas degree  
*Success in aptitude test and interview conducted by IoBM*

## Financial Assistance Programs

### Internal

IoBM has established a financial assistance fund for students who are unable to afford the financial costs associated with an academic program. Assistantships and financial assistance are provided to students on merit and need-cum-merit basis. Currently about 25% of the students are currently receiving some form of financial aid.

### HEC - Japanese Need Based Merit Scholarships

The Government of Japan in collaboration with the Higher Education Commission (HEC) Pakistan is offering scholarships to Pakistani students. The objective is to provide opportunities to talented students who cannot afford higher education.

Sixteen (16) scholarships are being offered for a period of five (5) years to students who are currently enrolled or desire to get admission, both for under-graduate and graduate programs.

### Endowment Fund - Education Department, GOS

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

### Shell Need Based Merit Scholarships

Shell need based merit scholarships are awarded by Shell Pakistan Pvt. Ltd. for students enrolled in undergraduate and graduate programs based on both need and merit.

### Bilkent University Scholarship

Bilkent University, Turkey, offers full scholarship to IoBM students to take courses at Bilkent Business School as visiting students for one academic year.

### Janmohammad Trust and Tabba Foundation

Generous scholarships and financial assistance are available through Janmohammad Trust and Tabba Foundation. Many current students are availing assistance through these programs.

### Endowment Fund – Shan Foods

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

## 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/- which is refundable only as per students refund policy. The fee structure for various degree programs, per semester, is as follows:

	Registration Fee	Tuition Fee (Per Course)	Tuition Fee (Per Semester) Full Load**	Total Fee (Per Semester)
All Bachelor's Programs (Four-Year)	10,000.00	9,000.00	54,000.00	64,000.00
All Master's (Regular) Programs (One, Two and Three-Year)	10,000.00	10,000.00	60,000.00	70,000.00
All Master's (Executive & Weekend) Programs (Two and Three-Year)	7,000.00	10,000.00	40,000.00	47,000.00

\* Subject to Change

\*\* Six courses for weekdays, four courses for weekend classes

Summer session fee is charged on the basis of courses taken. Convocation fee of Rs. 7,500 is charged on completion of the degree program, inclusive of degree charges of Rs. 3,000. MBA executive and weekend students, planning to take less than a full load, would be charged registration and tuition accordingly. However, caution money will remain the same.



## Students Refund Policy

### Caution Money

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

### Tuition Fees

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

### Fresh Entrants

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

### External students

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

### Registration Fee

Registration fee is refundable/adjustable in the following cases:

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





# Organization

## Board of Governors

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

Members of the Board of Governors (listed on Page 8).

## Executive Council

The Executive Council is responsible for formulating and approving the principles, policies and plans governing the activities and operations of the Institute so as to facilitate teaching and other academic work. It can appoint faculty, researchers and officers on the recommendation of the Selection Board. It can also create new components of the Institute such as faculties/departments/college, and constitute standing committees, subcommittees, councils, and other administrative or academic advisory bodies, if necessary. It can undertake initiatives to ensure efficient and effective management and functioning of the Institute. It proposes plans of work for the approval of the Board of Governors.

### Members of the Executive Council

- Mr. Basheer Janmohammad, Chairman
- Mr. Shahjehan S. Karim
- Mr. Justice Zahid Hamid, Judge High Court of Sindh
- Chairman Higher Education Commission or his nominee
- Education Secretary, Government of Sindh, or his nominee not below the rank of an Additional Secretary
- Mr. Abdul Ghaffar Adamjee
- Professor Dr. Noshad Sheikh
- Mr. Salahuddin Qureshi
- Mr. Muhammad Ali Tabba
- Mr. Talib Syed Karim
- Dr. Javed Akbar Ansari
- Mr. M.W. Jahangir, Secretary Executive Council

## 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
- Dr. Nelofer Halai
- Mr. Iqbal Ismail
- Ms. Rukhsana Asghar

## Board of Advanced Studies and Research

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

### External Members of the Board:

- Mr. Tasneem Ahmed Siddiqui
- Dr. Abuzar Wajidi
- Dr. Syed Irfan Hyder

## 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 and Environment and Energy Management.

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

Mathematics and Statistics, Industrial Engineering, Computer Science & MIS, Actuarial Science & Risk Management and Telecommunication Management

### College of Economics and Social Development (CESD)

Economics, Commercial and Professional Studies, Media Studies, Education, Policy & Area Studies and Business Psychology

HoDs report to the Dean and the academic work of each department is governed by a departmental board of studies consisting of both internal and external members.

## Foundation for Higher Education

Foundation for Higher Education was established in 1994 under the Societies Registration Act, 1860 as a non-profit institution committed to the provision of quality education in Pakistan. IoBM is the first educational institution established by the Foundation. Following are the members of the Foundation:

- Mr. Shahjehan S. Karim, President
- Dr. Mrs. Afroze Imam Ali Kazi
- Mr. Z. A. Nizami
- Mr. Sani Ahmed
- Dr. Mehtab Karim
- Ms. Sabina Mohsin
- Dr. Ahmer S. Karim
- Mr. Talib S. Karim
- Mr. Mohsin Furqan
- Mr. Shoaib Nabi Ahmed
- Dr. Musarrat Hasan





Faculty





### Rector & Executive Director, Corporate Affairs & MEC

Talib S. Karim, Rector & Executive Director Academics Corporate Affairs and 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.

## Faculty of College of Business Management (CBM)

### The Dean



Prof. Dr. Javed A. Ansari, has a Master's degree from the University of Karachi, an MSc from the London School of Economics and a PhD from the University of Sussex. His research interests include financial and industrial economics, modern capitalism and modernist and post modern political and moral philosophy. He has worked in British universities, UN agencies and financial institutions in Pakistan.

### Advisors



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



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



Dr. Ahmer S. Karim, Advisor, College of Computer Science and Information Systems (CCSIS), has a PhD and a Master's degree from Arizona State University, USA, preceded by Bachelor of Science in Finance and MIS from the University of Arizona, USA. He has over nine years of teaching experience at the University of San Diego, USA. He has published in Decision Sciences, Information and Management and also other academic conference proceedings. Dr. Karim has also published several academic books on Information Systems.



## Accounting and Finance



**H. Jamal Zubairi**, Associate Professor and Head of Department of Accounting and Finance, holds a BE degree from Dawood College of Engineering & Technology and MBA from IBA, Karachi. He also holds a banking diploma (DAIBP) from the Institute of Bankers of Pakistan. He possesses over 30 years of professional experience, mainly as a development banker with the National Development Finance Corporation and has also worked for other leading financial institutions such as ORIX Leasing. He has taught core as well as elective courses in Accounting and Finance for over 15 years, both as visiting and full time faculty. His research interests are in the areas of Banking, Risk Management and Corporate Finance. He has presented research papers at various international conferences and has also co-authored a book 'Financial Management in Pakistan' which was published by the Oxford University Press, Pakistan in the year 2005.



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



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



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



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



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



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



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



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



**Asiya Shirazi**, Lecturer in Finance, holds an MBA degree in Finance from IoBM and has five years of work experience as Credit Officer/Risk Analyst in a leading commercial bank. She has undergone various training programs in the risk management function of a bank. She also obtained Banking Diploma in 2005 from the Institute of Bankers, Pakistan. Her research interests are in the areas of Banking & Finance.



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

## Communication



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



**Dr. Ali Asghar Malik**, Senior Fellow in Communication Skills, has MA and PhD degree from the University of New Mexico, USA. He has served as an Associate Professor at Marj University, Department of English, Libya and has vast teaching and research experience.



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



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



**Wajdan Raza**, Senior Lecturer, Communication, has an EIL Certificate from Kings' College, London and MA English Linguistics from the University of Karachi. His PhD in Sociolinguistics is in progress from the University Sains Malaysia. He has also submitted his MPhil English Linguistics dissertation at the University of Karachi. He has teaching experience of 5 years and his last appointment was as an Assistant Professor in the Department of English at PAF-KIET. He has conducted training and has been a visiting Lecturer at the Aga Khan University, Karachi University and NUML. He has four published research papers to his credit. He is also a recipient of KINGS Award 2010 by the King's College London.



**Madiha Zeest Waheed**, Lecturer in French Language (foreign & business), holds a Bachelor's degree from St. Joseph's College for Women in Psychology, Political Science and Persian. Having a flair for different languages, she took up the French Language course at The Alliance Francaise de Karachi and obtained Diplome de Langue Francaise, Paris 1998 and 1990 offered by the French Ministry. She also holds Master's degree in Francais Langue Etrangere et Seconde from Universite Lumiere, Lyone, France. She has also been attending training programmes and sessions held by the French Embassy. She has been associated with IoBM since 1999 and her interest in research is in language teaching and learning. Recently one of her papers was published in an international journal.



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



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

### Environment and Energy Management



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

## Health and Hospital Management



**Dr. Asima Faisal**, Head of the Department, MBA Health Management Program at IoBM holds an MBBS, in addition to MBA in Health and Hospital Management from IoBM. She has served 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 within the same University. She is also a Member of the subject Committee for pharmaceutical representative training 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 Sind Education Foundation where she arranged Health Camps and Health Trainings of teachers (TOTs) all over Sind. She has been actively involved in CSR activities like free Health camps, Flood relief activities and conducting TV shows on various medical and health management issues of the society. In South City Hospital Clifton, she served as Manager Administration for more than 5 years and at present, she is doing consultancies for health education in GlaxoSmithKline, for their Continuing Medical Education programs (CME) all over Pakistan.



**Dr. Humeira Jawed Abidi**, 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).

## Human Resource Management



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



**Abdullah Patoli**, Senior Lecturer, Department of Management and HRM, earned a Master's Degree in Business Administration with 'Distinction' from Cardiff Business School, University of Wales, UK, and a Bachelor's Degree in Business Studies from the University of Sheffield, UK. He started his professional career with the textile industry and later moved to the banking industry, where he served for about eight years in various managerial capacities. He also brings with him international management experience. His international assignment was based in South Africa where he was posted as an Operations Manager for a Swiss bank. His last corporate assignment was as an Assistant Vice President, with one of the five big banks of Pakistan. Prior to his current assignment, he was associated with the Institute of Business Administration, IBA, Karachi, as a faculty member. His areas of interest are International Business, HRM, Industrial Relations.

## Marketing



**Shahnaz Meghani**, Associate Professor and Head of the Department of Marketing, has a Master's in Business Administration from IBA. Her industry experience has been in FMCGs sector. She has worked for multinationals and has been associated with training for more than 18 years. She has published research papers on employee motivation, organizational culture, product failures and the influence of chemists on end users.



**Samir Ahmad**, Associate Professor, Marketing has an MBA in Marketing from IBA and has more than thirty years experience in the field of Marketing and Supply Chain Management with leading multinationals. His last assignment was with Unilever Pakistan as a Senior Manager.



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



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



**Ejaz Wasay**, Senior Fellow, Marketing, holds an MBA (marketing) from IBA and BSc in Chemistry, Zoology and Botany from Adamjee Science College. He has working experience of 34 years in which he has been associated with companies like UBL as Head of Marketing Services & Corporate Communication, SSGC as Head of Corporate Communication, Orient McCann-Erickson as Executive Director for 5 years, Gillette Pakistan, Gillette du Brasil & Gillette Middle-East in various capacities as Marketing Manager, Senior Brand Manager and as Marketing Director. He has teaching experience of 8 years in which he taught at IBA, HIMS and IoBM as visiting faculty for the last 6 years.



**Saadiyeh Said**, Assistant Professor in Marketing, holds an MBA from the Institute of Business Administration. She has 19 years of professional experience in the field of Marketing and Consumer Research.



**Saamena M. Hassan**, Senior Lecturer, Marketing, has done her MBA from IBA. Subsequently, she joined the Pakistani banking industry in the area of credit cards marketing. During her ten year association with the industry, she has been a part of the credit card launch for Bank Alfalah, ABN Amro (now Faysal Bank) and MCB Bank Ltd. Her last assignment was at MCB Bank Ltd, as Vice President, Credit Card Loyalty. Prior to joining IoBM, she was a visiting faculty in one of the local business institutes.



**Faisal Masood Kazi**, Lecturer, Marketing, holds an MBA (Marketing) from IoBM & Bachelor's degree in Computer Science from FAST, Institute of Computer Science, University of Karachi. He also holds a certification in Java language (JCP) from Sun Microsystems, and has attended a number of Marketing & IT workshops /conferences & training sessions. He possesses 13 years of industry experience at management positions in Marketing with companies like Gul Ahmed textiles, Dewan Farooque Motors, and RIMMEL cosmetics, & in the IT industry in Software Development, Project Management & Customer Support departments. He holds 4 plus years of experience in teaching at graduate and undergraduate level, in various renowned universities of Pakistan. Currently he is pursuing his MPhil Degree in the area of Management Sciences.



**Nida Shaukat**, Instructor, Marketing, is an MBA (Gold Medalist 2008) from IoBM. She has worked in the marketing department of a leading English newspaper, multinational pharmaceutical, advertising agencies and KESC before joining IoBM as permanent faculty. Currently, she is enrolled with the University of London for her second Master's degree. Her areas of research interest include brand management and marketing communications.



## Management



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



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



**Humayun Zafar Choudhry**, Assistant Professor in Management, holds an MA in International Relations from the University of Karachi and has completed a number of management courses from Middlesex University, London. His experience in the industry encompasses the areas of Management, Project Financing, Leasing, Modarabas and Credit and Marketing. He had been associated with IoBM for 12 years as visiting faculty before joining the Institute on a permanent basis. He also conducts Management Development workshops for IoBM and has conducted the same for the corporate sector as well as for NIPA (National Institute Of Public Administration).



**Dr. Fazal Anwer Khalidi**, Assistant Professor of Management, has 24 years of consultancy and senior management experience with multinational pharmaceutical companies. He has also been associated with leading business schools of Karachi as adjunct faculty. His qualifications include MSc Marketing from Salford University, UK; MBA from IBA; and MBBS from Dow Medical College. He was awarded a Chevening Scholarship by the British Council to pursue a Master's program at Salford University. He has also attended an executive development program at the Thunderbird School of Global Management, Arizona, USA.



**Shagufta Rafiq Ghauri**, Senior Lecturer, Management, holds a Master's degree in Human Resource Management and brings along a vast experience of teaching different management subjects and Business English courses to BBA, MBA and MBA(Executive) students. She has also served in the capacity of Vice Principal at a reputed O Level School in Karachi for 3 years. She has been a faculty member of different universities of Karachi and has also been conducting courses and training workshops at the Teacher's Resource Center. She had been associated with IoBM for 7 years.



**Fauzia Kanwar**, Lecturer, Management, holds an MBA (Marketing) and BBA Honors from IBA. She has working experience of 4 years in which she has been associated with companies like Samsung Electronics, Sony Ericsson Mobile Communications International and Nokia Pakistan. She has been associated with IoBM since August 2010.

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

### Computer Science and MIS



**Dr. Ejaz Ahmed**, Professor of Statistics and Head of Computer Science, 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.



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



**Saghir Muhammad**, Senior Lecturer in Information Systems and Accounting, holds a Master's Degree in Business Administration with specialization in Management Information Systems. He possesses a diploma in Computer Science and a specialized diploma in DBMS. Moreover, he has completed management courses from NIPA and NILAT. His industry experience includes working with Pakistan Steel Mills and Orasoft. He has over ten years of teaching experience at various universities/institutes.



**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.



**Shama Siddiqui**, Lecturer, Computer Science, holds her MS (Computer Science) from Iqra University and MSc (Applied Physics), with specialization in Electronics) from the University of Karachi. She has teaching experience of 2.5 years. Her last appointment was with Air Force College. She has three international publications out of which one has been published in IEEE Proceedings, WiCom, Chengdu, China.



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



**Najmus Saher Shah**, 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.





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



**Lubna Siddiqui**, Instructor, Computer Science, is a Gold Medalist in MS Software Engineering from Bahria University and BS in Computer Science from the University of Karachi.

## Industrial Engineering



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



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



**Asif Iqbal**, Assistant Professor, Industrial Engineering, has a Master's degree in Computer Science from Depaul University, USA, and BE in Electrical Engineering from NED University, with 12 years of professional and 7 years of teaching experience.



**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.



**Zeeshan Ellahi Vohra**, Lecturer Industrial Engineering, holds an MSc Degree from the University of Manchester. He has specialized in Manufacturing Management, Advanced Manufacturing Technologies, Consultancy Tools, CAD/CAM, Advanced Machining Technologies and E-Manufacturing. He also holds a BE Mechanical Engineering degree from NED University.



**Abdul Shakoor Memon**, Adjunct Faculty, Industrial Engineering, is an MSc Engineering from UMIST, Manchester, UK and BE Mechanical from Sindh University. He has also served as an Associate Professor at Sindh University, Jamshoro. He has over 30 years work experience at Sui Southern Gas Co. holding different positions related to his field.

### Mathematics and Statistics



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



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



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



**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.



**Adnan Rauf**, Senior Lecturer in Mathematics, holds MSc in Industrial and Business Mathematics from the University of Karachi and MS in Industrial Mathematics with specialization in "Mathematical Modeling and Scientific Computing" from TU Kaiserslautern, Germany in 2004. He has taught at FAST and Hamdard Universities.



**Hina Samreen**, Instructor 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.



**Mohammed Ather Akhlaq**, Instructor in Mathematics and Computer Science, holds a Master's degree in Computer Science from IoBM and is currently pursuing an MPhil program. His research primarily focuses on MIS and technology. He has worked at Standard Chartered Bank in the IT Department and in Jaffer Business Systems as an internee. He had been a Senior Management Analyst at Bearing Point, a multinational management and technology consultants company.

### Actuarial Science and Risk Management



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

### Telecommunication



**Izhar Ullah Siddiqui**, is a Senior Lecturer in Telecommunication. He holds a BSc degree from the University of Karachi, BE (Elect) from NED University of Engineering and Technology Karachi and a Master's degree in telecommunication engineering. He has taught at NED University and worked as an ADE in the Telegraph & Telephone Department (T&T), Govt. of Pakistan. He has received two years training at Staff College in the field of telecom systems. He has been awarded a scholarship for advanced professional training in the field of telecom system by Deutsche Bundes Post (Germany). In addition to that, he has attended training in M/s Alcatel (France) for (E10B) system, and M/s Huawei (China) and Next Generation Network (NGN). He has more than 25 years experience in handling different telecom projects, maintenance and operation (M&O) work at T&T/ PTCL as an ADE/DE / Director Karachi Multi Exchange Area (KMEA).



**Engr. Krishan Lal Khatri**, Senior Lecturer, Telecommunication, holds MS Electronic Engineering (Specializing in Telecommunication) degree from Sir Syed University of Engineering and Technology Karachi, and B. E. (Electrical) degree from Mehran University of Engineering and Technology Jamshoro with First Class, First Position. He has also received professional trainings in Broadcasting, IPTV and Broadband Internet, Wireless Communication, and Satellite Communication from USA, Republic of Korea, UAE, and Pakistan. He also holds Diploma in Project Management from Pakistan Institute of Management Karachi. He has over 10 years experience with Pakistan Telecommunication Company Limited at Karachi as Senior Engineer / Manager, with Etisalat at Sharjah, UAE, with I.T.I.M Associates (Private) Limited at Karachi as Software Quality Assurance Engineer, and with NED University of Engineering and Technology Karachi as Lecturer in Electrical Engineering.



**Adnan Alam**, Lecturer in Telecommunication, holds a Master's of Computer Science and Master's of Science in Telecommunication from Hamdard University. He is currently enrolled in PhD in telecommunication.



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

## Faculty of College of Economics and Social Development (CESD)

### Commercial and Professional Studies



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

### Economics



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



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



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



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



**Syed Ghayyur Alam**, Senior Lecturer in Economics, holds an MA in Economics from the University of Karachi as well as Master of Applied Sciences (MAS) in Economics from AERC, University of Karachi. His research interests include Macro Economics and International Trade.



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



**Amnah Abbas**, Lecturer in Economics, holds an MBA Banking and Finance degree and an MSc in Economics. She has more than five years teaching experience in subjects ranging from Economics, Statistics to Banking to her credit. She is currently involved in researches related to banking efficiency in Pakistan.



**Bismah Malik**, Lecturer in Economics, holds MAS from the Applied Economics Research Center and MA in Economics from the University of Karachi. She has working experience of three years and her last appointment was with BMA Capital as an Economist. She has also worked for the British Council as Education Promotion Officer and as an Assistant Information Officer.



**Selina Irfan Qureshi**, Instructor in Economics, holds MSc in Economics from Quaid-e-Azam University and BA (Economics) from Punjab University. She has worked with JS Global as a research trainer. She has a part time teaching experience of 3 years at Quaid-e-Azam University. She has worked as a consultant on economic development and policy with various international NGOs.

## Education



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



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

## Center for Policy and Area Studies



**Dr. Syed Imdad Shah**, Senior Fellow with the grade of Professor is Head of the Center for Area and Policy Studies, has done his PhD in European Studies and MA in International Relations from the University of Karachi. He has published several articles of International repute and has been associated as Senior Scientist in the "CLIMA" Project of the European Union. He is a Salzburg Seminar Alumni from Austria, and has availed the European Union Scholarship in 2000 at the University of Strathclyde Glasgow Scotland, UK. He has a vast experience in research and teaching at the Area Study Center for Europe, University of Karachi.



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



**Dr. Bettina Robotka** is an HEC professor of South Asian History. She holds a PhD from Humboldt University Berlin, Germany in the field of South Asian history and has 26 years of teaching experience in this field in Germany and Pakistan. Her research interest lies in the political system of Pakistan.



**Urfi Khalid**, Senior Fellow in Pakistan Studies, holds an MA in Physical and Political Geography from the University of Punjab, Lahore. Prior to her current assignment, she was associated with Institute of Business Management as visiting faculty since 1997. She was teaching at various levels in international institutions in the Middle East before joining IoBM. Her research focus is on gender issues in the economic development of Pakistan. Her research paper has been published in Pakistan Business Review, April 2011. She presented her paper on Gender Issues of Pakistan Textile Industry at the seminar on "EU Trade Concessions to the Textile Industry of Pakistan" held at IoBM. She has attended various conferences and seminars held at Karachi University and IoBM.

## Business Psychology



**Prof. Dr. Javed A. Ansari**, Dean and Acting Head of the Department, Business Psychology has a Master's degree from the University of Karachi, an MSc from the London School of Economics and a PhD from the University of Sussex. His research interests include financial and industrial economics, modern capitalism and modernist and post modern political and moral philosophy. He has worked in British universities, UN agencies and financial institutions in Pakistan.



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





**Dr. Nadia Ayub**, Assistant Professor, Department of Business Psychology, earned a Doctor of Philosophy in Psychology from the University of Karachi, Pakistan. She has taught both at college and university level before joining IoBM. Her research focuses on social problems, adolescents, organizational issues, personality, family and marriages, and Psychometrics. She has worked on a research project on Community Health Sciences at the Aga Khan University and Hospital. She has published ten research papers in national and international reputed journals. She presented her research papers at various national and international conferences. She has been selected as a member of Group Study Exchange Program, 2011, for Pennsylvania, USA, Hosted by the Rotary Foundation International.



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



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

### Islamic Studies / Philosophy Unit



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

### Media Studies



**Shahida Kazi**, Senior Fellow and Head of Department of Media Studies and Media Management /Advertising. She is an MA in Journalism from the University of Karachi. She has worked as Professor and Chairperson, Mass Communication department, Karachi University and Jinnah University for Women. A pioneering woman journalist, she has also worked in the Daily Dawn, and Pakistan Television Corporation as Senior News Editor. She is the author of three books and a large number of research articles. She has also guided a number of PhD students.



