





Our Core Values

TRUTH

Being truthful involves speaking and acting consistently in accordance with the highest ethical values. When working in a team, truth requires you to be reliable.

DISCIPLINE

You should have the will to work according to rules, with precision and honesty. Discipline involves self-control and self regulation that builds character and should be an integral core value of an IBA student.

CREATIVITY

The ability to be innovative is an asset for any individual. As a student of the IBA, you are on a par with others having skills either equal to you or better than yours. Therefore, you need to enable the generation of new thoughts, ideas and means of attaining your goals.

TOLERANCE

The capacity to acknowledge, understand and tolerate ideas and opinions different from your own, means that you should be able to treat people from different backgrounds and schools of thought equitably.

INTEGRITY

Possessing integrity goes hand in hand with being reliable. Integrity is crucial to the reputation of any institution. Students are required to maintain honesty in the acquisition and sharing of knowledge throughout their academic life at the IBA.

MERIT

Students are admitted to the IBA strictly on the basis of merit. Success will be yours as you surpass yourself time and again by working in accordance with this principle.

HUMILITY

Being courteous, respectful of others and recognizing that no matter how good you are, there is always someone out there who is better than you.

&

T E A M W O R K

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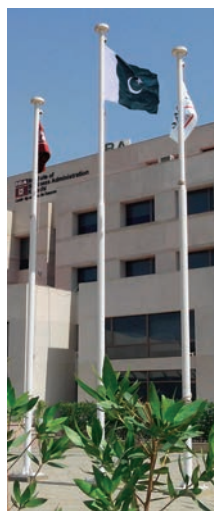
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Vision

“To become a world-class business school for leadership and innovation in management”

PROFILE

The cornerstone of the Institute of Business Administration was laid in the year 1955. Sixty years down the line, the institute remains dedicated to the task of imparting valuable education and work ethics to its students.

The institute has gone through major changes over these six decades in order to embrace a wider set of disciplines in its curricula. These changes have been made in order to respond to the requirements of the society, market and economy. They are also an outcome of associations forged with credible institutions, local and international and various stakeholders, prominent being the IBA Alumni. Infrastructural and technological advancements have been accomplished despite their expected share of challenges. The cumulative impact of these developments is that the IBA today provides a conducive environment to its students continuously enriching their academic pursuits with networking, entrepreneurial, cultural and experiential learning. The blend of these sure-footed steps has enabled a more wholesome environment of enlightenment.

The Institute takes pride in honing skills that would not only make our graduates highly valued professionals, but at the same time imbibe ethical values in them, so that they are able to exhibit and demonstrate standards of integrity in the wake of temptations and compulsions. IBA also encourages its students and faculty to develop a global perspective, but to apply their knowledge and practices towards finding the solutions of local problems.

In this connection, IBA has received accreditation from the South Asia Quality Assurance Systems (SAQS) and gained membership of various international and regional professional bodies, associations and networks. IBA has received accreditation from the National Business Education Accreditation Council (NBEAC), an HEC body. The Association to Advance Collegiate Schools of Business (AACSB), has assigned a Mentor to IBA pursuing the process of accreditation.

“Champions do not become champions when they win the event, but in the hours, weeks, months and years they spend preparing for it. The victorious performance itself is merely the demonstration of their championship character.”

T. Alan Armstrong

MESSAGE OF THE DEAN & DIRECTOR

The year 2015 is a turning point in IBA's recent history, as it would be embarking upon a new five year strategic plan. The Strategy 2020 is being formulated by a group of Faculty members in consultation with the Stakeholders – Students, Staff, Faculty, Alumni, Employers and Board members. The draft plan will then be discussed internally and placed before the Board of Governors for its approval. I do not wish to pre-empt the results of this exercise, but suffice it to say that the coming years will witness consolidation of existing Academic Programs, Infrastructure, IT Facilities and Community Outreach activities that have made considerable headway. More efforts would have to be focused on attracting, retaining and motivating high quality Faculty that can add value to our academic endeavors. Research, Case studies, Executive Education, Consultancy Services to Industry would form an integral part of the portfolio of the Faculty members in addition to their teaching responsibilities. This is a big challenge but we hope we would be able to make progress in this dimension of our work as well.

The other challenge has to do with the financial sustainability in the future. The existing financial sustainability model of IBA has successfully withstood the test of time, so far operational expenditures are being financed from internally generated revenues, government grants and income from the Endowment Fund. While the number of students has risen from 1800 to 3500 in the last seven years, thus contributing to enhanced internal revenues, the income from the Endowment Fund is likely to decline because of the lower interest rate regime. I hope the Board of Trustees of the Fund would step up their efforts to mobilize additional resources and beef up the size of the Fund.

Husain, Ishrat (Hilal-e-Imtiaz)

HEC Distinguished National Professor (Economics & Public Policy)

PhD Boston University

MA (Dev. Economics), Williams College,
Massachusetts

Former CSP Officer

Former Chief Economist for Africa, East Asia & Pacific Region with World Bank

Former Governor State Bank of Pakistan

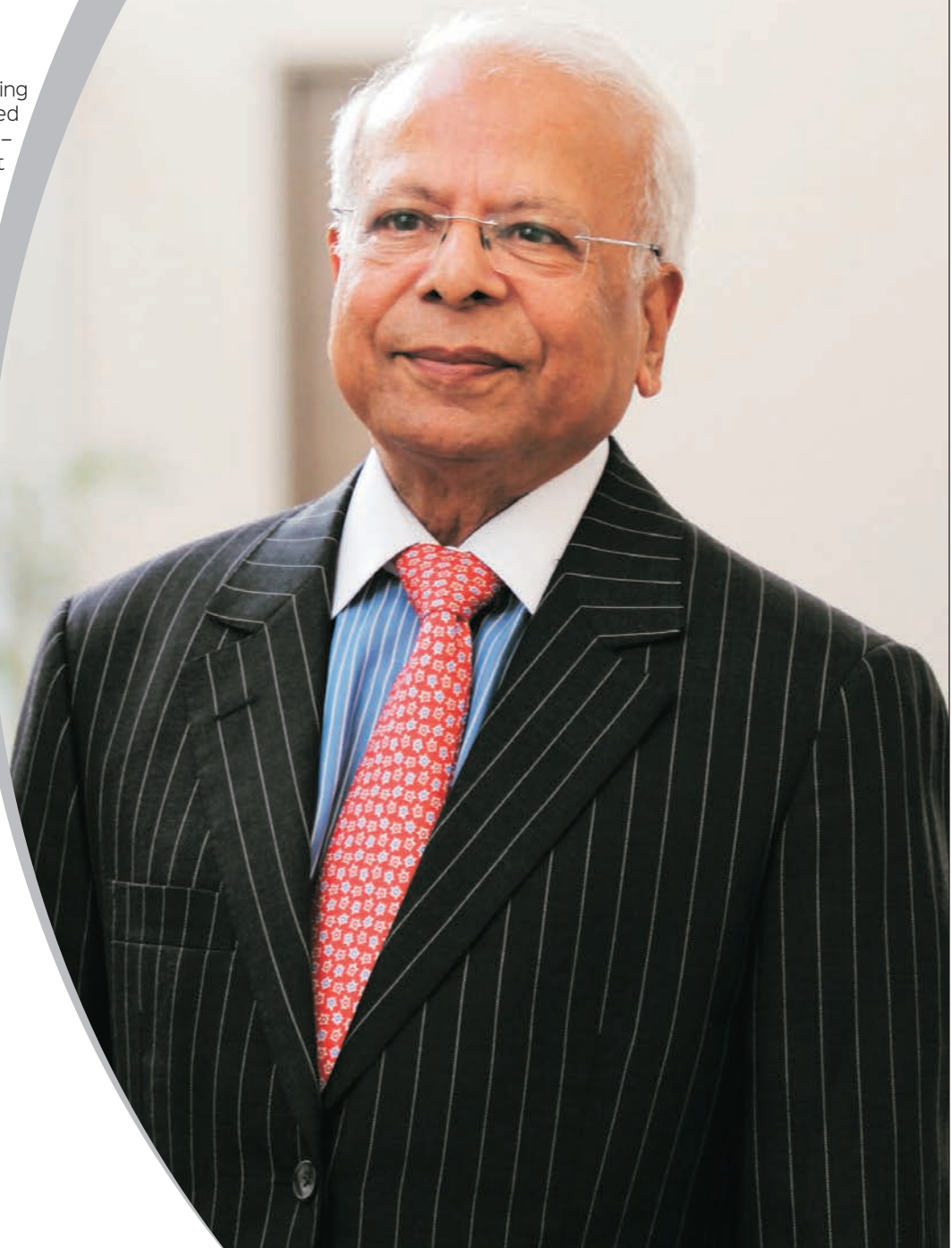
Ex-Chairman, National Commission for Govt. Reforms, Govt. of Pakistan

Chairman, Global Advisory Council on Pakistan, World Economic Forum

Chairman, Board of Directors, National Academy for Performing Arts

President Association of Management Development Institutions of Pakistan

Member, Advisory Council, Woodrow Wilson Center



Patron

Dr. Ishrat ul Ebad Khan
Governor of Sindh

Board of Governors**Chairman**

Dr. Ishrat Husain
Dean & Director
Institute of Business Administration Karachi

Members

Mr. Justice Munib Akhtar
Judge, High Court of Sindh Karachi.

Prof. Dr. Mohammad Qaiser
Vice Chancellor
University of Karachi, Karachi.

Prof. Dr. Abida Taherani
Vice Chancellor
University of Sindh Jamshoro.

Dr. Fazlullah Pechuho
Additional Chief Secretary
Education & Literacy Deptt.
Government of Sindh Karachi.

Mian Muhammad Adrees
President
Federation of Pakistan Chamber
of Commerce & Industry Karachi.

Mr. Waqar Hassan Siddique
Partner
The Abraaj Group
Dubai, United Arab Emirates.

Mr. Shuaib Ahmed
Vice Chairman
Pakistan Gum and Chemicals
Company Ltd., Karachi.

Mr. Wazir Ali Khoja
Ex-M.D.
National Investment Trust Karachi.

Mr. Sohail Wajahat H. Siddiqui
Chief Executive Officer
Goldfire Holdings (Pvt.) Ltd.
Karachi.

Mr. Zahid Bashir
Chairman
The Premier Insurance Co. Pakistan Ltd.
Karachi.

Ms. Musharaf Hai
Chief Executive
L'Oreal Pakistan
Karachi.

Mr. Shahid Shafiq
Director
Shahid Shafiq (Pvt.) Ltd.
Karachi.

Mr. Iftikhar A. Vohra
President
Karachi Chamber of
Commerce & Industry

Dr. A. Q. Mughal
HEC Nominee

**Member Provincial
Assembly of Sindh**

Audit & Finance Committee**Chairman**

Mr. Zahid Bashir
Chairman
The Premier Insurance Co.
Pakistan Ltd.
Karachi.

Members

Dr. Ishrat Husain
Dean & Director
IBA, Karachi.

Mr. Shahid Shafiq
Director
Shahid Shafiq (Pvt.) Ltd.
Karachi.

Mr. Sohail Wajahat H. Siddiqui
Chief Executive Officer
Goldfire Holdings (Pvt.) Ltd.
Karachi.

Ms. Musharaf Hai
Chief Executive
L'Oreal Pakistan
Karachi.

Selection Board**Chairman**

Dr. Ishrat Husain
Dean & Director
IBA, Karachi.

Members

Mr. Muhammad Saleem Bhounr
Sindh Public Service Commission
Hyderabad.

Mr. Shahid Shafiq
Director
Shahid Shafiq (Pvt.) Ltd.
Karachi.

Mr. Tariq Kirmani
Ex-MD
P.I.A. Karachi.

Mr. Jalees Ahmed Siddiqui
Ex- Chief Executive
IGI Insurance Limited
Karachi.

Mr. Najmus Saquib Hameed
Chairman
The Layton Rahmatullah
Benevolent Trust Karachi.

Mr. Fazlullah Qureshi
Member, Board of Directors
National Rural Support Programme
Islamabad.

Academic Board**Chairman**

Dr. Ishrat Husain
Dean & Director
Institute of Business
Administration
Karachi

Members

Dr. Zeenat Ismail
Professor
IBA Karachi

Dr. Mohammad Nishat
Professor
IBA Karachi

Dr. Mahnaz Fatima
Professor
IBA Karachi.

Dr. Nasir Touheed
Professor
IBA Karachi

Dr. Qazi Masood Ahmed
Professor
IBA Karachi

Dr. Talat A. Wizarat
Professor
IBA Karachi

Dr. Shakeel A. Khoja
Professor
IBA Karachi

Dr. Muhammad Shahid Qureshi
Professor
IBA Karachi

Dr. Noman-ul-Haq
Professor
IBA Karachi

Dr. Sayeed Ghani
Associate Professor & Associate
Dean IBA, Karachi.

Dr. Sajjad Haider
Associate Professor
IBA Karachi

Dr. Nasir Afghan
Assistant Professor &
Program Director MBA IBA, Karachi.

Mr. Jawwad Ahmed Farid
CEO
Alchemy Technologies (Pvt.) Limited
Karachi.

Mr. Mohammad Shoaib
Chief Executive
Al-Meezan Investment
Management Ltd.
Karachi

Excerpts of Academic Calendar 2015-2016

June 24, 2015
to
August 13, 2015

**Summer
Semester
2015**

**Fall
Semester
2015**

August 21, 2015
to
December 31, 2015

January 18, 2016
to
May 12, 2016

**Spring
Semester
2016**

**Convocation
2015**

December 05, 2015

June 13, 2016
to
August 02, 2016

**Summer
Semester
2016**

**Fall
Semester
2016**

August 19, 2016

August 20, 2015
(Fall 2015)
January 16, 2016
(Spring 2016)

**Orientation
Days**

**Eid ul Fitr*
Eid ul Adha*
Ashura***

July 18 to 20, 2015
September 24 to 26, 2015
October 23 & 24, 2015

(*Subject to sighting of the moon)

S. No	Information	Bachelor of Business Administration (BBA)		Bachelor of Science (BS)				Master of Business Administration (MBA)	
				Economics & Maths	Computer Science	Social Sciences & Liberal Arts	Accounting & Finance	Morning	Evening
1	Admission Requirement	Higher Secondary School Certificate with a Minimum of 65% marks OR 'A' Level (Minimum of 2 'B's and 1 'C') in 3 principal subjects OR American High School Diploma Minimum of 80% OR An International Baccalaureate (Minimum 25/45)		Higher Secondary School Certificate (Pre-engineering OR General Group with Mathematics) with Minimum 60% marks OR 'A' Level (Minimum 1 'B' and 2 'C's) in 3 principal subjects including Mathematics OR American High School Diploma Minimum of 80% OR An International Baccalaureate (Minimum 24/45)		Higher Secondary School Certificate (Any Group with 60% marks) OR 'A' Level (Minimum 1 'B' and 2 'C's) in 3 principal subjects OR American High School Diploma (Minimum of 80%) OR An International Baccalaureate (Minimum 24/45)		A minimum of 16 years of education out of which 4 years should have been spent in an HEC recognized university / degree awarding institute with: A minimum of 60% aggregate marks OR A minimum of 2.50 CGPA on a scale of 4.00 (as applicable) & A minimum of 2 years of relevant work experience gained after graduation / completion of 16 years of education with 2.5 CGPA or 60% whichever is applicable**	
2	Aptitude Test Component	● English Composition (MCQs) ● English Comprehension (Essay Writing Skills) ● Mathematics (MCQs)		● English Composition (MCQs) ● Mathematics (MCQs)		● English Composition (MCQs) ● English Comprehension (Essay Writing Skills) ● Mathematics (MCQs)		● English Composition (MCQs) ● English Comprehension (Essay Writing Skills) ● Mathematics (MCQs)	
3	Aptitude Test - Difficulty Level	SAT-1		SAT-I & SAT-II (Mathematics)		SAT-I		GMAT	
4	Aptitude Test Exemption*#	Minimum 1900 score in SAT-I OR ACT score of 29		Minimum 1840 score in SAT-I & Min 650 score in SAT-II (Mathematics) OR ACT score of 28		Minimum 1840 score in SAT-I OR ACT score of 28		BBA Degree from IBA, Minimum 2.5 CGPA & 2 years Work Experience OR Minimum 600 score in GMAT	
5	Student Profile	Avg Age: 19		Avg Age: 19				Avg Age: mid 20s	
6	Graduation Requirement	49 courses, 147 credit hours for BBA Responsible Citizen Internship (RCI) Corporate Internship	43 courses, 147 credit hours, + 3 Research Projects for BBA (Entrepreneurship) Responsible Citizen Internship (RCI) Corporate Internship	48 courses, Research Project 150 credit hours Responsible Citizen Internship (RCI) Corporate Internship	46 courses, 147 credit hours Responsible Citizen Internship (RCI) Corporate Internship	45 courses, 144 credit hours 1 Culminating Experience/ Thesis Responsible Citizen Initiative 8-10 week internship Corporate Internship	42 courses, 127 credit hours Responsible Citizen Internship (RCI) Corporate Internship	72 credit hours, duration 24 months Comprehensive exam Corporate Internship for Non BBA Background	72 credit hours, duration 42 months Comprehensive exam
7	Fees Fall 2015****	Rs. 164,500 / Semester		Rs. 128,500 / Semester			Rs. 164,500 / Semester	Rs 164,500 / Semester	Tuition fee of Rs 33,000/- for all part-time students Per Course*****
8	Classes Start	August		August & January		August		August & January	
9	Duration	4 years full time						2 years to 5 years	3.5 years to 7 years
10	Campus	Main / City		Main	Main / City	Main / City			

Note:

* Participation in Group Discussion & Interview is mandatory

** For details, see work experience requirement

*** All equivalency claims shall be evaluated by the HEC (www.hec.gov.pk)

**** IBA reserves the right to revise the fees without prior notice

***** Full-time MS students shall be paid a stipend of Rs 25,000/- per month

***** See Page - 57

Master of Science (MS)			Executive MBA	Doctor of Philosophy (PhD)			
Computer Science	Economics	Mathematics	Various Specializations	Economics	Computer Science	Mathematics	Statistics
A minimum of 16 years of education out of which 4 years should have been spent in an HEC recognized university / degree awarding institute with: A minimum of 60% aggregate marks OR A minimum of 2.50 CGPA on a scale of 4.00 (as applicable)		A minimum of 16 years of education (BS/MSc- Mathematics) out of which 4 years should have spent in an HEC recognized university / degree awarding institute with: A minimum of 60% aggregate marks OR A minimum of 2.50 CGPA on a scale of 4.00 (as applicable)	A minimum of 16 years of education out of which 4 years at an HEC recognized university / degree awarding institute and minimum 3 years of post qualification work experience OR Qualified Chartered Accountants with 2 years of post-qualification work experience OR Qualified ACCA upon completion of 3 years post ACCA work experience OR A minimum of 14 years of education out of which 2 years at an HEC recognized university/degree awarding institute and minimum 6 years post qualification work experience. HEC rules will be applicable.	MS / M Phil / Equivalent in relevant subject from HEC recognized local / foreign university with: Minimum 60% aggregate marks in the last degree OR A minimum 3.0 CGPA in the last degree where applicable*** Also have to fulfill specific requirements by the respective departments			
● English Composition (MCQs) ● Mathematics (MCQs) ● Subject Specialization		● English Composition (MCQs) ● Mathematics (MCQs)	● Business English (MCQs) ● English Comprehension \ Case Study ● Applied Mathematics (MCQs)	● English Composition (MCQs) ● Mathematics (MCQs) ● Specialization		● English Composition (MCQs) ● Mathematics	● English Composition (MCQs) ● Statistics
GRE General + Specialization			GMAT	GRE General + Specialization		GRE Math Subject Test	---
Minimum 650 score in quantitative GRE (Int'l) OR 160 score in quantitative revised GRE (Int'l)			BBA Degree from IBA, Minimum 2.5 CGPA & 3 years Work Exp OR Minimum 600 score in GMAT	Minimum 650 score in quantitative GRE (Int'l) OR 160 score in quantitative revised GRE (Int'l)		Minimum 650 score in GRE subjective Math	---
Avg Age: mid 20s			Avg Age: mid 30s Avg work exp: 10 years	Avg age: 26			
11 Core courses 4 elective courses + Thesis 30 credit hours	54 credit hours 15 courses & Thesis (9 credit Hours) [45 credit through courses 9 credit Hours through Thesis]	6 Core courses+ 2 electives 24 credit hours + Thesis 6 credit hours	22 courses 72 credit hours 1 Project Comprehensive exam	55 credit hours 28 credit hours through courses 27 credit hours through thesis	8 courses 24 credit hours + Comprehensive Exam + Dissertation	6 courses 18 credit hours + Comprehensive Exam + Dissertation	
MS full-time students are required to pay Rs 83,500/- per semester*****			Rs 30,000/- per course Rs 20,000/- per course (for Govt. Employees, armed forces and non-profit organizations)	Monthly stipend and full tuition fee waiver			
August	August & January	August	September, January & May	August		August & January	
2-2.5 years			2 years - 5 years	4-5 years			
City	Main		Main	Main	Main / City		Main

Candidates appearing in IBA's aptitude test will not be able to avail the option of fielding the SAT score if they do not qualify the aptitude test.

To apply for any of the above programs
Please visit our website at www.iba.edu.pk or email info@iba.edu.pk

Higher education starts with undergraduate studies leading upto graduate courses; these are stopovers in a student's journey of obtaining knowledge and carving out a career in the chosen field of study. Undergraduate courses lay the basic foundation that is used as a springboard to pursue graduate courses or a master's degree.

Courses at an undergraduate level, also referred to as bachelor's courses, are usually taken after completing 10+2 / equivalent level in most countries. These courses are classified as BS / BA / BBA. Undergraduate programs are designed to strengthen the knowledge-base of young students. Courses in the freshman year are of an introductory level, with a gradual increase in their difficulty approaching sophomore, junior, and senior years.

It is only after successful completion of undergraduate courses that a student can aspire to go for higher studies and enroll into a graduate course such as a master's degree program. An undergraduate degree lasts four years, whereas a graduate degree lasts two years. The highest graduate degree that a student can pursue is the doctoral degree which involves intensive research work.

Undergraduate Programs

The IBA launched its Bachelor programs in Business Administration in 1982, conducted under the aegis of the Karachi University, these 3-year programs continued till 1994. Upon acquiring degree awarding status that year, the nomenclature, the bachelor programs was changed to bring it in consonance with international standards. The curricula of the bachelor level programs were also revised, and they became 3-year 'Undergraduate Programs'. Later in 1999, to keep step with the universal bias of technology in higher studies, IBA launched its first BS programs – to this end the BS (Computer Science) program was introduced. In 2002, in pursuit of making IBA undergraduate degrees compatible with international standards, all IBA undergraduate programs were upgraded as 4-year degree programs. Thereafter, cognizant of the growing demand for a diversified nature of studies; in 2012 and 2013, IBA introduced a series of BS Programs, including BS (Economics & Mathematics), BS (Social Sciences / Liberal Arts) & BS (Accounting and Finance), thus expanding the array of undergraduate qualifications and degrees available to its students. These offerings were augmented by incorporating student-conducted tutorials, projects and other initiatives leading to a highly satisfying experience under a credible faculty and insightful mentors.

Graduate Programs

The IBA initially offered MBA program only for day scholars. In 1957, an Evening Program was launched to cater to the needs of the numerous working executives and managers, who were interested in furthering their careers through part-time business studies. The outstanding aspect of graduate programs is the study in a "specialized" field, as obtaining a Master's degree involves acquiring complex analytical and critical skills in a "particular" field. Additionally, producing original work, including the writing and defense of a thesis or dissertation, is a major constituent of graduate studies. The MS degree is an "untagged" degree, as the name of the major is excluded from the degree title, whereas MBA is a "tagged" degree. Over the years, the MBA program has evolved significantly, aided by the revamped curriculum. Commencing 2011, it has been made mandatory that undergraduates have 2 years of work experience before embarking on MBA study programs. The MBA Executive Program was launched in 2009 for the in service professionals who cannot attend week-days program. This program attracts senior level executives both from private and public sectors.



The introduction of MS (Computer Science) and MS (Economics), in the years 2008 and 2010, respectively, further diversified the streams of the graduate programs and enabled graduate students to work outside his/her specific field of study at graduate level. The MS programs, on the other hand, enable prospective applicants to enhance their long-term performance in the dynamic fields of science and economics. Aspirants of the graduate programs can expect a thoroughly transformational experience, which will leave a lasting impact on their careers and professional intellect.

Postgraduate Diploma Programs

In the realm of higher education, the IBA Karachi has recently started three post-graduate diploma courses in Healthcare Management,

Supply Chain Management, and Human Resource Management. These courses have been designed to develop, in highly skilled practitioners, an in-depth understanding of strategic, tactical, and operational challenges, which they are likely to face. Each PGD spans 1 year, with 12 courses, a live project, and a practicum.

These courses will help bridge the competency gap in Pakistan and will enhance the professionalism of those involved in the industry. The curriculum design is based on several years of research, through various stakeholder surveys and focus groups.

Each program is devised to develop critical thinking among candidates and motivate them in the application of their knowledge.

PhD Programs

The IBA launched its Ph.D. (Computer Science) program in the year 2005 and Ph.D. (Economics), (Mathematics) in the year 2011. A feather in IBA's cap, these three Ph.D. level programs epitomize IBA's endeavor to become a world class institution. They test the temperamental and analytical capacity of the potential candidates, while ensuring sustainable progression of their careers. These programs serve as valuable platforms for refining the skills and honing the competencies of the respective pursuers of the degree.

Before long, IBA will launch a Ph.D. program in Statistics, thus remaining ever vigilant in its path to eternal advancement.



Associate Deans

**Faculty of Business Administration**

PhD University of Auckland, New Zealand
 MSc (Management Sciences) &
 MA (Economics), University of Waterloo, Canada
 MAS (AERC), University of Karachi
 Areas of interest: Portfolio Management Financial
 Econometrics, Financial Economics &
 Microeconomics

Dr. Mohammad Nishat**Faculty of Computer Science**

PhD & MS, Columbia University, USA
 BS, Massachusetts Institute of Technology
 Areas of interest: Simulation and Performance
 Analysis of Wireless Networks, Routing Issues in
 Mobile Adhoc Network & Security Risk Assessment
 of System

Dr. Sayeed Ghani

Chairpersons

Accounting &
Law**Asad Ilyas**Computer
Science**Dr. Shakeel
Khoja**Economics &
Finance**Dr. Khadija
Malik Bari**

Management

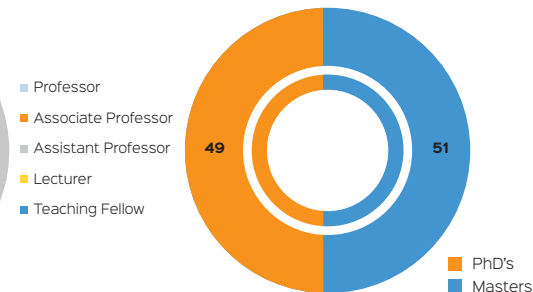
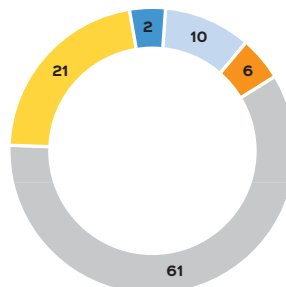
**Dr. Shahid Mir**Social Sciences
& Liberal Arts**Dr. Framji
Minwalla**

Marketing

**Dr. Huma Amir**Mathematical
Sciences**Dr. Muhammad
Shahid Qureshi**

Full Time Faculty at Glance

Full Time Faculty	Total Strength
PhD (<i>Foreign</i>)	39
PhD (<i>Local</i>)	10
Masters (<i>Foreign</i>)	31
Masters (<i>Local</i>)	20
Pursuing Higher Education (<i>Abroad</i>)	20
Pursuing Higher Education (<i>Locally</i>)	06
Total	100



The Faculty (Convocation - 2014)



Department of Accounting & Law (11)



Ilyas, Mohammad Asad
Assistant Professor

Chairperson Department of Accounting & Law
Pursuing PhD (Accounting), IMT Ghaziabad/Grenoble Ecole De Management
CPA, Delaware, USA
BBA (Accounting), Pace University, NY, USA



Ali, Mohammad Azam
Assistant Professor

Senior Research Fellow (CBER)
Member Library Committee
Juris Doctor (Doctor of Law), Columbia Law School New York, USA
BS (Economics), Wharton School of Business - Philadelphia, USA
Bachelor of Applied Science, University of Pennsylvania - Philadelphia, USA



Ali Patel, Mohsin
Lecturer

MBA, Pakistan Air Force-KIET
ACMA, Institute of Certified Management Accountant, ICMA
ACCA, UK
MSc (Economics), University of Karachi
BCom, University of Karachi



Asif Jaffer, Muhammad
Assistant Professor

Pursuing Split PhD, Grenoble Ecole De Management/IMT Ghaziabad
MS (Computer Science)
Fellow Cost & Management Accountant (FCMA) (ACCA)
Certified SAP Consultant, MA (Economics)
Areas of interest: Business Analytics, IT & Computational Intelligence Applications in Accounting, ERPs



Daniyala, Nameem
Lecture

ACA, Institute of Chartered Accounts of Pakistan-ICAP
BCom, University of Karachi



Hasnie, Syed Sharjeel Ahmad
Assistant Professor

Program Coordinator,
BS (Accounting & Finance)
MSc, Anglia Rusking University, United Kingdom
ACMA, Chartered Institute of Management Accountants (CIMA) United Kingdom



Nazar, Mahreen
Assistant Professor

Superintendent Girls' Hostel
LLM, International Law Temple University, USA
LLB, (Hons), Thames Valley University, London, UK
Areas of interest: International Trade Laws, Corporate Laws and Practice in Pakistan, Industrial Relations, Labour & Service Laws



Saiyed, Aman U.
Assistant Professor

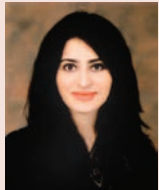
Program Director, BBA Program
MBA, Georgia State University, Atlanta, USA
CPA Texas, USA C.A finalist, Chartered Institute of Management Accountants, UK
Areas of interest: Designing and Implementation of MIS in Large Organizations, Strategic Planning and Activity Based Costing
Author of Book: Managerial Accounting for Financial Services



Siddiqui, Umamah Emad
Teaching Fellow

BSE (Applied Accounting)
Oxford Brookes University
ACCA
MBA, Institute of Business Administration, Karachi.

Department of Accounting & Law (Continued...)



Shah, Morial
Lecturer

BA (Honours affiliate, Law Tripos Part I & II), University of Cambridge, Wolfson College, UK
BS (FS), Georgetown University, Edmund A. Walsh School of Foreign Service, Washington DC, USA



Tabraze, Haroon
Faculty Member & Adjunct Faculty CEE

Fellow Member of Institute of Chartered Accountants of Pakistan
Fellow Member of Associate of Chartered Certified Accountant
BSc (Mathematics), University of Karachi

Department of Computer Science (16)



Khoja, Shakeel Ahmed
Professor

Chairperson, Department of Computer Science
IBA Best Researcher Award-2014
Post Doc Fellowship
University of Southampton, UK
PhD, University of Southampton, UK
BE, UET, Mehran
Awarded Best Teacher Award 2003 and 2011 by Higher Education Commission (HEC) Research
Areas of interest: Web Science, Learning Technologies and HCI



Arain, M. Waseem
Assistant Professor

Pursuing PhD, Institute of Business Administration, Karachi
MS (Information Technology), Hamdard University, Karachi
Areas of interest: Performance Analysis of Wireless Networks, MAC and Routing Layer Issues in MANET, WSN, Modeling and Simulation, Information Systems



Asif, Zaheeruddin
Assistant Professor

Program Director Alumni Affairs
PhD, Temple University, Philadelphia, USA
MBA, Institute of Business Administration, Karachi
PGD, Institute of Business Administration, Karachi
Areas of interest: Philosophy of Computer Mediated Communication, Deliberative Communication, Open Source, Social Software, and Online Communities of Practice



bin Zubair, Hisham
Assistant Professor

Program Director, BS (CS) Program
Postdoc (Appl. Math), University of Antwerp, Belgium
PhD (Appl. Math), Delft University of Technology, The Netherlands
MCS, MSc, BSc (Hons.) (Applied Maths), University of Karachi



Ghani, Sayeed
Associate Professor

Chairman Academic Committee
Chairperson, Department of Computer Science
PhD & MS, Columbia University, USA
BS, Massachusetts Institute of Technology
Areas of Interest: Simulation and Performance Analysis of Wireless Networks, Routing Issues in Mobile Adhoc Network & Security Risk Assessment of System



Ghauri, Maheen
Assistant Professor

Program Director, Summer School
MBA, Institute of Business Administration, Karachi
BCS, FAST Institute of Computer Science
Fellow of Entrepreneurship, Babson College, USA
Areas of interest: Social Media, Web Marketing, Entrepreneurship, MIS and Ergonomics

Department of Computer Science (Continued...)



Haider, Sajjad
Associate Professor

PhD, George Mason University, USA
MS, George Mason University, USA
Areas of interest: Artificial Intelligence, Probabilistic Reasoning, Data Mining, Machine Learning and System Engineering



Iradat, S. M. Faisal
Assistant Professor

PhD, Institute of Business Administration, Karachi
MS (Computer Science), SZABIST, Karachi
MS (Computer Science), University of Karachi
Areas of interest: High-Speed Next Generation Networks, Modeling and Simulation, Artificial Intelligence & Statistical Inference



Khan, Abdul Wajed
Assistant Professor

Acting Controller of Examination & Coordinator, MBA Evening Program
PhD candidate, Institute of Business Administration, Karachi.
MS (Computer Science), National University (FAST), Karachi,
MAS, AERC, University of Karachi
MCS, University of Karachi
Areas of interest: Programming Languages, Information Retrieval, Graphics



Khan, Imran
Assistant Professor

PhD, Institute of Business Administration, Karachi
MS (Computer Science), SZABIST, Karachi
MCS, University of Karachi
OCA, USA,
Areas of interest: Relational Databases, Data Warehouses, Data Mining, Systems Engineering, Ontology Coloured Petri Nets (CPN) and ERP



Nabi, Syed Irfan
Assistant Professor

PhD, Institute of Business Administration, Karachi
MS, George Washington University, USA
PGD, Technical Education, Islamic University of Technology, (OIC) Dhaka
BSc (Engg), NWFP University of Engg & Tech, Peshawar PMP
Areas of interest: Information Security Management, Information Technology Policy and Planning Project Management



Rajput, Quratulain Nizamuddin
Assistant Professor

PhD, Institute of Business Administration, Karachi
MS, SZABIST, Karachi
Areas of interest: Information Extraction, Knowledge Extraction, Semantic Web & Ontology



Rashid, Amber Gul
Assistant Professor

Director, QEC
PhD, Salford University,
MSc, UMIST
BA (Hons.), (Business Studies),
University of Sheffield International
Baccalaureate (IB)
United World College of the Atlantic
Areas of Interest: Active involvement in the Center for Entrepreneurship Development (CED) Female Entrepreneurship



Rauf, Imran
Assistant Professor

PhD (Computer Science), Max Planck Institute for Computer Science, Germany
MS (Computer Science), Saarland University, Germany
BS (Computer Science), University of Karachi, Karachi



Rizvi, Ameer H.
Lecturer

MBA (General Management),
University of the East, Manila, Philippines
Areas of interest:
Supply Chain Management and CRM.
Experience at Companies like Oracle, KPMG and Arthur Consulting

Department of Computer Science *(Continued...)*

Coordinator Testing Services,
Member Admission Committee &
Chairman CPC
PhD, University of Leeds, England, UK
MA (Mathematics), MS (Operations
Research), University of California,
Los Angeles
Areas of interest: Parallel Processing,
Operations Research, Numerical Analysis,
Data Warehousing and Data Mining

Touheed, Nasir
Professor

Department of Economics & Finance (21)



Chairperson, Department of
Economics & Finance
DBA, University of Strathclyde,
Glasgow, UK
M.Sc, University of Strathclyde, Glasgow
MA, University of Punjab, Lahore
Areas of interest:
Strategic Management and Economics

Bari, Khadija Malik
Assistant Professor



Pursuing PhD, University of
Southampton, School of Social Sciences
MSc (Economics) from University of
Edinburgh
BSc (Honors Economics and
Mathematics), LUMS

Abbas, Ali Gillani
Lecturer *(On Study Leave)*



Director, Center for Business &
Economics Research, Chief Economist,
Govt. of Sindh
PhD (Economics), University of Bath, UK
MAS (Economics), University of Karachi
MA (Economics), University of Karachi
20 years of experience in Consultancy,
research in the areas of Public Finance,
Regional Economics & Macro Economics

Ahmed, Qazi Masood
Professor



PhD, Northeastern University,
Boston, USA
MPhil, Quaid-e-Azam University
MSc (Economics), University of Karachi
Areas of interest:
Convergence Theory and Corruption

Ahmad, Naved
Professor *(Off board-Active)*



Pursuing PhD, Institute of Business
Administration, Karachi
MSc (Economics),
Lahore University of Management
Sciences
BBA (Finance), Institute of Business
Administration, Karachi

Ali, Mehwish Ghulam
Lecturer



Pursuing PhD, ESADE Business School
Spain
MBA, LUMS
BSc (Hons) (Economics), LUMS
4 years of Industry Experience
Served as AVP Team Leader in
Mezan Bank

Awan, Amer Iqbal
Assistant Professor *(On Study Leave)*

Department of Economics & Finance *(Continued...)*

Ejaz, Lalarukh
Assistant Professor

Pursuing PhD (Entrepreneurship),
University of Southampton
MA (Eco), York University,
Toronto, Canada
MA (Eco), University of Karachi
Obtained Distinction in MA,
York University
Areas of interest: Public Choice Theory,
Law and Economics



Elahi, Muhammad Ather
Assistant Professor *(On Long Leave)*

Research Fellow, CBER
Institute of Business Administration,
Karachi
PhD (Banking)
Tilburg University, The Netherlands
MBA (Finance) (Gold Medalist),
IoBM, Karachi
MSc (Economics) (Gold Medalist),
University of Karachi



Haider, Adnan
Assistant Professor

Coordinator, BS & MS Economics & Mathematics Program
PhD (Economics), PIDE, Islamabad
MS (Applied Economics), AERC,
University of Karachi,
MSc (Computer Science and Mathematics),
University of Punjab, Lahore, Pakistan



Jaffery, Tahira Marium
Lecturer

MBA, Institute of Business
Administration,
Karachi
Areas of interest:
Pakistan's Economic and Financial
Markets, Involved in an analysis project
with Business Daily



Junaid, Ahmad
Assistant Professor

Research Fellow-CBER
PhD (Financial Engineering), IAE AIX
Graduate School of Management, ESSEC
Paris
MS (Financial Engineering), IAE, Graduate
School of Business, France
MBA (Finance), Muhammad Ali Jinnah
University, Pakistan



Khan, Amir Jahan
Assistant Professor *(On Study Leave)*

PhD University of Warwick (in process)
MSc (Economics),
Warwick University U.K
MA (Local Economic Development),
University of Waterloo, Canada
MAS, University of Karachi
Areas of interest:
Applied Microeconomics, Labour /
Education Economics and Local
Economic Development



Khan, Haroon
Assistant Professor *(On Long Leave)*

Sr. Fellow / Advisor Center for
Entrepreneurship Development
PhD, (Management Sciences), France
MS (Finance & Management Control),
France
MBA (Finance & Investment),
NUST, Pakistan
Fellow Academy of Entrepreneurship
Fellow Eastern Finance Association



Lohano, Heman Das
Associate Professor *(On Long Leave)*

PhD, University of Minnesota
MSc, University of Minnesota
MSc (Agricultural Economics),
Sindh Agriculture University
Areas of interest:
Stochastic Dynamic Programming,
Market Integration, Environmental
Economics



Muhammad, Zahid
Assistant Professor *(On Long Leave)*

Research Fellow (CBER)
PhD, University of Birmingham
MSc (Management), London School of
Economics & Political Science, UK
MPA, The Punjab University, Lahore
Areas of Interest:
Financial Economics, Econometrics,
Monetary Policy

Department of Economics & Finance *(Continued...)*

Nakhoda, Aadil
Assistant Professor

Research Fellow (CBER)
PhD, (International Economics), University of California, Santa Cruz
Masters (International Economics), University of California, Santa Cruz
Bachelors (Economics), Pennsylvania State University, Pennsylvania



Nauman, J. Amin
Assistant Professor *(On Study Leave)*

Pursuing PhD from University of Birmingham, UK
MSc Investments (Finance)
Birmingham Business School, University of Birmingham, UK
MBA, Finance / Marketing
Institute of Business Administration, Karachi
BE (Mechanical), NED University Karachi



Nishat, Mohammad
Professor

Associate Dean, Faculty of Business Administration
PhD, University of Auckland, New Zealand
MAsc, (Management Sciences) & MA, (Economics), University of Waterloo, Canada
MAS, (AERC), University of Karachi
Areas of interest: Portfolio Management
Financial Econometrics, Financial Economics & Microeconomics



Tauseef, Sana
Lecturer

Pursing Split PhD, IMT Ghaziabad / Grenoble Ecole De Management
MS (Economics), Institute of Business Administration, Karachi (in progress)
CFA ® Charter, CFA Institute
MBA (Finance), Institute of Business Administration, Karachi
Areas of interest: Business Finance, Financial Management and Financial Derivatives



Ullah, Wali
Assistant Professor

Research Fellow (CBER)
PhD (Economics) Tohoku University, Sendai, Japan
MPhil (Applied Economics) University of Karachi
MSc (Economics) International Islamic University, Islamabad, Pakistan
BS (Hons) (Economics) International Islamic University, Islamabad, Pakistan



Umer, Muhammad Saleem
Professor of Practice

Program Director, EMBA Program
MBA, Institute of Business Administration, Karachi
DAIBP
Areas of interest:
Banking, Accounting & Finance

Department of Management (11)



Mir, Shahid R.
Assistant Professor

Chairperson, Department of Management
Fulbright Post Doc. Research Scholar, Monterey Institute of International Studies, Monterey, USA
PhD, Adamson University, Philippines, BE, NED University
Areas of interest: Entrepreneurship, Research Methodology, Materials & Marketing Management



Afghan, Nasir A.
Assistant Professor

Program Director, MBA Programs
PhD, University of Twente, The Netherlands
MBA, Maastricht School of Management, The Netherlands
MSc, University of Karachi



Ansari, Nyla Aleem
Assistant Professor

Student Advisor and Academic Director, (PGD, HR), CEE, IBA Karachi
Integrative counselor (CPCAB), UK
MSc (Organizational Psychology), Birkbeck, University of London, UK
MS, (Management Sciences), SZABIST, Karachi
Areas of interest: Women Studies, Career Development & Post-modernism



Fatima, Mahnaz
Professor

PhD, USA, MBA, IBA Karachi, BE (Mech), NED University, 27 years teaching experience at the IBA, Karachi and at Northern Illinois University (NIU), USA
Ex-Member IBA-BoG, Ex Deputy Director Academics, Member Academic Board, Recipient of: MBA Gold Medal for best overall allround performance from IBA, 1983, Gerald Maryanov Fellow Award, 1991 from (NIU), USA, Best Teacher Awards: UGC 2001, IBA 2002, HEC 2009.
Author of: 3 books, over 40 research papers and 400 articles in publications of international / national repute, Areas of interest: Corporate Strategy, Managerial Policy, Strategic Management, Development Economics, Quality Management, Public Policy and Social Policy.



Hussain, Mirza Sardar
Assistant Professor

Coordinator, History of IBA project, Doctoral Course work in Business Administration, IBA, Karachi
MEM, Yale University, USA
MBA, IBA, Karachi
BE, NED University
Areas of interest: Small Business Entrepreneurship, Production and Operations, OB, Energy Management and Environmental Protection



Khalid, Rameez
Assistant Professor

Academic Director, (PGD Supply Chain Management) CEE, IBA Karachi
PhD (Project Management), France
MSc (Industrial Engineering), France
BE (Mechanical), NED University
PMP, CQSSBB, OCP, Assessor in QMS and OHSAS, HEC Approved PhD Supervisor



Menezes, Leon
Professor of Practice

Program Director, Career Development Center
MBA, University of Hull, UK
33 years of Professional Experience
Served as the Executive Director at Shell Pakistan



Mumtaz, Mohammad Kamran
Assistant Professor

Pursuing PhD (Operations Management), Lahore University of Management Sciences
ME, Texas A&M University
BS, GIKI
Areas of interest: Operations Management, Small Business Management, Entrepreneurship



Nazir, Usman
Assistant Professor

Pursuing PhD, University of Southampton
MBA, City University, Hong Kong
BSc (Hons), Computer Science, City University, Hong Kong
Worked at several multinationals
Last served at JPMorgan Chase Bank, Singapore
Taught at various Institutions in Asia Pacific

Department of Management *(Continued...)*

Qureshi, Shahid
Assistant Professor

Program Director, Center for Entrepreneurial Development (CED)
PhD, Technical University, Berlin
MBA, LUMS, M.Sc (Engineering), Asian Institute of Technology, Bangkok, Thailand
Areas of interest: Entrepreneurship, Strategic Management, Entrepreneurial Marketing and Marketing Research



Saqib, Syed Imran
Assistant Professor *(On Study Leave)*

Pursuing PhD (Business & Management), University of Manchester
MA, (Human Resource Management), George Washington University, USA
MBA, IBA Karachi
BBA, IBA Karachi
Areas of interest: Human Resource Management, Organizational Behavior and Comparative Management

Department of Social Sciences & Liberal Arts (21)



Minwalla, Framji
Assistant Professor

Chairperson, Department of Social Sciences & Liberal Arts
IBA Best Teacher Award-2014
Doctor of Fine Arts, Yale School of Drama, Yale University, New Haven, Connecticut (USA)
Master of Fine Arts, Yale School of Drama, Yale University, New Haven, Connecticut (USA)
Bachelor of Arts, (Arts & Ideas, Drama), University of Michigan-Ann Arbor, Ann Arbor, Michigan (USA)



Ahmed, Babar
Assistant Professor

PhD (Arab and Islamic Studies), University of Exeter, United Kingdom
MA, (Philosophy)
University of Texas at Austin Texas
BA, (Economics and Mathematics)
Brandeis University
Waltham, Massachusetts



Anwar, Nausheen H
Assistant Professor

PhD, Columbia University
MIA, Columbia University
BA, City University New York
Post-Doctoral Fellow, Harvard University
Areas of Interest: Urban Politics, Land Tenure and Grassroots processes of Settlement, Globalization / Governance and the city, Democracy and Citizenship



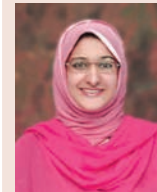
Asif, Ghazal
Teaching Fellow *(On Study Leave)*

Pursuing PhD, Johns Hopkins Anthropology Department
MA (Social Sciences), The University of Chicago, IL
BSc (Hons.) (Politics & Anthropology), LUMS



Baqai, Huma
Associate Professor

Program Director, Communication & Public Affairs
PhD (International Relations), University of Karachi
Certified Trainer in Liberal Political Values,
Areas of interest: Conflict in South Asia



Butool, Syeda Beena
Assistant Professor *(On Study Leave)*

Pursuing PhD (Ethics & Philosophy) from Florida State University
MPhil (International Relations), University of Cambridge
MA (International Relations), University of Karachi
Areas of interest: U.S. Foreign Policy, Just War Theory, Discourse Analysis

Department of Social Sciences & Liberal Arts *(Continued...)***Ghani, Asma**

Master of Science in Education-M.S.Ed.
(Counseling and Counselor Education)
Indiana University-Bloomington, USA
Bachelor of Science (Social Science)
Lahore University of Management
Sciences, Lahore

**Hasan, Maria**
Assistant Professor

Coordinator, Ardeshtir Cowasjee Centre
for Writing
MA (Applied Linguistics),
London Metropolitan University, UK
MA (English Linguistics),
University of Karachi
MA (English Literature),
University of Karachi
Areas of interest:
Socio Linguistics & Pragmatics

**Ismail, Zeenat**
Professor

Coordinator, NTHP / STHP & FSP
Programs
Coordinator Foreign Languages
PhD, Institute of Clinical Psychology,
University of Karachi
Areas of interest:
Human, Organizational and Consumer
Behaviour, Business Communication
Research Method and Social Psychology

**Khalid Khan, Aarsalan**
Assistant Professor

PhD (Anthropology), University of Virginia,
Charlottesville, VA
MA (Anthropology), University of Virginia,
Charlottesville, VA
BA (International Relations),
Beloit College, Beloit, WI

**Munshi, Muhammad Bilal**
Assistant Professor

PhD (Political Science)
University of Bristol
MA (International Affairs),
George Washington University
BA (Political Science), Boston University

**Mujahid, Nadya Qamar Chishti**
Assistant Professor

PhD (English Literature)
McGill University, Canada
MA (English Literature)
McGill University, Canada
MA (Teaching English) Smith College,
Northampton, Massachusetts

**Mushtaq, Faiza**
Assistant Professor

PhD (Sociology), Northwestern University
MA (Sociology), Northwestern University
BA (Sociology), McGill University

**Nomanul Haq, Syed**
Professor

Chairman, Library Committee
PhD, University College London,
Master of Science,
University College London,
Bachelor of Science (Engineering),
Hull University, England

**Osman, Newal**
Assistant Professor

PhD, (History) University of Cambridge,
United Kingdom
MSc (International History), London
School of Economics, United Kingdom
BSc (Mathematics & Economics) LUMS

Department of Social Sciences & Liberal Arts *(Continued...)*

Qassim, Summer
Lecturer

Masters (Philosophy and Anthropology), New York University (NYU)
Bachelors (Political Science), University of California, Los Angeles (UCLA)



Qayyum, Rabail
Lecturer

MEd (English Teacher Education), Institute for Educational Development, The Aga Khan University
MA (Linguistics), University of Karachi
Certificate in English Language Teaching to Adults (CELTA), University of Cambridge



Rebaz, Javeria
Lecturer *(On Study Leave)*

Pursuing MPhil from National Defense University, Islamabad
MA (Linguistic), University of Karachi
BA (Hons), University of Karachi
Areas of interest:
Creative Writing and Translation



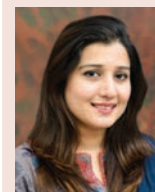
Tahir, Ghazal
Lecturer

Master of Arts (Social & Political Thought) University of Sussex, United Kingdom.
Bachelor of Arts (Cultural Studies) Beacon House National University, Pakistan.



Wizarat, Talat
Professor

PhD, University of Karachi
MA, University of South Carolina,
MA, University of Karachi
Areas of interest:
Conflict Resolution, Crisis Management, West, South Asia and Impact of Technology on Interstate Relations



Zaffar, Nadia
Assistant Professor

Program Director, Center for Excellence in Journalism (CEJ)
Master's (Broadcast Journalism), Emerson College, Boston
Bachelor's (International Relations & Films Studies), Mount Holyoke College, South Hadley, MA

Department of Marketing (12)



Amir, Huma
Assistant Professor

Chairperson, Department of Marketing
Senior Research Fellow, CEBR
PhD (Marketing), Warwick Business School, University of Warwick, UK
MBA, Institute of Business Administration, Karachi
Areas of interest:
International Marketing, Consumer Behavior and Social Research Methods



Akhund, Fatima
Lecturer

MSc (Marketing), Queen Mary University of London
BBA (Marketing), Institute of Business Administration, Karachi
Areas of Interest: Marketing



Baig, Farah Naz
Assistant Professor

Pursuing Split PhD, University of Southampton, / IMT Ghaziabad
MS, SZABIST, Karachi
MBA (Marketing), Institute of Business Administration, Karachi
BBA, Institute of Business Administration, Karachi
Areas of interest:
FMCG Branding & Retailing

Department of Marketing *(Continued...)*

Gill, Obaid Pervaiz
Lecturer *(On Study Leave)*

Pursuing PhD (Strategic Orientations & Brand), Australian School of Business, University of New South Wales Australia
MS (Marketing & Strategy), Warwick Business School, UK
BBA (Marketing), Institute of Business Administration, Karachi



Husain, Saima
Lecturer

Pursuing Split PhD, University of Southampton, / IMT Ghaziabad
BBA, Institute of Business Administration, Karachi
MBA, Institute of Business Administration, Karachi
Areas of interest: Marketing Issues in Pakistan, Principles of Marketing, Consumer Behavior and Media Management



Khan, Ambarin Asad
Lecturer *(On Study Leave)*

PhD, Manchester, Business School, UK
MBA, Institute of Business Administration, Karachi
BE, NED University, Karachi
Area of Interest: Innovation, Consumer Behaviour and Quality



Khan, Nida Aslam
Lecturer

Pursuing Split PhD, IMT Ghaziabad/Grenoble Ecole De Management
MBA, Institute of Business Administration, Karachi
BBA, Institute of Business Administration, Karachi
Areas of interest: Marketing issues in Pakistan, Consumer Behaviour, Culture and Country-of-Origin effects



Mian, Ejaz A.
Assistant Professor

Pursuing PhD (Marketing), University of Penang, Malaysia
MBA, University of Toronto, Canada
MA, University of Karachi
BE, NED University
Areas of interest: Marketing Management, Export Marketing, Advertising & Business Marketing in SMEs



Moiz, Jami
Assistant Professor

Superintendent Boy's Hostel
MBA, Schiller International University, London HND, Cambridge
Fellow, Babson College, Massachusetts, USA
Areas of interest: Entrepreneurial Marketing, Strategy, Advertising and Management



Rashid, Amber Gul
Assistant Professor

Director, QEC
PhD, Salford University
MSc, UMIST
BA (Hons.) (Business Studies), University of Sheffield International Baccalaureate (IB)
United World College of the Atlantic
Areas of Interest: Active Involvement in the Center for Entrepreneurship Development (CED) Female Entrepreneurship



Saeed, S.M.
Lecturer

Student Counselor
MBA, Institute of Business Administration, Karachi
Trainer in various Executive Education & FBR Capacity Building Programs
Areas of interest: Management, Marketing and HRM



Zafar, Yasmin
Assistant Professor

Member Library Committee
MBA, University of San Francisco, California
MBA, Institute of Business Administration, Karachi
Areas of interest: Consumer Behavior, International Marketing, Export Marketing, Services Marketing, Brand and Product Marketing

Department of Mathematical Sciences (11)



Qureshi, Muhammad Shahid
Professor

Chairperson, Department of Mathematical Sciences
PhD, Institute of Space & Planetary Astrophysics, University of Karachi
MPhil (Mathematics), University of Karachi
MSc (Applied Mathematics), University of Karachi



Bashir, Amir
Assistant Professor

MPhil (Statistics), Government College University, Lahore
MSc (Statistics), Baha-Ud-Din Zakariya University, Multan



bin Zubair, Hisham
Assistant Professor

Program Director, BS (CS) Program
Postdoc (Appl. Math), University of Antwerp, Belgium
PhD (Appl. Math), Delft University of Technology, The Netherlands
MCS, MSc, BSc (Hons.) (Applied Maths), University of Karachi



Ali, Danish
Assistant Professor

(Interim Placement by HEC)
PhD (Mathematics), ASSMS, GCU Lahore
MSc (Mathematics), UOS, Sargodha
BSc (Mathematics & Physics) UOS, Sargodha



Iqbal, Javed
Associate Professor

PhD (Econometrics and Business Statistics), Monash University, Australia
MAS (Applied Economics), University of Karachi
MSc (Statistics), University of Karachi
Area of Specialization: Econometrics and Business Statistics



Khan, Junaid Alam
Assistant Professor

PhD, Abdus Salam School of Mathematical Sciences, Government College University, Lahore
MSc (Pure Mathematics), University of Karachi
Areas of interest: Commutative Algebra, Computational Algebra, Algebraic Geometry



Majid, Abdul
Assistant Professor (*On Study Leave*)

PhD (Applied Mathematics), LUMS
Pursuing one year postdoctoral offer from the Okinawa Institute of Science and Technology, Japan
MSc (Pure Mathematics) with Distinction
Areas of interest: Applied and Computational Mathematics, Sobolev Gradient Approach to Partial Differential Equations



Meenai, Yaseen Ahmed
Lecturer

MSc, University of Karachi, (Silver Medalist)
Recipient of Best Teacher Award from HEC
Recipient of Best Paper Award, Informatics & Cybernetics Conference at Orlando, USA
Areas of interest: Statistics, Numerical Computing, Mathematics and Statistical Inference



Raza, Ahmad
Assistant Professor

Research Fellow (CBER)
MA (Mathematics), Kings College, Cambridge University
Cambridge Mathematical Tripos
Areas of interest: Mathematics

Department of Mathematical Sciences (Continued...)



Shah, Ahmed Ali
Associate Professor

PhD, University of Kent,
Canterbury, England
Areas of interest: Numerical Analysis,
Mathematical Modeling, Logic & Discrete
Structures, Operational Research,
Statistical Inference,
Business Mathematics, Design of
Algorithms and their Applications



Touheed, Nasir
Professor

Coordinator, Testing Services
Member Admission Committee &
Chairman CPC
PhD, University of Leeds, England, UK
MA (Mathematics),
MS (Operations Research),
University of California, Los Angeles
Areas of interest: Parallel Processing,
Operations Research, Numerical Analysis,
Data Warehousing and Data Mining

"The Students I am teaching at IBA are in a category way beyond what I have taught and way beyond even those in the best universities anywhere in the world. They are inquisitive, talented, extremely curious, talkative, thinking, they even read much more than what is assigned. It has been a huge joy and thrill to teach such extraordinary students. I really hope that some of them will move beyond the narrow professional field of Business Management, towards a richer Social Science specialization and focus as they progress over the years."