## Visiting Faculty at Institute of Business Management (IoBM)

Abdul Hameed Khan  
Certification course from IBA in Business  
Communication, MBA

Abdul Jabbar Kasim  
MBA, IBA (KU)

Abdul Rahim Suriya  
FCA, CMA

Adnan Mobin  
Mall, Pllicy (Denmark)

Adnan Nayab  
MBA, (IBA)

Ahmer Umer  
MS Computer Science, (MAJU)

Aishah Kamil  
CFA (Level III), MBA, (IoBM)

Ali Khurram Pasha  
ICF, MBA

Ali Zulqarnain  
Master in Mech. Engineering (NED)

Altamash Pervaiz  
MBA, (GC University)

Amin Rajani  
MBA, (IoBM)

Anjad Hussain  
MIM, Minnesota, MSC, (KU)

Amna Yousuf  
MBA, (IoBM)

Anwar Ahmed Meenai  
MBA, (IBA)

Aziz Asiam Toosay  
CA (England)

Darryl Pereira  
M.Com., (KU)

Dr. Agha Muhammad Ajmal Hussain  
MPH, (Australia), MBBA, (Dow Medical)

Dr. Asif John  
MBA, (IBA)

Dr. Faisal Haq  
MBA (MHM), MBBS

Dr. Muhammad Athar Majeed  
MBA, (Dow Medical)

Dr. Munzir Ishaq  
MBA, MHM, (IoBM)

Dr. Rashid Iqbal Khan  
MBBS, (Peshawar)

Dr. Samad Maqbool  
MBBS, (University of Punjab)

Dr. Shahzad Amin  
PhD, (USA)

Dr. Tariq-uz-Zafar  
MBBS, (Lahore)

Dr. Zulfiqar Ali  
PhD (Philosophy), (KU)

Ekhlaque Ahmed  
MBA, (IBA)

Enver Farzan  
MBA, (CA)

Fahad Fahim  
MA, (Sheffield Hallam University, UK)

Fahad Saifuddin Syed  
MCS, (SZABIST)

Faisal Saleem Mushabbar  
MA, (KU), MBA, (SCIMT)

Faizan Khan  
EMBA, (SZABIST)

Farheen Zehra  
MBA, (IBA)

Fasih ul Karim Siddiqui  
MA, (Dacca University), MBA, (KU)

Fatima Siddiq  
MBA, (IoBM)

Fawad Fazal  
MBA, (IBA)

Hamza Farooq Habib  
MA, (KU)

Haroon Waheed  
LLM, (Monash University)

Hashim Zia Jaffery  
MBA, (IBA)

Irfan Dossa  
MS, (KU)

Irfan Muhammad  
MS, (Philosophy)

Kaleem Ahmed Ghias  
MBA, (IBA)

Kamil Yousuf  
MBA, (IoBM)

Maham Durrani  
LLB, (University of London)

Malik Nizar Ali  
CIMA, (UK)

Muhammad Ali  
CA

Muhammad Ali Shaikh  
MBA, (IBA)

Muhammad Haneed  
ACA, (APA)

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

Muhammad Irshad Iqbal  
CA, (ACA)

Muhammad Jiyad Shaikh  
MS, (SZABIST)

Muhammad Najeeb Agrawala  
MSC, (UMIST)

Muhammad Omer Khan  
MA

Muhammad Shahid Iqbal  
MPhil, (KU)

Muhammad Siddiq Khatri  
MBA, (IBA)

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MA, (KU)

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Zia Mustafa  
ACMA, APA (PIPFA)



*IoBM provided me a platform to gain knowledge through diligent pedagogy by our faculty of the most grueling curriculum, tested almost every week that kept us alert consistently. In addition, IoBM provided me good opportunities to organize and participate in several events and workshops that not only added to my profile but also groomed me to stand successfully today in the international financial market.*

*Alveena Rehman Shah  
Associate Consultant  
Sajjad Haider Associates, Dubai*



*An IoBM experience doesn't only take one to the zenith of a professional career, but also edifies one in living life as it should be lived. Be it incessant class lectures, utterly helpful faculty, sleepless exam nights, gratifying society activities or priceless friends, every moment of my stay at IoBM have contributed in one way or the other to the development of my personality.*

*Taha Saleem  
MBA (Finance and Risk Management)*



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.



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Executive Director

Administration, Admissions and Finance  
BBA, University of Arizona, USA  
MS, US International University, Nairobi, Kenya



Talib Syed Karim

Rector & Executive Director  
Academics, Corporate Affairs & MEC  
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MA, Economics, University of Arizona, USA



Manzoor Hussain Bhutto  
Advisor to President  
MA, Economics



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



M. W. Jahangir  
Senior Manager, Internal Audit &  
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BCom., (Sindh University), CA Finalist (ICAP)



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 Head of Quality Enhancement Cell and  
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 Controller of Examinations  
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 MBBS (Dow Medical College)



**Azam Hashmi**  
 Course Coordinator  
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Munawar Ahmed  
Admin Officer  
BA

Shakeel Ahmed  
House Keeping Officer-II  
BA (KU)

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Diploma of Associate Engineering

Mohammad Zeeshan Ahmed  
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## 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	153
Advertising	ADV	155
Business Psychology	BPY	156
Communication	COM	158
Computer Science	CSC	159
Economics	ECO	166
Educational Management	EDM	170
Engineering	ENG	174
Environment and Energy Management	EEM	178
Finance and Banking	FIN	180
Finance and Risk Management	FRM	185
General Science	GSC	187
Health Management	MHM	187
Human Resource Management	HRM	190
Language	LAN	193
Law	LAW	195
Management	MAN	196
Management Information Systems	MIS	199
Marketing	MKT	204
Mathematics	MTH	208
Media Management / Studies	MMM	210
Media Psychology	MPY	217
Policy Studies	PLY	218
Pakistan/Islamic Studies	PRL	218
Political Science	PSC	219
Psychology	PSY	219
Religious Studies	REL	223
Supply Chain & Logistics Management	SCM	223
Social Science	SSC	224
Statistics	STA	225
Telecommunication Management	TCM	228
Tourist Services Management	TSM	234

- Please note that this list is subject to change. Details of courses, including information about the course activities and scheduling are distributed by the faculty at the time of registration.
- Students should ensure that they complete the pre-requisite courses before opting for advanced level courses.

## Accounting

### ACC101/402 Introduction to Financial Accounting

This course is aimed at people with no or limited prior knowledge and provides an understanding of how financial statements are prepared for various types of organizations. The principles of financial accounting course focuses on the record-keeping and financial statement preparation process. On completion of the course, students should develop a thorough understanding of accounting records, learn how to record transactions and develop an ability to apply accounting concepts, principles and practices.

### ACC102/103 Introduction to Financial Accounting I & II

The objective of this course is to enable students to understand fundamentals of accounting theory and apply it to basic financial accounting. The course will help them to develop knowledge and understanding of financial statements and the techniques used to prepare financial statements including necessary underlying records.

### ACC104 Cost and Management Accounting

This course covers the understanding of cost concepts, cost classifications, flow of costs stream, costing methods and accounting of elements of costs.

### ACC201 Intermediate Financial Accounting

This course covers all aspects of corporate accounting, analysis of financial statements and specialized accounting for leases, construction contracts, inflation and taxation.

*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. It systematically covers the accounting process of classification, summarization, presentation in the light of established accounting principles set out by International Accounting and Reporting Standards in the preparation of financial statements.

*Pre-requisite:* ACC 102/103

### ACC301/401 Introduction to Managerial and Cost Accounting

The course is designed to make students familiarize with product costing systems, including job order costing, process costing, joint products and by-products. It gives students managerial accounting concepts applicable to planning, controlling & decision making.

*Pre-requisite:* ACC201/302

### ACC302 Accounting and Financial Information Systems

This course provides an understanding of computer based accounting and hands on training of application of accounting package.

*Pre-requisite:* ACC 101/201, CSC 203

### ACC305/415 Cost Accounting I & II

The course is designed to equip candidates an understanding of the importance of the role of cost accounting in planning and controlling the wide range of organizational and manufacturing cost. The students are expected to acquaint themselves with a comprehensive knowledge of established practices of cost accumulation methods and learn the application of this knowledge to basic planning, control and decision making.

*Pre-requisite:* ACC 102/103

**ACC405**      **Internal Auditing and EDP Accounting**

This course covers the understanding and application of internal auditing tools and techniques and information system for management of risk and security system.

*Pre-requisite:*      ACC201

**ACC410**      **Management Accounting**

This course deals with the performance evaluation, decision making and control aspects of business. It creates an understanding of cost concepts, principles, tools and techniques of management accounting for performance measurement, operational and investment decisions and cost controls.

*Pre-requisite:*      ACC301

**ACC413**      **Managerial Accounting**

This course is designed to familiarize students with product costing systems including job order costing, process costing, joint products and by-products. The course also covers budgetary planning & control systems including standard costing and variance analysis, cost/volume/profit analysis, performance measures evaluation, etc.

**ACC414/416**      **Auditing I & II**

The purpose of the course 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

**ACC501**      **Advanced Financial Accounting**

The course will enable students to understand and learn accounting aspects of topics in partnership, head office/branch relationship, installment sales, business combinations, foreign currency translation and bankruptcy and liquidation.

*Pre-requisite:*      ACC101/201/402

**ACC502**      **Advanced Managerial Accounting**

This course covers the use of accounting data for managerial decision, control and planning purposes and provides in-depth analysis of various techniques and methods used by managers.

*Prerequisite:*      ACC301/401/410

**ACC503**      **Taxation**

Tax law is studied with a special emphasis on what constitutes taxable income and allowable deductions for individual tax payers. The course also includes a comprehensive coverage and treatment of taxes as related to business profits.

*Pre-requisite:*      ACC 201

**ACC505**      **Auditing**

This course covers the understanding of audit techniques, rules, principles and procedure and their application in the audit of financial statements, relevant records and source documents.

*Pre-requisite:*      ACC201/402

**ACC506**      **Analysis of Financial Statements**

The course begins by describing accounting standards of USA and international accounting standards with a special focus on developing students' capability to standardize various companies' financial statements. The course develops a road map of financial analysis from both the creditor's and equity investor's point of view.

*Pre-requisite:*      ACC 402/501, FIN202

## Advertising

### ADV401 Principles of Advertising

The course provides working knowledge of advertising while giving an insight into various tools used for advertising to sell goods and services. The students will analyze the current issues facing the business of advertising and the environment in which it operates.

### ADV402 Advertising Management

The course Investigates the nature & scope of advertising and its place within marketing strategy decisions and society. The students will learn the methods of planning, preparing, placing and evaluating an advertising message in the applicable media.

*Pre-requisite:* ADV401, MKT401

### ADV403 International Advertising and Promotions

An intensive analysis of theoretical concepts and the practice of international advertising. The course also covers environmental considerations in international advertising, planning and execution of advertising worldwide, and the role of media in the debate surrounding standardization versus localization of worldwide advertising campaigns for consumer/industrial products and services.

*Pre-requisite:* MKT 401/509/532 ADV401/402

### ADV406 Advertising Strategy

A study of the theoretical foundations and the process of developing advertising and promotional strategy; methods of utilizing research data for developing and evaluating advertising strategy.

*Pre-requisite:* ADV401/402/405, MKT401/509

### ADV407 Creative Production

The course gives an insight into the competing factors of "brilliant instinct" as opposed to the disciplines of the marketing process; the diligence of research & its interpretation; strategic thinking & an understanding of positioning and brand identity, the considerations for cost effectiveness and the necessity for teamwork.

*Pre-requisite:* ADV401/402/405/406, MKT509

### ADV408 Client Management

The course will provide opportunities to practice advertising management by analyzing and discussing situations that arise in the course of advertising management and create future advertisers who have good command over strategic thinking, creative analysis and client management.

*Pre-requisite:* ADV401/402, MKT509/527

### ADV409 Advertising Campaign

A presentation of the skills, necessary to design, implement and manage advertising campaigns, with an emphasis on planning and decision making procedures applied to specific advertising problems.

### ADV501 Creative Management

The course provides an understanding of the purpose and process of developing creative work in an advertising agency and all relevant issues in the creative process from brief to market success.

*Pre-requisite:* ADV401/402

### ADV504 Advertising Management and Strategy

*The course is designed to give students an appreciation of the critical role that strategy plays in advertising. The need for adopting a strategic perspective, in the contemporary context, and carrying it through the creative process, media planning, campaign implementation and monitoring of results shall be discussed. The course will include a practical approach towards developing advertising and promotional strategies, using selected cases and to understand the application of tools and techniques that make advertising more effective.*

*Pre-requisite:* MAN401, MKT532

**ADV505**      **Creative Planning and Development**

The course will help the students generate fresh, unique and appropriate ideas that can be used in advertising and learn tactics to improve on advertising campaigns including developing central selling points and creating a brand image. The course will give an insight into the steps involved in the process of creativity.

**ADV506**      **Media Performance and Product Development**

This course teaches the students about developing an entirely new media outlet, be it print or electronic. This course also teaches students to track the effectiveness, importance and challenges for media managers through case studies that encourage students to apply the text matter to contemporary issues.

**Business Psychology****BPY601**      **Advanced Psychometric Testing**

This research based course provides an opportunity for advance level of 'Psychometrics', which is the field of study concerned with the theory and technique of educational measurement and psychological measurement, which includes the measurement of knowledge, abilities, attitudes, and personality traits. The field is primarily concerned with the construction and validation of measurement instruments, such as questionnaires, tests, and personality assessments.

**BPY602**      **Survey of Current Research Literature in Business Psychology**

This research based course provides a review of business psychology 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 business psychology. The course concentrates on varied disciplines of psychology such as; educational, organizational, health, forensic, consumer, media, managerial, human resources, attitude and history of the psychological thought.

**BPY603**      **Advanced Educational Psychology**

This research based course is the study of how humans learn in educational settings, the effectiveness of educational interventions, the psychology of teaching, and the social psychology of schools as organizations. It is concerned with how students learn and develop, often focusing on subgroups such as gifted children and those subject to specific disabilities.

**BPY604**      **Advanced Organizational Psychology**

This research based course is focused on group-type settings, most commonly offices and workplace psychology. This section of psychology takes theories, research, and intervention and communication strategies and applies them to groups in both work and non-work settings. Students in this field will focus on helping people understand their interactions with one another so that everyone can work together to accomplish important tasks.

**BPY605**      **Advanced Health Psychology**

This research based course is concerned with understanding how biological, psychological, environmental, and cultural factors are involved in physical health and the prevention of illness. Health psychologists work with many different health care professionals (e.g., physicians, dentists, nurses, physician's assistants, dietitians, social workers, pharmacists, physical and occupational therapists, and chaplains) to conduct research and provide clinical assessments and treatment services. They also focus on prevention research and interventions designed to promote health and reduce the risk of disease.

**BPY606**      **Advanced Forensic Psychology**

This research based course is the intersection between psychology and the criminal justice system. It involves understanding criminal law in the relevant jurisdictions in order to be able to interact appropriately with judges, attorneys and other legal professionals. An important aspect of forensic psychology is the ability to testify in court, reformulating psychological findings into the legal language of the courtroom, providing information to legal personnel in a way that can be understood.



**BPY607**      **Advanced Consumer Psychology**

This research based course focuses upon the study of how people relate to the goods and services they use in their daily lives. It provides opportunities to examine issues such as what factors are most important when people decide to purchase a particular item, how customers determine the value of a service, and whether or not television and magazine advertisements can convince a reluctant consumer to try a new product for the first time. Consumer psychology seeks to describe and explain consumer behavior, and attempts to predict or influence a customer's decisions. This discipline draws heavily from the fields of marketing, advertising, economics, anthropology, social psychology, and cognitive psychology.

**BPY608**      **Advanced Media Psychology**

This research based course seeks an understanding of how people perceive, interpret, use, and respond to a media-rich world. In doing so, media psychologists can identify potential benefits and problems and promote the development of positive media. The emerging field represented a significant opportunity to use media in new and creative ways by understanding how psychology and media work together. Psychological theories can be applied to emerging social media, e-Learning, and digital technologies in pioneering ways. Media psychology draws from multiple disciplines such as sociology, anthropology, neuroscience, political science, rhetoric, computer science, communications, and international relations.

**BPY609**      **Advanced Managerial Psychology**

This research based course enables managers to improve their understanding of the nature and dynamics of organizational life through insights from the field of managerial psychology. Understanding individuals and groups is vital in making sense of work behavior. The course also provides insights from psychology into managing people in a variety of settings, including small enterprises, public and not-for-profit organizations and large corporations. The management role is examined with a focus on topics such as leadership, change, assessment, learning, development, cross-cultural issues, human resource management, and well-being at work.

**BPY610**      **Advanced Attitude Psychology**

This research based course describes how scientific methods have been used to better understand attitudes (intentions) and how they change. The students would understand the importance of attitude formation and change, and examine the ability of attitudes to predict behavior. A variety of major issues for understanding internal (such as, neurological) and external (such as, culture) influences on attitude, along with unresolved questions. With the aid of a few helpful metaphors, the students will be provided with a grasp of the fundamental concepts for understanding attitudes and an appreciation of the scientific challenges that lie ahead.

**BPY611**      **Advanced History of Psychological Thought**

This research based course focuses on the history of psychology as a scholarly study of the mind and behavior which dates back to the Ancient Greeks and Egypt. Psychology was a branch of philosophy until 1879, when psychology developed as an independent scientific discipline in Germany and the United States. It will enable the students to specifically understand that psychology borders on various other fields including physiology, neuroscience, artificial intelligence, sociology, anthropology, as well as philosophy and other components of the humanities.

**BPY612**      **Advanced Human Resources Psychology**

This research based course is interdisciplinary and research-based in approach, integrating psychological theory with tools and methods for dealing with human resource problems in organizations and for making organizations more effective and more satisfying place to work. It reflects the state of the art in personnel psychology and dramatic changes that have recently characterized the field, and outlines a forward-looking, progressive model toward which HR specialists should aim.

## Communication

### COM101/401 General English / Business English

This course has been designed to improve the students' understanding and use of writing skills in English and inculcate a maturity of thought appropriate to students in their freshman year.

### COM102 Business Communication I

Employees as well as employers need to be able to write effective messages, whether for supervisors or themselves in business and industry. This course provides students with the fundamentals of effective writing which can be applied in other courses, and in any correspondence required of them in their future occupations. Students will write, rewrite and edit business messages in a positive tone for specific purposes and solving real life business communication problems.

*Pre-requisite:* COM 101

### COM103/104 Functional English I & II

The objective of this syllabus is to help students communicate effectively in English language through proper usage of vocabulary and knowledge of English grammar. It will provide a basis for composition and comprehension, practical use of grammar and writing mechanics

### COM105/106 Business Communication and Behavioral Studies I & II

The course aims to introduce students to the key concepts of business communication and their application. The course also intends to incorporate an understanding of the concepts of organizational behavior to develop problem solving skills, negotiation skills and leadership qualities in the students.

### COM107 Introduction to English Literature

The course includes a study of Shakespeare's "As You Like It" and one of Somerset Maugham's collection of short stories, Pakistan English literature, one novel by Sidhwa or Qureshi and Omar Qureshi's essays.

### COM201 Business Communication II

This course builds on the skills students acquired in COM 102 by applying them to advanced business writing situations such as reports, proposals and formal research reports. Students will learn to respond to requests for proposals from a real life organization. They will also research and write an executive research report that solves a real business related problem. Students will learn the research and writing techniques necessary for complex professional documents.

*Pre-requisite:* COM 102

### COM202 Business and Professional Speech

This course is designed to improve the students' interpersonal, intrapersonal and public communication abilities to analyze topics, support assertions with proof, amplify ideas, structure messages, use language in appropriate and imaginative ways, and deliver messages with effective vocal and physical behavior. Basics of oral communication, principles and context of communication; interviewing skills, public discussion, group problem solving, public speaking are the salient features of the course.

*Pre-requisite:* COM 101

### COM203 Methods in Business Writing

Essential to effective business communication is the preparation of business letters and other documents, including memoranda and job resumes. The student learns to write clear, coherent, effective messages that reflect consideration of writer's intent and reader's response. Organization and format appropriate to a given situation are stressed, so are the revisions and editing to produce an acceptable copy.

*Pre-requisite:* COM 201

**COM209**      **Communication Skills**

The main objectives of the course are to help learners improve in all four skills of the English language, utilize them in catering to their immediate academic needs accurately, and integrate the language learned in their field of specialization successfully.

**COM402**      **Business Communication**

This course aims at creating awareness of the current norms and conventions of written business communication. It teaches students how to plan, organize, and write correct and effective "reader friendly" business documents appropriate for use in today's global business environment.

**COM403**      **Interpersonal Communication Skills**

This course has been designed to enable students to develop skills in the areas of interpersonal communication, as well as personal management. After completion of this course students would have a better understanding of interpersonal relationships and the role that communication plays in such relationships.

*Pre-requisite:*      COM 402

**COM405**      **Organizational Consulting Skills**

This course is primarily designed for the practitioner who provides services to agencies, professionals, or organizations. The purpose of the course is to provide an understanding of the process of organizational consultation. The course focuses on the essential skills and abilities needed for successful consulting to organizations. Topics include business development, project management, cost estimation and report writing. The course emphasizes learning techniques used for successful group presentations and skills for effective oral and written communication.

## Computer Science

**CSC102/400**      **Introduction to Computer Science**

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.

**CSC103/401**      **Structured Programming Language**

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.

**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:*      CSC103

**CSC109**      **Introduction to Computing**

This course is designed to provide the computer and programming foundation for all computer science and engineering students. The language used in this course C++. Topics include: introduction to computers, computer programs, and C++, semantics and syntax, data types and variables, assignments, Boolean expression, programs testing and debugging, concepts of algorithms design and implementation, program structures: selection and control loops constructs, functions, arrays, pointers and strings.

**CSC201/403**      **Low Level Programming 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.

*Prerequisite:*      CSC105

### CSC202 Digital Computer Logic

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.

*Prerequisite:* GSC101, CSC102

### CSC203 Object Oriented Programming Language

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:* CSC103

### 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.

*Prerequisite:* CSC201, CSC202

### CSC206 Database Management 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.

*Pre-requisite:* CSC102

### 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:* CSC203

### CSC211 Programming for Engineers

Procedural versus object oriented programming languages, object oriented design strategy and problem solving, Pointers, File handling, objects and classes, member functions, public and private members, dynamic memory management, constructors and destructors, templates, object encapsulation, derived classes, class hierarchies, inheritance and polymorphism, operator overloading, stream class, practical design through Object Oriented Programming. Graphics hardware. Fundamental algorithms. Applications of graphics. Interactive graphics programming — graph plotting, windows and clipping, and segmentation. Programming raster display systems. Differential Line Algorithm, panning and zooming. Raster algorithms and software — Scan-Converting lines, characters and circles. Scaling, Rotation, Translation, Region filling and clipping. Two and three dimensional imaging geometry (Perspective projection and Orthogonal projection) and transformations. Curve and surface design, rendering, shading, color and animation.

*Pre-requisite:* CSC109

### CSC213 Computer Communication & Networks

Synchronous and asynchronous communications, Modes of transmission ASCII codes and data stream with parity, Guided Transmission Media (Twisted Pair, Coaxial Cable and Optical Fibre), Wireless (terrestrial and satellite). Line Configurations, Null Modem, Data Link Control, Flow Control Techniques, Stop & Wait, Sliding Window, Error control techniques, reverse error detection techniques (parity, CRC), switched networks (circuit switched, message switched and packet switched), Broadcast n, Packet Radio Networks, Network Topologies, LAN Architecture, LAN System & Network Standards, Ethernet and Fast Ethernet (CSMA/CD), Token Ring And FDDI etc., OSI Model, TCP/IP protocol suit, Introduction to IEEE802 Family. Connectivity Devices (modems, hubs, repeaters, bridges, routers), Resource Sharing, Managing User Accounts And Group, Implementing Security, Disaster Recovery, Protecting Data, Recovering From System Failure.

*Pre-requisite:* CSC109

**CSC301**      **Theory of Automata**

Automata and formal language, regular expressions, Turing machines, recursive functions, formal languages, non-deterministic automata and push down automata are the contents of this course.

*Pre-requisite:*      MTH201

**CSC302**      **Multimedia Technologies**

The course covers design, use and applications of multimedia systems. It introduces acquisition, compression, storage, retrieval and presentation of data from different media such as images text, voice and video. Current multimedia tools would be used to develop multimedia projects.

*Prerequisite:*      CSC203

**CSC303**      **Computer Graphics**

This course discusses the introduction to computer graphics hardware, algorithms, and software. The topics include: line generators, affine transformations, line and polygon clipping, splines, interactive techniques, perspective projection, solid modeling, hidden surface algorithms, lighting models, shading, and animation. Substantial programming experience is required.

*Pre-requisite:*      CSC203

**CSC305**      **System Analysis & Design**

This course provides study of structured techniques in data processing applications, objectives, investigation, system models, design effectiveness, procedures, etc. Physical models, data models, project dictionary and project management tools and techniques are also covered as part of the course.

*Prerequisite:*      CSC206

**CSC308**      **Operating Systems Concepts**

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

**CSC309**      **Microprocessor and Applications**

The course discusses the structure of Microprocessor, Bit slices and 8/16/32 bit microprocessors, processor architecture, registers, index and stack pointers, address modes, I/O interface adapters, interface devices, system clock, clock phase and bit rates, memory read-write and read only, memory mapping of I/O interrupts, handling of interrupts, direct memory access methodologies.

*Pre-requisite:*      CSC201, CSC205

**CSC313**      **Numerical Computing**

This course covers the study of errors, calculations and importance in numerical computing, various methods of solution of non-linear equations, Newton's Method and Conditions of convergence.

*Pre-requisite:*      MTH105

**CSC345**      **Digital Image Processing**

The course includes digital image fundamentals, image sampling & quantization problems, image modeling & geometry, image translation, rotation, convolution, FFT & DCT, Walsh transform, histogram modification, edge linking & boundary detection, image compression techniques.

*Prerequisite:*      CSC303

**CSC410**      **Data Communication & Networking**

The course focuses on Data Communications and network management overview, review of computer network technology, standards, models, and language.

*Prerequisite:*      CSC202, CSC304

**CSC411**      **Compiler Construction**

The course discusses the structure of compilers, Lexical analysis, syntax analysis, semantic analysis, abstract interpretation, Tree: pattern matching and parsing and code generation.

*Pre-requisite:*      CSC301

**CSC412**      **Artificial Intelligence**

The course introduces the overview of AI applications area, predicate calculus and structures and strategies for state of space search. It also discusses the Heuristic search, control and implementation of state space search. An introduction to Prolog and LISP is also given. Other topics may also be covered such as Rule-based expert systems, knowledge representation and natural languages.

*Pre-requisite:*      CSC301, MTH201

**CSC414**      **Visual Programming Language**

The course introduces a visual programming concepts, which may cover the topics: using and customizing the development interface, application and class wizards, resources, dialog boxes and control the gallery, writing and using ActiveX controls, Optimizing and debugging, building macros with scripting language and tools.

*Pre-requisite:*      CSC 203

**CSC417**      **Project**

The aim of this project is to bridge the gap between the academic study and training needed by industry and businesses. Students are initiated to work under close faculty supervision, on real-world problems of sufficient magnitude. Project implementation and documentation are the main concerns.

*Pre-requisite:*      CSC414, CSC305

**CSC 422**      **Parallel Computing**

The course includes the introduction to parallel computing, a review of parallel hardware, library-based and language-based approaches to parallel computing and basic concepts of parallel computing.

*Pre-requisite:* CSC435

**CSC425**      **Advanced Operating Systems**

This course covers many advanced topics in operating system design and implementation such as operating systems structuring, multi-threading and synchronization in detail and then moves on to systems issues in parallel and distributed computing systems.

*Pre-requisite:*      CSC304.

**CSC427**      **Software Engineering**

The course introduces the basic concepts & modern tools & techniques of software engineering, stresses the development of reliable & maintainable software via systems requirements & specifications and software design methodologies.

*Prerequisite:*      CSC305

**CSC430**      **Decision Support Systems**

An introduction to the analysis, design, and application of information systems used in the direct support of management decision making. This includes not only comprehending key ideas, concepts and facts, and the ability to restate them in different terms, but extends to the ability to evaluate, assess and choose among alternative concepts and ideas, to relate and reconcile among them, and apply them to new situations.

*Pre-requisite:*      CSC305

#### CSC434/563 Software Quality Assurance

This course extends Software Engineering concepts to focus upon quality, from the perspective of the software, user, customer, and support staff. Topics included are software quality practices, user friendly systems design, modularity and structure, requirements coverage, systems architecture, designing from test maintainability, and an overview of languages and their fit toward various target applications.

*Pre-requisite:* CSC422

#### CSC 435/574 Distributed Systems

The aim of this course is to provide students with an understanding of the principles, techniques, and practice in the design and implementation of distributed systems, with a particular focus on infrastructure software.

*Pre-requisite:* CSC204, CSC427

#### CSC436 Business Process Re-Engineering

The course covers the concepts of business process re-engineering: guidelines, planning phase, redesign phase, transition phase, implementation phase. Total quality management (TQM) techniques, How TQM and Re-engineering are different, Desktop computing and LANs, how re-engineering improves an organization's efficiency; the ISO 9000 and TQM, Achieving TQM and the ISO 9000 directives.

*Pre-requisite:* CSC305

#### CSC442 Human Computer Interface

It provides an introduction to human-computer interface design and evaluation, with an emphasis on graphical user interfaces for software products. It covers design principles and theory, usability engineering methods, and selected basic research in the areas of human factors and human cognition, hands-on application of learned principles using, NET or other languages.

*Pre-requisite:* CSC305, CSC203

#### 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, you will have acquired a deep understanding of various wireless programming concepts and APIs and developed extensive knowledge that you can use to develop sophisticated MIDP applications.

*Pre-requisite:* CSC410, CSC414, CSC425

#### CSC444 Electronic Commerce

This course emphasizes organizational issues related to electronic commerce such as business models for B2B or B2C e-commerce, technology infrastructure, electronic payment mechanisms, information privacy, and competitive advantage.

*Pre-requisite:* CSC102

#### CSC445 Network Security

Cryptology and simple cryptosystems; conventional encryption techniques; stream and block ciphers; DES; Block Ciphers; The Advanced Encryption Standard; confidentiality & message authentication: hash functions are the contents of the course.

*Pre-requisite:* CSC208



**CSC447**      **Object Oriented Database Management Systems**

The students will learn how the principles of design impact on the design of database management systems; develop an entity relationship diagram to respond to a data management issue; differentiate between relational and object-oriented database management systems; develop and use strategies to plan and implement a database management system; and provide examples of file system concurrency control and distributed databases.

*Pre-Requisite:*      CSC203, CSC204

**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

**CSC531**      **Data Warehousing**

This course provides an introduction to data warehouse design. Topics in data modeling, database design and database access are reviewed. Issues in data warehouse planning, design, implementation and administration are discussed in a seminar format.

*Pre-requisite:*      CSC204

**CSC541**      **Advanced Research Methodology**

Students will be given an in-depth analysis to the research methods used in the study of organizations and especially in the study of computer science issues. The course will cover the quantitative and qualitative research processes, which includes sampling techniques, measurement and measurement testing, generalizability and a practical seminar relating to questionnaire construction and data gathering and management.

**CSC543**      **Advanced Computer Architecture**

Design and evaluation of modern uni-processor computing systems, evaluation methodology/metrics and caveats, instruction set design, advanced pipelining, instruction level parallelism, prediction-based techniques, alternative architectures (VLIW, Vector and SIMD), memory hierarchy design and I/O. Case studies.

**CSC545**      **Decision Theory**

The course combines approaches to decision theory. It is intended for advanced undergraduates and graduates students in computer science. The course will cover basic decision theory, also known as "rational choice theory"; the limitations and problems with this theory, both as it applies to computers and to human agents.

#### CSC547 Analysis of Algorithms

Introduction; asymptotic notations; recursion and recurrence relations; divide-and-conquer approach; sorting; search trees; heaps; hashing; greedy approach; dynamic programming; graph algorithms; shortest paths; network flow; disjoint Sets; polynomial and matrix calculations; string matching; NP complete problems; approximation algorithms.

#### CSC561 Advanced Software Engineering

System development using formal techniques, algebraic specification, abstract model specification, verification: proof systems, proof techniques, proof obligations, design: data refinement, operation refinement, design decomposition, software reliability and metrics, macro models: productivity, effort, defect reliability modeling, simple model, markove modeling, parameter estimation, comparison of models.

#### CSC562 Object Oriented Software Engineering

This short course with UML, Java, and Eclipse will expose students to the basics of object-oriented software engineering, including object-oriented analysis and design using UML (Unified Modeling Language), object-oriented programming using Java, all within the Eclipse environment. Laboratory sessions will equip participants with practical experience in object-oriented design, programming, and testing.

#### CSC563 Software Quality Assurance

This course provides an intermediate QA and Test. Students will acquire a thorough skill set for their respective roles in a QA or test team environment. They will also learn both the theoretical concepts of this matured discipline and the unique experiences and innovative practices from Microsoft.

#### CSC564 Software Requirement Engineering

The Requirements Elicitation Process: Joint Application Design, Prototyping, Requirements Inspections, Quality Function Deployment, Scenarios. Organizing and Analyzing the problem. Software Behavior Specification: State-oriented, Function-oriented, Object-oriented. Formal Methods, etc.

#### CSC565 Software Testing Strategies

The course introduces the major concepts of software testing and develops technical proficiency in test case design and test plan development to covers techniques and tools for software requirements to support testing and test plan development. It presents software testing activities and products within the context of the software development cycle and addresses the role of inspections, walk-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.

#### CSC581 Neural Networks

Basic Characteristics: The Processing Element; The Magic of the Transfer Function, Weight Adjustment Basics; Network Learning Types; Network Architectures, Comparison to Traditional Methods, Using Neural Networks with Data, Generalization, Validation and Sample Neural Networks Applications; Pattern Recognition Applications; Image Understanding NN's; Spacecraft Structure Neuro control

#### CSC582 Pattern Recognition

This course will introduce the fundamentals of statistical pattern recognition with examples from several application areas. Techniques for handling multidimensional data of various types and scales along with algorithms for clustering and classifying data will be explained. This is an advanced level course suited for graduate students in Computer Science and Engineering.

#### CSC583 Fuzzy Systems

Comparison of conventional and fuzzy logic. Fuzzy set theory, fuzzy logic, approximate reasoning and fuzzy logic control system. Concept of artificial neural networks. Single layer networks, multilayer network, supervised and unsupervised networks. Applications of neural networks in control systems, sensor processing and communications. Fuzzy neural integrated systems.

## Economics

#### ECO101 Principles of Microeconomics

The course focuses on the introduction to consumer behavior and the theory of the firm. Topics include the production, possibility frontier, the demand behavior of households, the supply behavior of business firms, the theory of costs, and an introduction to market structure and welfare economics.

#### ECO102 Principles of Macroeconomics

This course analyzes the determinants of aggregate economic activity. The main areas studied are the monetary and banking system, the composition and fluctuations of national income, and inflation, all as influenced by monetary fiscal and exchange rate policies. There is a special emphasis on the Pakistan government's economic policies, financing the budget deficit, structural adjustment program (SAP), and privatization policies.

#### ECO103/105 Intermediate Micro and Macroeconomics

The objective of this course is twofold: first is to extend the students' understanding of microeconomic theory and to introduce the use of mathematical and graphic models of macroeconomic process.

**ECO104/401**      **Micro and Macroeconomics**

The course analyzes the study of the working of a country's economy in an international setting. It examines the interaction of households, business firms, government and the rest of the world in resource, product and financial business fluctuations, inflation, unemployment and monetary and fiscal policies, with a special emphasis on the Pakistan government's economic policies, financing the budget deficit, structural adjustment program (SAP) and privatization policies.

**ECO106**      **Basic Economics**

This course is an introduction to the basic economic concepts. It will include both microeconomics and macroeconomics, and the economics of Pakistan.

**ECO202/203**      **Introduction to Economics and Finance I & II**

The objective of the course is to enable candidates to equip themselves with the main economic concepts and their uses and relevance in economic analysis. The course aims to serve an introduction to the economic environment of trade, industry and banking as well as to methods of analysis relevant to the study of financial decisions.

**ECO204**      **The Pakistan Economy**

This course focuses on the structural change of employment, investment and external trade in Pakistan's economy since 1947. It gives an insight into the GDP growth of various sectors encompassing expenditure and production.

**ECO205**      **Economic Development of Sindh**

This course highlights Sindh's share in Pakistan's economy. It also encompasses the development strategy of the government of Sindh and its fiscal policy. It strives to compare Sindh and the gulf economy and focuses on the demographics, environment and the economy of Karachi.

**ECO301**      **Managerial Economics**

The course aims to serve an introduction to optimization techniques and their application on the market behavior in terms of demand and supply, market equilibrium and forecasting market parameters.

*Pre-requisite: ECO 101, ECO 102*

**ECO302**      **International Trade**

International Trade is primarily concerned with trade flows between nations and the resulting monetary flows that occur between nations. In this course students are exposed to theories that explain the current flow of trade, various commercial policies, foreign exchange markets, balance of payments, and macroeconomic policies that deal with various types of imbalances in the balance of payments of countries.

*Pre-requisite: ECO 103/105*

**ECO303**      **Financial Economics**

Financial Economics introduces students to the process of investment in financial markets, both at a practical and theoretical level. This course discusses various types of financial instruments in common use and the economic theories that explain how they are priced.

*Pre-requisite: ECO 102*

**ECO304**      **Introduction to Econometrics**

The course focuses on the role and uses of statistical inference in economic research; problem of spanning gap from an economic model to its statistical counterpart; measurement problems and their solutions arising from statistical model and nature of the data; limitations and interpretation of results of economic measurement from statistical techniques.

**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.

#### ECO501 Microeconomics

The course will focus on microeconomic theory and its applications includes: concept of duality in the context of consumption and production decisions; general equilibrium: linear and non-linear models, fixed coefficient technology, contract curve and production possibilities frontier; aggregation issues, decision-making under uncertainty, expected utility theory, its critiques and alternatives; competitive equilibrium, welfare analysis in a partial and general equilibrium setting; the Stolper-Samuelson theorem, the Rybcznski theorem, Walrasian competitive adjustment mechanism, existence and stability of salrasian equilibria; existence and stability of walrasian equilibria, pareto optimality, effeciency of perfect competition; the expected utility hypothesis, the expected etility eheorems; concepts of game theory; theory of form under uncertainty, production uncertainty; price and cost uncertainty, consumption and saving decisions under uncertainty; market imperfections and failures with special reference to public goods, externalities, taxes and subsidies; attitudes towards risk, the measurement of risk aversion; measurement and optimization of social welfare; market power and information asymmetries; social choice and welfare and mechanism design.

#### 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

The course deals with issues pertinent to research in economics including: 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 erogeneity; co-integration tests, Johansen's estimator; generalized linear models for binary and categorized dependent variables; random effect models for panel and other multilevel structures and diagnostic testing.

#### ECO505 Theory and Practice of International Economic Policy

The basic aim of this course is to analyze the international aspects of development policy pursued by developing countries, using the tools of open economy macroeconomics as well as international trade theory and policy to investigate issues of concern to policy-makers in developing countries.

#### ECO506 Monetary Economics

The course will focus on monetary issues. The principal aim will be to identify the major intellectual developments in monetary economics over the past two centuries. The course will help students examine key ideas, concepts and theories that have shaped the historical evolution of the subject with special emphasis placed on key articles in the literature. Major monetary schools, new classical Keynesian, stake flow consistency approached will be evaluated.

#### ECO507 Development Economics

This course will offer a brief overview of selected topics in development economics. Following a general introduction to the subject and to the data the course will focus on long-term processes of productivity growth and structural transformation. This will be followed by a critical presentation of the, still rapidly growing, literature on cross-country growth comparisons (Barro regressions). The last part of the course deals with modern economic growth and globalization.

#### ECO508 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 analyses market equilibria, impact of taxation and input-output models.

#### ECO509 Industrial Organization

The course analyzes the problems of the real economy that cannot be described within the framework of a classical economic theory that is taught by traditional micro- and macroeconomics. Lecture course covers all the three main fields of industrial organization theory: the theory of a firm, the theory of imperfect competition, and the theory of economic regulation.

#### ECO510 Mergers, Acquisitions & Restructuring

This course uses an analytical framework and real-world applications to introduce key principles and techniques for successful mergers, acquisitions, restructuring, divestitures and leveraged buyouts. It addresses crucial questions including: Why do mergers fail. How does one value companies acquiring, or being acquired? What is the best negotiation strategy? What does it take to make the "synergy" come to life? How can a merger be funded in such a way as to retain the merged entity's flexibility? When do leveraged buy-outs make sense, and how can they be financed? One goal for students is to develop a critical appreciation of the key finance criteria in a proposed acquisition, so as to grasp the main strengths and risks of the company's strategic and financial alternatives.

#### ECO511 Taxation and Business Strategy

The objective of the course is to provide a framework that is useful for thinking about how taxes affect business activities. The focus is the impact of taxes on investment strategies and financing policies. It also considers the tax consequences of compensation alternatives to both the employer and the employee.

#### ECO512 Trade and Globalization

The course aims to help students review and understand the historical continuities and discontinuities in globalization, investigate in a preliminary way some particular topics in globalization studies: identity and culture, structural adjustment and world economic institutions, resistance to globalization, and defense of globalization from a development perspective. Since International Business is the study of the business operations and managerial decision making and the social, economic and political factors affecting these operations and decision making in the global market, this course will also enable the students to identify these factors and evaluate the effects of the international differences in economic, political and social systems on the business management. This course will help students to formulate strategies in the international business environment.

#### 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 introduces students to the nature of language and the way in which language is acquired and used in society. It also addresses grammatical aspects of language such as syntax, semantics, and pragmatics and changes that have taken place in language over time. Stages of language acquisition and bilingual development will also be discussed.



**EDM403**      **Critical Thinking and Reading**

This course introduces participants to critical reading as a process of analyzing and evaluating the context and purpose of written texts by focusing on the four basic methods of critical thinking: analysis, interpretation, evaluation, and synthesis. One of the aims would be to teach the participants to analyze reading texts and understand the main ideas and views through the use of a variety of authentic academic reading formats.

**EDM406**      **Education Policy and Planning**

The topics in the course include empirical and legal research on education policy issues at the local and state levels facilitating communication between education leaders and policymakers subjected to judicial legislation, legal aspects of administration in institutions of higher education, statutes and case law related to liability, due process, student rights, admission, employee relations and property use.

**EDM412**      **Marketing Education Services**

The course trains teachers for certification in intensive business and training. This course offers a study of business and marketing trends, goals, teaching procedures, tests and measurements, special helps, teaching materials, and technologies utilized in the field of education.

**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 school. It will also provide specific standards of ethics to cover most situations encountered by the students to protect their welfare. The course also educates the learners to function according to the ethical standards of the discipline.

**EDM416**      **Comparative Education Systems**

This course not only covers a comparison of two different countries but also focuses on comparisons within a single country over time. It analyzes the data and insights drawn from practices and situations in other countries. It aims to highlight the relationship between education and society and establishes generalized statements about education that are valid in more than one country.

**EDM417**      **Educational Counseling**

The course integrates issues of educational, pedagogical and organizational counseling in relation to the contemporary school situation. The focus is on work of school counseling centers, for example, counseling in the sphere of educational and behavioral problems and students' career growth.

**EDM418**      **Testing in Education**

The course aims to discuss ways by which teaching and testing can be integrated. It will focus on the use of tests as an instructional as well as an administrative tool, teacher attitudes towards testing, and teacher competency with regard to testing. The course will help participants use testing as an important tool in the process of teaching and learning.

**EDM419**      **Managing Teaching and Learning**

This course explores teaching methods and strategies, teaching and learning styles, classroom management, testing, and their application to a range of classroom contexts. The course will also focus on teacher beliefs and the evaluation of books and teaching materials. Practical application of the methods will be experienced in practical sessions based on peer observation, micro-teaching, and simulation.

#### EDM420 Academic Writing and Seminar Skills

This course will develop the participants' skills in writing academic English through the study of grammar and usage, sentence structure, principles of writing academic essays, and the use of American Psychological Association (APA 6th edition) writing style. It also aims to equip the participants with editing and proof reading strategies to help them refine their drafts. The second section of this course focuses on students' participation in academic seminars, discussions, and presentations through a variety of practical approaches. Learners will be expected to engage with the subject in a more active way by discussing ideas and sharing opinions with the participants during seminars.

#### EDM423 Reflective Inquiry in Education

The course will help participants gain an insight into the concept of reflective inquiry in teaching; an invaluable teaching tool for challenging times. It will bring together essential perspectives of researchers, practitioners and theoreticians about reflective inquiry to offer a comprehensive treatment of the inquiry from a holistic perspective, including historical background, current issues, and future directions.

#### EDM424 Teacher Education

This course introduces participants to the best practices in teacher education and professional development. It focuses on relevant theories, current issues, and present-day practices in teacher development for teachers operating at different levels. The course also focuses on the various stages of pre-service and in-service models to help participants arrive at an informed engagement with teacher training theories and practices. This involves taking participants from needs analysis to evaluation, and linking with the 'managing teaching and learning' course.

#### EDM425 Developing Leadership skills and Management Skills

This course introduces some of the basic theories and issues related to leadership and management in educational settings and how they might work in a range of situations and national/international cultures. It will focus on awareness and understanding of self as a leader and critique the nature and practice of leadership.

#### EDM426 Curriculum Management and Planned Change

This course will cover concepts, processes, and principles of curriculum planning, development, and evaluation. It is intended to help the participants develop their performance competencies needed to engage in curriculum planning and decision-making as an administrator, supervisor or teacher.

#### EDM427 Research Methods in Education I (Qualitative)

This course introduces qualitative research methods as they are applied across the social sciences, especially in education. Methods covered include interviews narrative inquiry, action research, focus group, oral history, participant observation, and textual analysis. In addition, the skills of analyzing qualitative data and the capability to prepare instruments for testing generalizations in small and contrasting settings are emphasized. The courses will also participants to prepare proposals for their research project. The primary purpose of the course is to develop awareness in the participants and facilitate the ability to carry out small scale action research in their own professional settings.

#### EDM428 Research Methods in Education II (Quantitative)

This course is designed for participants who have a limited knowledge of research methods and provides an understanding of definitions and meanings of keywords such as hypothesis, theory, variables, and constructs. The course will focus on the process of defining research problems, the logic of research design, and a limited number of techniques for measurement, design and sampling, and for analysis of data.

#### EDM431 Writing and Presenting Educational Research

This course is designed to guide the participants with the writing process for scholarly purposes. It introduces the key aspects such as genre, style, and the language used in writing research papers and facilitates the participants to write and present research proposals and reports orally as well as in writing. In addition, it further builds on the writing and language skills introduced in Academic Writing and Seminar Skills course, with special emphasis on the correct use of APA.

#### EDM432 Literature Review

This course is intended for participants preparing to write a master's thesis. It will explain what literature review is and offer insights into the form and construction of literature review. The course will also give an insight into the stages in the development of literature review, the patterns to organize it and the resources to develop literature review.

#### EDM433 Data Collection

This course will focus on methods and techniques of data collection in both primary and secondary research including testing hypothesis, analysis, interpretation, drawing inference, data types, etc. The students will learn how to make effective choice of data collection methods and deal with the problems that arise during data collection. The course will also teach them how to do pilot study/ pre test.

#### EDM434 Thesis Writing

The participants will be given guidance and readings to conduct a research project of approximately 6000-8000 words in their own work environment. The project is likely to be based on the investigation of a management issue leading to recommendations for improvement and action. The investigation could take the form of empirical research or it could be based on desk research, making use of already available data.

#### EDM502 Managing Higher Education Systems

The course assesses the performance of higher education institutions and obstacles encountered in academic and administrative work in the departments as well as identified possible solutions. It will provide participants an opportunity to visit higher education institutions for a briefing to experience and critique the management systems in operation.