Dr. S. Akbar Zaidi
Adjunct Professor-IBA

Department of Accounting & Law (10)



Ahmad, Moiz

Executive Director,
The Institute of Chartered Accountants
of Pakistan
Deputy Chief Executive,
The Citizens Foundation
Director Finance, IUCN- The World
Conservation Union
FCA, Institute of Chartered Accountants
of Pakistan
MAS (Finance), Punjab University, Lahore
BSc (Physics, Math), Punjab University,
Lahore

Ahmed, M.
Kaukab Sabahuddin

Deputy Collector
LLM (Petroleum Law, CEPMLP),
University of Dundee, UK
LLB, Hamdard School of Law, Karachi
MBA (Banking & Finance),
Preston University, USA
(Karachi Campus)
MA (Economics), University of Karachi
BA (Hons) – Economics, University of
Karachi



Alidina, Ashfaq Pyarali

FCA, Institute of Chartered Accountants
of Pakistan
BCom, University of Karachi



Aziz, Rahat

Senior Faculty,
Sindh Judicial Academy
Pursuing PhD (Law), Punjab University,
Lahore
CA (Final Group-II) Accounting & Law,
Institute of Chartered Accountants
Pakistan
LLM (Corporate laws), S.M Law College,
Karachi
LLB, Urdu Law College

Idress,
Muhammad Hanif

Chief Financial Officer (CFO) & Company
Secretary, DHL Pakistan (Pvt) Ltd.
Certified Director, Corporate Governance,
Pakistan Institute of Corporate
Governance (PICG)
FCA, Institute of Chartered Accountants
of Pakistan (ICAP)
FCMA, Institute of Cost and Management
Accountants of Pakistan (ICMAP)



Kidwai, Midhat Azim

Former Managing Director /
Chief Executive
Officer Sind Engineering (Pvt) Ltd.
MBA (Finance & Accounting),
Institute of Business Administration,
Karachi
BSc (Maths, Physics),
Adamjee Science College, Karachi



Kirmani, Ahmad Saeed

FCMA, Institute of Cost and Management
Accountants
FCA, Institute of Chartered Accountants
of Pakistan



Murad, Aslam

Chief Consultant,
Aslam Murad Associates
FCA, Institute of Chartered
Accountants of Pakistan
CMA, The Institute of Cost &
Management Accountant of Pakistan
BCom, University of Karachi



Usman, Saad

Financial Controller and Company
Secretary,
Bayer Crop Science (Pvt) Limited
ACA, Institute of Chartered Accountants
of Pakistan (ICAP)
ACMA, Chartered Institute of
Management
Accountants (CIMA), UK

Department of Accounting & Law *(Continued...)*

Suriya, Abdul Rahim

Partner,
A.R. Suriya & Co., Chartered Accountants
FCA, Institute of Chartered Accountants
of Pakistan
FCMA, Institute of Cost and Management
Accountants of Pakistan
BCom, Govt Premier College

Department of Computer Science (14)



Abbasi, Eram

Assistant Professor,
PhD, Shaheed Zulfikar Ali Bhutto Institute
of Sci & Tec - (Pursuing)
Bahria University, Karachi
MS (Computer Science), SZABIST, Karachi
MBA (MIS), CBM, Karachi



Akhtar, Nadeem

Chief Executive Officer (CEO),
The Kaizen Forum
MS (Computer Science), West Chester
University of Pennsylvania, USA
BE, NED University, Karachi



Ali, Syed Asim

Assistant Professor,
Department of Computer Science & Main
Communication Network,
University of Karachi
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University of Karachi
MA (Mass Communication), University of
Karachi
MS (Management Sciences), SZABIST,
Karachi
BS (Computer Science), University of
Karachi



Edhi, Javed Yousuf

Chief Information Officer,
Silkbank Limited
MBA - PIM, Karachi
BE (Electrical) - NED University of
Engineering & Technology, Karachi



Hashmi, Ali Asghar

Chief Executive Officer (CEO),
Biztek Professionals
MBA, Carnegie Mellon University, USA
MS, George Washington University, USA
BS, University of Maryland, College Park
Certified PMP and CISA



Khan, Furqan Muhammad

PhD (Computer Science), University of
Southern California - Viterbi School of
Engineering
MS (Computer Science), University of
Southern California - Viterbi School of
Engineering
BE (Computer & Information Systems
Engineering), NED Karachi

Department of Computer Science *(Continued...)***Mahmood, Waqas**

Joint Director, State Bank of Pakistan
BS (Engg.)
(Sir Syed University of Engineering &
Technology)
MS (Specialization in Software
Project Management), NUCES (FAST)
MS (Economics and Finance)
IoBM (CBM), Karachi

**Mukhi, Shabbir**

Director Technical and Delivery,
Logic Information Systems,
MS (Computer Science), SZABIST, Karachi
BCSc, Dalhousie University, Canada

**Qadri, Syed Mazhar Hasan**

MBET (Business, Entrepreneurship &
Technology), University of Waterloo
BS (Computer Science), University of
Karachi

**Saeed, Muhammad**

Assistant Professor,
University of Karachi
Pursuing PhD (Computer Science),
University of Karachi
MS (Computer Science), Lahore University
of Management Sciences - 2003
BS (Computer Science), University of
Karachi - 2000

**Sarim, Muhammad**

PhD (Computer Vision and Machine
Learning), University of Surrey Guildford,
United Kingdom
MSc (Physics),
University of Karachi
BSc (Physics),
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**Shaikh, Abdulbasit**

PhD (Computer Aided Design of Switched
Reluctance Motors), Imperial College,
University of London
BSc (Hons) – Electrical and Electronic
Engineering, Imperial College,
University of London

**Siddiqui,
Farhan Ahmed**

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MS (Computer Networks &
Communication), Hamdard University
BS (Computer Engineering),
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Technology, Karachi

**Zia, Shams Naveed**

IT Manager,
Hinopak Motors Limited
MS - CS, SZABIST (in Process)
MBA (MIS), Institute of Business
Administration, Karachi
BE (Mechanical Engineering) UET,
Lahore

Department of Economics and Finance (23)

**Waheed, Abdul**

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Department of Economics,
Faculty of Arts, University of Karachi,
PhD (International Development), Nagoya
University
MAS (Applied Economics), University of
Karachi
MSc (Economics), University of Karachi
BSc (Hons) (Economics), University of
Karachi

**Ali, Syed Akbar**

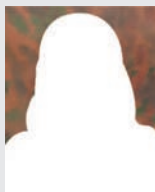
CFA, CFA Institute, USA
MBA (Finance), University of Karachi
BBA (Hons.), Karachi University Business
School

**Ali, Asif**

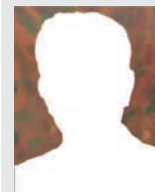
PhD (Development Economics), The Ohio
State University, Columbus, Ohio, USA -
MA (Economics), The Ohio State
University, Columbus, Ohio, USA
MA (Economics), University of Peshawar
MSc (Computer Science), University of
Peshawar
BSc, University of Peshawar

**Bhatti, Imtiaz**

PhD (Public Policy and Public
Administration), The George Washington
University
MSc (Development Administration and
Planning), University College
MA (International Relations), University
of Sindh

**Cashmiri, Ayesha Samie**

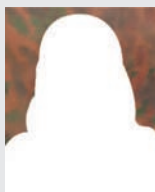
MBA, Lahore University of Management
Sciences
BA (Economics and Mathematics),
Kinnaird College, Pakistan

**Ejaz, Muhammad**

Group Head - Corporate and Investment
Banking
MBA, Institute of Business
Administration, Karachi
Candidate for CFA Level II
FRM, Global Association of Risk
Professional (GARP)

**Haque, Ziaul**

MBA, Institute of Business
Administration, Karachi
MSc, University of Karachi

**Hassan, Rubina**

Assistant Professor, Department of
Economics, University of Karachi
Pursuing PhD (Economics), University of
Karachi
MPhil (Economics), Quaid-i-Azam
University, Islamabad
MSc (Economics), University of Karachi
BSc (Hons) (Economics), University of
Karachi

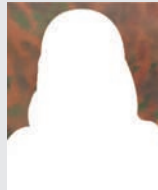
**Huda, Sadiqul**

Senior Vice President (SVP)
Banking Division,
Industrial Development Bank,
Pakistan (IDBP)
Masters in Economics,
St. Louis University, USA
MSc (Statistics), University of Punjab,
Lahore
MBA, Institute of Business
Administration, Karachi

Department of Economics & Finance *(Continued...)*

Irfan Ahmad, Syed

CFA, CFA Institute USA
MBA (Finance & MIS), Institute of Business Administration, Karachi
FRM, GARP, USA
MS (Economics), Shaheed Zulfikar Ali Bhutto Institute of Sci & Tec
BBA (Finance & MIS), Institute of Business Administration, Karachi



Iram, Uzma

PhD (Health Economics), University of Kent, UK
MPhil (Economic Efficiency of the Investment Strategies for the child Nutrition programs in Pakistan), University of Karachi
MAS (Applied Economics), University of Karachi
MA (Economics), University of Karachi



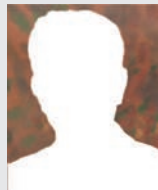
Irfanullah, Arif

CEO, Irfanullah Financial Training
MBA, University of Chicago
ME (Engineering Management), Dartmouth College, USA
BA, Dartmouth College, USA
BE (Electrical Engineering), Dartmouth College, USA



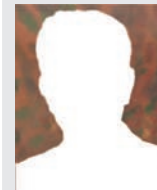
Jameel, Muhammad Akmal

MSc (International Accounting and Finance), London School of Economics
MBA (Finance), Institute of Business Administration, Karachi
BBA (Hons), Institute of Business Administration, Karachi
CFA, CFA Institute



Janjua, Ali Saqib

MBA, FT, Durham University, Durham, UK
BA (Economics)
Vassar College, New York, USA



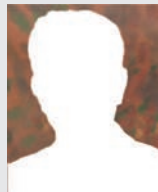
Khan, Irfan. A.

MBA, Lahore University of Management Sciences (LUMS)
MA, Punjab University, Lahore



Khan, Muhammad Mazhar

Joint Director, Monetary Policy, Islamic Banking and Research
Department, State Bank of Pakistan
Pursuing PhD, Institute of Business Administration, Karachi
MA (Development Economics), Williams College, USA
MAS (Applied Economics), University of Karachi
MA (Economics), University of Balochistan



Khan, Mohammad Faizan

Business Analyst, Engro Corp
Qualified Chartered Financial Analyst; exceptional financial modeling and valuation skills
FRM Level - 1
CFA, CFA Institute
MBA, SZABIST, Karachi
BBA (Hons.), SZABIST, Karachi



Memon, Naheed

MBA, Imperial College London – Imperial Business School
MSC (Economics) with distinction in econometrics
Birkbeck College – University of London
BCS Institute of Computer Science, University of Karachi

Department of Economics & Finance *(Continued...)*

Pasha, Farooq

Economist,
Research Department,
State Bank of Pakistan (SBP)
PhD (Economics), Boston College, USA
MA (Economics), Boston College, USA
BA (Economics and Mathematics), Beloit College, Beloit, WI



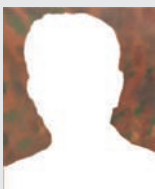
Rahman, Zia Ur

MBA (Finance), Institute of Business Administration, Karachi
MA (Economics), University of Karachi
BA (Economics, Math & Statistics), University of Karachi



Saleem, Asad Ullah

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MA (Economics), University of Peshawar, Pakistan



Siddiqui, Ahmed Ali

Executive Vice President, Meezan Bank Limited
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Siddiqui, Danish Ahmed

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Karachi University Business School
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Department of Management (18)



Atiq, Arzoo

PhD (Information Systems), University of Auckland, New Zealand
PGD (Information Systems), University of Auckland, New Zealand
MSc (Computer Science), International Islamic University Islamabad
BSc (Hons) (Computer Science), International Islamic University Islamabad



Amir, Samir S.

Director Research,
Pakistan Business Council
MBA, Institute of Business Administration, Karachi
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Davis,
Talat Hameed

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MBA, Simmons College/ Harvard Cases
MA (English Literature), Georgetown University
MA (Literature and Linguistics), Lucknow University
Teaching Diploma from Harvard University, Cambridge
MA & Courses, Boston University, Boston

Department of Management *(Continued...)*

**Hassan,
Imran Javed**

Chief Executive Officer (CEO) /
Partner, Gold Mohur Corporation
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(In Progress)
MPhil / MS (Management Sciences),
SZABIST
MBA (Finance & Marketing),
Institute of Business Administration,
Karachi
BAC, Institute of Chartered Accountants
Pakistan



Jaliawala, Muhammad Ashraf

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LLB, University of Sindh
BA, University of Sindh



Khan, Sara

PhD, Management (Education),
University of Lancaster, UK
MA, Human Resource Development and
Management Learning,
University of Lancaster, UK
MBA, Institute of Business
Administration, Karachi
BBA, Institute of Business Administration,
Karachi



Khan, Jalal Ahmad

Practicing Member of ICMAP in Taxation,
Project Finance, Secretarial Practices
FCMA, Institute of Cost & Management
Accountant of Pakistan
MBA, Institute of Business
Administration, Karachi



Khusrow, Uzair

MS (System Design and Management),
Massachusetts Institute of Technology
MS (Manufacturing Systems Engineering),
University of Wisconsin-Madison, USA
BE (Mechanical Engineering), NED Karachi



Mapara, Shakeel

Director Human Resources &
Organization Development, Sanofi-
Aventis, Karachi, Pakistan
MBA, Quaid-e-Azam University,
Islamabad



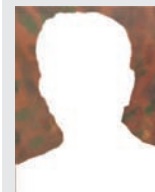
Mazhar, Sarah

MBA, Institute of Business Administration
Karachi
BBA (Marketing), Institute of Business
Administration, Karachi



Mahesri, Sajjad H.

Owner,
International Trading Corporation
MBA (Finance), Institute of Business
Administration, Karachi
MS (Chemical Engineering),
The Pennsylvania State University, USA
BS (Chemical Engineering & Computer
Science), The Pennsylvania State
University, USA



Paracha, Muhammad Aamir Gul

MBA (Int'l Business), AIT, Thailand
BE (Industrial Engineering), NED UET
BCom
Professional Diploma in Project
Management, PIM, Pakistan
Certified Supply Chain Professional
(CSCP) Program, PIM, Pakistan

Department of Management *(Continued...)***Raza, Syed Sultan**

Pursuing PhD, Institute of Business Administration, Karachi
MBA, Institute of Business Administration, Karachi
BSc (Hons) (Agri), Sindh LLB, Karachi
Postgraduate Diploma, NILAT

**Salman, Munir A.**

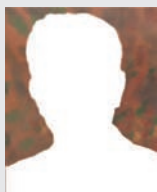
CEO & Lead Consultant, Think-HR Management Consultants
Senior Executive Vice President, Summit Bank Ltd.
(Formerly Atlas Bank Ltd.), Karachi
Principal Compensation and Benefits Specialist, Asian Development Bank, Manila, Philippines
LLM, Indiana University Law School, Bloomington, Indiana, USA
LLB, Punjab University Law College, Lahore

**Shahbazker, Mohammad Kamil**

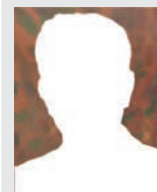
MBA, Institute of Business Administration, Karachi
BE (Electrical), NED University of Karachi

**Zaki, Shahid**

Consultant
Former CEO, Philips Pakistan
MBA, University of Karachi
MSEE, University of Southern California (USC), USA
BE, NED University

**Nazir, Faisal**

PhD (English Literature), University of Karachi
MA (English Literature), University of Karachi
BA (Political Science, Gen History, Islamic Studies), University of Karachi

**Wasif, Muhammad**

PhD (Mechanical Engineering), Concordia University, Montreal, Canada
ME (Industrial and Manufacturing Engineering), NED Karachi
BE (Mechanical Engineering), NED Karachi

Department of Social Sciences & Liberal Arts (19)

**Ahmed, Syed Jaffar**

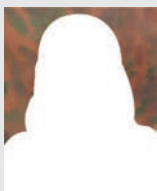
Professor,
Director, Pakistan Study Center,
University of Karachi
PhD (Social and Political Sciences),
Cambridge University, UK
MPhil (Pakistan Studies),
University of Karachi
MA (Political Science), University of Karachi
BA (Hons) (Political Science), University of Karachi

**Alam, Sameen**

MA (English Linguistics), University of Karachi
Pursuing MA (International Relations),
University of Karachi
BA (Hons), University of Karachi

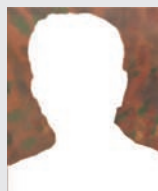
**Anjary, Fatima Hatim**

MA (Mass Communication), University of Karachi
Pursuing MS (Mass Communication),
University of Karachi
BA (Hons) (Mass Communication),
University of Karachi

Department of Social Sciences & Liberal Arts *(Continued...)*

Erum, Tazeen

MEd (Research)
University of Sydney
MA (English Literature),
University of Karachi

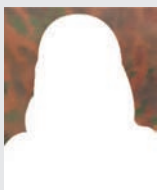


Khan, Muhammad Moiz

Assistant Professor, Department of
General History, University of Karachi
PhD (History), University of Karachi - IN
PROGRESS
MA (History), University of Karachi
LLB, University of Karachi
BCom, Islamia Arts and Commerce
Degree College

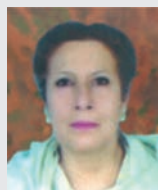
Khan, Muneeb
Ahmed

MA (General Psychology), New York
University
BSc (Hons) (Social Sciences), Lahore
University of Management Sciences



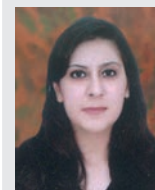
Malik, Anila Amber

PhD (Psychology),
University of Karachi
MA, Psychology with specialization in
Clinical Psychology,
University of Karachi



Moonis, Shahinda

EdD (Doctor of Education), Teachers
College, Columbia University, New York
City
MEd (TESOL), Teachers College, Columbia
University, New York City
MA (TESOL), Teachers College, Columbia
University, New York City
MA (English Literature), University of
Chittagong, Bangladesh
BA (Hons) (English Literature), University
of Chittagong, Bangladesh



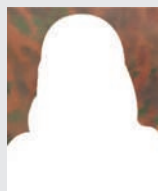
Nadeem, Zunaira

MA (English Literature), University of
Karachi
MPhil (English Literature), University of
Karachi - IN PROGRESS
BA (Hons) (English Literature), University
of Karachi



Raja, Farhan Uddin

MA (Applied Linguistics), University of
Karachi
Pursuing MS (Applied Linguistics),
University of Karachi
BCom, University of Karachi



Shaikh, Rabeel

MEd, University of Nottingham,
United Kingdom
BSc (Honors), Lahore University of
Management Sciences (LUMS)



Sheikh, Shaheen

PhD, London University
(University College London)
MSc (Econs), London University
(London School of Economics)
BSc (Hons), London University
(University College London)
BSc, Punjab University,
Pakistan

Department of Social Sciences & Liberal Arts *(Continued...)*

PhD (Political Economy), University of Cambridge, UK
BA (Economics), California State University, USA

Sachithanandam, Sathananthan



MBA, Institute of Business Administration, Karachi
Specialization in Soft Skills Training and Development, Business Communication and Career Counseling

Sayeed, Nadia



Assistant Professor, Department of Philosophy, University of Karachi
PhD (Political Philosophy), University of Karachi
MA (Philosophy), University of Karachi
BA (Hons) Philosophy, Psychology, Economics, University of Karachi

Suri, Abdul Wahab



PhD (General History-Archaeology), University of Karachi
MA (History -Gen), University of Karachi
BA (Pass) , University of Karachi - 1994

Siddiqui, Kiran Shahid



BA (History) (Université d'Angers, France)
Master in Cultural Management (Université d'Angers, France)
University degree in FFL (Université du Maine, France)

Touze, Eric



Pursuing PhD (International Relations), Karachi University
MA (International Relations), University of Karachi

Wasi, Nausheen



Pursuing EdD (Doctor of Education), University of Toronto
ME (Counselling Psychology for Community and Educational Settings), University of Toronto
MA (English Literature and Creative Writing), Boston University
BS (Linguistics & Philosophy, Engineering and Humanities), Massachusetts Institute of Technology

Yusuf, Humair

Department of Marketing (12)



Ashraf, Noaman

Ex. Director Marketing,
Marsavco SARL
(Former Unilever DRC)
MBA, Hamdard University, Karachi
BBA (Hons) , Hamdard University



Agrawalla, Najeeb

Group Head,
Marketing & Product Management,
United Bank Ltd., Karachi, Pakistan
MSc (Marketing), UMIST, Manchester
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Administration, Karachi
BBA, Institute of Business Administration,
Karachi



Chaudhry, A. Jawad

Head of Debit Cards & New Ventures,
United Bank Ltd (UBL)
MBA (Marketing), Institute of Business
Administration, Karachi
MBA (Marketing), Oregon State
University–Corvallis, USA



Husain, Shah M. Saad

General Manager, Corporate Affairs
Pak-Arab Refinery Ltd (PARCO)
MBA, Institute of Business
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MS (Materials & Metallurgical Engg),
University of Michigan, USA
BE (Metallurgical Engineering), University
of Karachi



Hussain, Adnan

MBA (Marketing),
Institute of Business Administration,
Karachi
BBA, Institute of Business Administration,
Karachi



Imran, Muhammad

Head of Retail & Consumer Banking,
Bank Islami Pakistani Limited (BIPL)
PhD (Economics), University of Karachi
MBA, Institute of Business
Administration, Karachi
BE, NED University of Engineering &
Technology, Karachi



Mahmood, Javed

Assistant Professor,
Textile Institute of Pakistan
MBA, Institute of Business
Administration, Karachi



Mahmud, Syed Akhtar

Chief Executive Officer (CEO),
Brand Image
(A marketing consultancy providing
services in Branding, Advertising,
Public Relations and Consumer Insight)
MBA, Institute of Business
Administration, Karachi
in Association with Wharton School of
Business Management, Pennsylvania,
USA



Muhammad Irfan, Sheikh

MBA (Marketing),
Institute of Business Administration,
Karachi
BBA (Marketing),
Institute of Business Administration,
Karachi

Department of Marketing (Continued...)



MBA, Institute of Business
Administration, Karachi
BS (Mech. Engg.),
NED University of Engineering and
Technology

Shaikh, Muhammad Ishaque



MBA (Marketing), Institute of Business
Administration, Karachi
MSc (Math), University of Karachi
LLB, University of Karachi

Sibghatullah, Husaini M. Syed



PhD (Marketing), Swansea University, UK
MBA (Marketing), IBA-Karachi (Sukkur
Campus)

Rizvi, H. Wajid

Department of Mathematical Sciences (14)



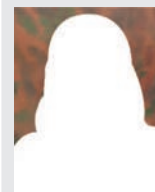
MSc (Statistics),
University of Karachi
BSc (Statistics & Mathematics),
University of Karachi

Alam, S. Khursheed



Assistant Professor
PhD (Computer Science),
University of Karachi
MSc (Statistics),
University of Karachi
BSc (Physics, Mathematics and
Statistics), University of Karachi

Akhter Raza, Syed



Lecturer in Department of Mathematical
Sciences,
University of Karachi
MSc (Mathematics),
University of Karachi
BSc (Hons), University of Karachi

Ather, Hafsa



Lecturer,
Department of Mathematics,
University of Karachi
Pursuing PhD (Operation Research),
University of Karachi
MPhil (Fluid Dynamics), University of
Karachi
MSc (Applied Mathematics), University of
Karachi
BSc (Hons), University of Karachi

Imtiaz, Muhammad



Lecturer,
Department of Mathematics,
University of Karachi
PhD (Mathematics), University of Karachi
MPhil (Operations Research), University
of Karachi
MSc (Applied Mathematics), University of
Karachi
BSc (Mathematics, Computer Science &
Statistics), University of Karachi

Inayatullah, Syed



Assistant Professor, University of Karachi,
Institute of Space and Planetary
Astrophysics, University of Karachi
Post Doc. (Stony Brook University)
PhD (Geo-Space Science), ISPA,
University of Karachi
MPhil (Applied Mathematics),
University of Karachi
MSc (Applied Mathematics),
University of Karachi

Iqbal, Muhammad Jawed

Department of Mathematical Sciences *(Continued...)*

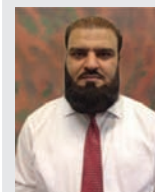
Assistant Professor,
Department of Computer Science,
University of Karachi
PhD (Computer Sciences),
University of Karachi
MA (Economics),
University of Karachi
MSc (Statistics), University of Karachi

Jilani, Tahseen Ahmed



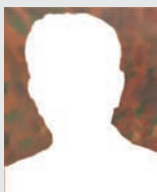
PhD (App. Maths, Fluid Dynamics,
Differential Equation), University of
Karachi
MSc (App. Maths), University of Karachi
BSc, University of Karachi

Khan, Najeeb Alam



Deputy Director, State Bank of Pakistan
Pursuing PhD (Economics), SZABIST,
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MBA (Public Sector Executives), Institute
of Business Administration, Karachi
MAS (Economics / Econometric),
University of Karachi
MPhil (Statistics), Govt. College University
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MSc (Statistics), University of Peshawar
BSc (Statistics, Pure and Applied
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Salam, Abdus



PhD (Financial Mathematics and
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MSc (Applied Mathematics to Finance,
Insurance and Bio Statistics), University
of Bucharest
MSc (Applied Mathematics), University of
Karachi
BSc (Hons) (Mathematics), University of
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Sheraz, Muhammad



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Department of Mathematical Sciences
PhD (Algebra), University of Durham, UK
MSc (Math), University of Karachi
BE, NED University of Engg. &
Technology, Karachi

Siddiqui, Raziuddin



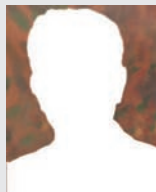
PhD (Mathematics), University of Karachi
MA (Mathematics), University of Karachi
BA (Mathematics, Philosophy of Science,
Islamic History), University of Karachi
BE (Materials Sciences and Metallurgical
Engineering), GIK Institute of Engineering
Science and Tech

Ramji, Shahid Sultan Ali



PhD (Applied Mathematics), University of
Karachi
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BSc (Hons) (Mathematics), University of
Karachi

Rehman, Saqib Ur



PhD (Applied Physics),
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Göteborg, Sweden
MS (Physics of Matter, Materials and
Biological
Systems), Göteborg University, Göteborg,
Sweden
MSc (Physics), University of Karachi

Ulfat, Intikhab

Adjunct Professors (8)

Economics & Law



Raza, Syed Salim

Former Governor, State Bank of Pakistan
Ex-CEO, Pakistan Business Council
36 years experience of global banking including Head of City Bank Operations in Middle East, Africa, UK, Central & Eastern Europe.
Masters from Oxford University
Teaches: Global Economics and Political Environments Course at the MBA program besides delivering lectures and seminars for IBA Executive MBA Program



Sayeed, Sadeq

Chairman, Metage Capital Ltd. UK
Former CEO Nomura International
Advisor JS Investment Ltd and Director, Silk Bank
Worked with Nomura Europe, Credit Suisse
First Boston and World Bank
Adjunct Professor at Imperial College Business School, London
Masters (Finance), Sloan School, MIT

Marketing



Azhar, Wasim

Director, Excellence Exchange and Coaching Connection Programs, Center for Teaching Excellence, Haas School of Business
Contribution: Capacity building of faculty at IBA including conducting lectures as a Visiting Faculty
PhD (Systems Engineering), University of Pennsylvania



Jamal, Mohammad Qaiser

Former CEO, Byco Oil Pakistan Limited
Former CEO, Karnaphuli Fertilizer Company Ltd
Former CEO, Karachi International Container Terminal Ltd
Former CEO, National Refinery Limited
BSc Engineering (Chemical)
(Major in Petroleum & Gas Technology)
MBA (Marketing)



Saad, Asif

Member of the Boards of Education Fund for Sindh, Engro Polymer & Chemicals, Alfalah GHP Investments, and Port Qasim Authority.
CEO, Lotte Chemical Pakistan, CEO/Commercial Manager, Pakistan PTA Ltd
Director, Pakistan Business Council (PBC)
Former Vice President, Overseas Investors Chamber of Commerce & Industry (OICCI)

Management



Khan, Zaffar A.

Former President & CEO, Engro Chemicals
Ex-Chairman, PIA, PTCL & KSE, Mechanical Engineer by Profession
President of Overseas Chamber of Commerce; also serving on the Boards of a number of Multinational Corporations, SBP & listed Pakistani Companies and Philanthropic Organizations



Jabbar, Javed

Former Senator, Ex-Federal Minister for Information and Broadcasting
Highly respected author, commentator on media, political and international relations.
Ex-Regional Counselor and Vice President, IUCN
Teaches: Media, International Relations and Political Science Courses to MBA Students



Zaidi, S. Akber

Visiting Professor, Columbia University, New York
Over 29 years of teaching and research experience in the well known international universities including Columbia University, John Hopkins University and University of Oxford.
PhD (History), University of Cambridge
MPhil (Economics), University of Cambridge
MSc (Social Planning in Developing Countries), London School of Economics & Political Sciences

Social Sciences & Liberal Arts

Heads of Departments

Registrar



**Capt. (Rtd)
Ahmed Zaheer
PN, afwc**

Director
Finance



Moeid Sultan

Acting Controller
of Examinations



**Abdul Wajed
Khan**

Head of Human
Resource



Adnan Hameed

Head of ICT



Imran Batada

Head of
Internal Audit



Fahad Rehman

Head Librarian &
Incharge Research
Data Center



**Muhammad
Anwar**

Sr. Manager
Corporate Affairs &
Secretary BOG



**Shams Zoha
Jafri**

Program Directors & Coordinators

Director, Quality
Enhancement Cell

Dr. Amber Gul

Director, Center
for Executive
Education

Izhar Hussain

Program Director,
Alumni AffairsDr. Zaheeruddin
AsifDirector, Center
for Excellence in
Journalism

Nadia Zaffar

Director, Center
for Business &
Economics ResearchDr. Qazi Masood
AhmedProgram Director,
BBA Program

Aman U. Saiyed

Program Director,
BS (CS) ProgramDr. Hisham bin
ZubairProgram Director,
Communication &
Public Affairs

Dr. Huma Baqai

Program Director,
Career Development
Center

Leon Menezes

Program Director,
Summer School

Maheen Ghauri

Program Directors & Coordinators

Program Director,
MBA Program



**Dr. Nasir A.
Afghan**

Program Director,
EMBA Program



M. Saleem Umer

Program Director,
Center for
Entrepreneurship Development



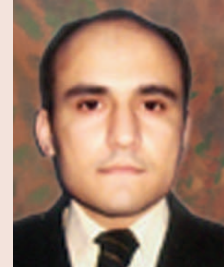
**Dr. Shahid
Qureshi**

Program Director,
Healthcare
Management Program



**Dr. Minhaj A.
Qidwai**

Coordinator, BS
& MS Economics &
Mathematics Program



Dr. Adnan Haider

Coordinator,
Testing Services



**Dr. Nasir
Touheed**

Chairman, Library
Committee



**Dr. Syed Noman
ul Haq**

Coordinator,
BS Accounting &
Finance Program



**Syed Sharjeel A.
Hasnie**

Coordinator,
NTHP / STHP & FSP
Programs



Dr. Zeenat Ismail

Coordinator,
Ardeshir Cowasjee
Centre for Writing



Maria Hasan

SUMMER SEMESTER 2015

Summer Semester Begins: June 24, 2015 (Wednesday)

Months	Total Days	Sundays	Holidays	Exams. Days	Teaching Days
June 24, 2015	07	1	-	-	06
July, 2015	31	4	3	2	22
August 13, 2015	13	2	1	2	08
Total Days	51	7	4	4	36

Activity	Action by	Commencement Date	Completion Date
Online Course Registration	Students	June 22, 2015	June 23, 2015
Mid Term Exams	Controller of Exams	July 27, 2015	July 28, 2015
Preparatory Holiday	Students	August 11, 2015	August 11, 2015
Final Exams	Controller of Exams	August 12, 2015	August 13, 2015
Promulgation of Results	Faculty	August 14, 2015	August 17, 2015
Comprehensive Exam	August 22, 2015		

FALL SEMESTER 2015

Fall Semester Begins: August 21, 2015 (Friday)

Months	Total Days	Sundays	Holidays	Exams. Days	Teaching Days
August 21, 2015	11	2	-	-	09
September, 2015	30	4	2	-	24
October, 2015	31	4	2	6	19
November, 2015	30	5	2	6	17
December, 2015	31	4	2	10	15
Total Days	133	19	8	22	84

NOTES

Graduate Program Faculty members, who opt to conduct one mid-term exam, may conduct this from October 12 to October 17, 2015. There will be no graduate classes during this week.

Graduate Program Faculty members, who opt to conduct two term exams, may conduct both term exams with the U/G Program exams during class timings. Graduate classes will be conducted as per schedule during these two weeks.

Activity	Action by	Commencement Date	Completion Date
Online Course Registration	Students	To be Promulgated	
First Term Exams	Controller of Exams	October 01, 2015	October 07, 2015
Second Term Exams	Controller of Exams	November 16, 2015	November 21, 2015
Faculty Evaluation	Students	December 07, 2015	December 11, 2015
Preparatory Holiday	Students	December 18, 2015	December 18, 2015
Graduate Program* Preparatory-Week	Students	December 12, 2015	December 18, 2015
Final Exams	Controller of Exams	December 19, 2015	December 31, 2015
Promulgation of Results	Faculty	January 01, 2016	January 15, 2016
Comprehensive Exam	January 30, 2016		

*For students taking one mid-term Exam only

Orientation Day: August 20, 2015 (Thursday)

SPRING SEMESTER 2016

Spring Semester Begins: January 18, 2016 (Monday)

Months	Total Days	Sundays	Holidays	Exams. Days	Teaching Days
January 18, 2016	14	2	-	-	12
February, 2016	29	4	1	6	18
March, 2016	31	4	1	-	26
April, 2016	30	4	-	6	20
May 24, 2016	24	4	1	10	9
Total Days	128	18	3	22	85

Short Winter Semester 2016 (MBA Program only)
January 04 to January 16, 2016

Activity	Action by	Commencement Date	Completion Date
Online Course Registration	Students	November 23, 2015	November 28, 2015
First Term Exams	Controller of Exams	February 23, 2016	February 29, 2016
Second Term Exams	Controller of Exams	April 04, 2016	April 09, 2016
Faculty Evaluation	Students	May 02, 2016	May 05, 2016
Preparatory Holidays	Students	May 12, 2016	May 12, 2016
Graduate Program* Preparatory-Week	Students	May 06, 2016	May 12, 2016
Final Exams	Controller of Exams	May 13, 2016	May 24, 2016
Promulgation of Results	Faculty	May 25, 2016	June 08, 2016
Comprehensive Exams	August 20, 2016		

*For students taking one mid-term Exam only

Spring Semester Orientation Day: January 16, 2016 (Saturday)

SUMMER SEMESTER 2016

Summer Semester 2016 Begins: June 13, 2016 (Monday)

Months	Total Days	Sundays	Holidays	Exams. Days	Teaching Days
June 13, 2016	18	2	-	-	16
July, 2016	31	5	3	2	21
August 02, 2016	02	-	-	2	-
Total Days	51	7	3	4	37

Activity	Action by	Commencement Date	Completion Date
Online Course Registration	Students	June 09, 2016	June 10, 2016
Mid Term Exams	Controller of Exams	July 04, 2016	July 05, 2016
Preparatory Holiday	Students	July 31, 2016	July 31, 2016
Final Exams	Controller of Exams	August 01, 2016	August 02, 2016
Promulgation of Results	Faculty	August 03, 2016	August 08, 2016

FALL SEMESTER 2016

Fall Semester Begins: August 19, 2016 (Friday)



Our International Linkages & Strategic Alliances

 USAID FROM THE AMERICAN PEOPLE	 SAP	 MARKETING ASSOCIATION OF PAKISTAN	 map Management Association of Pakistan	 INTERNATIONAL ASSOCIATION OF UNIVERSITIES
2005	2008	2008	2008	2008
 PICG Pakistan Institute of Corporate Governance	 CIFA INSTITUTE	 EFMD	 The Association of Commonwealth Universities	 BABSON
2008	2009	2009	2009	2009
 BIT	 ORACLE ACADEMY	 GEM	 SOLBRIDGE INTERNATIONAL SCHOOL OF BUSINESS	 AAPBS
2009	2009	2009	2009	2010
 AMDISA ASSOCIATION OF MANAGEMENT DEVELOPMENT INSTITUTES	 CASE	 gbsn	 Sabancı Universitesi	 CEEMAN
2010	2010	2010	2010	2010
 GMAC GRADUATE MANAGEMENT ADMISSION COUNCIL	 SAQS ACCREDITED	 MMU MULTIMEDIA UNIVERSITY	 The Washington Center	
2011	2011	2011	2011	2012
 ISB	 UNIVERSITY OF MALAYA The Leader in Research & Innovation	 The Institute of Chartered Accountants of Pakistan	 IMT Institute of Management Technology	 International Commission On Workforce Development
2012	2012	2013	2013	2013
 UNIVERSITY OF Southampton	 IBP INSTITUTE OF BANKERS PAKISTAN	 PMI Project Management Institute REGISTERED EDUCATION PROVIDER	 GRENoble Management Technology & Innovation	 CIMA
2013	2013	2013	2013	2014
 ACCA	 The World Bank	 VUI Virtual University	 fie business school	 Liaquat National Hospital & Medical College
2014	2014	2014	2014	2015

IBA takes pride that it has never compromised on quality in its standards of student intake, classroom instruction and discipline, assessment and testing during the sixty years of its existence. The challenge has been to continue the emphasis on quality, while promoting a culture of inquiry, inquisitiveness and innovative thinking. In our drive to reach ever higher, we consider it imperative to periodically review the admissions policy and align it with international practices.

The policy for admission in various programs / courses of study at the Institute of Business Administration may be stated as follows:

Salient Points

- Admissions will be offered to all those who qualify a strict merit-based admission criteria irrespective of their race, religion, gender, ethnicity or socioeconomic background.
- There are no reserved / quota seats for any category at IBA.
- No effort will be made to fill all available seats or lower the criteria if an insufficient number of candidates apply or an individual candidate fails to satisfy the above criteria.
- The cut-off for individual programs in the Aptitude Test will be decided by the Admissions Committee using rigorous methods based on statistical analysis.
- The Admission offer obtained by the test takers will remain valid for a period of 16 months and may be availed for admission only once; however, the minimum academic eligibility requirements will be those applicable at the time of actual admission.
- There will be one Aptitude Test for admission to both the campuses of IBA. Candidates may choose their specializations after a minimum of 2 years of study at IBA for undergraduate and 1 year for graduate programs.
- There is no distinction in the fee structure between the Main and City Campuses.
- No qualified candidate will be refused

admission on the basis of his / her inability to pay IBA fees; these candidates are required to apply for financial assistance and meet the criteria for the same.

- A merit scholarship is available at IBA, according to which candidates falling in the top 10% of the list of candidates (published at the culmination of the admission process) admitted to the full time BBA, BS (Accounting and Finance) & MBA (Morning) Programs will be offered a 50% reduction in their tuition fees, in lieu of participation in a work study program.

Conditions

The admission is based on candidate's ability to meet the following conditions:

- Apply online and register for the Aptitude Test.
- Pay the required fee for processing of his / her admission application and obtain admit card.
- Qualify the Aptitude Test or provide proof for exemption from the Aptitude Test by providing SAT I / SAT II / GMAT / GRE score transcript, whichever is applicable.



- Participate in a group discussion (where applicable) and appear for an interview and clear both.
- Meet the minimum academic eligibility requirement for the concerned program and provide its mark sheet / transcript .
- Provide equivalence certificate in case of holders of degrees issued by non-Pakistani universities / boards.
- Students, who clear the undergraduate aptitude test and subsequent interviews and group discussions, but do not meet the minimum eligibility criteria for the relevant program, would be given admission in the same or the following year; provided they improve their grades and meet the current eligibility criteria and submit the new grades before the start of the classes for that session.

Aptitude Test, Group Discussion & Interviews

- The aim of the Aptitude Test is to evaluate candidates for their quantitative and analytical capabilities, logical reasoning, communication skills, reading comprehension, lexical resource, grammatical range, and aptitude for the program.
- The aim of the group discussion is to evaluate candidates on their background, academics and other achievements, leadership potential, extra curricular interests, verbal communication, mannerism, integrity, appearance and enthusiasm.
- The interviews are designed to bring out the qualities needed to not only to succeed in the chosen program of study but also the potential of the students to contribute positively to the society when they graduate.



The following are exempted from appearing in the IBA Aptitude Test:

- Candidates applying for admission to BBA Program and with a minimum score of 1900 in SAT-I or ACT score of 29.
- Candidates applying for admission to BS Programs (Accounting & Finance, Social Sciences & Liberal Arts) and with a minimum score of 1840 in SAT-I or ACT score of 28.
- Candidates applying for admission to BS Programs (Eco & Maths, CS) and with a minimum score of 1840 in SAT-I & 650 in SAT-II (Mathematics), or ACT score of 28.
- Candidates applying for admission to MBA / EMBA Program and with a minimum score of 600 in GMAT.
- Candidates applying for admission to MS / PhD (Computer Science / Mathematics / Economics) Programs and with a minimum score of 650 in quantitative section of GRE / GMAT (International) or 160 in quantitative section of Revised GRE (International).
- IBA BBA graduates applying for admission to MBA program, with a CGPA of 2.5 or above, and with two years of post - BBA work experience (three years' of work experience in case of EMBA) are exempted from the IBA test.
- Candidates seeking exemption from Aptitude Test are, however, required to appear in the interview and group

discussion activity as per the schedule issued for other candidates. They are also required to pay the admission processing fee in any bank branch designated by IBA.

Program wise requirements for Admission

More specific information about the requirements for admission to the individual programs is appended as under:

Undergraduate Programs

Applicants to the BBA Program must have completed their:

Higher Secondary School Certificate with a minimum of 65% marks

A' Levels with a minimum of 2 'B's and 1 'C' in three principal subjects such that there should be no grade less than a 'C' across the three principal subjects. No credit is applicable for any subsidiary, general, or advanced supplementary paper

OR

American / Canadian High School Diploma with a minimum of 80% or an International Baccalaureate with at least 25 points out of 45. All other degree holders must provide an equivalency certificate from IBCC.

Applicants to the BS Programs (CS, Economics & Mathematics) must have completed their:

Higher Secondary School Certificate (Pre- Engineering) with a minimum of 60% marks

OR

Higher Secondary School Certificate (General Group with Mathematics) with a minimum of 60% marks

OR

A' Levels with a minimum of 1 'B' and 2 'C's in three principal subjects (including Mathematics) such that there should be no grade less than a 'C' across the three principal subjects.

No credit is applicable for any subsidiary, general, or advanced supplementary paper

OR

American / Canadian High School Diploma with a minimum of 80% or an International Baccalaureate with at least 24 points out of 45. All other degree holders must provide an equivalency certificate from IBCC.

Applicants to the BS Programs (Accounting & Finance, Social Sciences & Liberal Arts) must have completed their:

Higher Secondary School Certificate with a minimum of 60% marks

OR

A' Levels with a minimum of 1 'B' and 2 'C's in three principal subjects such that there should be no grade less than a 'C' across the three principal subjects. No credit is applicable for any subsidiary, general, or advanced supplementary paper

OR

American / Canadian High School Diploma with a minimum of 80% or an International Baccalaureate with at least 24 points out of 45. All other degree holders must provide an equivalency certificate from IBCC.

Graduate Programs

Applicants to the MBA, MBA (Evening) and MS Programs must have:

A minimum of 16 years of education (culminating in a master degree or equivalent) out of which 4 years should have been spent in an HEC recognized university / degree awarding institute* with 2.5 CGPA or 60% in last degree (whichever is applicable).

IBA BBA graduates applying for admission to MBA program, with a CGPA of 2.5 or above and having two years post BBA work experience (Three years' work experience in case of EMBA) are exempted from the IBA test.

A minimum of 2 years of relevant work experience gained after graduation / completion of 16 years of education (culminating in a master degree or equivalent) with 2.5 CGPA or 60% (whichever is applicable) satisfying minimum requirement for MBA admission.

Work experience is not required for MS Program. For details, see work experience requirement given below.

A minimum of 60% aggregate marks in the last degree where applicable; provided numerical scores of each subject are mentioned in the mark sheet.



OR

A minimum of 2.50 CGPA on a scale of 4.00 in the last degree where applicable; provided alphanumeric grades of each subject are mentioned in the mark sheet. (IBA, BBA graduates must also meet this requirement).

Applicants to the PhD Program must have:

MS / M.Phil. / Equivalent in relevant subject from HEC recognized local / foreign university.

A minimum 60% aggregate marks in the last degree; provided numerical scores of each subject are mentioned in the mark sheet.

OR

A minimum of 3.0 CGPA on a scale of 4.00 in the last degree where applicable*; provided alpha numeric grades of each subject are mentioned in the mark sheet.

PhD candidates will also have to fulfill more specific requirements laid out by the respective departments.

**All other degree holders must provide an equivalency certificate from HEC (www.hec.gov.pk).*

Applicants to the EMBA (Executive MBA Programs) must have:

16 years of education (culminating in BS / BBA / BE / MA / M.Com / LLB / MBBS etc.) and 3 years of experience gained after completing education.

OR

14 years of education (culminating in BCom / BSc / BA etc.) and 6 years of experience gained after completing education. HEC rules will be applicable.

OR

Qualified Chartered Accountants with 2 years of post-qualification work experience.

OR

Qualified ACCA upon completion of three years of post ACCA work experience

For details, see Work Experience Requirement given follow.

Holders of professional degrees / certificates (BE, MBBS, LLB, CPA, CA, ACCA, etc.) are encouraged to apply for MBA / Masters Programs. The Institute also admits, without any prerequisite, visiting students in single courses depending upon the availability of seats.

**All equivalency claims shall be evaluated by the HEC (www.hec.gov.pk).*

Credit Transfer Policy

A transfer candidate is defined as follows:

- A candidate who has attended any of the top 100 universities derived from the international ranking compiled by Shanghai Jiao Tong University's Institute of Higher Education or by The Times Higher Education Supplement (THES) or Quacquarelli Symonds (QS). Course credits are also acceptable from Lahore University of Management Sciences, and Karachi School for Business & Leadership and the universities with which IBA will signing (or has signed) MOU's.
- The candidate must have been enrolled in degree programs at these universities.
- The candidate's CGPA must be 3.0 or above on a scale of 4.0 or equivalent.
- The candidate has passed all the stages of admission process and has been offered admission at IBA.
- Eligible candidates may apply for transfer to any of the IBA degree programs with the following stipulations:
 - IBA reserves the right to accept or reject all or any such candidates.
 - Subject Interviews may also be conducted prior to admission if so desired by IBA.
 - A transfer committee appointed by IBA shall determine the courses to be accepted for transfer of credits of such candidates.
 - Transfer of credits will be applicable to those courses with 'B' or above grades.
 - A minimum of 50% of total degree credits must be completed at IBA.
 - Courses transferred shall be indicated in the final transcript as being 'transfer credits'.



The grades of transfer credits will be included in the calculation of the CGPA and such students will be entitled to compete for positions / medals.

The dropped out students of any program who get admission again by clearing the IBA Admission Test and other requirements will get the credit of the courses in which they had obtained 'B' grades provided they rejoin the program within 16 months from the date they had dropped out.

For transferring credits from one IBA program to another, if the course code is exactly the same the course will automatically be accepted in the new program.

Work Experience Requirement

For applicants of MBA Program:

Work requirement for admission to IBA's MBA program will comprise of 2 years of post qualification work experience in multinationals, large domestic corporations, and large family business. For self employed and smaller family businesses the 'Work Evaluation Committee' will decide if the experience is acceptable for admission to IBA. The work evaluation committee will comprise of a member of the Admission Committee, Director MBA Program and an IBA alumnus with at least 10 years of work experience. This work requirement will only be considered provided it has been achieved after applicants have obtained 16 years of education with 2.5 CGPA or 60% (whichever is applicable) and satisfies the minimum eligibility requirement for admission in the MBA Program. The education requirement should meet the criteria established by HEC. Work experience gained during CA, ACCA (Affiliate), D. Pharma and MBBS will not be considered as a relevant work experience for admission to the MBA Program.

For applicants of Executive MBA Program:

Experience requirement for admission to IBA's Executive MBA programs will comprise of 3 years of work experience (for those having 16 years of education) and 6 years of work experience (for those having 14 years of education). HEC rules will be applicable. For self employed and smaller family businesses the 'Work Evaluation Committee' will decide if the experience is acceptable for admission to IBA. This committee will comprise of a member of the Admission Committee, Director EMBA Program and an IBA alumnus with at least 10 years of work experience. This work requirement will only be considered after applicants have obtained 16 / 14 years of education as stipulated in the foregoing paragraphs. The education requirement should meet the criteria established by HEC.

Applicants with a Criminal Record

The IBA acknowledges the key role of education in the rehabilitative process and a criminal record will not preclude an applicant from being offered a place at the institute. However, as part of its duty of care to its staff and students, the IBA will ask for information about any relevant items on a criminal record. Similarly, IBA will ask any student rusticated or expelled on disciplinary ground from any other institution for additional information about any relevant items.



Admission Procedure

Online Application

Applications are accepted through IBA Online Admissions System. The link to IBA Online Admissions System is available on IBA's website (www.iba.edu.pk).

To apply online, applicants need to fill out an online Admission Application Form, print a bank challan and take it to the designated bank branches to deposit the admission processing fee. The bank challan duly stamped by the bank officer is then to be taken to the Admissions Office for collection of the Admit Card on the prescribed dates as per the procedure.

Issuance of Admit Cards

Applicants residing in Karachi can obtain their Admit Cards by visiting the Admissions Office of any campus of IBA with a copy of the bank Challan. Applicants residing outside Karachi can request for their Admit Cards to be delivered to them by means of emails. The details of getting the Admit Card by means of emails will be posted on the IBA website around the time of admission process. List of authorized branches is given on the IBA web site.

Aptitude Test

The Aptitude Test is conducted simultaneously in Karachi and other cities on specified date announced in media / on our website. Candidate may choose the test location during applying online. The Admit Cards issued to the applicants indicate the test center, date, and reporting time. Please make sure to read all instructions given on the back of the Admit Card carefully. The applicants should bring their Admit Cards along with a photo ID to be able to appear for the Aptitude Test. Candidates who pass the Aptitude Test qualify for the group discussion followed by an interview.

Interview List

The names of candidates who qualify the Aptitude Test and are eligible to participate in group discussion, interview activities will be displayed on our website. These candidates are to report to the venue at the designated date and time for the said activity.

Documents Required

Candidates are required to bring the following documents in original on the day of Group Discussion and Interview:

- Matriculation / 'O' Levels certificate with transcript / marks sheet
 - Higher Secondary School Certificate (Part I) / 'A' Levels (First year) certificate with transcript / marks sheet
 - Bachelors degree with transcript / marks sheet*
 - Masters degree with transcript / marks sheet*
 - Work experience certificate*
- *where applicable

Group Discussion

The selected candidates are divided into groups. These groups are given a topic to debate and discuss amongst themselves. During this process, communication skills, interpersonal skills, confidence and leadership potential are assessed.

Interview

Interviews are conducted for evaluating the level of maturity, academic aptitude, motivation, interpersonal skills and career focus of the applicants.

List of Successful Candidates

The names of candidates who qualify the admission requirements will be notified through a list on our website (www.iba.edu.pk). These candidates will get their Admission Letter, Fee Challan and other documents through an email sent by the admission office. As a prerequisite for issue of Admission Letter

and other documentation, all successful candidates are required to deposit the transcripts bearing proof of their having met the minimum academic eligibility requirements for the respective programs.

Enrolment

Only those candidates should deposit their fee in the prescribed banks who have met the academic eligibility criteria for the program concerned (other candidates should not deposit any fee as they will face a lengthy process of getting the refund). These candidates must, however, submit the following documents in original, along with copies attested by a gazette officer to complete the enrolment process:

- Matriculation / 'O' Levels certificate
 - HSC / 'A' Levels certificate with transcript / marks sheet
 - Bachelors degree with transcript / marks sheet
 - Masters degree with transcript / marks sheet
 - Work experience certificate*
 - Migration certificate of the university / board concerned, except in the case of Karachi University / Karachi Board
 - Equivalence certificate in case of holders of degrees / certificates issued by non-Pakistani universities / boards
 - Original copy of Fee Challan deposit slip
- *where applicable

Disclaimer: Any candidate who provides false or incorrect information about work experience, grades, financial status of the family, (or any other required material), or submits any fake supporting documents will be permanently debarred from applying to IBA.

Rules & Regulations

Rules and regulations are an important component of the execution of the mandate of education at all institutions. Their primary goal is to ensure the quality and standard of education and to encourage professionalism by governing the admission, teaching and learning processes and the evaluation mechanisms. They promote transparency in academic administration through the appropriate definition, communication and implementation of rules and regulations. Their appreciation and adherence by all concerned parties is vital for the proper functioning of the programs. Some of the core elements of the Rules & Regulations pertaining to the academic conduct are appended below:

Core Elements

Discipline:

Regularity, punctuality and conformity to schedules and deadlines are basic requirements at IBA and are expected equally from faculty members and students. This ensures a strong commitment towards professional excellence in all those who come to teach and to learn at IBA.

Good Standing:

Students are required to maintain discipline, good conduct and behavior during their studies at the IBA. A student shall be deemed to have lost good standing if his / her conduct and behaviour is found objectionable from a disciplinary point of view. Consequently his / her name shall be dropped from the rolls of the Institute.

Attendance:

A distinguishing feature of the IBA is its adherence to the academic calendar. A detailed program is provided on the first day of every semester.

Students are required to attend lectures, laboratory sessions, seminars and fieldwork as may be specified for a course each semester.

The teacher takes attendance in each class daily. Latecomers are marked absent even if late by one minute. No excuse is accepted. If a student accumulates more than the permissible absences, he / she is awarded an 'F' in that particular course. Full-time students are allowed 6 absences in a 1 hour course, 4 in a 75-minute's course and 3 during a summer course. EMBA participants are allowed 3

absences in a 3 hours session. Part-time / evening students are allowed 7 absences in a regular semester course and 5 in a summer semester course. Students are not allowed to remain absent on the first and last day of the semester. Serious action is taken against those who violate this rule.

Cheating & Plagiarism

The IBA maintains a strict policy on academic impropriety. Based on its zero-tolerance for such activity, any student found cheating or using unfair means in examinations is immediately expelled from IBA and is declared ineligible for re-admission. A booklet highlighting IBA's Policy on plagiarism is available on the portal for all students to read and comply.

Transfer of Credits

I. Students of Postgraduate Diploma in Business Administration and MBA Evening Programs may seek advance credit for not more than two required courses, which they may have successfully completed while being students in the Certificate Program. They are subject to the following conditions:

- The student must have held a Master's degree with 60% marks at the time of admission to the Certificate Program
- The semester final grade in the course was at least 'B'
- The course for which the credit is sought was completed within two years from the date of admission in the PGD

II. Students of PGD in Business Administration

(Evening Program), who have not completed diploma course work, can take MBA courses only as certificate students and may get credits for these courses in their degree course work later, subject to the following conditions:

- The student must have completed a minimum of 5 PGD courses
- The remaining PGD courses are not available to the students in the evening
- The student is unable to remove his course deficiency in the Morning Program due to his / her occupation.
- The student removes his PGD course deficiency as soon as the remaining courses are available to him / her.



Course Load

- I. MBA Evening / PGD students are allowed to enroll in maximum 6 credit hours in a semester (including Summer Semester). If a student has an average CGPA of 3.0 in the previous semester he/she should be allowed to take 9 credit hours courses (excluding summer). If he / she is enrolled in a Corporate Strategy course then 3 credit hours additional will be allowed (only 6 credit hours in that semester).
- II. The course load for full-time degree program students is 18 credit hours. A student cannot take additional course(s) in any semester except in the final semester (BBA-VIII and MBA-IV). If a student needs to remove his / her deficiencies, he / she can do so by dropping a course. In the final semester (BBA- VIII and MBA- IV), a student may however take two additional courses to complete course work.

Withdrawal from a Course

- I. Full-time students are allowed to withdraw from two courses in a semester if such withdrawal helps the student in improving his / her performance in the remaining courses. The withdrawal must be sought on prescribed form within one week of the second term examination result or within one week after the announcement of mid-term examination results in the summer semester.
- II. Part-time students are allowed to withdraw from some or all of the courses for which they have registered in a semester. Permission to withdraw from a course must be made on the prescribed form available from the Program office within one week of the second term examination result or within one week after the announcement of mid-term examination results in the summer semester. Withdrawal from a course is not treated as failure. However, once a student has accumulated more than the permissible

absences in any course, he / she is not allowed to withdraw from that course and is awarded an 'F'.

- III. Executive MBA participants can withdraw from a course within one week after the announcement of Mid-term exam result. They need to fill out withdrawal form available with EMBA program office.

Make-up Examinations

- I. Morning Program Students of both the campuses:
Under normal circumstances, no make-up examination shall be allowed for missing Midterm or Semester Final Examination.
- II. Evening MBA / EMBA Program Students:
Evening program students, who are sent out of Karachi during term and final exams on official assignments by their respective organizations, may be allowed to take make-up examinations under the following conditions:
 - a. This facility will be allowed to the Evening Program students for only one of the two midterm examinations for the courses taken by them.
 - b. This facility shall also be allowed for the semester final exams if the student has not already availed this facility for the midterm examinations.
 - c. The concerned student shall be required to provide the following documents at least one week before the scheduled exam:
 - i. A certificate / official letter from his / her organization giving details of his / her official assignment.
 - ii. Evidence of official travel comprising tickets or boarding cards for air travel as applicable.

- iii. The concerned student shall be required to appear in the make-up of a term exam within three weeks of the original exam date and within six weeks for the semester final exam on payment of make- up exam fee of Rs. 8000 / - Make-up Exams under

Extraordinary Circumstances

In extremely serious cases, authenticated by recognized hospitals, the Academic Committee may consider to allow make-up exam in midterm exams only. The committee's decision in this regard shall be final. This facility shall, however, be allowed for only one of the two midterm examinations in a semester. The policy on make-up exams under extraordinary circumstances will include the cases (i) in which a student's spouse is hospitalized in extremely serious condition, or (ii) in case of the death of mother / father. All applicants will have to produce documentary evidence to substantiate their request. Other conditions of make-up exam will remain unchanged.

No make-up of semester final exam shall be allowed on medical grounds of any kind. In case a student misses his / her final exam on personal / medical grounds, or other extraordinary circumstances he / she may apply for 'I' (Incomplete) with all supporting documents including medical certificates through his / her respective program coordinator to the Academic Committee. If the Academic Committee is satisfied with the genuineness of the claim then it may award an 'I' instead of an 'F' in that course. In that case the concerned student will have to appear at the examination of that course in the following semester without attending classes provided the attendance of that student was complete in the semester in the concerned paper. However, if the Executive Committee is not satisfied with the genuineness of the case, then 'F' will be awarded. This policy will be applicable for all IBA programs.

If a student's final exam has been cancelled for carrying cell phone inside the examination room, in such cases 'I' (Incomplete) would be awarded in the relevant course. The concerned student, whose final examination has been cancelled for mentioned violation of examination rule, will have to appear in the examination of that course in the following semester without attending classes provided the attendance of that student was complete in the semester in which the paper of the student was cancelled.

The fee for re-take examination under above mentioned circumstances is Rs. 8,000 / - per course.

• Options for Faculty:

In cases where make-up exams have been allowed, the concerned course Instructors have the following options:

• Re-conducting exams:

The teacher may develop a makeup exam for the student if possible. The teacher needs to ensure that the student does not get an unfair advantage if the missed exam was difficult. The makeup exams can be for one missed exam and not more.

Assigning an Average Grade:

The teacher can offer an average to the student. However the teacher must consider whether to award the class average or average of a students' overall performance as he / she may be a class topper or a weak student. The aspect of unfair advantage needs to be taken into account as a particular student may study more for some courses and less for others to balance out their overall performance.

Assigning a Project or Assignment:

The teacher can assign additional course work which may help the student cover the missed work and can be evaluated on that basis.

Make-up of Final Exam:

If a student has missed the final exam, an

average grade or assignment is not recommended as the student has not been tested on a large portion of the syllabus.

The following absolute grading scheme is used to evaluate a student's academic performance:

A	A	93-100	4.00
	A-	87-92	3.67
B	B+	82-86	3.33
	B	77-81	3.00
	B-	72-76	2.67
C	C+	68-71	2.33
	C	64-67	2.00
	C-	60-63	1.67
F	F	0-59	0.00
I	I	Incomplete	
W	W	Course Withdrawn	

Rechecking of Final Paper

Rechecking of final papers is allowed subject to a deposit of Rs. 8,000/- per course, which is refundable if any significant improvement in grades / marks is found after rechecking.

Dean's List

The Dean's List is an Honorary Academic list carrying names of students who are exceptional performers at the Institution. The list is published at the end of each semester and carried in the program announcement, portal and website. There will be separate lists for BBA/BS/EMBA and MBA; all credit courses will be counted. These lists are also displayed at prominent locations in the corridor of the Main Campus of the Institute and are updated every semester. A position on the Dean's List entitles the concerned student for wearing of an IBA logo in a star on his / her ID card as a symbol of distinct identification which also allows him / her to avail benefits such as book discounts. Additionally, the said special mark will be displayed on the Dean's List achiever's transcript and against his / her entry in the graduate directory.

Honors & Medals

The following will be the criteria for including a student's name in the Dean's List:

- The student should fall within the top 5% of his / her class and subject to having a minimum CGPA of 3.5
- The student must not have C- or lower grades in any of the courses during the semester.
- He / she must not have been subjected to any disciplinary action within the Institute during the semester. (Disciplinary actions will include all those actions for which student can be suspended).
- The student must be deemed by the Dean & Director's Committee (Associate Deans and Director) to be worthy of being on the Dean's List.
- The student must have completed the normal course load for his / her particular semester. As per IBA program announcement the course load for degree program students is typically 5 for Computer Science students and 6 for other students in the regular semester.



- f. The grades of the students earned from any top 100 universities of the world, as well as LUMS and the universities with which IBA will sign MOUs, will be included in their CGPA and they will be entitled to compete for the positions / medals. However, the credits for grades earned from universities other than those mentioned above will be decided on case to case basis but will not be included in the CGPA. Their positions / ranking will be determined by the courses they would take at IBA. This will be applicable for all degree programs at IBA.
- g. The semester average will be calculated on a weighted basis and shall include all courses studied at IBA.
- h. Students who obtain an academic semester average of 90% or more will earn the honor of the Dean's List with Distinction.

BBA / BS / EMBA / MBA / Overall Medals

The top three students qualifying following criteria will be awarded Gold, Silver and Bronze medals respectively. The criteria for award of medals will be as under:

- a. The student, who has the highest CGPA (Cumulative Grade Points Average), without any failure, shall be eligible, provided the CGPA is not less than 3.5.
- b. In case of a tie where the CGPA is the same, the student with the higher average percentage shall be eligible for the award of Medal.
- c. A student with 'C' or lower grades in any subject shall not be eligible.
- d. No award will be made unless there is a candidate of sufficient merit. For example, if only one student qualifies according to the above mentioned criteria, he / she will

be awarded a gold medal and there will be no silver or bronze medal.

MBA Marketing, Finance (Specialization) Gold Medal

The specialization Gold Medal shall be awarded to the student who fulfills the following criteria:

- The student must have taken a minimum of 2 electives in the area of specialization.
- He / she must have an "A" in both the subjects.
- If the student has more than 2 electives in the field of specialization, the best 2 shall be counted, provided that the student has no "C+" or a lower grade in the field of specialization, and has no failure in MBA 3rd and 4th semesters.
- If more than one student has the same grades, then the student with the higher cumulative percentage in the 2 electives shall be eligible.
- Each student shall declare his / her field of specialization in writing at the beginning of MBA 4th semester.
- No non-credit course taken by a student in the 3rd and / or 4th semester shall be convertible to a credit course for the purpose of determining merit.

Executive MBA Gold Medal and Shields

Executive MBA Gold Medal will be awarded to the top performers of the graduating class on the basis of CGPA. Further, the second and third highest performers, on the basis of CGPA, are awarded Shields.

All other conditions as applicable to award of medal & shields at the IBA are observed

Grading & Evaluation

In addition to the above absolute scale, relative grading is also possible. Faculty members have the option of choosing either the Absolute or Relative Grading Scheme and also have the liberty to decide the percentage that will get A's, B's, and C's. A guideline of the same in the relative grading scheme will be available to

help faculty in implementing the Relative Grading Scheme.

Student performance is evaluated through a system of testing spread over the entire period of their studies. In addition to the final examination at the end of each semester, students are tested through term exams, a series of short quizzes, class discussions, written assignments, research reports, presentations on different topics, etc, all of which contribute to the final grade.

A student sits for 2 term examinations for each course every semester (scores of both term examinations are counted towards the final grade). A number of surprise quizzes are also taken during the semester to monitor the performance of the students. In determining the course grade, 60% of the final grade is based on the semester work and 40% on the semester final examination. However, the Institute reserves the right to modify these weights.

A Cumulative Grade Point Average (CGPA) is computed at the end of the semester. Final grades in each course are converted to grade points on the following basis:

Sum of (credit hours X grade points) / Sum of credit hours

The initial CGPA of the PGD / MBA / EMBA / MS students of the Evening Program is calculated on the basis of the first 6 courses taken by them. Withdrawals and failures, if any, are also counted.