#### EDM503 Quality Assurance in Education

This course is based on the theoretical framework of quality control management as a model of modern management and its potential application in the educational field. It will examine identification of time invested in educational process, its measurement and regulation, its effect on the efficiency of education, concept of quality control on administrative aspects in public and private institutions, and obstacles in the way of applying this model in the field of education.

#### EDM504 Managing School and School Systems

This course is particularly based on elements of school systems by utilizing system analysis in identifying system input, operations, outputs, and feedback processes which offer clear criteria for development and improvement in both public and private school system.

#### EDM508 Knowledge Management

This course is based on a range of organizational practices specifically to identify, create, represent, distribute and adopt insights and experiences. It will focus on application of knowledge management for research and curriculum development processes and student alumni services.

#### EDM511 Lifelong Learning in Changing Contexts

This course analyses the competing understandings and practices of lifelong learning against a background of rapid social, cultural, and organizational change. Debates around the impact of globalization will be central to the analysis of lifelong learning. Particular attention will be given to examining the inter-relationship between lifelong learning and wider debates about citizenship and the changing nature of work and organizations.

#### EDM512 Career Planning and HRM in Education

This course deals with the management and personnel subsystems: concepts, functions, and practices in education sector. It is designed to guide students through academic and career exploration and planning processes, and provide strategies and skills necessary for a lifetime of career-related decision making. It will also examine assessment and reflection techniques to define and clarify educational and career plans and methods of researching academic and career opportunities.

### EDM513 Strategic Management Issues in Education

This course covers knowledge of strategic management models and theories and practices in the field of education. It examines concepts, information, and skills related to strategic planning, identifying objectives of educational organization, transforming strategic planning to procedural planning, particularly merging the elements of planning and budgeting to achieve management efficiency and develop stimulating members of educational organization.

## 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.

### ENG 102 Engineering Mechanics

The course discusses static of particles, kinematics of particles, kinetics of particles, rigid bodies, equilibrium of rigid bodies, kinematics of rigid bodies, plan motion of rigid bodies, friction and analysis of structures.

Pre-requisite: MTH 202

### ENG103 Engineering Drawing

This course extensively covers the drawing equipment and the use of instruments, basic drafting techniques and standards, freehand sketching of machine and engine components, concepts of working drawings of component parts of machines and engines, etc.

### ENG104 Applied 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.

### 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.

### ENG106 Fluid Mechanics

The course focuses on fluid flow measurement, properties of fluids, basic fluid flow concepts, fluid static, dimensional analysis, similitude and model studies, fluid flow and viscosity, laminar & turbulent flow, pumping of fluids. The Laboratory work – calibration of pressure gauge, determination of head losses in pipes and pipe fittings; evaluation of viscosity, specific gravity and density and experimentation with hydro static pressure.

### ENG107 Basic Thermodynamics

The course discusses thermodynamic properties of pure substances and mixtures, the interdependency of properties of substances, first and second law of thermodynamics, conservation of mass and its application, demonstration of application and basic modes of heat transfer and conduction.

### 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.

**ENG205      Metrology and Gauging**

The course is designed to familiarize students with basic concepts of metrology and gauging. The course content includes standardization, standards of length, measurement, surface texture, machine tool metrology, 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.

**ENG207      Analysis of Manufacturing Processes**

The course includes manufacturing process engineering, primary, secondary, finishing and assembly processes, concurrent engineering, process planning, group technology, manufacturing analysis and application of economic analysis.

*Pre-requisite:*      ENG 206

**ENG208      Reliability Engineering**

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, attribute regulation and control, and software transfer and documentation specifications.

*Pre-requisite:*      STA 204

**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

**ENG210      Strength 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.

**ENG211      Basic Electrical Engineering**

The course introduces electrical engineering, basic circuit and systems concepts, 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.

### ENG212 Electronic Devices and Circuits

The course focuses on theory of electrical conductivity, metals and semiconductors, the physics of semiconductors, principles of pn junctions, bipolar transistors, and field-effect transistors, bias circuits & active loads, single and multi-stage amplifiers, operational amplifiers, frequency response, feedback and stability, the physics of noise, noise analysis, switched capacitor circuits, comparators and data convertors.

### ENG215 Introduction to CAD Applications

Introduction to computer-aided design tools including AutoCAD, OrCAD, MATLAB, LabVIEW, and PCAD. Provide an understanding of computer-aided drafting principles and practices, and provide knowledge of engineering drawing fundamentals using AutoCAD. Drawing of electrical machinery and layouts of electronic assemblies. Study of theoretical concepts of electronic components and circuits using simulation software: Electronic Workbench, PSPICE, MATLAB, and LabVIEW. Design of electronic circuits theoretically and by simulation. Provide knowledge of design and layout of circuit boards using software: PCAD or OrCAD.

### 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.

### ENG301 Industrial Safety and Health

The course will help the students acquire a working knowledge of the practical aspects of safety engineering and legal and technical aspects of safety. It focuses on a systems approach to safety engineering. Students are also exposed to various theories of accident causation, research methodology and ways of evaluating safety programs and related research.

### 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 Basic Electronics

The course is designed to understand and troubleshoot electrical and electronic circuits found in modern applications of technology. The types of work environments that use the skills of electronics technicians include telecommunications service providers, TV and satellite service organizations, computer network sales and entertainment industries.

#### 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. Students learn to prepare an environmental impact assessment, review and critically analyze an environmental impact statement, use mathematical models for environmental impact prediction, and apply environmental impact assessment as a tool in management decision-making. Case studies of environmental impact assessment for several types of engineering projects will be also be discussed in the course.

#### ENG407 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.

#### ENG408 Facilities Planning

The course includes fundamentals in developing efficient layouts for single-story and multi-story production and service facilities, manual procedures and micro-computer based layout algorithms; algorithms to determine the optimum locations of facilities and special considerations for multi-period and dynamic layout problems.



#### ENG410 Maintenance Management

This course is designed to help students gain a perspective regarding the maintenance of buildings, industries, and facilities management. Administrative tools and methodology specific to maintenance activities are introduced. Students learn how to manage finance, equipment, materials, and personnel to carry out maintenance functions.

#### ENG501 Technology Management

This course examines external environmental factors essential to manage organizations involved in new technologies. It considers the adoption of technologies and innovative processes. The students develop skills in acquiring and interpreting information about the external environment to facilitate technology management. The course analyzes the issues associated with resource management for a technology-based firm. This includes manufacturing technologies, information technologies, work force and materials.

### Environment and Energy Management

#### EEM401 Environmental Issues and Management

What is environment? What is pollution? Classification of pollution, nature of pollutants, who is responsible for pollution? Effect of pollution, how to prevent and manage them? Health impact, environmental policy and its compliance, environmental protection agency role and 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 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 Environment

The course will cover basic concept of energy, forms of energy, fundamental of renewable/non-renewable energy sources, energy and environment renewable energy sources, energy scenario in Pakistan, renewable energy potential in Pakistan, basic heat transfer mechanism etc. Students will learn about the best practices in these areas, includes case studies and visit to plants.

#### EEM404 Industrial and Municipal Waste Management

The course will cover waste classification, sources, characteristics, generation, onsite handling and storage, collection, transfer, recycling and disposal techniques of solid and hazardous waste. It also covers history of waste disposal, dumping, and burning, land filling, composting and incinerating techniques. Various methods for the treatment of liquid effluents from municipalities and industries.

#### EEM405 Renewable Energy and Energy Conservation

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.

#### EEM406 Coastal Environment and Management

Products of direct economic value such as fish, hydrocarbons, minerals, dieseline water etc., products of natural system (intangible), supply of rich nutrients to support productivity, nursery and breeding grounds of fish and shellfish, mangrove ecosystem, coast-dependent activities such as coastal aquaculture, marine transport and shipping, beach related activities, ports and harbor etc. will be part of this course.

#### EEM407 Green Technology and Energy Analysis

This course is multidisciplinary and examines Environmental Management Systems (EMS), including their planning and organization. The course also studies how businesses can manage their interactions with the environment in a systematic strategic management approach. Since awareness of environmental issues has increased the need for product eco-compatibility. Students will learn a new methodological approach to design for the environment.

#### EEM408 Safety, Health and Environmental Management

The course is based on OSHA 18000 and is designed for the students to understand the concept of EHS management, its importance and principles, hazards and risks at work place, causes and solutions, importance of EHS in industries, purpose and policy, developing safety policy, EHS auditing and inspections, safety training and employee's motivation and involvement, plant visit is part of the course.

#### EEM409 Risk and Disaster Management

This course is designed to enable students to develop management skills to operate and understand the complex techniques and key concepts of disaster and risk management pertaining to floods, earthquakes etc. Students will develop critical evaluation and the application of key elements of business planning and the management of risk and disaster.

#### EEM410 Environmental Impact Assessment (EIA)

The course is designed to provide a critical overview of the theory and practice of EIA as per international standard to those students who need to understand pollution impacts on the environment and how to do its assessment. EIA is one of the major requirements of environmental regulations and the course would cover the impact of development on environment.

#### EEM411 Environmental Rules, Laws and Regulations

The course provides the students various regulations of environmental laws of Pakistan and international practices, theory and enforcement problems, including policy making, analysis of policy, needs of environmental law, implementation of legislations etc.

#### EEM412 Research and Survey Methodology

The course is designed for those students who are new comers to research and who may have barrier with regard to the research methods and having difficulties in writing thesis or a research project report. The course will give students a sound knowledge of research methodology which is essential for writing thesis, research project conceptualization, elements of a research proposal and formulation of research design.

#### EEM501 Climatic Changes and its Impact

Climate changes is today's most pressing issue, receiving international attention from political leaders, media, corporations and the general public. The students will learn about strategic frameworks for assessing the impact of climatic changes on markets and customer demand.

#### EEM502 Natural Resources Management

The students will learn qualities of ecosystems and critically review environmental issues such as climate change, water shortage and forest preservation etc. The course includes social-ecological system concepts, ecosystem based management, global and regional governance through multilateral agreements, sustainable development, poverty versus environment.

#### EEM503 Hospital Waste Management

The course covers the general awareness of the health and environmental risks resulting from poor care of hospital waste management practices. It will provide the knowledge about handling, disposal and effect of infections hazardous health care waste, including hospital waste disposal problems and solutions. The course focuses on proper planning and organized approach necessary to improve the system for hospital waste management.

#### EEM504 Solid and Hazardous Waste Management

The basic goal of this course is to manage community and industrial waste in a manner that meets public health and environmental concerns and public desires to reuse and recycle waste materials. The students will learn how to manage solid and hazardous waste properly and efficiently. The course covers different modern methods of waste disposal, composting and incinerating etc.

#### EEM505 Energy Audit

This course covers the need for energy consumption, monitoring, designing and starting energy consumption control program, energy accounting, targeting and reporting, energy audit process, preparations, facility inspections, audit procedure and action plan, audit report, recommendations, implementation and follow ups of energy conservation schemes, understanding energy bills, electric rate structure, natural gas rate schedule, steam and chilled water rate, cost of water and waste water, monthly energy bill analysis, actions to reduce electricity utility costs.

#### EEM506 Energy Conservation

The course will cover areas of energy consumption and conservation, conservation scheme, and implementation, major areas of energy conservation, lighting, components of lighting system, lamp types, luminaries and types, maintenance of the lighting system and schedule, luminaries dirt depreciation factor, re-lamping strategies, spot replacement and group re-lamping strategies and costs, lighting survey, measuring light levels, regulatory/safety issues, lighting safety issues, energy policy Act 1992, lamp substitution, lighting control technologies, selection of lights for new facility, EPA green lights program, electrical motors and transformers-factor involving selection and installation, maintenance and overhaul scheduling, performance tests, depreciation factors, energy system maintenance, transmission and distribution networks, HVAC systems, boilers, steam distribution systems.

#### EEM507 Energy Planning

The course will cover energy economics and planning, energy economics, the nature and cause of the energy problems, demand side and supply side issues, commercial and traditional energy determinants externalities, policy issues, pricing and distribution policies, energy balances formulation and execution, natural energy statistics, definitions, of primary, secondary, delivered and useful energy, problems of interpolation and comparison of energy statistics, rural energy planning, pattern of energy demand and supply, 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 Environmental Ethics

The course focuses on the understanding of the natural environment and human relationship to it. The course provides strong coverage of major ethical theories such as moral, relativism, ethical egoism and discussion about the tragedy of the commons etc.

#### EEM509 Public Awareness for Environment and Energy Sector

This course will focus on the importance, scope and application of the public relation and public information as regard to environment and energy in the private and public sectors, the local, regional, national and international levels.

## Finance and Banking

#### FIN101 Financial Markets in Pakistan

The course gives an insight into the theory of financial development, dynamics of finance and the real economy, financial development in Pakistan, financial infrastructure and financial sector policy (specially monetary policy). The money market (including the foreign exchange market) is also discussed. The capital market (equity and bond), the informal financial system, microfinance and Islamic Finance are also part of this course.

**FIN201**      **Introduction to Business Finance**

The course explains the basic concepts of time value of money, valuation of current assets, financial forecasting and planning, ratio analysis and common size statements, and capital budgeting techniques.

*Pre-requisite:*      ACC101/201

**FIN202/404**      **Financial Management**

This course covers the basics of finance like fundamentals of financial management, discounted cash flows, capital budgeting techniques, leverage, capital structure determination, etc.

*Pre-requisite:*      ACC402, FIN201

**FIN301**      **Financial Institutions**

The course provides an analysis of the working and interaction among various types of financial institutions, financial markets and the economy. The topics include policies of financial institutions, interest rate structure and the security and mortgage markets.

*Pre-requisite:*      FIN 201

**FIN305**      **Internet Banking and EPS**

In this course, students will study topics which include: e-commerce, e-business, digital commerce, B2B, B2C, internet advertising, internet auctions, internet banking, internet marketing. Case studies that give students great experiential knowledge to be effective in the market will also be a part of the course.

*Pre-requisite:*      ACC201

**FIN306**      **Introduction to Insurance**

Insurance draws principles from finance, law, and ethics to address the issues that face individuals, companies, and society in general. The course will help the students to differentiate between the relatively narrow field of insurance and the broader discipline of risk management. Upon completion the students will have the vocabulary and basic understanding of the various methods of handling exposure to loss.

**FIN307**      **Mathematics of Financial Derivatives**

The course will begin with the development of the basic ideas of hedging and pricing by arbitrage in the discrete time setting of binomial tree models. Key probabilistic concepts of conditional expectation, martingale, change of measure, and representation, will all be introduced first in this simple framework as a bridge to the continuous model setting.

*Pre-requisite:*      MTH 104, MTH 105

**FIN308/407**      **Financial Engineering**

Financial engineering is a body of knowledge encompassing conceptualization and implementation of financial innovations. This course introduces financial engineering innovations within the context of managerial decisions and solving vexing problems of investment management and corporate finance.

**FIN402**      **Money and Banking**

The course describes the monetary systems, financial markets, national income components and their relationship to business activity. It also includes the study of structure, regulation and performance of the banking industry focusing on the strategy and procedures of the Central Bank.

*Pre-requisite:*      ECO 401, FIN 401

**FIN403**      **Islamic Banking and Finance**

The course covers the operations and role of banking institutions in an economy. The different types of financial institutions, local as well as multilateral, and their distinct functions are reviewed. The course also covers the concepts of Islamic banking and similarities and conflicts between Islamic and conventional banking. The requirements to be met by a sharia compliant financial instruments and established Islamic financial instruments (e.g., Musharika, Modarba, Morabaha, leasing etc.) are also covered.

*Pre-requisite:*      ECO 401

#### FIN405 Banking Laws and Regulatory Environment

The course discusses the role and significance of laws related to banks/ financial institutions, including laws applicable to international trade and banking. The role/functions of important regulatory institutions such as State Bank of Pakistan, Securities and Exchange Commission of Pakistan, Ministry of Finance etc. are also covered. The purpose and critical evaluation of important regulations will also be a part of the course.

*Pre-requisite:* ECO 401, FIN 404

#### FIN406 Financial Econometrics

This course provides an intensive introduction of basic principles of econometric analysis that may help students understand finance theories and their empirical applications. In addition, it also equips students with appropriate statistical techniques for doing applied financial research. The emphasis will be on developing and applying regression-based techniques in both cross-sectional and time-series contexts. Their usefulness will also be examined in the light of financial studies. 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.

*Pre-requisite:* FIN 404, FIN 501

#### FIN408/627 Investment Banking and Security Analysis I & II

The course deals with merchant banking activities performed by banks/DFIs inclusive of non-fund based and fund-based activities that bring in windfall profits to financial institutions. The course provides a detailed study of valuing corporate equity instruments discusses the use of earnings, dividends, risk, cost of money and future growth rate in valuation, it also discusses applications like bond valuation, SWAP funds, arbitrage, etc.

#### FIN409 Working Capital Management

This course equips students with generic, technical, computational, analytical, critical and evaluative skills relevant to financial management and the commercial bank treasury department function. The course also educates the students on the role of State Bank of Pakistan with close reference to money and capital market.

#### FIN501 Advanced Financial Management

The objective of this course is to introduce the basic asset valuation models, risk management system, ways to acquire and allocate funds in the most economical and profitable manner, concepts and principles governing investment decisions, etc.

*Pre-requisite:* FIN 404

#### FIN502 Strategic Financial Management

Giving a review of the fundamentals of financial management, this course enables students to understand the various areas of decision-making in the broad field of financial management in a non-financial sector company. Hence, this course focuses on the dynamics of the entire financial management process, emphasizing the skills to take risk-return profile decisions for the business in the presence of a myriad of complexities.

*Pre-requisite:* FIN 202/404

#### FIN503 Corporate Finance

This course covers the valuation of corporate liabilities and other securities under uncertainty. The capital asset pricing model is presented and is compared with more recent theories of asset pricing such as, the arbitrage pricing theory and the option pricing model.

*Pre-requisite:* FIN202/404

**FIN504 International Finance**

The course deals with the factors affecting currency values and the forecasting of future currency prices; describes foreign exchange products, markets, and participants and examines foreign currency exposure from a corporate point of view.

*Pre-requisite:* FIN 202/404

**FIN505 Treasury and Fund Management**

The course equips students with generic, technical, computational, analytical, critical and evaluative skills relevant to financial management and the commercial bank treasury department function; the role of State Bank of Pakistan with close reference to money and capital markets.

*Pre-requisite:* FIN202/404

**FIN506 Investment Banking and Security Analysis**

This course enables the students to recognize the ways to select securities and to act prudently with respect to diversification and management of fund for investment. It contains topics like valuation, sale and purchase of companies, assets management theory, mutual funds management and security analysis.

*Pre-requisite:* FIN202/404

**FIN507 Portfolio Management**

The course covers the application of portfolio theory to investment decisions and performance evaluation to cover both the fundamentals of investment theory and the most recent developments in academic research involving the practical implementation and analysis of modern portfolio strategies.

*Pre-requisite:* FIN202/404

**FIN508 Risk Management**

This course explores various aspects of management of risk associated with operating multinational enterprise and emphasizes on evaluating and hedging financial risks (fixed-income, equity, commodity, and foreign exchange risk exposures).

*Pre-requisite:* FIN202/404

**FIN509 Financial Derivatives**

The course covers a wide range of financial derivatives, including forwards, futures, swaps and options. The working of various derivative markets and the pricing of derivatives are discussed. The course also covers trading/investment strategies that involve these derivatives.

*Pre-requisite:* FIN202/401

**FIN510 Investment Analysis**

The course includes alternative investment theories and decision making under differing uncertainties and constraints. Formulation of objectives and strategies, development of conceptual managerial perspectives for investment environment and security analysis will also be covered in this course.

*Pre-requisite:* FIN 202/401/404

**FIN511 Analysis of Financial Statements**

The course begins by describing accounting standards of USA and international accounting standards with special focus on developing students' capability to standardize various companies' financial statements. It develops a road map of financial analysis from both the creditor's and equity investor's point of view.

*Pre-requisite:* FIN 202/404/501/502

**FIN512 Money and Capital Markets**

This course covers the fundamentals of money and capital markets, like market instruments and mechanisms and various risk management techniques.

*Pre-requisite:* FIN 202/404

**FIN513**      **Project Appraisal**

The course teaches formulation of projects and financial projections into the future. Balance sheet, profit and loss accounts and cash flows are prepared for future years depending on the need and nature of the projects. Economic analysis like internal economic rate of return, Bruno's ratio and the economic rate of return are also described. The course equips students with the understanding of nuances of consortium and syndicate finances.

Pre-requisite:      FIN 202/404

**FIN514**      **Asset Liability Management**

The course gives an insight into the traditional functions of Asset Liability Management (ALM). It gives a comprehensive review of ALM hedging techniques that encompass all assets and liabilities of financial institutions. Regulatory environment prevailing in the Pakistani financial market and how the State Bank of Pakistan and the Securities and Exchange Commission are regulating financial institutions in Pakistan is also discussed in this course.

Pre-requisite:      FIN 401/501/502

**FIN515**      **Foreign Trade and Banking**

The course aims at discussing the technicalities of foreign trade covering basic concept, difference between local and foreign trade and documentary requirements of banks.

Pre-requisite:      FIN 501/502

**FIN517**      **Theory and Practice of Finance**

The course will cover overview of risk and return, stochastic dominance, portfolio theory, mean variance decision model, other statistical methods, efficient markets, skewness, limits of arbitrage, attention, corruption, political connections, corporate governance and the role of the government, financial econometrics, market microstructure, informational efficient markets, managerial behavior, agency cost and capital structure, corporate finance and compensation and networking etc.

**FIN518**      **Current Issues in Islamic Finance**

The course covers the history of Islamic Banking, market perceptions & performance of Islamic finance industry, analysis on Islamic interest free banking, current economical system & its problems, comparison of capitalism & socialism and philosophy of Islamic economical system. This course gives an in depth study of sources of sharia, ijihad, riba & its types, commercial interest, usury, simple & compound interests, markup, profit, gharar and gambling.

**FIN519**      **Industrial and Financial Economics**

This course provides a basis in the neoclassical theory of finance that underlies other finance courses. This course is primarily concerned with static, i.e. one period, theories of finance. This course will convey more conceptual understanding of finance than exercise complicated mathematical derivations. It starts with examining the data and then develops basic finance theory to explain the data. Following this course, students should be prepared for advanced courses in finance, such as dynamic theories, continuous time finance, empirical finance, and advanced corporate finance. The course will also cover structure, conduct and performance of firms, relationship of various market structures and business operations and resource allocation, as well as an analysis of firms' strategic behavior.

**FIN520**      **Financial Risk Management**

This course deals with the theoretical and practical approaches to effective financial management. Planning, analyzing and controlling investment and short and long term financing are examined for decision-making purposes. Emphasis is placed on the application of risk, the methods in today's business environment and related industries. Topics include: Capital budgeting, risk and diversification, asset liability management, financial derivatives and financial engineering, swaps, options and financial future.



### FIN521 International Financial Management

Students taking this elective course should expect to learn the nature and purposes of financial management in the international context. They will gain skills in international investment and financing techniques and in exchange risk management, including accounting and taxation aspects. They will learn, through hands-on case studies and simulations, how to judge the riskiness of a currency from a firm's perspective, and how to measure and manage the company's exposure to exchange rate and international interest rate risks. They will discover how companies use banks, and techniques such as currency swaps and hybrid bond structures. In the end, the goal is to apply state-of-the-art techniques to the international firm's investment, financing and risk management decisions.

## 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.

### 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. Mathematical models of actuarial reserving. Introduction to the design of unit linked products and introduction to profit testing methods. Use of the stationary population model. Multiple life models; joint life, last survivor, contingent insurance:- values of premiums for multiple life annuities and assurances and reversionary annuities and compound statuses.

### 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, so 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. The goal of this e-course is to introduce you to some of these initiatives, show you where to access ERM information and generally to help you learn and implement ERM at your organization. You will even be introduced to ERM for individuals.

### 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.

### 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. We will discuss approaches to measuring credit risk and determining default probabilities and company ratings based on financial ratios (logit, probit, and discriminate analysis, decision trees etc.). The software package S-PLUS is used. For 80% of the course, R or Matlab could be used instead.

#### 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. Topics include understanding insurance as a risk financing technique, insurance plan design, forecasting accidental losses and risk financing needs, self-insurance plans, retrospective rating plans, reinsurance and its importance to risk financing plan, captive insurance plans, finite and integrated risk insurance plans, capital market risk financing plans, noninsurance contractual transfer of risk, and purchasing insurance and other risk financing services.

#### 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. This course provides a systematic and advanced treatment of financial risk management. It focuses on interest rate risk, market risk, liquidity risk, credit risk and operational risk.

#### 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. Topics covered in this course include, Introduction to Financial Risk Management, Derivative Basics, Option Basics, Stochastic Volatility Modeling, The Yield Curve, Value-at-Risk & Risk Measurement Methods, Credit Risk, Bank Capital and Basel I & II.

#### FRM501 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. An examination of the major commercial property loss exposures including fire, business interruption, crime, inland marine, ocean marine, and miscellaneous property coverage. The different risks are analyzed to select optimal combinations of risk treatment and insurance for financial protection against property losses.

#### FRM502 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. The goal of this course is to equip students with concepts and tools that will help them respond to management challenges in a rapidly evolving industry.

#### 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. The approach to the topic is quantitative. The course is ideal for students with strong quantitative backgrounds who are seeking to understand issues pertaining to risk management and to master modern methods and techniques of risk control.

**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. Can insurance markets function well in a competitive equilibrium? Role of asset markets in allocating risk. How some risks corporations face are associated with price fluctuations and can be hedged in financial markets. Hedging strategies using futures markets, and options and other derivative assets. Hedging credit risks.

**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**

Wave Motion, Mathematical Concepts of Simple and Damped Harmonic Motion, Analytical Treatments of Superposition of Waves, Concepts and Applications of Diffraction and Polarization of Light and Sound Waves, Thermo dynamical Concepts and Basics of Electrodynamics, Electric Charge, Coulomb's Law, Electric Field and Intensity, Electric Potential, Capacitors and Charge Storage Concepts, Magnetism, Magnetic Fields, Faraday's and Lenz's Laws, Ampere's Law and its Applications, Eddy Currents, Inductance, Induced Current and Their Applications (Transformers, Generators Etc.), AC Signals (Average and RMS Values), Electric and Magnetic Circuits, Electric Current, Resistance, Ohm's Law, Simple Resistive Circuits (Series and Parallel), Kirchoff Laws, Network Theorems (DC Analysis), RC and RL Circuits, Linear Coefficient of Expansion of Metals, Specific Heat and Temperature of a Hot Body.

**Health Management****MHM401 Introduction to Health Policy, Planning and Management**

This course provides students with an overview of the health system in Pakistan and introduces them to the concepts of public health and the basis of public health programs in the country. Study of planning methodologies and role of health planners within the health care sector. Concepts and techniques of health planning as applied to community and institutional health systems are analyzed.

**MHM402 Quantitative Analysis**

The course includes introductory as well as advanced study of stochastic and quantitative analytical tools and concepts which can be used to compute vital statistical rates applicable to problems in public health. Topics such as regression analysis, anova, chi-square are also discussed.

**MHM403 Health Management Information Systems**

Applications of computer technology for designing management information system for health care institutions. Topics include data collection, reporting and transmission, file design, record structure, report formats, processing requirements, medical records and statistical audit. Principles of managing the acquisition and development of health management information system are also discussed.

*Pre-requisite:* MIS 103

**MHM404 Research and Survey Methodology**

This course is designed to familiarize students with basic concepts surrounding surveys. It intends to expose students to the various components, techniques and methods of developing survey instruments and modes of survey conduction. It defines the basic concepts of research methodology and designing of sample survey, including data presentation through tables and graphs.

**MHM501**      **Pharmaceutical Branding**

This course emphasizes on the expressional area of promotion and capitalizes on the functional area as well. Student 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.

**MHM502**      **Health Economics**

This course deliberates on and applies general theoretical principles of economics to health care sector. The basic approach is to recognize the importance of scarcity and incentive allowing for any differences peculiar to health. Demand and supply of health and medical care are examined as they involve consumers, patients, nurses and hospitals.

*Pre-requisite:*      ECO 401

**MHM503**      **Financial Management of Health Services**

The course exposes students to basic financial ratios and a general understanding of financial statements and some productivity, tracking systems and measurements typically utilized in health care organizations.

*Pre-requisite:*      FIN 401

**MHM504**      **Strategic Management of Health Services**

The content of the course is developed around several health care trends including restructuring, innovation of health care delivery and finance and an increased emphasis on performance. It addresses basic theory, strategic plan development, organizational analysis and specific appropriate analytical techniques, implementation strategies and case studies.

*Pre-requisite:*      MAN 401

**MHM505**      **Concepts of Primary Health Care**

The course familiarizes students with the basic concepts surrounding primary health care. It aims to provide the basic conceptual understanding of public health problems pertaining to the availability, accessibility and affordability of primary health care services.

*Pre-requisite:*      MHM 401

**MHM506**      **Managing Professional Health Care Organizations**

The course will include application of management theory and concepts to health services systems and organizations. It characterizes functions, organizational structures of delivery system, fiscal management, personnel management and planning procedures.

*Pre-requisite:*      MAN 401, MHM 401

**MHM507**      **Introduction to Epidemiology**

The course includes definitions, principles and factors related to the manifestation of infectious and non-infectious diseases, including tracing their sources, modes of survey conduction, controlling spread and initiating measures to prevent recurrences.

*Pre-requisite:* MHM 401

**MHM508**      **Pharmaceutical Marketing & Quality Assurance**

This course examines the nature of pharmaceutical industrial market and analyses of customer procurement strategy, product policy, pricing, distributing strategy and sales force management strategy. It identifies quality assurance as an integral structured organizational process for involving personnel in planning and executing standardized improvements in systems.

*Pre-requisite:*      MKT 401

**MHM509**      **Marketing of Health Services**

The course aims to familiarize the students with methods most commonly used in marketing of health services. It focuses on the critical links between health service marketing as it relates to customers, competitors, market segmentation and definition of target markets. Solutions to service price, promotion and distribution problem are also discussed.

*Pre-requisite:*      MKT 401

**MHM510**      **Introduction to Demography Methods**

An introduction to the fundamental methods employed in the statistical study of human populations, especially their size, distribution and number of births/deaths and their health consequences. The students will also learn to apply computer technology to demographic studies.

**MHM511**      **Population and Health**

The course studies the impact of population growth on the health of the populace and its effect on the health care delivery system.

Pre-requisite: MHM 401, MHM 404

**MHM512**      **Economics and Management of Pharmaceutical Industry**

The course focuses on the nature of economic systems and how they constrain, control and impact the operational effectiveness of pharmaceutical organizations. Deliberation on contemporary management tools utilized by pharmaceutical organizations to overcome economic, financial, managerial and industrial constraints are also discussed.

Pre-requisite: ECO 401

**MHM513**      **Managing Physicians**

The course content examines the strategic advantage of attracting and retaining competent medical staff members as it relates to higher occupancy and decreased litigation. Simultaneously, it assesses physician co-operation in making cost effective and high quality care service delivery decisions. It examines strategies for mutually beneficial linkages between hospitals and physicians to realize the goals of hospitals.

**MHM514**      **Environmental Health Assessment and Management**

The objective of this course is to study the impact of environmental pollution and degradation on the health of populace. It provides theoretical instructions with a focus on environmental health assessment and knowledge of managing environmental health problems.

Pre-requisite: MHM 401, MHM 404

**MHM515**      **Hospital Administration**

The course addresses major functions and issues surrounding supervision of hospitals; organization and management of hospitals, relationships/differences between line and staff functions. Likerts Scale, Peter Principle, McGregor's Theory X and Y are also discussed. Strengths and weaknesses of employee performance appraisal are identified. Personal and professional skills necessary to provide a wide range of services and quality care in hospitals are emphasized upon.

Pre-requisite: MAN 401

**MHM516**      **Health Program Evaluation**

The course prepares students to discuss components of program evaluation and formulate credible evaluation questions. Students will be able to construct evaluation designs, recognize limitations of each, report evaluative results and critically assess evaluation reports.

Pre-requisite: MHM 501

**MHM517**      **Research Project**

A capstone course involving a supervised research project, applies curricular concepts and skills to problems in an organizational setting.

Pre-requisite: MHM 402, MHM 404

**MHM518**      **Regulatory Affairs at Healthcare Industry**

Healthcare is a highly regulated industry and the course provides an insight into the important laws and regulations controlling business in the healthcare sector. Upon completion of the course, students will be well versed with drug laws, good manufacturing practices, and laws governing operation of blood banks, breast feeding ordinance, 2002, environmental concerns and WTO.

Pre-requisite: MHM 401

**MHM519**      **Financial Applications in Pharmaceutical Marketing**

The course is designed to reach financial justification on acceptable accounting principles. Success of marketing activities, whether aimed at consumer satisfaction or otherwise are measured in terms of "revenue and profit". This course introduces students to marketing activities involving financial justification.

*Pre-requisite:*      *FIN 401*

**MHM520**      **Product Management**

This course focuses on creating and managing product and brand portfolios in pharmaceutical industry for long-term profitability, as established and mature products and brands are critical to an organization's financial stability and strategic posture. Students will apply strategic frameworks for managing mature products for profitability, transferring existing competencies to new products and evolving market opportunities of a product portfolio.

*Pre-requisites:*      *MAN 401*

**MHM521**      **Pharmaceutical Sales Management**

This course enables the students to develop analytical and managerial skills for estimating sales potential, forecasting sales, manning territories and controlling sales force in the pharmaceutical sector. Furthermore the students will learn to apply these concepts for solving problems, through case studies, training and motivational exercises.

**MHM522**      **Project Management of Health Services**

In this course, students will be able to learn planning for quality, performing quality assurances activities, and closing project contracts keeping in view ethics, professional knowledge, stakeholder's interests and cultural diversities. By the end of the course, students will be proficient in organizing and executing complex healthcare projects using techniques of project management software tools.

*Pre-requisites:*      *MAN 401, MIS 401*

**MHM523**      **Health Ethics**

In this course, the students will be able to learn the principles and theories of ethics related to health care delivery/administration and legal issues surrounding the relationships of patient, provider, and health care institution. This course also focuses on principles of autonomy and informed consent, confidentiality, truthfulness, professional standards and institutional ethics, corporate liability, medical malpractice, medical staff bylaws, patients' rights, medical records and governmental regulation of personnel and health facilities. In addition the course will cover the ethical problems related to death, reproductive rights, the ethics of transplants, cloning and the biomedical research.

## 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. The pedagogical objective of the course is to impart specific actionable skills to the student.

*Pre-requisite:*      *MAN 301/302/401/402*

**HRM400**      **Foundation of Human Resource Management**

This course is a study of approaches and theories of human resource management; an overview of the human resource profession, including emerging trends, professional roles and professional competencies.

**HRM405**      **Research Methods in HRM**

This course focuses on description, analysis and application of research methods for HRM professionals, studied in the context of key business and organizational decision-making processes.

*Pre-requisite:*      STA 400, HRM 400, MAN 402

**HRM406**      **Conflict Management and Negotiation**

This course examines the nature and effects of conflict in organizations and relationships in the workplace, making conflict and negotiation productive and constructive. The course includes theories supporting effective conflict management strategies and tactics for use and resolution, practice of conflict resolution, negotiation and mediation methods.

*Pre-requisites:*      HRM 400, MAN 400/402

**HRM407**      **Seminar in Human Resource Management**

This course focuses on discussions of current theory and research in human resource management and related topics. It is based on high quality contemporary research, case studies, discussion forums and available literature on human resource function as it relates to the overall strategy of the company. This course provides students the opportunity to apply knowledge acquired in prerequisite courses to resolve real-life workplace issues.

**HRM408**      **Human Resource Issues in Pakistan**

This course focuses on five key issues that present the greatest opportunities and challenges for HR professionals today and examines their implications in Pakistan. The course explores ways to realign HR and to explain the professional competencies needed to play a leadership role in realizing organizational change; examines the opportunities and benefits of planning for and managing a diverse workforce; defines the role of HR in managing a team environment; evaluates ways to design and implement alternative work schedules, reward system, human capital metrics and long term human resource strategies with a variety of organizations from not-for-profit to government organizations and local companies.

**HRM409**      **Management of Excellence & Innovation in Organization**

This course aims to enhance students' understanding of innovation processes in the organization and how to manage such processes effectively. It introduces the key concepts, models, and techniques of innovation and organizational change management. Particular areas of emphasis will be the nature of innovation, innovation process, innovation typologies, changes in the external environment and drivers for change, models of organizational innovation and change, individual and group creativity, factors associated with innovation, practices for developing innovative organizations, organizational culture and transformational leadership.

**HRM501**      **Recruitment and Selection**

This course offers an understanding of effective techniques of the recruitment and selection process. It equips students with generic, technical, analytical and evaluative skills relevant to recruitment and selection. The course encompasses an in-depth knowledge of the entire recruitment process, right from the planning of staff requirement to designing of the job descriptions and advertisements, interviewing and testing applicants till the final selection and job offer. It encapsulates relevant information about the candidate through effective methodologies applied in the interviewing procedure.

*Pre-requisite:*      HRM 301/401/402

**HRM502**      **Industrial Relations and Labor Laws**

The course deals with relationship issues arising from interaction between parties in the workplace. It develops an understanding of the principles & philosophy of industrial relations; labor-management relationship and labor administration; industrial relations attitudes and approaches; development and objectives of trade unions; their federations; employers' associations, collective agreements; trade & consideration and process of collective bargaining. The course also focuses on grievance handling, problem solving and role of social partners in industrial conflict resolution; labor and productivity bargaining; labor laws and international labor standards and their influence on industrial relations.

*Pre-requisite:*      HRM 301/401/402



#### HRM503 Employee Training and Development

The course emphasizes the changing role of training as a tool in giving organizations a competitive advantage in the highly competitive business environment. It covers a broad understanding of strategic training models, need assessment techniques, learning theories and program design evaluation. Traditional training methods, use of new technologies in training and interactive training. It also focuses on the importance of employee development for organizational excellence and in this context deals with issues of career planning, career development and succession planning with an emphasis on special issues in training and development, special challenges in career management and the future of training and development.

*Pre-requisite:* HRM 301/401/402

#### HRM504 Negotiation Skills and Collective Bargaining

Explains the principles of exchange and develops confidence and skills to conduct negotiations and achieve a mutually acceptable outcome. It covers the method of negotiation developed by the Harvard negotiating project, known as Principled Method of Negotiation. The course covers the whole process of negotiations and collective bargaining in the context of business labor laws, industrial relations and practices; from preparation to closing a deal and includes essential guidelines for devising a negotiation strategy; how to reach consensus; what to do when negotiation breaks down and how to make use of a third party to break deadlock and resolve conflict.

*Pre-requisite:* HRM 301/401/402

#### HRM505 Organizational Change and Development

The course will help students gain insight into Behavioral Science techniques and practices to help corporate managers and practitioners to formulate and implement changes that promote organizational effectiveness and efficiency and improve quality of life and environment.

#### HRM506 Strategic HRM

The course provides an in-depth understanding of how the major components of the HR practice fit in with each other in order to develop a "high-performance working environment". This course will give first hand experience about the hidden traps that hinder HR-effectiveness in real life situations and what options does an organization has to avoid these traps. It will explain the core systems of HR like training & development, performance management, succession planning, career planning & development, management development, competency profiling, etc.

*Pre-requisite:* HRM 301/401/402

#### HRM507 Public Relations

The course focuses on public relations as management process in business, government and society; decision-making constraints, use of authority, power play of social, political, economic, technological, and moral issues in decision-making and the limitation and abuse of authority.

*Pre-requisite:* HRM 301/401/402

#### HRM508 Salary and Compensation

The course analyzes compensation strategies and practices from the perspective of the industry as well as an individual. It addresses the flexibility propositions in a compensation package which enables a company to adapt to the changing environment.

*Pre-requisite:* HRM 301/401/402

#### HRM509 Leadership Studies

This course is designed to cope with the rapid change which the world has been undergoing for the past five decades; more stringent and varying demands are being placed on management leadership for the growth of their organizations, if not for their actual survival.

*Pre-requisite:* HRM 301/401/402

**HRM510**      **Personnel Development**

This course extends training in the area of performance appraisals and is an integral part of Human Resource Development (HRD). It highlights the procedures for assessment of training needs, employee feedback and counseling, career planning and growth, and ways to enable companies to fulfill the intrinsic needs of its employees.

*Pre-requisite:*      HRM 301/401/402

**HRM511**      **Performance Appraisal and Management**

The success of an organization depends on its results, which are achieved by its employees. Unless organizations select, develop & retain the best talent, they cannot succeed. Organizations plan, coordinate and review the activities of employees so as to achieve the desired results. The purpose of this course is to understand the links between human resource planning, performance and compensation. Students will study the new concepts and prevailing practices of performance management besides learning skills of managing the employee-employer expectation and tools of performance evaluation and appraisal.

*Pre-requisite:*      HRM 301/401/402

**HRM517**      **Personnel Management & Industrial Relations**

This course aims to cover the theoretical foundations and empirical practice of HRM and IR. It provides students exposure to a wide variety of organizational practices; to manage and develop employees, ensure their welfare and understand changing employment legislation essential to business survival. This course enables students to develop practical skills in the subject area to equip them for a career in HR/IR.

**HRM518**      **Coaching Skills and Techniques**

This course builds and/or refines the student's repertoire of basic coaching skills applicable to most executive coaching situations (e.g. self-awareness, empathy, listening, questioning, giving and receiving feedback, confrontation, limit setting, demonstrating leadership, etc.). It seeks to develop the specialized techniques of executive coaching, peer coaching, management coaching, leadership coaching and individualized skill. Students learn how to coach and understand organizational culture to develop high-performing cultures that strengthen business results.

**HRM519**      **International HRM**

The course will review the theories, models and concepts developed in the areas of international management, international organizational behavior, cross-cultural management, and study their implications on international HRM practices. A major focus of the course will be on international human resource management & development issues of recruitment and selection, compensation and reward systems, training and development, performance appraisal, expatriation, repatriation and career development.

## Languages

**LAN101**      **Introduction to Arabic**

This is an introductory course in Arabic. It is structured for those who have no prior knowledge of the Arabic language. It starts from the basics and brings the students to a level at which they can develop phrases and understand spoken Arabic.

**LAN102**      **Introduction to French**

This course is designed for those who do not have any prior knowledge of this language. It enables the students to carry out basic conversation in French. Students are prepared in a manner that they can put the message across. This course is designed to bring about awareness about the business taking place between Pakistan and France. This course also gives some knowledge about French culture. The main objective of this course is to bring the students to a level where they can read, write, speak, and understand foreign language and comprehend and appreciate foreign cultures.

**LAN103**      **Introduction to Spanish**

This is an introductory course in Spanish. It is structured for those who have no prior knowledge of the Spanish language. It starts from the basics and brings the students to a level at which they can develop phrases and understand spoken Spanish.

**LAN104**      **Introduction to German**

This is an introductory course in German language. It is structured for those who have no prior knowledge of the German language. It starts from the basics and brings students to a level at which they can develop phrases and understand spoken German.

**LAN105**      **Introduction to Japanese**

This is an introductory course in the Japanese language. It is structured for those who have no prior knowledge of the Japanese language. It starts from basics and brings students to a level at which they can develop phrases and understand spoken Japanese.

**LAN106**      **Introduction to Italian**

This is an introductory course in Italian. It is structured for those who have no prior knowledge of the Italian language. It starts from basics and brings the students to a level at which they can develop phrases and understand spoken Italian.

**LAN107**      **Introduction to Russian**

Introductory course structured for beginners. Students will learn basic grammar, pronunciation and dialogue interaction so as to develop phrases and understand spoken language.

**LAN108**      **Introduction to Chinese**

This is an introductory course in Chinese language. It is structured for those who have no prior knowledge of the Chinese language. It starts from the basics and brings students to a level at which they can develop phrases and understand spoken Chinese.

**LAN201**      **Intermediate Arabic**

This course is for those who have a basic understanding and command of Arabic language. It is oriented towards advanced sentence structuring and composition while improving one's speech style.

*Pre-requisite:*      LAN 101

**LAN202**      **Intermediate French**

This course is designed for those who have basic knowledge of the language and are able to conduct a simple conversation. This course further enables students to converse in French on a higher level for specific purposes. This course is designed to give general knowledge of different operative systems of France. It prepares the students in manner that they can deal with different situations while traveling and contact and correspond with French natives by letter writing or e-mail. The main objective of this course is to bring the students to a level where they can communicate well and deal with different situations in 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 for those who have a basic understanding and command of the Chinese language. It is oriented towards advanced sentence structuring and composition while improving one's speech style.

*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 course aims 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**

This course provides 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.

**LAW201**      **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 & joint ventures, raising finances from different modes like issuance of different types of shares, debentures (TFCs) and other capital maintenance issues; practical aspects of holding and managing company meetings and decision making; powers, duties & responsibilities of directors and other company officers in the light of corporate laws & governance; practical aspects of mergers & acquisitions and the reasons and consequences of liquidations.

**LAW401**      **Business Law**

The course provides an in-depth study of law relating to commercial associations/ entities with a particular focus on companies. The topics includes legal system/framework of Pakistan, an introduction to the concepts and sources of laws; different aspects of contract laws as in day to day commercial life, performance/ discharge of the contract with particular emphasis on the specialized contracts made by companies, e.g., agency, industry & guarantee, bailment (which includes carriage of goods & pledges). Topics also include the selected parts of partnership laws and sale of goods laws.

**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 by examining a broad range of issues, including commercial pressures. The course also introduces laws and ethics in the Pakistani context, especially issues of freedom of expression, absolute vs. responsible freedom, code of conduct and ethics of APNS and CPNE.

*Pre-requisite:*      MMM438

#### LAW406 Professional Ethics and Legal Issues

This course addresses the legal and ethical issues in organizations from a multicultural perspective. The course explores managerial decision-making and reinforces ethical considerations in test decision making, employment selection, compensation, performance appraisal and general treatment of employees at work. 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 of the American Psychological Association and the Society of Human Resources Management in its applicability both domestically and globally.

## Management

#### MAN101/301/401 Principles of Management

The purpose of this course is to prepare students to be managers. The course includes a wealth of conventional wisdom related to traditional management challenges of planning, organizing, leading and controlling. In addition, the contemporary management challenges related to such issues as people, quality, diversity, ethics and the global environment are included. Overall, the course is carefully crafted to present traditional management concepts, important contemporary management issues and insights so as to ensure organizational success. The pedagogical objective of the course is to impart specific actionable skills to the student.

#### MAN201 Personal Management

The importance of self-management is stressed for productive results. Topics include time management, stress and conflict handling. Development of emotional maturity is discussed and interpersonal skills are developed through transactional analysis.

*Pre-requisite:* MAN 101/301/401

#### MAN302/402 Organizational Behavior

Organizational behavior is a study of how people behave as individuals, in groups and how groups behave as parts of organizations. An effective organization is the one that understands and manages optimum levels of these three types of behavior. The course includes a wealth of conventional wisdom related to traditional organizational behavior issues of the individual, the group and the organization. In addition, the contemporary management challenges related to such issues as the design of HR practices, technology, work design and organizational dynamics are included. The course is carefully crafted to present traditional OB concepts integrated with important contemporary OB management issues and insights so as to ensure organizational success. The student must learn to critically analyze and apply principles to specific, real or created situations.

*Pre-requisite:* MAN 101/301/401

#### MAN303/406 Production and Operations Management

The course will provide a student-oriented presentation of the subject. It will reflect current production and operations management practices and techniques. An integrated approach featuring management process, resource conversion and concepts, models, and behavior applications within the production/operations function will be followed.