'F' Grades are shown on the Provisional / Final Transcripts but are not counted in CGPA once the deficiency (F) is removed by the student.

Minimum GPA Requirements

A student must maintain a minimum CGPA of 2.2 on a cumulative basis during his/her stay at the IBA. Any student with a CGPA of less than 2.0 is dropped from the rolls of the Institute forthwith.

If in any semester a full-time student's CGPA falls between 2.00-2.19, he/she would be put on probation in the chronological next semester during which he/she would be required to bring his/her CGPA up to the desired point, i.e., 2.2.

Similarly the part-time (evening program) students with CGPA between 2.00 - 2.19 would be on probation in the next semester in which they register, which may be different from the chronological next semester at IBA. During probation they too would be required to bring their CGPA upto 2.2.

At the end of the semester, any student on probation is required to improve his/her CGPA and bring it up to the required minimum 2.2.

If a probationer shows an improvement, but his CGPA is still below 2.2, his/her probation may be extended for another semester. If he/she still fails to bring his CGPA to 2.2 by the end of the next semester, he/she is dropped from the rolls of the Institute.

If a student fails to pass certain courses and yet manages to maintain his/her CGPA equal to or above 2.2, he/she is allowed to repeat and clear the course(s) or substitute(s) (wherever permissible) before the degree is awarded to him/her.

The CGPA is computed at the end of each semester including a summer semester that a student might have enrolled in.

GPA Requirement for Award of BBA / BS / MS / MBA Degrees:

I. If an undergraduate (BBA / BS) program

student's CGPA in the final semester is less than 2.2 but not below 2.0, the student shall be required to repeat one semester of the lowest academic standing or certain courses in order to bring his/her CGPA up to 2.2 with the following conditions:

- a. The student who succeeds in improving the CGPA (minimum 2.2), will be eligible for award of the BBA degree.
- b. The student, who fails to improve the CGPA, will not be eligible for award of BBA degree. Such a student shall be issued transcript of credits earned.

- II. An MBA Program student whose CGPA in the final semester is less than 2.2 but not below 2.0 shall also be required to repeat one semester of the lowest academic standing or certain courses in order to be eligible for the award of MBA degree. If the student improves the CGPA (minimum 2.2), degree shall be awarded (other conditions applicable), otherwise only a transcript of credits shall be issued. The time period to remove the deficiency and to bring CGPA to a minimum 2.2 is one year.

Improvement of Grades

Students are allowed to repeat course(s) for improvement of grades with the following conditions:

- a. The better of the two attempts would be treated as the final result towards CGPA calculation and there would be no averaging.
- b. A student who repeats course(s) would not be eligible for Gold Medal and Dean's list.
- c. This option will not be available to those students who have graduated or have been dropped out.

Summer Semester

Students doing an internship during the summer semester are not allowed to register for an advanced credit or additional course. However, such students are allowed to remove deficiency in one course during the summer semester. Students not doing an internship, can clear up to two deficiencies, or enrol for two advanced courses in the summer semester. Students may withdraw from one course during the summer semester. Withdrawal should be sought within a week after the announcement of the mid-term examination result.

Internship Evaluation

The summer internships for full-time students are closely monitored and evaluated. During the internship period, follow-up meetings are arranged between the intern and faculty members to discuss the intern's progress and concerns, if any. Feedback about the performance of the internee is obtained from his/her supervisor. At the end of the internship, the student submits an internship report and is also interviewed for feedback regarding his/her experience.

Comprehensive Examination

Every graduating (MBA) student is required to pass a comprehensive examination on completion of course work. This 4 hour examination is held after every regular semester. After completion of course works, the maximum period allowed to clear the comprehensive examination is 10 years for the students admitted prior to 2004, in maximum 3 attempts. However, the students admitted in 2004 and onwards are allowed maximum 5 years to pass the comprehensive examination from the date of completion of course work with no restriction on number of attempts. MBA students admitted in fall 2010 and onwards are allowed a maximum of three attempts only to pass the comprehensive examination in 5 years from completion of course work. Students, who fail to pass the



comprehensive examination, are eligible only for the individual course certificates. A student is eligible for a transcript / degree only after passing the comprehensive examination. However, he / she may obtain a provisional certificate on completion of the course requirement.

Time-Bar Rule

The students admitted prior to 2004 have 10 years to complete their course work and pass the comprehensive examination to be eligible for the award of MBA degree. Maximum three attempts are allowed to such students to pass the comprehensive examination. The students admitted in 2004 and onwards have a total of 5 years in case of MBA and 7 years in case of BBA to complete their course work. There will be no restriction on the number of attempts for such students to pass the comprehensive examination within 5 years from completion of course-work. As of Fall 2010, MBA students are allowed a maximum of three attempts only to pass the comprehensive examination in 5 years from completion of course work.

- For course work, the period shall be counted from the date of admission.
- For comprehensive examination, the period shall be counted from the date of completion of course work.

For Evening Program Students / EMBA Participants:

Maximum time allowed for PGD :3.5 years*
Maximum time allowed for MBA :5 years from date of PGD completion

Maximum time allowed for Comprehensive Exam : As above

*In case a student opts to do PGD only, then 3.5 years' time limit will apply otherwise there would be no time constraint for PGD and Masters and the student could continue and complete his / her MBA (Evening) in total seven years.

Transcript of Record / Degree

Students can get a transcript of their grades from the Institute within 2 weeks on payment of Rs. 2,500 /-. Urgently required transcripts can be obtained within three working days on payment of an additional Rs. 2,500/-.

IBA Institute of Business Administration
Karachi
Leadership and Ideas for Tomorrow

Institute of Business Administration, Karachi
TRANSCRIPT OF CREDIT
Bachelor of Business Administration

Enrollment No. _____ Student ID: _____
Student Name: _____ Date of Admission: _____
Father's Name: _____ Date of Completion: _____

Course	Section	CR	GP	Grade	CR	Section	CR	GP	Grade
BBAS-101	Introduction to Business Administration	3.00	3.00	A	3.00	BBAS-102	Business Law	3.00	A
BBAS-103	Business Statistics	3.00	3.00	A	3.00	BBAS-104	Business Economics	3.00	A
BBAS-105	Business Mathematics	3.00	3.00	A	3.00	BBAS-106	Business English	3.00	A
BBAS-107	Business Communication	3.00	3.00	A	3.00	BBAS-108	Business Writing	3.00	A
BBAS-109	Business Research	3.00	3.00	A	3.00	BBAS-110	Business Ethics	3.00	A
BBAS-111	Business History	3.00	3.00	A	3.00	BBAS-112	Business Future	3.00	A
BBAS-113	Business Environment	3.00	3.00	A	3.00	BBAS-114	Business Impact	3.00	A
BBAS-115	Business Role	3.00	3.00	A	3.00	BBAS-116	Business Vision	3.00	A
BBAS-117	Business Strategy	3.00	3.00	A	3.00	BBAS-118	Business Innovation	3.00	A
BBAS-119	Business Leadership	3.00	3.00	A	3.00	BBAS-120	Business Management	3.00	A
BBAS-121	Business Organization	3.00	3.00	A	3.00	BBAS-122	Business Planning	3.00	A
BBAS-123	Business Control	3.00	3.00	A	3.00	BBAS-124	Business Evaluation	3.00	A
BBAS-125	Business Improvement	3.00	3.00	A	3.00	BBAS-126	Business Change	3.00	A
BBAS-127	Business Development	3.00	3.00	A	3.00	BBAS-128	Business Growth	3.00	A
BBAS-129	Business Expansion	3.00	3.00	A	3.00	BBAS-130	Business Success	3.00	A
BBAS-131	Business Achievement	3.00	3.00	A	3.00	BBAS-132	Business Excellence	3.00	A
BBAS-133	Business Distinction	3.00	3.00	A	3.00	BBAS-134	Business Perfection	3.00	A
BBAS-135	Business Mastery	3.00	3.00	A	3.00	BBAS-136	Business Proficiency	3.00	A
BBAS-137	Business Expertise	3.00	3.00	A	3.00	BBAS-138	Business Skill	3.00	A
BBAS-139	Business Competence	3.00	3.00	A	3.00	BBAS-140	Business Knowledge	3.00	A
BBAS-141	Business Understanding	3.00	3.00	A	3.00	BBAS-142	Business Awareness	3.00	A
BBAS-143	Business Sensitivity	3.00	3.00	A	3.00	BBAS-144	Business Responsiveness	3.00	A
BBAS-145	Business Flexibility	3.00	3.00	A	3.00	BBAS-146	Business Adaptability	3.00	A
BBAS-147	Business Resilience	3.00	3.00	A	3.00	BBAS-148	Business Endurance	3.00	A
BBAS-149	Business Persistence	3.00	3.00	A	3.00	BBAS-150	Business Determination	3.00	A
BBAS-151	Business Commitment	3.00	3.00	A	3.00	BBAS-152	Business Dedication	3.00	A
BBAS-153	Business Devotion	3.00	3.00	A	3.00	BBAS-154	Business Loyalty	3.00	A
BBAS-155	Business Fidelity	3.00	3.00	A	3.00	BBAS-156	Business Integrity	3.00	A
BBAS-157	Business Honesty	3.00	3.00	A	3.00	BBAS-158	Business Truthfulness	3.00	A
BBAS-159	Business Sincerity	3.00	3.00	A	3.00	BBAS-160	Business Candor	3.00	A
BBAS-161	Business Openness	3.00	3.00	A	3.00	BBAS-162	Business Transparency	3.00	A
BBAS-163	Business Accessibility	3.00	3.00	A	3.00	BBAS-164	Business Availability	3.00	A
BBAS-165	Business Approachability	3.00	3.00	A	3.00	BBAS-166	Business Receptiveness	3.00	A
BBAS-167	Business Welcomingness	3.00	3.00	A	3.00	BBAS-168	Business Hospitality	3.00	A
BBAS-169	Business Friendliness	3.00	3.00	A	3.00	BBAS-170	Business Kindness	3.00	A
BBAS-171	Business Politeness	3.00	3.00	A	3.00	BBAS-172	Business Respectfulness	3.00	A
BBAS-173	Business Consideration	3.00	3.00	A	3.00	BBAS-174	Business Thoughtfulness	3.00	A
BBAS-175	Business Carefulness	3.00	3.00	A	3.00	BBAS-176	Business Mindfulness	3.00	A
BBAS-177	Business Alertness	3.00	3.00	A	3.00	BBAS-178	Business Vigilance	3.00	A
BBAS-179	Business Awareness	3.00	3.00	A	3.00	BBAS-180	Business Sensitivity	3.00	A
BBAS-181	Business Perception	3.00	3.00	A	3.00	BBAS-182	Business Understanding	3.00	A
BBAS-183	Business Insight	3.00	3.00	A	3.00	BBAS-184	Business Knowledge	3.00	A
BBAS-185	Business Wisdom	3.00	3.00	A	3.00	BBAS-186	Business Understanding	3.00	A
BBAS-187	Business Intelligence	3.00	3.00	A	3.00	BBAS-188	Business Perception	3.00	A
BBAS-189	Business Sensitivity	3.00	3.00	A	3.00	BBAS-190	Business Awareness	3.00	A
BBAS-191	Business Alertness	3.00	3.00	A	3.00	BBAS-192	Business Vigilance	3.00	A
BBAS-193	Business Awareness	3.00	3.00	A	3.00	BBAS-194	Business Sensitivity	3.00	A
BBAS-195	Business Perception	3.00	3.00	A	3.00	BBAS-196	Business Understanding	3.00	A
BBAS-197	Business Insight	3.00	3.00	A	3.00	BBAS-198	Business Knowledge	3.00	A
BBAS-199	Business Wisdom	3.00	3.00	A	3.00	BBAS-200	Business Understanding	3.00	A
BBAS-201	Business Intelligence	3.00	3.00	A	3.00	BBAS-202	Business Perception	3.00	A
BBAS-203	Business Sensitivity	3.00	3.00	A	3.00	BBAS-204	Business Awareness	3.00	A
BBAS-205	Business Alertness	3.00	3.00	A	3.00	BBAS-206	Business Vigilance	3.00	A
BBAS-207	Business Awareness	3.00	3.00	A	3.00	BBAS-208	Business Sensitivity	3.00	A
BBAS-209	Business Perception	3.00	3.00	A	3.00	BBAS-210	Business Understanding	3.00	A
BBAS-211	Business Insight	3.00	3.00	A	3.00	BBAS-212	Business Knowledge	3.00	A
BBAS-213	Business Wisdom	3.00	3.00	A	3.00	BBAS-214	Business Understanding	3.00	A
BBAS-215	Business Intelligence	3.00	3.00	A	3.00	BBAS-216	Business Perception	3.00	A
BBAS-217	Business Sensitivity	3.00	3.00	A	3.00	BBAS-218	Business Awareness	3.00	A
BBAS-219	Business Alertness	3.00	3.00	A	3.00	BBAS-220	Business Vigilance	3.00	A
BBAS-221	Business Awareness	3.00	3.00	A	3.00	BBAS-222	Business Sensitivity	3.00	A
BBAS-223	Business Perception	3.00	3.00	A	3.00	BBAS-224	Business Understanding	3.00	A
BBAS-225	Business Insight	3.00	3.00	A	3.00	BBAS-226	Business Knowledge	3.00	A
BBAS-227	Business Wisdom	3.00	3.00	A	3.00	BBAS-228	Business Understanding	3.00	A
BBAS-229	Business Intelligence	3.00	3.00	A	3.00	BBAS-230	Business Perception	3.00	A
BBAS-231	Business Sensitivity	3.00	3.00	A	3.00	BBAS-232	Business Awareness	3.00	A
BBAS-233	Business Alertness	3.00	3.00	A	3.00	BBAS-234	Business Vigilance	3.00	A
BBAS-235	Business Awareness	3.00	3.00	A	3.00	BBAS-236	Business Sensitivity	3.00	A
BBAS-237	Business Perception	3.00	3.00	A	3.00	BBAS-238	Business Understanding	3.00	A
BBAS-239	Business Insight	3.00	3.00	A	3.00	BBAS-240	Business Knowledge	3.00	A
BBAS-241	Business Wisdom	3.00	3.00	A	3.00	BBAS-242	Business Understanding	3.00	A
BBAS-243	Business Intelligence	3.00	3.00	A	3.00	BBAS-244	Business Perception	3.00	A
BBAS-245	Business Sensitivity	3.00	3.00	A	3.00	BBAS-246	Business Awareness	3.00	A
BBAS-247	Business Alertness	3.00	3.00	A	3.00	BBAS-248	Business Vigilance	3.00	A
BBAS-249	Business Awareness	3.00	3.00	A	3.00	BBAS-250	Business Sensitivity	3.00	A
BBAS-251	Business Perception	3.00	3.00	A	3.00	BBAS-252	Business Understanding	3.00	A
BBAS-253	Business Insight	3.00	3.00	A	3.00	BBAS-254	Business Knowledge	3.00	A
BBAS-255	Business Wisdom	3.00	3.00	A	3.00	BBAS-256	Business Understanding	3.00	A
BBAS-257	Business Intelligence	3.00	3.00	A	3.00	BBAS-258	Business Perception	3.00	A
BBAS-259	Business Sensitivity	3.00	3.00	A	3.00	BBAS-260	Business Awareness	3.00	A
BBAS-261	Business Alertness	3.00	3.00	A	3.00	BBAS-262	Business Vigilance	3.00	A
BBAS-263	Business Awareness	3.00	3.00	A	3.00	BBAS-264	Business Sensitivity	3.00	A
BBAS-265	Business Perception	3.00	3.00	A	3.00	BBAS-266	Business Understanding	3.00	A
BBAS-267	Business Insight	3.00	3.00	A	3.00	BBAS-268	Business Knowledge	3.00	A
BBAS-269	Business Wisdom	3.00	3.00	A	3.00	BBAS-270	Business Understanding	3.00	A
BBAS-271	Business Intelligence	3.00	3.00	A	3.00	BBAS-272	Business Perception	3.00	A
BBAS-273	Business Sensitivity	3.00	3.00	A	3.00	BBAS-274	Business Awareness	3.00	A
BBAS-275	Business Alertness	3.00	3.00	A	3.00	BBAS-276	Business Vigilance	3.00	A
BBAS-277	Business Awareness	3.00	3.00	A	3.00	BBAS-278	Business Sensitivity	3.00	A
BBAS-279	Business Perception	3.00	3.00	A	3.00	BBAS-280	Business Understanding	3.00	A
BBAS-281	Business Insight	3.00	3.00	A	3.00	BBAS-282	Business Knowledge	3.00	A
BBAS-283	Business Wisdom	3.00	3.00	A	3.00	BBAS-284	Business Understanding	3.00	A
BBAS-285	Business Intelligence	3.00	3.00	A	3.00	BBAS-286	Business Perception	3.00	A
BBAS-287	Business Sensitivity	3.00	3.00	A	3.00	BBAS-288	Business Awareness	3.00	A
BBAS-289	Business Alertness	3.00	3.00	A	3.00	BBAS-290	Business Vigilance	3.00	A
BBAS-291	Business Awareness	3.00	3.00	A	3.00	BBAS-292	Business Sensitivity	3.00	A
BBAS-293	Business Perception	3.00	3.00	A	3.00	BBAS-294	Business Understanding	3.00	A
BBAS-295	Business Insight	3.00	3.00	A	3.00	BBAS-296	Business Knowledge	3.00	A
BBAS-297	Business Wisdom	3.00	3.00	A	3.00	BBAS-298	Business Understanding	3.00	A
BBAS-299	Business Intelligence	3.00	3.00	A	3.00	BBAS-300	Business Perception	3.00	A
BBAS-301	Business Sensitivity	3.00	3.00	A	3.00	BBAS-302	Business Awareness	3.00	A
BBAS-303	Business Alertness	3.00	3.00	A	3.00	BBAS-304	Business Vigilance	3.00	A
BBAS-305	Business Awareness	3.00	3.00	A	3.00	BBAS-306	Business Sensitivity	3.00	A
BBAS-307	Business Perception	3.00	3.00	A	3.00	BBAS-308	Business Understanding	3.00	A
BBAS-309	Business Insight	3.00	3.00	A	3.00	BBAS-310	Business Knowledge	3.00	A
BBAS-311	Business Wisdom	3.00	3.00	A	3.00	BBAS-312	Business Understanding	3.00	A
BBAS-313	Business Intelligence	3.00	3.00	A	3.00	BBAS-314	Business Perception	3.00	A
BBAS-315	Business Sensitivity	3.00	3.00	A	3.00	BBAS-316	Business Awareness	3.00	A
BBAS-317	Business Alertness	3.00	3.00	A	3.00	BBAS-318	Business Vigilance	3.00	A
BBAS-319	Business Awareness	3.00	3.00	A	3.00	BBAS-320	Business Sensitivity	3.00	A
BBAS-321	Business Perception	3.00	3.00	A	3.00	BBAS-322	Business Understanding	3.00	A
BBAS-323	Business Insight	3.00	3.00	A	3.00	BBAS-324	Business Knowledge	3.00	A
BBAS-325	Business Wisdom	3.00	3.00	A	3.00	BBAS-326	Business Understanding	3.00	A

Fee Structure Fall-2015

Morning Programs

Particulars	BBA & MBA	BS (Accounting & Finance)	BS (Computer Science, Eco & Math, Social Sciences & Liberal Arts)	MS (Economics, Mathematics & Computer Science)
Tuition Fee	153,000 / -	153,000 / -	117,000 / -	72,000 / -
Student Activity Charges	4,000 / -	4,000 / -	4,000 / -	4,000 / -
Lab cum Library Charges	4,000 / -	4,000 / -	4,000 / -	4,000 / -
Examination Charges	1,500 / -	1,500 / -	1,500 / -	1,500 / -
Development Charges	2,000 / -	2,000 / -	2,000 / -	2,000 / -
Total Recurring Charges	164,500 / -	164,500 / -	128,500 / -	83,500 / -
	Additional Course Fee Rs. 25,500 / -	Additional Course Fee Rs. 25,500 / -	Additional Course Fee Rs. 19,500 / -	Per Course Fee Rs. 18,000 / -

Evening Programs

Particulars	MBA-Evening		MS (Economic, CS, IT & Mathematics)		One-Time Charges (At the time of Admission)	
Tuition Fee	Pak Rupees	Total Fee (PKR)	Pak Rupees	Total Fee (PKR)		
One Course	25,500 / -	33,000 / -	18,000 / -	25,500 / -	Admission Charges	20,000 / -
Two Courses	51,000 / -	58,500 / -	36,000 / -	43,500 / -	Transcript Fee	2,500 / -
Three Courses	76,500 / -	84,000 / -	54,000 / -	61,500 / -	Total One - Time Charges Rs. 22,500 / -	
Four Courses	102,000 / -	109,500 / -	72,000 / -	79,500 / -		
Lab cum Lib. Charges (Per Semester)	4,000 / -		4,000 / -			
Examination Charges	1,500 / -		1,500 / -			
Development Charges	2,000 / -		2,000 / -			

For those students who wish to use the transport/hostel facilities, relevant charges are as under

Transport Fee (per semester)	Rs. 30,000/-
Hostel Fee (per semester)	Rs. 48,000/-
Hostel Security Deposit (New students only)	Rs. 1,000/- (Refundable)

Mode of Payment

- Fee can be deposited at **All Branches of Faysal Bank Limited in Karachi.**
- Only **Pay order** in the name of **IBA Karachi** can be delivered to Finance Department at the Main Campus.

NOTES

- **Figures are subject to approval by the IBA Board of Governors.**
- **5% Tax shall be applicable on total fees of the year, if fee is 200K or more.**
- The charges mentioned above are for one semester only, except for admission charges.
- Merit scholarship holders will be required to maintain a CGPA of 3.5
- **All regular (Morning) students shall be liable to pay fixed fee for the semester, maximum cut off for fixed fee is 4 courses or more.**
- For any further information you may contact (Finance Department) at 021-38104700 Ext: 2309



A public sector institution, the IBA caters to a large number of students from middle and lower income groups. Its fee increase is mostly modest and covers only a fraction of the costs. Therefore, other sources of financing such as scholarships, endowments, etc are employed. Financial Aid is available at IBA for all deserving and needy students. No applicant who qualifies the admission test and fulfills other requirements is refused admission because of unaffordability. A Financial Aid Committee scrutinizes the applications of students seeking financial aid and sanctions assistance for those who meet the 'need' criteria. In the academic session 2014-15, as many as 456 students received financial assistance amounting to Rs. 91,429,515/- million.

Scholarships

IBA gratefully acknowledges the continuous support and generous contributions made by the following organizations, companies, and individuals as contributors to scholarships for needy students:

Donors of General Scholarships

- Abdul Fatah Memon Scholarship
- Abdul Waheed Khan & Asghari Khanum Memorial Fund Scholarship
- Amir Saleem Scholarship
- Akhtar Textile Industries (Pvt) Ltd
- Azim Sultan Scholarship
- Anonymous Scholarship
- Bhaimia Foundation Scholarship
- BURJ Bank Scholarship
- Chevron Pakistan Limited Scholarship
- Fauzia Rashid Scholarship
- G.M. Qureshi Scholarship
- Government of Sindh Endowment Fund Scholarship
- Habib Metropolitan Bank Ltd. Scholarship
- Helium (Pvt) Limited Scholarship
- PAK – USAID MNB Scholarship
- HEC-Need Based Scholarship
- IBA Faculty Scholarship
- Infaq Foundation Scholarship
- ICS Group Company Scholarship
- Indigo Textile (Pvt) Ltd
- Lucky Cement / Abdul Razzak Tabba Scholarship
- Mateen Family Scholarship
- Mr. Raza Ali Khan
- Ms. Farheen Umar -1994
- Mr. Pervez Haroon Scholarship
- IBA Alumni-UK Chapter
- Mr. Khalid Saleh Mohammad Jafri
- Mubashira Hafeez Scholarship
- Oxford & Cambridge Society Scholarship
- Punjab Education Endowment Funds Scholarship
- Shell Pakistan Scholarship

- SSGC Scholarship
- Sumitomo Corporation Scholarship
- Syed Sarfaraz Ali Ghorri Scholarship
- Shaban Ali G Kassim Scholarship - Karam Ceramics Limited
- University of Karachi Alumni Association of Baltimore and Washington Scholarship Metropolitan Area, USA
- Amin Issa Tai
- Hassan Scholarship
- Jubilee General Insurance
- Late Mr. Ghulam Faruque–Cherat Cement Co. Ltd
- Pakistan Petroleum Limited (PPL)
- Mr. Nadeem Elahi
- BankIslami Pakistan Limited
- Sitara Chemical Industries Ltd
- Saya Weaving Mills (Pvt) Ltd.
- Syed Nasir uddin & Begum Nasir Scholarship



- Central Depository Company of Pakistan Limited
- HEC-French Need Based Scholarship
- Mitsubishi UFJ Foundation Scholarship
- Aftab Associates (Pvt.) Ltd
- Ms. Rummana Hasan – Class of 1993
- Ms. Sehr Fatima – Class of 1994
- Ms. Fatima Ahmad
- Jamal Hassan Scholarship
- IBA Alumni Islamabad Chapter
- Pakistan Customs Scholarship
- IBA Alumni UAE Chapter
- Lucky Commodities 9Pvt.) Ltd
- Others Scholarship
- Mr. Shahzad Sabir

Donors of Scholarships for Talent Hunt Programs

- CDP-Government of Sindh – Foundation Program
- Government of Sindh
- Ihsan Trust – Meezan Bank

Donors of Scholarships for Student Loan (Qarz e Hasna) Schemes

- Ihsan Trust – Meezan Bank
- National Bank of Pakistan
- Donors of Scholarships for Faculty / Student Exchange / Visit Programs
- Engro Foundation
- Engro Foods
- Infaq Foundation
- Mr. Sadeq Sayeed
- Mr. Munib Islam

Endowment Funds

These funds constitute donations made by various philanthropists and benevolent organizations. The income generated from these funds is used to supplement the faculty salaries, provide research funds, and contribute to foreign faculties, academic program enhancement, case study development, external accreditation and academia development, both locally and internationally.

All endowment funds are administered by the Board of Trustees, which includes those organizations / persons who have donated or pledged a minimum amount of Rs. 30 million or more in cash or kind. A list of endowment related funds currently in operation at the IBA is appended as under:

Donors of Development Fund

- Abdullah Foundation (Sapphire)
- Adamjee Foundation
- Allied Bank Limited
- Al-Hukamaa International School
- Arif Habib Corporation Limited
- Aziz Tabba Foundation
- Bank of Punjab
- Bestway Foundation
- Class of 1971 and 1972
- Donor Wall
- Education & Literacy Department, Govt. of Sindh
- EFU General Insurance Limited (EFU Group)
- Engro Foundation
- Fauji Fertilizer Bin Qasim Limited
- HBL Foundation
- Higher Education Commission (HEC)
- IBA Alumni
- International Industries Limited (IIL)
- Marine Group of Companies
- Mahvash and Jehangir Siddiqui Foundation
- Mega Conglomerate Private Limited (Mega Group)
- Martin Dow
- National Bank of Pakistan
- Philip Morris International (PMI)
- Pepsico
- State Bank of Pakistan
- Standard Shipping Pakistan (Pvt.) Ltd.
- The Aman Foundation
- The HUB Power Company Ltd (HUBCO)
- TPL Holdings (Pvt.) Ltd.
- United Bank Ltd.
- Unilever Pakistan
- OBS

Donors of Endowments / Endowed Chairs Funds

- Allied Bank Limited
- Askari Bank Ltd
- Bank Alfalah Limited
- Bank Al-Habib Limited
- Deutsche Bank
- Fatima Fertilizer Co. Ltd.
- Faysal Bank
- Gatron Industries Limited
- Getz Pharma (Pvt) Limited
- Govt. of Sindh
- Habib Bank Limited
- English Biscuit Manufacturers
- International Textile Limited
- IBA Alumni Dinner 2013
- Indus Motors
- Millat Group of companies
- Mr. Towfiq Chinoy
- National Investment Trust Limited (NiT)
- National Bank of Pakistan
- Pak Arab Fertilizers Ltd.
- Pakistan International Container Terminal Ltd.
- Soneri Bank
- Standard Chartered Bank
- UCH Power (Pvt.) Limited
- Martin Dow
- Premier Insurance Limited
- Mr. Hussain Kassam
- Zulfiqar and Fatima Foundation
- President's Endowment Fund
- Ismail Industries Limited
- IBA Alumni
- IBA – Advisory Council

- Dr. Miftah Ismail, Director, Ismail Industries Ltd
- Mr. Abrar Hasan, CEO, National Foods Ltd.
- Mr. Anwar H. Rammal, Chairman, Asiatic Public Relations
- Mr. Ghouse Akbar, Director, Akbar Group of Companies
- Mr. Mohsin Ali Nathani, CEO, Standard Chartered Bank
- Mr. Parvez Ghias, CEO, Indus Motor Co. Ltd.
- Mr. Saifuddin N. Zoomkawala, Chairman, EFU, GIL.
- Mr. Tahir Khaliq, Director, United Distributors (Pvt.) Ltd
- Mr. Tariq Kirmani
- Mr. Zahid Bashir, CEO, Mohd. Amin Mohd. Bashir Ltd.
- Mr. Muneer Kamal, President & CEO KASB Bank Limited
- Mr. Muhammad Yousuf Adil, Chairman, M. Yousuf Adil Saleem & Co.





Donors of Faculty Development Fund

- Barclays Bank PLC, Pakistan
- Cadbury Pakistan Limited
- Central Depository Company
- Chevron Pakistan Limited
- English Biscuit Manufacturers
- Higher Education Commission (HEC)
- Indus Motors
- Naseem Allawala, ESQ.
- National Foods Limited

Donors of Endowment Fund for General Scholarships

- Aftab Associates Endowment
- Atlas-IBA Scholarship Endowment Scholarship
- Atiya-e-Naseem Scholarship
- Dr. I. A. Mukhtar Endowment for Scholarship (IBA-Alumni)
- Feroz Textile Mills Limited
- HBFCL Endowment Scholarship
- HBL-Endowment Scholarship
- IBA-Karachi Class of 1986
- Muhammad Umar Khan Shaheed Scholarship
- Other Endowment Scholarship
- PSO Endowment Scholarship
- Sardar Yasin Malik Scholarship
- Syed Mumtaz Saeed Scholarship
- The Sapphire Endowment Scholarship
- Zahida Zorawer Endowment Scholarship
- Jamsheed K. Marker Endowment Scholarship
 - Mr. Zafar Khan & Wife Tahireh
 - Hommie & Jamsheed Nusserwanjee Charitable Trust
 - Darayus Happy Minwalla
 - Eastern Automobiles (Pvt) Ltd, F.N. Irani
 - The Captain Foundation
 - Mumtaz Hassan Khan

Donors of Endowment Fund for Talent Hunt Programs

- Abdullah Group, Hyderabad
- Abdul Waheed Khan Scholarship
- Asghari Khanum Scholarship

- KPMG Pakistan Scholarship
- Mowjee Foundation (Sultan Mowjee Endowed Scholarship)

Procedure for obtaining Financial Assistance

Objective

Provide financial assistance to all needy students (other than evening / part time students) admitted to the IBA and ensure that no deserving student is denied admission because of financial difficulty / constraints. All matters relating to provision of financial aid are managed by the 'Financial Aid Office' located in the Finance Department.

Eligibility

Financial Aid shall be offered to eligible applicants who have been assessed to meet the need criteria. This is enabled in the form of a "Financial Aid Package" which is designed based on the recognition that an education in the Institute is a partnership involving the student, his / her family and the Institute. The packages include 'Merit Scholarships' which become part of entitlement for those students who obtain merit position during their aptitude test and their names are among top 10% of the applicants in the result of the aptitude test.

How to apply for Financial Assistance

- Those students who need financial assistance will have to pay the Admission fee and one time charges before they apply for any financial assistance.
- Students may apply for financial assistance on the prescribed form posted on the website and send their applications to the 'IBA Financial Aid Office' during the stipulated application period.

Financial Aid Packages

The Financial Aid Packages include the following:

a. Instalment Plan

- In principle, tuition fee for each semester is payable in full; those students, who are unable to pay the due fee in full, may apply to Director Finance for instalment method of payment. There are two types of instalment plans:
- Plan (A) Payment of dues in three equal instalments
- Plan (B) Payment of dues in five Instalments
- The student can apply for any of the above two plans. These instalments must be paid within the same semester period.
- The Director Finance shall approve the application after ensuring the need of the student.
- Whichever plan is opted for by the student, he or she is required to make payment of instalments by giving post

b. Deferment of Fees

- In case student does not pay his / her total fee within a particular semester, then the Director Finance shall send a request letter to the student to pay the outstanding amount .
- The Director Finance may call the student and if circumstances suggest his / her parents may also be called to evaluate the financial position of the student to reach an amicable solution for the recovery of fees. The student shall also be directed to avail other options available in the "Financial Aid Package", which are discussed below.

- If there is no other option available and the circumstances necessitate, the Director Finance may defer the payment of fee to a certain date.
- If a student is still unable to pay in full, then as a first step the Finance Department shall compel the student to make payment through post-dated cheques.
- The post-dated cheque should be cleared within the same semester period, so that the student's amount is cleared before the admission to the next semester.
- If any of the post-dated cheques is dishonoured and student is unable to pay against those dishonoured cheques, then Director Finance may call the student / parents of the student for settlement of dues before the start of the next semester, failing which the student's name will be given to the program office for stopping enrolment in the new semester.

c. Need Based Financial Assistance / Scholarships

- There are a number of scholarships available which are awarded to needy students only and are based on the assessed need level.
- No applicant who qualifies the admission test and fulfills other requirements shall be refused admission because of inability to afford the cost of the program at the Institute.
- The Scholarship Committee scrutinizes the application, along with supporting documents submitted by the students seeking financial aid and scores their need level against the laid-down criteria; compares it to the need level of other applicants to assesses the level of assistance that can be made available on the basis of available funds.



d. Merit Scholarship

- Merit scholarship are extended to candidates who have scored high enough for their names to fall in the top 10% of the list of candidates appearing in aptitude test and thereafter qualifying to be admitted to the BBA, BS (Accounting) & Finance) & MBA Morning Programs. The list of these candidates is published at the culmination of the admission process i.e. qualifying aptitude test, group discussion, and interview and providing proof of having met the minimum academic eligibility standards for the concerned program. These candidates will be automatically awarded a 50% reduction in their tuition fees.
- It will, however, be obligatory / incumbent on such candidates to maintain a CGPA of 3.5 on completion of every two semesters each year. Inability to maintain the said CGPA will render the concerned merit scholarship holder ineligible for continuing of the merit scholarship in the remaining semesters.
- In the event of a student losing his / her standing for merit scholarship, and regaining the required CGPA in any subsequent semester; the student will again become eligible for merit scholarship in the next semester but will not be entitled to claim the same for the preceding semester.
- The number of scholarship slots released as a result of this discontinuation (as mentioned above) will be made available to the toppers (maintaining highest CGPA) in the Dean's Honor list for that particular academic year. The new merit scholars are also required to maintain a minimum CGPA of 3.5 at each completed year for continuation of Merit Scholarship, i.e. other rules for continuation / discontinuation of merit scholarship, as mentioned above, will also apply to these new scholars.

e. Study loans

- IBA facilitates its students in securing loans to meet their tuition fee. These may be interest free loans (Qarz-e-Hasna) to facilitate students during the course of their study. Applications for such loans will be invited from amongst candidates who have already applied for 'need based scholarship' but could not meet the need criteria.

f. Work-study Appointment Scheme

- The scheme enables needy students to supplement their finances through part time work on-campus and helps students minimize their debts servicing burden upon graduation. The HR Department promulgates each semester the positions available for students to take up on-campus part time jobs / internships. The remuneration of such jobs is calculated on hourly basis.
- IBA strongly believes that such on-campus jobs and internships are an important tool in recruiting, developing talent, in meeting the needs of today, while preparing the workforce for the future.
- The three different programs available for IBA students seeking to gain work experience on-campus include:

- Paid Student Interns (Summer interns as well as other interns)
- Part-time student employees
- Teaching assistants / Research assistants
- Details of these work programs are available in the SOP's listed under "Rules for Student recruitment – internship, part-time employment and teaching / research assistants" available with the Career Development Center.

Corporations Financing for Study Expenses

Students at IBA, like any other top University of the world have a well-known accreditation and acceptability in the corporate market. Some of the companies are financing Students study programs by providing required financial assistance to the students; as part of their vision to invest in the future human resource capital! A bond is signed between student (one who seeks financial assistance) and company (financer), according to which student will have to serve the companies as an employee; as soon as he / she completes his degree program from IBA. Company sees it as an investment in the future human resource capital. Details of such opportunities are available with the IBA Career Development Center (CDC).



The Institute of Business Administration, Karachi has two campuses spread over 72 acres of real estate. The years 2008 to 2015 have witnessed a major revamp of infrastructure and facilities at both the campuses, namely: the City Campus located in Saddar and the Main Campus located in the environs of the University of Karachi. Resultantly, apart from reconstruction of all 60's vintage buildings the period saw the maturing of 14 new Greenfield building projects initiated in 2009. These infrastructural development activities have given IBA premises a new look, with facilities comparable in size and splendor to any campus of a world-class institution. It has also enabled significant enhancement in joint capacity of both the campuses, from erstwhile 1800 to about 3900 students, and over hundred full time faculty members.

The turnaround in 2008 is the result of a multi-pronged strategy to develop programs, faculty, and facilities to bring IBA in the "Top 100 Business Schools of the World" by 2019. The development plan for infrastructure at both the campuses has thus far added new state-of-the-art academic buildings, an auditorium, a 14 storied multipurpose tower, a sport complex, prayer hall, a student center and a center for Entrepreneurial development. Ten existing buildings have been remodeled, expanded and reconstructed. Fourteen new buildings and facilities have been completed on both campuses during the last six years. In addition new clinic and two new blocks for Boys Hostel are under construction. Three new residential facilities comprising of boys and girls hostels and accommodation for visiting faculty also form part of the projects executed in the last four years. External development works with internal roads, pavements, walkways, landscaping, KESC sub stations, a central power station, sewerage treatment plant, bulk water storage reservoir, generator stations have been developed on the main campus. In addition all services such as water supply, electricity, gas are now been procured directly from the providers.

As a results of these infrastructure projects IBA would have 47 functioning buildings in 2015 compared to 29 in 2000. The covered area under instructional, administrative and amenities space would increase from almost 230,000 sq.ft to 696,000 sq. ft.

The main campus houses around forty classrooms, eight seminar rooms, five computer labs, fourteen break out rooms. They are

located in the three academic buildings, namely the Adamjee Academic Center, Abdul Razzak Tabba Building, and the Aman Center for Entrepreneurial Development. All instructional spaces are now centrally air-conditioned and fully equipped with the latest audio-visual and video conferencing facilities to boost the overall learning endeavor. These academic facilities are augmented by the Gani & Tayub Auditorium with a capacity of three hundred persons, a brand new library, a video conferencing lab and a Faculty Lounge. Additionally, the Main Campus is the venue of a sprawling student center, complete with gymnasiums for male and female students, a large cafeteria, an event hall, indoor courts, outdoor sports field for cricket and football, tennis courts, a volley ball court, a basketball court, a jogging track,

and a 450-capacity Amphitheatre. The City Campus is in the heart of the business district of the city. It consists of the Chinoy Administration Building, the Faysal Bank Academic Block, the Habib Bank Academic Building, and the Center for Executive Education, which together field excellent premises for various programs. Existing facilities include twenty eight class-rooms and eight computer/ICT laboratories. The City Campus is also home of the Center for Executive Education (CEE), Center for Excellence in Journalism (CEJ), Center for Business & Finance Research (CBFR) and the Center for Excellence in Islamic Finance (CEIF). A fourteen-storey, instructional-cum-residential premises, namely the IBA - Aman Tower, and a modern 430-seat auditorium are twin premises which house these centers as well as a well-equipped library.



Monument Garden

A recent addition to IBA's repertoire of celebratory establishments, the Monument Garden is an initiative to further the process of honoring IBA's top achievers. The garden has vertical columns with inscribed names of gold medalists from various convocations. The out in the open garden allows passersby and onlookers to get inspired by those who left a lasting mark at IBA. The monument promotes a culture of motivation and appreciation, through which current students can aspire to one day see their names on these headstones but realize that only the best of the best will succeed in gaining a place in this garden.



ICT Infrastructure and Services

The Information and Communication Technology department provides ICT services to IBA Main and City campuses, Hostels and Staff Town, serving a total of around 3000 three thousand users on and off campus and a sizeable number of Alumni. The principal aim of the ICT department is to bring state of the Art Technology in to IBA, provide essential services and promote automation and meet the end users requirements of Internet, Email, Distance Learning (Video Conferencing), Unified Communications (VoIP) etc.

- IBA has its own Tier III data center that to provide centrally managed services to users. The Data Center houses servers and associated components, including telecommunications, storage, and data communications equipment. This fully integrated infrastructure utilizes Data center technology with state of the art precision cooling & humidity control system.
- Video Conferencing service is fully functioning at both campuses. This facility is being utilized to the fullest for meetings, online workshops / seminars, distance / collaborative learning etc.
- Lecture recording system has been implemented, which provides for recording lectures for facilitating distance learning and future references.
- Seven general purpose computing labs are fully functional at both campuses, with state of the art PCs and peripherals facilitate faculty / students in lectures and also in preparing assignments, working on projects and take print outs. Also, a lab specifically dedicated to Apple Mac environment has been commissioned at City Campus which will specially cater to the courses based on Apple Mac environment. Recently, 5 labs have been upgraded with Core i5 and Core i7 based computers
- LAN and WAN security has been implemented and all traffic goes through the security checks and controls.
- More than 200 Mbps of internet is available for users at both the campuses. Both campuses, including hostels, are fully covered under wireless connectivity to provide local network and internet connectivity to mobile users.
- Enterprise Resource Planning (ERP) is an integrated Computer-Based system used to manage internal and external resources including tangible assets, financial resources, materials, and human resources. The ERP System is now used at IBA for effective decision making for the middle and higher management.
- Academic Alliances with major technology vendors, e.g. Cisco, EMC, IBM etc, will provide a broad spectrum of opportunities to IBA community for enhancing their ICT skills and at the same time get certified on cutting-edge technologies.
- A list of some of our websites is as under:
 - Online admissions (<https://onlineadmission.iba.edu.pk>)
 - MBA (<http://mba.iba.edu.pk/>)
 - Executive MBA (<http://emba.iba.edu.pk/>)
 - Center for Executive Education (<http://cee.iba.edu.pk/>)
 - Center for Entrepreneurship Development (<http://ced.iba.edu.pk/>)
 - IBA Libraries (<http://library.iba.edu.pk/>)
 - Faculty of Computer Science (<http://cs.iba.edu.pk/>)
 - NTHP (National Talent Hunt Program) (<http://nthp.iba.edu.pk/>)
 - SFP (Sindh Foundation Program) (<http://sfp.iba.edu.pk/>)
 - Learning Management system (Sakai) includes all the learning, teaching and collaboration tools considered “standard” in learning platforms today.
- ICT department has also implemented PeopleSoft GL Financial & HRMS, which respectively are pertinent to finance and human resource / general administrative matters.
- Faculty Presentation system has also been commissioned, which provides for evaluation of hiring of new faculty existing faculty and board members.
- Oracle BI system has also been implemented which exclusively caters to the needs of top management. This system displays ERP, LMS & HRMS data in a concise and collective way.
- Smart boards have been installed as a pilot project in selective classrooms and will help in delivery of more interactive and understandable lectures and presentations.



The Libraries

The IBA Libraries aspire to support teaching, learning and research at the institute by developing and promoting systems and resources essential for access to relevant information. We, at the IBA Libraries, strongly believe in offering innovative and customized information services and in acquiring resources to encourage synthesization of thoughts and transfer of knowledge.

Libraries at both the Campuses are regularly updated with latest learning materials like books, case-studies, online resources (e-books and e-journals). Around 4000 new titles, on average, are added every year to the library collections. Specialized information sources like research published by the educational institutions; National and International Research Organizations; and government agencies are also collected to facilitate indigenous research.

Campus-wide and remote access to a very rich collection of multi-disciplinary digital databases in full-text, consisting of e-books; e-journals; case studies; and industry related research analysis reports, are the core of our offerings. Currently, the libraries subscribe to more than 24 electronic databases, which provide access to around 10000 e-journals and 1, 25,000 e-books. Some of the leading databases are being listed here:

1. **EBSCOhost** - Business Source Complete, Academic Search Premier, and EconLit with full-text three essential databases through this single interface:
<http://search.ebscohost.com>
2. **WARC** - World Advertising Research Centre:
<http://www.warc.com/security/login/autologin.aspx>
3. **Emerald**
<http://www.emeraldinsight.com/index.htm>
4. **Wiley-Blackwell Journals**
<http://onlinelibrary.wiley.com>
5. **Taylor & Francis Journals**
<http://www.tandfonline.com>
6. **SpringerLink**
<http://www.springerlink.com>
7. **JSTOR**
<http://www.jstor.org>
8. **Cambridge Journals Online**
<http://journals.cambridge.org>
9. **INFORMS** - Institute for Operations Research and the Management Sciences:
<http://journals.informs.org>
10. **ACM** - Association of Computing Machinery:
<http://dl.acm.org>
11. **Pakistan Law Site**
<http://www.pakistanlawsite.com>
12. **E-brary**
<http://site.ebrary.com/lib/ibakarachi/home.action>
13. **World Bank e-Library**
<http://elibrary.worldbank.org>
14. **IMF eLibrary:**
<http://elibrary.imf.org>
15. **McGraw Hill Access Engineering**
<http://www.accessengineeringlibrary.com>
16. **McGraw-Hills Access Science**
<http://www.accessscience.com>
17. **Passport GMID by Euromonitor**
<http://portal.euromonitor.com/portal/default.aspx>
18. **DataStream Professional for Academics by Thomson Reuter**
<http://thomsonreuters.com>
19. **UN Comtrade Database**
<http://comtrade.un.org/data/>
20. **Press Display**
<http://library.pressdisplay.com/>
21. **Grammarly@edu**
<https://www.grammarly.com/>

The IBA Libraries' endeavor is to conceptualize and offer a host of information services to the members of its community and contribute to their scholastics and life-long-learning. The on site library collections are searchable through robust library automation systems, powered by open source technologies, which enable users to explore the learning materials easily and efficiently.

Libraries at both the Campuses have been reconstructed and remodeled. The brand new physical library spaces will soon be inaugurated. The facilities have been designed with one-of-its kind infrastructure and state-of-the-art amenities to cater to the needs of the 21st century learners. For further details and updates, visit library website
<http://library.iba.edu.pk>.





Mian Abdullah Library



Fauji Foundation Building



13 Floor IBA - Aman Tower Building



- ← Seminar Halls (200 Persons)
- ← Event Halls (250 Persons)
- ← Residential Suites for Executives
- ← Mechanical Floor
- ← Center for Executive Education (CEE)
- ← Cafeteria (250 Persons)
- ← Center for Excellence in Journalism (CEJ)
- ← Center for Islamic Finance (CIF)
- ← Lecture Halls
- ← Class Rooms
- ← Library
- ← Vestibule
- ← Basement Parking

Talent Hunt Programs

Objective

To prepare meritorious and talented students from under-privileged and remote areas of Pakistan for IBA Entry Test and to finance the education of those students who are able to clear the IBA aptitude test. Currently, the National Talent Hunt Program (NTHP) and the Sindh Foundation Program (SFP) are operative at IBA, providing enrollments for BBA/BS degree courses. Details of the program are as under:

National Talent Hunt Program (NTHP)

The NTHP was launched in 2004 jointly financed by IBA & organizations from the corporate and public sector. This program primarily targets students from the backward areas of Balochistan, Punjab, Sindh, FATA, Khyber Pakhtunkhwa and Gilgit Baltistan. Students with the following academic standard will be included in the NTHP Orientation Program:

- Those who have secured **80 % or above** in the **Matric examination** conducted by the Board of Secondary Education of Pakistan in the year 2014 and will be appearing for the **HSSC Level-I examination** in the year 2015 are eligible to appear for the Orientation Program in 2015 followed by another orientation program in 2016.
- Those who have secured **75 % or above** in the **HSSC-Level -I examination** conducted by the Board of Intermediate Education of Pakistan in the year **2014** and will be appearing for the **HSSC Level-II examination** in the year 2015 are eligible to appear in for the Orientation Program in 2015.

Upon qualifying for the NTHP orientation program, trainees' lodging / boarding and tuition are provided free of cost. A small stipend is also provided to cover their other personal expenses. The statistics of students who joined the program since its inception are as under:

Program of Study (National Talent Hunt Program)

Year	No. of Students trained at the Orientation Program	Successfully Qualify the Aptitude Test	BBA	BS (Economics & Mathematics)	BS (SSLA)	BS (Accounting & Finance)	BS (Computer Science)	Total Students admitted	Graduated from IBA
2004-2014	322	98	35	10	2	8	41	96	28

Sindh Foundation Program (SFP)

The STHP Program was launched in 2009 jointly financed by the IBA Karachi & Community Development Program (CDP), Planning & Development Department-Government of Sindh. The program primarily targets students who are among the top-20 in the merit list in their respective Intermediate Boards from remote areas of Sindh. Ever since inception of the program in 2009 as many as 69 students belonging to remote areas of the Sindh region have participated in the orientation activity of the Sindh Talent Hunt Program of which 14 students were successful in acquiring admission in IBA. The STHP has now been revamped as the IBA Sindh Foundation Program. IBA has entered into collaboration with the Community Development Program, Planning & Development Department-Government of Sindh, to launch the IBA Sindh Foundation Program for Sindh region. The program targets students who secured 70% or above in the BISE Examination in the respective Intermediate boards from remote areas of Sindh.

Program of Study (Sindh Talent Hunt Program)

Year	No. of Students trained at the Orientation Program	Successfully Qualify the Aptitude Test	BBA	BS (Economics & Mathematics)	BS (SSLA)	BS (Accounting & Finance)	BS (Computer Science)	Total Students admitted	Graduated from IBA
2009-2011	69	14	5	-	-	-	9	14	11

The first batch of the Foundation Program commenced its training at the IBA Main campus in December 2012. Enrollments in the IBA Sindh Foundation Program since 2012 are as under:

Program of Study (Sindh Foundation Program)

Year	No. of Students trained at the Foundation Program	Successfully Qualify the Aptitude Test	BBA	BS (Economics & Mathematics)	BS (SSLA)	BS (Accounting & Finance)	BS (Computer Science)	Total Students admitted	Graduated from IBA
2013-2015	103	24	1	6	3	3	11	24	-



High Achievers

An STHP student, **Sarchina Kumari** of the BS(CS) Batch of 2010 was the proud winner of an award at the Convocation 2014 presided by the **President of Pakistan, Dr. Mamnoon Hussain**.

Two proud students of the National Talent Hunt Program were selected for the **Global Undergraduate Exchange Program for Pakistan 2015, USA** for Spring Semester 2015.



Faiza Shafqat
BBA-VI



Hafiz M. Umair
BS(CS)-VIII



Impressions of STHP Students



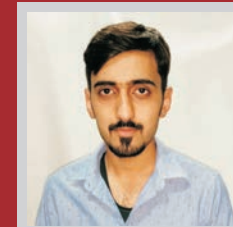
The STHP scholarship was like a dream-come-true for me. It was for the first time in our family that a girl was going outside her hometown for higher studies. I am thankful to Almighty Allah and my parents for their trust in me, and STHP for the scholarship. Saba Channa, STHP Scholar Batch 2010



The SFP gave me a chance to change my life. I had dreamed of coming to IBA and studying here. It is a life changing opportunity to learn and to experience lots of things. Sagar Khatri, SFP Batch 2015



I belong to a middle class family and it was very difficult for me to get admission in one of the top most universities of Pakistan; IBA fulfilled my dream through Sindh Foundation Program. This opportunity is my springboard for future accomplishment. IBA is now my dream university and I will try my best to be a part of IBA family. Salma Idrees Region: Ghotki SFP Batch 2015



This SFP program revolutionized my entire life. I had never thought about studying in such a renowned institute, as the financial status of my larkana based family had blurred this dream. With diligence I made the most of the opportunities to achieve my dreams; thank you IBA and CDP. Sundeep Kumar Oad-Region: Larkana, SFP Batch 2015

A public sector institution of higher education has to play an important role in contributing directly or indirectly to the socio-economic development of the country. While teaching and research will generate the direct linkages by providing high caliber human resources to the economy in the medium to long term an institution such as IBA has an obligation to strengthen its community, corporate sector, public sector and nonprofit sector linkages in the short run. These linkages can be fostered by providing advisory and consultancy service, nurturing entrepreneurship and innovation and training of mid career executives. The vehicles through which this is taking place at IBA include the the Center for Entrepreneurship Development & the Center for Business and Economics Research. Appended below is a brief description of each of these centers:

Center for Entrepreneurship Development (CED)

Established in 2012 with funding received from the AMAN Foundation, the programs of the CED has been developed in partnership with Babson College of Entrepreneurship in Boston, USA. The bulk of the facilities at the CED are focused at developing students' abilities to formulate ideas, explore and create. It trains them to carry out in-depth analysis of disciplinary and inter disciplinary subjects, and enables them to get hands on experience in industry, by applying the knowledge and training to generate and sell their ideas in the real world, thus unleashing their potential and increasing their confidence, independence and creativity which in time to come will nurture in them the necessary skills to become entrepreneurial in thinking and practice. Furthermore, the entrepreneurial spirit developed at the center may appeal and boost the capabilities of those who are exploring avenues to run businesses in a manner different to the market.

Center for Business and Economics Research (CBER)

The CBER is a think tank that can be of assistance to business community, public policy makers, and the civil society. It is managed by a Research Committee (RC) consisting of the eminent researchers within the IBA and an Advisory Committee drawn mainly from the users of research. The CBER invites proposals for award of research grants, organizes research seminars workshops / conferences, solicits research ideas and funding from the industry and corporate sectors for core and contract research and establishes collaborative research projects with international and national institutions of repute.

Ardeshir Cowasjee Centre for Writing

The ability to write effectively is one of the key markers of academic and professional success. Effective writing indicates clear thinking, the ability to assimilate and synthesize complex material, and an appreciation for nuance and differing points-of-view. Given that reading and writing are interdependent activities, good writing also indicates an ability to read complexly a necessary skill for students entering the increasingly competitive 21st century workplace. To this end a center for excellence in writing was inaugurated at IBA

in November 2013. The writing center will help students improve their writing skills, it will also serve all faculty members by helping them design and sequence writing and research assignments, devise strategies for evaluating and responding to student writing, and develop effective techniques for working with multilingual students. The center has been dedicated to the memory of one of Pakistan's most-renowned columnists, social activists, and philanthropists, late Mr. Ardesir Cowasjee.



Center for Excellence in Journalism

The Center for Excellence in Journalism (CEJ) is an initiative for the professional development, training and networking of Pakistani journalists and media professionals. The Center is a collaboration between the International Center for Journalists (ICFJ), the Institute of Business Administration (IBA), and the Medill School of Journalism at Northwestern University, made possible through a grant from the U.S. Department of State

The CEJ is based in the Aman Tower at IBA's City Campus in Karachi, in addition to classroom and office space, the CEJ area includes a working broadcast studio and state-of-the-art multimedia lab for the participants. The Center is closely linked with the Pakistani news media industry and offers 8 to 10 training modules a year in addition to online classes that are hosted on its website.

The Center offers two-week intensive training modules and so far three trainings have been carried out successfully.

The first on "Backpack/Mobile Multimedia Journalism" took place in September 2014 and was conducted by Craig Duff, Professor of Journalism at the Medill School of Journalism at Northwestern University.

In January 2015, CEJ held a second module on "Business and Economic Reporting" taught by an award-winning journalist, Susan Chandler, professor at Northwestern University's Medill School of Journalism and local instructor, Khurram Husain, who is a veteran business journalist and assistant editor at Dawn newspaper.

For more information and updates on upcoming training sessions, follow CEJ on Facebook <https://www.facebook.com/CEJatIBA> and Twitter @CEJatIBA, or email cej@iba.edu.pk



Center for Executive Education (CEE)

The Center for Executive Education was formed in 2004 to provide opportunities to executives working at different echelons in organizations to enhance their careers by gaining knowledge and insight into state-of-the-art management techniques and technologies. Executive Education Programs consist of various training courses and workshops that are organized and conducted by the distinguished IBA faculty as well as leading Industry Professionals. Visit: cee.iba.edu.pk

The programs at CEE are designed for senior executives and high-potential managers from around the country. Intensive one-day to several day courses focused on a particular area of interest, are offered. Our portfolio of non-degree, executive education and management programs provide business professionals with a targeted and flexible means to advance their career development goals and position their organizations for future growth.

The Center specializes in executive education and management development activities through:

Global Executive Education Programs for Top Leaders:

With an aim to offer Global Programs in Pakistan, CEE offers programs for CXOs and Business Unit Heads in joint collaboration with Indian School of Business (ISB). The faculty for these programs are drawn from some of the Top B-Schools. CEE has already offered four programs in Karachi on Leadership & Strategy with Prof. Clive Rubery from London Business School and Prof. Shailendra Raj Mehta, Vice Chancellor, Ahmedabad University, both visiting faculty at the ISB.

Client-Specific Programs with Indian School of Business

The Center for Executive Education (CEE) has complemented the ISB's vision by helping executives and businesses with their growth plans. Over the last decade, the custom design and delivery team at CEE has helped deliver several tailor-made learning solutions focused on creating real business impact for organizations. CEE can help devise and deliver strategic learning solutions to address business problems.

Managing Family Businesses

A modular series of 10 workshops for the Family Businessmen of Pakistan. The series is designed to address the concerns about adapting to the emerging global opportunities and managing the growth. It aims at providing a guided opportunity to the participants; to

reflect on their current style of running business; Identify the new elements required for gearing up for the change; & Start working on the same. Currently CEE is hosting the second series of Managing Family Businesses with 10 workshops in parallel in Karachi & Lahore.

Open Enrolment Programs

These workshops bring together individuals and teams from multiple organizations in one location to learn from each other. These workshops are announced through training calendar on different emerging themes including but not limited to Leadership, Strategy, Management, Research, Business Communication, Project Management, Supply Chain Management, Human Resource Management, and Information Technology.

Development Programs

Building the foundation for success requires mastering business and management basics and the ability to know how to apply them. These workshops are designed to meet an organization specific learning needs. CEE offers its Client; training need analysis, design expertise featuring a personalized client-oriented needs assessment, lasting partnerships that focus on long-term learning objectives, facilitators.



Post-Graduate Diploma Programs

In January 2015, CEE-IBA launched three Post-Graduate Diploma Courses. Designed to develop in highly skilled practitioners an in-depth understanding of strategic, tactical and operational issues; each PGD is spread over a span of 1 year, with 12 courses, a live project and practicum. These programs will help bridge the competency gap in Pakistan and help enhance the professionalism of those involved in the industry. Each program is devised to develop critical thinking among students and give them practical application of knowledge to manage teams and workplace.

The following four PGDs are offered:

- 1) Supply Chain Management
- 2) Human Resource Management
- 3) Healthcare Management
(Focused to Hospital Management)
- 4) Business Administration (Client-Specific)

Healthcare Management Programs

This PGD (Post-graduate Diploma) program, is a weekend program was introduced by the health care department established at IBA in 2014. The program is open to all post graduate students, fulfilling our eligibility criteria. It comprises of 12 courses, leading into the EMBA program. The courses are structured around the “REST” model strategy.

Research: Epidemiology, Demography, Biostatistics and Research Methodologies. To develop a strong network, local and international collaborations are being formulated for the course. MOUs have been signed with the American Institute of Healthcare Quality, Indus hospital, Liaquat National Hospital and others. An understanding with the Medinah Institute of Leadership and JHPIEGO-an affiliate of Johns Hopkins University and Health Services Academy has also been established.

Skills Development Programs

Skills Development Program (previously called as Business English & Skills Development Program) at the Center for Executive Education has been providing language and academic proficiency courses for more than two decades. The objectives of Skills Development are as follows:

- Build skills & competencies
- Provide targeted development solutions for the most frequently identified areas where development is needed
- Design & deliver readily applicable courses
- Increase the skill level and employability of participants
- Ease the step up from junior roles to taking charge of a unit.

For details please visit our website:
<http://cee.iba.edu.pk/>





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Journey of Excellence



Milestones in the Journey of Excellence

Development of Programs

1955

Institute established as 'Institute of Public and Business Administration' (IPBA), a USAID-financed business school project on the US, MBA Model. Programs commenced in the PIIA building in Karachi, with technical support from the Wharton School of Finance & Commerce and the University of Pennsylvania, USA

1956

- Faculty set up at the Department of Commerce, Karachi University in collaboration with the University of Southern California
- Commenced offering Morning Program in (MBA) as a constituent unit of the Karachi University

1957

- Evening Programs launched in graduate studies (MBA)

1965

IBA Faculty and Dacca University jointly developed MBA Program, in collaboration with Kelly School of Business for MBA Programs, to begin in former East Pakistan

1968

2-Year BBA Program Introduced

1982

3-Year BBA (Hons) Program launched

1983

- MBA (MIS) Program launched
- Center for Computer Studies established in collaboration with IBM, Pakistan

1987

IBA declared Center of Excellence by the US Government through USAID

1990

MBA (Banking) Program introduced in collaboration with ANZ - Grindlays Bank

1993

BBA Program and MBA Executive Programs (self-financed) started at the City Campus

1994

Became independent of KU, received Charter as a fully autonomous and degree awarding institution.

1998

- BBA (MIS) Program introduced
- BS (Computer Science) Program launched

2002

- 4 -Year Undergraduate Program launched in Business Administration and in Computer Science

- Center for Executive Education (CEE) established

2004

NTHP (National Talent Hunt) Program) launched

2005

PhD (Computer Science) Program launched

2008

MS (Computer Science) Program launched

2009

- Center for Entrepreneurship Development (CED) established
- Executive MBA (weekend) Programs launched
- STHP (Sindh Talent Hunt Program) launched

2010

- Dean's List and Best Final Year Project Awards introduced
- MS (Economics) Program introduced
- IBA Corporate Leaders Advisory Board formed
- Memo of 10 years collaboration signed with Babson University

2011

- South Asia Quality Assurance Systems (SAQS) Accreditation received
- First student acquires a PhD degree from IBA
- Student exchange & study programs commenced with foreign universities

- IBA received membership of European Foundation for Management Development

- PhD (Economics) Program launched

- Center for Business and Economics Research (CBER) established

- MBA curriculum revamped including introducing requirement for 2 years of work experience

- Structured Mentoring and Student Development Programs started

- BBA curriculum revamped to make it a terminal degree

- BBA Entrepreneurship Program initiated
- Responsible Citizen Initiative Program introduced

- Responsible Citizen Initiative Program introduced
- Department of Mathematical Sciences and Department of Social Sciences & Liberal Arts established

2012

- 4-year BS (Economics & Mathematics) Program launched
- New streams (18 & 24 months) introduced in the MBA Program
- Memo of collaboration signed with the University of Malaya
- MS (leading to PhD Program in Economics & Math) launched
- Alumni crossed 10,000 graduates mark
- Overseas Chapters of IBA Alumni launched in UAE, UK, & Canada
- IBA registered as Education Provider of Project Management Institute
- MoU signed with the Indian School of Business (ISB) to promote Executive Education in Pakistan
- Personal Effectiveness Course Introduced
- MoU Signed with SP Jain Institute of Management Research

2013

- 4-year Undergraduate Program launched in Social Sciences & Liberal Arts
- 4-year Undergraduate Program launched in Accounting & Finance
- Memo of collaboration signed with the Institute of Chartered Accountants of Pakistan

2014

- Memo of collaboration signed with Chartered Institute of Management Accountants
- Memo of collaboration signed with Association of Chartered Certified Accountants
- Memo of collaboration signed with Institute of Bankers Pakistan

Development of Infrastructure

1955

Institute established in PIIA Building premises near Governor House, with 4 classrooms, a reading hall, and 2 offices (8000 sq.ft) in PIIA building on Havelock Road.

1961

Shifted to Kandawalla Building, M.A. Jinnah Road. Construction planned for a Campus each at Karachi University (Main) & Garden Road (City) Campus

1967

Construction completed; Morning and evening classes commenced at Main (1965) & City (1967) Campuses respectively

1993

- 2 story Building (FCS) added at the City Campus
- Boundary walls constructed around the IBA, Main Campus & Staff Town, demarcating IBA Land

1997

Acquired 8,459 sq. yards plot in North Nazimabad for Vocational Training Centre

2010

- Upgrading and renovation work of Adamjee Academic Block completed at the Main Campus
- Upgrading and renovation work of Cafeteria completed at the City Campus

2011

Upgrading and renovation work of Gani & Tayub Auditorium completed at the Main Campus

2012

- Newly constructed multipurpose building completed at the Main Campus
- Construction of Aman Center for Entrepreneurship Building completed at the Main Campus
- Upgrading and renovation work of Faysal Bank Academic Centre completed at the City Campus
- Upgrading and renovation work of Towfiq Chinoy Administration Building completed at the City Campus

2013

- Construction of Abdul Razzak Tabba Academic Block completed at the Main Campus
- Construction of Alumni Student Center completed at the Main Campus
- Construction of Sports Arena comprising a cricket ground, a football ground, two tennis courts, a basketball court, and volleyball courts completed at the Main Campus

- Upgrading and Renovation work Sir Anwer Pervez Boys Hostel completed at the Main Campus

- Construction of Captain Haleem Siddiqui (150 bed Boys Hostel) completed at the main campus

- Upgrading and renovation work of HBL Academic Center completed at the City Campus

- Construction of M. Habibullah Visiting Faculty Residence completed at the Main Campus

- Tier III Compliant Data Center inaugurated at the City Campus

- Power Generation Center and sewerage treatment plant commissioned

2014

- Construction of Parvez Abbasi Prayer Hall completed at the Main Campus
- Construction of New Girls Hostel (100 bed) completed at the IBA Staff Town
- Construction of 430 seats Jahangir Siddiqui Auditorium completed at the City Campus

2015

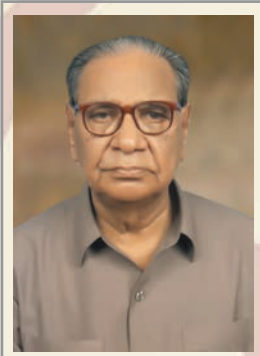
- Upgrading and Renovation works of Fauji Foundation Building completed at the Main Campus
- Upgrading and renovation works of Mian Abdullah Library entered final stages of completion at the Main Campus
- 14-Storey Aman Tower Building entered final stages of completion at the City Campus
- Work commenced on the construction of a 250 beds Block – B of the New Boys Hostel
- Overall covered area of buildings and structures at the IBA premises crossed the 750,000 sq.ft mark

Compiled by: The office of the Registrar - 2015

60 Years of Visionary Leadership



Dr. I.A Mukhtar
January 1962 – October 1972



Dr. Matin A. Khan
October 1972 – May 1976



Dr. Sharafat A. Hashmi
May 1976 – June 1984



Dr. Abdul Wahab
June 1984 – April 1995
November 1996 – July 1999



Dr. Hafiz A. Pasha
April 1995 – November 1996



Mr. Syed Fazle Hasan
July 1999 – November 1999



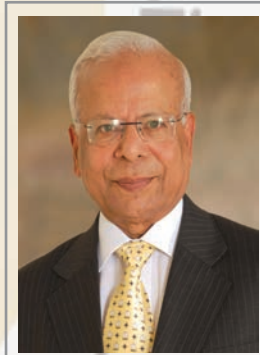
Dr. Zafar H. Zaidi
November 1999 – May 2000



Dr. Javed Ashraf
May 2000 – June 2002



Mr. Danishmand
June 2002 – March 2008



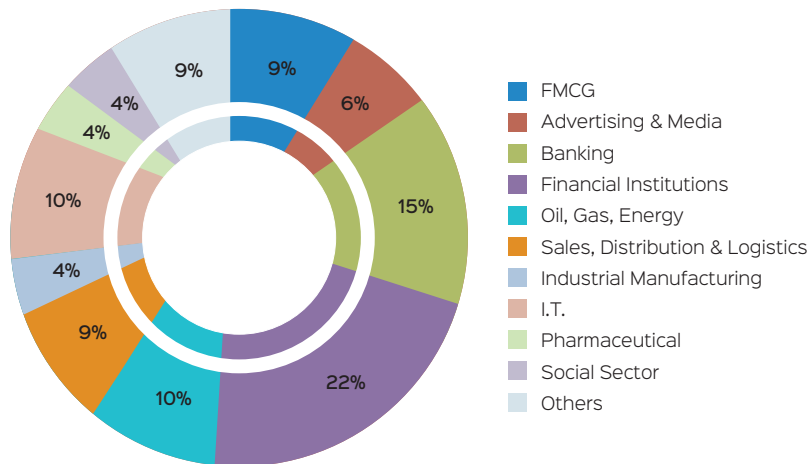
Dr. Ishrat Husain
March 2008 – Present

Career Development Center

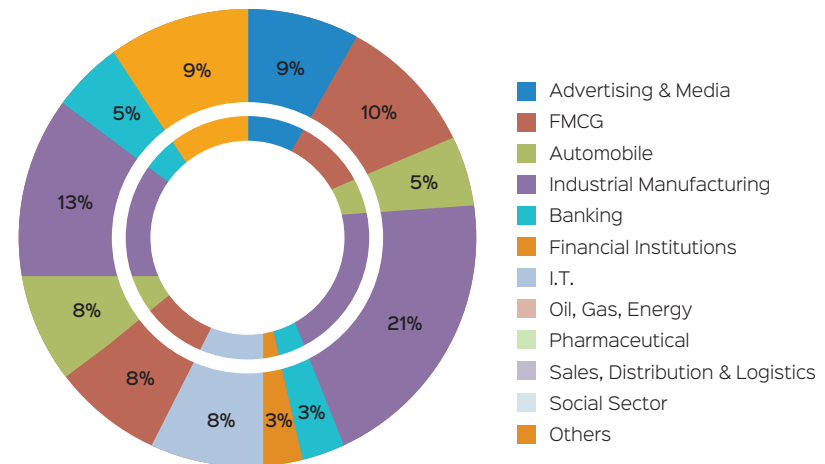
The Career Development Center (CDC) is dedicated to facilitate on board students, graduating apprentices and alumni in the overall process of self-evaluation. The Center works towards creating awareness about career opportunities, conducting career assessment & guidance, assisting in career development & job search, increasing the employability of IBA graduating students, developing strong and tangible linkages between employers and IBA graduates, and supporting IBA alumni in their career progression.

CDC strives to achieve its mandate by organizing workshops on different career themes & career specific seminars, conducting career planning sessions, providing one-to-one guidance & advisory services to the IBA students, arranging individual career counseling sessions, resume and cover letter reviews, mock interviews, publishing graduate directories, and facilitating our clients in internship and job search process. Moreover, the CDC assists students in identifying Internships, Apprenticeship, Externships and Job opportunities available within and outside of Pakistan. It also offers a wide range of career-related events to IBA students and alumni, and has partnered with employers from all sectors looking to recruit from our IBA community. CDC's main focus lies in building long term relationship with corporate, social and public sector organizations within Pakistan and also with international employers.

Undergraduate Program



Graduate Program



Responsible Citizen Initiative (RCI Program)

To strengthen our outreach to the community has been an essential ingredient of our current strategy. To enable this we have introduced 'IBA Student Community Service' as a project. It comprises of 6-8 week mandatory internship aimed at raising the level of awareness in 'IBA students, the future business leaders' on problems and challenges by the Social Sector in Pakistan. These internships are offered to our undergraduate programs' students specifically in the nonprofit and NGO sector. The focus of the project is to take the students outside of their comfort zone and connect them with those parts of the society with whom they may not have ever interacted. Through this initiative we hope to bring our students in direct contact with that segment of society that is not as blessed materially as them, they will be in a better position to become part of the solution rather than the problem. This involvement with those less privileged will also help them develop awareness about the larger, diverse environment which impacts our economy and businesses, thus enabling them to become more effective leaders with greater

empathy for the less well to do segments of the society. Our student body comprises among the best brains in Pakistan and we feel that the resource hungry Social Sector would be able to benefit enormously through their contributions during the summer months. This makes the Responsible Citizen Initiative Program a winwin proposition.

ELP Program

The ELP was introduced in January 2015 it is an integral part of the BBA program offered at the Institute of Business Administration, Karachi, the activity is spread over a period of four months. A group of 4-5 final semester students undertake a management consulting assignment in real life business environment related to managerial and organizational problems that need solutions. Under this program, students in the form of groups, will conduct primary and field research, analyze the issue that warrants investigation and find cost effective implementable solutions for partner organizations. The aim of this program does not only entail the acquisition of industry knowledge but also embodies an effort to introduce our students to prospective

organizations and increase their chances of employability in these companies. Students are made available for project from Monday-Friday with classes being held on Saturdays only. Some companies require students to attend office 5 days while others require once a week arrangement. Depending on the company, a small amount may be paid monthly to the students as stipend. Primary objective is to give them industry experience, monetary benefits are secondary. Companies could engage one or more student / groups in a relevant project with their organization in areas, not restricted to but may include:

- Management Control Systems
- Human Resource Restructuring
- Strategic Analysis & Management
- Marketing Strategy
- Supply Chain Management
- Resource Mobilization strategies
- Financial Management
- Process Re-engineering and Change Management
- New ventures / Feasibility Studies



S.No	Society / Club	Patron	Events Conducted in 2014-15
1	Adventure Club	Mr. Ameer Rizvi	- Snorkelling Trip - Paragliding Trip
2	Alumni Society	Mr. Mirza Sardar Hussain	- Alumni Reunion - Alumni Dinner
3	Arts Society	Ms. Sana Fatima	- Enigma - IBA Gallery (Arts Exhibition)
4	Boys Hostel Society	Mr. Jami Moiz	- Basant Celebration - Trip to Dreamworld Resort - Alumni Dinner
5	Boys' Sports Society	Mr. Asad Ilyas	- Sports Week (IBA Sports League) - IBA Premier League
6	Community Welfare Society	Ms. Saima Hussain	- Sufi Night - Comedy Night - Project Cleanistan Clean up drive
7	Computer Science Society	Dr. Sajjad Haider	- Google Dev Fest - Probattle - ConneXions 2014 - Mobile App Development Series
8	Dramatics Society	Dr. Framji Minwalla	- Fringe 2014 - Theatron 2015 - LUMS Dramafest Competition
9	Economics Club	Ms. Tahira Marium Jaffery	- EconomiCon Public lecture by Dr. Jean-Joseph Boillot - Monthly newsletter – "Ceteris Paribus"
10	Entrepreneurship Society	Dr. Shahid Qureshi	- IYEC 2014 - DICE-INVENT 2014
11	Finance Club	Dr. M. Ather Elahi	- Career counseling session with ICAP
12	Girls Hostel Society	Ms. Mahreen	-
13	Girls Sports Society	Ms. Farah Naz	- Girls Sports League - Muqabla Josh Ka
14	Go Green Society	Mr. Mirza Sardar Hussain	- Earth Hour
15	Human Resource Club	Ms. Nyla Aleem Ansari	- Annual HR Colloquium - Inspire

S.No	Society / Club	Patron	Events Conducted in 2014-15
16	Iqra Society	Mr. Muhammad Asif Jaffer	- Annual Islamic Conference 2015 - Workshop: Women Empowerment - Dua for Peshawar attack victims - Scattered Pearl Series (for Girls) - Workshop: Spiritual Cardiology
17	Leadership Club	Dr. Nasir Afghan	- IBLC - Distinguished Lecture Series
18	Literary Society	Ms. Ghazal Tahir	- Literary Society Mega - Play Yale - Shab-e-Fariq (Urdu Play) - Tajdeed-e-ehd-e-Wafa (Urdu Play)
19	Marketing Club	Mr. Jami Moiz	- Cultural Show and Food Festival - IBA Affair - Battle of the Brains - Brand & Advertising Conference
20	Mathematics & Astronomy Club	Dr. Danish Ali	- Launch IMAC - Book Reading Seminar - U/G Mathematics Workshop - Winter Workshop on Linear Algebra - Mathematika-15
21	MBA Club	Dr. Nasir Afghan	- Adaptive Leadership Workshop - Mentorship Session with different Corporate Leaders
22	Media & Communications Society	Ms. Nadia Zaffar	- Media Flash - IMARC 2014
23	Music Society	Ms. Yasmin Zafar	- IBA Music Olympiad - IBA IDOL
24	Photography Society	Mr. Ameer Rizvi	- Cook n Click - Convocation 2014
25	Placement Society	Mr. Mirza Sardar Hussain	- Career Fair
26	Public Speaking Society	Ms. Nadia Sayeed	- IBA IntraMUN 2014 - National Declamation Contest 2015 - Model United Nations - Turkey 2015 MUNIK 2014
27	Social Sciences Club	Dr. Syed Noman UI Haq	- DLS Session - POLITICK
28	IBA Wide Student Council (ISC)	Mr. S M Saeed	- Welcome - Farewell - Students' Beach Party

Activities Galore (Fall & Spring 2014)







Launch of Post-Graduate Diplomas

A simple ceremony was held on November 15th at the JS Auditorium, City Campus to launch three post-graduate diplomas (PGD) in Supply Chain Management, Human Resource Management and Health Care Management.

Pak-Afghan Trade Study

An IBA research team visited Kabul to meet and interview the officials of Afghan Government Ministries of Commerce and Industries, the Afghan Chamber of Commerce and Industries with regard to ongoing study on Pakistan – Afghan Trade in the post 2014 period. NBEAC Deans and Directors Conference IBA hosted the second Deans and Directors Conference of all Business Schools in Pakistan along with the National Business Education Accreditation Council (NBEAC). The Conference "Building Bridges, Fostering Collaborations in Business Education" was aimed at sharing experiences and initiating dialogue between business school heads, industry professionals and entrepreneurs.

Buy out of IBA start-up Company

We are pleased to announce that Stallion – a delivery and logistics management started by two IBA Entrepreneurship Students at the Aman-CED Incubation Centre became the first company to be bought out by ARY Services Ltd. Launch of Post Graduate Diploma in Family Business An open session was held at the Main Campus on 31 October to launch the first ever Post Graduate Diploma in Family Business at IBA.

Research Study on Textile In

IBA has won a research grant from the World Bank, through an open, competitive process, for conducting a research study on Textile Industry's Competitiveness in a liberalized India-Pakistan trade regime. The study is being carried out in collaboration with APTMA.

NBEAC Peer Review

A Peer Review team appointed by the National

Business Education Accreditation Council (NBEAC) visited IBA on December 18 and 19. They met with the students, faculty, management and alumni to make an assessment and submit their recommendations for accreditation of IBA

INVENT-DICE

This year's All Pakistan Business Plan Competition, INVENT, was different from the previous years. In collaboration with DICE Foundation of the USA the competing teams were asked to convert their business plans in form of prototypes.

Partnerships and Collaborations

- The first MoU was signed with Indus Hospital, one of the pre-eminent hospitals in town with excellent management and facilities.
- In continuation of our efforts to bring as many professional qualifications under the ambit of our B.S. Accounting and Finance Program, an MoU was signed with ACCA (Association of Certified Chartered Accountants).
- A first ever thirteen member delegation of IBA students led by Dr. Azam Ali and Ms. Lalarukh Ejaz spent 15 days at the Hyderabad and Mohali Campuses of the Indian School of Business.
- An MoU was signed with Liaquat National Hospital that would enable the students of Post Graduate Diploma in Health Management at IBA to use the LNH facilities for practical applications.
- An MoU was signed between IBA and the Institute of Management and Technology, Ghaziabad – a ranking Business School of India on the occasion of the Global Partners' conclave held in Ghaziabad.
- A Memorandum of Association (MoA) was signed between IBA and Virtual University

(VU). IBA Faculty members would be using the VU platform to reach out thousands of students interested in Entrepreneurship

- An MoU was signed with the Bank of Tokyo for establishing a Scholarship fund amounting to US\$ 6,000/- for financing undergraduate and graduate students.



JS Auditorium

The inaugural ceremony of the newly built Jahangir Siddiqui Auditorium took place on September 30. About 300 guests from all walks of life attended the event.



Prime Ministers Laptop Scheme

HEC deliver 331 laptops to the students of IBA under the PM's Laptop Scheme.



IBA Wins NBEAC Accreditation

IBA has been placed among the top of the accredited Business Schools in Pakistan. It is with great pleasure that we announce that the National Business Education Accreditation Council (NBEAC) – the HEC body responsible for Business Schools has awarded IBA the highest category 'W' with full accreditation for four years up to 2018.

**Women Entrepreneurship Training**

The first ever training course aimed at Women Entrepreneurs was launched on September 12 at the CED in Collaboration with the World Bank. Under this program, a cohort of 50 women who are running their businesses would be given four months' intensive hands-on business education training.

Visitors Log

- Mr. Pradeep Singh, Deputy Dean & CEO, Indian School of Business
- Prof. Dr. Shailendra Raj Mehta, Vice Chancellor Ahmedabad University and Visiting Prof. at IIM, Ahmedabad & the Indian School of Business
- Dr. Khurram Jahangir Sharif, Assistant Professor of Marketing, Qatar University

- Dr. Sarfraz Mian, Professor of Strategic Management and Entrepreneurship at State University of New York.
- Khawaja Tanveer Ahmed, Member Human Resources, Federal Board of Revenue accompanied by Mr. Ghulam Ahmed, DG Customs Training.



- Dr. Sohail Naqvi, Vice Chancellor, LUMS.
- Mr. Khurram Dastagir Khan, Federal Minister of Commerce.
- Ms. Zubeida Mustafa, noted journalist and author.
- Delegation from East West Centre, Hawaii, USA.



- HE Mr. Brian Heath, US Consul General.
- Mr. Magdi Batato, CEO and Mr. Waqar Ahmed, Director, Nestle' Pakistan
- Ciaran Devanne, CEO British Council, along with Mr. Peter Upton, Country Director.



- Mr. Zahid Hasnain of the World Bank, Washington,
- HE Jasper Moeller Sorensen Denmark's Ambassador to Pakistan,
- Dr. Shamshad Akhtar, Executive Secretary of UNESCAP and Former Governor, State Bank of Pakistan.



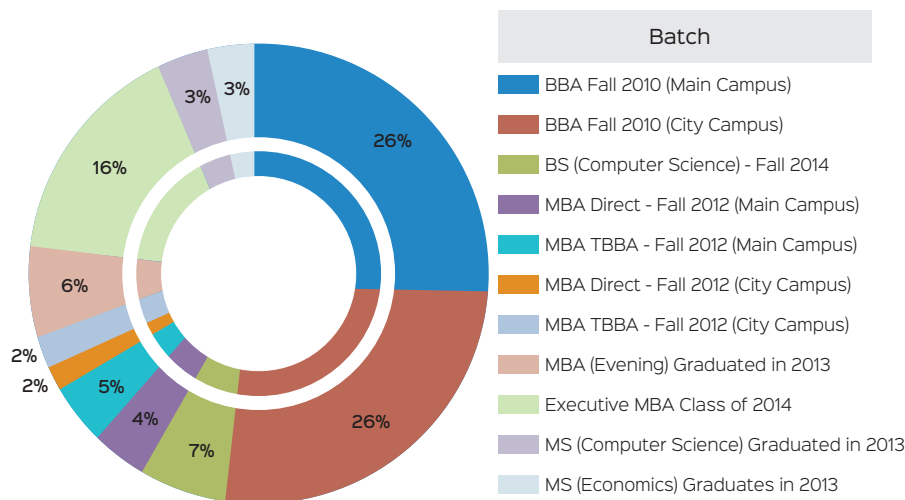
The Annual Convocation was held on December 6, 2014. It was a historic event, presided over by, H.E. Mr. Mamnoon Hussain, President of Islamic Republic of Pakistan and an IBA Alumnus. At the Convocation, some 285 undergraduates and 212 graduates (male 61 percent and female 31 percent) were conferred degrees on the successful completion of their respective programs. About 1500 persons including the Governor of Sindh, Dr. Ishratul Ebad Khan, dignitaries, distinguished alumni, parents of graduating students, and a large number of prominent professionals from the corporate and industrial sectors, were present at this memorable event.

The proceedings of the Convocation included the conferment of the degree of Doctorate in Management ('Honoris Causa') on Mr. Mamnoon Hussain, and the distribution of medals, shields, and certificates to 35 graduating students. Moreover, 24 faculty and staff members who were high achievers during 2014 received Performance Awards.

On this occasion, the President also announced a donation of Rs. 10 million towards IBA Endowment Fund. In his address he deeply lauded the efforts made to give IBA a new face, while maintaining its traditions and core values. He advised the graduating students to safeguard the values imbibed in them and dedicate themselves to building a better Pakistan for today and tomorrow.



Anatomy of the Graduating Batches (2014)



Year

Cumulating Total Graduates

1957 - 2003	6178
2004	6473
2005	6805
2006	7067
2007	7417
2008	7875
2009	8373
2010	8857
2011	9467
2012	9912
2013	10341
2014	10744





Hunaira

“The four years spent at IBA were full of unforgettable experiences. I was fortunate to have a Dean and a Faculty who were always willing to discuss anything at all, be it an issue we were facing or an idea we came up with. These memories shall remain with me for a lifetime.”

“IBA has given me the confidence to not only understand, but hopefully one day lead business in my country. This deep understanding of business was inculcated in me by a highly qualified faculty, disciplined environment and diverse extra-curricular activities through which I was able to grasp the true essence of management. It won't be wrong to say that IBA is truly a world-class business school.”

Muhammad
ShehmirNuzhat Ara
Tariq

“IBA. Just saying the name out loud stirs the kaleidoscope of lively memories. From struggling at calculus to acing brand management, the learning experience has helped me discover my potential to the fullest. Be it leading a group for a term-long project or participating in a lemon-spoon race for class activity, IBA will teach you to excel in all the fields of professional life.”



Undergraduate Programs

- ✧ Bachelor of Business Administration (BBA)
- ✧ Bachelor of Business Administration (BBA) Entrepreneurship
- ✧ Bachelor of Science (BS) Accounting & Finance
- ✧ Bachelor of Science (BS) Computer Science
- ✧ Bachelor of Science (BS) Economics & Maths
- ✧ Bachelor of Science (BS) Social Sciences & Liberal Arts



Bachelor of Business Administration (BBA) Program

The BBA program comprises of four years of rigorous education enabling the student to have a broad view of the world. The students go through an academic program that not only emphasizes the essentials of business subjects; but also introduces them to the basic concepts of social sciences and liberal arts. In their freshman and sophomore years, students study subjects such as history, anthropology, psychology, philosophy and logic and media study. Students have an option to choose from a group of social science and liberal arts courses. Additionally, students are also required to choose among three foreign languages (Arabic, Chinese and French). Students go through two semesters of training in the language of their choice. IBA is now introducing a study of culture and history to go with the language of their choice. For example, if they choose French, they will be introduced to the history and culture of France and Francophone Africa. This will add to the marketability of our BBA graduates.

Subsequent to an audit of our BBA program, the course structure has been modified to introduce a group of electives as majors. In the past, students only had the choice to specialize in either Marketing or Finance. With our new BBA program, students can choose among a host of electives to major in Marketing, Finance, Human Resource, Entrepreneurship, and MIS.

As of 2010, based on the feedback from our own alumni, human resource representatives of major corporations and some of the chief executives of the companies; we have included the aspect of experiential knowledge into the curriculum of our BBA program. Students now undergo a six months on-the-job training in the real business environment. They spend their last semester (eighth semester) working in a business of their choice. This not only allows them to network with their future employers, but it also introduces them to the challenges of the real business world.

All BBA students are required to enroll for Personal Effectiveness, a non-credit course offered during the 6th & 7th semester.

Curriculum Structure

Duration	4 years
Semesters	8
Courses	49
Total Credit Hours	147

Required Courses

Section	Knowledge Area	Courses
A	University Core Courses	4
B	Business Core Courses	26
C	Business Electives	10
D	Non - Specialization Courses	12
	Total Courses	46

A. University Core Courses

Course Title	Course Code	Credit Hours	Pre-Requisite
English Grammar & Composition	SSC101	3	-
Speech Communication	HUM201	3	-
Socioeconomic Philosophy of Islam	SSC301	3	-
Pakistan History	SSC151	3	-

B. Business Core Courses

Course Title	Course Code	Credit Hours	Pre-Requisite
Intermediate Microeconomics	ECO201	3	-
Principles of Accounting	ACC111	3	-
Intermediate Macroeconomics	ECO202	3	-
Principles of Management	MGT201	3	-
Financial Accounting	ACC201	3	ACC111
Organizational Behavior	MGT221	3	SSC102, MGT201
Principles of Marketing	MKT201	3	-

B. Business Core Courses *(Contd...)*

Course Title	Course Code	Credit Hours	Pre-Requisite
Introduction to Business Finance	FIN201	3	-
Financial Institutions and Markets	FIN301	3	FIN201
Business Communication (2+1 CH)	MGT211	3	MGT201, SSC102
Financial Management	FIN401	3	FIN201
Analysis of Pakistani Industries	ECO211	3	ECO103 / ECO201 & ECO104 / ECO202
Management Accounting	ACC381	3	ACC111, ACC201
Business Law	LAW205	3	-
Methods of Business Research	MKT301	3	MKT201, MTS202
Human Resource Management	HRM401	3	MGT201, MKT201
Development Economics	ECO301	3	ECO103 / ECO201 & 104 / ECO202
Production and Operations Management	MGT311	3	FIN201, MGT201, MKT201
Marketing Issues in Pakistan	MKT401	3	MKT201
Small Business Management	MGT401	3	FIN201, MGT201, MKT201
Managerial Policy	MGT430	3	ECO103, ECO201, FIN201, HRM401, MGT201, MGT211, MGT221, MKT201
Experiential Knowledge	RJ490	12	Equivalent to 4 courses
Philosophy, Logic & Ethics	HUM357	3	-
Foundation of Human Behavior	SSC102	3	-
International Relations	SSC111	3	-
Language-I	SSCXXX	3	-
Language-II	SSCXXX	3	-
Personal Effectiveness	SSC240	3	SSC201

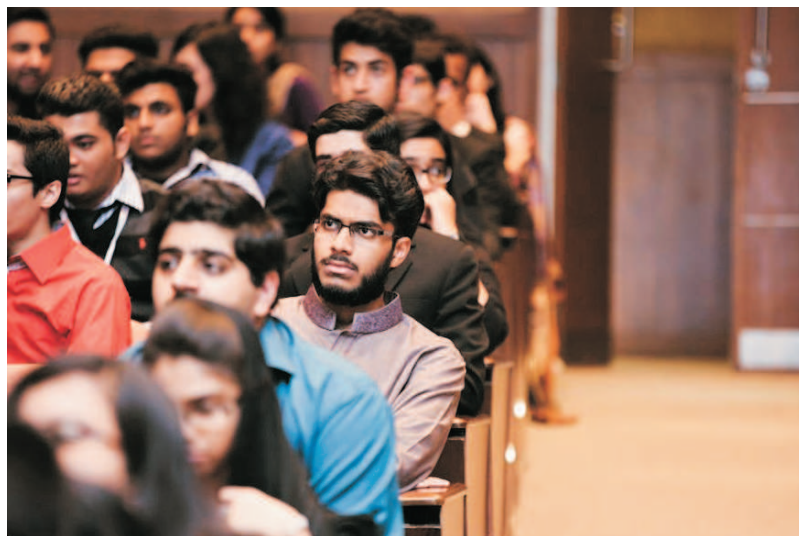
C. Business Electives

Course Title	Course Code	Credit Hours	Pre-Requisite
Accounting Information System with SAP*	ACC507*	3	-
Analysis of Financial Statements*	ACC561*	3	ACC201
Corporate Governance & Practices in Pakistan*	LAW553*	3	LAW501
Microeconomics	ECO312	3	ECO201
Introduction to Econometrics	ECO341	3	ECO103 / ECO201, ECO104 / ECO202 & MTS202
Applied Econometrics	ECO342	3	ECO341
International Trade	ECO511	3	ECO103 / ECO201



C. Business Electives *(Contd...)*

Course Title	Course Code	Credit Hours	Pre-Requisite
Major Issues in Pakistan Economy	ECO403	3	ECO103 / ECO201 & ECO104 / ECO202
Research Methods in Economics	ECO411	3	ECO103 / ECO201, ECO104 / ECO104 & MTS202
Public Finance	ECO451	3	ECO103 / ECO201, ECO104 / ECO202
Islamic Economic System	ECO452	3	ECO103 / ECO201, ECO104 / ECO202
Labor Economics	ECO654	3	ECO103 / ECO201, ECO104 / ECO202
Population Economics	ECO454	3	ECO103 / ECO201, ECO104 / ECO202
Comparative Economic System	ECO455	3	ECO103 / ECO201, ECO104 / ECO202
Economics and Strategy	ECO456	3	ECO103 / ECO201, ECO104 / ECO202
Natural Resource and Environmental Economics	ECO461	3	ECO103 / ECO201, ECO104 / ECO202
Rural Development	ECO462	3	ECO103 / ECO201, ECO104 / ECO202
Financial Economics	ECO562	3	ECO103 / ECO201, ECO104 / ECO202
Game Theory	ECO464	3	ECO103 / ECO201, & MTS101
International Political Economy	ECO465	3	ECO103 / ECO201, ECO104 / ECO202
Monetary Economics	ECO566	3	ECO103 / ECO201, ECO104 / ECO202
History of Economic Thought	ECO467	3	ECO103 / ECO201, ECO104 / ECO202
Agriculture Economics	ECO468	3	ECO103 / ECO201, ECO104 / ECO202
Regional Economics	ECO469	3	ECO103 / ECO201, ECO104 / ECO202
Health Economics	ECO471	3	ECO103 / ECO201, ECO104 / ECO202



C. Business Electives *(Contd...)*

Course Title	Course Code	Credit Hours	Pre-Requisite
Urban Economics	ECO472	3	ECO103 / ECO201, ECO104 / ECO202
Welfare Economics	ECO473	3	ECO103 / ECO201
Resource Economics	ECO474	3	ECO103 / ECO201, ECO104 / ECO202
Investment Banking	FIN451	3	ECO103 / ECO201, ECO104 / ECO202 & FIN401
International Finance	FIN452	3	ECO104 / ECO202 & FIN401
Security Analysis	FIN453	3	FIN401
Corporate Finance	FIN454	3	FIN401
Portfolio Management	FIN455	3	FIN401
Financial Risk Management	FIN456	3	FIN401
Derivatives	FIN457	3	FIN401
Fundamentals of Treasury and Fund Management	FIN458	3	FIN401
Recruitment and Selection Techniques	HRM430	3	MGT201, HRM401
Occupational Health and Safety	HRM445	3	MGT201, HRM401
Industrial Relations Management	HRM451	3	MGT201, HRM401
Organizational Analysis and Research	HRM452	3	MGT201, HRM401
Life Career Development	HRM453	3	MGT201, HRM401
Executive Leadership	HRM455	3	MGT201, HRM401
Training and Development	HRM456	3	MGT201, HRM401
HR and Information System	HRM457	3	MGT201, HRM401



C. Business Electives *(Contd...)*

Course Title	Course Code	Credit Hours	Pre-Requisite
Leading the Change Process	HRM458	3	MGT201, HRM401
Performance and Compensation Management	HRM462	3	MGT201, HRM401
Ethics in a Corporate Society	MGT301	3	MGT201, ACC201, MKT201
Management Theory and Practice	MGT400	3	-
Comparative Management	MGT411	3	MGT201, MKT201, MGT221
Entrepreneurship	MGT421	3	MGT201, FIN201, MKT201
Advertising	MKT451	3	MKT201
Consumer Behavior	MKT452	3	MKT201, MKT301
Sales Management	MKT453	3	MKT201, MKT401
Personal Selling	MKT454	3	MKT201, MKT401
Retail Management	MKT455	3	MKT201
Export Marketing	MKT456	3	MKT201
Dynamics of Distribution and Logistics	MKT457	3	MKT201
Public Relations	MKT458	3	MKT201
Direct Marketing	MKT460	3	MKT201
Brand Management	MKT461	3	MKT201
Essentials of Demand & Supply	MKT462	3	MKT201
Major Themes in World History	SSC121	3	-
Culture, Media & Society	SSC216	3	-
Research Methods in Social Sciences	SSC154	3	-
History of Ideas - I	SSC239	3	-
Fundamentals of Sociology	SSC231	3	-
Introduction to Social & Cultural Anthropology	SSC233	3	-
Creative Writing	HUM360	3	-
History of Ideas - II	HUM238	3	-
Introduction to Historical Methods	SSC232	3	-

D. Non - Specialization

Course Title	Course Code	Credit Hours	Pre-Requisite
Introduction to Computer Applications	MIS103	3	-
Calculus with Applications-I	MTS104	3	-
Calculus with Applications-II	MTS106	3	MTS101/ MTS104
Introduction to Statistics	MTS102	3	MTS105
Statistical Inference (with econometrics lab)	MTS202	3	MTS101/ MTS104
Business Mathematics and Linear Algebra	MTS212	3	MTS101/ MTS104
Non - Specialization Elective Courses			
<i>One Social Sciences Elective from the following:</i>			
Major Themes in World History	SSC121	3	-
Culture, Media & Society	SSC216	3	-
Research Methods in Social Sciences	SSC154	3	-
History of Ideas - I	SSC239	3	-
Fundamentals of Sociology	SSC231	3	-
Introduction to Social & Cultural Anthropology	SSC233	3	-
Creative Writing	HUM360	3	-
History of Ideas - II	HUM238	3	-
Introduction to Historical Methods	SSC232	3	-



Semester-wise Sequence of Courses

FRESHMAN	Semester - 1	Course Code	Credit Hours	Pre-Requisite
1	Intermediate Microeconomics	ECO201	3	-
2	English Grammar & Composition	SSC101	3	-
3	Foundations of Human Behavior or International Relations	SSC102 / SSC111	3	-
4	Introduction to Computer Applications	MIS103	3	-
5	Calculus with Applications-I	MTS104	3	-
6	Philosophy, Logic & Ethics	HUM357	3	-
	Semester - 2	Course Code	Credit Hours	Pre-Requisite
1	Principles of Accounting	ACC111	3	-
2	Intermediate Macroeconomics	ECO202	3	-
3	Principles of Management	MGT201	3	-
4	Calculus with Applications - II	MTS106	3	MTS101 / MTS104
5	Introduction to Statistics	MTS102	3	-
6	International Relations or Foundation of Human Behavior	SSC102 / SSC111	3	-
7	Speech Communication	HUM201	1+2	-
SOPHOMORE	Semester - 3	Course Code	Credit Hours	Pre-Requisite
1	Financial Accounting	ACC201	3	ACC111
2	Organizational Behavior	MGT221	3	SSC102, MGT201
3	Statistical Inference (with econometrics lab)	MTS202	3	MTS101, MTS102
4	Principles of Marketing	MKT201	3	
5	Pakistan History	SSC151	3	ECO103, ECO201, ECO104, ECO202
6	Introduction to Business Finance	FIN201	3	
	Semester - 4	Course Code	Credit Hours	Pre-Requisite
1	Socioeconomic Philosophy of Islam	SSC301	3	-
2	Financial Institutions and Markets	FIN301	3	FIN201
3	Business Communication (2+1 CH)	MGT211	3	MGT201, SSC102
4	Financial Management	FIN401	3	FIN201
5	Business Mathematics and Linear Algebra	MTS212	3	MTS101 / MTS104
6	Analysis of Pakistani Industries	ECO211	3	ECO103, ECO201, ECO104, ECO202

Semester-wise Sequence of Courses

JUNIOR	Semester - 5	Course Code	Credit Hours	Pre-Requisite
1	Management Accounting	CC381	3	ACC111, ACC201
2	Business Law	LAW205	3	-
3	Production and Operations Management	MGT311	3	MKT201, MTS202
4	Human Resource Management	HRM401	3	MGT201, MKT201
5	Development Economics	ECO301	3	ECO 103, ECO201, ECO104, ECO202
6	Personal Effectiveness	SSC240	3	SSC201
7	Social Science Elective	SSCXXX	3	-
	Semester - 6	Course Code	Credit Hours	Pre-Requisite
1	Production and Operations Management	MGT311	3	FIN201, MGT201, MKT201
2	Marketing Issues in Pakistan	MKT401	3	MKT201
3	Small Business Management	MGT401	3	FIN201, MGT201, MKT201
4	Language-I	SSCXXX	3	-
5	BE*	-	3	-
6	BE*	-	3	-
SENIOR	Semester - 7	Course Code	Credit Hours	Pre-Requisite
1	Managerial Policy	MGT430	3	ECO103, ECO201, FIN201, HRM401, MGT201, MGT211, MGT221, MKT201
2	Language-II	SSCXXX	3	-
3	BE*	-	3	-
4	BE*	-	3	-
5	BE*	-	3	-
6	BE*	-	3	-
	Semester - 8	Course Code	Credit Hours	Pre-Requisite
1	Experiential Knowledge	PRJ490	12	Equivalent to 4 courses
2	BE*	-	3	-
3	BE*	-	3	-

Important Note:

- Students are eligible to carry out their Responsible Citizen Internship (RCI) after their first semester and should fulfill this graduation requirement before the end of their fourth semester.
- Corporate Internship can only be carried out in the sixth semester (i.e. after completion of all the courses till fifth semester; mentioned in semester break up above)



Bachelor of Business Administration (Entrepreneurship) Program

BBA-Entrepreneurship is an activity-based learning program, which is taught at the IBA AMAN Center for Entrepreneurial Development in collaboration with Babson College of Entrepreneurship, Boston (USA). This program is spread over a span of 4 years, which includes 8 semesters and 147 credit hours. The curriculum is designed as such that it integrates core business & entrepreneurship courses along with practical activities throughout the program's tenure.

The first and second semester comprises of various entrepreneurial activities, visits to entrepreneurs, and guest speaker sessions. This is aimed at stimulating an entrepreneurial spirit in the students and exposing them to the real life businesses. In the third and fourth

semester, each student is enrolled in the Foundation for Management and Entrepreneurship (FME) course I and II respectively in order to complete their specialization in entrepreneurship. During the two FME courses, each student is required to launch a business. IBA AMAN CED provides students with business training/ mentorship and some financial assistance. Students are also entitled to take 39 core courses and 8 business electives apart from FME I and II. By the end of second year students are required to do a 'Social Internship' which can be done at any NGO, school or hospital.

By the end of third year of BBA Entrepreneurship, the students are required to do a Shadow an Entrepreneur internship. They work with an entrepreneur and are required to carry out designated tasks assigned to them by the entrepreneur. Students working with entrepreneurs get an

edge by gaining experience of running and managing a company from an entrepreneurial perspective. Students also get a chance to go to Babson College Summer exchange program at the end of third year, and scholarships are given to competitive students by Babson College. Similarly, in the fourth year of their studies, students are required to do 'experiential learning program' either by doing an extended Shadow an Entrepreneur for about 4-6 months or by launching their own businesses.

IBA AMAN Center for Entrepreneurial Development encourages students to go for start ups. It has its incubation space with currently over 40 running businesses, which are being promoted using various channels. The AMAN CED has opened new avenues of growth and economic development for the country where employment opportunities have miserably shrunk over the past few years.



CED's External Linkages



Curriculum Structure

Duration	4 years
Semesters	8
Courses	49
Total Credit Hours	147

Required Courses

Section	Knowledge Area	Courses
A	University Core Courses	4
B	Entrepreneurship Core Courses	2
C	Business Core Courses	25
D	Business Electives	7
E	Non - Specialization Courses	11
	Total Courses	49

A. University Core Courses

Course Title	Course Code	Credit Hours	Pre-Requisite
English Grammar & Composition	SSC101	3	-
Speech Communication	HUM201	3	SSC101
Socioeconomic Philosophy of Islam	SSC301	3	-
Pakistan History	SSC151	3	-

B. Entrepreneurship Core Courses

Course Title	Course Code	Credit Hours	Pre-Requisite
Foundation for Management & Entrepreneurship(FME) - I	MGT102	3	-
Foundation for Management & Entrepreneurship (FME) - II	MGT103	3	-



C. Business Core Courses

Course Title	Course Code	Credit Hours	Pre-Requisite
Intermediate Microeconomics	ECO201	3	-
Principles of Accounting	ACC111	3	-
Intermediate Macroeconomics	ECO202	3	-
Principles of Management	MGT201	3	-
Financial Accounting	ACC201	3	ACC111
Organizational Behavior	MGT221	3	SSC102, MGT201
Principles of Marketing	MKT201	3	-
Introduction to Business Finance	FIN201	3	-
Financial Institutions and Markets	FIN301	3	FIN201
Business Communication (2+1 CH)	MGT211	3	MGT201, SSC102
Financial Management	FIN401	3	FIN201
Analysis of Pakistani Industries	ECO211	3	ECO103 / ECO201 & ECO104 / ECO202
Management Accounting	ACC381	3	ACC111, ACC201
Business Law	LAW205	3	-
Methods of Business Research	MKT301	3	MKT201, MTS202
Human Resource Management	HRM401	3	MGT201, MKT201
Development Economics	ECO301	3	ECO103 / ECO201 & 104 / ECO202
Production and Operations Management	MGT311	3	FIN201, MGT201, MKT201
Marketing Issues in Pakistan	MKT401	3	MKT201
Small Business Management	MGT401	3	FIN201, MGT201, MKT201
Managerial Policy	MGT430	3	ECO103, ECO201, FIN201, HRM401, MGT201, MGT211, MGT221, MKT201
Experiential Knowledge*	RJ490	12	Equivalent to 4 courses
Philosophy, Logic & Ethics	HUM357	3	-
Foundation of Human Behavior	SSC102	3	-

***BBA Entrepreneurship Students have three options:**

1. Start own business
2. Shadow an Entrepreneur (at a local firm or corporate)
3. Internship with an Entrepreneur or a corporation

D. Business Electives

Course Title	Course Code	Credit Hours	Pre-Requisite
Marketing for Entrepreneurs	ENT451	3	-
Entrepreneurial Finance	ENT452	3	-
Business Law for Entrepreneurs	ENT453	3	-
Entrepreneurial Management	ENT454	3	-
Family Business Management	ENT455	3	-
Developing Entrepreneurial Opportunities	ENT456	3	-
Financing Entrepreneurial Ventures	ENT459	3	-
New Technology Ventures	ENT460	3	-
Women's Entrepreneurship & Leadership	ENT457	3	-
Sustainable Entrepreneurship Strategies	ENT461	3	-
Creativity and Innovation	ENT463	3	-
Social Entrepreneurship	ENT458	3	-
Entrepreneurial Sales Strategy	ENT 464	3	-
Corporate Entrepreneurship	ENT462	3	-
Co-Curricular Activities	ENT465	3	-
Accounting Information System with SAP*	ACC507*	3	-
Analysis of Financial Statements*	ACC561*	3	ACC201
Corporate Governance & Practices in Pakistan*	LAW553*	3	LAW501
Microeconomics	ECO312	3	ECO201
Intermediate Microeconomics	ECO201	3	ECO202
Introduction to Econometrics	ECO341	3	ECO103 / ECO201, ECO104 / ECO202 & MTS202
Applied Econometrics	ECO342	3	ECO341
International Trade	ECO512	3	ECO103 / ECO201
Major Issues in Pakistan Economy	ECO403	3	ECO103 / ECO201 & ECO104 / ECO202
Research Methods in Economics	ECO411	3	ECO103 / ECO201, ECO104 / ECO104 & MTS202
Public Finance	ECO451	3	ECO103 / ECO201, ECO104 / ECO202
Islamic Economic System	ECO452	3	ECO103 / ECO201, ECO104 / ECO202
Labor Economics	ECO654	3	ECO103 / ECO201, ECO104 / ECO202
Population Economics	ECO454	3	ECO103 / ECO201, ECO104 / ECO202
Comparative Economic System	ECO455	3	ECO103 / ECO201, ECO104 / ECO202

* Subject to availability & required good average grade point

D. Business Electives (Contd...)

Course Title	Course Code	Credit Hours	Pre-Requisite
Economics and Strategy	ECO456	3	ECO103 / ECO201, ECO104 / ECO202
Natural Resource and Environmental Economics	ECO461	3	ECO103 / ECO201, ECO104 / ECO202
Rural Development	ECO462	3	ECO103 / ECO201, ECO104 / ECO202
Financial Economics	ECO562	3	ECO103 / ECO201, ECO104 / ECO202
Game Theory	ECO464	3	ECO103 / ECO201, & MTS101
International Political Economy	ECO465	3	ECO103 / ECO201, ECO104 / ECO202
Monetary Economics	ECO566	3	ECO103 / ECO201, ECO104 / ECO202
History of Economic Thought	ECO467	3	ECO103 / ECO201, ECO104 / ECO202
Agriculture Economics	ECO468	3	ECO103 / ECO201, ECO104 / ECO202
Regional Economics	ECO469	3	ECO103 / ECO201, ECO104 / ECO202
Health Economics	ECO471	3	ECO103 / ECO201, ECO104 / ECO202
Urban Economics	ECO472	3	ECO103 / ECO201, ECO104 / ECO202
Welfare Economics	ECO473	3	ECO103 / ECO201
Resource Economics	ECO474	3	ECO103 / ECO201, ECO104 / ECO202
Investment Banking	FIN451	3	ECO103 / ECO201, ECO104 / ECO202 & FIN401
International Finance	FIN452	3	ECO104 / ECO202 & FIN401
Security Analysis	FIN453	3	FIN401
Corporate Finance	FIN454	3	FIN401
Portfolio Management	FIN455	3	FIN401
Financial Risk Management	FIN456	3	FIN401
Derivatives	FIN457	3	FIN401
Fundamentals of Treasury and Fund Management	FIN458	3	FIN401
Recruitment and Selection Techniques	HRM430	3	MGT201, HRM401
Occupational Health and Safety	HRM445	3	MGT201, HRM401
Industrial Relations Management	HRM451	3	MGT201, HRM401
Organizational Analysis and Research	HRM452	3	MGT201, HRM401
Life Career Development	HRM453	3	MGT201, HRM401
Executive Leadership	HRM455	3	MGT201, HRM401
Training and Development	HRM456	3	MGT201, HRM401
HR and Information System.	HRM457	3	MGT201, HRM401
Leading the Change Process	HRM458	3	MGT201, HRM401
Performance and Compensation Management	HRM462	3	MGT201, HRM401
Ethics in a Corporate Society	MGT301	3	MGT201, ACC201, MKT201

D. Business Electives *(Contd...)*

Course Title	Course Code	Credit Hours	Pre-Requisite
Management Theory and Practice	MGT400	3	-
Comparative Management	MGT411	3	MGT201, MKT201, MGT221
Entrepreneurship	MGT421	3	MGT201, FIN201, MKT201
Advertising	MKT451	3	MKT201
Consumer Behavior	MKT452	3	MKT201, MKT301
Sales Management	MKT453	3	MKT201, MKT401
Personal Selling	MKT454	3	MKT201, MKT401
Retail Management	MKT455	3	MKT201
Export Marketing	MKT456	3	MKT201
Dynamics of Distribution and Logistics	MKT457	3	MKT201
Public Relations	MKT458	3	MKT201
Direct Marketing	MKT460	3	MKT201
Brand Management	MKT461	3	MKT201
Essentials of Demand & Supply	MKT462	3	MKT201
International Relations	SSC111	3	-
Major Themes in World History	SSC121	3	-
Pakistan History	SSC151	3	-
Culture, Media, Society	SSC216	3	-
Research Methods in Social Sciences	SSC154	3	-
History of Ideas - I	SSC239	3	-
Fundamental of Sociology	SSC231	3	-
Introduction to Social & Cultural Anthropology	SSC233	3	-
Creative Writing	HUM360	3	-



E. Non - Specialization

Course Title	Course Code	Credit Hours	Pre-Requisite
Introduction to Computer Applications	MIS103	3	-
Calculus with Applications - I	MTS104	3	-
Calculus with Applications - II	MTS106	3	MTS101 / MTS104
Introduction to Statistics	MTS102	3	-
International Relations	SSC111	3	-
Statistical Inference (with econometrics lab)	MTS202	3	MTS101 / MTS104
Business Mathematics and Linear Algebra	MTS212	3	MTS101 / MTS104
Corporate Social Responsibility	SSC253	3	-
Language-I	SSCXXX	3	-
Language-II	SSCXXX	3	-



Semester-wise Sequence of Courses

FRESHMAN	Semester - 1	Course Code	Credit Hours	Pre-Requisite
1	Intermediate Microeconomics	ECO201	3	-
2	English Grammar & Composition	SSC101	3	-
3	Foundations of Human Behavior	SSC102	3	-
4	Calculus with Applications - I	MTS104	3	-
5	Philosophy, Logic & Ethics	HUM357	3	-
6	Pakistan History	SSC151	3	-
	Semester - 2	Course Code	Credit Hours	Pre-Requisite
1	Principles of Accounting	ACC111	3	-
2	Intermediate Macroeconomics	ECO202	3	-
3	Principles of Management	MGT201	3	-
4	Calculus with Applications - II	MTS106	3	MTS101 / MTS104
5	Introduction to Statistics	MTS102	3	MTS105
6	Socioeconomic Philosophy of Islam / Philosophy, Logic & Ethics	SSC301/HUM357	3	-
7	Speech Communication	HUM201	1+2	SSC101
SOPHOMORE	Semester - 3	Course Code	Credit Hours	Pre-Requisite
1	Foundations of Management & Entrepreneurship - I	MGT102	3	-
2	Principles of Accounting - II	ACC201	3	ACC111
3	Organizational Behavior	MGT221	3	SSC102, MGT201
4	Statistical Inference (with econometrics lab)	MTS202	3	MTS101 / MTS104
5	Principles of Marketing	MKT201	3	-
6	Introduction to Business Finance	FIN201	3	-
	Semester - 4	Course Code	Credit Hours	Pre-Requisite
1	Foundations of Management & Entrepreneurship - II	MGT103	3	FME I
2	Financial Institutions & Markets	FIN301	3	FIN201
3	Business Communication (2+1 CH)	MGT211	3	MGT201, SSC102
4	Financial Management	FIN401	3	FIN201
5	Business Mathematics & Linear Algebra	MTS212	3	MTS101
6	Analysis of Pakistani Industries	ECO211	3	ECO103 / ECO201 & ECO104 / ECO202

Semester-wise Sequence of Courses

JUNIOR	Semester - 5	Course Code	Credit Hours	Pre-Requisite
1	Managerial Accounting	CC381	3	CC201
2	Business Law	LAW205	3	-
3	Production and Operations Management	MGT311	3	MKT201, MTS202
4	Human Resource Management	HRM401	3	MGT201, MKT201
5	Development Economics	ECO301	3	ECO 103 / ECO201 & ECO104 / ECO202
6	Social Science Elective	SSCXXX	3	-
	Semester - 6	Course Code	Credit Hours	Pre-Requisite
1	Methods of Business Research	MKT301	3	FIN201, MGT201, MKT201
2	Marketing Issues in Pakistan	MKT401	3	MKT201
3	Small Business Management	MGT401	3	FIN201, MGT201, MKT201
4	Language-I	SSCXXX	3	
5	BE	-	3	
6	BE	-	3	
SENIOR	Semester - 7	Course Code	Credit Hours	Pre-Requisite
1	Managerial Policy	MGT430	3	ECO103, ECO201, FIN201, HRM401, MGT201, MGT211, MGT221, MKT201
2	Language-II	SSCXXX	3	-
3	BE	-	3	-
4	BE	-	3	-
5	BE	-	3	-
6	BE	-	3	-
	Semester - 8	Course Code	Credit Hours	Pre-Requisite
1	Experiential Knowledge	PRJ490	12	Equivalent to 4 courses
2	B	-	-	-
3	BE	-	-	-

Important Note:

- Students are eligible to carry out their Responsible Citizen Internship (RCI) after their first semester and should fulfill this graduation requirement before the end of their fourth semester.
- Corporate Internship can only be carried out in the sixth semester (i.e. after completion of all the courses till fifth semester; mentioned in semester break up above)



Bachelor of Science (Accounting & Finance) Program

This is a 4-year degree program introduced in 2013. It has been developed jointly by the Institute of Chartered Accountants of Pakistan (ICAP), Association of Chartered certified Accountants (ACCA) and Institute of Bankers Pakistan (IBP) in collaboration with IBA Karachi. The program provides an exclusive opportunity to the students to receive an academic degree that leads to a professional qualification. A summary of institution wise exemptions that applicants to the program would benefit from is as under:

Institute of Chartered Accountants of Pakistan (ICAP):

An exemption of 12 Exams of AFC & CAF (*old Module A to D*) will be granted to the prospective CA students, who complete their BS (Accounting & Finance) degree from IBA. The Students of BS (Accounting & Finance) after graduating from IBA Karachi would avail the following advantages:

- Exemption from AFC & CAF (*old Module A to D*)
- Complete training for 3 years & save 6 months
- Pass CFAP & MSA (*old Module E & F*)
- Become a Chartered Accountant

Chartered Institute of Management Accountants (CIMA)

CIMA has exempted SEVEN examination

Association of Chartered Certified Accountants (ACCA):

ACCA has exempted NINE examinations (F1 to F9)

Institute of Bankers Pakistan (IBP):

IBP has waived off appearances at all three levels of examinations & replaced it with only ONE comprehensive examination.

Chartered Financial Analyst (CFA):

CFA does not grant, as a principle, any exemptions but close mapping has been done in Finance courses that facilitates qualifying CFA examinations.