*Pre-requisite:* MAN 101/301/401, STA 202, MTH 103

#### MAN305 International Relations

This course aims at providing basic knowledge of international relations. In this course, the key theoretical concepts and terms of the field will be discussed such as level of analysis of international relations, theory and theory building, important actors in the international arena and the world system, and relations between states. Students will also be introduced to contemporary and future problems and issues in international politics.

*Pre-requisite:* MAN 201

**MAN321 Organizational Behavior & HRM**

This management area focuses on (1) individual, group, and organizational attributes and behavior to describe and explain the functioning and structuring of work organizations, and (2) the practical aspects of human resource management. Students seeking managerial careers in any business function can valuably learn about leadership, motivation, morale, performance, teams, organizational culture, and organizational design. Students interested in careers as human resource management specialists and managers can gain technical knowledge about selection, performance appraisal, training, compensation, workforce diversity, work and family programs, and strategic human resource management.

**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. Particular emphasis is laid on managing a new venture during early operations, growth and expansion.

*Pre-requisite:* MAN 101/301/401, MKT 302/402, FIN 202

**MAN404 Operations Research and Management**

The course aims to enhance the capability of decision-making through application of modern methods of mathematical science to complex problems. The topics includes linear programming, transportation and assignment models, network models, queuing models, simulation, replacement models, etc.

*Pre-requisite:* MKT 303, MAN 303

**MAN405 Strategic Management**

The course is intended to be a challenging and exciting capstone course for a graduate business school curriculum. It is the first course about strategy and its implementation. Students will be exposed to the state of the art of strategy analysis, formulation, implementation and control. Through case studies, students will develop skills relating to the application of industry and competitive analysis, the ingredients of an attractive strategic plan, the importance of building a sustainable competitive advantage and the special demands of operating in an increasingly global competitive environment.

*Pre-requisite:* MKT 302/402, MAN 301/401, 302/402, HRM 301/401/402

**MAN407 Organizational Management**

This course is a study of the entire process of management. It gives an insight into the development of managerial skills for effective running of business operations. Along with the in-depth knowledge of the functions of management it serves as a basis for understanding motivation techniques for human resource which is critical for synergies in business.

**MAN408 Analysis of Pakistani Industries**

Students get a micro and a macro environmental exposure and understanding of the various issues facing the industry. This course also aims at benchmarking the various functional processes so as to achieve organizational excellence.

*Pre-requisite:* MAN 302, HRM 301, ECO 402

**MAN409 Principles of Management & Human Resource Management**

This course highlights management concepts, principles, processes and functions of management, namely, planning, organizing, leading and controlling which provides a sound basis for carrying out required tasks and successfully achieving goals in any organization today. In this environment, effective management, of human resource is one of the few levels that managers have at their disposal to accomplish their organizations strategic objectives. The course enhances the students' understanding of the strategic aspects of managing human resources in an environment, which is constantly changing.

#### MAN410 Industrial Management

The course introduces industrial management operation system & includes objectives; entrepreneurship, project identification, evaluation, project & operation cost, productivity, breakeven analysis, process management, operations strategy, competitive strategy framework for competitor analysis, structural analysis of industry, total quality management, capacity planning & facility location, inventory management, supply chain management, project management, project control and technology management.

#### MAN411 Project Management

The course covers project initiation, discovery and analysis, time and cost estimates, project planning, network diagram, critical path, recourse management plan, project execution, monitoring and managing, project control, project closure plan, managing operation transfer plan.

#### MAN413 Corporate Social Responsibility

CSR is the commitment of businesses to contribute to sustainable economic development by working with employees, their families, the local community and society at large to improve their lives in ways that are good for business and for development. This means that a company's responsibility to society should start with ensuring that it produces high quality products or services and it does this with the least environmental impact and with the most benefits primarily for its employees, then for consumers, the local community, shareholders and others. Further this responsibility must be executed on a continuing, sustainable basis. Supporting a cause while intrinsically commendable in itself, comes later and even when it is taken up, it must necessarily have a direct relationship with the company business.

*Pre-requisite:* MAN 401

#### MAN416 Corporate Governance

Corporate Governance is the system by which business corporations are directed and controlled. The Corporate Governance structure specifies the distribution of rights and responsibilities among different participants in the corporation, such as the board, managers, shareholders and other stakeholders and spells out the rules and procedures for making decisions on corporate affairs. By doing this, it also provides the structure through which the company objectives are set and the means of attaining those objectives and monitoring performance

*Pre-requisite:* MAN 401

#### MAN417 Services Management

This course focuses on service industries such as dealing with intangibility and inseparability. It also examines the problems faced by professional, not-for-profit, social and financial services marketers.

#### MAN501 Total Quality Management

This course revolves around the customer satisfaction model and deals with the areas of benchmarking, ISO-9000 (quality management systems), ISO-14000 (environmental quality systems), statistical process control, customer satisfaction approaches/models (management tools). There is special emphasis on research project & case studies in this course.

*Pre-requisite:* MAN 101/301/401, MAN 303

#### MAN502 Business Process Re-engineering

This course is designed to develop an understanding about organizing, managing & improving the ongoing process & systems essential for sustained growth of the organization.

*Pre-requisite:* MAN 101/301/401, MAN 303

#### MAN503 Supply Chain Management

This course covers essentials of Supply Chain Management and is divided into foundations of SCM, enabling concepts, the requirement process, strategic sourcing, strategic cost management relationship management and world class supply chain management. Topics like buyer supplier relationship, new product development, specifications and standards, procurement of equipment, cost analysis, pricing, negotiations, supply development, supply chain score card, SCOR models, IT applications to SCM, green supply chain are focused using case studies. Research report is a requirement of the course.

*Pre-requisite:* MAN 101/301/401, MKT 301/401



**MAN504**      **Business Balanced Scorecard**

This course is a set of measures that provide a comprehensive business overview. It includes not only measures that track past actions, but also those that drive future performance. In this course, students will build the skills to create a strategy map and a Balanced Scorecard for an organization.

**MAN507**      **Business Etiquette**

The course deals with the ingredients necessary for career growth, apart from technical competence, e.g., protocol in the office, personal grooming and dress, relationship with colleagues and customers, etc.

**MAN508**      **Comparative Management**

This course exposes students to the different work-related values and norms prevalent in various countries of the world. The main aim of this course is to expose students to different cultural mindsets and the effective leadership styles which have been developed in different parts of the world.

**MAN509**      **Logistics and Inventory Control**

The course is 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. The unit is also designed to facilitate the completion of an applied research project.

**MAN602**      **Survey of Current Research Literature in Management**

The course provides a review of management research literature under the supervision of PhD faculty. It provides an opportunity to analyze quality research published in different professional journals in the field of Management. The course concentrates on organizational behavior, business policy, human resource management, behavioral sciences.

## Management Information Systems

**MIS001**      **Introduction to Computers**

The course is an overview of computers, understanding the machines, binary (bits and bytes), different goals, different machines and their sizes, history of computers and parts of computers.

**MIS102**      **Computer Concepts**

The course provides an overview of computers, understanding the machines, binary (bits and bytes), different goals, different machines and their size, history of computers and parts of computers. Problem solving techniques using computers, flow charting and algorithm design, processing methods and programs, types of computer languages, types of computer software an an introduction to operating systems is also part of the course.

### MIS103 Computer Applications I

The course is a study of microcomputer applications software, including operating systems, word processing, presentation graphics, spreadsheet, and implementation of solutions using appropriate applications software.

*Pre-requisite:* MIS 102

### 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. It provides mathematical and practical knowledge of graphical standards necessary to meet the requirements of today's industrial engineering practices.

### 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

### 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

### 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 Visual Basic

The course provides an introduction to Visual Basic, database access objects, maintaining databases using Visdata, input validation rules, creating user interface, error handling using VB, an overview of SQL server, active X data object, security issues, report writing, etc.

*Pre-requisite:* MIS 404

**MIS406**      **Operations Research**

The course focuses on the nature of operations research, formulating problems and objective analysis, types of problems, risk situation, sequential decisions models, linear programming model, graphical method, simplex method, etc.

*Pre-requisite:*      MIS 401

**MIS407**      **Programming in JAVA**

Introduction to object oriented methods, fundamental programming structure in JAVA, GUIs, 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. Students would also learn about organization, logical design, and methods of computer usage in the area of mathematical science, algorithm development and presentation, number systems, flow of control; basic number codes.

**MIS411**      **Graphics and Animation**

This is a practical course which aims to make the student familiar with the use of software to produce different types of graphics and animation in their films and presentations.

**MIS413**      **Information Technology I**

The objective of this course is to provide students with adequate knowledge of computer hardware and software; important elements and concepts of information systems; basic principles of computer programming and computer software application. It also gives an insight in the IT Security and controls; focuses on practical experience on performing various general procedures and the use of standard packages.

**MIS415**      **Computer Practical Training I**

The course will focus on terminology, a short history of computing, software evolution, installing a new computer, hardware components, the function of the CPU, memory, input devices, output devices, storage devices and options, overview of operating systems, the internet and online services and troubleshooting PC problems and errors etc.

**MIS 416**      **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

**MIS417**      **Computer Practical Training II**

The course will focus on Windows XP, Windows basics, using the mouse, the start menu, and the taskbar, help! finding answers fast, opening, closing, and rearranging Windows, icons, folders, and shortcuts, customizing Windows XP, views in Windows, XP's little programs that do big things, the clipboard, installing software, finding lost files, fun with fonts, printing in Windows XP, etc.

*Pre-requisite:*      MIS415

### 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 (key management, certificate authorities, standards, WWW security, transport and tunnel mode, secure sockets layer, Secure Electronic Transactions (SET), e-Auctions, e-advertising; CRM, supply chain management, internet banking, e-Government and future of e-commerce and technological needs.

*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 Enterprise Resource Planning Systems

This course examines the cross-functional integrated computer-based information systems, commonly referred to as Enterprise Resource Planning (ERP) systems. Systems, common business processes, re-engineering/Change management, and enterprise reference models are introduced with a holistic and research-oriented perspective. It focuses on issues associated with the analysis, design, implementation, and configuration of such enterprise systems and investigates topics such as supply chain, planning and control systems, optimization, scheduling systems, electronic commerce and business information warehousing.

*Pre-requisite:* MIS525

### MIS527 Information Security

The course presents technical arrangements for making information systems more secure. The process starts with defining the proper security requirements that are usually stated as a data security policy. Other topics include: identification and authentication, access control, security kernel, physical security, eavesdropping, hardware security, system software security, encryption techniques, public key infrastructure, security protocols and handling subversive software.

*Pre-requisite:* MIS506

### MIS528 Advanced Information Security

The course addresses concerns regarding confidentiality, privacy and the volatility of information resulting from the use of information technology. It emphasizes such managerial security issues as system security and controls, legal and ethical issues arising from protecting computer files both from a Pakistan and world perspective, disaster recovery and contingency planning and other tools used for protecting information system resources.

*Pre-requisite:* MIS527

### 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 is an introductory course in marketing. It is aimed to give an insight into the philosophy of marketing in organizations. Through this course students will get an elaboration of marketing concepts which will form a foundation for all marketing related courses.

### MKT302/402 Marketing Management

This course is designed to familiarize students with the process of marketing management. It is an application of the marketing concepts to real life situations. Students learn to develop a situational framework for analyzing marketing problems and opportunities and pursue suitable objectives and strategies. It is a practical course based on case studies, incorporates preparation of a comprehensive marketing plan and discussion of contemporary marketing issues through article presentations.

*Pre-requisite:* MKT 301/401

**MKT403**      **Sales Management**

This course enlightens students on how organizations sales goals can be met in an effective & efficient manner through planning, staffing, training, leading & controlling organizational resources. The course teaches students to prepare sales plans and forecasting, territory planning, and time management among other topics.

*Pre-requisite:*      *MKT 301/401, 302/402*

**MKT404**      **Methods in Business Research**

The course aims at providing an understanding of the research process application to various segments of business and social life. It is designed to impart methods and techniques of scientific research and report writing. It also aims to develop an attitude of objectivity and scientific thinking.

*Pre-requisite:*      *MKT 301/401, 302/402, STA 202/403/404*

**MKT405**      **Marketing Research**

This course teaches the function that links the consumer, customer, and public to the marketer through information. Students learn methods to collect information, manage and implement the data collection process, analyze, and communicate the findings and their implications.

**MKT501**      **Strategic Marketing and Planning**

This course develops an understanding of the techniques, concepts, approaches and skills in marketing management and strategy planning. It incorporates strategic management techniques developed from models for the corporate environment, campaign marketing for the public environment and international marketing

*Pre-requisite:*      *MKT 301/401, 302/402*

**MKT502**      **Packaging, Printing and Graphic Design**

This course prepares students to make marketing decision based on knowledge of visual/aesthetics and business considerations. It also covers paper proportioning and structural designing using different material vis-à-vis steel, aluminum, plastic, paper, etc and hence translating the brand concept to the final sales package. This module provides an appreciation of the factors affecting style, design, color perception, etc., in packaging.

*Pre-requisite:*      *MKT 302/402*

**MKT504**      **Advertising**

This course helps students to acquire a full understanding of the function of advertising in the marketing process, develop their skills in designing an effective advertising campaign and judging and evaluating the advertising proposals. The course will familiarize them with the process and techniques of advertising production, its budgeting & control process.

*Pre-requisite:*      *MKT 302/402*

**MKT505**      **Industrial Marketing**

The course includes the nature of the industrial market, analysis of customer procurement strategy, product policy, pricing, distribution strategy, sales force management and key account selling strategy.

*Pre-requisite:*      *MKT 302/402*

**MKT506**      **International Marketing**

This course analyses opportunities, distinctive characteristics, and emerging trends in foreign markets; explores alternative methods and strategies for entering foreign markets; organizational planning and control; and impact of social, cultural, economic and political differences.

*Pre-requisite:*      *MKT 302/402*



**MKT507**      **Services Marketing**

This course provides an in-depth appreciation and understanding of the unique challenges inherent in managing and delivering quality services. Students will have the opportunity to work with tools and strategies that address these challenges.

*Pre-requisite:*      *MKT 302/402*

**MKT508**      **Personal Selling**

In this course the students are taught the art of oral communication with potential buyers of a product with the intention of making a sale. Among marketing jobs, more people are employed in selling than any other field, hence this course gives good textbook knowledge to equip the student for such a position in the practical field.

*Pre-requisite:*      *MKT 302/402*

**MKT509**      **Consumer Behavior**

Consumption is so prevalent that we are often unaware of its importance in shaping our lives. This course adopts a psychological approach to consumer behavior and explores the implications for individual consumers and marketers. It deals with the crucial issues of why consumers buy what they buy and how they respond to marketing and advertising influences.

*Pre-requisite:*      *MKT 302/402*

**MKT510**      **Direct and Digital Marketing**

This course gives an insight into the nature and purpose of direct marketing and how companies can use the various promotional tools to gain a competitive edge. It differentiates the various elements of communication mix and explains where these are used to access targeted consumers. It describes the steps, problems and issues involved in the implementation and execution of a project of direct marketing.

*Pre-requisite:*      *MKT 302/402*

**MKT511**      **Brand Management**

This course considers strategies to build and effectively manage brand equity. It covers the role of brand awareness and image; brand extension principles, integrated marketing communications, and financial and marketing research measures.

*Pre-requisite:*      *MAN401, MKT 302/402*

**MKT512**      **Export Marketing**

The course offers a guide to the practicalities of entering international markets. The topics includes international trade and regional comparative advantage, soliciting markets, documentation and financing of exports.

*Pre-requisite:*      *MKT 302/402*

**MKT514**      **Event Management**

Courses on event management are the talk of the town nowadays because of the element of glitz, glamour, flamboyance and style associated with important social and corporate events like marriages, birthday parties, company conferences, seminars, workshops, product launches and a host of other activities. This course teaches the student to plan for such events right from brainstorming to the final execution.

**MKT517**      **Media Marketing**

This course teaches techniques which are used by marketers to sell media as well as methods employed to convince advertisers of how their applications can be used to obtain optimum results. Often this takes the form of presentations to advertisers and could include the preparation of a media plan for each campaign to help clients

**MKT519**      **Marketing of Financial Services**

This course teaches students how financial products- banking and insurance primarily- are marketed. Students are taught through local examples and made to apply marketing concepts to local players in the industry.

*Pre-requisite:*      *MKT 301/401, 302/402*

**MKT520**      **Merchandising and Sales Promotion**

The course aims to touch upon a frequently overlooked facet of marketing; visual marketing and the role it plays in sales promotions. The course will explore the definition and use of visual merchandising with an emphasis on local companies and then move on to the role it plays in sales promotion.

*Pre-requisite:*      *MKT 301/401, 302/402*

**MKT521**      **Distribution and Channel Management**

The battle of consumer products is now fought in the field of distribution. Even the best advertising and communication and positioning strategy will not be capitalizing on the investments made until there are operational executions in the battlefield, i.e., distribution. Hence, this course has been designed to prepare students with a framework as well as operational plan for the execution of a successful distribution marketing strategies related to the local multi-national and national environment, keeping in view the key elements of Pakistani markets.

*Pre-requisite:*      *MAN 101/301/401, MKT 301/401, 302/402*

**MKT526**      **Public Relations and Event Management**

Public relations is increasingly being recognized as an important business function. Accordingly, this course prepares students to acquire a full understanding of the function of public relations in a complex, social, economic and political environment. This course will also familiarize the students with the processes, tools and techniques required for effective public relations.

*Pre-requisite:*      *MKT 302/402*

**MKT527**      **Integrated Marketing Communication**

The course focuses on how to plan, develop and execute integrated marketing communication programs using the tools of advertising, direct marketing, sales promotion, public relations, special events marketing, online advertising and personal selling.

*Pre-requisite:*      *COM402, MKT401*

**MKT530**      **New Product Development**

This course educates the student on the whole cycle of launching a new product. It engulfs areas right from conceptualization, to research, design, testing, manufacturing and finally at the heart of it- marketing the new product. Segmentation, pricing, profitability, distribution strategies in the light of conjoint portfolio analysis are also included.

**MKT531**      **Retail Management**

This course provides a good understanding of the concepts, strategies, and trends associated with a retail operation in the marketplace. It explores the current retail environment and key retail management strategies from managing merchandise and employees, to advertising and promotion. The course incorporates environmental, demographic and social issues into the discussion of retail operations.

**MKT601**      **Survey of Current Research Literature in Marketing**

This course offers a comprehensive review of research materials from professional marketing journals, allows students to carry out their exploratory and research activities. Moreover, it focuses on data analysis, applications of multivariate statistics, and multiple-regression factor analysis to marketing research problems. Considerable time is devoted to multi-attribute preference model in various marketing fields including brand, product, direct, consumer, advertising, sales, and global marketing.

## Mathematics

### MTH011/012 Business Maths and Statistics I & II

This course will provide an in-depth study of the concepts of statistics and quantitative business tools. The course will mainly emphasize learning quantitative techniques along with their application to economics and business. The topics include inequalities, function notation and inverse, linear, quadratic, polynomial and exponential functions and mathematics of finance.

### MTH101 College Algebra

The course is a review of exponents, equations and inequalities, function notation, composition and inverse, linear, quadric, polynomial, exponential and logarithmic functions and their graphs.

### MTH102 Pre-Calculus

This course is designed for those students who have not studied mathematics in intermediate or equivalent. It helps students in learning basic mathematical skills like, algebra, factorization, geometry and trigonometry. Introduction to functions and matrices would also be a part of this course. Students who have already passed a mathematics course in intermediate or equivalent are exempted.

### MTH103 Calculus for Business Decisions

The aim of the course is to develop the ability to analyze problems logically, recognize when and how a situation may be represented mathematically, identify and interpret relevant factors and, where necessary, select an appropriate mathematical method to solve problems. The course includes the concepts and business application of functions, differential and integral calculus, optimization methodology, transformation and assignment model.

*Pre-requisite:* MTH 101

### MTH104/401 Calculus I

The course covers the functions and graphs, system of linear equations, Cramer's rule, sequences, limits and continuity, differentiation, chain rule, mean value theorem, maxima and minima and integration of simple functions.

### MTH105/402 Calculus II

The course includes techniques of integration, areas between curves, continuity of functions of several variables, partial differentiation, differentiation derivations, line integral, multiple integral, calculus of variations, etc.

*Pre-requisite:* MTH 104/401

### MTH109 Applied Calculus

Introduction to functions, introduction to limit, derivatives and their applications, integral calculus with applications, vector algebra, vector calculus, introduction to analytical geometry, straight line in  $R^3$ , planes, cylindrical and spherical coordinates, surfaces, cylinders and cones, spheres, spherical trigonometry.

### MTH201 Discrete Mathematics

The course will cover mathematical fundamentals of computer science and some techniques of discrete mathematics. The topics covered will include: proposition calculus, predicate calculus inference imprecation, recursive functions, sequences and series, inclusion/exclusion, recurrence relations, graphs and trees, Boolean algebras, and ordered sets. The course emphasizes introducing students to formal mathematical notation and proofs and concepts useful in computer science. Other topics include computer related arithmetic, propositional and predicate logic.

### 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.

**MTH205 Financial Mathematics**

Considering the problem of derivatives pricing in finance the necessary tools from probability theory and stochastic processes will be introduced in the course. The first part presents the main objects of interest from finance in the context of discrete models. Discrete probability spaces will be reviewed and fundamental results on Martingale theory will also be discussed including the optimal stopping problem applied to American options. The second part helps to move from discrete to continuous models. The course will include the celebrated Brownian motion and the associated Ito's stochastic calculus. The third part the course will show how to use these tools for pricing various types of derivatives (European, American, Asian, etc.) in the context of continuous models such as Black-Scholes. The relation with PDEs will be explained and numerical issues will be discussed. Models for interest rates and associated pricing problems will also be presented. In the last part of the course generalizations to stochastic volatility models and calibration issues will be discussed.

*Pre-requisite:* STA 301

**MTH206 Multivariate Analysis**

This course is designed to provide an integrated, in-depth, but applied approach to multivariate data analysis and linear statistical models in behavioral science research. The topics will include regression analysis, univariate and multivariate ANOVA and ANCOVA, disjunctive analysis, logistic regression, canonical co-relation analysis. Principal components, factor analysis, LISREL models, cluster analysis and multi dimensional scaling will also be covered.

*Pre-requisite:* MTH 204

**MTH207 Stochastic Models and Math. Finance**

The course is an introduction to mathematical modeling, analysis, and solution procedures applicable to uncertain (stochastic) production systems, including probability theory and stochastic processes. Applications relating to design and analysis of problems, capacity planning, inventory control, waiting lines, and system reliability and maintainability will also be included in the course.

*Pre-requisite:* MTH 205

**MTH208 Differential Equations and Complex Variables**

Differential equation is of fundamental importance in engineering mathematics because many physical laws and relations appear mathematically in the form of such equations. The course of differential equation will give us an understanding of how to transform the given physical situation to its corresponding mathematical model.

*Pre-requisite:* MTH 202

**MTH209/409 Financial Mathematics I**

Time value of money, simple interest, compound interest, accumulation function, future value, present value/net present value discount factor, discount rate (rate of discount), convertible mthly, nominal rate effective rate, force of interest, equation of value, annuity-immediat, annuity-due, perpetuity, payable mthly, level payment annuity, arithmetic increasing/decreasing payment annuity, geometric increasing/decreasing payment annuity, term of annuity, loans, principal, interest, term of loan, outstanding balance, final payment (drop payment, balloon payment), amortization sinking fund.

**MTH210/410 Financial Mathematics II**

Bonds price, redemption value, par value/face value, coupon, coupon rate, term of bond, yield rate callable/non-callable book value, book value accumulation of discount general cash flows and portfolios, yield rate/rate of return, dollar-weighted rate of return/time-weighted rate of return, current value, duration (macaulay and modified), convexity, portfolio, spot rate, forward rate, yield curve, stock price, stock dividend Immunization, cash-flow matching; immunization (including full immunization); redington immunization. The term structure of interest rates, continuous models, stochastic approaches to interest are featured in the course.

**MTH211 Actuarial Mathematics**

Advanced problems in the mathematical theory of life contingencies; force of mortality, 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.