Curriculum Structure

Duration	4 years
Semesters	8
Courses	44
Total Credit Hours	133

Required Courses

Section	Knowledge Area	Courses
A	University Core Courses	4
B	Accounting	14
C	Finance	14
D	Non-Specialization	12
	Total Courses	44

A. University Core Courses

Course Title	Course Code	Credit Hours	Pre-Requisite
English Grammar and Composition	SSC101	3	-
Speech Communication	HUM201	3	-
Pakistan History	SSC151	3	-
Socioeconomic Philosophy of Islam / Philosophy, Logic & Ethics	SSC301 / HUM357	3	-

B. Accounting Core Courses

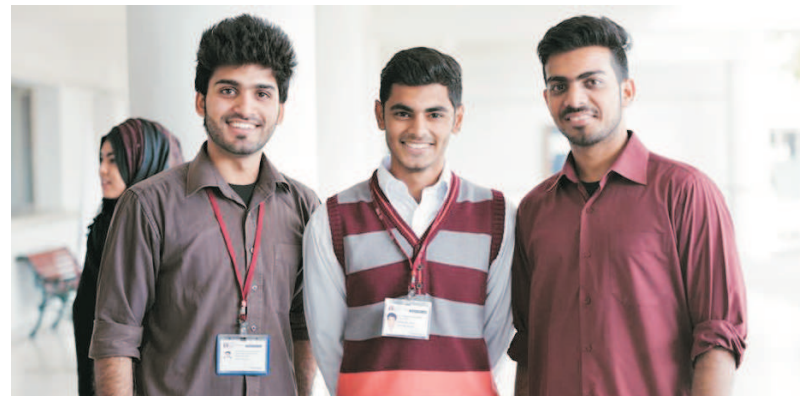
Course Title	Course Code	Credit Hours	Pre-Requisite
Principles of Accounting	ACC111	3	-
Management Accounting	ACC381	3	ACC201
Financial Accounting	ACC201	3	ACC111
Taxation	LAW303	3	ACC201
Business Law	LAW205	3	-
Accounting Information System with SAP	ACC507	3	ACC111
Auditing	ACC320	3	-

C. Finance Core Courses

Course Title	Course Code	Credit Hours	Pre-Requisite
Introduction to Business Finance	FIN201	3	-
Financial Institutions & Markets	FIN301	3	FIN201
Regulations & Financial Markets	FIN558	3	FIN401
Financial Management	FIN401	3	FIN201
Financial Modeling	FIN574	4	FIN401

D. Non-Specialization Core Courses

Course Title	Course Code	Credit Hours	Pre-Requisite
Introduction to Statistics	MTS102	3	MTS105
Statistical Inference	MTS202	3	MTS102 / MTS101
Introduction to Computer Applications	MIS103	3	-
Introduction to Economics	ECO105	3	-
Management & Organizational Behavior	MGT231	3	-
Principles of Marketing	MKT201	3	-
Calculus with Applications - I	MTS104	3	-
Personal Effectiveness	SSC240	3	-
Select ONE from below:			
History of Ideas - I	SSC239	3	-
Fundamentals of Sociology	SSC131	3	-
Introduction to Social and Cultural Anthropology	SSC233	3	-



Accounting Electives (7 to be selected from the following list)

Course Title	Course Code	Credit Hours	Pre-Requisite
Advanced Managerial Accounting	ACC310	3	ACC381
Financial Reporting	ACC315	3	ACC201
Corporate Governance	LAW553	3	LAW305
Business Analysis & Decision Making	ACC312	3	-
Legal and Regulatory Environment (<i>only for BSAF</i>)	LAW310	3	LAW305
Strategic Management	MGT552	3	-
Corporate Law	LAW305	3	LAW205
Advanced Financial Reporting	ACC401	3	ACC315
Essential Software	MIS150	3	-
Data Warehousing	MIS343	3	-
Database System	CSE341	3	-
Advanced Taxation	LAW401	3	ACC315, LAW303
Actuarial Courses	ACC415	3	MTS102, MTS202, MTS101, MTS101
FCS basic Programming related courses	ACC416	3	-
Accounting Tools I	MIS3XX	1.5	MIS103
Accounting Tools II	ACC3XX	1.5	MIS3XX
Advanced Auditing	ACC325	3	LAW305, ACC320



Finance Electives *(9 to be selected from the following list)*

Course Title	Course Code	Credit Hours	Pre-Requisite
Investment Banking	FIN451	3	FIN401
Treasury and Funds Management	FIN565	3	FIN401
Financial Risk Management	FIN456	3	FIN401
Advance Portfolio Management and Wealth Planning	FIN563	3	FIN401
Corporate Finance	FIN454	3	FIN401
Financial Econometrics	FIN569	3	MTS202, FIN401
Public Finance	ECO451	3	ECO105
Alternative Investments	FIN305	3	FIN401
Real Estate Investments: Analysis & Financing	FIN308	3	FIN401
International Banking	FIN310	3	FIN401
Behavioral Finance (with lab- 4 credit)	FIN312	4	FIN401
Venture Capital & the Finance of Innovation	FIN405	3	FIN401
Buyouts and Acquisitions	FIN410	3	FIN401
Corporate Restructuring	FIN315	3	FIN401
Empirical Research in Finance	FIN320	3	FIN401
Fixed Income Investments	FIN424	3	FIN401
Branch Banking	FIN425	3	FIN401
Lending- Products, Operations & Risk Management	FIN426	3	FIN401
Finance of International Trade & Related Treasury Operations	FIN427	3	FIN401
Marketing of Financial services	FIN428	3	FIN401
Information Technology in Financial services	FIN429	3	FIN401
Financial Information System	FIN430	3	FIN401
International Finance	FIN452	3	FIN401, ECO105
Security Analysis (4 credit-lab)	FIN453	4	FIN401
Derivatives	FIN457	3	FIN401
Portfolio Management (4 credit-lab)	FIN455	4	FIN401
Advanced Corporate Finance	FIN560	3	FIN401

Non-Specialization Electives *(3 to be selected from the following list)*

Course Title	Course Code	Credit Hours	Pre-Requisite
Mathematical Methods	MTS110	3	-
Foundations of Human Behavior	SSC102	3	-
Calculus with Applications - II	MTS106	3	MTS101 / MTS104
International Relations	SSC111	3	-
Principles of Management	MGT201	3	-
Human Resource Management	HRM401	3	MKT201, MGT201
Development Economics	ECO301	3	ECO105
Executive Leadership	HRM455	3	MGT201, HRM401
Applied Probability	MTS112	3	-
Introduction to Econometrics	ECO341	3	MTS202, ECO105
International Trade	ECO512	3	ECO105
Global Economic and Political Environment	ECO517	3	-
Marketing Management	MKT501	3	-
Politics & Law	LAW105	3	-
Business Mathematics & Linear Algebra	MTS212	3	MTS101 / MTS104
Research Methods in Social Sciences	SSC154	3	-

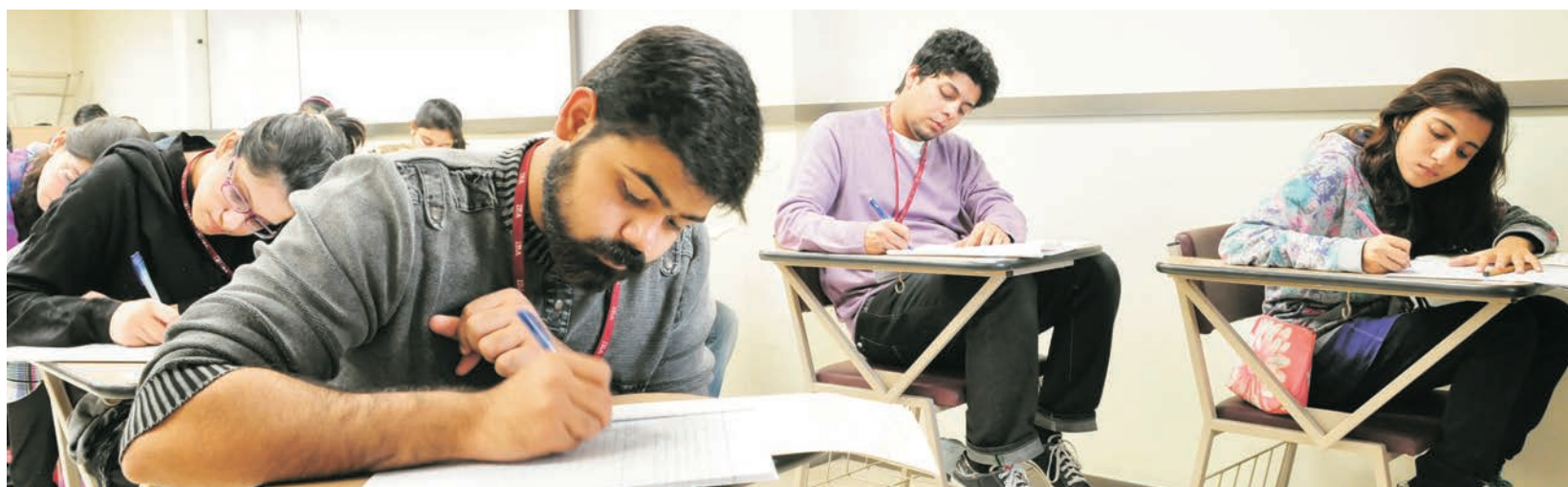


Accounting Electives compulsory for CA & ACCA exemption	
Advanced Managerial Accounting	ACC310
Financial Reporting	ACC315
Advanced Auditing	ACC325
Corporate Law	LAW305
Advanced Financial Reporting	ACC401
Advanced Taxation	LAW401
Finance Electives courses conducive for CFA preparation	
Corporate Governance	LAW553
Treasury and Funds Management	FIN565
Advance Portfolio Management and Wealth Planning	FIN563
Corporate Finance	FIN454
Alternative Investments	FIN305
Behavioral Finance (with lab- 4 credit)	FIN312
Fixed Income Investments	FIN425
Security Analysis (4 credit-lab)	FIN453
Derivatives	FIN457
Portfolio Management (4 credit-lab)	FIN455
Finance Electives courses compulsory for IBP exemption	
Branch banking	FIN425
Lending- Products, operations & risk management	FIN426
Finance of international trade & related treasury operations	FIN427
Marketing of financial service	FIN428
Information technology in Financial services	FIN429



Suggested Semester-wise Sequence of Courses

Semester - 1	Courses	Course Code	Credit Hours	Pre-Requisite
1	Introduction to Economics	ECO105	3	-
2	English Grammar & Composition	SSC101	3	-
3	Introduction to Computer Applications	MIS103	3	-
4	Introduction to Statistics	MTS102	3	-
5	Calculus with Applications - I	MTS104	3	-
6	Pakistan History/Socio Economic Philosophy of Islam	SSC151/SSC 301	3	-
Semester - 2 & 3	Courses	Course Code	Credit Hours	Pre-Requisite
1	Principles of Accounting	ACC210	3	-
2	Speech Communication (1+2 Ch)	HUM201	3	-
3	Management & Organizational Behavior	-	3	-
4	Pakistan History/Socio Economic Philosophy of Islam	SSC151/SSC 301	3	-
5	Principles of Marketing	MKT201	3	-
6	Statistical Inference	MTS202	3	MTS102
7	Financial Accounting	ACC215	3	ACC111
8	Introduction to Business Finance	FIN201	3	-
9	Business Law	LAW205	3	-
10	NS Elective	-	3	-
11	NS Elective	-	3	-
12	NS Elective	-	3	-



Suggested Semester-wise Sequence of Courses

Semester - 4 & 5	Courses	Course Code	Credit Hours	Pre-Requisite
1	Management Accounting	ACC220	3	ACC201
2	Financial Institutions and Markets	FIN301	3	FIN201
3	Financial Management	FIN401	3	FIN201
4	Corporate Law	LAW305	3	LAW205
5	Accounting Information System with SAP	ACC507	3	ACC111
6	Personal Effectiveness	SSC240	3	SSC240
7	Regulations & Financial Markets	FIN558	3	FIN401
8	Financial Modeling	FIN574	4	FIN401
9	Social Science Course	SSCXXX	3	-
10	Financial Reporting	ACC315	3	ACC201
11	Advanced Managerial Accounting	ACC310	3	ACC381
12	Taxation	LAW303	3	ACC201
Semester - 6, 7 & 8	Courses	Course Code	Credit Hours	Pre-Requisite
1	Advanced Financial Reporting	ACC401	3	ACC315
2	Accounting Tools I	MIS3XX	3	MIS103
3	Accounting Tools II	ACC3XX	3	MIS3XX
4	Auditing	ACC320	3	-
5	Electives - Fin/Acc	-	3	-
6	Electives - Fin/Acc	-	3	-
7	Electives - Fin/Acc	-	3	-
8	Corporate Governance	LAW553	3	LAW305
9	Electives - Fin/Acc	-	3	-
10	Electives - Fin/Acc	-	3	-
11	Electives - Fin/Acc	-	3	-
12	Electives - Fin/Acc	-	3	-
13	Electives - Fin/Acc	-	3	-

Important Note:

- Students are eligible to carry out their Responsible Citizen Internship (RCI) after their first semester and should fulfill this graduation requirement before the end of their fourth semester.
- Corporate Internship can only be carried out in the sixth semester (i.e. after completion of all the courses till fifth semester; mentioned in semester break up above)



Bachelor of Science (Computer Science) Program

BS (Computer Science) is a four-year standard degree program that includes courses from theoretical Computer Science, technology, social sciences, and other areas. The aim is to educate students to become skilled Computer Science professionals with good problem solving capability in CS and allied areas, who also fit profiles required for research and development roles; as well as to enhance their social worth, and their potential of contribution to society.

The program comprises courses that amount to a total of 147 credit hours. These are divided in the heads, University core, CS core, CS elective, Non-specialization core, and Non-specialization elective with 12, 60, 24, 33, and 18 credit hours respectively. The non-specialization cores and electives are from supporting disciplines of Mathematics, Physics, and Communication. The particular scheme of disseminating the credit hour requirement across a wide range of core and elective courses is engineered to provide the students with enough flexibility to choose a professional career path of their interest.

To ensure that computer science students get groomed into well-rounded personalities, IBA has a large number of co-curricular and extra-curricular societies catering to a diverse range of activities. Students lead these societies, and office positions within are contested via formal elections. Students can opt for membership of these societies, and nurture their various interests such as management, public speaking, various sports, adventure, photography, etc. They are required to connect with people of different professions, and this ensures that they build enough understanding of the real world. IBA CS graduates have successfully developed their careers both with start-up entrepreneurial of their own as well as getting placed in good software houses, ICT companies, financial institutions, business solution providers, and multinational companies; which makes IBA's BS-CS program attractive for aspiring students.

Curriculum Structure

Duration	4 years
Semesters	8
Courses	46
Total Credit Hours	147

Required Courses

Section	Knowledge Area	Courses
A	University Core	4
B	Computer Science Core	17
C	Computer Science Elective	8
D	Non-Specialization Core	11
E	Non-Specialization Elective	6
	Total Courses	46

Please note that these are minimum credit requirements. Further credit requirements may be added in due course of the program.

A. University Core Courses

Course Title	Course Code	Credit Hours
Speech Communication	HUM201	3
English Grammar & Composition	SSC101	3
Pakistan History	SSC151	3
Socioeconomic Philosophy of Islam / Philosophy, Logic & Ethics	SSC301/ HUM357	3

B. Computer Science Core Courses

Course Title	Course Code	Credit Hours	Pre-Requisite
Introduction to Programming	CSE141	4	-
Object Oriented Programming Techniques	CSE142	4	CSE141
Introduction to Computing	CSE145	4	-
Digital Logic Design	CSE241	4	CSE145, MTS211
Data Structures	CSE247	4	CSE142, MTS211
Computer Communications & Networks	CSE248	4	CSE142, CSE145

B. Computer Science Core *(Contd....)*

Course Title	Course Code	Credit Hours	Pre-Requisite
Theory of Automata	CSE309	3	CSE141, CSE211
Software Engineering	CSE312	3	CSE247
Design and Analysis of Algorithms	CSE317	3	CSE247
Operating Systems	CSE331	3	CSE345
Database Systems	CSE341	4	CSE247
Computer Architecture and Assembly Language	CSE345	4	CSE247 & CSE241
Human Computer Interaction	CSE407	3	CSE312
Systems Programming	CSE441	4	CSE331
Computer Science Project - I	CSE491	3	CSE312, CSE341
Computer Science Project - II	CSE492	3	CSE491
Introduction to Artificial Intelligence	CSE307	3	CSE247

C. Computer Science Elective

Course Title	Course Code	Credit Hours	Pre-Requisite
Web Based Application Development	CSE308	3	CSE341
Design Patterns	CSE318	3	CSE247
Compiler Design	CSE344	4	CSE309, CSE345
System Modeling and Simulation	CSE403	3	
Microprocessor Interfacing	CSE448	4	CSE345
Application Development for Mobile Devices	CSE450	3	CSE142, CSE 312
Network Security	CSE455	3	CSE248
Business Intelligence	CSE459	3	CSE341, MIS 343
Introduction to Game Programming and Robotics	CSE460	3	CSE307
Mathematics for Games	CSE461	3	
Data Warehousing	MIS343	4	CSE341
Social Computing	MIS406	3	CSE341
Technopreneurship	MIS450	3	-
E-Commerce	MIS456	3	-
IS Security	MIS457	3	-
Enterprise Resource Planning	MIS458	4	ACC111
Mobile Marketing - A Technological Perspective	MIS463	3	-
Financial Services Technologies	MIS464	3	-

D. Non Specialization Core

Course Title	Course Code	Credit Hours	Pre-Requisite
Business Communications	MGT211	3	-
Audit, Ethics & IS Issues	MIS454	3	MGT211
Calculus - I with Plane Geometry	MTS101	3	MTS105
Introduction to Statistics	MTS102	3	MTS105
Linear Algebra	MTS203	3	MTS101 / MTS104
Calculus - II with Analytical Geometry	MTS232	3	MTS101 / MTS104
Numerical Analysis	MTS413	3	MTS232
Differential Equations	MTS401	3	MTS232
Physics - I	SCI105	3	-
Physics - II	SCI205	3	SCI105

E. Non-Specialization Elective

Course Title	Course Code	Credit Hours	Pre-Requisite
Principles of Accounts 1	ACC111	3	-
Principles of Accounts 2	ACC201	3	ACC111
AIS with SAP	ACC507	3	ACC111
Introduction to Micro Economics	ECO103	3	-
Introduction to Macro Economics	ECO104	3	-
Introduction to Business Finance	FIN201	3	-
Human Resource Management	HRM401	3	-
Business Law	LAW205	3	-
Principles of Management	MGT201	3	-
Customer Relationship Management	MIS 459	3	-
Principles of Marketing	MKT201	3	-
Advertising	MKT451	3	MKT201
Retail Management	MKT455	3	MKT201
Brand Management	MKT461	3	MKT201
Arabic Language - I	SSC 201	3	-
Arabic Language - II	SSC202	3	SSC 201
French Language - I	SSC205	3	-

E. Non-Specialization Elective *(Contd....)*

Course Title	Course Code	Credit Hours	Pre-Requisite
French Language - II	SSC206	3	SSC 205
Mandarin Language - I	SSC209	3	-
Mandarin Language - II	SSC210	3	SSC 209
Foundation of Human Behavior	SSC102	3	-
International Relations	SSC111	3	-
Fundamentals of Sociology	SSC231	3	-
History of Ideas II	SSC238	3	-
History of Ideas I	SSC239	3	-



Semester-wise Sequence of Courses

FRESHMAN	Semester - 1	Course Code	Credit Hours	Pre-Requisite
1	Introduction to Programming	CSE141	4	-
2	Introduction to Computing	CSE145	4	-
3	Calculus-I with Plane Geometry	MTS101	3	-
4	English Grammar & Composition	SSC101	3	-
5	Pakistan History	SSC151	3	-
6	Remedial English	SSC150	-	-
	Semester - 2			
1	Object Oriented Programming Techniques	CSE142	4	CSE141, CSE145
2	Speech Communication	HUM201	3	SSC103
3	Calculus - II with Solid Geometry	MTS232	3	MTS101 / MTS104
4	Introduction to Statistics	MTS102	3	-
5	Physics-I	SCI105	3	-
6	Discrete Mathematics	MTS211	3	MTS101
SOPHOMORE	Semester - 3			
1	Digital Logic Design	CSE241	4	CSE145, MTS211
2	Data Structures	CSE247	4	CSE142, MTS211
3	Physics-II	SCI205	3	MTS232
4	Linear Algebra	MTS203	3	MTS101/MTS104
5	Numerical Analysis	MTS413	3	MTS232
6	General Elective-I	xxxxx	3	
	Semester - 4			
1	Computer Architecture & Assembly Language	CSE345	4	CSE241, CSE247
2	Theory of Automata	CSE309	3	CSE141, CSE211
3	Computer Communication & Networking	CSE248	4	CSE142, CSE145
4	Socioeconomy Philosophy of Islam	SSC301	3	-
5	Differential Equations	MTS401	3	MTS232
6	CS Elective-I	CSExxx	3	-

Semester-wise Sequence of Courses

JUNIOR	Semester - 5	Course Code	Credit Hours	Pre-Requisite
1	Database Systems	CSE341	4	CSE 247
2	Operating Systems	CSE331	3	CSE 345
3	Software Engineering	CSE312	3	CSE 247
4	Business Communication	MGT211	3	HUM201
5	CS Elective-II	CSExxx	3	-
6	CS Elective-III	CSExxx	3	-
	Semester - 6			
1	Systems Programming	CSE441	4	CSE331
2	Introduction to Artificial Intelligence	CSE307	3	CSE 247
3	Design & Analysis of Algorithm	CSE317	3	CSE 247
4	CS Elective-IV	CSExxx	3	-
5	CS Elective-V	CSExxx	3	-
6	General Elective-II	xxxxx	3	-
SENIOR	Semester - 7			
1	Human Computer Interaction	CSE407	3	CSE312
2	Computer Science Project - I	CSE491	3	CSE 312, CSE 341
3	CS Elective-VI	CSExxx	3	-
4	CS Elective-VII	CSExxx	3	-
5	General Elective-III	xxxxx	3	-
6	General Elective-IV	xxxxx	3	-
	Semester - 8			
1	Computer Science Project - II	CSE492	3	CSE491
2	Audit, Ethics & IS Issues	MIS454	3	MGT211
3	CS Elective-VIII	CSExxx	3	-
4	General Elective-V	xxxxx	3	-
5	General Elective-VI	xxxxx	3	-

Important Note:

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- Corporate Internship can only be carried out in the sixth semester (i.e. after completion of all the courses till fifth semester; mentioned in semester break up above)



Bachelor of Science (Economics & Mathematics) Program

BS (Economics and Mathematics) is a 4-year degree program with double majors in economics and mathematics. It is designed to give students a solid foundation in both economics and mathematics. The program provides a well-coordinated curriculum for students interested in pursuing masters or PhD in economics and mathematics. It prepares the students for entry level positions in private and public sector corporations, banks, insurance companies, investment companies, education and research organizations. The program consists of 150 credit hours. Major disciplines of economics and mathematics have 54 credit hours each.

The remaining 42 credits are for university core courses and courses from other disciplines like social sciences, management and accounting. The wide range of courses offered in this program give students ample opportunity to broaden their knowledge base. The economics research project in the fourth year enables students to apply the quantitative tools learnt in the program to real economics and financial problems in the public and private sectors.



Curriculum Structure

Duration	4 years
Semesters	8
Courses	48
Research Project	1
Total Credit Hours	150

Required Courses

Section	Knowledge Area	Courses
A	University Core Courses	4
B	Economics	16
C	Mathematics	19
D	Non-Specialization	9
	Total Courses	48

A. University Core Courses

Course Title	Course Code	Credit Hours	Pre-Requisite
English Grammar and Composition	SSC101	3	-
Pakistan History	SSC151	3	-
Speech Communication	HUM201	3	-
Socioeconomic Philosophy of Islam / Philosophy, Logic and Ethics	SSC301 / HUM357	3	-

B. Economics

Course Title	Course Code	Credit Hours	Pre-Requisite
Principles of Microeconomics	ECO103	3	-
Principles of Macroeconomics	ECO104	3	-
Intermediate Microeconomics	ECO201	3	ECO103, MTS101
Intermediate Macroeconomics	ECO202	3	ECO104, MTS101
Development Economics	ECO301	3	ECO103, ECO104, MTS112
Microeconomics	ECO312	3	ECO201, MTS112, MTS201
Macroeconomics	ECO313	3	ECO202, MTS112, MTS201

B. Economics (Contd....)

Course Title	Course Code	Credit Hours	Pre-Requisite
Introduction to Econometrics	ECO341	4	ECO103, ECO 104 & MTS202
Applied Econometrics	ECO342	4	ECO341
Major Issues in Pakistan's Economy	ECO403	3	ECO301
Research Methods in Economics	ECO411	3	ECO342
International Trade	ECO511	3	ECO201, ECO202
Economics Elective-I	ECOxxx	3	-
Economics Elective-II	ECOxxx	3	-
Economics Elective-III	ECOxxx	3	-
Economics Elective-IV	ECOxxx	3	-
Economics Research Project	ECO441	4	ECO342

C. Mathematics

Course Title	Course Code	Credit Hours	Pre-Requisite
Calculus-I with Plane Geometry	MTS101	3	MTS105
Mathematical Methods	MTS110	3	-
Linear Algebra	MTS203	3	-
Discrete Mathematics	MTS211	3	MTS101
Calculus - II with Analytical Geometry	MTS232	3	MTS101/MTS104
Calculus-III	MTS204	3	MTS110
Real Analysis	MTS301	3	MTS204
Complex Analysis	MTS302	3	MTS301
Advanced Differential Equations	MTS303	3	MTS241
Stochastic Processes-I	MTS304	3	MTS210
Abstract Algebra-I	MTS305	3	MTS110
Numerical Analysis	MTS306	3	MTS232
Differential Equations	MTS401	3	MTS232
Functional Analysis-I	MTS411	3	MTS106
Functional Analysis-II	MTS412	3	MTS411
Abstract Algebra-II	MTS413	3	MTS306
Scientific Computing for Linear PDE's.	MTS414	3	MTS413
Mathematics Elective-I	MTSXXX	3	-
Mathematics Elective-II	MTSXXX	3	-

D. Non-Specialization

Course Title	Course Code	Credit Hours	Pre-Requisite
Introduction to Computer Applications	MIS103	3	-
Introduction to Statistics	MTS102	3	MTS105
Statistical Inference	MTS202	3	MTS101/MTS102
Applied Probability	MTS112	3	MTS202
Regression Analysis & Experiment Design	MTS210	3	MTS112
Non-Specialization Elective-I	xxxxxx	3	-
Non-Specialization Elective-II	xxxxxx	3	-
Non-Specialization Elective-III	xxxxxx	3	-
Non-Specialization Elective-IV	xxxxxx	3	-

Economics Electives *(4 to be selected from the following list)*

Course Title	Course Code	Credit Hours	Pre-Requisite
Public Finance	ECO451	3	ECO103, ECO104
Islamic Economic System	ECO452	3	ECO103, ECO104
Population Economics	ECO454	3	ECO103, ECO104
Comparative Economic System	ECO455	3	ECO103, ECO104
Economics and Strategy	ECO456	3	ECO103, ECO104
Natural Resource and Environmental Economics	ECO461	3	ECO103, ECO104
Rural Development	ECO462	3	ECO103, ECO104
Financial Economics	ECO562	3	ECO103, ECO104
Game Theory	ECO464	3	ECO103, ECO104, MTS101
International Political Economy	ECO465	3	ECO103, ECO104
Monetary Economics	ECO566	3	ECO103, ECO104
History of Economic Thought	ECO467	3	ECO103, ECO104
Agricultural Economics	ECO468	3	ECO103, ECO104
Regional Economics	ECO469	3	ECO103, ECO104
Health Economics	ECO471	3	ECO103, ECO104
Urban Economics	ECO472	3	ECO103, ECO104
Welfare Economics	ECO473	3	ECO103
Resource Economics	ECO474	3	ECO103, ECO104
Labor Economics	ECO654	3	ECO103, ECO104

Mathematics Electives *(2 to be selected from the following list)*

Course Title	Course Code	Credit Hours	Pre-Requisite
Numerical Solutions of PDE*	MTS431	3	MTS414
Integral Equations	MTS432	3	MTS303
Advanced Numerical Analysis I	MTS433	3	MTS414
Advanced Numerical Analysis II	MTS434	3	-
Differential Geometry	MTS435	3	-
Fluid Dynamics I	MTS437	3	-
Fluid Dynamics II	MTS438	3	-
Financial Mathematics with a computational approach	MTS441	3	-
Computational Finance	MTS442	3	-
Modern Algebra I (Galois Theory & Applications)	MTS443	3	-
Modern Algebra II (Commutative Rings & Fields)	MTS444	3	-
Measure Theory I	MTS445	3	-
Measure Theory II	MTS446	3	-
Operations Research I	MTS447	3	-
Operations Research II	MTS448	3	-
Topology I	MTS451	3	-
Topology II (Differential Topology)	MTS452	3	-

*PDE = Partial Differential Equation

non-Specialization electives

Four courses are to be chosen from courses other than Mathematics and Economics. These non-specialization electives may be from different subject areas including Accounting, Finance, Marketing, Management and Social Science.



Semester-wise Sequence of Courses

FRESHMAN	Semester - 1	Course Code	Credit Hours	Pre-Requisite
1	Calculus-I with Plane Geometry	MTS101	3	MTS105
2	Principles of Microeconomics-I	ECO103	3	-
3	Introduction to Statistics	MTS102	3	MTS105
4	English Grammar and Composition	SSC101	3	-
5	Pakistan History	SSC151	3	-
6	Introduction to Computer Applications	MIS103	3	-
Semester - 2	Course Code	Credit Hours	Pre-Requisite	1
1	Mathematical Methods	MTS110	3	-
2	Principles of Macroeconomics	ECO104	3	-
3	Statistical Inference	MTS 202	3	MTS102
4	Calculus - II with Solid Geometry	MTS232	3	MTS101
5	Speech Communication	HUM201	3	-
6	Non-specialization area Elective-I	-	3	-
SOPHOMORE	Semester - 3	Course Code	Credit Hours	Pre-Requisite
1	Calculus-III	MTS204	3	MTS110
2	Discrete Mathematics	MTS211	3	MTS103 / MTS104
3	Intermediate Microeconomics	ECO201	3	ECO103, MTS101
4	Socioeconomic Philosophy of Islam / Philosophy, Logic & Ethics	SSC301 / HUM357	3	-
5	Applied Probability	MTS112	3	MTS207
6	Non-specialization area Elective-II	-	3	-
JUNIOR	Semester - 4	Course Code	Credit Hours	Pre-Requisite
1	Linear Algebra	MTS203	3	MTS202
2	Introduction to Differential Equations	MTS241	3	MTS204
3	Regression Analysis and Experiment Design	MTS210	3	MTS112
4	Intermediate Macroeconomics	ECO202	3	ECO103, MTS101
5	Development Economics	ECO301	3	ECO103, ECO104
6	Non-specialization area Elective-III	-	-	-

Semester-wise Sequence of Courses

JUNIOR	Semester - 5	Course Code	Credit Hours	Pre-Requisite
1	Real Analysis	MTS301	3	MTS204
2	Advanced Differential Equation	MTS303	3	MTS241
3	Abstract Algebra-I	MTS305	3	MTS110
4	Microeconomics	ECO312	3	ECO201, MTS112, MTS201
5	Introduction to Econometrics	ECO341	4	ECO103, ECO104 & MTS202
6	Non-specialization Elective-IV	-	-	-
Seniour	Semester - 6	Course Code	Credit Hours	Pre-Requisite
1	Complex Analysis	MTS302	3	MTS301
2	Stochastic Processes	MTS304	3	MTS210
3	Numerical Analysis	MTS413	3	MTS301
4	Macroeconomics	ECO313	3	ECO201, MTS112, MTS201
5	Applied Econometrics	ECO342	3	ECO341
6	Abstract Algebra-II	MTS306	3	MTS305
7	Economics Elective-I	ECOXXX	3	MTS306
SENIOR	Semester - 7	Course Code	Credit Hours	Pre-Requisite
1	Functional Analysis-I	MTS411	3	MTS302
2	Abstract Algebra-II	MTS412	3	-
3	Mathematics Elective-I	MTS	3	-
4	Research Methods for Economics	ECO411	3	ECO342
5	Major Issues in Pakistan's Economy	ECO403	3	ECO301
6	Numerical Analysis	MTS413	3	MTS323
7	Economics Elective - II	ECOXXX	3	-
	Semester - 8	Course Code	Credit Hours	Pre-Requisite
1	Scientific Computing for Linear PDEs	MTS414	3	MTS413
2	Functional Analysis - I	MTS412	3	MTS411
3	Mathematics Elective - II	MTSXXX	3	-
4	International Trade	ECO512	3	ECO201, ECO202
5	Economics Elective-III	-	3	-
6	Economics Elective-IV	-	3	-

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- Corporate Internship can only be carried out in the sixth semester (i.e. after completion of all the courses till fifth semester; mentioned in semester break up above)



Bachelor of Science (Social Sciences & Liberal Arts) Program

The BS in Social Sciences and Liberal Arts is a 4-year undergraduate program with major offerings in Political Science, Psychology, and Media & Communication Studies. The program is designed to develop in students the theoretical, historical, and experiential knowledge they will need to interact with our social and cultural world. We recognize that studying social sciences and liberal arts today requires both disciplinary and interdisciplinary thinking, and that training in specific methods of research and analysis should always be grounded in a complex understanding of the world we inhabit. To accomplish these goals, we focus on how students can use strategies and frames of analysis to understand and critique our increasingly interrelated economic, political, communal, cultural, and mediated lives.

Courses that comprise the liberal arts component of the program, taken during all four years, introduce students to a range of academic disciplines including physics, the visual arts, philosophy, literature, history, mathematics, religion, biology, and the environmental sciences. Through these courses, students will acquire comprehensive foundational skills in both qualitative and quantitative thinking that will inform and enhance the research and analyses they conduct in their chosen fields of study.



Curriculum Structure

Duration	4 years
Semesters	8
Courses	45
Research Project	1
Total Credit Hours	144

Required Courses

Section	Knowledge Area	Courses
A	University Core Courses	4
B	Non-Specialization Courses	10
C	Supporting Courses	11
D	Major Core + Electives	20
	Total Courses	45

A. University Core Courses

Course Title	Course Code	Credit Hours	Pre-Requisite
English Grammar and Composition	SSC101	3	-
Pakistan History	SSC151	3	-
Speech Communication	HUM201	3	-
Socioeconomic Philosophy of Islam / Philosophy, Logic & Ethics	SSC301 / HUM357	3	-

B. Non-Specialization Courses

Course Title	Course Code	Credit Hours	Pre-Requisite
Core			
Calculus-I & Plane Geometry	MTS101	3	-
Introduction to Statistics	MTS102	3	-
Intermediate English Composition	SSC106	3	-
Foreign Language I	SSC201 / 205 / 209	3	-
Foreign Language II	SSC202 / 206 / 210	3	-

B. Non-Specialization Courses (Contd....)

Course Title	Course Code	Credit Hours	Pre-Requisite
Foreign Language III	SSC203 / 207 /211	3	-
Foreign Language IV	SSC204 / 208 / 212	3	-
Electives (3 from the following list)			
Great Books	HUM351	3	-
Reading Poetry	HUM352	3	-
Introduction to Drama.	HUM353	3	-
Introduction to Urdu Literature	HUM354	3	-
Anglo-Indian Narrative and the Postcolonial Subject	HUM355	3	-
Foundation of Philosophical Thought	HUM356	3	-
Philosophy, Logic & Ethics	HUM357	3	-
Comparative Classical Philosophy	HUM358	3	-
Introduction to Comparative Religions	HUM359	3	-
Creative Writing	HUM360	3	-
Theater Project: The Living Newspaper	HUM361	3	-
Advanced English Composition	SSC213	3	-

C. Supporting Courses

Course Title	Course Code	Credit Hours	Pre-Requisite
Core			
History of Ideas I	SSC239	3	-
History of Ideas II	SSC238	3	-
Major Themes in World History	SSC121	3	-
South Asian History	SSC221	3	-
Statistical Inference	MTS202	3	-
Computational Research Methods	SSC302	3	-
Electives			
Natural Science (2 from the following list)			
History of Science	NSC351	3	-
Ideas of Physics	NSC352	3	-
Space, Time, and Space-Time	NSC353	3	-
Introduction to Environmental Sciences	NSC354	3	-



C. Supporting Courses *(Contd....)*

Course Title	Course Code	Credit Hours	Pre-Requisite
Principles of Ecology and Conservation	NSC355	3	-
History of Evolution	NSC356	3	-
Introduction to Geology	NSC357	3	-
Visual Studies (2 from the following list)			
Introduction to Visual Culture	HUM363	3	-
History of Art I: Classical Antiquity to the Middle Ages	HUM364	3	-
History of Art II: Renaissance to the Present	HUM365	3	-
Art of the Islamic World	HUM366	3	-
Theories of Design	HUM367	3	-
Colonial and Postcolonial Visual Cultures	HUM368	3	-
The Rhetoric of Architecture	HUM369	3	-



D. Social Science Core Courses

Course Title	Course Code	Credit Hours	Pre-Requisite
Common			
Fundamentals of Sociology	SSC131	3	-
Introduction to Historical Methods	SSC232	3	-
Introduction to Economics	ECO105	3	-
Introduction to Social and Cultural Anthropology	SSC233	3	-
Introduction to Urban Studies	SSC234	3	-
Introduction to Linguistics	SSC235	3	-
Culture, Media, & Society	SSC216	3	-
Introduction to Political Science	SSC217	3	-
Introduction to Psychology	SSC218	3	-
Interdisciplinary Social Science Seminar	SSC219	3	-
Political Science Core Courses			
Research Methods in Political Science	POL301	3	-
History of Political Thought	POL302	3	-
Introduction to Comparative Politics	POL303	3	-
International Politics	POL401	3	-
Political Science Electives			
Political Psychology	POL351	3	-



D. Social Science Core Courses *(Contd....)*

Course Title	Course Code	Credit Hours	Pre-Requisite
Foreign Policy in China	POL352	3	-
State and Society	POL353	3	-
War: Conceptual Underpinnings	POL354	3	-
Human Rights	POL355	3	-
Environment and Politics	POL356	3	-
Diplomacy in a Globalized World	POL357	3	-
Islam and International Relations	POL358	3	-
The Modern Middle East	POL359	3	-
Theories of Democratic Transition	POL360	3	-
Democracy and Difference	POL361	3	-
Pakistan's Foreign Policy	POL362	3	-
Filthy Lucre: A Political History of Money	POL363	3	-
Media and Communication Studies Core Courses			
Research Methods in Media and Communications	MCS301	3	-
Gutenberg to Google: A Social History of Media	MCS302	3	-
Theories of Media and Communications	MCS303	3	-
Communication for Social Change	MCS401	3	-
Media and Communication Studies Electives			
Media and Post-colonialism	MCS351	3	-
Media, Law, and Ethics	MCS352	3	-
Race, Class, and Gender in Film and Television	MCS353	3	-
The International Newsroom	MCS354	3	-
Analyzing the News	MCS355	3	-
Introduction to Visual Communication	MCS356	3	-
History of Commercial Art	MCS357	3	-
Communication in Advertising	MCS358	3	-
Watching Films	MCS359	3	-
History of Film	MCS360	3	-
The Non-Fiction Film	MCS361	3	-
Introduction to Television Studies	MCS362	3	-
Television Newsmagazines and Documentaries	MCS363	3	-

D. Social Science Core Courses *(Contd....)*

Course Title	Course Code	Credit Hours	Pre-Requisite
Theories of Film and Television	MCS364	3	-
Narratives Across Media	MCS365	3	-
Digital Activism and Democracy	MCS366	3	-
Media Convergence and the Virtual Public Sphere	MCS367	3	-
Psychology Core Courses			
Research Methods in Psychology	PSY301	3	-
Human Development	PSY302	3	-
Personality, Identity, and the Self	PSY303	3	-
Language, Memory, and the Human Mind	PSY401	3	-
Psychology Electives			
Introduction to Social Psychology	PSY351	3	-
Industrial Psychology and Organizational Behavior	PSY352	3	-
Psychology and the Media	PSY353	3	-
Psychology of Conflict	PSY354	3	-
Introduction to Developmental Psychology	PSY355	3	-
Attachment and Loss	PSY356	3	-
Child and Adolescent Development	PSY357	3	-
Psychology of Aging	PSY358	3	-
Introduction to Cognitive Psychology	PSY359	3	-
Sensation and Perception	PSY360	3	-
Human Memory	PSY361	3	-
Abnormal Psychology	PSY362	3	-
Psychology of Human Emotion	PSY363	3	-

E. Culminating Experience

Course Title	Course Code	Credit Hours	Pre-Requisite
Culminating Experience I	POL, MCS PSY / 491	3	-
Culminating Experience II	POL, MCS, PSY / 492	6	-



Semester-wise Sequence of Courses

FRESHMAN	Semester - 1	Course Code	Credit Hours	Pre-Requisite
1	English Grammar and Composition	SSC101	3	-
2	Foreign Language - I	SSC201 / 205 / 209	3	-
3	Calculus-I with Plane Geometry	MTS101	3	-
4	History of Ideas - I	SSC239	3	-
5	Fundamentals of Sociology	SSC231	3	-
6	Introduction to Historical Methods	SSC232	3	-
	Semester - 2	Course Code	Credit Hours	Pre-Requisite
1	Intermediate English Grammar and Composition	SSC106	3	-
2	Foreign Language II	SS202 / 203 / 210	3	-
3	Introduction to Statistics	MTS102	3	MTS105
4	History of Ideas - II	SSC238	3	-
5	Introduction to Economics	ECO105	3	-
6	Major Themes in World History	SSC121	3	-
SOPHOMORE	Semester - 3	Course Code	Credit Hours	Pre-Requisite
1	Speech Communication	HUM201	3	-
2	Foreign Language - III	SSC2023 / 207 / 211	3	-
3	Statistical Inference	MTS202	3	MTS102, MTS103
4	Introduction to Psychology	PSY351	3	-
5	Introduction to Social and Cultural Anthropology	SSC233	3	-
6	South Asian History	SS221	3	-
	Semester - 4	Course Code	Credit Hours	Pre-Requisite
1	Interdisciplinary Social Science Seminar	SSC219	3	-
2	Foreign Language - IV	SSC204 / 208 / 212	3	-
3	Pakistan History	SSC151 / 222	3	-
4	Introduction to Political Science	SSC217	3	-
5	Culture, Media, Society	SSC216	3	-
6	Introduction to Urban Studies	SSC234	3	-
SUMMER	6-Week Responsible Citizen Initiative - No Credit			

Semester-wise Sequence of Courses

JUNIOR	Semester - 5	Course Code	Credit Hours	Pre-Requisite
1	Major Core I: Research Methods	-	3	-
2	Major Core - II	-	3	-
3	Introduction to Linguistics	SSC235	3	-
4	Non-Specialization Elective - I	HUMXXX	3	-
5	Natural Science Elective - I	NSCXXX	3	-
6	Computational Research Methods	SSC302	3	-
	Semester - 6	Course Code	Credit Hours	Pre-Requisite
1	Major Core - III	-	3	-
2	Major Elective - I	-	3	-
3	Major Elective - II	-	3	-
4	Socioeconomic Philosophy of Islam or Philosophy, Logic & Ethics	SSC301 / HUM357	3	-
5	Non-Specialization Elective - II	HUMXXX	3	-
6	Visual Studies Elective - I	HUMXXX	3	-
SUMMER	6-Week Summer Internship	-	3	-
SENIOR	Semester - 7	Course Code	Credit Hours	Pre-Requisite
1	Major Elective - III	-	3	-
2	Major Elective - IV	-	3	-
3	Natural Science Elective - II	NSCXXX	3	-
4	Visual Studies Elective - II	HUMXXX	3	-
5	Non-Specialization Elective - III	HUMXXX	3	-
6	Culminating Experience - I	-	3	-
	Semester - 8	Course Code	Credit Hours	Pre-Requisite
1	Major Core IV: Senior Seminar	-	3	-
2	Major Elective - V	-	3	-
3	Major Elective - VI	-	3	-
4	Visual Studies Elective - III	HUMXXX	3	-
5	Culminating Experience - II	-	6	-

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Zohaib
Riaz

“IBA Karachi is very unique in terms of its social and academic environment. It is an institute that brings together culture from all parts of Pakistan. I have great memories of my life at IBA. My experience at IBA was very beneficial to me. The knowledge I gained was both theoretical and practical, transmitted by professors who are expert in their fields. In short, IBA provided me with the key to success.”

“The MBA program at IBA is well-structured and implemented to obtain the best of results. It has given me the opportunity to touch new heights in my professional and personal life. It's really student orientated, which I like. The student body is made of people from all walks of life and professions. If you are looking to do your MBA, IBA will open doors for you not only via its extensive alumni network and excellent curriculum, but also by grooming you in subtle ways through society-based events and the general ambience.”



Seemab
Shahzad



Muhammad
Hassan Anwar

“An MBA degree from IBA teaches essential technical and personal skills required for the corporate world, hence paving way for practical achievements. I never felt closer to such a group of like-minded, eager to learn individuals as I did studying at IBA with my fellow students. A degree from IBA will be an asset worth treasuring, an investment with high returns, and an experience to remember and cherish for a lifetime.”

Graduate Programs

- ✧ Master of Business Administration (MBA)
- ✧ Master of Science (Computer Science)
- ✧ Master of Science (Economics)
- ✧ Master of Science (Mathematics)
- ✧ Executive MBA (EMBA)



Vision Statement

"To become a leading MBA program of choice in the region shaping businesses and societies."

Mission Statement

The mission of the MBA program at IBA is to contribute to business and socioeconomic development nationally, regionally, and globally.

The program will help students develop a range of analytical, conceptual, and operational skills that address the many challenges industries face. We attract talented students through a competitive process and facilitate their transformation into responsible business leaders.

Our MBA graduates are trained to think critically and independently, and to work ethically and with integrity. Our MBA faculty, using state-of-the-art technologies and pedagogies, foster this learning environment through the creation, acquisition, dissemination, and application of new knowledge related to business administration."

Objectives:

1. Building business acumen and technical skills.
2. Developing qualitative and quantitative analytical abilities that lead to effective decision making.
3. Developing management and leadership competencies and behaviors, including teamwork, communication, drive for success, hard work, discipline and creativity.
4. Developing strategies for global thinking while remaining anchored in local socioeconomic and cultural realities, through the pedagogical use of local and international cases, experiential projects, international exchanges, and study tours.
5. Nurturing and fostering the spirit of enterprise.
6. Developing ethical and socially responsible business leaders.
7. Developing general management skills.

Outcomes:

Our graduates should have demonstrated abilities to:

1. Make well-informed decisions in various business and managerial situations that lead to ethically sound and profitable results.
2. Consider social and environmental issues and dilemmas when addressing business problems.
3. Exhibit strong interpersonal and teamwork skills.
4. Demonstrate excellent communication and computing skills to prepare and present reports for a range of purposes.
5. Use the knowledge they have gained to understand and resolve real-world business problems.
6. Understand complexities of strategic and operational level processes and organizational systems.
7. Plan and implement different business and functional proposals and agendas within the business organization.
8. Recognize and encourage social and cultural sensitivity and diversity within an organization.
9. Identify challenges and execute opportunities related to internationalization, globalization, emerging technologies and social media.
10. Consistently establish professional development and personal effectiveness goals to demonstrate creativity and innovation.

MBA Learning Goals

Communication Skills

- Speech: Coherent and clear delivery, time management and logical flow of ideas
- Presentation: Effective use of presentation tools and IT equipments
- Written: Logical and clear presentation of ideas
- Technical Writing Skills: Use of correct English Grammar and language
- Listening Skills: Ability to accurately receive and interpret messages in the communication process

- Demonstrate an in depth knowledge and understanding of multiple business disciplines for e.g Accounting, Finance, HR etc
- Understand and analyze the internal and external dynamics influencing business functions and ethical decision making
- Apply integrated knowledge of all business disciplines for problem solving and decision making.
- Demonstrate knowledge of basic leadership skills and competencies

Knowledge of Business Discipline

Team Skills

- Understand and demonstrate ability to manage team building processes
- Sustains a committed working relationship with colleagues
- Question & challenge team members' assumptions constructively and productively with mutual respect
- Contributes workable ideas and research analysis to each other to enhance the quality of the final deliverable

- Demonstrate work ethics, intellectual curiosity, show alertness for anomalies and seek clarity and formulate questions
- Interpret data, to appraise evidence and evaluate arguments
- Reconstruct ones thought process through reflection
- Alertness to complex and systemic situations to generate alternate solutions

Critical Thinking

Glocal Mindset

- Ability of students to understand the influence of local business and political environment, culture, practices and economics
- Ability to recognize global values, norms, attitude, practices, trends, legal environment and behavior for business decision processes
- Recognizing host location's values, practices, constraints and cultural norms when making business decisions



MBA Morning

The MBA Morning Program is offered at Main Campus. Specializations include Marketing, Finance, Human Resource Management and Supply Chain Management.

Minimum Duration / Credit Hours:

24 months / 72 Credit Hours

Pre-Requisites:

A minimum of 16 years of education out of which 4 years should have been spent in an HEC recognized university / degree awarding institute with: A minimum of 60% aggregate marks OR A minimum of 2.50 CGPA on a scale of 4.00 (as applicable) & A minimum of 2 years of relevant work experience gained after graduation / completion of 16 years of education with 2.5 CGPA or 60% whichever is applicable

Program Structure:

72 credit hours including MBA Project. Summer Internship is mandatory.

MBA Evening

The MBA Evening Program is offered at City and Main Campuses. Specialization include Marketing, Finance, Human Resource Management and Supply Chain Management.

The duration of this program may vary depending on the capacity of the student to complete the course load during each semester.

Minimum Duration / Credit Hours: 42 months / 66 Credit Hours

Pre-Requisites:

A minimum of 16 years of education out of which 4 years should have been spent in an HEC recognized university / degree awarding institute with: A minimum of 60% aggregate marks OR A minimum of 2.50 CGPA on a scale of 4.00 (as applicable) & A minimum of 2 years of relevant work experience gained after graduation / completion of 16 years of education with 2.5 CGPA or 60% whichever is applicable

Program Structure:

72 credit hours including MBA Project.

IBA BBA Students with the CGPA of 2.5 and two years of work experience after BBA will no longer be required to appear in IBA's written entry test for MBA. They will directly be qualified for the next rounds i.e. Group discussion, Interview and Essay submission.

Program Structure			
		Course	Credit Hours
A	Summer Orientation Program	-	-
B	Core Courses	16	36
C	Capstone Course (Corporate Strategy)	1	3
D	Experiential Learning MBA Project	2	6
E	Electives	9	27
	Total Credit Hours	28	72

Process of Admission at IBA

Enrolment

Payment of Fees

Structured Interviews

Group Discussions

Documents Check or Documents Rectification

Aptitude Test

Collection of Admit Card

Submission of online Application Form

MBA Morning & Evening Curriculum

Summer/Winter Orientation Program*	
Business Accounting	8 Weeks Program
Business Math and Statistics	
Business Economics	
Business Finance	
Business Communication	
Introduction to Marketing	
Excel & Access for Business Managers	
Business Management and Introduction to Case Method	
Personal Effectiveness and Communication	
Library Usage and Online Resources Utilization Workshops	

Semester I	Course Code	Credit Hours
Business Finance I	FIN506	3
Financial Accounting and Information Systems	ACC506	3
Managerial Economics	ECO501	3
Marketing Management	MKT501	3
Organizational Behavior and Leadership	MGT557	3
Business Statistics	BUSXXX	2
Business Intelligence	BUSXXX	1
Total Credit Hours		18

Semester II	Course Code	Credit Hours
Accounting for Decision Making	ACC505	3
Legal and Regulatory Environment	LAWXXX	1.5
Business, Government and Society	ECOXXX	1.5
Operations and Production Management	MGT510	3
Applied Business Research	MKTXXX	1.5
Marketing Analytics	MKTXXX	1.5
Business Finance II	FIN507	3
Macroeconomics	ECOXXX	1.5
International Political Economy	ECOXXX	1.5
Total Credit Hours		18

Summer Internship (6-8 Weeks)***

Semester III	Course Code	Credit Hours
Corporate Strategy **	MGT506	3
MBA Project (Core Course)	PRJ701	3
A minimum of four courses from Electives		12
Total Credit Hours		18

Semester IV	Course Code	Credit Hours
MBA Project (Core Course)	PRJ701	3
A minimum of five courses from Electives		15
Total Credit Hours		18

*Mandatory for all students

**Corporate Strategy can only be taken after completion of all Core Courses

*** Mandatory for Non BBA background Students

Note:

MBA Morning students are required to complete their core courses in morning program.



Pedagogy

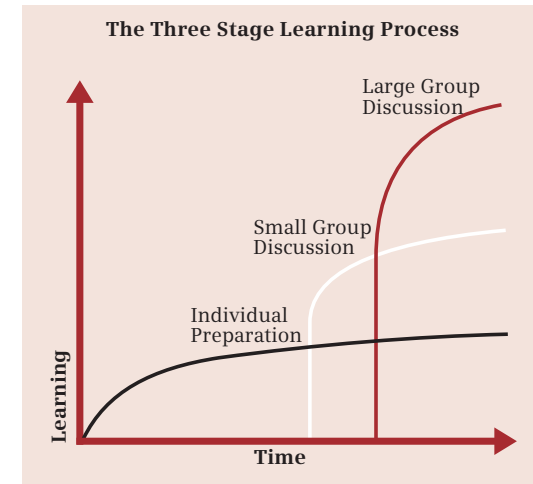
MBA Project

Students in the second year are required to undertake a group project. The aim is to enable students to execute a challenging assignment within the real life business environment. The execution of the project not only helps students to develop problem-solving, interviewing and report writing skills, but also provides an opportunity for them to enhance their decision making, leadership and team building skills. The MBA Project also helps students in developing job-related networks that are important for their future. The outcome of the MBA Project is a detailed implementation plan on some managerial and organizational problems. It also enhances the final year students' sense of contribution and achievement.



Case Method

Cases are one of the popular and effective tools used in learning all around the world, especially at graduate level. The case method allows students to experience real life situations, pressures and challenges, preparing them to become truly professional in their respective field of work. It is the best way to apply theory to practice and develop analytical, decision-making, application, writing, time management and creative skills. The illustration (right) shows the growth in learning when cases are discussed in large groups in a short span of time. At IBA, we believe in maximizing the learning process of students using the best tools available.



Grading & Evaluation

The rules pertaining to grading and evaluation of courses in the MBA program are appended as under:

- The matrix on the right identifies in a comparative manner the particulars of the 'fixed' and 'relative' grading systems that are in use in the MBA program.
- The final percentage or final scores are not applicable in the relative grading system. A student's final score will determine his / her position and ranking in the class i.e. top 10% to 20%, middle 65% to 75%, lower middle 10% to 20%, and lower 0% to 10% of the class. In a class size of 30 or less, relative grading will not be applicable. In the relative grading system, approximately 10% to 20% top students will receive A or some times A(-) grades, 60% to 75% will receive B(+) or B grades, 10% to 20% will receive B(-), C (+), C, C(-) grades, and about 0% to 10% students will end up with an F grade. However, in the fixed grading system the grades assigned will depend on actual marks obtained by the student.
- A student with GPA 2.0 to 2.2 will be put on probation for the next semester. A student having less than 2.0 GPA is dropped from the rolls of the Institute forthwith. Probation rules will apply to students on probation. Students with 50% of all their semester results in the lowest grade will require special mentoring and feedback sessions with the faculty, MBA director and faculty mentors.
- Students can withdraw from the course according to IBA's withdrawal policy and will get a 'W' grade (however, it will not be counted as a deficiency). It is the choice of the faculty to decide which grading system they would like to apply. Any changes from normal bands (relative

grading system) will need prior approval from Dean and Director. MBA students performing extremely poor in MBA project can be assigned an "I" (incomplete grade). Such students will be assigned extra work by the MBA Program Office and the Director MBA program to overcome the incomplete grade. After completing the assigned extra work (small project or case study writing), a maximum "C-" grade can be assigned by the project or case writing supervisor. If a student fails to pass certain courses and yet manages to maintain a CGPA equal to or above 2.2, he / she will be allowed to repeat and clear the course(s) or substitute(s) wherever permissible, before the degree is awarded to him / her. The CGPA is computed at the end of each semester, including a summer term that a student might have enrolled in.

GPA Requirement for Award of MBA Degrees

An MBA Program student whose CGPA in the final semester is less than 2.2 but not below 2.0 shall also be required to repeat one semester of the lowest academic standing or certain courses in order to be eligible for the award of MBA degree. If the student improves the CGPA (minimum 2.2), degree shall be awarded (other conditions applicable), otherwise only a transcript of credits shall be issued.

Summer Semester

Students doing an internship during the summer semester are not allowed to register for an advanced credit or additional course. However, such students are allowed to remove deficiency in one course during the summer semester. Students not doing an internship can clear up to two deficiencies, or enroll for two advanced courses in the summer semester.

Grading Matrix

Fixed Grading

Grade	Percentage	GPA
A	93-100	4.00 Grade Points
A-	87 - 92	3.67 grade points
B+	82 - 86	3.33 grade points
B	77 - 81	3.00 grade points
B-	72 - 76	2.67 grade points
C+	68 - 71	2.33 grade points
C	64 - 67	2.00 grade points
C-	60 - 63	1.67 grade points
F	0 - 59	0.00 grade points

Relative Grading

Grade	Percentage	GPA
A	4.00 grade points	Approx. 10% - 20%
A-	3.67 grade points	Students
B+	3.33 grade points	Approx. 65% - 75%
B	3.00 grade points	Students
B-	2.67 grade points	Approx. 10% - 20% Students
C+	2.33 grade points	
C	2.00 grade points	
C-	1.67 grade points	
F	0.00 grade points	Approx. 0% - 10% Students
W	Withdraw from the course	
I	Incomplete grade	



Students may withdraw from one course during the summer semester. Withdrawal should be sought within a week after the announcement of the mid-term examination result.

Evaluations

The summer internships for full-time students are closely monitored and evaluated. Interns are encouraged to discuss their problems with the faculty members during the follow-up meetings arranged for this purpose during the internship period. Faculty members frequently visit the organizations to keep abreast of the progress of internees. At the end of the internship, students submit an internship report and are also interviewed in detail. Feedback about the performance of the internee is also obtained from the supervisors of the internee. A final grade is awarded to the internee on the basis of the interview, the follow-up meetings and visits, the internship report and the company's evaluation.

Work Experience Requirement for Admission

Work requirement for admission to IBA's MBA program will comprise of 2 years of post qualification work experience in multinationals, large domestic corporations, and large family businesses. For self employed and smaller family businesses the 'Work Evaluation Committee' will decide if the experience is acceptable for admission to IBA. The work evaluation committee will comprise of a member of the Admission Committee, Director MBA Program and an IBA alumnus with at least 10 years of work experience. This work requirement will only be considered, provided it has been achieved after applicants have obtained 16 years of education with 2.5 CGPA or 60% (whichever is applicable) and satisfy the minimum eligibility requirement for admission in the MBA Program.

The education requirement should meet the criteria established by HEC. Work experience gained during CA, ACCA (Affiliate), Pharm-D and MBBS will not be considered a relevant work experience for admission to the MBA Program.

Comprehensive Examination

Every student is required to pass a comprehensive examination on completion of all MBA courses. This examination tests the students' grasp of the total course offerings and provides them with an opportunity to recapitulate and integrate their knowledge prior to earning the MBA degree. The student is eligible for a transcript / degree only after passing the comprehensive examination. However, he may obtain a provisional certificate on completion of the course requirement. The MBA Director is responsible for providing the comprehensive exam, evaluation of the exam copies and the final results. The controller of examination is responsible for conducting this exam. The six-hour examination is held after every regular semester. A maximum of three attempts are allowed to clear the examination. Students who fail to pass the comprehensive examination are eligible only for the individual course certificates.

Summer & Winter Orientation Programs:

Summer Orientation Program (SOP) for Fall intake and Winter Orientation Program (WOP) for Spring intake have been introduced for all newly admitted students of MBA. Summer/Winter Orientation Program will set the tone and level of rigor for the entire MBA program. These Programs are to make students familiar with the business courses, case method, team building and ethics, norms and values of IBA. Spread over seven weeks, this program is mandatory for all MBA students, irrespective of their undergrad degree, to prepare them for the intensive and rigorous IBA MBA program. Attendance and successful completion of Summer/Winter Orientation Program is a prerequisite for admission in the MBA program.

International Exchange Students

This is a new effort of IBA to provide international exposure to its students in a foreign university. Under this program, a few students will be selected and exchanged with a well-known foreign university for one whole

semester. This will help them to achieve the experience of learning in a foreign university environment, interact with people of different cultures and also learn about a different setup and system. This exercise will improve students' personal growth and will be helpful once they enter their professional lives.

General

Both campuses of the IBA have spaces dedicated to the management of its various programs. The MBA offices at both locations are located in the Admin Block. The staff of the MBA Program Office is dedicated to providing students with the best possible educational environment. To this end, we strive to ensure that our students have the assistance that is essential to the MBA Program through timely information flows, the establishment of a strong support network, and the encouragement of student involvement in IBA's life.

MBA Program Office

The MBA Program Office is committed to being the best service unit of its kind, providing the highest levels of courtesy, responsiveness, and professionalism.

Its major responsibilities include:

- Organizing Pre-Term
- Managing course registration
- Course scheduling
- Setting the academic calendar
- Maintaining student records
- Monitoring of students' program requirements, majors, and waivers
- Course audits for degrees and graduation requirements
- Directing international programs
- Publishing primary sources of information
- Nominating resource persons and information guides
- Issuing class bulletins
- Maintaining Program Office website

Advising Role

MBA Program Office is the MBA student's help center and advisor. It will counsel the students on academic issues such as selection of courses and teachers. It also provides an opportunity to students to discuss their personal issues (such as managing stress related to academic and other problems). Its advising role includes:

- Academic and program reviews
- Tutor referrals
- Course selection
- Information about other resources

Some of the other roles of MBA office include:**Role in Student Activities**

Students who actively engage in IBA activities will experience a first-hand sense of community service aimed at promoting a richer overall IBA experience. The office facilitates student involvement through their work with:

- Distinguished Guest Lecture Series
- Seminars & Conferences
- IBA-wide social events
- IBA club activities

Facilitating Student and Faculty Involvement

To become directly involved with the MBA Program Office, students can join the (MBAPO) Advisory Board. Advisory Board members will include both students and faculty, who will work to improve MBAPO services and provide critical input in shaping processes and policies and managing office tasks.

Career Counseling

IBA's educational approach is designed to help the students identify a field of interest, acquire the knowledge, skills and experience to excel in that field. The officer is to help the students find the right job in the right field with the right employer through:

- Supporting the students in their career development
- Aligning the needs of employers with the competencies of our graduates
- Organizing professional lectures, seminars, panel discussions and workshops on career development and related skills.

Required Documents:

The following documents must be submitted at the time of Group Discussion/Interview failing which enrolment will be liable to cancellation and fee shall not be refunded:

Attested Copies

- a. Secondary School Certificate / O Level Certificate
- b. Higher Secondary School Certificate / A Level Certificate
- c. Bachelor Degree & Transcript
- d. Master Degree & Transcript
- e. CNIC or Birth Certificate

Original Documents

- f. Migration Certificate: Issued by a Pakistani University / Board last attended other than IBA (Original Migration Certificate will not be returned back)
- g. Two recent Passport size photographs duly attested by the concerned Program Office
- h. Work Experience Letters (post qualification)



LIST OF ELECTIVES

Course Title	Course Code	Credit Hours	Pre-Requisite
Actg. Info. System with SAP	ACC507	3	-
Auditing Theory & Practice	ACC557	3	-
IFRS & Financial Reporting in Pakistan	ACC559	3	-
Analysis of Financial Statements	ACC561	3	ACC501
Project Evaluation & Financing	ACC589	3	ACC501
Business Analytics	BUS501	1.5	-
International Field Project Course	BUS-XXX	1.5	-
Corporate Governance & Practices in Pakistan	LAW553	3	-
Development Economics and Issues in Pakistan Economy	ECO530	3	ECO531, ECO532
International Trade	ECO539	3	ECO531
Public Policy Analysis: Theory and Practice	ECO560	3	ECO531 / ECO501 /
Environmental and Resource Economics	ECO561	3	ECO501 /
Financial Economics	ECO562	3	-
Monetary Economics	ECO566	3	-
Water Economics and Policy	ECO574	3	ECO501 / ECO531 /
The Microeconomics of Policy Analysis	ECO575	3	ECO501 / ECO531 /
Labor Economics	ECO654	3	-
Financial Intermediation	FIN531	3	-
Advance Credit Management	FIN532	3	-
Financial system – process, players, status and prognosis	FIN533	3	-
The Strategic Management of Banks	FIN541	3	-
International Financial Management	FIN552	3	ECO501 / FIN507
Investment Banking & Financial Services	FIN554	3	FIN507
Security Analysis & Capital Markets	FIN556	3	FIN507
Regulation & Financial Markets	FIN558	3	FIN507
Islamic Banking & Finance	FIN570	3	-
Advanced Corporate Finance	FIN560	3	FIN507
Advanced Portfolio Management	FIN563	3	FIN 507
Treasury and Fund Management	FIN565	3	FIN507
Risk Management	FIN567	3	FIN507
Derivatives & Risk Hedging	FIN568	3	FIN507
Financial Econometrics	FIN569	3	MTS506 / FIN507
Financial Modeling	FIN574	3	FIN507

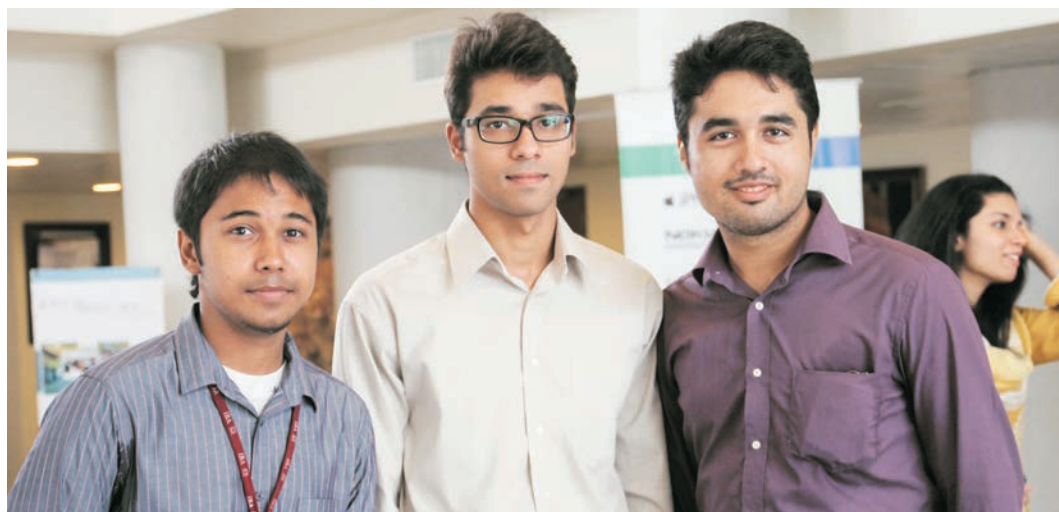
LIST OF ELECTIVES *(Contd...)*

Course Title	Course Code	Credit Hours	Pre-Requisite
Seminar in Finance	FIN577	3	FIN507
Fixed Income Securities	FIN594	3	-
Financial Analytics	FINXXX	1.5	-
Entrepreneurial Management	MGT507	3	-
Strategic Human Resource Management	MGT512	3	-
Business Strategy	MGT513	3	-
Strategic Management	MGT552	3	-
Project Management	MGT555	3	-
Competitive Strategy From a Customer's Perspective	MGT556	1.5	-
International Market Entry Strategies	MGT558	3	-
Recruitment and Selection Techniques	HRM530	3	-
Organizational Development	HRM552	3	-
Team Management	HRM557	3	-
Leading the Change Process	HRM558	3	-
Performance and Compensation Management	HRM562	3	-
Training and Development	HRM571	3	-
Branding and Creative Corporate Communication	MKT506	1.5	-
Advertising	MKT551	3	MKT 501
Consumer Behavior	MKT552	3	-
Social Marketing	MKT556	3	MKT501
Customer Ascendancy	MKT558	3	MKT 501
Supply Chain Management	MKT559	3	MKT501
Brand Management	MKT561	3	MKT501
Media Management	MKT566	3	MKT 501
Social Media Marketing	MKT569	1.5	-
Markstrat	MKT573	1.5	-
Retailing	MKT586	3	MKT 501
Personal Selling	MKT651	3	MKT501
Sales Management	MKT653	3	MKT501
Services Marketing	MKT656	3	MKT501
Strategic Marketing	MKT656	3	MKT501
Business to Business Marketing	MKT658	3	MKT501



LIST OF ELECTIVES *(Contd...)*

Course Title	Course Code	Credit Hours	Pre-Requisite
Global Marketing Management	MKT659	3	MKT 501
Strategic Sourcing & Negotiation Skills	MKT571	3	-
Dynamic Distribution & Logistics	MKT557	3	-
Strategic Sourcing & Procurement	MKT570	1.5	-
Seminar in Marketing	MKT752	3	MKT501 / MKT505
Enterprise Integration (3,0,3)	MIS 503	3	Track-IM
Logistics and Supply Chain Management (3,0,3)	MIS 550	3	CSE 341
Advanced Data Warehousing (2,1,3)	MIS 552	3	Track-IM
Mobile Marketing Strategies (3,0,3)	MIS 553	3	-
Auditing IT Infrastructures (3,0,3)	MIS 555	3	Track-IM
Advance E-Commerce (3,0,3)	MIS 565	3	MIS 456
Fundamentals of SAP-ABAP Programming I (2,1,3)	MIS 566	3	CSE 341
Simulated Approach to SCM (1,5,1,5)	MIS 567	3	MKT 201, MGT 311
Theoretical Foundations of IS (3,0,3)	MIS 651	3	Track-IM
Advanced Theoretical Concepts in IS (3,0,3)	MIS 653	3	MIS 651
Software Project Management (3,0,3)	CSE 503	3	CSE 312
Image Processing for Recognition (3,0,3)	CSE 556	3	CSE 559
Image Processing (3,0,3)	CSE 559	3	Track-IS
Software Systems Engineering (3,0,3)	CSE 564	3	CSE 141, CSE 142



LIST OF ELECTIVES *(Contd...)*

Course Title	Course Code	Credit Hours	Pre-Requisite
Software Quality Assurance (3,0,3)	CSE566	3	Track-SE
Requirements Engineering (3,0,3)	CSE 567	3	Track-SE
Advanced Human Computer Interaction (3,0,3)	CSE 575	3	Track-HCI
Knowledge Discovery and Data Mining (3,0,3)	CSE 652	3	Track-IM
Combinatorial Optimization (3,0,3)	CSE 654	3	Track-IS
Probabilistic Reason (3,0,3)	CSE 655	3	Track-IS
Essentials of Theoretical Computer Science (3,0,3)	CSE 657	3	Track-TCS
Knowledge Management and E-Learning Systems (3,0,3)	CSE 658	3	Track-IM
Computational Intelligence (3,0,3)	CSE 659	3	Track-IS
Computer Vision (3,0,3)	CSE 660	3	Track-IS
Semantic Web (3,0,3)	CSE 661	3	Track-IS
Parallel Processing (3,0,3)	CSE 662	3	Track-TCS
Information Retrieval and Web Search - I (3,0,3)	CSE 665	3	Track-IM
Information Retrieval and Web Search - II (3,0,3)	CSE666	3	CSE 665
Big Data Analytics (3,0,3)	CSE 668	3	CSE 652
Advanced Web Technologies (3,0,3)	ICT 512	3	CSE 308
Distributed Systems (3,0,3)	ICT 515	3	CSE 341



LIST OF ELECTIVES *(Contd...)*

Course Title	Course Code	Credit Hours	Pre-Requisite
Information Security (3,0,3)	ICT 554	3	Track-IM
RFID Technologies (3,0,3)	ICT 556	3	Track-NCC
Computer Communication Networks & Simulation - I (2,1,3)	ICT 651	3	CSE 248, MTS 102
Computer Communication Networks & Simulation - II (2,1,3)	ICT 654	3	ICT 651
Wireless Sensor Networks (1,2,3)	ICT 659	3	CSE 248, CSE 141, MTS 102
Advanced Topics in Wireless Sensor Networks (1,2,3)	ICT 660	3	ICT660
Applications of Mathematical and Computational Techniques to Networking (3,0,3)	ICT 661	3	Track-NCC
WSN Protocols and Applications (3,0,3)	ICT 662	3	CSE 248
Quantitative Methods for Decision-Making	MTS506	3	-
Advanced Real Analysis	MTS511	3	-
Measure Theory & Integration	MTS512	3	MTS512
Topics in Algebra	MTS513	3	-
Topics in Commutative Algebra	MTS514	3	MTS513
Advanced Numerical Analysis	MTS515	3	-
Topology	MTS516	3	-
Scientific Computing	MTS521	3	MTS515
Stochastic Processes II	MTS525	3	MTS304
Stochastic Differential Equations	MTS529	3	MTS304
Integral Equations-I	MTS533	3	-
Mathematical Astronomy	MTS537	3	-
Homological Algebra	MTS539	3	MTS513
Computational Algebraic Geometry	MTS541	3	MTS513
Applicable Modern Geometry I	MTS545	3	MTS511, MTS513, MTS516
Algebraic Geometry I	MTS549	3	MTS513, MTS516
Scientific Computing & Software Calculus-III	MTS551	3	MTS521
Algebraic Cycles I	MTS553	3	MTS513
Arithmetic Algebraic Geometry	MTS557	3	MTS513
Exploratory Data Analysis	MTS561	3	-
Mathematical Physics I	MTS565	3	-
Statistical Data Mining & Knowledge Discovery	MTS569	3	-
Statistical Machine Learning	MTS573	3	-
Galois Theory	MTS577	3	MTS513
Numerical Treatment of P.D.E	MTS621	3	MTS515

LIST OF ELECTIVES *(Contd...)*

Course Title	Course Code	Credit Hours	Pre-Requisite
Financial Mathematics I	MTS625	3	-
Financial Mathematics II	MTS629	3	MTS515
Computational Astronomy	MTS637	3	MTS537
Applicable Modern Geometry II	MTS645	3	MTS545
Algebraic Geometry II	MTS649	3	MTS549
Algebraic Cycles II	MTS653	3	MTS549
Polylogarithms	MTS657	3	-
Multivariate Statistical Analysis	MTS661	3	MTS525
Mathematical Physics II	MTS665	3	MTS565
Monomial Algebra	MTS671	3	MTS514

*Note: For MS courses, prior approval from Program Director and concerned chairperson will be required.



MS Computer Science

Required Courses

MS Computer Science has 6th Tracks, each with a different set of Pre-req (Foundation) Courses					
		MS with Thesis		MS without Thesis	
A	Core	0	0	0	0
B	Elective	8	24	9	27
C	Research Survey	1	3	1	3
D	Research Work	1	3	0	0
Total		10	30	10	30

The Faculty of Computer Science (FCS) is an exciting place to learn about the latest developments in the area of Computer Science as well as to perform research with a high social impact. The MS program at the FCS enjoys the advantages of a rich set of courses available at both the MS as well as PhD level. From 2014 the MS Program is being offered as a Full Time Morning Program along with existing evening counterpart. The MS program comprises 6 tracks, each completely aimed at a particular field of specialization. The diverse backgrounds of students that come from various fields of study into this MS program, require a customized and tailored approach towards building the relevant fundamentals for each track. Moreover, the curriculum has been designed so that it is on a par with IEEE / ACM guidelines. This ensures that the tracks do not lose relevance in the wake of the rapidly changing landscape of computing technologies. The potential of this program, in terms of imparting useful advanced computing skills and professional growth, is measured by the readiness of the job market and advanced learning schools, in absorbing our graduates. This measure has always been quite high; amongst other factors, the curriculum design ensures that the graduates can creatively find technology-based solutions, think critically and

analyze systems and emerging problems independently. The MS program has two basic categories, MS with thesis, and MS without thesis.

The MS (Computer Science) program is of 30 credit hours with a thesis or research survey option. For those students who opt for thesis, 24 credit hours of course work, 3 credit hours of Research Survey and 3 credit hours of thesis work are required. For students opting for course work only, 27 credit hours of course work along with 3 credit hours of Research Survey is required. The Research Survey course must be taken after students have completed 18 credits and must be supervised by an approved faculty member. The course work may be taken from multiple specialization tracks and a student would be required to take courses from at least two tracks. Specialization tracks include Net-Centric Computing, Human Computer Interaction, Software Engineering, Intelligent Systems, Information Management, and Theoretical Computer Science. Within a specialization track a minimum of 2 to a maximum of 4 courses may be taken. Each track has their own set of prerequisites which are usually BS level Computer Science courses. MS students may also take courses at the PhD (600) level for credit.



The key-objectives of the MS-CS program are:

- Offer maximum curriculum flexibility in order to enable students to engineer their graduate education towards their ambitions and goals in their computing professions.
- Facilitate job promotion for students, from mid-level IT positions to senior level positions, by adding to their skills and academic qualifications.
- Empower students with skills required to address modern computing challenges of their respective organizations.
- Expose students to qualified faculty with international recognition, and encourage them to undertake research that may potentially lead to doctoral work.

MS (CS) Specialization Tracks

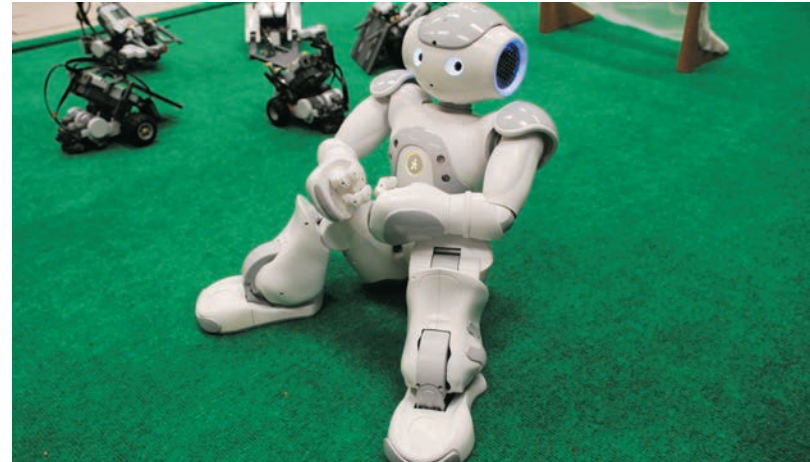
List of Specialization Tracks (Courses and Prerequisites)

1	Net-Centric Computing	
	Advanced Computer Networks	ICT511
	Mobile Computing	ICT558
	Wireless Communication	ICT553
	Distributed Systems	ICT555
	Information Security	ICT554
2	Human Computer Interaction	
	Advanced Human Computer Interaction	CSE575
	Usability Engineering	CSE576
	Interaction Design	CSE577
	GUI Design	CSE578
	Multimedia and Multi-Modal Systems	CSE579
3	Intelligent Systems	
	Knowledge Discovery and Data Mining	CSE652
	Computational Intelligence	CSE659
	Probabilistic Reasoning	CSE655
	Computer Vision	CSE660
	Big Data Analytics	CSE668



List of Specialization Tracks (Courses and Prerequisites)

4	Software Engineering	
	Software Quality Assurance	CSE566
	Requirement Engineering	CSE567
	Software Project Management	CSE503
	Web Engineering	CSE569
	Advanced Web Technologies	ICT512
5	Information Management	
	SAP ABAP Programming I	MIS541
	SAP ABAP Programming II	MIS542
	Operations & Technology Management	MIS502
	Enterprise Integration	MIS503
	Social Computing Applications	MIS564
	Information: Industry Structure & Competitive Strategy	MIS513
	Advanced Data Warehousing	MIS552
	Knowledge Discovery and Data Mining	CSE652
6	Theoretical Computer Science	
	Advanced Analysis of Algorithms	CSE651
	Formal Methods	CSE572
	Scientific Computing & Software Calculus - III	MTS551
	Combinatorial Optimization	CSE654



Required Courses for MS Economics

		Course Load	
		Course	Credit Hours
A	Foundation Courses	5	15
B	Core Courses	7	21
C	Elective Courses	4	12
D	Thesis	1	9
	Total Credit Hours	17	57

Master of Science (Economics)

The MS (Economics) program is designed to provide a solid background in theory, quantitative methods, and applications appropriate to the needs of economists involved in policy planning, analysis, and forecasting of public and private sectors. The curriculum of this program has been designed to meet the international standards. We hope the students will find the program to be intellectually challenging and personally rewarding.

This program emphasizes on applied economics, and caters to the growing market for economic analysts. Graduates from this program will be able to teach and conduct quality research in the fields of their interest, and will be prepared for careers in universities, research organizations, business enterprises, government organizations, and multinational companies.

Eligibility:

Candidates must have a minimum of 16 years of education / equivalent degree in any discipline recognized by HEC with minimum 2.5 out of 4.0 CGPA or 60% marks in the last degree. All equivalency claims shall be evaluated by HEC.

Experience is not a mandatory requirement for admission to this program.

Candidates awaiting results may apply for admission. In such cases the admission will be conditional pending submission of the required results before the date of commencement of classes.

Admission Criteria:

Admissions to all programs at the IBA are granted on merit, and there are no reserved seats of any category. The criterion for admission is the performance of the applicant in aptitude test and interview. The aptitude test is a written test of three subjects: English, Mathematics and Economics.

Candidates who have a minimum 650 score in quantitative section of GRE (International) or 160 score in quantitative section of Revised GRE (International) are exempted from the IBA admission test.

The candidates who pass the aptitude test qualify for the interview.

Duration:

MS (Economics)	2 years
Maximum time allowed	5 years

Financial Assistance:

All full time MS students will be provided financial support (Rs. 30,000 / - per month for maximum of two years) through teaching and research assistantship programs at IBA. Students seeking financial assistance, must



register in four courses in each semester in Fall and Spring semesters. After the first semester in the program, eligibility for financial support is 3.0 CGPA in courses taken in MS (Economics) program at IBA.

Requirements for MS (Economics)

Course requirements are given as:

MS Courses:	48 Credit Hours (16 Courses)
MS Thesis:	9 Credit Hours

Semester-wise Sequence of Courses

First Year	Semester – 1 (FALL)	Course Code	Credit Hours	Pre-Requisite
1	Microeconomic Theory I	EC0531	3	EC0533
2	Macroeconomic Theory I	EC0532	3	-
3	Mathematics for Economists	EC0533	3	-
4	Mathematical Statistics and Linear Algebra	MTS536	3	-
	Semester – 2 (Spring)	Course Code	Credit Hours	Pre-Requisite
1	Microeconomic Theory II	EC0631	3	EC0531
2	Macroeconomic Theory II	EC0632	3	EC0532
3	Econometrics I	EC0537	3	MTS536
4	Issues in Pakistan Economy	EC0530a	3	EC0531, EC0532
	Semester – 3 (Summer)	Course Code	Credit Hours	Pre-Requisite
1	Mandatory Field Internships			
Second Year	Semester – 4 (Fall)	Course Code	Credit Hours	Pre-Requisite
1	Econometrics II	EC0538	3	MTS536, EC0537
2	International Trade	EC0539	3	EC0531
3	Development Economics	EC0530b	3	EC0531, EC0532
4	Elective I	-	3	-
	Semester – 5 (Spring)	Course Code	Credit Hours	Pre-Requisite
1	Research Methodology	EC0591	3	EC05381 631 & 632
2	Elective II	-	3	-
3	Elective III	-	3	-
4	Elective IV	-	3	-
	Semester – 6 & 7 (Summer & Fall)	Course Code	Credit Hours	Pre-Requisite
	MS Thesis	EC0699	9	-

List of Elective Courses

Course Title	Course Code	Credit Hours	Pre-Requisite
Economic Forecasting	EC0555	3	EC0537, EC0570
Environmental and Resource Economics	EC0561	3	EC0631, EC0533
Financial Economics	EC0562	3	EC0531, EC0533
Health Economics	EC0563	3	EC0631
History of Economic Thought	EC0564	3	-
Islamic Economics	EC0565	3	EC0531, EC0532
Monetary Economics	EC0566	3	EC0632
Public Economics	EC0567	3	EC0531, 532 & 533
Transport Economics	EC0568	3	EC0531, EC0533
Time Series Modeling	EC0570	3	EC0537
Industrial Economics	EC0571	3	EC0631
General Equilibrium and Welfare Economics	EC0572	3	EC0631, EC0533
Game theory and Competitive Strategy	EC0573	3	EC0631
Combinatorial Optimization	CSE654	3	EC0533 & EC0531
Labor Economics	EC0654	3	EC0631, EC0538
Public Policy Analysis: Theory and Practice	EC0560	3	EC0531 / EC0501 / EC0102 / EC0104 / EC0103/113
The Microeconomics of Public Policy Analysis	EC0575	3	EC0301 / EC0312 / EC0501 / EC0531
Environmental and Resource Economics	EC0561	3	EC0301 / EC0312 / EC0501 / EC0531
Water Economics and Policy	EC0574	3	EC0301 / EC0312 / EC0501 / EC0531

Dissertation Defense:

Students are expected to submit and defend their dissertation within next six months after the successful completion of their course work

For further details Visit:economics.iba.edu.pk

Mater of Science (Mathematics)

In order to be eligible to apply for admission in MS leading to PhD in Mathematical Sciences, a candidate should:

- Possess a BS / MSc (16 year education) degree from a recognized university in Mathematics.
- Have passed the last examination with at least 60% marks (or CGPA 2.5 whatever applies)

(Experience is not mandatory for admission to MS Mathematics program).

Admission Process:

(Only Applicants with Majors in Mathematics (in BS or MSc) allowed for 2013 admissions)

All eligible candidates would be required to:

- Appear in and qualify an aptitude test (equivalent to GRE general / GAT general of NTS), and if successful appear in an interview / presentation before a selection panel.
- Candidates, who have a minimum 650 score in quantitative section of GRE (International) or 160 score in quantitative section of Revised GRE (International) are exempted from the IBA aptitude test, but not from the interview.

Duration:

MS: 2 - 4 years.

MS - PhD: 4- 6 years. (Max possible is 8 years)

Financial Assistance:

Full time MS students can opt for financial support which is provided in the form of assisting duties for teaching and research. This support is upto a maximum of Rs. 25,000 per month. This facility is only extended to

Required Courses for MS Mathematics

		MS with Thesis		MS without Thesis	
		Course	Credit Hours	Course	Credit Hours
A	Found / Pre-req (Str. dela)	0	0	0	0
B	Core units	6	18	6	18
C	Elective units	2	6	4	12
D	Literature Survey	1	3	0	0
E	Research Work units	1	3	0	0
Total		10	30	10	30

those students who maintain a cumulative CPA of 3.0 and register in 4 courses each semester in the MS (Mathematics) program. In addition to this, the students availing financial support MUST not work elsewhere. In the PhD phase of the program the stipend amount would be raised to Rs. 45,000 per month, in addition to a full tuition fee waiver.

The fee-structure in the MS (Mathematics) morning program matches that of the BS morning program.

Minimum Time Policy for MS Mathematics

Students who undertake the MS program of study on a part-time basis (i.e. those students who are not offered or do not willfully avail / opt-for financial assistance), may complete the program in no Less than 1.5 years

Requirements for the Award of MS (and Subsequently PhD) Degree

For award of an MS in Mathematical Science a candidate should:

- Complete 30 credit hours that include 24 credit hours (8 courses) of course work and 6 credit hours of thesis.
- Six courses (listed above) at 500 level are core courses that every student must do.

c. In addition, a student has to do two electives to be chosen from the list given below at 500 level.

d. The eligibility for doing an MS thesis is a CGPA of 3.5.

e. Students who do not qualify the eligibility criterion for doing an MS thesis, will be required to do two additional courses (6 credit hours in addition) and graduate with an MS degree only. Such MS graduates would lose the eligibility of doing a PhD in future from IBA.

f. Public defense of the MS thesis and completion of the degree will be governed as per IBA's policy.

For further details Visit: mathematics.iba.edu.pk



Core Courses*

Course Title	Course Code	Credit Hours	Pre-Requisite
Semester: 1			
Advanced Real Analysis\	MTS511	3	-
Topics in Algebra	MTS513	3	-
Advanced Numerical Analysis	MTS515	3	-
Topology	MTS516	3	-
Semester: 2			
Measure Theory & Integration	MTS512	3	MTS511
Topics in Commutative Algebra	MTS514	3	MTS513
Elective I	MTSXXX	3	
Elective II	MTS XXX	3	-



List of Electives*

Course Title	Course Code	Credit Hours	Pre-Requisite
Scientific Computing	MTS521	-	MTS515
Stochastic Processes II	MTS525	-	MTS304 (or equivalent)
Stochastic Differential Equations	MTS529	-	MTS304 (or equivalent)
Integral Equations	MTS533	-	
Mathematical Astronomy	MTS537	-	
Homological Algebra	MTS539	-	MTS513
Computational Algebraic Geometry	MTS541	-	MTS513
Applicable Modern Geometry I	MTS545	-	MTS511 / 513 / 516
Algebraic Geometry I	MTS549	-	MTS513 / M1S516
Algebraic Cycles I	MTS553	-	MTS513
Arithmetic Algebraic Geometry	MTS557	-	MTS513
Exploratory data Analysis	MTS561	-	
Mathematical Physics I	MTS565	-	
Statistical Data Mining & Knowledge Discovery	MTS569	-	
Statistical Machine Learning	MTS573	-	
Galois Theory	MTS577	-	MTS513

*The Departmental Research Committee is authorized to introduce any new course added to the above list as and when required.



This flagship program offers a unique opportunity for the in-service professionals to enrich their knowledge and skills without sacrificing their job commitment and earning stream. This weekend program presents a fast track route to the Masters in Business Administration from the prestigious IBA. Executive MBA program is more suitable for the professionals aiming at acquiring leadership role and moving towards the highest levels of the corporate ladder especially under C-suite (CEO, CFO, COO etc.) or an entrepreneurial role. The program format, courses, methodology and contents are developed in consultation with leading experts and worthy faculty members.

IBA Corporate Leaders Advisory Board (ICLAB)

At IBA we believe in creating meaningful collaboration between the industry and academia, so that all our programs are reflective of their aspiration and needs. In order to ensure regular interaction with the corporate leaders a high level Advisory Board has been formed. The ICLAB members list is given below:

S. No.	Name	Designation	Organization
1	Mr. Asad S. Jafar	Chairman & CEO	Philips Pakistan Limited
2	Ms. Ayesha Aziz	Chief Executive Officer	Pak Brunei Investment
3	Mr. Faisal Sabzwari	Country Manager	Proctor & Gamble Pakistan
4	Mr. Farid Ahmed Khan	Chief Executive Officer	ABL Asset Management
5	Mr. Hasan A. Bilgrami	Chief Executive Officer	Bank Islami Pakistan
6	Mr. Hasan Ali Khan	Managing Director	Continental Biscuits Limited
7	Mr. Javed Ahmed	Chief Executive Officer	Jubilee life Insurance
8	Mr. Khalid Rahman	Managing Director	Sui Southern Gas Company
9	Mr. Nadeem Elahi	Senior Vice President	IBEX Global
10	Mr. Nadeem Hussain	President	Tameer Micro Finance Bank
11	Mr. Najam Ali	Chief Executive Officer	Next Capital
12	Mr. Ruhail Mohammed	Chief Executive Officer	Engro Fertilizers
13	Mr. Salman Burney	Chief Executive Officer	Glaxo Smithkelin
14	Mr. Sohail P. Ahmed	Vice Chairman	House of Habib
15	Mr. Tariq Wajid	Managing Director	Martin Dow



Preparing leaders for the Corporate World

- Intermediate & Advanced Business Theory, Skills

To create a solid technical and theoretical background, 22 courses covering key disciplines of business administration have been offered, including leadership and business strategy courses.

- Course Curriculum

The course curriculum is responsive to the needs of the industry and is endorsed by an Advisory Board drawn from among the expert practitioners of the industry and academia

- Project Reports

Each participant will be required to develop 1 project on a subject of critical importance duly approved by the Subject Advisory Committee / Director Executive MBA Program.

- Format

Learning sessions are scheduled on:
Saturdays -2:00 pm to 9:15 pm
Sundays -10:00 am to 5:15 pm

- Degree

Executive MBA degree from IBA Karachi shall be awarded on qualifying: Course work with minimum 2.2 CGPA Comprehensive exam Completion of research project [s]

Eligibility Criteria

In-service professionals with:

- 16 years of education with three years of post qualification work experience; **OR** 14 years pf education with six years of post qualification work experience. HEC rules will be applicable **OR** Qualified Chartered Accountants with 2 years of post-qualification work experience. **OR** Qualified ACCA upon completion of three years post of ACCA work experience
- Satisfactory performance in the IBA admission test and interview.

Required Courses

Section	Knowledge Area	Courses	Credit Hours
A	Core Courses	13	39
B	Capstone Course (Corporate Strategy)	1	3
C	Experiential Learning EMBA Project Report	1	6
D	Electives	8	24
	Total Credit Hours	22	72

A. University Core Courses

Semester 1	Course Title	Course Code
	Managerial Communication	MGT503
	Quantitative Methods for Decision Making	MTS506
	Managerial Economics	ECO501

Semester 2	Course Code
Marketing Management	MKT501
Financial Accounting & Information System	ACC506
Legal & Regulatory Environment of Business	LAW501
Elective - I	

Semester 3	Course Code
Advanced and Applied Business Research	MKT505
Business Finance I	FIN506
Operation and Production Management	MGT510
Elective - II	

Semester 4	Course Code
Business Finance II	FIN507
Organizational Behavior and Leadership	MGT557
Global Economics & Political Environment	ECO517
Elective - III	

For further details, see the IBA Admission Policy





Course Title	Course Code
Semester 5	Course Code
Accounting for Decision Making	ACC505
Corporate Strategy	MGT541
Elective IV	-

Course Title	Course Code
Semester 6	Course Code
Elective V	-
Elective VI	-
Elective VII	-
Elective VIII	-

List of Electives

Course Title	Course Code
Advertising	MKT551
B2B Marketing	MKT658
Brand Management	MKT561
Supply Chain Management	MKT559
Entrepreneurial Management	MKT553
Global Marketing Management	MKT659
Advance Corporate Finance	FIN501
Islamic Finance	FIN559
Risk Management	FIN567
Treasury and Financial Derivatives	FIN535
Corporate Investment Banking	FIN536
Financial Modeling	FIN574
Accounting Information System with SAP	ACC507
Project Evaluation & Management	MGT531
Organizational Behavior	MGT221
Strategic Management	MGT552
Training & Development	HRM571
Recruitment & Selection Techniques	HRM530
Corporate Governance	LAW553

More courses will be added as per needs
All Executive MBA courses are of 3 credit hours.

Executive MBA Program – Fall Semester 2015 Academic Plan: September – December 2015

Month	Sessions	Saturday	Sunday
September	1	Sept 5	Sept 6
	2	Sept 12	Sept 13
	3	Sept 19	Sept 20
	4	Sept 26	Sept 27
October	5	Oct 3	Oct 4
	6	Oct 10	Oct 11
	Midterm Exams	Oct 17	Oct 18
	7	Oct 24	Oct 25
November	8	Oct 31	Nov 1
	9	Nov 7	Nov 8
	10	Nov 14	Nov 15
	11	Nov 21	Nov 22
December	12	Nov 28	Nov 29
	Final Exams	Dec. 12 – 27	

Executive MBA Program – Spring Semester 2016 Academic Plan: January – April 2016

Month	Sessions	Saturday	Sunday
January	1	Jan 2	Jan 3
	2	Jan 9	Jan 10
	3	Jan 16	Jan 17
	4	Jan 23	Jan 24
	5	Jan 30	Jan 31
	6	Feb 6	Feb 7
February	Midterm Exams	Feb 13	Feb 14
	7	Feb 20	Feb 21
	8	Feb 27	Feb 28
March	9	March 5	March 6
	10	March 12	March 13
	11	March 19	March 20
	12	March 26	March 27
April	Final Exams	April 2 – 17	

Executive MBA Program – Summer Semester 2016 Academic Plan: April – August 2016

Month	Sessions	Saturday	Sunday
April	1	April 23	April 24
	2	April 30	May 1
	3	May 7	May 8
May	4	May 14	May 15
	5	May 21	May 22
	6	May 28	May 29
	Midterm Exams	June 4	June 5
June	7a	June 11	June 12
	7b	June 18	June 19
	8a	June 25	June 26
	8b	July 2	July 3
July	9	July 9	July 10
	10	July 16	July 17
	11	July 23	July 24
	12	July 30	July 31
August	Final Exams	Aug. 13 – 28	

Target Dates

Semester	Test Date / Day	Semester Beginning Date / Day
Fall 2015	August 09, 2015 Sunday	Sept. 5, 2015 Saturday
Spring 2016	November 22, 2015 Sunday	January 2, 2016 Saturday
Summer 2016	March 27, 2016 Sunday	April 23, 2016 Saturday



S.No.	Organization
1	A.F.Ferguson & Company - PWC Pakistan
2	Abbott Pakistan
3	Abudawood Trading Co. Pakistan (Pvt) Ltd
4	Access Group
5	ACE Insurance Limited
6	Aga Khan University
7	AGP Pharma (Pvt.) Limited
8	Agri Auto Industry Limited
9	Air Weapons Complex
10	AKD Securities Limited
11	Akzonobel Pakistan Limited
12	Al Meezan Investment Management Ltd.
13	Allied Bank Limited
14	Almas Jewelers
15	AL-NOOR MDFB Division
16	Apparel Manufacturing (Pvt.) Limited
17	Armtech Business Solutions
18	Artistic Milliners (Pvt.) Limited
19	Asia Petroleum Limited
20	Atlas Honda Limited
21	Attock Petroleum Limited
22	Augere Pakistan (Pvt) Limited
23	Bank Al Habib Limited
24	Bank Alfalah Limited
25	Bank Islami Limited
26	Barclays Bank Plc
27	Barrett Hodgson Pakistan (Pvt.) Limited
28	Bayer Pakistan (Pvt) Ltd
29	Burj Bank Limited
30	CIBE, CANADA
31	Cisco Systems, Inc. Middle East
32	Civil Aviation Authority
33	Coats Pakistan
34	Crack & Grow (Pvt) Limited
35	DHL Pakistan Express
36	Dow University of Health Sciences.

S.No.	Organization
37	DP World - Qasim Int'l Container Terminal
38	Dubai Islamic Bank Pakistan Ltd
39	Elli Lilly and Company
40	Emirates Pakistan
41	EMPACT Activation Services (Pvt.) Limited
42	English Biscuit Manufacturers
43	Engro Corporation
44	Engro Foods Limited
45	Engro Polymer & Chemical Limited
46	ENI Pakistan Limited
47	Ernst & Young
48	Fauji Fertilizer Company Limited
49	Fauji Oil Terminal and Distribution Co. Ltd
50	Faysal Bank Limited
51	Federal Board of Revenue
52	Federal Urdu University of Arts, Sci. & Tech.
53	First Women Bank Limited
54	GASCO Engineering (Pvt) Limited
55	Gatroom Industries Limited
56	Geo Group
57	Getz Pharma
58	Ghandhara Nissan Limited
59	Glaxosmithkline Pakistan
60	Government of Pakistan
61	Government of Sindh
62	Gul Ahmed Textile Mills
63	Habib Bank Limited
64	Habib Metro Pakistan (Pvt.) Limited
65	Habib Metropolitan Bank Limited
66	Habib Modaraba
67	House of Habib
68	HSBC
69	Huawei
70	IFFCO Pakistan (Pvt.) Limited
71	Indus Motor Company Limited
72	International Industries Limited

S.No.	Organization
73	International Steels Limited
74	ITIMS Systems (Pvt.) Limited
75	JS Global Capital Limited
76	Juiblee Life Insurance Company
77	KALSOFT Limited
78	Karachi Shipyard & Engineering works
79	Karachi Stock Exchange
80	KASB Group
81	K-Electric Limited
82	Lakson Tobacco Company Limited
83	Lotte - Pakistan PTA Limited
84	Marie Stopes Society
85	Mazik Global
86	MCB Bank Limited
87	Meezan Bank Limited
88	Midas Safety
89	Minsitry of Education
90	Mobilink
91	NADRA
92	National Accountability Bureau
93	National Foods
94	National Insurance Company
95	National Refinery Limited
96	NED University of Engineering & Technology.
97	NIB Bank
98	Novartis Pharma Pakistan Limited
99	Pak Oman Investment Company
100	Pak Suzuki Motor Company Limited
101	Pakistan Air Force
102	Pakistan Army
103	Pakistan Gems & Jewellery Development Co.
104	Pakistan International Airlines
105	Pakistan Navy
106	Pakistan Petroleum Limited
107	Pakistan State Oil
108	Pakistan Telecommunication Company Ltd.

S.No.	Organization
109	PARCO
110	Pakistan Refinery Limited
111	Paxar Pakistan (Pvt.) Ltd. – An Avery Dennison Co.
112	Philips Morris (Pakistan) Limited
113	Proctor & Gamble Pakistan
114	Red Line Communications - Canada
115	Repharm Services
116	RIAA LAW - Advocates & Corporate Counsellors
117	Roche Pakistan Limited
118	Sanofi Aventis Pakistan Limited
119	Securities & Exchange Commission of Pakistan
120	Shaheen Engineering & Aircraft Maint. Service
121	Shan Foods (Pvt) Limited
122	Shell Pakistan Limited

S.No.	Organization
123	SIEMENS Pakistan Engineering Limited
124	Silkbank Limited
125	Sir Syed University of Engineering & Tech.
126	Standard Chartered Bank
127	State Bank of Pakistan
128	Sui Southern Gas Company Limited
129	SUPARC
130	Tameer Microfinance
131	Telenor Pakistan Limited
132	Tetra Pak Pakistan
133	The Bank of Khyber
134	The Education Enrichment Foundation
135	The Hubco Power Company Limited
136	The Indus Hospital

S.No.	Organization
137	Tradekey (Pvt) Limited
138	Tripack Films Limited
139	Tuwairqi Steel Mills Limited
140	UBL Funds Managers
141	Ufone
142	Unilever Pakistan Limited
143	United Bank Limited
144	United Energy Pakistan
145	University of Karachi.
146	URIL (Dawlance Group Of Companies)
147	Wi-Tribe Pakistan
148	Young's Foods (Pvt.) Limited
149	Yunus Textile Mills Limited
150	Ziauddin University
151	Zong Telecom





PhD Programs

✧ PhD (Computer Science)

✧ PhD (Economics)

✧ PhD (Mathematics)

✧ PhD (Statistics)



PhD (Computer Science)

If your ambitions lie in carrying out cutting edge research in the field of Computer Science, gaining recognition for it and maintaining social and corporate networks in your field of study then an excellent option for you is to pursue your graduate studies at the IBA Faculty of Computer Science. The IBA Faculty of Computer Science (FCS) offers PhD programs in the following areas:

- Artificial Intelligence and Cognitive Robotics
- Wireless and Mobile Communications
- Social Computing
- Operations Research
- Management Information System
- Numerical Analysis and Computing
- Multimedia and Web
- Human Computer Interaction

The FCS PhD program aims at encouraging those graduate students who can make a significant contribution to their field through original research. The FCS hosts a number of research labs that are actively engaged in cutting-edge research in a number of fields mentioned above. By being a part of this program, you will get an opportunity to establish linkages with international researchers publish scholarly articles and attend reputed conferences worldwide in your chosen discipline. Your quantitative and qualitative research capabilities will be polished and interdisciplinary research, along with interaction with the local industry, will always be encouraged.

The FCS PhD program motivates independence and originality of thought in the research process. The PhD program at IBA expects that not only will the graduates display excellence in their field of research but that the discipline, research and professional competencies they develop from this program will be highly regarded by national and international

employers. To achieve this, students are expected to immerse themselves in research in order to develop a strong and vibrant research culture at the institute. The program requires a residency of at least two years, where students are expected to complete a specially designed program comprising of advanced courses. During the residency program students are expected to attach themselves to a supervisor in their field of specialization. Students also avail a full teaching / research assistantship which comprises of an attractive monthly stipend and full tuition fee waiver.



Research Labs at FCS

As one of Pakistan's leading research institutions, Faculty of Computer Science (FCS) at IBA offers the best possible environment in which to undertake postgraduate research. A student conducting Masters or Doctoral research will have the opportunity to be assigned to one of the following labs:

- Artificial Intelligence Lab
- Telecommunications Research Lab (TRL)
- Web Sciences Lab

Web Sciences Lab

A new lab has been established at HBL-FCS Building to help researchers to undertake world class research in the area of Web Information Systems, with a special focus on Interactive Learning applications. The lab aims to conduct cutting edge research in diverse areas of web, including information retrieval, social media, knowledge management, digital libraries, electronic commerce, and Semantic Web.

WWW is now considered a main medium for sharing of data and metadata for knowledge management. Innovative models, frameworks, and methods are required to share, link and integrate data for efficient knowledge discovery and dissemination. WSL researchers are working on exploring new and innovative methods to improve existing web models and frameworks. The lab also aims to establish strong links with local industry to develop effective solutions for problems pertinent to Pakistani context.

In the domain of digital interactive learning, WSL researchers are working closely with ICT team of IBA to introduce MOOC (Massive Open Online Course) at IBA. Research is also being carried out to develop modern lifelong learning models.

Telecommunications Research Lab

Telecommunications Research Lab (TRL) at the Faculty of Computer Science focuses on research in the areas of wireless and mobile networks. Specific topics under current research include the following: queuing modeling, and analysis for energy, delay and other QoS parameters in Wireless Sensor Networks (WSN); Backhauling technologies in mobile networks; Implementation of WSN in Field for Monitoring, Irrigation; Energy Monitoring & Controlling System/Smart Asset Management using WSN and Hybrid networks; Traffic Congestion Tracking System.

The TRL is equipped with state of the art WSN equipment, including those from Memsic and Hanback, with a variety of sensors, including light, temperature, humidity, barometric pressure, seismic, GPS, acoustic, acoustic actuator, magnetometer, 3-Axis Acceleration and RFID readers. WSN Motes include IEEE 802.15.4 / ZigBee Compliant Iris and MICAz (2.4 GHz) Motes, supporting both TinyOS 1.x and 2.x.

Simulation tools include Qualnet v5.0, NS2 and LabView. A modern Cisco networking lab is also available for research on core routing issues, network security and VOIP. Faculty, PhD Scholars and students at TRL contribute frequently to publications in international conferences and journals. PhD Scholars attend international workshops and training sessions that contribute to their self-development skills in using simulation tools as well as in gaining hands-on experience with advanced networking devices.

Artificial Intelligence Lab

Artificial Intelligence Lab at IBA endeavors to provide a platform for researchers and professionals to manifest their innovative capabilities through development of sophisticated research projects. The lab also aims to foster collaboration with local industry

by developing intelligent solutions for problems pertinent to the Pakistani market. Being established in 2008, AI LAB at IBA is a dynamically growing research center focusing in the core areas of AI namely data analytics, machine learning, semantic web, computational intelligence, probabilistic reasoning, and cognitive robotics. The following list highlights its key activities:

- AI Lab has partnered with the Innovation and Enterprise Research Lab of the University of Technology, Sydney to form a joint RoboCup Soccer team, Karachi Koalas, under 3D simulation league. The team was established in 2010 and has since participated in 2011, 2012 and 2013 World RoboCup held in Turkey, Mexico and the Netherlands, respectively. The team is currently ranked 5th in the World which is a remarkable achievement for a team that is only few years old. The team's performance has been covered on Geo and Samaa tv channels.
- The lab frequently organizes robotics workshop for high school students and teachers. The purpose of these workshops is not only to expose our youth to the exciting field of Robotics / Artificial Intelligence, but to also train the human resource involved in teaching science and related subjects at the high school level.
- In collaboration with our industry partner, Credit-Chex, we have developed an Anti-Money Laundering System (AMLS). It serves as a decision support tool and aids financial institutions and State Bank in identifying suspicious financial transactions and in curbing anti-money laundering activities. The product was developed under a research grant provided by the National ICT R&D Fund.



- In the area of data analytics, the lab is maintaining active contacts with industry leaders, such as EMC2 and KNIME.
- The lab also organizes data analytics workshop for professionals. The purpose of this activity is not only to bridge the gap between industry and academia but also to train the workforce for the emerging challenge of big data analytics.
- The lab hosts 2 state-of-the-art AldebaranNao robots. The robots are amongst the most sophisticated humanoid robots available for public use. They feature 25 degrees of freedom which allows them to produce human like walks and movements. In addition, they contain eight force-sensing resistors and two touch sensors.
- The lab is also a home for TurtleBot and Lego Mindstorms robots which are a great resource for teaching the fundamentals of cognitive robotics.
- A team, Karachi Chotu, for RoboCup @ Home has been established in 2013. A team, Karachi Chotu, for RoboCup @Home has been established in 2013. The team secured 3rd position in IranOpenRoboCup 2014 that was attended by many international teams. With the help of this initiative, the lab aims to develop service and assistive robot technology with high relevance for future personal domestic applications.
- AI Lab has developed and released BNOSA (Bayesian Network and Ontology based Semantic Annotation) which is a framework for semantic annotation of unstructured, ungrammatical, and incoherent data sources using ontology and Bayesian networks.
- Another tool released by the AI Lab is IBAYes which is a probabilistic reasoning tool that allows a user to model uncertain situations and perform inference using Bayesian networks and Influence Nets. It is freely available for download from the lab website.

For a Detailed PhD Prospectus, Please Visit:cs.iba.edu.pk/programs.html



PhD (Economics)

PhD (Economics) program is designed to provide a solid background in theory, quantitative methods, and applications appropriate to the needs of economists involved in policy planning, analysis, and forecasting of public and private sectors. The curriculum of this program has been designed to meet the international standards. We hope the students will find the program intellectually challenging and personally rewarding.

The program emphasizes on applied economics, and caters to the growing market for economic analysts. Graduates from this program will be able to teach and conduct quality research in the fields of their interest, and will be prepared for careers in universities, research organizations, business enterprises, government organizations, and multinational companies.

Duration

Duration of the program is 4-5 years. The maximum time allowed is 8 years.

Eligibility:

MS / M.Phil / equivalent degree in Economics or related discipline from HEC recognized local and foreign universities with minimum 3 out of 4 CGPA or 60% marks in the last degree. All equivalency claims shall be evaluated by HEC. Experience is not mandatory for admission to the PhD program. IBA allows those candidates to apply for admission whose final results have not been announced.

The admission may be conditional pending submission of the required results before the date of commencement of classes.

Admission Criteria:

Admissions to all programs at the IBA are granted on merit, and there are no reserved seats for any category. The criterion for admission is the performance of the applicant

Credit Hours:

		PhD Economics Course Load	
		Course	Credit Hours
A	Core Courses	7	26
B	Elective Courses	4	14
C	Dissertation	1	27
	Total Credit Hours	17	67

in admission test and interview. The admission test is a written test from three subjects: English, Mathematics and Economics. Candidates who have a minimum 650 score in quantitative section of GRE [International] or 160 score in quantitative section of Revised GRE [International] are exempted from the IBA admission test. The candidates who pass the admission test qualify for the interview. Candidates are required to submit statement of purpose and two reference letters from the institute / university last attended before the interview.

Financial Assistance:

PhD program in Economics is a full time morning program. IBA will offer teaching / research fellowship to all students enrolled in the PhD program for which they are paid a monthly stipend (Rs.50000 per month) and given a tuition waiver.

Comprehensive Examinations:

Students are required to pass comprehensive examinations for Microeconomic Theory, Macroeconomic Theory and one Field Examination. A maximum of three attempts will be allowed for the comprehensive examinations. Students are however required to pass both comprehensive examinations within two years from the commencement of the PhD program.

Oral defense of the PhD dissertation proposal: At the end of the third year, students are expected to present and defend their PhD

proposal before the dissertation committee. The dissertation will be examined by two external examiners from academically advanced countries.

Dissertation Defense:

Students are expected to submit and defend their dissertation [27 credit hours] within two years after successful completion of their course work.

Major Areas of Specialization (Electives):

Macroeconomics
Development Economics
International Trade
Public Finance
Monetary Economics
Environmental Economics
Industrial Organization
Financial Economics
Labor Economics

For further details visit:
economics.iba.edu.pk



Semester-wise sequence of PhD courses

	Semester – 1 (FALL)	Course Code	Credit Hours	Pre-Requisite
1	Microeconomic Theory II	EC0631	3	EC0531
2	Macroeconomic Theory II	EC0632	3	EC0532
3	Elective I	-	3	-
	Semester – 2 (Spring)	Course Code	Credit Hours	Pre-Requisite
1	Microeconomic Theory III	EC0641	4	EC0631
2	Econometric Analysis- I	ECO647	3	MTS536, ECO537
3	Elective II	-	3	-
	Semester – 3 (Fall)	Course Code	Credit Hours	Pre-Requisite
1	Macroeconomic Theory III	EC0642	4	EC0632
2	Econometric Analysis- II	ECO648	4	EC0641
3	Elective III	-	4	-
	Semester – 4 (Spring)	Course Code	Credit Hours	Pre-Requisite
1	Graduate Research Seminar for PhD	ECO791	4	ECO641, 642 & 648
2	Elective IV	-	4	-
	Semester – 5 (onward)	Course Code	Credit Hours	Pre-Requisite
	PhD Thesis	EC0799	27	-



PhD (Mathematics)

This policy governs the PhD phase of the MS PhD Program.

Eligibility:

A candidate may embark on his PhD in Mathematical Sciences program at IBA if:

- The applicant has earned an MS (in Mathematics or allied areas) from a foreign / local university of international repute, and in addition to it:
- i. Clears IBA's entry test, or scores 650 in GRE Subjective (Mathematics).
- ii. Goes through a successful interview at IBA.

Other rules:

- (1) A PhD student would be required to teach under-graduate courses as per IBA's policy.
- (2) A PhD student shall be paid a stipend as per IBA's policy.
- (3) PhD students will be required to do six courses



Courses:

The Departmental Research Committee (DRC) is authorized to introduce any new courses added to the following list as and when required:

Required Courses

Course Title	Course Code	Credit Hours	Pre-Requisite
Numerical Treatment of P.D.E	MTS621	-	MTS515
Financial Mathematics	MTS625	-	-
Computational Finance	MTS629	-	MTS515
Computational Astronomy	MTS637	-	MTS537
Applicable Modern Geometry II	MTS645	-	MTS545
Algebraic Geometry II	MTS649	-	MTS549
Algebraic Cycles II	MTS653	-	MTS553
Poly logarithms	MTS657	-	MTS557
Multivariate Statistical Analysis	MTS661	-	MTS525
Mathematical Physics II	MTS665	-	MTS565
Monomial Algebra	MTS671	-	MTS514
Topics of Special Interest I	MTS691	-	-
Topics of Special Interest II	MTS692	-	-

(chosen from the mentioned table) at 600 level as suggested by the research supervisor and / or the DRC, spread over two semester. On successful completion of the course work with CGPA of at least 3.0, the candidate qualifies to work on PhD dissertation. Failing to achieve this qualification the candidate would be allowed to improve his / her CGPA by doing two of his courses again. In view of the candidate's request and recommendation of the DRC the candidate may do any other two courses to bring his/her CGPA to the required level.

Comprehensive Test:

The DRC will decide a Comprehensive Examination on case to case basis.

Disqualification:

If the candidate fails to qualify for work on PhD dissertation he / she may be awarded an MS degree on the recommendation of the supervisor / DC.

Minimum Time Requirement:

Minimum time required to complete PhD thesis is two years.

Graduation Eligibility

A candidate who accomplishes all the conditions imposed for acquisition of the PhD degree, is also, in addition, required to take the GRE / GAT (subjective) before his/her final doctoral diploma.

Defense of Research Synopsis / Thesis:

The research synopsis would have to be defended against the DRC. Public defense of the PhD thesis and completion of the degree will commence after examination of the thesis by two foreign examiners.

For further details Visit: mathematics.iba.edu.pk



PhD (Statistics)

This PhD program aims at providing quality opportunities to research in the fascinating area of Statistics. Today there is hardly any field of scientific investigation which does not employ quantification in terms of statistical models. This program will enable candidates to appreciate and make contributions to statistical research especially in financial, econometric, demographic, computational, and business related applications. The candidates are expected to be full time research students and will also have the opportunities to do teaching related activities, for which they will be compensated with a monthly stipend.

Eligibility:

A candidate may embark on his PhD in Mathematical Sciences program at IBA if:

- The applicant has earned an MS (in Mathematics or allied areas) from a foreign / local university of international repute, and in addition to it:
 - i. Clears IBA's entry test, or scores 650 in GRE Subjective (Mathematics).
 - ii. Goes through a successful interview at IBA.

Other rules:

- (1) A PhD student would be required to teach under-graduate courses as per IBA's policy.
- (2) A PhD student shall be paid a stipend as per IBA's policy.
- (3) PhD students will be required to do six courses

Courses:

The Departmental Research Committee (DRC) is authorized to introduce any new courses added to the following list as and when required:

Required Courses

Course Title	Course Code	Credit Hours	Pre-Requisite
Linear Statistical Models	STA 601	3	-
Generalized Linear Models	STA 602	3	-
Advanced Probability Theory	STA 603	3	-
Stochastic Processes	STA 604	3	-
Advanced Statistical Inference	STA 605	3	-
Multivariate Statistics	STA 606	3	-
Time Series Analysis and Forecasting	STA 611	3	-
Experimental Design and ANOVA Models	STA 612	3	-
Statistical Machine Learning	STA 621	3	-
Statistical Data Mining and Knowledge Discovery	STA 622	3	-
Classification and Pattern Recognition	STA 631	3	-
Optimization Techniques	STA 632	3	-
Bayesian Statistics	STA 641	3	-
Reliability and Survival Analysis	STA 642	3	-
Non-Parametric and Semi-Parametric Statistics	STA 651	3	-
Simulation and Re-sampling Methods	STA 652	3	-
Advanced Operations Research	STA 661	3	-
Stochastic Financial Models	STA 662	3	-
Financial Time Series	STA 671	3	-
Advanced Econometrics	STA 672	3	-
Econometric Analysis of Time Series	STA 681	3	-
Longitudinal and Panel Data Models	STA 682	3	-
Functional Data Analysis	STA 691	3	-
Functional Time Series Analysis	STA 692	3	-

(chosen from the mentioned table) at 600 levels as suggested by the research supervisor and / or the DRC, spread over two semester. On successful completion of the course work with CGPA of at least 3.0, the candidate qualifies to work on PhD dissertation. Failing to achieve this qualification the candidate would be allowed to improve his / her CGPA by doing two of his courses again. In view of candidate's request and recommendation of DRC the candidate may do any other two courses to improve the CGPA to the required level.

Comprehensive Test:

The DRC will decide a Comprehensive Examination on case to case basis.

Disqualification:

If the candidate fails to qualify for work on PhD dissertation he / she may be awarded an MS degree on the recommendation of the supervisor / DC.

Minimum Time Requirement:

Minimum time required to complete PhD thesis is two years.

Graduation Eligibility

A candidate who accomplishes all the conditions imposed for acquisition of the PhD degree, is also, in addition, required to take the GRE / GAT (subjective) before finally doctoral diploma may be obtained.

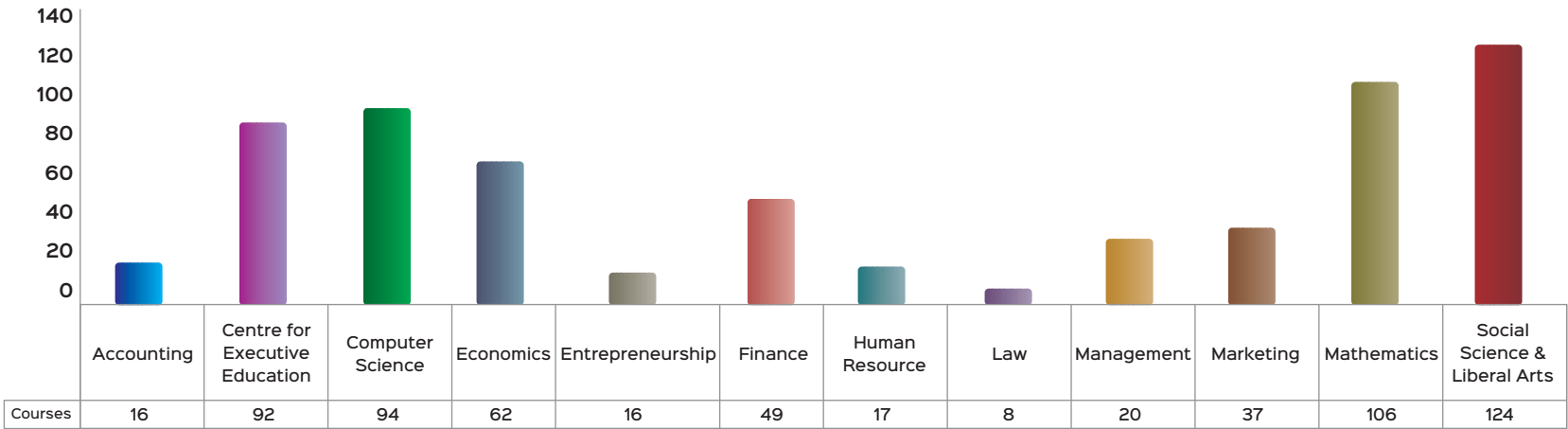
Defense of Research Synopsis / Thesis:

The research synopsis would have to be defended against the DRC. Public defense of the PhD thesis and completion of the degree will commence after examination of the thesis by two foreign examiners.

For further details Visit: mathematics.iba.edu.pk

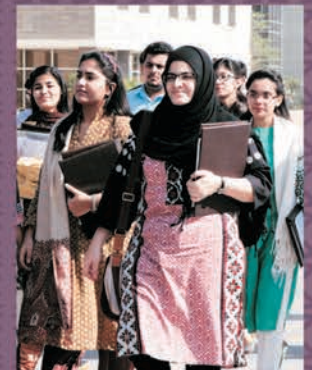


Overview of Courses on Offer



Courses and Course Descriptions

- ✧ Department of Accounting & Law
- ✧ Department of Economics & Finance
- ✧ Department of Management
- ✧ Department of Social Sciences & Liberal Arts
- ✧ Department of Marketing
- ✧ Department of Computer Sciences
- ✧ Department of Mathematical Sciences



Department of Accounting and Law

ACCOUNTING COURSES

S. No.	Course Code	Course Title
1	ACC111	Principles of Accounting
2	ACC201	Financial Accounting
2	ACC310	Advanced Managerial Accounting
3	ACC312	Business Analysis and Decision making
4	ACC315	Financial Reporting
5	ACC320	Auditing
6	ACC325	Advanced Auditing
7	ACC381	Management Accounting
8	ACC401	Advanced Financial Reporting
9	ACC415	Actuarial Courses
10	ACC505	Accounting for Decision Making
11	ACC506	Financial Accounting and Information Systems
12	ACC507	Accounting Information Systems with SAP
13	ACC557	Accounting Information Systems - For Small & Medium Enterprises
14	ACC559	IFRS & Financial Reporting in Pakistan
15	ACC561	Analysis of Financial Statements
16	ACC589	Project Evaluation & Financing

LAW COURSES

S. No.	Course Code	Course Title
1	LAW105	Politics and Law
2	LAW205	Business Law
4	LAW303	Taxation
5	LAW305	Corporate Law
6	LAW310	Legal & Regularity Environment
6	LAW401	Advanced Taxation
7	LAW501	Legal and Regulatory Environment of Business
8	LAW553	Corporate Governance & Practices in Pakistan



Department of Economics & Finance

ECONOMICS COURSES

S. No.	Course Code	Course Title
1	ECO102	Business Economics
2	ECO103	Principles of Microeconomics-I
3	ECO104	Principles of Macroeconomics-I
4	ECO105	Introduction to Economics
5	ECO113	Principles of Microeconomics-II
6	ECO114	Principles of Macroeconomics-II
7	ECO201	Intermediate Microeconomics
8	ECO202	Intermediate Macroeconomics
9	ECO211	Analysis of Pakistan Industry
10	ECO301	Development Economics
11	ECO312	Microeconomics
12	ECO313	Macroeconomics
13	ECO341	Introduction to Econometrics
14	ECO342	Applied Econometrics
15	ECO403	Major Issues in Pakistan Economy
16	ECO411	Research Methods in Economics
17	ECO451	Public Finance
18	ECO452	Islamic Economic System
19	ECO454	Population Economics
20	ECO455	Comparative Economic System
21	ECO456	Economics and Strategy
22	ECO461	Natural Resource and Environmental Economics
23	ECO462	Rural Development
24	ECO464	Game Theory
25	ECO465	International Political Economy
26	ECO467	History of Economic Thought
27	ECO468	Agriculture Economics
28	ECO469	Regional Economics
29	ECO471	Health Economics
30	ECO472	Urban Economics
31	ECO473	Welfare Economics
32	ECO474	Resource Economics
33	ECO501	Managerial Economics

ECONOMICS COURSES (Contd...)

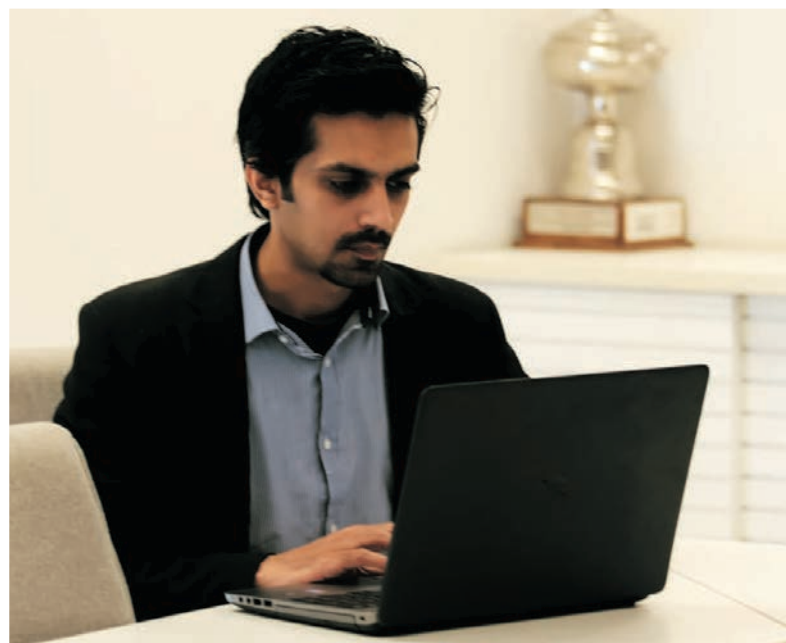
S. No.	Course Code	Course Title
34	ECO502	Macroeconomics
35	ECO517	Global Economic and Political Environment
36	ECO530	Development Economics
37	ECO531	Microeconomics Theory - 1
38	ECO532	Macroeconomics Theory - 1
39	ECO533	Mathematics for Economics
40	ECO537	Econometrics - 1
41	ECO538	Econometrics - 2
42	ECO539	International Trade
43	ECO544	Issues in Pakistan Economy
44	ECO555	Economics Forecasting
45	ECO560	Public Policy Analysis: Theory and Practice
46	ECO561	Environmental and Resource Economics
47	ECO562	Financial Economics
48	ECO563	Health Economics
49	ECO564	History of Economics
50	ECO566	Monetary Economics
51	ECO567	Public Economics
52	ECO570	Time Series Modeling
53	ECO571	Industrial Economics
54	ECO572	General Equilibrium & welfare economics
55	ECO573	Game theory and competitive strategy
56	ECO574	Water Economics and Policy
57	ECO575	The Microeconomics of Policy Analysis
58	ECO591	Research Methodology
59	ECO631	Microeconomics Theory - II
60	ECO632	Macroeconomics Theory - II
61	ECO648	Econometrics Analysis - II
62	ECO654	Labor Economics

FINANCE COURSES

S. No.	Course Code	Course Title
1	FIN201	Introduction to Business Finance
2	FIN301	Financial Institutions and Markets
3	FIN305	Alternate Investments
4	FIN308	Real Estate Investments: Analysis and Financing
5	FIN310	International Banking
6	FIN312	Behavioral Finance
7	FIN315	Corporate Restructuring
8	FIN320	Empirical Research in Finance
9	FIN401	Financial Management
10	FIN405	Venture Capital and the Finance of Innovation
11	FIN410	Buyouts and Acquisitions
12	FIN424	Fixed Income Investments
13	FIN425	Branch Banking
14	FIN426	Lending- Products, Operations & Risk Management
15	FIN427	Finance of International Trade and Related Treasury Operations
16	FIN428	Introduction to Marketing of Financial Services
17	FIN429	Information Technology in Financial Services
18	FIN430	Financial Information System
19	FIN451	Investment Banking
20	FIN452	International Finance
21	FIN453	Security Analysis
22	FIN454	Corporate Finance
23	FIN455	Portfolio Management
24	FIN456	Financial Risk Management
25	FIN457	Derivatives
26	FIN458	Fundamentals of Treasury and Fund Management
27	FIN501	Advance Corporate Finance
28	FIN506	Business Finance I
29	FIN507	Business Finance II
30	FIN531	Financial Intermediation
31	FIN532	Advance Credit Management
32	FIN533	Financial system – process, players, status & prognosis
33	FIN535	Treasury and Financial Derivatives
34	FIN536	Corporate Investment Banking

FINANCE COURSES (Contd...)