**MTH400**      Mathematics for Business

This course is designed for all business students. It will assist students in reaching a level of increased competence in mathematics and expanded understanding of the applications of mathematical concepts in business activities. Emphasis is placed upon learning mathematical concepts through practical application to common business problems.

**MTH403**      Numerical Computing / Analysis

The course covers errors, calculations and importance in numerical computing; various methods of solution of non-linear equations, Newton's method and condition of convergence, interpolating polynomials, forward differences ( ) Newton's Forward (NF) polynomial, backward differences ( ), Newton's Backward (NB) polynomial; error analysis, unequal spaced values, inverse interpolation; numerical differentiation, formula for higher derivatives, numerical integration, rectangular rules; trapezoidal rule, simpson's 1/3, 3/8 and 14/15 rule, romberg's approximation, gauss's quadrature, and multiple integrals. MATLAB and a programming language will be used to teach all topics.

*Pre-requisite:*            MTH 105

**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, Galerken approximation; partial differential equations, initial value problems and numerical integration.

*Pre-requisite:*            MTH 202

## Media Management / Studies

**MMM301**      Photo Journalism

The purpose of this course is to provide training to students in the technical and aesthetic aspects of photography and enable them to take good photographs.

**MMM302**      Logic and Critical Thinking

This course seeks to develop the faculties of reasoning and critical thinking in the students. It will also include the fostering of an analytical approach to reading, listening and viewing messages from the media.

**MMM303**      Outline of Political Science

This course seeks to apprise the students of the evolution of political ideas and the development of political institutions. It will discuss the rise of the state, and the institutions of legislature, executive and judiciary and their working in different countries.

**MMM304**      Media Literacy

This course has been designed to make students understand and analyze the messages that are being imparted by the media. It is aimed at making students aware of the content and critically analyzing the basic purpose and meaning of what they have read or viewed.

**MMM305**      Videography

The purpose of this course is to teach students how to make films: the use of the video camera, shooting images and putting them together in proper form. This is a practical course.

**MMM306**      Mass Media in Pakistan

This course will study the history and development of the media in Pakistan from the beginning to the present day. It will also discuss the role being played by the media today, Government – media relations, and issues concerning the media.

**MMM307**      **World Civilization and Culture**

This course seeks to apprise students of the world's common heritage. The achievements of the great civilizations of the past – the Egyptian, Babylonian, Greek, Roman, and their contribution to world culture. It will also discuss the contribution of the west and of Islam towards art, culture, music, literature, science and philosophy.

**MMM308**      **Contemporary World Media**

This course will provide an overview of the history and development of media in the world and the working of important world media organizations both print and electronic. It will also deal with issues of the world news flow and problems concerning the media today.

**MMM309**      **Creative Writing**

This course seeks to develop the writing ability of students. They will be trained to write paragraphs, essays, stories, letters and articles dealing with different subjects.

**MMM310**      **News Writing and Reporting**

This course will teach students what news is, how to identify a possible news story, how to gather information about it and how to present it in a proper style. It seeks to teach the techniques of reporting and news writing of different types of stories such as crime, courts, political, social, education, health, etc.

**MMM311**      **Introduction to Broadcast Media**

This course is designed to apprise the students of the structure and working of electronic media organizations – radio and television. It will teach the basics of radio and TV programs and the production, direction and scripting of different types of programs.

**MMM312**      **Introduction to Advertising and Public Relations**

This course is designed to introduce students to the principles and techniques of advertising and public relations. It will deal with the structure of the Advertising and PR industries, types of advertising, construction of effective advertising messages, preparation of press releases, handouts and effective use of media.

**MMM313**      **Theater Studies**

This course will seek to study the role of theater as a medium of Mass Communication, both in the world perspective as well as in Pakistan. It will also deal with the dynamics of producing, directing, scripting and acting for the stage.

**MMM314**      **Online Journalism**

This course is meant to familiarize students with the potential of the net as a medium of communication. It will enable students to produce news, articles and other materials to be disseminated on the net, besides creation of websites, and techniques of publishing and marketing online editions of their papers and magazines.

**MMM315**      **Feature, Article and Column Writing**

This course is designed to develop writing skills of students for advanced journalistic writing such as features, articles, reviews, columns and editorials. It is a practical course.

**MMM316**      **Sub Editing and Page Design**

The purpose of this course is to make students familiar with the techniques of copy editing, headline making, and page layout, besides rewriting, restructuring and improving copy. It will also teach composing and computerized page making techniques. This is a practical course.

**MMM317**      **Theories of Communication**

This course aims to apprise students of different concepts about the role of media, and the effects of the media on the individual and society. It will provide an overview of the different theories formulated in this regard.

**MMM318**      **Economic Journalism**

The purpose of this course is to enable the students to write news reports and articles on economic issues and matters dealing with business and finance. It is a practical course.

**MMM319**      **Film Studies**

This course will discuss the history and evolution of film as a medium of Mass Communication. It will throw light on the film industries of different countries and the various genres of films. It will also give practical training on film production, direction and other aspects of film making.

**MMM320**      **Post Production and Editing**

This is a practical course that will deal with different aspects of post production of films and videos, i.e., editing, dubbing, mixing, etc.

**MMM321**      **Development Communication**

This course will highlight the importance of communication for social and economic development. It will give a theoretical perspective on development, development issues of Pakistan, as well as planning communication campaigns for health, education, human rights, etc.

**MMM322**      **Current Affairs**

This is a course based on newspaper reading and will seek to discuss different problems and issues prevalent in Pakistan as well as the world. Students will be expected to give their perspective on different issues.

**MMM323**      **International Communication**

This course is aimed at helping students analyze the role of the media in this age of globalization. It will focus on the positive role the media can play in increasing communication among nations and in conflict resolution.

**MMM324**      **Media Management and Marketing**

This course will deal with the application of management techniques with regard to working of media organizations. It will include planning, organizing, personnel and crisis management.

**MMM325**      **Research Report**

Students will do a Research Report or thesis on some aspect of the media or communication.

**MMM410**      **Introduction to Film / Cinema**

Such aspects of introduction to film/cinema are learnt in theory and practice as planning, organizing, directing, controlling and promoting, including hands-on training given by professionals in an ideal work-like atmosphere enabling students to excel in careers, jobs or business.

**MMM411**      **Introduction to Radio**

The course will focus on the importance of the radio, nature of the medium, broadcast by objectives, target audience, areas / population covered, planning, production and presentation, formats (drama, music, feature, documentaries, investigative reports, interviews, road shows, musical stories, discussions, magazines), computer planning systems, terminologies of broadcasting (OB, Vet, DJ, Dubbing, Cue, Fading.....), broadcast engineering (kinds of transmitters, frequency spectrum, process of sending and receiving signals), what is AM (MW), FM (SW, LW), copyrights / royalty, legality of broadcasting, ethics of broadcasting, feedback (listeners' participation, surveys).



#### MMM412 Media Time and Priorities Management

This course aims at providing fresh ideas and insights for media personnel to manage time and priorities in a 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.

#### MMM414 Introduction to Television

The course will focus on companies and channels...terrestrial, satellite, cable: basic difference and distribution system, areas and audiences covered; videotapes discs and view data, viewing trends; audience information, planning, buying and selling; sponsored programs and campaigns, structure of rate cards/station costs, frequencies of impact, computers in planning, programs and campaigns and human interest programs of interest.

#### MMM415 Media Sponsorships and Supplements

The objective of this course is to help students how to plan, organize, direct, control and promote sponsorships and supplements for the media in order to generate business. The course emphasizes on advertising and supplements for the print media through building and capitalizing on potential clients and contacts and on the editorial, layout and production side of supplements. Similarly, the dynamics of seeking and coordinating sponsorships for the electronic media, including private TV and FM radio channels, will also be emphasized.

#### MMM416 Introduction to Web (New Media)

Students are introduced to multidisciplinary field of Electronic Commerce. The course covers 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 (key management), certificate authorities, standards, WWW security, transport and tunnel mode; Secure Sockets Layer, Secure Electronic Transactions (SET), e-auctions, e-advertising, CRM; Supply Chain Management, internet banking, e-government and future of e-commerce and technological trends.

#### MMM417 Media Programming and Product Development

Students are familiarized with contemporary trends in planning, organizing, directing and controlling programming and product development.

#### MMM418 Media Planning and Buying

The purpose of media planning is to conceive, analyze and select channels of communication that will direct advertising to the right people in the right place and at the right time. As the media becomes more complex and challenging over the years, media decisions become even more critical and the clients even more demanding. In this new advertising environment media planning and buying have become more complicated due to media options, fragmentation of the audience, cost, increasing complexity in the media buying and increasing competition. This course provides students with a comprehensive study of the subject and they will be able to understand the importance of the elements of media strategy.

#### MMM419 Media Entrepreneurship

To provide an understanding of the person and the process of creating and growing a new media venture, this course introduces the media entrepreneurial perspective and focuses on all the elements in the entrepreneurial process that are part of creating a new venture. It introduces students to aspects of financing a new media venture through alternative sources of capital. Particular emphasis is laid on managing a new venture during growth, early operations and expansion.

#### MMM420 Media Brand and Image Management

Brand Management considers strategies to build and effectively manage brand equity. It covers the role of brand awareness and image, brand extension principles, integrated marketing communications, and financial and marketing research measures.

**MMM421**      **Media Sales**

This course enables students to acquire pertinent knowledge and information pertaining to concerned clients and customers and the sales strategy of media management at large.

**MMM422**      **Strategic Media Marketing**

Strategic Marketing is an understanding of the technique, concepts, approaches and skills in marketing management and strategy planning. It incorporates strategic marketing techniques developed from models for the corporate environment, campaign marketing for the public environment and international marketing.

**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.

**MMM424**      **Media in World Affairs / International Media**

The media is an important vehicle for creating an atmosphere conducive to harmonious international relations. Editorial comments, headlines and news giving a particular twist to upcoming conferences, negotiations, etc. and have a major impact in forming concerned public opinion. The course covers pertinent aspects such as media professionals vision and understanding of world affairs, their ability to manage sensitive situations skillfully and congenially and their positive and potential coordination with relevant national and international organizations.

**MMM425**      **Future Concepts and Trends**

This course incorporates the contemporary tools and techniques regarding technological and business aspects of the Media Management program comprehensively including print and electronic media as well as advertising and communication and media oriented public affairs and promotional strategies.

**MMM426**      **Crisis and Conflict Management**

The fact that conflicts and crises arise in challenging and changing media situations, irrespective of print or electronic media, or all media oriented advertising and public relations, there is a growing need for techniques in crises and conflict management. This course offers an efficient and effective account of the measures or modus operandi devised and adopted to manage conflicting and critical individual, organizational and promotional situations in the vibrant fields of mass communication, public relations and corporate affairs pertaining to Pakistani job conditions, client interaction or work environment.

**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

**MMM431**      **Imaging and Photo Journalism**

This course is characterized by quick, easy and workable and affordable ways and means to use the camera traditionally or digitally for the pictorial content which is a part and parcel of journalism. It not only covers the technical aspects of photography.

**MMM433**      **FM Radio Dynamics**

The course will highlight the subject in its various forms and manifestations, including the procedure, paraphernalia and personnel involved in setting up an FM Radio Channel. Planning, programming, production and presentation.

**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 the student of the importance of media as a vehicle for creating an atmosphere conducive to international relations. It teaches the students how the media has undergone significant changes over the years and the power it has on the formation of public opinion and affecting the external environment for marketers and others.

*Pre-requisite:*      MMM438

**MMM438**      **Introduction to Media in Pakistan**

This course comprehensively covers contents like print, electronic, out-of-home media in Pakistan. The course also discusses the Pakistani environment in the context of media laws & ethics, the role it plays in world affairs, and marketing, planning and research processes prevalent in the country.

**MMM439**      **Media Research and Public Opinion**

Mass media research introduces graduate students to applied audience research for electronic media. The emphasis will be on Pakistan's media market and students will gain hands on experience with syndicated and custom audience research for print and electronic media. Students will be exposed to various aspects of media audience research including Gallup ratings for T.V, radio and cable TV and other music research. Students are expected to become familiar with the Pakistan media market specially in electronic media, based on TV, radio, cable systems and cinema through mass media research based on research process, research approaches, data analysis and research application.

*Pre-requisite:*      MMM435/438

**MMM501**      **Radio News Writing and Production**

This course seeks to impart the basics of news production and editing for radio. Students will be taught news selection, news writing, editing, presentation and will be responsible for producing and recording entire news bulletins themselves. This is a practical course.

**MMM502**      **Radio Program Production**

In this course students will be taught to produce different types of programs for the radio, including feature programs, documentaries, talk shows, magazine programs and radio plays. This is a practical course.

**MMM503TV**      **News Writing and Production**

This course will impart the elements of writing and producing news programs for television. It will include selection of news, drafting of news, compilation of bulletin, shooting and scripting of news films and news features and production of complete bulletin.

**MMM504**      **TV Program Production**

In this course students will be taught to produce different types of programs for TV. It will include talk shows, documentaries, plays, magazine programs and general programs. The entire program including pre production, lighting, shooting, recording and editing, up to final presentation will be done by students. This is a practical course.

**MMM505**      **Specialized Journalism**

In this course, students will select the field of their specialization – sports, environment, science, arts, fashion, women's issues, etc. and will be imparted intensive training in writing news, features and articles related to that field. This is a practical course.

**MMM506**      **Newspaper Production**

The dynamics of producing a newspaper, from news gathering to editing, composing, page making and finally printing will be taught to students in this course. They will be expected to bring out first a weekly and later a daily newspaper by themselves.

**MMM507**      **Magazine Journalism**

In this course the students will be taught the process of bringing out a complete magazine by themselves. Collection of material, selection of material, editing, rewriting, proof reading, pictorial content, layout, etc. will all have to be done by students themselves. They will have to bring out first a monthly magazine and later a weekly as part of this course. This is a practical course.

**MMM508**      **Book Production**

This course will teach students the process of book editing and production. It will include reading and editing manuscripts, composing, illustrations, designing, and printing. Students will be expected to bring out at least one book per group at the end of the course. This is a practical course.

**MMM509**      **Creative Concepts in Advertising**

Creation of advertising campaign from concept to execution will be the objective of this course. Students will be required to produce advertisements for both the print and the electronic media. This is a practical course.

**MMM510**      **Media Planning and Marketing**

This course will mainly deal with selection of proper media and strategies for marketing of products and ideas. This is a practical course.

**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.

## Media Psychology

### MPY301/401 Introduction to Mass Communication

It provides an overview of the historical and social contexts of mass media. Emphasis is placed on the experience and comparative analysis of various media. The purpose of this course is to introduce students to the various dimensions of the media so they will become competent to carefully consider and criticize mass media content and policy. The course presents the study of media from a social scientific perspective with focus on the role of an ethical journalism professional.

### MPY302/402 Media and Society

This course studies the dynamic relationships between media, culture, and self that render a consumerist world view. Using a critical lens, this course explores research and theory of media's role in sustaining the cultural way of life and its consequences on the individual.

### MPY404 Media Writing

Students will gain an 'Analysis & Writing Skills' of media composition, contexts, and intentions using visual and language theories. This course addresses how overall perceptual impact of specific words and images influences our response to the content itself.

### MPY406 New Media Rhetoric

This course enables students to study the theories of persuasion and argument as they are used in, and changed by, modern media channels. This course introduces students to new media concepts such as interactivity, information design, usability, navigation, accessibility, non-linearity, motion and presentation design.

### MPY408 Media Technology: Sound and Music

The course explores and analyzes how music and sound function in our creation of meaning from mediated messages. Students will explore many areas of music technology including surround sound recording and reproduction, sound synthesis and processing, and the creative combination of these to produce new musical sounds and effects.

### MPY409 Capstone Project

In the final capstone project, students create a digital portfolio of written papers and multimedia presentations. One may choose to include a written thesis, a website, a photographic essay, video or film, or a combination of these elements. The portfolio will be reviewed by the faculty instructor at the conclusion of coursework and can serve as a tool for further research or professional practice.

### MPY501 Media Technology: Games

This module provides emphasis on 'Gaming and multimedia' which have taken an important place in our society, giving rise to a booming industry with turnovers exceeding the entertainment movie industry and leaps forward in computer software and hardware development. Students will explore new types of games and hardware reaching the market regularly. The value of games as an educational tool is recognized more and more, hence the students would integrate multimedial tools into their everyday life for creating fertile grounds.

### MPY502 Adobe Photoshop

This course will enable students to learn graphics editing program developed and published by Adobe Systems. It is the current market leader for commercial bitmap and image manipulation software, and is the flagship product of Adobe Systems. It has been described as "an industry standard for graphics professionals". Adobe's 2003 "Creative Suite" rebranding led to Adobe Photoshop 8's renaming to Adobe Photoshop CS. Thus, Adobe Photoshop CS4 is the 11th major release of Adobe Photoshop.

**MPY503**      **Role of Media in Environment**

Media plays the role of facilitator of development, disseminator of information, and being an agent of change. Regarding the issue of environment awareness, media plays a vital role in spreading the true message. Along with bringing it into the hub of debates and discussions, it tries to suggest alternatives to people and policy-makers. First of all, the mere awareness also creates a genuine interest to probe into the exact matter. Thus, environment awareness is one of the important issues which media presents consciously and effectively to say a few things to people.

**MPY504**      **Electronic Broadcasting**

This course familiarizes students with the basics of electronic media, which they will build upon through other radio and television broadcasting classes. Students practice using microphones and video systems. They create short clips which they present in class. This electronic broadcasting course is a practical, hands-on course which gives students the opportunity to get their feet wet in electronic media.

**MPY505**      **Contemporary Issues in Media Studies**

This course aims to provide students with a critical understanding of the main theoretical approaches in the closely related disciplines of critical media and cultural studies, which are necessary for any study of contemporary media, and are particularly relevant to appreciating the distinctiveness of non-Western media and the problems in their study. The course also aims to familiarize students with the richness and diversity of Asian media production, distribution, reception and commentary, both by introducing contemporary issues addressed by media in different regions and by requiring students to engage in project research on some specific aspect of media discourse in Asia.

**MPY506**      **New Media Technologies: Audio, Video & Multimedia**

Production Management, event production, audio/video support, teleprompter services, etc. will be studied by the students. In addition students will specialize in video editing, DVD development, web design & development, remote audio recording, interactive CD-ROM development and interactive game development.

## 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.

## Psychology

### PSY400 Introduction to Organizational Psychology

This course examines the psychological aspects of organizational behavior and individual psychological processes and behavior. The topics will include social norms, group and team processes, leadership and power, motivation, job attitudes and satisfaction and organizational change.

### PSY401 Psychometric Testing

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.

*Pre-requisite:* PSY 400

### 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:* PSY 400

### PSY403 Consumer and Advertising 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.

### PSY404 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. The relative merits and drawbacks of major research methods are explored. This course will help students to understand and critically evaluate research reports. Students will also learn how to carry out the entire research process, starting with identifying the research problem and ending with a thesis or research report.



**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**      **Psychology of Industrial Relations**

This course surveys individual behavior in work places, recruitment training and development, grievance procedures, employee counseling, employee efficiency improvement programs, compensation, administration in Pakistan, employee relations with groups and the union, problems and problem solving in labor relations.

**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**      **Seminar in Organizational Psychology**

This course covers the most recent advances, issues and problems in industrial and organizational psychology through relevant professional journals, technical literature, legislation and judicial decisions, advanced research techniques, and consulting practice 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.

**PSY409**      **Special Topics in Organizational Psychology**

This course provides an in-depth view of important theoretical and methodological issues in various areas of psychology. It is designed to provide students with a comprehensive analysis of a selected contemporary issue (or issues) in psychology.

**PSY411**      **Introduction to Psychology**

This course seeks to enhance student knowledge of general principles of psychology, which are applicable to humans everywhere. The individual differences among individuals are of great interest – not only because of the desire to understand individual uniqueness, but also because a complex society demands specialized roles for its complex members. The scientific study of psychology introduces students to topics such as attitude, conditioning, perception, cognition, emotion, motivation, decision-making, intelligence, personality and social behavior.

**PSY412**      **Media Psychology and Social Change**

Media psychology applies psychological theory to understanding the way this new media landscape impacts the use, experience, and production of media technologies across all economic sectors. This understanding is relevant to applications and careers in telecommunications, education, entertainment, public policy, law, politics, advertising, healthcare, and education. Students will consider how media research is interpreted and presented to the public, how social media has redefined the way people, businesses, and groups connect, how media technologies can facilitate learning, and the societal implications of continuing technological change.

**PSY413**      **Social Psychology**

Social psychology studies the influence of others on an individual's thoughts, emotions and behaviors. This course gives special attention to four recent trends: first, cognition has regained its preeminence in social psychology; second, applications of social psychological knowledge have been implemented, extending the reach of the field. Social psychologists are often called on to make contributions in business, medicine, law, and other fields. Third, the field is now represented in other areas of psychology, such as developmental, clinical, counseling, cognitive, industrial and organizational psychology. Fourth, our national interest in diversity and culture has caused a re-examination of research findings and theory with the intent of identifying those that are universal and those that are culture bound.

#### PSY414 Psychology of Gender

In this course students will study the psychology of gender from a variety of theoretical perspectives (e.g., positivist-empirical, postmodern), with attention to how both quantitative and qualitative methodologies are used to inform our knowledge. Students will examine the ways in which mainstream psychology is gendered, as well as various feminist approaches to studying issues of gender in psychology. Because sex and gender do not influence people's behavior in isolation from other socially constructed categories, students will examine the intersection of race/ethnicity, sexual orientation, and social class with gender in our analysis.

#### PSY415 Culture and Psychology

It is a course designed to inform students about the causes and consequences of stereotyping, prejudice, and discrimination. It focuses on theories and empirical research on these topics. In addition, it has excerpts from popular books, political statements, laws, religious texts, and so forth designed to illustrate how prejudice and discrimination are present in everyday life.

#### PSY416 Counseling Psychology

This course prepares students to work with individuals, couples, families, and groups in various settings, including community mental health centers, schools, hospitals, and consulting agencies. The objective of this course is to introduce students to the basic principles and techniques of counseling families and individuals. Students will become familiar with the major theoretical paradigms for counseling psychology practice. Each student will be encouraged to begin the search for the psychotherapeutic approach will use as a professional counselor.

#### PSY417 Media and Forensic Psychology

Forensic psychology is the intersection between psychology and the criminal justice system. This course involves understanding criminal law in the jurisdictions of media world, in order to be able to interact appropriately with judges, attorneys and other legal professionals. An important aspect of forensic psychology is the ability to testify in court, reformulating psychological findings into the legal language of the courtroom, providing information to legal personnel in a way that can be understood.

#### PSY418 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. It enables students to become proficient in understanding the attitudes, behavior and cognitions of personnel in organizations.

#### PSY419 Psychological Impact of Film and TV

This course aims to provide students with an understanding of the major themes, topics and theoretical perspectives that constitute film and television studies. Attention will be focused on the producer-text-audience relationships which are central to the understanding of the meanings that are created and the impact of the medium. The course will cover audience and reception analysis, film and television genres and their characteristics, film - television and gender, as well as film - television and ethnicity.

#### PSY420 Work Psychology

This course covers recent developments such as self-monitoring and sensation seeking in personality, self-efficacy and social identity in motivation, extra-sensory perception, emotion, knowledge management in learning, investor psychology, trust, virtual teams, upward and lateral leadership, transformational leadership, political skills, virtual organization and other contemporary organizational issues, culture and diversity, business ethics, corporate governance, innovation, models of change, use of technology in selection, mentoring, career development, e-learning, continuous professional development, bullying at work, cognitive strategies to deal with stress, and workplace counseling.

#### PSY422 Psychological Assessment

This is a course that involves the integration of information from multiple sources, such as tests of normal and abnormal personality, tests of ability or intelligence, tests of interests or attitudes, as well as information from personal interviews. Collateral information is also collected about personal, occupational, or medical history, such as from records or from interviews with parents, spouses, teachers, or previous therapists or physicians.