S. No.	Course Code	Course Title
35	FIN541	The Strategic Management of Banks
36	FIN552	International Financial Management
37	FIN554	Investment Banking & Financial Services
38	FIN556	Security Analysis & Capital Markets
39	FIN558	Regulation & Financial Markets
40	FIN559	Islamic Finance
41	FIN560	Advanced Corporate Finance
42	FIN563	Advanced Portfolio Management
43	FIN565	Treasury and Fund Management
44	FIN567	Risk Management
45	FIN568	Derivatives & Risk Hedging
46	FIN569	Financial Econometrics
47	FIN570	Islamic Banking & Finance
48	FIN574	Financial Modeling
49	FIN577	Seminar in Finance



Department of Management

MANAGEMENT COURSES

S. No.	Course Code	Course Title
1	MGT201	Principles of Management
2	MGT211	Business Communication
3	MGT221	Organizational Behavior
4	MGT301	Ethics in a Corporate Society
5	MGT311	Production and Operations Management
6	MGT400	Management Theory and Practice
7	MGT401	Small Business Management
8	MGT411	Comparative Management
9	MGT421	Entrepreneurship
10	MGT430	Managerial Policy
11	MGT503	Managerial Communication
12	MGT506	Corporate Strategy
13	MGT507	Entrepreneurial Management
14	MGT510	Operations and Production Management
15	MGT512	Strategic Human Resource Management
16	MGT513	Business Strategy
17	MGT519	Personal Effectiveness and Communication (Non-Credit)
18	MGT531	Project Evaluation & Management
19	MGT552	Strategic Management
20	MGT555	Project Management
21	MGT556	Competitive Strategy from a Customer's Perspective
22	MGT557	Organizational Behavior and Leadership
23	MGT558	International Market Entry Strategies

ENTREPRENEURSHIP COURSES

S. No.	Course Code	Course Title
1	MGT102 / 103	Foundation for Management & Entrepreneurship (FME)
2	ENT451	Marketing for Entrepreneurs
3	ENT452	Entrepreneurial Finance
4	ENT453	Business Law for Entrepreneurs
5	ENT454	Entrepreneurial Management

ENTREPRENEURSHIP COURSES (Contd...)

S. No.	Course Code	Course Title
6	ENT455	Family Business Management
7	ENT456	Developing Entrepreneurial Opportunities
8	ENT457	Women's Entrepreneurship & Leadership
9	ENT458	Social Entrepreneurship
10	ENT459	Financing Entrepreneurial Ventures
11	ENT460	New Technology Ventures
12	ENT461	Sustainable Entrepreneurship Strategies
13	ENT462	Corporate Entrepreneurship
14	ENT463	Creativity and Innovation
15	ENT464	Entrepreneurial Sales Strategy
16	ENT465	Co-Curricular Activities*

HUMAN RESOURCE MANAGEMENT (HRM) COURSES

S. No.	Course Code	Course Title
1	HRM401	Human Resource Management
2	HRM430	Recruitment and Selection Techniques
3	HRM445	Occupational Health and Safety
4	HRM451	Industrial Relations Management
5	HRM452	Organizational Analysis and Research
6	HRM453	Life Career Development
7	HRM455	Portfolio Management
8	HRM456	Training and Development
9	HRM457	HR and Information System.
10	HRM458	Leading the Change Process
11	HRM462	Performance and Compensation Management
12	HRM530	Recruitment and Selection Techniques
13	HRM552	Organizational Development
14	HRM557	Team Management
15	HRM558	Leading the Change Process
16	HRM562	Performance and Compensation Management
17	HRM571	Training and Development

Department of Social Sciences & Liberal Arts

SOCIAL SCIENCES & LIBERAL ARTS COURSES

S. No.	Course Code	Course Title
1	SSC101	English Grammar & Composition
2	SSC102	Foundation of Human Behavior
3	SSC104	Foundations of Human Behavior
4	SSC106	Intermediate English Grammar & Composition
5	SSC111	International Relations
6	SSC121	Major Themes in World History
7	SSC131	Fundamentals of Sociology
8	SSC150	Remedial English
9	SSC151	Pakistan History
10	SSC154	Research Methods in Social Sciences
11	SSC201	Arabic I
12	SSC202	Arabic II
13	SSC203	Arabic III
14	SSC204	Arabic IV
15	SSC205	French I
16	SSC206	French II
17	SSC207	French III
18	SSC208	French IV
19	SSC209	Mandarin I
20	SSC210	Mandarin II
21	SSC211	Mandarin III
22	SSC212	Mandarin IV
23	SSC213	Advanced English Composition
24	SSC216	Culture, Media, Society
25	SSC217	Introduction to Political Science
26	SSC218	Introduction to Psychology
27	SSC221	South Asian History
28	SSC231	Fundamentals of Sociology
29	SSC232	Introduction to Historical Methods
30	SSC233	Introduction to Social and Cultural Anthropology
31	SSC234	Introduction to Urban Studies
32	SSC235	Introduction to Linguistics
33	SSC238	History of Ideas II

SOCIAL SCIENCES & LIBERAL ARTS COURSES (Contd...)

S. No.	Course Code	Course Title
34	SSC239	History of Ideas I
35	SSC240	Personal Effectiveness
36	SSC253	Corporate Social Responsibility
37	SSC301	Socioeconomic Philosophy of Islam
38	SSC302	Computational Research Methods

NATURAL SCIENCES COURSES

S. No.	Course Code	Course Title
1	NSC351	History of Science
2	NSC352	Ideas of Physics
3	NSC353	Space, Time, and Space-Time
4	NSC354	Introduction to Environmental Sciences
5	NSC355	Principles of Ecology and Conservation
6	NSC356	History of Evolution
7	NSC357	Introduction to Geology

VISUAL STUDIES & HUMANITIES COURSES

S. No.	Course Code	Course Title
1	HUM201	Speech Communication
2	HUM238	History of Ideas - II
3	HUM351	Great Books
4	HUM352	Reading Poetry
5	HUM353	Introduction to Drama
6	HUM354	Introduction to Urdu Literature
7	HUM355	Anglo-Indian Narratives and the Postcolonial Subject
8	HUM356	Foundations of Philosophical Thought
9	HUM357	Philosophy, Logic, and Ethics
10	HUM358	Comparative Classical Philosophy
11	HUM359	Introduction to Comparative Religions
12	HUM360	Creative Writing
13	HUM361	Theater Project: The Living Newspaper
14	HUM363	Introduction to Visual Culture
15	HUM364	History of Art I: Classical Antiquity to the Middle Ages

VISUAL STUDIES & HUMANITIES COURSES *(Contd...)*

S. No.	Course Code	Course Title
16	HUM365	History of Art II: Renaissance to the Present
17	HUM366	Art of the Islamic World
18	HUM367	Theories of Design
19	HUM368	Colonial and Postcolonial Visual Cultures
20	HUM369	The Rhetoric of Architecture

MEDIA AND COMMUNICATION COURSES

S. No.	Course Code	Course Title
1	MCS301	Research Methods in Media and Communications
2	MCS302	Gutenberg to Google: A Social History of Media
3	MCS303	Theories of Media and Communications
4	MCS351	Media and Post-colonialism
5	MCS352	Media, Law, and Ethics
6	MCS353	Race, Class, and Gender in Film and Television
7	MCS354	The International Newsroom
8	MCS355	Analyzing the News
9	MCS356	Introduction to Visual Communication
10	MCS357	History of Commercial Art
11	MCS358	Communication in Advertising
12	MCS359	Watching Films
13	MCS360	History of Film
14	MCS361	The Non-Fiction Film
15	MCS362	Introduction to Television Studies
16	MCS363	Television Newsmagazines and Documentaries
17	MCS364	Theories of Film and Television
18	MCS365	Narratives Across Media
19	MCS366	Digital Activism and Democracy
20	MCS367	Media Convergence and the Virtual Public Sphere
21	MCS401	Communication for Social Change
22	MCS491 / 492	Culminating Experience

POLITICAL SCIENCE COURSES

S. No.	Course Code	Course Title
1	POL301	Research Methods in Political Science
2	POL302	History of Political Thought
3	POL303	Introduction to Comparative Politics
4	POL351	Political Psychology
5	POL352	Foreign Policy in China
6	POL353	State and Society
7	POL354	War: Conceptual Underpinnings
8	POL355	Human Rights
9	POL356	Environment and Politics
10	POL357	Diplomacy in a Globalized World
11	POL358	Islam and International Relations
12	POL359	The Modern Middle East
13	POL360	Theories of Democratic Transition
14	POL361	Democracy and Difference
15	POL362	Pakistan's Foreign Policy
16	POL363	Filthy Lucre: A Political History of Money
17	POL401	International Politics
18	POL491 / 492	Culminating Experience



PSYCHOLOGY COURSES

S. No.	Course Code	Course Title
1	PSY301	Research Methods in Psychology
2	PSY302	Human Development
3	PSY303	Personality, Identity, and the Self
4	PSY351	Introduction to Social Psychology
5	PSY352	Organizational Behavior and Industrial Psychology
6	PSY353	Psychology and the Media
7	PSY354	Psychology of Conflict
8	PSY355	Introduction to Developmental Psychology
9	PSY356	Attachment and Loss
10	PSY357	Child and Adolescent Development
11	PSY358	Psychology of Aging
12	PSY359	Introduction to Cognitive Psychology
13	PSY360	Sensation and Perception
14	PSY361	Human Memory
15	PSY362	Abnormal Psychology
16	PSY363	Psychology of Human Emotion
17	PSY401	Language, Memory, and the Human Mind
18	PSY491 / 492	Culminating Experience

Department of Marketing**MARKETING COURSES**

S. No.	Course Code	Course Title
1	MKT201	Principles of Marketing
2	MKT301	Methods of Business Research
3	MKT401	Marketing Issues in Pakistan
4	MKT451	Advertising
5	MKT452	Consumer Behavior
6	MKT453	Sales Management
7	MKT454	Personal Selling
8	MKT455	Retail Management
9	MKT456	Export Marketing
10	MKT457	Dynamics of Distribution and Logistics
11	MKT458	Public Relations
12	MKT460	Direct Marketing

MARKETING COURSES (CONTD...)

S. No.	Course Code	Course Title
13	MKT461	Brand Management
14	MKT462	Essentials of Demand & Supply
15	MKT501	Marketing Management
16	MKT505	Advanced and Applied Business Research
17	MKT506	Branding and Creative Corporate Communication
18	MKT551	Advertising
19	MKT552	Consumer Behavior
20	MKT553	Entrepreneurial Management
21	MKT556	Social Marketing
22	MKT557	Dynamic Distribution & Logistics
23	MKT558	Customer Ascendancy
24	MKT559	Supply Chain Management
25	MKT561	Brand Management
26	MKT566	Media Management
27	MKT569	Global Marketing Management
28	MKT570	Strategic Sourcing & Procurement
29	MKT571	Strategic Sourcing & Negotiation Skills
30	MKT573	Markstrat
31	MKT586	Retailing
32	MKT651	Personal Selling
33	MKT653	Sales Management
33	MKT656	Services Marketing
34	MKT657	Strategic Marketing
35	MKT658	Business to Business Marketing
36	MKT659	Global Marketing Management
37	MKT752	Seminar in Marketing



Department of Computer Science

MIS COURSES

S. No.	Course Code	Course Title
1	MIS103	Introduction to Computer Applications (2,1,3)
2	MIS150	Essential Software
3	MIS343	Data Warehousing (3,1,4)
4	MIS405	Excel & Access for Business Managers (2,1,3)
5	MIS406	Social Computing (3,0,3)
6	MIS450	Technopreneurship (3,0,3)
7	MIS454	Audit, Ethics & IS Issues (3,0,3)
8	MIS456	E-Commerce (3,0,3)
9	MIS457	IS Security
10	MIS458	Enterprise Resource Planning (3,0,3)
11	MIS459	Customer Relationship Management (3,0,3)
12	MIS463	Mobile Marketing - A Technological Perspective (3,0,3)
13	MIS464	Financial Services Technologies (3,0,3)
14	MIS502	Operations & Technology Management
15	MIS503	Enterprise Integration (3,0,3)
16	MIS513	Information: Industry Structure & Competitive Strategy
17	MIS541	SAP ABAP Programming I
18	MIS542	SAP ABAP Programming II
19	MIS550	Logistics and Supply Chain Management (3,0,3)
20	MIS552	Advanced Data Warehousing (2,1,3)
21	MIS553	Mobile Marketing Strategies (3,0,3)
22	MIS555	Auditing IT Infrastructures (3,0,3)
23	MIS564	Social Computing Applications
24	MIS565	Advance E-Commerce (3,0,3)
25	MIS566	Fundamentals of SAP-ABAP Programming I (2,1,3)
26	MIS567	Simulated Approach to SCM (1,,5,1,5)
27	MIS568	Business Processes Management in ERP using SAP
28	MIS651	Theoretical Foundations of IS (3,0,3)
29	MIS653	Advanced Theoretical Concepts in IS (3,0,3)

COMPUTER SCIENCE & ALLIED COURSES

S. No.	Course Code	Course Title
1	CSE141	Introduction to Programming (3,1,4)
2	CSE142	Object Oriented Programming Techniques (3,1,4)
3	CSE145	Introduction to Computing (3,1,4)
4	CSE241	Digital Logic Design (3,1,4)
5	CSE247	Data Structures (3,1,4)
6	CSE248	Computer Communications and Networks
7	CSE307	Introduction to AI (3,0,3)
8	CSE308	Web Based Application Development (3,0,3)
9	CSE309	Theory of Automata (3,0,3)
10	CSE312	Software Engineering (3,0,3)
11	CSE317	Design and Analysis of Algorithms (3,0,3)
12	CSE318	Design Patterns (3,0,3)
13	CSE331	Operating Systems (3,0,3)
14	CSE341	Database Systems (3,1,4)
15	CSE344	Compiler Design (3,1,4)
16	CSE345	Computer Architecture and Assembly Language (3,1,4)
17	CSE403	System Modeling and Simulation (3,0,3)
18	CSE407	Human Computer Interaction (3,0,3)
19	CSE441	Systems Programming (3,1,4)
20	CSE448	Microprocessor Interfacing (3,1,4)
21	CSE450	Application Development for Mobile Devices (3,0,3)
22	CSE455	Network Security (2,1,3)
23	CSE459	Business Intelligence (3,0,3)
24	CSE460	Introduction to Game Programming and Robotics (3,0,3)
25	CSE461	Mathematics for Games (3,0,3)
26	CSE491	Computer Science Project - I (0,3,3)
27	CSE492	Computer Science Project - II (0,3,3)
28	CSE503	Software Project Management (3,0,3)
29	CSE556	Image Processing for Recognition (3,0,3)
30	CSE558	Mobile Computing (3,0,3)
31	CSE559	Image Processing (3,0,3)
32	CSE564	Software Systems Engineering (3,0,3)
33	CSE566	Software Quality Assurance (3,0,3)
34	CSE567	Requirements Engineering (3,0,3)
35	CSE569	Web Engineering

COMPUTER SCIENCE & ALLIED COURSES (CONTD...)

S. No.	Course Code	Course Title
36	CSE572	Formal Methods
37	CSE575	Advanced Human Computer Interaction (3,0,3)
38	CSE576	Usability Engineering
39	CSE577	Interaction Design
40	CSE578	GUI Design
41	CSE579	Multimedia and Multi-Modal Systems
42	CSE651	Advanced Analysis of Algorithms
43	CSE652	Knowledge Discovery and Data Mining (3,0,3)
44	CSE654	Combinatorial Optimization (3,0,3)
45	CSE655	Probabilistic Reasoning (3,0,3)
46	CSE657	Essentials of Theoretical Computer Science (3,0,3)
47	CSE658	Knowledge Management and E-Learning Systems (3,0,3)
48	CSE659	Computational Intelligence (3,0,3)
49	CSE660	Computer Vision (3,0,3)
50	CSE661	Semantic Web (3,0,3)
51	CSE662	Parallel Processing (3,0,3)
52	CSE665	Information Retrieval and Web Search - I (3,0,3)
53	CSE666	Information Retrieval and Web Search - II (3,0,3)
54	CSE668	Big Data Analytics (3,0,3)
55	CSE669	MS Research Survey (0,3,3)

ICT & ALLIED COURSES

S. No.	Course Code	Course Title
1	ICT512	Advanced Web Technologies (3,0,3)
2	ICT515	Distributed Systems (3,0,3)
3	ICT554	Information Security (3,0,3)
4	ICT556	RFID Technologies (3,0,3)
5	ICT651	Computer Communication Networks & Simulation - I (2,1,3)
6	ICT654	Computer Communication Networks & Simulation - II (2,1,3)
7	ICT659	Wireless Sensor Networks (1,2,3)
8	ICT660	Advanced Topics in Wireless Sensor Networks (1,2,3)
9	ICT661	Applications of Mathematical and Computational Techniques to Networking (3,0,3)
10	ICT662	WSN Protocols and Applications (3,0,3)

Department of Mathematical Sciences**MATHEMATICS COURSES**

S. No.	Course Code	Course Title
1	MTS101	Calculus - 1 with Plane Geometry
2	MTS102	Introduction to Statistics
3	MTS104	Calculus with Application-I
4	MTS106	Calculus with Application-II
5	MTS110	Mathematical Methods
6	MTS112	Applied Probability Theory
7	MTS201	Logic & Discrete Structures
8	MTS202	Statistical Inference (with econometrics lab)
9	MTS203	Linear Algebra
10	MTS204	Calculus-III
11	MTS210	Regression Analysis and Experimental Design
12	MTS211	Discrete mathematics
13	MTS212	Business Mathematics & Linear Algebra
14	MTS232	Calculus - II with Solid Geometry
15	MTS241	Introduction to Differential Equations
16	MTS301	Real Analysis
17	MTS302	Complex Analysis
18	MTS303	Advanced Differential Equations
19	MTS304	Stochastic Processes-I
20	MTS305	Abstract Algebra-I
21	MTS306	Abstract Algebra-II
22	MTS411	Functional Analysis-I
23	MTS412	Functional Analysis-II
24	MTS413	Numerical Analysis
25	MTS414	Scientific Computing for Linear PDEs.
26	MTS431	Numerical Solutions of PDEs
27	MTS432	Integral Equations-I
28	MTS433	Advanced Numerical Analysis-I
29	MTS434	Advanced Numerical Analysis-II
30	MTS435	Differential Geometry
31	MTS437	Fluid Dynamics-I
32	MTS438	Fluid Dynamics-II
33	MTS441	Financial Mathematics with a Computational approach

MATHEMATICS COURSES (Contd...)

S. No.	Course Code	Course Title
34	MTS442	Computational Finance-I
35	MTS443	Modern Algebra-I (Galois Theory & Applications)
36	MTS444	Modern Algebra-II (Commutative Rings & Fields)
37	MTS445	Measure Theory-I
38	MTS446	Measure Theory-II
39	MTS447	Operations Research-I
40	MTS448	Operations Research-II
41	MTS451	Topology-I
42	MTS452	Topology II (Differential Topology)
43	MTS506	Quantitative Methods for Decision-Making
44	MTS511	Advanced Real Analysis
45	MTS512	Measure Theory & Integration
46	MTS536	Mathematical Statistics and Linear Algebra
47	MTS513	Topics in Algebra
48	MTS514	Topics in Commutative Algebra
49	MTS515	Advanced Numerical Analysis
50	MTS516	Topology
51	MTS521	Scientific Computing
52	MTS525	Stochastic Processes II
53	MTS529	Stochastic Differential Equations
54	MTS533	Integral Equations-I
55	MTS537	Mathematical Astronomy
56	MTS539	Homological Algebra
57	MTS541	Computational Algebraic Geometry
58	MTS545	Applicable Modern Geometry I
59	MTS549	Algebraic Geometry I
60	MTS551	Scientific Computing & Software Calculus-III
61	MTS553	Algebraic Cycles I
62	MTS557	Arithmetic Algebraic Geometry
63	MTS561	Exploratory Data Analysis
64	MTS565	Mathematical Physics I
65	MTS569	Statistical Data Mining & Knowledge Discovery
66	MTS573	Statistical Machine Learning
67	MTS577	Galois Theory
68	MTS621	Numerical Treatment of P.D.E
69	MTS625	Financial Mathematics I
70	MTS629	Financial Mathematics II
71	MTS637	Computational Astronomy

MATHEMATICS COURSES (Contd...)

S. No.	Course Code	Course Title
72	MTS645	Applicable Modern Geometry II
73	MTS649	Algebraic Geometry II
74	MTS653	Algebraic Cycles II
75	MTS657	Polylogarithms
76	MTS661	Multivariate Statistical Analysis
77	MTS665	Mathematical Physics II
78	MTS671	Monomial Algebra
79	MTS691	Topics of Special Interest I
80	MTS692	Topics of Special Interest II
81	SCI105	Physics I (Mechanics)
82	SCI205	Physics II (Electromagnetism)

STATISTICS COURSES

S. No.	Course Code	Course Title
1	STA601	Linear Statistical Models
2	STA602	Generalized Linear Models
3	STA603	Advanced Probability Theory
4	STA604	Stochastic Processes
5	STA605	Advanced Statistical Inference
6	STA606	Multivariate Statistics
7	STA611	Time Series Analysis and Forecasting
8	STA612	Experimental Design and ANOVA Models
9	STA621	Statistical Machine Learning
10	STA622	Statistical Data Mining and Knowledge Discovery
11	STA631	Classification and Pattern Recognition
12	STA632	Optimization Techniques
13	STA641	Bayesian Statistics
14	STA642	Reliability and Survival Analysis
15	STA651	Non-Parametric and Semi-Parametric Statistics
16	STA652	Simulation and Re-sampling Methods
17	STA661	Advanced Operations Research
18	STA662	Stochastic Financial Models
19	STA671	Financial Time Series
20	STA672	Advanced Econometrics
21	STA681	Econometric Analysis of Time Series
22	STA682	Longitudinal and Panel Data Models
23	STA691	Functional Data Analysis
24	STA692	Functional Time Series Analysis

Courses offered by the Center for Executive Education

LEADERSHIP

S. No.	Course Title
1	Entrepreneurial Leadership
2	Leadership Skills for Top Management
3	Managing & Leading Education Institutions
4	Transformational Leadership Program
5	Women Leadership

GENERAL MANAGEMENT & STRATEGY

1	Acquiring a Business
2	Business Performance Measurement (BPM)
3	Customer Centric Quality Management
4	Doing Wonders with Excel 2010 (Module 1 & 2)
5	Essential Statistics for Manager
6	High Impact Train the Trainer
7	Innovation Quality Management
8	Issues of Urban Growth Explosion
9	Leading Innovative Teams
10	Negotiation & Conflict Resolution Skills
11	Project Management (Module 1)
12	Strategic Decision Making
13	Strategic Project Management (Module 2)
14	Strategic Thinking & Execution for Top 1 Management
15	Stress Management

FINANCE, ACCOUNTING & LAW

1	Sustainability Reporting
2	Activity Based Costing
3	Alternative Investments
4	Bank Credit Analysis
5	Basel III
6	Business Analytics and Decision Making
7	Contract Management
8	Corporate Credit Risk Analysis
9	Corporate Law
10	Corporate Reporting: A means for Corporate Governance
11	Equity Analysis (Module 1 & 2)



FINANCE, ACCOUNTING & LAW *(Contd...)*

S. No.	Course Title
12	Finance & Accounting for Non-Finance Executives
13	Finance for Engineers & Technical Executives
14	Financial Derivatives (Module 1 & 2)
15	Financial Engineering
16	Financial Engineering & Risk Management
17	Financial Modeling (Module 1 & 2)
18	Financial Statement Analysis (Module 1 & 2)
19	Fixed Income Securities
20	Industry Analysis from Credit Perspective
21	Operational Risk Management
22	Risk Analysis of Insurance Companies

COMMUNICATION

1	Business Communication Skills
2	Effective Presentation Skills
3	Managerial Communication Strategies for Success
4	Oral Communication Skills
5	Presentations Skills: Master class
6	Writing Techniques: A Strategic Approach
7	Written & Verbal Communication Skills
8	Written Communication Skills

HUMAN RESOURCE MANAGEMENT

1	Balanced Scorecard
2	Compensation & Benefits Management
3	Finance & Accounting for HR Professionals
4	HR as Strategic Business Partner
5	Life Career Development

INFORMATION TECHNOLOGY

1	Business Analytics
2	Data Mining
3	Data Science
4	PeopleSoft ERP
5	SAP ERP
6	SAP ERP ECC 6.0



MARKETING & SALES

S. No.	Course Title
1	Brand & Competitive Strategies
2	Brand Communication: The Indigenous Sub-Continent Perspective
3	Branding for Success
4	Building Powerful Brands for Higher Profits
5	Building Strong Pharma Brands
6	Channel Management Dynamics
7	Creativity in Advertisement
8	Cult Branding
9	Customer Services Excellence
10	Effective Participation in Trade Exhibitions
11	Export Marketing: Manufacturing Locally, Competing Globally
12	Finance for Sales & Marketing Executives
13	Integrated Brand Communications
14	Laws of Branding: Application in Pakistan
15	Media Planning Dynamics
16	Mobile Marketing Strategies
17	Neuro Branding
18	Optimal Pricing Strategies
19	Publicity
20	Sales Force Management
21	Sales Management & Customer Service Excellence

SUPPLY CHAIN MANAGEMENT

1	Cost of Quality
2	Making Supply Meet Demand in an Uncertain World
3	Materials Management & MRP in SAP ERP
4	Sales & Operation Planning
5	Supplier Negotiation
6	Supplier Performance Management
7	Supply Chain Management (Fundamentals)
8	Supply Chain Management (Strategy and ERP)
9	Supply Chain Management for Pharma Companies
10	Supply Chain Management Game



Course Coding Scheme

Course Code Naming Convention

Course codes are presently given 6 alpha-numeric codes, e.g. CSE142: (INTRODUCTION TO PROGRAMMING)

Some Examples:

CSE142 = Implies, a first year course ('1') with 4 ('4') credit hours
 CSE211 = Implies, a second ('2') year course with 3 credit hours (3 credits is default)
 CSE341 = Implies, a third ('3') year course with 4 ('4') credit hours etc.

Details are given below:

First three characters

First three characters e.g. 'CSE' indicate the subject (in this case: Computer Science and Engineering)

The subjects defined so far (relevant for FCS) are:

CSE = Computer Science and Engineering
 MIS = Management Information Systems
 MTS = Maths and Statistics
 SCI = Sciences
 ICT = Information and Communication Technology

The next three digits

The next three digits '142', indicated as 'LMN' below are defined as follows:

'L' Digit

L = The 'L' digit indicates the Level of the course as follows:

1 = 100 level course - First year undergraduate
 2 = 200 level course - Second year undergraduate
 3 = 300 level course - Third year undergraduate
 4 = 400 level course - Fourth year undergraduate
 5 = 500 level course - First or Second year graduate
 6 = 600 level course - Advanced PhD courses
 7 = PhD Seminars

'M' Digit

M = The 'M' digit in:

0, 1, 2 or 3 = Indicates core courses
 4 = Indicates 4 credit hour core or elective course
 5, 6 or 7 = Indicates 3 credit hour elective courses
 8 = Used for obsolete courses
 9 = Project Courses

'N' Digit

N = The 'N' digit is simply a sequence digit assigned to make each course code unique.

Procedure for Online Registration of Courses:

Students are to use ERP CMS application, for online course registration of courses to enrol in their desired set of courses for the relevant term. To enable registration the student is to follow the following procedure:

- Sign in using his / her login ID and Password for ERP
- Go to the Self-Service link, then Enrolment and Add Classes.
- Search the relevant course subject, course number or catalogue number of the required course.
- Select the class using the option available, and then follow the two step process to finish enrolling in the required course.

All the required courses can be enrolled for one-by-one, or together by first adding them in the shopping cart and then finishing enrollment using the same two step procedure. If a student wants to de-enrol from a course within the given timeline, he/she can easily do so by using the relevant function available in the Self-service.



Faculty of Business Administration**Department of Accounting & Law****ACCOUNTING COURSES****ACC111 Principles of Accounting**

The objective of this course is to familiarize students with and develop in them a thorough understanding of the accounting concepts, principles, and procedures involved in the analysis and recording of business transactions, and the preparation of financial statements for service and trading concerns. Accounting concepts and techniques underlying income determination and valuation of current and long-term assets, together with their related internal control measures and their presentation in the financial statements are emphasized.

ACC201 Financial Accounting

Financial accounting is the first in-depth accounting course. Theory, the conceptual framework, development & application of International Financial Reporting Standard (IFRS) are stressed. Topics include financial statements, treatment of inventory and PPE in FS, partnerships, and ethics in accounting & business environments.

ACC310 Advanced Managerial Accounting

The study of management accounting for internal reporting and decision-making. The course introduces a business-management approach to the development and use of accounting information. Major topics include cost behavior, cost analysis, profit planning, and control measures. Accounting for decentralized operations, capital budgeting decisions, and ethical challenges in managerial accounting are also covered.

ACC312 Business Analysis and Decision Making

Accurate interpretation of Management accounts & financial statements is the key

to improve strategic planning and decision making. The important areas of this course are time value of money, rules for preparing financial statements including IFRS & GAAP especially keeping in view the subjectivity of FS and its subsequent impact on rational decision making are the key focus of this course. Further, concepts and processes used to develop budgets are also an integral part of this curriculum.

ACC315 Financial Reporting

This paper is an extension of the previous Financial Accounting paper. Financial statements are again the main feature of this paper with the inclusion of consolidated financial statements & additional concepts, such as impairment of assets, events after the reporting period & prior years' adjustments etc. Focused must be placed on practical application of IFRSs in the modern business environment.

ACC320 Auditing

This course will provide an understanding of Auditing and its process. The role of standard for auditing continues to evolve. The traditional audit changes in response to factors such as technological advancement, the changing needs of users of financial information, regulatory changes, and the increasingly litigious environment in which the auditors practice. The evolution of auditing stresses the importance of professional judgment, a critical cognitive skill in the practice of auditing.

A basic premise of this course is that "concepts" and "procedures" are inseparable. It is difficult to know when the concepts finish and procedures start. A second premise of this course is that the professional must begin with concepts and end with procedures.

ACC325 Advanced Auditing

The objective of the course is to develop a framework for determining the nature and scope of the auditing process applicable in

different environments. The course focuses on international standards of auditing, techniques for investigation, verification, interpretation, and appraisal of accounting information and financial statements, along with accountability and ethical issues.

ACC381 Management Accounting

The aim of this course is to equip students with the management accounting concepts and techniques used for sound business decision-making. Modules offered include basic cost accounting concepts, their nature and behavior, cost-volume-profit relationships, absorption and variable costing, relevant costs & differential analysis, standard costing and variance analysis, gross profit analysis, and capital budgeting techniques.

Prerequisite: ACC111, ACC201

ACC401 Advanced Financial Reporting

In this paper students are expected to demonstrate application of accounting for leases, treatment of deferred & current taxes, intangible assets & borrowing costs in the financial statements as per IFRSs. The most important sections of this paper is the practical knowledge of business combinations & preparation of consolidated financial statements after accounting for all acquisition adjustments.

ACC415 Actuarial Courses

This introductory course about actuarial sciences Starts with a firm foundation in Mathematics and then moving on to other actuarial courses which ranges from Economics, Finance, actuarial models, and contingencies. Students are advised to possess good knowledge of general and applied mathematics and statistics before taking this course.

ACC505 Accounting for Decision Making

This course is designed to provide future business executives with the fundamentals and skills of analyzing and using accounting information for management decision-making,

planning, and control. Topics include understanding and analysis of financial statements, information management and reporting.

Prerequisite: ACC506

ACC506 Financial Accounting and Information Systems

This course is designed to provide future business executives with knowledge on the importance of accounting in business decision-making. It also aims to develop an in-depth understanding of fundamental accounting principles and concepts, including the accounting equation, the accounting cycle, financial statement preparation and analysis, inventory management, and receivables / payables for budgeting in business organizations. Finally, it provides an insight into the key role of modern accounting information systems in information management for business organizations.

ACC507 Accounting Information Systems with SAP

This course is fully SAP integrated course which covers fundamentals of SAP: financial Accounting, FI, managerial accounting, CO, material management, MM, and sales and distribution, SD. The AIS course is different from other basic accounting courses in that it focuses on the processes and the working and interaction of various organizational elements rather than the accounting information itself.

ACC557 Accounting Information Systems - For Small & Medium Enterprises

An introduction to accounting information systems and their roles in the accounting environment. Systems covered include manual accounting, computerized accounting, and Internet electronic commerce applications. Emphasis is upon developing students' abilities to understand the processing of accounting data and the controls that are necessary to assure accuracy and reliability of the data processed by the accounting system.

ACC559 IFRS & Financial Reporting in Pakistan

This course starts with the appreciation of the Framework for Preparation and Presentation of Financial Statements as approved by the International Accounting Standards Board. The course goes on to cover major provisions of some of the important International Financial Reporting Standards as applicable in Pakistan and major SECP pronouncements affecting financial reporting of publicly listed companies.

ACC561 Analysis of Financial Statements

During the present era of business acquisitions, mergers, leveraged buyouts, and restructuring, and in view of constantly evolving financial reporting refinements and large scale manipulation of financial reporting to control perceptions of investors and lenders, the need for vigorous and meaningful analysis of financial statements cannot be overemphasized. This course aims at developing a deeper understanding of accounting principles and standards. The course is taught largely through case studies and real life business problems, thereby stimulating effective student participation in the learning process.

Prerequisite: ACC501 / ACC201

ACC589 Project Evaluation & Financing

The topics covered include developing schematic framework for feasibility studies, conventional and non-conventional measures of investment worth their limitations and problems, and developing project cash flows under special decision situations. The course also focuses on determining cost of capital, identifying, accessing, and developing the optimal financing-mix.

Prerequisite: ACC201 or ACC501

LAW COURSES

LAW105 Politics and Law

This course includes the basic theories, concepts, approaches, and enduring questions of political science. It provides in-depth

knowledge and analytical skills to understand modern politics in historical context. Further, it provides a glimpse of local and international laws (i.e. War crimes, crimes against humanity, terrorism, political asylums etc.) and the effectiveness of politics within the framework of applicable laws.

LAW205 Business Law

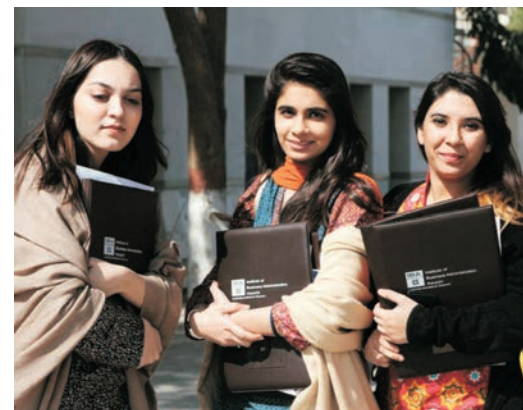
The contents of this course include Contract Act, Sales of Goods Act, Negotiable Instruments, Partnerships, and Company Acts. This course aims to provide a basic introduction to these laws and an appreciation of the legal system in Pakistan.

LAW303 Taxation

Taxation is an important tool for fiscal and economic management of a country by the government. It is imposed on economic units to finance the expenditure of a government and it is also used by governments to encourage or discourage a certain sector / activity in the economy.

In the wake of the above background objective, this course will enable students to:

- Understand the structure of taxation system & laws in Pakistan;
- Learn practical application of taxation laws for decision making and planning in different economic and business scenarios.



LAW305 Corporate Law

This course provides an understanding of basic rules of corporate law such as formation of a company, separate legal entity, limited liability, and role of company's directors & auditors. Further, evaluating corporate problems, identifying appropriate legal obligations, duties, rights, and remedies are an integral part of this course.

LAW310 Legal & Regularity Environment (For BSAF)

This course familiarizes the students with the laws and regulations at both national and global levels that are pertinent to business decision-making.

LAW401 Advanced Taxation

This course is an extension of initial tax paper. It emphasizes building a tax strategy by setting tax objectives and priorities, and then negotiating and allocating resources accordingly. This course is developed keeping in mind the global business context where a company's corporate and tax strategies move line by line. It demonstrates the effect of double tax treaties and how financial resources can be optimized by an effective tax strategy.

LAW501 Legal and Regulatory Environment of Business (For MBA)

Business decisions are made within the context of a complex regulatory framework. This course familiarizes the students with the laws and regulations at both national and global levels that are pertinent to business decision-making. In addition to general introduction of legal framework, the course covers nature and implications of specific regulations such as company law, prudential regulations, WTO, Basle, IOSCO etc.

LAW553 Corporate Governance & Practices in Pakistan

In view of increasing corporate frauds arising mainly due to the failure of proper internal

Corporate Governance causing significant harm to all the stakeholders, the need for effective Corporate Governance, and its proper implementation cannot be overemphasized. The topics covered in the course include the need for good Corporate Governance, discussion of Concepts, Principles and Systems of Corporate Governance, benefits of good Corporate Governance, and a detailed examination and critical evaluation of the Code of Corporate Governance of Pakistan.

Department of Economics & Finance**ECONOMICS COURSES****ECO102 Business Economics**

Please see on website

ECO103 / 113 Principles of Microeconomics-I & II

Principal of Microeconomics – I is designed for students without an economics background, and principal of Microeconomics – II is designed for students with an economics background.

ECO104 / 114 Principles of Macroeconomics-I & II

Principal of Macroeconomics – I is designed for students without an economics background and principal of Macroeconomics – II is designed for students with an economics background.

ECO105 Introduction to Economics

Please see on website

ECO201 Intermediate Microeconomics

The objective of the course is to clarify and extend further the microeconomic concepts and to develop analytical skills of the students along with strengthening their conceptual base. The course emphasizes on three main areas. The first area focuses on consumer theory including utility functions and demand elasticity and income elasticity. The second area covers the behavior of firms, and includes

topics like output maximization subject to cost constraint, costs of production, economies of scale, and returns to scale. The third area focuses on the market structure and includes a discussion of perfect market, monopoly, monopolistic competition and oligopoly. Pre-Requisite: ECO103, MTS101

ECO202 Intermediate Macroeconomics

This course is intended to develop the students' capacity to understand the issues and problems of the economy in a global scenario. The major topics of discussion include Classical and Keynesian schools of thought, theories of consumption, determinants of national income and investment, demand and supply of money and the labor market. Special emphasis will be placed on discussing the saving-investment gap in developing countries and the problem of inflation and unemployment with reference to Pakistan's economy. The students will be required to read and understand the Economic Survey, Annual Reports of State Bank of Pakistan, ADBP and World Bank.

Pre-Requisite: ECO104, MTS101

ECO211 Analysis of Pakistan Industry

The globalization of formerly national economies, the invasive role of the information and communication technologies, as well as the union of markets and sectors today affect most industries. Business students must understand how industries are structured, how they change, how they are affected by both technology and regulation, as well as how they interact with one another and evolve as a result of it. In this context, industry analysis is about identifying the micro and macro economic factors that effect firms and that shape an industry, as well as about being able to put these factors into logical frameworks. This will help to understand an industry's structure, its main attributes, the degree and nature of competition, as well as its evolution.

ECO301 Development Economics

This course focuses on factors that spur economic growth and analyzes the equation between economic growth and human welfare. It also critically examines various measures taken for human welfare. In addition, changes in economic structures such as sectorial output and employment relations and various developmental policies/strategies regarding distribution of income and sectorial development are focused upon.

Pre-Requisite: ECO103, ECO104 & MTS112

ECO312 Microeconomics

The objective of this course is to direct the students to the advanced theoretical concepts of microeconomics and expose them to the rigorous analysis with mathematical tools at hand. The topics of discussion include utility maximization and ordinary (Marshallian) demand functions, cost minimization and compensated (Hicksian) demand functions, theory of production and supply, efficiency of competitive market, the economic cost of imperfect competition, theorems of optimality/welfare, and the tradeoff between equity and efficiency.

Pre-Requisite: ECO201, MTS112 & MTS201

ECO313 Macroeconomics

The course is intended to give the students a strong theoretical foundation so as to understand the real problems of the economy with particular emphasis on inflation, unemployment, instability, deficit and debt to which the developing countries face at present. The discussion topics include wage rate determination, supply side disturbances leading to stagflation, determinants of the exchange rates, devaluation and its impacts for developing countries, policy formulation and implementation in the world of uncertainty and business cycles.

Pre-Requisite: ECO202, MTS112 & MTS201

ECO341 Introduction to Econometrics

This course enables the students to apply

statistical methods to data through simple mathematical models and to interpret the results by using economic theory. The course introduces the students to the ingredients of econometric modeling, which include specification, estimation, evaluation, and forecasting. The topics of discussion are the simple two-variable model, the multiple linear regression models, multicollinearity, heteroskedasticity, time series data, auto correlation, and the simultaneous equations models.

Pre-Requisite: ECO103, ECO 104 & MTS202

ECO342 Applied Econometrics

This course enables the students to understand the data problems, to have a good grasp over advanced estimation techniques and to have the capability of inferring results accurately. The course will require the students to learn certain computer packages like SPSS, e-views, and strata besides excel. The major topics included in the course are classical regression model, generalized least-squares model, the maximum likelihood estimators, time series analysis and autoregressive distributed lag models.

Pre-Requisite: ECO341

ECO403 Major Issues in Pakistan Economy

The course intends to give an overview of Pakistan's economy with a detailed discussion of various issues like unemployment, poverty, income distribution, debt burden, deficit, etc. which the economy is facing. The main topics of discussion include agricultural development policies, mobilization of domestic resources, role of foreign aid, development of large and small industries, sectorial development, employment pattern, population growth, international debt dependency, inflation, foreign trade deficit and other emerging issues.

Pre-Requisite: ECO301

ECO411 Research Methods in Economics

The course will familiarize the students with the methodology by which economists conduct

research, with an emphasis on the development of an effective research question and strategies for identifying relevant scholarly literature. Students will learn how to read theoretical and empirical research papers that contain mathematical exposition. The course will also provide students with an understanding of where and how to collect data used in economic analysis, and the limitations that the use of data imposes on economic inference. Students will apply their increased understanding of economic research methodology to produce their own literature review.

Pre-Requisite: ECO342

ECO451 Public Finance

This course emphasizes on the application of economic theory to the analysis of the issues related to public expenditures and taxation. The course discusses public goods and free rider problems, theories on public expenditures, social cost benefit analysis, fiscal policy and Distributional Equity in Taxation. The course also includes the discussion of budget cycle and tax structure in Pakistan.

Pre-Requisite: ECO103 & ECO104

ECO452 Islamic Economic System

The course includes the concept of Islamic method of economic life, rules and legal provisions that govern the economic life and financial transactions, and universality of Islam. The course also discusses the Islamic economic system as a reference development in the arena of economic life, and the failure and ineffectiveness of economic systems in solving the economic problems.

Pre-Requisite: ECO103 & ECO104

ECO454 Population Economics

The course aims at exposing the students to the main population dynamics, their socio-economic determinants, consequences and their measurements. The major areas of focus include history of population growth, population theories, components



of population changes, economic and social determinants of population trends and their consequences and population policies and their impacts.

Pre-Requisite: ECO103 & ECO104

ECO455 Comparative Economic System

This course seeks to develop concepts enabling students to differentiate the various economic systems from one another. It provides students with an understanding of the organization, operation, and performance of economic systems, both in theory and in practice. The course includes the discussion of general categories of feudalism, capitalism, socialism, communism and Marxism. The course includes a detailed discussion of the Islamic economic system and the economic system of Pakistan.

Pre-Requisite: ECO103 & ECO104

ECO456 Economics and Strategy

In this course, students will explore the concepts, methods, and tools of managerial economics with an emphasis on business decision-making in domestic and international settings. Topics discussed include: demand theory, supply, the price system, cost analysis, market structures, factor pricing, decision criteria, and international economics. The course integrates economic reasoning with statistical techniques in order to facilitate strategic decision-making under conditions of uncertainty.

Pre-Requisite: ECO103 & ECO104

ECO461 Natural Resource and Environmental Economics

The course explores the economic basis of environmental issues and policies. The topics of discussion include models of pollution control, value of health, life and safety, emergence of environment issue in Pakistan, industrial waste, etc.

Pre-Requisite: ECO103 & ECO104

ECO462 Rural Development

The course introduces the structure of the rural economy encompassing the socio-economic set up, developmental status, and core social, economic, and environmental problems to the students. The course also intends to impart knowledge to the students about the historical background, evolutionary planning process of rural development & familiarize students with the rural scene of Pakistan.

Pre-Requisite: ECO103 & ECO104

ECO464 Game Theory

The course develops a rigorous presentation of key concepts in game theory, and emphasizes their applications to economic modeling. Contents include: choice under uncertainty and Von Neumann Morgenstern utility; games in normal form: mixed strategies, Nash equilibrium (existence and stability); games in extensive form: backward induction and other equilibrium refinements.

Pre-Requisite: ECO103, ECO104 & MTS101

ECO465 International Political Economy

The objective of this course is to train the students to think systematically about the current state of the economy and the macroeconomic policy, and to be able to evaluate the international economic environment within which business and financial decisions are made. The course emphasizes the use of economic theory to understand the workings of financial markets and impact of government policies.

Pre-Requisite: ECO103 & ECO104

ECO467 History of Economic Thought

This course is designed to provide an introduction of the contributions of major economic thinkers from the late scholastics to the present. The course will enable the students to explore the historical circumstances under which different economic theories arose. Main areas of focus include contributions of the classical school: Adam Smith, Malthus and Ricardo, socialism, neo-

classical economics, Keynesian and post Keynesian schools, and the emergence of modern economic thought.

Pre-Requisite: ECO103 & ECO104

ECO468 Agriculture Economics

This course illustrates the role the agriculture plays in economic development and the various issues related to agricultural development. Major topic of discussion include the theory of rent, agricultural surplus, agriculture in dualistic development models, technological change in agriculture, supply response, and food supply theories. Special emphasis will be placed on discussing the agricultural issues in Pakistan like agricultural productivity, use of inputs, malnutrition, land ownership, soil degradation, and green revolution.

Pre-Requisite: ECO103 & ECO104

ECO469 Regional Economics

The course includes a discussion of different types of regions: need for planning for local level development; theoretical and practical problems of regional development planning; linkage between planning and implementation at grassroots level; theories of inter-regional economic growth; shadow pricing and socioeconomic development; centralized and decentralized planning and financing for development; regional policies for development and regional (Provincial) development in Pakistan.

Pre-Requisite: ECO103 & ECO104

ECO471 Health Economics

The course includes the study of determinants of health, including behavioral, economic and social factors and access to health care. Students in the health economics course will apply economic theory and empirical analysis to study how socioeconomic status, public policy actions, and individual decisions influence health outcomes. The analysis of medical care industry and economics of private insurance markets comprise another important area of study in the course.

Pre-Requisite: ECO103 & ECO104

ECO472 Urban Economics

The course deals with the nature and development of urban areas. The analytical sections of the course deal with the location of firms and households in an urban spatial context, the size distribution of urban areas, the theory of land rent, and optimal city size. Various urban problems such as poverty, pollution, and environmental quality are discussed. Other policy questions deal with congestion tolls and efficient highway investment, land use regulation, central city fiscal problems, and alternative educational policies.

Pre-Requisite: ECO103 & ECO104

ECO473 Welfare Economics

This course introduces students to basic concepts in welfare economics. It allows an understanding of important economic factors affecting the level of social welfare. The conditions for Pareto optimality, alternative welfare criteria, measures of consumer surplus, optimal income distribution, external effects, public goods, the theory of second best and the basic theory of social choice will be discussed.

Pre-Requisite: ECO103

ECO474 Resource Economics

This course aims to provide the students a broad introduction to the economics of natural resources and the environment. It intends to develop a systematic understanding of the economic rationale behind the optimal use of natural resources.

Pre-Requisite: ECO103 & ECO104

ECO501 Managerial Economics

The course prepares students for decision-making using various analytical tools and techniques. These tools thus developed in this course are helpful for decision-making in areas such as organization, production, marketing, and evaluation of data. Students learn a variety of scientific management tools like problem solving techniques using consumer theory,

producer theory, and theories of markets, statistics, econometrics and mathematics.

ECO502 Macroeconomics

This course provides an overview of the following macroeconomic issues: the determination of output, employment, unemployment, interest rates, inflation, monetary and fiscal policies, public debt, and international economic issues. This course also introduces basic models of macroeconomics and illustrates principles with reference to Pakistan.

ECO511 International Trade

The course covers the various issues and theories related to international trade. The topics of discussion include theories of absolute advantage and comparative advantage, shift in production function resulting from international trade, Ricardian trade model, international wage differentials and productivity, free trade and income distribution, factor endowment and Heckscher-Ohlin Model, transfer of resources, tariffs, quotas, trade barriers, major trade rules by WTO, contributions of International financial institutions and monetary integration.

Pre-Requisite: ECO201 & ECO202

ECO517 Global Economic and Political Environment

The course aims to develop an understanding and application of social, political and cultural changes and economic development in society (sensitizing students in the history of Pakistan and its social, political and economic development and global economic trends, making them understand the macroeconomic factors affecting business corporations and leadership). Overall, it highlights social, cultural, political, economic, environment and development trends.

ECO530 Development Economics

This course focuses on factors that spur economic growth and analyzes the equation

between economic growth and human welfare. It also critically examines various measures taken for human welfare. In addition, changes in economic structures such as sectorial output and employment relations and various developmental policies / strategies regarding distribution of income and sectorial development are focused upon.

Pre-Requisite: ECO531, ECO532

ECO531 Microeconomics Theory - I

This is the third course in a series of microeconomic courses at undergraduate level. This course is designed with the two main purposes of giving students a systematic grounding in Microeconomics and preparing them to use economic models in their own research. We will cover the various topics of microeconomic theory to examine the consumer behavior, firms' behavior, and the market. More specifically, this course covers the topics including utility maximization, profit maximization, derivation of demand and supply functions, the market equilibrium under perfect competition, and welfare analysis under perfect competition. This course provides mathematical treatment of these topics using multivariable calculus and some basic concepts in real analysis.

ECO532 Microeconomics Theory - I

A study of economic growth lies at the heart of any understanding of the fundamental issues of economic progress and development. The aim of the course is to provide students with a rigorous introduction to the conceptual tools developed to analyze and identify the sources of economic progress. There are several objectives of the course. First, students should be aware of the current debates about the definition of economic progress, and what we should consider when studying 'economic growth'. Secondly, they should become familiar with the available cross-country data, and how this data can be used to draw meaningful insights into the important determinants of economic growth. Thirdly, students should



have a good understanding of the formal economic models of economic growth and be able to use these models as a basis for understanding and distinguishing the various sources of, and constraints on, economic growth. Along with above mentioned key objectives, this course also aims to provide an advanced treatment of long-run macroeconomic theory that emphasizes rigorous analysis and prepares students for research. It covers key technical tools and modelling frameworks that are fundamental to macroeconomics. Upon completion of this course, students should have: the ability to follow state-of-the-art developments in long-run macroeconomic theory, the perspective to critically evaluate long-run macroeconomic models, the skills to contribute to research in long-run macroeconomics.

ECO533 Mathematics for Economics

The course objective is simply that you achieve an understanding of the concepts we will cover in the text book and the ability to apply them. Please note that this course is an Economics course. We will focus on the language of mathematics used in economic analysis. You can use some of the tools that we will cover in this course in your other economics courses such as microeconomic theory I. This course will also prepare you for the doctoral program in economics.

ECO537 Econometrics - 1

Econometrics is a set of research tools used to estimate and test economic relationships. The methods taught in this introductory course can also be employed in the business disciplines of accounting, finance, marketing and management and in many social science disciplines. The aim of this course is to provide you with the skills helpful in filling the gap between being "a student of economics" and being "a practicing economist". By taking this introduction to econometrics you will gain an overview of what econometrics is about, and develop some "intuition" about how things

work. The emphasis of this course will be on understanding the tools of econometrics and applying them in practice.

ECO538 Econometrics - 2

This is a second course on a series of graduate level applied econometrics courses in IBA. The first course provides an applied introduction to the econometric tools used in many applied research applications where it is often assumed that students' either already know this information or will figure it out on their own. However, at this stage, there are subtle issues that many students do not have the research maturity and background to completely comprehend. In addition, we attempt to provide you with a roadmap to think about estimating your models so that they lend themselves causal interpretation. Most of the students taking this course have already taken econometrics-I therefore instead of focusing too much on re-learning OLS again, we would rather skim through OLS and multiple regression quickly and try to make best use of time by learning practical issues in empirical research. These issues are diagnosing the biases and inefficiencies in OLS and then do the remedy using GLS, IV, panel data estimations, limited dependent variable, and difference-in-difference. Hope, after doing this course, you will have a fair practical understanding of dissecting the issue in a right empirical way and use software effectively.

ECO539 International Trade

The course is designed for Masters students who are interested in pursuing policy-oriented positions as well as applying for PhD programs with a focus on international trade. The main objective of this course is to familiarize students with the latest trade theories and empirical studies in the field of international trade as well as learn global trading patterns. The course is divided into three parts. The first focuses on the neoclassical trade models and their explanation of trade patterns. The second part focuses on imperfect competition as well as

recent developments on firm-level heterogeneity and its role on international trade. The third part focuses on trade policies and the political economy that determines such trade policies.

Pre-reqs: ECO531, ECO533

CO544 Issues in Pakistan Economy

This is a graduate course over fourteen double-class sessions, designed to introduce students to the study of issues in Pakistan's economy, the nature of its state, how Pakistani society has changed over the last six decades, and how the economy behaves and develops in a globalised world. The analysis and discussion on Pakistan and its issues in the economy, society and structures, will be embedded in a broad theoretical and historical perspective, focussing on economic development. Theories of economic development will help frame the specific experiences of Pakistan. This will be a course which will examine theory, Pakistan's economic history and contemporary issues which affect the economy today. This course will try and provide a broad historical review of the nature of changes which have taken place in Pakistan and have affected many of the impressions which are now part of conventional wisdom about Pakistan. The emphasis of the course will be on social and structural change and transformation, of society, the state and the economy.

ECO555 Economics Forecasting

Forecasting is one of the most rapidly growing research areas with wide applicability in economics. The increasing complexity of global financial markets is fueling the demand for professional experts who possess an understanding of forecasting, econometric tools to solve forecasting problems, and necessary computer skills to create relevant forecasts. Forecasting combines the essential tools in economics, statistics, and mathematics to meet these growing needs.

This course assumes that students have done graduate level course in econometrics and macroeconomics. The course concentrates on applications of various econometric techniques to real world data with special emphasis on forecasting.

ECO560 Public Policy Analysis: Theory and Practice

This is the first course in the public policy analysis sequence. It identifies, analyzes, and solves policy problems. The course is designed to provide a thorough introduction to public policy analysis with a balance between theory and practice. We will exert considerable effort to explore policy analysis in developing countries. During the course, we will explore implications for public policy and reform in Pakistan and for business strategy. Pre-Requisites: ECO531 / ECO501 / ECO102 / ECO104 / ECO103 / 113

ECO561 Environmental and Resource Economics

This course is designed to provide a rigorous introduction to microeconomic frameworks and tools for analyzing and improving the efficiency of natural resource use and environmental protection. Considerable effort will be exerted to apply these concepts and policy instruments to policy problems in developing countries, with particular emphasis on Pakistan. Pre-Requisites: ECO301 / ECO312 / ECO501 / ECO531

ECO562 Financial Economics

The objective of this course is to undertake a rigorous study of the theoretical foundations of modern financial economics. The course will cover the central themes of modern finance, including individual investment decisions under uncertainty, stochastic dominance, mean variance theory, capital market equilibrium and asset valuation, arbitrage pricing theory, option pricing, and incomplete market. Upon completion of this course, students should acquire a clear understanding of the major

theoretical results concerning individuals' consumption and portfolio decisions under uncertainty and their implications for the valuation of securities

Pre-Requisite: ECO103 & ECO104

ECO563 Financial Economics

The purpose of this course is to give you an understanding of the economics of health, healthcare and health policy, with an emphasis on the Pakistan's context. The course will examine the production of health status, the demand for and supply of healthcare services, and the special attributes of healthcare markets and the implications of those attributes for the financing, funding, organization, delivery of healthcare services, and public policy. We will analyse the roles of externalities, risk, imperfect information, asymmetries of information, and institutional arrangements in affecting behaviour in healthcare as well as the formulation and implementation of health policy. We will also examine issues of efficiency and equity. Major objectives of the course include a better understanding of analytical tools and the role of institutional arrangements in affecting performance and behaviour in the health sector and an improved ability to apply economic, health policy analysis, and other tools to issues in health and healthcare. By the end of the course students should have developed a better understanding of the economic and non-economic factors that affect health status, a better understanding of the determinants of market success and market failure, the role of institutional arrangements and the role of public policy.

ECO564 History of Economics

This course is a survey of world economic history, and it introduces economics students to the subject matter and methodology of economic history. It is designed to expand the range of empirical settings in students' research by drawing upon historical material and long-run data. Topics are chosen to show

a wide variety of historical experience and illuminate the process of industrialization. The emphasis will be on questions related to labor markets and economic growth.

ECO566 Monetary Economics

This course is designed as a survey of the basic theories in monetary economics for undergraduate level students. The main objective of the course is to help students understand the core aspects of monetary economy: how monetary phenomena and policies are determined, and how they interact with the rest of the macro economy. For that purpose, several key theoretical frameworks will be constructed. Major schools of thought in monetary economics, and their differences, which give rise to different policy implications, will also be discussed. Finally, with the clarity of theoretical linkages along with the empirical testing of sensitivity of such linkages, it will be easier for students to understand the mechanism and framework of monetary policy. Pre-Requisite: ECO103 & ECO104

ECO567 Public Economics

In the course the students will - understand theoretical issues of public finance -study the rationale for government interventions in the market economy -make assessment of public policies -calculate the impact of government tax and expenditure policies on the economy and society.

ECO570 Time Series Modeling

The course will introduce students to the main issues arising when modeling Time Series Data. The class will provide students with the tools to apply some of the most sophisticated and up to date techniques used in empirical time series analysis and Dynamic Stochastic General Equilibrium (DSGE) modelling. The students will also be exposed to brief sketches of the theoretical econometric issues behind some of the more recent developments in this eld. At the end of the course the students will be able to read and understand



applied papers on time series analysis, will have all the tools to estimate univariate and multivariate ARMA, ARIMA, VAR, SVAR, Bayesian VAR, Panel VAR models, and will know where to look for more in depth theoretical research. The topics covered in this course include univariate ARMA/ARIMA models, structural breaks testing, ARCH and GARCH, multivariate (VAR and SVAR, Bayesian VAR) models, unit roots and cointegration. Each topic will be motivated with an empirical example and hands on examples will be used throughout the class. Grading will be based on a final individual project/term paper.

ECO571 Industrial Economics

This course provides an introduction to current theory and empirical work in Industrial economics. It starts by examining the internal structure of firms. It then moves on to the analysis of various aspects of strategic interaction between firms and the determinants of industrial structure. Finally, it discusses the role of policy in the context of competition and industrial policies and regulation. The emphasis will be throughout on understanding how the theoretical tools can be used to analyse real world issues. The theory will be confronted against empirical evidence, and its implications for public policy and business strategy will be discussed.

ECO572 General Equilibrium & welfare economics

General equilibrium analysis including the main welfare theorems. An introduction to the economics of information, presenting models of moral hazard, adverse selection, and signalling. In the first part of the course students are expected to obtain knowledge of the result that a general equilibrium exists, and an understanding of the intuition underlying the main welfare theorems both in general and partial equilibrium analysis. In the second part of the course students are expected to learn the basic concepts and results of the economics of information. This

part considers models of asymmetric information, and introduces the concepts of moral hazard, adverse selection, and signaling. The students should be able to do welfare economics without use of marginal conditions. The students should realize that many forms of economic interaction involve problems of asymmetric information, and be able to differentiate between problems of moral hazard, adverse selection, and signaling. The students should be able to handle simple models that capture various kinds of informational asymmetry.

ECO573 Game theory and competitive strategy

This course will cover game theory and strategic thinking. Ideas such as dominance, backward induction, Nash equilibrium, evolutionary stability, commitment, credibility, asymmetric information, adverse selection, and signaling are discussed and applied to games played in class and to examples drawn from economics, politics, the movies, and elsewhere. This course uses game theory to study strategic behavior in real-world situations. It develops theoretical concepts, such as incentives, strategies, threats and promises, and signaling, with application to a range of policy issues. Examples will be drawn from a wide variety of areas, such as management, labor bargaining, international negotiations, auction design, and voting behavior. This course will also explore how people actually behave in strategic settings through a series of participatory demonstrations. These experiments will help refine our understanding of economic and political behavior in the real world. Prior courses in microeconomics and mathematics are helpful but not required.