#### PSY501 Work Motivation and Attitude

The course covers concepts in various theories of motivation, both 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. Critical and in-depth examination of the research evidence for understanding group dynamics and personal, environmental and cultural factors influencing organizational behavior and attitudes are also featured in the course.

#### PSY502 Career Counseling and Development

This course focuses on the processes of career and academic development, including an emphasis on theories of career education and counseling, culturally different populations, the interface between the individual and the organizational climate and the resources utilized in the career and academic counseling process. The course introduces tools used in career counseling process. The topics include: information about the nature of job market, methods of advising individual and groups implementing career and role of interest, skills, values and personality in the career development process.

#### PSY503 Organizational 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.

#### PSY504 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.

#### PSY505 Psychology of Religion

This course will provide literature on the relationship between religion and psychology. Psychologists consider that there are various ways in which religion may benefit both physical, mental and spiritual health, including encouraging healthy lifestyles, providing social support networks and encouraging an optimistic outlook on life; prayer and meditation to benefit physiological and psychological functioning.

#### PSY506 Psychology of Attitude Change

Students will learn the possibility of changing someone's attitude via persuasion. Hovland established that attitude change had to be understood as a response to communication. Experimental research was conducted in the following areas as a means of understanding the process of attitude change: target characteristics, source characteristics, message characteristics, and cognitive routes. Students will gain the expertise that the exact nature of a particular message can play a major role in persuading individuals. A lot of time, a consideration of both sides to a case will help someone change their attitude. The person will be presented with data and subsequently motivated to evaluate that data before arriving at a conclusion that necessitates a change of attitude.

#### PSY507 Cognitive Psychology

Cognitive psychology is a discipline within psychology that investigates the internal mental processes of thought such as visual processing, memory, thinking, learning, feeling, problem solving, and language. Students will learn to use psychophysical and experimental approaches to understand, diagnose, and solve problems, concerning themselves with the mental processes which mediate between stimulus and response. Cognitive theory contends that solutions to problems take the form of algorithms—rules that are not necessarily understood but promise a solution, or heuristics—rules that are understood but that do not always guarantee solutions.

**PSY508**      **Health Psychology**

Health psychology is concerned with understanding how biology, behavior, and social context influence health and illness. The four divisions include clinical health psychology, public health psychology, community health psychology, and critical health psychology. The allied field is occupational health psychology. Students will have practical assignments to gain experience within these areas.

**PSY510**      **Contemporary Issues in Psychology**

This course will introduce students to a variety of contemporary topics in psychology. Topics vary from year to year, but would typically include: evolutionary psychology; comparative psychology; polylingualism; brain imaging; and gender differences. Assignments will enable students to gain hands on experience.

**PSY511**      **Psychological Impact of Internet & Mobile Technology**

The increasingly widespread use of text-messaging has led to the questioning of the social and psychological effects of this novel communication medium. The fact that internet can help some people develop relationships is drawn upon and taken a step further by exploring the differences between those who prefer texting ('Texters') and those who prefer talking on their mobiles ('Talkers'). Students will gain insight that there is something special about texting that allows some people to translate their loneliness and/or social anxiety into productive relationships while for others the mobile does not afford the same effect.

## Religious Studies

**REL101**      **Islamic Studies**

The course begins with a discussion of how different messengers of Allah came to spread His word. It discusses the need for Islam, the five pillars, the life of the Prophet Muhammad (PBUH), the companions of the Prophet (PBUH), several Surahs, Ahadiths, and Ayats.

## Supply Chain and Logistics Management

**SCM501**      **Supply Chain Management**

This course covers essentials of Supply Chain Management and is divided into foundations of SCM, enabling concepts, the requirement process, strategic sourcing, strategic cost management relationship management and world class supply chain management. Topics like buyer supplier relationship, new product development, specifications and standards, procurement of equipment, cost analysis, pricing, negotiations, supply development, supply chain score card, SCOR models, IT applications to SCM, green supply chain are focused using case studies. Research report is a requirement of the course.

*Pre-requisite:*      *MAN 101/401*

**SCM502**      **ERP Systems Design and Implementation**

This course provides a technical overview of enterprise planning systems and their impact on organizations. Selected software solutions are introduced to illustrate the concepts, fundamentals, general information technology context and integration of business enterprise applications. Case studies will be used to discuss various stages of implementing ERP solutions.

**SCM503**      **Strategic Supply Chain Management**

This course covers a wide range of Supply Chain Management activities including formation and management of strategic alliances, buyer selections and management, negotiations, global sourcing, ethics in contracting situations and applications of information technology in SCM.

*Pre-requisite:* *MAN 101/401*

**SCM504**      **Procurement and Inventory Management**

The synchronization of supply with demand in order to provide customer value has to be designed, controlled and improved. In supply chain management these activities have to be coordinated along different stages in different enterprises. This course deals with understanding and overcoming the problems arising in those multistage inventory systems using case studies.

#### SCM505 Storage and Warehouse Techniques

In order to operate, optimize or understand warehouse systems, a sound knowledge about the various technical realizations of warehouse functions is essential. This course provides an overview of various in-house transporting and storage systems and indicates the preferred areas of usage. Case studies will be used as modus operandi in the course.

#### SCM506 Transportation Techniques and Management

The course aims to give an understanding of the basic techniques used in transportation. All major techniques in the fields of road-traffic, air traffic, railroad and navy are discussed. Transport chains using freight-villages, intermodal transports, combined transport-chains as location planning, design and organization of dispatch departments, supply-chain-management tracking- and- tracing are investigated using the case study approach.

## Social Sciences

#### SSC101/402 Introduction to Psychology

Its subject matter includes human development, memory cognition, perception and psychopathology. The course explores the field of psychology, teaches to learn about oneself, the mind and the science of psychology.

#### SSC103 Business Ethics and Corporate Governance

This course entails an understanding of the general principles of ethical conduct. It studies the relationship of what is good and right for businesses. This course shall proceed to place modern business practices in their historical context. The ethical attitude of ancient, medieval, modern and postmodern communities would be contrasted and the nature of modern business practices and their ethical implications would be explained with special reference to business environment in Pakistan.

#### SSC104 Principles of Sociology

The course seeks to teach the basics of Sociology including social action and interaction, social groups, social institutions, culture, prejudice and stereotypes, and social change.

#### SSC201 Policy Studies

The Liberal, Marxist and Weberian approaches to policy making. The market and the state, bureaucracy and administration regulatory systems. Non-state sources of policy conception and implementation corporations, association, NGOs policy making and implementation processes in Pakistan in fiscal, monetary, labor, energy, health and education areas.

#### SSC202 Environmental Studies

The course covers basic concepts of Environmental Science and current environmental issues. Major components of environment and ecosystems. Basic understanding in the areas of industrial, coastal and marine environment, deforestation, greenhouse effects, ozone depletion, impacts on human health and climatic change. Environmental challenges for sustainable development, current and future trends in population growth, environmental pollution, development in industry and agriculture, urbanization, poverty and resource depletion. National and International Environmental laws and regulations.

#### SSC301 History of Ideas

The course has been divided into different sections, e.g., man, theory of knowledge, ethics, politics, religion and science. The course will logically discuss the most representative ideas related to each section and attempt to put them together into an overall picture of man and his relation to the world.

#### 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 entails an understanding of the general principles of ethical conduct. It studies the relationship of what is good and right for businesses. This course proceeds to place modern business practices in their historical context. The ethical attitude of ancient, medieval, modern and postmodern communities would be contrasted and the nature of modern business practices and their ethical implications would be explained with special reference to business environment in Pakistan.

**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, mass media, and socioeconomic class on individuals and groups. The course is based on the basic concepts, theoretical and research perspectives on social processes. Students examine the selected forms of social reaction patterns, including socialization, attitudes, language acquisition, collective behavior, deviant behavior, prejudices, and violence.

**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 (Pavlovian) conditioning, cognitive learning processes, motivation, affect, and memory. The students will explore relevant research on traditional and contemporary issues in learning, with an emphasis on human learning from both behavioral and cognitive perspectives.

**SSC501**      **Epistemology and Moral Philosophy**

This course will examine the basic questions and principles of moral reasoning. Among the issues to be considered: what makes an action moral? Does might make right? Do moral judgments admit of exceptions? Is pleasure a relevant factor in deciding what to do? Does moral reasoning rest on a grand mistake?

## Statistics

**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.

**STA201/401**      **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. The topics include inequalities, function notation and inverses, linear, quadratic, polynomial and exponential functions and mathematics of finance.

*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 201/401

**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.

**STA207**      **Statistics for Engineers**

Basic concept of probability, conditional probability, independent events, Baye's formula. Concept of random variables, discrete and continuous one and two dimensional random variables, probability distributions, marginal and joint distributions and density functions. Important probability distributions (Binomial, Poisson, Uniform, Normal, Exponentials and Hyper-geometric). Mean, variance, moments and moment generating functions, linear regression and curve fitting. Central limit theorem, autocorrelation and cross-correlations, power spectral density functions and stochastic processes.

**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 simple random sampling, sampling with unequal probabilities, stratification, single-stage and multi-programming are taught in this course. Regression, analysis of variance and hypothesis testing; data and regression analysis using MiniTab will also be included.

*Pre-requisite:*      MTH201, STA203, STA301, STA302

**STA301/402**      **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. Regression, analysis of variance and hypothesis testing; data and regression analysis using MiniTab will also be included.

*Pre-requisite:*      MTH201, STA203, STA302

**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 serves as an introduction to the use of statistical methods for analyzing and forecasting data observed over time. The topics include; trigonometric regression, periodogram/spectral analysis, smoothing autoregressive moving average models regression with auto correlated errors, linear filters and bivariate spectral analysis. Stress on methods and applications, software implementations are extensively used in assignments.

*Pre-requisite:*      STA302

**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.



**STA307**      **Decision Theory**

Common sampling models in business and economic problems, information from data, likelihood function of parameters, choices of models, Bayes' Theorem, subjective basis for probability, sequential nature of Bayesian inference, prior and posterior distributions of parameters in binomial, Poisson, exponential and normal populations, comparison of two normal distributions, predictive distributions, decision theory, utility, risk aversion, extensive form of analysis, two-action problems, point estimation, best population problems, economics of sampling. Dependence of observations in economic and business data, trend, moving averages, autoregressive series, non-stationary models and their applications, Bayesian estimation of parameters, adaptive forecasting, control theory, elements of difference calculus, dynamics, models for inventory control are features of this course.

**STA309**      **Loss Models**

Definition and selection of probability distributions appropriate for insurance data that are heavily tailed and skewed, estimation of parameters of probability distributions appropriate for insurance data that are heavy tailed and skewed such as Exponential, Gamma, Gumbel, Weibull, and extreme-value distributions, assessment of credibility of data for ratemaking are taught in this course.

**STA311**      **Operations Research and Management**

The course will include, deterministic models, stochastic models, simulation, independent study, simulation theory, simulation modeling and languages, mathematical programming, seminar, special project and thesis.

**STA403**      **Statistics and Mathematics**

The course introduces the use of statistical & mathematical methods to proceed beyond the collected data in the area of decision-making. The course includes frequency distribution, measures of central location, measures of dispersion, linear equation, quadratic, exponential & logarithmic function, mathematics of finance, matrix algebra differentiation & optimization. A systematic exposure to the statistical analysis of business situations covering descriptive statistics will also be provided.

**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 various 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 using MINITAB, SIMULA.

*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.

## Telecommunication Management

### TCM201 Electromagnetic Theory

Time-varying fields, transmission line, wave propagation through wave guides and antenna theory, basic vector operations, coordinate systems and their transformation, surface and volume integral of symmetrical objects, force fields exerted by point charge and generalize to charged line, surface and other objects, electric flux density, Gauss's law and its application, energy and potential of a fields, conductors, dielectrics and capacitance. Introduction to Poisson's and Laplace's equation, the steady magnetic fields, Biot-Savart law, Ampere's circuital law, magnetic flux and flux density are a part of the course.

### TCM203 Amplifiers and Oscillators

The student will become capable of assembling and analyzing analog circuits. Topics include: FET characteristics and circuits, differential amplifiers, integrated circuit fabrication, negative and positive feedback, operational amplifier characteristics, analysis of common operational amplifier circuits, Class B power amplifiers, power supply characteristics, and circuits using discrete and integrated circuit technology.

### TCM204 Signals and Systems

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, frequency analysis, orthogonal transforms, continuous time fourier series(CTFS), continuous time fourier transform(CTFT), discrete Fourier transform(DFT), discrete time Fourier transform(DTFT), sampling and reconstruction, overview of sampling systems, sampling, reconstruction, the Z-transform, definition of Z-transform, region of convergence, Inverse z-transform, properties of z-transform and Inverse z-transform, left and right hand signals, stable and unstable signals, causal and anti-causal signals, analysis of discrete time systems, FIR and IIR systems, stability analysis are taught in the course.

### TCM205 Control Systems

Classification of open and closed loop control, advantages and disadvantages, effects of feedback, servomechanism, systems model and characterization, block diagrams and canonical form., control systems from telecom applications such as satellite tracking, LNAV/VNAV in aviation, flight control system, heading tracking, signal flow graphs, DE and laplace transforms, transfer function, poles and zeros, time domain analysis, steady state error using static error coefficient method, dynamic error constant method, feedback characteristics of control systems, and sensitivity of control systems, basic action of controllers (proportional, integral, PI and PID controllers), stability assessment ( Routh, Bode, Nyquist, Nicholes chart), compensation and compensators design for telecommunications applications and state space are featured in the course.

### TCM206 Analog Communication

Types of electronic communication, modulation and multiplexing, the electromagnetic spectrum, bandwidth, gain, attenuation, and decibels, tuned circuits, filters, noise, baseband and pass band signals, frequency spectra of non sinusoidal signals, analog vs digital communication, AM concepts, modulation index and percentage modulation, sideband and frequency domain, AM powers, single sideband modulation, basic principles of AM, FM. AM, FM and phase modulators. FDM, TDM and duplexing, antenna principles, microwave concepts, satellite communication and optical communication principles are a part of this course.

### TCM302      Antenna & Wave Propagation

The course provides the fundamental solutions of time-varying Maxwell's equations and applies them to design antennas and understand radio wave propagation phenomena in modern communication and radar systems. Three major areas will be covered: firstly fundamentals of electromagnetic radiation with application to antenna theory and design, secondly electromagnetic wave propagation, scattering and diffraction, with application to understanding wireless communication channels, and finally numerical and asymptotic methods for simulating complex electromagnetic wave interactions in real-world scenarios.

*Pre-requisite:*      TCM206

### TCM303      Transmission & Switching Systems

Transmission systems including PDH and SDH, synchronization, routing techniques, line encoding techniques. Telecommunication networks, PSTN, PLMN, PABX, exchange hierarchies, digital exchanges, routers, bridges, switches, hubs, gateways and signaling systems are taught in the course.

### TCM304      Optical Fiber Communications

The aim of this course is to understand the optical fibre communication technology and networks & their applications in telecommunication industry. The main objectives of this module is to understand the photonic circuits, functionality and principles of optical devices. Another objective of this module is to learn the present and emerging optical technologies and techniques like SDH, SONET and WDM

### TCM305      Telecommunication Regulations & Policy

This course is designed to provide an introduction to the key issues, developments and trends within the telecommunications sector. Policies and regulations within telecommunications have to be able to address a dynamic and rapidly changing environment. Exponentially developing technologies that spawn new services and applications, coupled with regulatory reforms, changing legal frameworks and the emergence of new markets have given rise to increased demands for training and skill development. The course content covers telecommunications systems, technologies and markets, international trends driving telecommunications reforms, laws, regulations, governance and institutional framework; prices and tariffs regulations, licensing and monitoring, scarce resource monitoring and other international laws of using resources.

### TCM306      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. The main objectives of this module are to understand the design of basic wireless channel models, functionality of wireless systems and the know how of cellular mobile technologies in telecommunications. Another objective of this module is to learn the latest and future mobile and wireless technologies and their applications in everyday life.

### TCM309      Microwave Engineering

There is currently an explosion in wireless communications at microwave and millimeter-wave frequencies, for both fixed and mobile systems. These wireless networks will play a vital role in the development of the next generation of broadband "wireless everywhere" networks, where new technologies for high performance yet cost-effective and highly integrated devices and circuits are required. An understanding of modern microwave theory and design techniques is critical for understanding and realizing effective circuits for use in these emerging systems. This course focuses on realization of microwave circuits, with emphasis on passive microwave design. Topics include network analysis, transmission line theory, impedance matching and tuning, filters, couplers, power dividers, and microwave subsystems.

*Pre-requisite:*      TCM206, TCM302

### TCM313      Principles of Tele-Traffic Engineering

This course focuses on the application of traffic engineering theory to telecommunication. Tele-traffic involves use of basic knowledge of statistics; the nature of traffic, their practical models, measurements and simulations to make predictions and plan telecommunications network at minimum total cost.

*Pre-requisite:*      TCM302

#### 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.

#### 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.

#### 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.

#### 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. Strong emphasis is placed on analysis, monitoring and evaluation of network security. Intrusion and detection strategies are reviewed. An in-depth overview of vendors and other security resources is covered.

#### TCM411 Telecommunication Marketing

Telecommunication Marketing is one of the courses being offered the MBA in Telecommunication Management program. Topics in this course include the nature of the telecommunication market, analysis of customer procurement strategy, product policy, pricing, distribution strategy, sales force management and key account selling strategies.

**TCM450**      **Project**

This course is to give 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. Emphasis is on applying scenario planning tools and techniques as a way to develop and respond to evolving industry scenarios.

**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 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 course features.

#### 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. The H.32x series, standards for audiovisual communication systems in various network environments, will be described. Current research results in multimedia communications will be reviewed through student seminars in the last weeks of the course.

#### 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, mobile radio propagation model, wireless systems and standards, cordless systems and wireless local loop and wireless LAN technologies are also covered.

#### TCM526 Next Generation Networks

This course provides students to get the opportunity to research and report on near term "Next Generation Networks". The course consists of discussions on one type of Next Generation Network followed by each student researching two additional Next Generation Network types. A case study approach will be utilized.

#### TCM527 Satellite Communication

The students in this course 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.



## Tourist Services Management

### TSM101 Introduction to Cultural Studies

The course includes theoretical approaches to cultural studies – Modernist, Post Modernist, Marxist, culture, society and politics. (Adorn, Giddens, Eagleton, Foucault), cultural forms and structures, literature music, architecture, a global culture or multiculturalism in Pakistan, historic heritage (special emphasis on Moenjodaro and Gandhara). Islamic culture (special emphasis on Sufism), post independence cultural development (special emphasize on literature in Urdu, Sindhi and English) and the impact of globalized cultural on Pakistan – a case study of the Feminist movement in Pakistan are taught in this course.

### TSM102 Tourist Services and Hospitality Management

The course includes social Anthropology: Aims and scope of social anthropology, the evaluation and development of human societies, major theories of social development (with special emphasize on Ibn-e-Khaldun, Max and Weber) anthropology of South Asia, symbols, communication and culture, human ecology (including behavioral genetics) race and ethnicity techno science as a cultural artifact and an introduction to present studies in Punjab and the NWFP are features of this 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 2010-2011:

### Accounting

Accounting Information Systems  
Advanced Financial Accounting

### Finance and Banking

Analysis of Financial Statements  
Corporate Finance  
Money and Capital Markets  
Treasury and Fund Management

### Human Resource Management

Strategic Human Resource Management  
Salary and Compensation  
Leadership Studies

### Marketing

Advertising  
Personal Selling  
Brand Management  
Media Planning

### Advertising and Communication Management

Principles of Marketing  
Principles of Advertising  
Advertising Research  
Client Management

### Health Services Administration

Strategic Management of Health Services  
Pharmaceutical Marketing and Quality Assurance

### Management Information Systems

Oracle/Developer 2000  
Software Engineering  
Data Communication and Networking  
Programming in C++

### Sales Management

Effective Territory Design  
Basic Selling Skills  
Distribution and Channel Management  
Merchandising

# Academic Calendar

## Fall 2011

## Registration and Fee Payment

- On board students Saturday, July 16, 2011 to Wednesday, August 31, 2011
- New students Saturday, July 16, 2011 to Wednesday, July 27, 2011

Last day to drop courses without penalty

Wednesday, August 31, 2011

Orientation

Saturday, September 03, 2011

Commencement of Regular Classes

Monday, September 05, 2011

Commencement of Executive Classes

Saturday, September 10, 2011

Last day to drop courses with penalty

Sunday, October 23, 2011

Eid-ul-Azha\*

Sunday, November 06 2011 and Monday, November 07, 2011

Iqbal Day

Wednesday, November 09, 2011

Muharram\*

Sunday, December 04, 2011 and Monday, December 05, 2011

Classes End

Sunday, December 11, 2011

Break

Monday, December 12, 2011 to Sunday, December 18, 2011

Final Exam

Monday, December 19, 2011 to Sunday, January 08, 2012

Quaid-e-Azam's Birthday

Sunday, December 25, 2011

## Exam Schedule for Regular and Executive Students

Week	Exams	Regular	Executive
6th	1st Hourly	10/10 - 10/13	10/15 - 10-16
11th	2nd Hourly	11/14 - 11/17	11/19 - 11/20
16th	Final	12/19/2011 to 01/08/2012	

\* Subject to the appearance of moon

## Note:

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

## Spring 2012

### Registration and Fee Payment

• On board students	Saturday, November 19, 2011 to Sunday, December 18, 2011
Last day to drop courses without penalty	Thursday, January 05, 2012
Commencement of Regular Classes	Monday, January 16, 2012
Commencement of Executive Classes	Saturday, January 21, 2012
Eid-e-Milad-un-Nabi*	Sunday, February 05, 2012
Last day to drop courses with penalty	Sunday, February 26, 2012
Classes End	Sunday, April 22, 2012
Break	Monday, April 23, 2012 to Sunday, April 29, 2012
Final Exam	Monday, April 30, 2012 to Monday, May 14, 2012
Labour Day	Tuesday, May 01, 2012

### Exam Schedule for Regular and Executive Students

Week	Exams	Regular	Executive
6th	1st Hourly	2/20 - 2/24	2/25 - 2/26
11th	2nd Hourly	3/26 - 3/30	3/31 - 4/1
16th	Final	4/30/2012 to 5/14/2012	

\* Subject to the appearance of moon

#### Note:

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

## Summer 2012

### Registration and Fee Payment

• On board students	Saturday, March 31, 2012 to Sunday, May 06, 2012
• New students	Saturday, March 31, 2012 to Sunday, April 08, 2012
Last day to drop courses without penalty	Sunday, May 13, 2012
Orientation	Saturday, May 19, 2012
Commencement of Executive Classes	Saturday, May 19, 2012
Last day to drop courses with penalty	Sunday, July 01, 2012
Classes End	Sunday, August 19, 2012
Final Exam	Saturday, August 25, 2012 and Saturday, September 01, 2012 Sunday, August 26, 2012 and Sunday, September 02, 2012

### Exam Schedule

Week	Exams	Executive
6th	1st Hourly	6/23 to 6/24
11th	2nd Hourly	7/28 to 7/29
16th	Final	8/25 & 8/26 to 9/1 & 9/2

## Summer Crash 2012

### Registration and Fee Payment

• On board students	Saturday, March 31, 2012 to Sunday, May 06, 2012
• New students	Saturday, March 24, 2012 to Sunday, April 01, 2012
Last day to drop courses without penalty	Sunday, June 03, 2012
Commencement of Regular Classes	Monday, June 11, 2012
Last day to drop courses with penalty	Saturday, July 14, 2012
Classes End	Thursday, August 09, 2012
Break	Friday, August 10, 2012 to Sunday, August 19, 2012
Independence Day	Tuesday, August 14, 2012
Final Exam	Monday, August 20, 2012 to Thursday, August 23, 2012

### Exam Schedule

Week	Exams	Executive
5th	Mid-Term	7/9 - 7/12
11th	Final	8/20/2012 to 8/24/2012

#### Note:

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