ECO574 Water Economics and Policy

This course is about the economics and public policy associated with water and its applications, pricing, valuation, demand, and supply. This course is particularly relevant in Pakistan where a majority of the population's

access to water is at risk, access to safe potable water is limited, and the irrigation system is the backbone of the economy. The course provides a rigorous introduction to water scarcity and its implications for supply, pricing, and demand.

Pre-Requisites: ECO301 / ECO312 / ECO501 / ECO531

ECO575 The Microeconomics of Public Policy Analysis

This is the second course in the public policy analysis sequence. This course is designed to enable students to apply microeconomic frameworks for conducting policy analysis. Students will explore the economic rationales for public policy, microeconomic models of individual choice for policy analysis, potential policy interventions in markets, and sources of market failure and institutional choice. Students will learn to develop microeconomic models for public policy analyses.

Pre-Requisites: ECO301 / ECO312 / ECO501 / ECO531

ECO591 Research Methodology

This course covers the basic steps and process of conducting applied economic research. This includes the selection of topic, literature review and survey, selection of research method and approach, formulation of hypothesis, testing of hypothesis using statistical analysis, and summarizing results. You will organize and complete the research project in stages. Course objectives include: In addition to learning well the topics of the course as stated above, applying economic theory to real world problems and concerns, learning the vast array of information available to economists over the Internet and in the library, learning where resources and data can be located, using statistical methods to analyze and evaluate the application of economic theory and reasoning, and gaining an appreciation for the value of economic reasoning and research, while also recognizing the limitations of its application.

You will also learn to write an effective research paper and be able to effectively present it to your fellow students and faculty in economics.

ECO631 Microeconomics Theory - II

This course is a graduate level course. The pre-requisites for this course are intermediate microeconomics and mathematics for economists and will not be waived under any circumstances. In this course we present the advanced treatment of various topics that have already been covered in your earlier microeconomics course. We will use rigorous mathematical analysis to examine topics such as consumer choices, theory of firm, partial equilibrium and game theory.

ECO632 Microeconomics Theory - II

Why are some countries richer than others? The objective of this course is to answer this question. The course aims to survey the main models that are currently used to describe the determinants of economic growth, namely capital accumulation, population growth and technical progress. The study of these three sources of economic growth is central to macroeconomics and is presently a very active area of research. We then turn to testing the main implications of these models. Particularly, one wants to test whether poor countries have a tendency to catch up with the richer countries, and whether the variance of per capita national income tends to fall over time. We also look at the endogenous growth theories. We finish off with a brief introduction to Real Business Cycle literature.

ECO648 Econometrics Analysis - II

This course assumes that students have done at least one graduate level course in econometrics (e.g., ECO-647 in IBA). The course concentrates on applications of various econometric techniques to real world data with special emphasis on time series and panel data. Econometrics, in general is a set of research tools used to estimate and test economic relationships. The methods taught in this second course on econometric analysis will provide students with the tools to apply some of the most sophisticated and up to date techniques used in empirical macro/monetary

economic modelling with especial emphasis on Dynamic Stochastic General Equilibrium (DSGE) modelling. The students will also be exposed to brief sketches of the theoretical econometric issues behind some of the more recent developments in this field. Each topic will be motivated with an empirical example and hands on examples will be used throughout the class. Grading will be based on a final individual project/term paper.

ECO654 Labor Economics

This course will allow the students to extend their knowledge of economic theory and apply it to the labor market. The course addresses the topics of labor demand and supply, wage rigidity, role of labor unions and unemployment, labor market discrimination, labor policy, theories of labor movements and child labor.

Pre-Requisite: ECO103 & ECO104



FINANCE COURSES

FIN201 Introduction to Business Finance

This course is aimed at introducing the fundamental tools of business finance. The main concepts examined include financial analysis, financial decision-making, time value of money, valuation of financial assets, risk and return analysis, and management of short-term assets of the firm.

FIN301 Financial Institutions and Markets

This course is designed to provide a look at the broad framework of the financial system, as well as an insight into the nature and operations of different financial institutions and markets. These institutions and markets include the banking industry, the non-banking financial institutions, the stock market, the bond market, and the foreign exchange market. Prerequisite: FIN201

FIN305 Alternate Investments

The purpose of this course is to explore the world of alternative investments such as investments in hedge funds, private equity / venture capital funds, real estate, and commodities, either directly or through funds of funds. The course will combine theory with empirical exercises, allowing students to get a "hands-on" experience. We want to see what the return risk characteristics of alternative investments are, what attributes to their appeal, and how to construct a portfolio using them.

FIN308 Real Estate Investments: Analysis and Financing

The course examines debt and equity financing for residential and commercial real estate properties. The objective of the course is to establish a solid foundation in the fundamentals of real property valuation and underwriting, as well as an understanding of the various debt and equity financing alternatives available and in use in the capital markets. The course will also examine lender and investor perspectives on risk and reward across property types.



FIN310 International Banking

This course aims at providing students with an understanding of the operating environments of international banking institutions. The course will look at the nature and theory of international banking, the major functions of international banking and other important issues (international money laundering, international banking crisis, regulation of international banking, international debt crisis, and offshore banking markets). The course will also include a discussion of international monetary law - primarily, the law and guidelines established by the International Monetary Fund and Bank for International Settlements.

FIN312 Behavioral Finance

This course describes how individuals and firms make financial decisions, and how those decisions might deviate from those predicted by traditional financial or economic theory. Students explore the existence of psychological biases in financial decision-making, and examine the impacts of these biases in financial markets and other financial settings. The course examines how the insights of behavioral finance complements the traditional finance paradigm.

FIN315 Corporate Restructuring

Corporate restructuring involves any substantial change in a company's financial structure, or business portfolio, designed to increase the value of the firm. This course will be taught around several major topics, employing in-depth group work on case studies and deal documentation. The focus will be on identifying situations that call for nonstandard corporate finance solutions, and the design and pricing of the situation-specific financing instruments. Examples of such situations include stress-induced financial restructuring, recapitalizations, private equity and leveraged buyouts, mergers and acquisitions, and divestitures. In many cases resolving these issues will require structured finance solutions.

FIN320 Empirical Research in Finance

This course introduces basic methods that are used in contemporary financial research. The objective is to provide students with the necessary tools to study the relevant literature of other core courses in the program and to conduct empirical financial research within the framework of the Master's thesis. The course pays ample attention to the intuition and the practical applicability of a variety of econometric techniques that are widely used in contemporary empirical financial research. Reference will be made to many real world examples from the corporate finance and asset pricing literature.

FIN401 Financial Management

The course, building upon the background provided in the core accounting and finance courses, aims to enhance students' understanding of the theory and practice of the financial management of a firm. Topics covered include financial analysis and planning, capital budgeting process, long term financing, working capital management and mergers and acquisitions.

Prerequisite: FIN201

FIN405 Venture Capital and the Finance of Innovation

This course covers the finance of technological innovation, with a focus on the valuation tools useful in the venture capital industry. These tools include the "venture capital method," comparables analysis, discounted cash flow analysis, Monte Carlo simulation, contingent claims analysis, decision trees, and real options. Specific topics of the course include investment selection, due diligence, valuation, negotiation, portfolio company management, exits, limited partners, and firm management. Students will develop a perspective and a framework for understanding the practical aspects of the business, as well as the current state of the venture capital industry.

FIN410 Buyouts and Acquisitions

The focus of this course is on buying (or acquiring controlling stakes in) firms. The main topics to be covered are mergers and friendly acquisitions, hostile takeovers and buyouts. Using case studies, the course surveys the drivers of success in the transactions. While issues regarding motive and strategy will be discussed, financial theory would be the main lens used to view these control acquiring transactions.

FIN424 Fixed Income Investments

Please see on website

FIN425 Branch Banking

This course introduces participants to the concept of branches in banks, functions of a branch and its role in the overall banking arena, products and operations of a branch and the laws and regulations that govern its operations. The course is aimed at building primary knowledge base for bankers of all levels to better understand the branch level functionalities and its scope.

FIN426 Lending- Products, Operations & Risk Management

The course aims to provide insights into the nature of lending products, the related operations and the role of risk management in maintaining a healthy lending portfolio. This course also introduces the various types of financing facilities available in the local as well as the global market. Furthermore, the course gives an insight about the risk management concepts along with basic knowledge of fraud and how to assess lending risk and risk appetite.

FIN427 Finance of International Trade and Related Treasury Operations

The principal objective of this course is to impart knowledge and expertise in the field of international trade, finance & related treasury operations. It enables students to understand the role of banks in international trade, the

risks inherent in trade and become aware about local laws and regulations as well as international conventions / practices.

FIN428 Introduction to Marketing of Financial Services

The objective of this course is to familiarize the applicants with the basic concepts of marketing, its scope and application in the corporate arena specifically in banks. Concepts of brand equity, marketing management, and customer relationship management are discussed in detail. Also, information on developing the marketing mix, distribution of products, and logistics management is covered. Primarily this course aims to provide an in-depth appreciation and understanding of the unique challenges inherent in managing and delivering quality services.

FIN429 Information Technology in Financial Services

With the increasing use of and reliance on technology in the financial services industry, bankers need to know not only the basic computing concepts, but also understand the correlation that now exists between banking and technology. This course is designed to equip participants to have an understanding of the above.

FIN430 Financial Information System

Please see on website

FIN451 Investment Banking

The aim of the course is to introduce the students to the various facets of the Investment Banking Industry. The course begins on a broad conceptual level with an examination of the philosophy and the scope of Investment Banking, and then narrows down to focus on the different facets of Investment Banking.

Prerequisites: ECO103 / ECO201, ECO104 / ECO202 & FIN401

FIN452 International Finance

This course concentrates on the role of external finance and foreign exchange in a macroeconomic context. The topics covered include a study of the major institutions of international finance, the balance of payments analysis, theories of foreign exchange rate determination, international risk exposures and risk management.

Prerequisites: ECO10413 / ECO202 and FIN401

FIN453 Security Analysis

This course covers in detail various types of investment securities, application of tests of income risk and marketability in the selection of securities, diversification and management of funds, methods of security analysis, and the use of technical aids in the appraisal of investment values. This course gives students

practical investment experience and introduces them to various styles of investing and security analysis. It exposes them to the operations of money management-related processes and investment culture of the Karachi Stock Exchange.

Prerequisite: FIN401

FIN454 Corporate Finance

This course is aimed at building an analytical understanding of corporate financial decision-making. It examines the fundamental question in finance i.e., the ability of companies to make profitable financial decisions using financial theories put forward by different scholars. The course also deals with controversies regarding what businesses do in order to maximize firm value.

Prerequisite: FIN401

FIN455 Portfolio Management

This course introduces the theory and practice of investment analysis and portfolio management. The course surveys various quantitative applications and assets valuation models and their use in constructing a profitable investment portfolio. Topics include

designing portfolios, risk diversifications, conceptual framework for making risk management and insurance decisions to increase business value and individual welfare, institutional aspects of the managed funds sector in Pakistan's market structure and market efficiency.

Prerequisite: FIN401

FIN456 Financial Risk Management

The course provides students with a quantitative perspective of risk management and the conceptual framework for making risk management and insurance decisions to increase business value and individual welfare. The effects of, and rationale behind, public policies that affect risk and allocation of risk among businesses and individuals are also discussed.

Prerequisite: FIN401

FIN457 Derivatives

The course deals with applications of derivatives, investigating the risks involved in derivative instruments, and examining how investors adjust the payoff pattern of their portfolios. The course also deals with various topics, like types of option contracts, taxation of option contracts, binomial option pricing model, Black Sholes model for call options, portfolio insurance, future versus call options, and synthetic futures.

Prerequisite: FIN401

FIN458 Fundamentals of Treasury and Fund Management

It deals with an in-depth analysis of the various methods of treasury and fund management, incorporating asset pricing, expectation theory, interest rate risk and the term structure of interest rates. The differences among asset and liability management, managing interest rate risk, and selling interest rate risk products are also covered.

Prerequisite: FIN401



FIN501 Advance Corporate Finance*Please see on website***FIN506 Business Finance I**

This course aims at introducing the students to the theory and principles of business finance. The course starts with the goals of a corporation and the basic financial decisions. Successful completion of this course will enable the students to evaluate the financial performance of a firm, calculate the measures of risk and return, understand the principles, time value of money and discounted cash flows, etc.

FIN507 Business Finance II

The course builds up on the topics that are covered in the introductory business finance course. It provides the students with an understanding of the financial securities' evaluation and the computation of the cost of capital. The management of corporate capital structure, particularly the choice between debt and equity financing, and dividend policy, forecasting techniques, types of financing and investment options are also discussed in this course.

Prerequisite: FIN506

FIN531 Financial Intermediation

This course reviews the evolution of financial intermediaries in the global economy. The role played by financial intermediaries to integrate the financial system is discussed. It will expose the participants to analyze recent global credit and subprime crises and develop a comprehensive understanding of the integrated financial system. Focused discussion will take place with respect to Pakistan market and participants would be required to develop intermediary solution for further broadening of the financial markets along with the legal and regulatory prospective.

FIN532 Advance Credit Management

Credit is the bread and butter of banking. It is the core function of every bank, without which

a bank cannot sustain. Recent banking crisis has highlighted the importance of sound credit management across the world. The course will include introduction to credit management, fundamentals of credit management, classic credit analysis, and credit-related regulations in Pakistan.

FIN533 Financial system - process, players, status and prognosis

The Course will cover a detailed study of the financial system and its role in the economy, financial institutions, financial markets, financial instruments - term and type-based, financial services, monetary policy, Forex and debt management, and financial sector reforms.

FIN535 Treasury and Financial Derivatives*Please see on website***FIN536 Corporate Investment Banking***Please see on website***FIN541 The Strategic Management of Banks**

The top leader of a bank, the visionary has to have an eye on all critical areas, including but not restricted to; products, customers, competitors, Board of Directors, human resource, regulators, policies, financial and nonfinancial resources, operations, controls, risk factors, liquidity, profitability, and reputation. Banking is becoming more complex and exposed to multidimensional risks. The global financial crisis 2007-8, depicted how the big guns / giants have failed to see the impending danger and take timely action. The eventual hit was taken by the tax payers and the system will swallow the bitter pill. This course is aimed at raising all these issues to offer a holistic view to the future leaders of the bank.

FIN552 International Financial Management

The course begins with the introduction of real world institutions and analysis of financial concepts and uses questions and short problems to clear these concepts. Cases used

focus on managerial practices and real world issues and decision problems. The course also deals with how evaluations of the international monetary system provide challenges and also opportunities for the key players in the field. Prerequisite: ECO501 / FIN507

FIN554 Investment Banking & Financial Services

The aim of the course is to introduce the students to the various facets of the Investment Banking Industry. The course begins on a broad conceptual level with an examination of the philosophy and the scope of Investment Banking, and then narrows down to focus on the different facets of Investment Banking.

Prerequisite: FIN507

FIN556 Security Analysis & Capital Markets

The course covers an analysis of the economy, current state of the economy, significance and interpretation of economic indicators, industry analysis and the growth cycle, company analysis, marketing, accounting and dividend policies, capital structure analysis and fundamental security analysis. The course also includes changes in financing patterns of Pakistani companies, their debt-equity ratio and cross-sectional variation in Debt Financing. Prerequisite: FIN507

FIN558 Regulation & Financial Markets

The course is designed for studying finance and financial laws, and does not assume any previously studied financial regulations. It is designed to contribute to enhance students' understanding of the ways in which government and public authorities intervene in the operation of financial markets. The course also provides a critical view of current regulatory development with the aim to identify the most appropriate regulatory policies toward increasingly complex financial phenomena and markets.

Prerequisite: FIN507

FIN559 Islamic Finance

This course will cover the fundamental principles of Islamic Finance and banking. Islamic banking refers to a system of banking or banking activity that is consistent with Islamic law (Shariah) principles and guided by Islamic economics. In particular, Islamic law prohibits usury, the collection and payment of interest, also commonly called *riba*. Generally, Islamic law also prohibits trading in financial risk (which is seen as a form of gambling). In addition, Islamic law prohibits investing in businesses that are considered unlawful, or *haram*.

FIN560 Advanced Corporate Finance

This course covers analytical foundations of corporate financial policies and strategies. It deals with exploration and application of theoretical and empirical literature on firms' investment and financing decisions. Topics include valuation, tax policy, option pricing, mergers and acquisitions, and corporate bankruptcy. Prerequisite: FIN507

FIN563 Advanced Portfolio Management

This course introduces the theory and practice of investment analysis and portfolio management. The course surveys various quantitative applications and asset valuation models. Topics include designing portfolios, risk diversifications, conceptual framework for making risk management and insurance decisions efficiently. Security valuation models, setting investment goals and policies, equity and fixed income portfolio strategies and portfolio performance, transaction costs, turnover and trading are also taught in this course. Prerequisite: FIN 507

FIN565 Treasury and Fund Management

The course deals with an in-depth analysis of the various methods of treasury and fund management, incorporating asset pricing, expectation theory, interest rate risk, and the

term structure of interest rates. The differences among asset and liability management, managing interest rate risk, and selling interest rate risk products are also covered. Prerequisite: FIN507

FIN567 Risk Management

The course provides students with a quantitative perspective of risk management and the conceptual framework for making risk management and insurance decisions to increase business value and individual welfare. The effects of, and rationale behind, public policies that affect risk and allocation of risk among businesses and individuals are also discussed. Prerequisite: FIN507

FIN568 Derivatives & Risk Hedging

This course is designed to provide a thorough knowledge of valuation and hedging of derivatives contracts such as options, futures, and forwards. The practice and application of options and futures in risk management is also demonstrated. Empirical hands-on exercises using Microsoft Excel will be assigned throughout the course. The course also examines the issues in regulation of derivative market and their importance in socio-economic settings. The course also enables students to read and analyze current financial news on derivatives trading. Prerequisite: FIN507

FIN569 Financial Econometrics

This course introduces econometrics emphasizing the application of least squares method to cross-sectional and time series financial data. It covers mainly the estimation of linear regression model and deals with various econometrics problems associated with model estimation, such as multicollinearity and heteroscedasticity, and extensions such as simultaneous equations, co-integration techniques, etc. These techniques are applied to estimate and forecast risk premiums, return volatility and optimal mix of financing, and

other related financial models for investment decision-making. Prerequisite: MTS506 / FIN507

FIN570 Islamic Banking & Finance

Please see on website

FIN574 Financial Modeling

The course teaches how to conceive and build financial models. The course also deals with how financial models guide commercial decisions, and how to negotiate off the model. Prerequisite: FIN507

FIN577 Seminar in Finance

The course provides an introduction to empirical research in finance, heavily skewed toward 'Capital Markets'. This course is essentially discussion-oriented. The participants are required to write a paper which is to be an original research or a critical review of an area. Plagiarism will not be tolerated. Prerequisite: FIN507



Department of Management**MANAGEMENT COURSES****MGT201 Principles of Management**

This course focuses on basic managerial functions of planning, organizing, staffing, leading, and controlling. It is specially designed to orient students with modern management practices essential for successful management of large organizations having a diverse work force and operating in the changing global, political, economic, social, and technological scenarios.

MGT211 Business Communication

The course focuses on the theory and practice of effective communication techniques in business environments. It polishes verbal and non-verbal communication skills for effective participation in business meetings and other activities. It prepares students to write formal business reports and to add value to previous work through further library research and fieldwork.

MGT221 Organizational Behavior

This course inculcates a positive approach in managing productive relationships with peers, superiors, and subordinates by examining teams, individuals, and networks in a business environment. Topics such as group culture, individual motivation and behavior, collective and individual performance, decision making, interpersonal communication, small group behavior and inter-group conflict are extensively covered. This course exposes students to frameworks for diagnosing and dealing with problems in organizational settings.

MGT301 Ethics in a Corporate Society

The course examines the importance of ethics in the corporate society. It highlights the need to draw an analytical distinction between ethics and morality, good and bad, right and wrong so as to develop a criterion of judgment for

socially responsive behavior. This course examines the relationship between value judgment and attitude formation, informed by the teleology of various ethical theories. Through this course the ethical relevance of such values like honesty, justice, fairness and equity in relation to the dynamics of corporate society will be highlighted.

Prerequisites: MGT201, ACC301, MKT201

MGT311 Production and Operations Management

This course includes design, planning, and control of firms' capabilities and resources. The course work is intended to strengthen students' conceptual understanding and skills in the areas of operations, strategy and technology, forecasting, capacity and materials management, and design of productive systems.

Prerequisites: MGT201, MKT201, FIN201

MGT400 Management Theory and Practice

The course presents an overview of the basic theoretical concepts in the field of management. It also highlights the linkage between management theory and management practice. Various implications of the theoretical concepts will be discussed. The course will provide an opportunity to evaluate various selected theoretical concepts and their application to business organizations.

MGT401 Small Business Management

This interdisciplinary course emphasizes the importance of small businesses in the economy. The course deals with the adoption of managerial concepts to small business, essentials of business startup, determinants of choice of business capital, location, structure, size, etc. It aims at motivating enterprising students to choose small business at entry stages of their careers, contribute to economic growth, and setup their own enterprise later on.

Prerequisites: MGT201, MKT201, FIN201

MGT411 Comparative Management

The purpose of teaching Comparative Management is to provide students with comprehensive knowledge of various management systems / models practiced by managers in different countries, with the aim of preparing them to manage international organizations successfully.

Prerequisites: MGT201, MKT201, MGT221

MGT421 Entrepreneurship

The objectives of this course are:

- To appreciate the role of entrepreneurship in economic growth, and thereby personal career growth of business managers.
- To acquaint the students with the virtues of entrepreneurship for the society so as to enable them to consider it as one of the early or late career options.

The course imparts knowledge about entrepreneurial processes, business lifecycle, principle concepts and general guidelines for establishing a new business enterprise in a dynamic business environment.

Prerequisites: MGT201, FIN201, MKT201

MGT430 Managerial Policy

This is an advanced management course in strategic planning, policy formulation and implementation that develops an integrated organizational viewpoint by inter-relating the functional areas of finance, marketing, production, human resource and the general business environment.

Prerequisites: MGT201, MGT211, MGT221, FIN201, MKT201, HRM401, ECO103, ECO201.

MGT503 Managerial Communication

Please see on website

MGT506 Corporate Strategy

Corporate Strategy is designed to train the students in methodologies of formulating and implementing successful strategies. Students learn to view, analyze, and solve business problems from an integrative perspective and learn how firms develop and sustain competitive advantage over time.

The valuable insights acquired in various functional areas are applied within an integrated conceptual framework. The course uses case-method as the primary teaching methodology.

MGT507 Entrepreneurial Management

The objectives of this course are:

- a. To appreciate the role of entrepreneurship in economic growth and thereby personal career growth of business managers.
- b. To acquaint the students with the virtues of entrepreneurship for the society. The course imparts knowledge about entrepreneurial processes, business lifecycles, principle concepts and general guidelines for establishing a new business enterprise, at a small or large level, in a dynamic business environment.

Prerequisites: Principles of Management / Introduction to Business Finance

MGT510 Operations and Production Management

This course includes design, planning, and control of a firm's capabilities and resources. The course is intended to strengthen students' conceptual understanding and skills in the areas of operations, strategy and technology, forecasting, capacity and materials management, and design of productive and efficient systems. The operations aspect of the course examines the establishment processes that create the products and / or services for a company's market.

MGT512 Strategic Human Resource Management

Organizations derive their sustainable competitive advantage on the basis of the resource bundle they possess, their ability to formulate a strategic fit with the environment and skills to efficiently implement it. This course is a bridge between formulation and efficient strategy implementation through people. It addresses the issues behind the right mental attitude, required knowledge, and optimization of skills needed to accelerate profitable business growth.

MGT513 Business Strategy

A strategy is a set of policies, objectives, and resource commitments that determine how a business positions itself to create wealth for its stakeholders. Business strategy is designed to train students in methodologies of formulating and implementing successful strategies. The course primarily uses the case method as a teaching methodology.

MGT519 Personal Effectiveness and Communication (Non-Credit)

This course builds 'self aware and effective leaders' in today's complex business environment. A key element of 'knowing thyself' is about sorting out what's really important to the students along with a clear sense of their personal principles and priorities. The course includes an introduction to key tenets of effective leadership, which help the students to develop a toolkit of new skills and strategies for leading effectively. It also discusses and develops their interpersonal skills, as well as teaches them how to be effective in a team-based environment.

MGT531 Project Evaluation & Management

Please see on website

MGT552 Strategic Management

This course is designed to give a broad overview of the concepts and applications of state-of-the-art management and presents a horizontal view of an organization. It is an integrative course that pull together all the functional areas in marketing, finance, human resource, operations / production, labor management relations, research and development, and general management. It takes a cross-functional view of the organization and prepares it to make an effective response to dynamic external environment.

MGT555 Project Management

This course introduces a structured approach to managing projects. It helps students gain managerial practice through the development of project execution manual for a real-life project

selected by a group of students. The project focuses more on technology rather than financial management. The course includes topics such as Management Process, Utilization of Project Management, and Strategic Context of the Project, Project Planning & Scheduling. Prerequisite:MGT201/ MGT400

MGT556 Competitive Strategy from a Customer's Perspective

Please see on website

MGT557 Organizational Behavior and Leadership

This course provides an understanding of how an organization works and the behavior of groups and individuals within it. It aims at inculcating a positive approach in managing productive relationships with peers, superiors, and subordinates by examining teams, individuals, and networks in a business environment. Topics such as group culture, individual motivation and behavior, collective and individual performance, decision making, interpersonal communication, corporate vision, organizational culture and leadership; designing effective organizational structure, small group behavior and inter-group conflict are extensively covered.

MGT558 International Market Entry Strategies

Please see on website



ENTREPRENEURSHIP COURSES**Foundation for Management & Entrepreneurship (FME) MGT102 / 103**

FFME is a one year course which encompasses the world of business in which student teams create, develop, launch & manage business. During the courses, students study entrepreneurship, marketing, accounting, organizational behavior, information systems, and operations. The CED at IBA would fund up to Rs.100, 000/- as a start-up money for student businesses. Each team comprises students, who will start and run the business across 2 semesters. This is a 6-credit hour course, spread over 2 semesters, 3 credits each. The FME course will be taught by faculty members from different disciplines. The students will take this course in semester 3 & 4.

ENT451 Marketing for Entrepreneurs

This course provides an in-depth study of entrepreneurial marketing strategies for the 21st century. It covers marketing strategies for startup small and medium sized companies. The course also covers issues related to sustaining business in a highly competitive environment. The need for management to operate flexibly, make maximum use of scarce resources in human resource, equipment and funds, as well as the opportunities that exist within new and established markets. Teachers' pedagogy is a combination of lectures, case study analyses, and group assignments involving entrepreneurial products or service offerings.

ENT452 Entrepreneurial Finance

This course focuses on the various aspects of funding and managing entrepreneurial ventures through the various stages of business growth. It also focuses on understanding business models and kinds of organizations and the various ways these can be financed (i.e. corporate, technology, non-profit). Students will learn: a) the value of pro forma financial planning and what if analysis;

b) the various ways to fund and manage the growing firm from inception through harvest, with a particular emphasis on deal structure and risk/reward scenarios for different investor types. The class will utilize cases based on real world companies from various industries to cover topics in investment analysis, financing the entrepreneurial firm, managing the growing business and harvesting.

ENT453 Business Law for Entrepreneurs

This course teaches entrepreneurs how to manage the law from start-up, with contract law and forms of business organization, through securities law for public offerings, mergers & acquisitions, and bankruptcy. To succeed, businesses need to effectively manage intellectual property and employment law issues. Managers also must also be aware of their legal obligation of loyalty to the firm and seek to manage litigation risks involved with product liability, antitrust and other areas of law. Managers have a legal obligation to society in terms of minimizing crime and tort liability for themselves and their employees.

ENT454 Entrepreneurial Management

A survey of management topics designed to give students a broad view of the environment and techniques of entrepreneurial business, introducing various disciplines, including strategy, entrepreneurship, accounting, finance, marketing, marketing research, organizational behavior, and effective presentations. The backbone of the course is a business plan where student teams create product or service concepts which are then developed into a cohesive and persuasive business plan. At the end of the semester, the plans are presented to and evaluated by a panel of judges including debt and equity capital providers, entrepreneurs, and the teaching team.

ENT455 Family Business Management

Entrepreneurship is the key to family business success. A family business enterprise must

view each challenge from a multi generational perspective. The business must also examine its goals, objectives, and ability to reinvent itself and its growth. The course is most useful for students interested in the issues, challenges and unique concerns of family business involvement and management. It is organized around the following themes: mentoring, reinvention, individual development and career planning; management of family structure, conflicts, and relationships; and organizational issues including succession and estate planning, strategic planning, and formalizing the firm.

ENT456 Developing Entrepreneurial Opportunities

This is a course that will provide students with the knowledge needed to recognize and evaluate entrepreneurial opportunities in a variety of settings. The course is also intended to give students a solid understanding of the vital role played by entrepreneurs and entrepreneurship in the global economy. The course will approach entrepreneurship as a way of thinking and acting. The course's emphasis will be on entrepreneurship as a manageable process to be applied in virtually any organizational setting. We will identify the many ways in which entrepreneurship manifests itself and discuss the characteristics and implications of social entrepreneurship, high-tech entrepreneurship, corporate entrepreneurship, public sector entrepreneurship, family business, and other contexts.

ENT457 Women's Entrepreneurship & Leadership

This course explores leadership roles that have been held by women in politics, social movements, science, engineering, business, religion, and the arts, using readings, movies, and guest lectures. In each case, we consider what difference gender makes. This course is designed to help you acquire the knowledge, attributes, skills, practices, and

resources necessary to achieve your leadership potential. The course will include self assessment; self-leadership development; and exploration of leadership philosophy, traits, and styles within diverse cultures and contexts from a woman's perspective. One will emerge from this experience with an enhanced knowledge of your own leadership capacity; an ability to identify and analyze the leadership styles exhibited by others; an expanded network of peer advisors, colleagues and mentors who will contribute to your leadership development; and a clearer understanding of leadership in diverse cultures and contexts.

ENT458 Social Entrepreneurship

Social enterprises are often launched to address problems where government, the private sector, and the traditional non-profit sector fail to provide a public good. These organizations adapt various aspects of the market model emphasizing a core value of profit leveraged to a social end, rather than as an end itself. The emphasis will be on how such organizations are started, how they are sustained, and the various business models that are adopted to achieve an organizational mission. The focus will be on how to bring and adapt business skills to the creation and management of social enterprises. It provides a conceptual framework and techniques for thinking strategically about innovation in the social sector

ENT459 Financing Entrepreneurial Ventures

This course focuses on financing entrepreneurial companies, especially startup and early-stage ventures. The overall aim of the course is to understand how entrepreneurs and their financial backers can spot and create value. This involves learning about the topics that trace out the 'venture capital cycle, such as opportunity recognition, valuation and evaluation, negotiating funding, and managing the investment. It will explore the new venture finance from a number of different

perspectives: the entrepreneur's, the venture capitalists', the VC backing investors', and the stock market investors'. Entrepreneurial ventures often contend with the challenge of raising capital for their development and growth. Finally, management strategies for ventures undergoing financial distress will be explored.

ENT460 New Technology Ventures

This course introduces the fundamentals of 'technology entrepreneurship', a recent global phenomenon that has driven vital changes in society by empowering individuals to seek opportunity in technological and business solutions, when presented with what others see as insurmountable problems. It is designed to be approachable for all students from all majors, who seek to understand this entrepreneurial process. This course provides a basic understanding of the personal, technical, and market success factors of a new high tech or Internet venture. It will draw heavily on case studies of technology-based businesses. Students will work individually or in small groups to develop a product concept and a business plan around a new innovation in their concentration area.

ENT461 Sustainable Entrepreneurship Strategies

This course introduces students to the global challenges and opportunities arising from exponential growth in resource use and economic activity. Beginning with an introduction to the economics of sustainability, students will study trends and science driving the growing role of businesses in promoting sustainability. Strategies being pursued by innovative and entrepreneurial business organizations to provide much needed solutions will be evaluated on conventional economic criteria and alternative metrics. The entrepreneurial potential of new technologies and community-oriented models for localization of essential services will be considered from a practical perspective.

ENT462 Corporate Entrepreneurship

In a competitive environment, entrepreneurship is an essential and indispensable element in the success of every business organization - whether small or large, new or long-established and mature. Intrapreneurship is the practice of entrepreneurial skills and approaches by or within an organization. The essential objective of the course is to develop an awareness and understanding of the range, scope, and complexity of the issues related to the creation of an organizational environment that is supportive of entrepreneurial endeavors, as well as to gain insight concerning the effective implementation of technological and organizational innovations in a corporate setting.

ENT463 Creativity and Innovation

This course is a comprehensive introduction into innovation from both a practical and a theoretical viewpoint. The course addresses thinking, problem solving, domain knowledge, creativity, culture, innovation, and entrepreneurship. The innovation process of inspiration, ideation, and implementation are explained. The course is designed to be interdisciplinary and innovative in order to assist students to expand their perception, employ creative skills, develop ideas with their team, sustain a creative climate, and manage innovation. It offers methods and processes designed to help identify opportunities and cultivate appropriate skills and attitudes.

ENT464 Entrepreneurial Sales Strategy

Focusing on sales strategy and execution is one of the most critical success factors in building entrepreneurial ventures. This course will enable students to develop the practical knowledge and specific skills necessary to maximize top line revenue growth for emerging companies. Topics to be covered include direct, indirect, and channel sales strategies; implementing pipeline management principles and forecasting techniques; the use of technology in selling; building a sales



organization; and the development of strategic partners and alliances.

ENT465 Co-Curricular Activities

- Hatchery Development & Management
- Venture Accelerator
- Women Entrepreneurship Center
- Youth Entrepreneurship Center

**** Summer Entrepreneurship Intensive Program (Sixth Semester)**

Each student will have to go through a mandatory Summer Entrepreneurship Intensive Program in the 6th Semester, where they would have to spend 2 months (July - August) working for an Entrepreneurial venture, either in Pakistan or abroad. This will give them a hands-on experience of running a business, including marketing, accounting, organizational behaviour, information systems, and operations.

HUMAN RESOURCE MANAGEMENT (HRM) COURSES

HRM401 Human Resource Management

This course serves as an introduction to HRM students who plan to specialize and learn at an advanced level in the field. This course is focused on people at work. Over the years a variety of management policies, practices, and decisions have been tried to ensure that employees can achieve the organization's objectives - This HRM course would expose the students to learn and understand the Human Resource basic functions and processes.

HRM430 Recruitment and Selection Techniques

This module is based on academic theory and research on selection and recruitment practices for both Human resources students and practitioners. The course explains different recruitment techniques and the key features of common selection methods, along with the criteria of evaluating these methods. Nature of performance is discussed to analyze jobs

and their measures leading to description of the main stages in the process of job selection. The validity of these selection methods is covered, including the examination of psychological processes that take place within selection. Finally, issues associated with fairness in selection and assessments are considered.

Prerequisites: MGT201, HRM401

HRM445 Occupational Health and Safety

The course discusses key technical, political, management and personal issues relating to health and safety in the workplace, the role and importance of effective health and safety management to business, government, organized labor, individual employees and society, key legal rights and responsibilities of employees and employers with respect to health and safety issues in the workplace.

Prerequisites: MGT201, HRM401

HRM451 Industrial Relations Management

The course is centered on management of labor relations. Socio-political factors affecting labor relations, principles and strategies of negotiation, trade unionism, its benefits and drawbacks, as well as means of evaluating union demands are also the topics discussed in this course.

Prerequisites: MGT201, HRM401

HRM452 Organizational Analysis and Research

The module helps students understand organizational theories in a historical context and explains the different level of analysis used in organizational research. The course also provides an overview of the research paradigms applied in the fields of organizational behavior and occupational psychology, enabling individuals to develop their critical thinking skills when analyzing organizational issues. The students will also learn the different forms of research, the steps involved in it, and the paradigms used in social sciences research.

Prerequisites: MGT201, HRM401

HRM453 Life Career Development

The module aims to help individuals understand the importance of career development in an employment and social context, and their influences on career choice and career development. The module brings with it stock of knowledge related to various career models and theories available, to critique and evaluate their usefulness and application in making appropriate career decisions. A variety of career interventions are discussed including career guidance and career counseling.

Prerequisites: MGT201, HRM401

HRM455 Portfolio Management

Please see on website

HRM456 Training and Development

The aims of this module are to help students assess influence of organizational strategy on the role and practice of training and development. The course enables students to identify training needs of individuals and organizations, select training methods and consider their influence on trainee development in the workplace. The course provides for a critical review of the techniques available for the evaluation of training and to consider their role in practice. The significance of resource based strategies for training and development are used to provide a context for considering different training and development techniques

Prerequisites: MGT201, HRM401

HRM457 HR and Information System

The collection and use of information has long been recognized as a potential source of value addition to organizations. Human Resource Management Information is pivotal to the strategic planning and subsequent success of the organization. Thus, the subject focuses on the primary activities performed by the human resources (HR) function and how Human Resource Information Systems (HRIS) can be developed to support these activities. With the emergence of Enterprise Resource

Planning (ERP) System that seamlessly integrates various business modules within the information architecture of any business enterprise, HRIS has become a critical area of attention for management professionals. Undertaking this course will allow the students to build on, and expand, their knowledge of HRIS from a theoretical and a practical perspective.

Prerequisites: MGT201, HRM401

HRM458 Leading the Change Process

The course is concerned with the tasks of leading the change process in organizations. Creating a shared changed vision, fostering an understanding of the change process, and leading the change transition are important ingredients of the course. Other topics include encouraging an innovative organizational culture, managing growth and decline, and corporate restructuring.

Prerequisites: MGT201, HRM401

HRM462 Performance and Compensation Management

The performance of an organization depends on the performance of its people. Everything in an organization gets done by its people. A successful organization is one in which competent people perform at their best and where employees are rewarded according to their work and worth. The course elaborates on the quantum transformation that has occurred in Human Resource Management in the 21st century, how HR strategies impact organizational performance and why performance and compensation management is so critical to organizations. This course will prepare students to become effective managers of human capital, by teaching them how to develop, motivate and reward a competent team and maximize its performance.

Prerequisites: MGT201, HRM401

HRM530 Recruitment and Selection Techniques

The course explores recruitment process and techniques and how they contribute to

selection process. The students can examine the constructs and dimensions used to predict and measure performance at work, and also the conceptual relationships between these dimensions. It enables students to explain the theory and research on individual and group decision-making in organizations, and apply this within the context of selection and assessment. The course further provides for a critical and effective use of several forms of statistical analysis.

Prerequisites: MGT201/ MGT400

HRM552 Organizational Development

Please see on website

HRM557 Team Management

The course is about forming, leading, and managing teams and groups. It encourages discussion on how to deal with difficult group members, encourage creativity, improve group decision-making, and liaise with other functions within and outside the organization. Students are assigned to teams at the very beginning, where they analyze cases of outstanding and poor team dynamics, complete group assignments, and evaluate their own team dynamics and outcomes.

Prerequisite: MGT201/ MGT400

HRM558 Leading the Change Process

The course is concerned with the tasks of leading the change process in organizations. Creating a shared changed vision, fostering an understanding of the change process, and leading the change transition. Other topics of discussion include encouraging an innovative organizational culture, managing growth and decline and corporate restructuring.

Prerequisite: MGT201/ MGT400

HRM562 Performance and Compensation Management

Please see on website

HRM571 Training and Development

The aims of this module are to help students assess the influence of organizational strategy

on the role and practice of training and development. The course enables students to identify training needs of individuals and organizations, select training methods, and consider their influence on trainee development in the workplace. The course provides a critical review of the techniques available for the evaluation of training and to consider their role in practice. The significance of resource based strategies for training and development are used to provide a context for considering different training and development techniques.

Prerequisites: MGT201/ MGT400



Department of Social Science & Liberal Arts**SSC101 English Grammar & Composition**

This course highlights the key aspects of academic writing. The grammatical concepts are taught in context. Reading skills are a major focus being an essential input for quality output in the form of writing. The course also focuses on embedding in students the concept that writing is a recursive process. The course aims to train students for critical reading and analytical writing. The students are made to work on patterns of development, dictions, and genre analysis.

SSC102 Foundation of Human Behavior

Please see on website

SSC103 English Grammar & Composition

Please see on website

SSC104 Foundations of Human Behavior

Please see on website

SSC106 Intermediate English Grammar and Composition

This course will build on the previous course to further teach students how to communicate effectively using written English. Students will learn how to develop deliberate, methodological strategies to generate ideas, formulate arguments, draft essays, revise, and proofread, and cite academic sources. The course will help students to gather and synthesize evidence pertinent to the arguments they choose to make, as well as facilitate guided practice in a range of written modes, including but not limited to narrative, discursive, argumentative, reflective, and summary writing.

SSC111 International Relations

Please see website

SSC121 Major Themes in World History

This survey course introduces students to major patterns, processes, and events in world

history organized around recurring issues and themes through the close reading and analysis of primary and secondary texts. Themes considered may include economics, conquest and war, religion, government, revolution, disease, technological invention, empires and nations, and globalization.

SSC131 Fundamentals of Sociology

Please see on website

SSC150 Remedial English

Please see on website

SSC151 Pakistan History

This course serves as an introductory survey to the history of Pakistan from 1947 to the present. Over the course of the semester, we will proceed thematically through different aspects and periods of Pakistani history, and reflect upon where these issues stand today. Successful students will learn to think critically about various events, periods, and themes in Pakistan's history.

SSC154 Research Methods in Social Sciences

The aim of the course is to develop an understanding of research methods so as to enable students to employ research-based knowledge to understand issues related to research and choose a research design. The course also aims at assisting students in data collection and analysis along with critical evaluation of research material.

SSC201 Arabic I

This course develops in students a basic but solid knowledge of Arabic grammatical structures and syntax, a limited functional vocabulary, extensive practice in speaking and writing, a familiarity with Arabic sound and intonation patterns, as well as an elementary knowledge of Arabic cultures.

SSC202 Arabic II

This course develops and refines listening, speaking, reading, and writing skills; provides

strategies for effective communication and reading; reviews and supplements previously introduced grammatical structures and uses. Upon completion of this course, students should be able to communicate using sustained, linear discourse on topics of general interest, and to comprehend the general meaning of most texts of a non-technical nature written in Arabic.

SSC203 Arabic III

This course develops in students an advanced level of proficiency defined as the ability to communicate with some ease, if not perfectly, with a native speaker of Arab, in spoken and written language, and to understand the meaning and most details of an Arabic text, written or spoken.

SSC204 Arabic IV

This course uses literature, newspaper and magazine articles, art, music, and films to explore the histories and cultures of Arab countries. Students will be introduced to methods of literary and cultural study in Arabic in order to develop advanced linguistic comprehension and expression.

SSC205 French I

This course develops in students a basic but solid knowledge of French grammatical structures and syntax. Its components are a limited functional vocabulary, extensive practice in speaking and writing, a familiarity with French sound and intonation patterns, as well as an elementary knowledge of French cultures.

SSC206 French II

This course develops and refines listening, speaking, reading, and writing skills; provides strategies for effective communication and reading; reviews and supplements previously introduced grammatical structures and uses.

SSC207 French III

This course develops in students an advanced level of proficiency defined as the ability to communicate with some ease, if not perfectly,

with a native speaker of French, in spoken and written language, and to understand the meaning and most details of a French text, written or spoken.

SSC208 French IV

This course uses literature, newspaper and magazine articles, art, music, and films to explore the histories and cultures of Francophone countries. Students will be introduced to methods of literary and cultural study in French in order to develop advanced linguistic comprehension and expression.

SSC209 Mandarin I

In this course, students are expected to achieve control of the Mandarin sound system (especially the 4 tones), basic sentence patterns, aural comprehension, daily conversations and writing characters. A limited number of Mandarin characters will be introduced in this course for reading comprehension. In addition, students will study Pinyin, the Romanization system used to transcribe Chinese sounds using the western alphabet.

SSC210 Mandarin II

The goals of this course are to help students improve their listening and speaking proficiency; achieve a solid reading level through the introduction of roughly 500 new vocabulary entries; and learn to express themselves clearly in writing on a variety of covered topics using learned grammar patterns and vocabulary. These goals are approached through grammar lectures, in-class drills and listening / speaking activities, oral presentations, and regular quizzes / tests, collectively covering all four areas of proficiency: listening, speaking, reading, writing.

SSC211 Mandarin III

This course develops in students an advanced level of proficiency defined as the ability to communicate with some ease, if not perfectly,

with a native speaker of Mandarin, in spoken and written language, and to understand the meaning and most details of a Mandarin text, written or spoken.

SSC212 Mandarin IV

This course uses literature, newspaper and magazine articles, art, music, and films to explore the history and culture of China. Students will be introduced to methods of literary and cultural study in Mandarin in order to develop advanced linguistic comprehension and expression.

SSC213 Advanced English Composition

This course will focus on a question or topic in a disciplinary or interdisciplinary context within the Social Sciences. By means of this specific focus, the course explores thinking, research, and writing practices in specific fields, and the ways in which scholars and practitioners use writing to communicate their findings to a wider audience. Each course will structure as one of its major assignments a 20-page research paper to be submitted at the end of the semester that requires students to engage with primary and secondary sources of scholarship.

SSC216 Culture, Media, Society

This course serves as a theoretical and historical introduction to the pervasive impact of mass media on global culture and society. This course defines the media broadly as facilitators of human and social communication (print, broadcast, visual, promotional, and digital forms of cultural and social practice), and will help students become critically self-conscious consumers and producers of media texts.

SSC217 Introduction to Political Science

An introduction to the study of political institutions, processes, and behaviors, of the relationship among political ideologies, state practices, and systems of governance; international relations among states;

processes of political decision-making; and individual and social behavior within political contexts. The course should acquaint students with major political thinkers, and with the three major forms of governance that have emerged in the modern era: democracy, fascism, and communism.

SSC218 Introduction to Psychology

This survey will introduce students to the history, concepts, major theories, and methods of research that contribute to our understanding of both human and animal behavior. Students will engage with historical and contemporary debates about cognitive processes and neurological disorders, identity formation, human and animal interaction, individual and social development, perception and sensation, learning and memory, and biological and evolutionary perspectives on human and animal development.

SSC221 South Asian History

This survey course introduces students to major developments in South Asian History from the emergence of the early Harappan period to the struggle for independence. Students will investigate key historical forces and individuals that shaped South Asian politics, society, and culture, including the introduction of Buddhism, Hinduism, and Islam, the development of languages, the production of major cultural and scientific works, interactions with regional neighbors, the formation of ethnic communities, and major political incursions and social reconfigurations.

SSC231 Fundamentals of Sociology

This course introduces students to basic concepts, theories, and methods of thinking and analysis in the Social Sciences. Students will develop a sociological imagination by learning how social scientists formulate questions about human identity, agency, and behavior; the nature of social life and social interactions; and the historical development of civilizations and societies.



SSC232 Introduction to Historical Methods

This course will introduce students to historiography and historical methods of research and analysis. The course will emphasize how historians frame their explorations of the past; investigate issues and debates in current historical practice; articulate questions about conventional periodization; and distinguish between oral, artifactual, and written evidence, between objective and subjective narratives, and between private and public histories.

SSC233 Introduction to Social and Cultural Anthropology

This course serves as an introduction to the study of social and cultural development, and of diversity in human societies. Lectures and discussions will focus on: 1. Questions of anthropological heterogeneity, and on how varying social and cultural forces define and describe these regional, national, and local differences; 2. Case studies offered by major figures in the field that help illuminate how anthropologists conduct research, synthesize evidence, and arrive at provisional analyses of the social groups they study; 3. Theoretical and historical readings on the major subjects anthropologists address: kinship and family, gender, religion, race and ethnicity, language and communication, magic, ritual and symbolism, human and animal evolution, social transformation, and economic exchange.

SSC234 Introduction to Urban Studies

An introduction to the history, formation, planning, economics, social structures, and cultures of urban environments, this course will help students understand how urbanization, inner-city migrations, industrialization, available housing, economic, ethnic and racial segregation, environment, crime, municipal efficiency, telecommunications, and political governance affect the development and growth of cities.

SSC235 Introduction to Linguistics

An introduction to the fundamental properties of languages, their morphology, phonology, and syntax, their semantic and pragmatic functions, their historical development, and the ways in which they are shaped by different cultural and social contexts.

SSC238 History of Ideas II

Ideas have shaped how we think about and respond to our world. History is replete with instances that demonstrate how small changes in ways of thinking lead to creative tensions and large shifts in social and cultural thinking. This two-semester course explores the metaphysical and material histories of such ideas as freedom, justice, ethics, reason, the self, the real, identity, faith, citizenship, rights, etc. It introduces students to methods of critical and philosophical analysis that investigate the sources and limits of historical, empirical, and theoretical knowledge.

SSC239 History of Ideas I

Ideas have shaped how we think about and respond to our world. History is replete with instances that demonstrate how small changes in ways of thinking lead to creative tensions and large shifts in social and cultural thinking. This two-semester course explores the metaphysical and material histories of such ideas as freedom, justice, ethics, reason, the self, the real, identity, faith, citizenship, rights, etc. It introduces students to methods of critical and philosophical analysis that investigate the sources and limits of historical, empirical, and theoretical knowledge.

SSC240 Personal Effectiveness Course

This course is designed to improve the levels of personal effectiveness in the cooperate environment. It aims at increasing students' self awareness and confidence levels by teaching them tools of effective behavior. This would include developing and understanding of the relationship between their own values, attitudes, beliefs, and behaviors, and how it

influences others perception of them. It would also work towards development of leadership strategies for changing limiting beliefs to empowering beliefs. An understanding of the role of assertive behavior and assertive communication as a business skill.

SSC253 Corporate Social Responsibility

Please see on website

SSC301 Socioeconomic Philosophy of Islam

How does one study a given religious system? What are the scholarly tools and conceptual frameworks for exploring a civilization radiating from a religious core? What are the limitations of an academic study of Islam? In what way is it different from the account and conception of the believer or, in the case of cultures, of the actor? These and similar questions will inform our investigation of Islam as we explore its intellectual, social, political and philosophical history.

SSC302 Computational Research Methods

Please see on website

NATURAL SCIENCES COURSES**NSC351 History of Science**

This course surveys the history of scientific knowledge from classical antiquity to the present, emphasizing two key ideas. The relation between science and utility and the ways in which science emerged over the course of the last few centuries as an inherently global practice.

NSC352 Ideas of Physics

This course introduces students to the major discoveries and basic concepts in physics that examine how scientists make sense of the physical world in which we live. Topics discussed include the scientific method, basic principles of classical physics, gravity, laws of motion and conservation, thermodynamics, and relativity and quantum mechanics.

NSC353 Space, Time, and Space-Time

An introduction to major scientific, mathematical, and philosophical theories and debates about the nature of space and time, and the way these shape our understanding of the physical world. Theorists and thinkers considered include Aristotle, Euclid, Descartes, Newton, Leibniz, Galileo, Riemann, Poincare, Einstein, Schrodinger, and Hawking.

NSC354 Introduction to Environmental Sciences

An introduction to the history and scope of the environmental sciences, methods of research, and experiment that produce scientific knowledge about the environment, major problems (global warming, pollution, industrial development) that degrade biological ecosystems, and a complex understanding of the impact human societies have had and continue to have on the natural world.

NSC355 Principles of Ecology and Conservation

The purpose of the course is to present the major scientific ideas and principles that shape ecology and conservation science, especially as these relate to frequently encountered environmental issues. Topics discussed will include population regulation, species decline, competition and predation, dynamics of ecosystems, habitat fragmentation, ecotourism, and the role of biological and physical factors in developing community structures.

NSC356 History of Evolution

A survey introduction to theories of evolution, evolutionary history, and evolutionary processes and patterns that have produced life on earth, this course considers evolutionary biology as a way of knowing and discovering, a set of approaches to questions about the living world that inform how biologists organize and produce scientific knowledge.

NSC357 Introduction to Geology

This course will provide an introduction to the geological sciences, covering geological materials and processes, and including an historical background. Lectures and discussions will focus on the practical applications of geology to everyday life. Students will gain an overview of the biophysical history of the Earth, including its formation. They will identify the ways in which geology affects our lives, and discover interactions between geology and other realms of knowledge.

VISUAL STUDIES & HUMANITIES COURSES

HUM201 Speech Communication

The course aims to enable students to understand, analyze, and acquire communication skills. Oral presentation experiences are heavily integrated throughout the course with a focus on public speaking design and delivery. The goal is to help students communicate orally for effective interpersonal communication. The pedagogical tools for this include presentations, parliamentary debates, MUN workshops, and stage performances.

HUM238 History of Ideas - II

Please see on website

HUM351 Great Books

Great Books is a course designed to introduce students to enduring works of literature and philosophy. The aim of the course is to develop habits of close critical reading, textual analysis, argumentative writing, aesthetic appreciation, and thoughtful discussion. Authors considered might include Homer, Plato, Kalidasa, Firdousi, Dante, Shikibu, IbnSina, and Shakespeare.

HUM352 Reading Poetry

Reading Poetry is a course designed to introduce students to enduring works of lyric expression. The aim of the class is to develop habits of close critical reading, textual analysis, argumentative writing, aesthetic appreciation,

and thoughtful discussion. Authors considered might include Chaucer, Donne, Rumi, Coleridge, Basho, Whitman, Dickenson, Hardy, Ghalib, Rimbaud, Frost, Tagore, and Moore.

HUM353 Introduction to Drama

How do plays work? What is the relation between a dramatic text and a theatrical performance? How can we move from one to the other? How might we profitably approach a reading of character, place, dialogue, costume, movement, sound, rhythm, spatial composition, and story (to name some of the elements which make a performance)? What makes a play different from a novel or a poem, a film or a painting? Which elements represented in these other media does drama also appropriate? These and related questions will inform our study of canonical dramatic texts.

HUM354 Introduction to Urdu Literature

The course presents an introduction to various genres of Urdu literature (read both in translation and in Urdu) as they developed through the eighteenth, nineteenth, and twentieth centuries, with greater emphasis on fiction and poetry. We will examine the works of major writers with close attention to the development of traditional narrative and poetic genres, styles, and influences.

HUM355 Anglo-Indian Narrative and the Postcolonial Subject

This course surveys colonial and postcolonial narratives in English written in or about India and Pakistan. Authors considered may include Harriet Tytler, E.M Forster, Rudyard Kipling, Nirad Chaudhury, Raj Anand, Ruskin Bond, Khushwant Singh, Anita Desai, Salman Rushdie, BapsiSidhwa, Aamir Husain, Sara Suleri, HanifKureishi, David Davidar, KamilaShamsie, ManizaZaqvi, Arundathi Roy, JeetThayil, and Mohsin Hamid.



HUM356 Foundations of Philosophical Thought

This course will introduce students to major questions and issues in philosophy, and its methods of inquiry and analysis. Readings include arguments articulated by major western and eastern philosophers. Topics considered include the problem of evil; free will and determinism; moral imperatives; the limits of knowledge; utilitarian versus deontological ethics; faith and belief; justice and goodness.

HUM357 Philosophy Logic and Ethics

This course will acquaint students with basic philosophical and ethical concepts, and methods of logical thinking through close readings of major philosophical texts.

HUM358 Comparative Classical Philosophy

Through close readings of primary classical texts from China, India, and Greece, students will engage in major epistemological debates as these were articulated by different societies and cultures in the ancient world. Specific attention will be paid to how these debates frame and shape how we think today.

HUM359 Introduction to Comparative Religions

This course will give participants an understanding of the world's major religions: Zoroastrianism, Hinduism, Judaism, Buddhism, Christianity, and Islam. The course will examine a number of cross-cultural themes in religion, including monotheism vs. pantheism, the soul, the sacred, peace and war, as well as the social and cultural practices of each faith. By the end of the course participants will have an understanding of the history of these religions and the issues they each face in the contemporary world.

HUM360 Creative Writing

George Orwell once wrote that the four great motives for writing were sheer egoism, aesthetic enthusiasm, historical impulse, and political purpose. In this introductory course,

students will explore all four motives, and the kinds of prose, poetic, and dramatic texts these produce. Students will work on identifying and sustaining their unique aesthetic voices, languages, and styles; learn strategies for the generation and development of plots, characters, dialogue, and description; discuss how substance relates to form; and explore how shifting points-of-view are crucial to the aesthetic experience of imaginative texts

HUM361 Theater Project: The Living Newspaper

This course introduces students to techniques and strategies of documentary performance using a form developed in the US during the Great Depression. Students will research a social issue of immediate local and/or national concern, and then use this research to write and stage a "living newspaper" performance.

HUM363 Introduction to Visual Culture

Our world is saturated with an extraordinary range of visual images: advertisements, films, television programs, music videos, photographs, posters, billboards, newspapers, magazines, paintings, graffiti, architecture. Reading and analyzing visual material, however, requires a different set of approaches than reading and analyzing text. This introductory course investigates the visual in its myriad manifestations.

HUM364 History of Art I: Classical Antiquity to the Middle Ages

This course will offer students a broad introduction to the aesthetic and social interpretation of selected works of art from classical antiquity to the renaissance, with an emphasis on the comparative analysis of Asian, Greco-Roman, and Medieval traditions. The course introduces the student to the basic terminology of the arts, the language of aesthetic criticism, and the relationship of the arts to each other and to their historical context.

HUM365 History of Art II: Renaissance to the Present

This course will offer students a broad introduction to the aesthetic and social interpretation of selected works of art from 1500 to the present. The course introduces the student to the basic terminology of the arts, the language of aesthetic criticism, and the relationship of the arts to each other and to their historical context.

HUM366 Art of the Islamic World

This course introduces students to the rich aesthetic history and culture of the Islamic world, from the 8th century to the present day. Lectures and discussions will concentrate on selected monuments, paintings, and other visual material produced in the Arab Middle East, North Africa, Spain, Iran, Turkey, South Asia, and the Far East, with special emphasis on the historical, geographical, and cultural contexts within which this art was produced.

HUM367 Theories of Design

This course examines different aspects of design by examining larger questions of production, consumption, and use, and their participation in a larger discourse about design and visual culture. Reading and discussion will assess the relationship between design and the visual by investigating questions about spatial control, framing, sequence, and social communication.

HUM368 Colonial and Postcolonial Visual Cultures

This class addresses how our experiences of the colonial and the postcolonial eras are shaped and mediated by visual texts. Readings and discussions will introduce students to major theories of colonialism and post-colonialism, and to the politics of postcolonial representation. We will examine how contemporary artists resist, reconfigure, or appropriate their colonial heritage, how questions of cultural agency and cultural hybridity inform frames of social and

aesthetic analysis, and how individual works may be read as both contiguous with, and as breaking away from an imperial past.

HUM369 The Rhetoric of Architecture

This course will introduce students to basic principles and concepts in architectural design. Students will learn how to look at, appreciate, and analyze the aesthetic richness of our built environment. Students will examine both historical and contemporary structures, the social and geographical contexts in which they were built, the manner in which these structures configure public and private space, and their impact on historical and contemporary ways of experiencing our world.

MEDIA AND COMMUNICATIONS COURSES

MCS301 Research Methods in Media and Communications

This course serves as an introduction to quantitative and qualitative methods of media and communications research. Students will consider how research questions have changed over the past century and the differing critical strategies researchers have used to address these questions. Topics investigated include media effects theories, content analysis, communication models, semiotic analyses, surveys and questionnaires, interviewing and participant-observation, and secondary-data analysis.

MCS302 Gutenberg to Google: A Social History of Media

This course introduces students to the history of media forms and communication technologies from the invention of printing to the emergence of the Internet. It explores the processes of mediation in and through time; the social, economic, and geographical contexts that shape different forms of communication; the evolution and institutionalization of communication technologies; the development of a global

public sphere; and the effect of new media on local, national, and global communities.

MCS303 Theories of Media and Communications

An introduction to theoretical and critical approaches used to analyze the content, structure, context, and processes of media communication. The course will help develop a complex, nuanced understanding of media environments, familiarity with specialized language used to assess processes of communication, and an understanding of contemporary debates in media and communication studies.

MCS351 Media and Post - Colonialism

This course will introduce students to theories and practices of media representation as these relate to the formation and analysis of postcolonial societies. Topics covered include theories of the post-colonial; the politics of post-colonial representation; post-modernism and the post-colonial; nationalism and identity; alternative media and resistance; ethnicity, indignity and hybridity; and language and representation.

MCS352 Media, Law, and Ethics

This course will introduce students to major ethical and legal issues that govern or guide the various uses of mass communication technologies and cultural and social resources.

MCS353 Race, Class, and Gender in Film and Television

Film and television are two of the primary forums through which notions of race, ethnicity, and citizenship have been constructed, especially in their intersection with class and gender. This class explores the evolution of these dynamics in cinematic and tele-visual representation through the study of how racial and ethnic diversity have been represented.

MCS354 The International Newsroom

Traditionally international news has focused on wars, conflicts, and the relations between governments. While this course will look at these, it will also examine some of the deeper issues that continue to shape our world: climate change, global diseases, the imbalance between population growth and food supplies, and the depletion of natural resources. Students will learn to cultivate the qualities that are important for reporting global events: accurate information, careful analysis, intelligent use of background material, and an understanding of the nuances that color any issue.

MCS355 Analyzing the News

This course examines the analysis of news media content and structure using a range of critical strategies including content analysis as a methodology. Students will investigate questions such as: What can we learn about news by analyzing news content? What are the quantitative and qualitative techniques used by professional media content analysts? What is the nature of content? Who is involved in producing this content? Who comprises the intended audience?

MCS356 Introduction to Visual Communication

Life in the modern world has made us adept at reading an array of visual imagery. These images inform our individual and collective identities since we are partially determined by the visual representations we produce and consume. It is therefore imperative that we not only look, but also reflect on the images with which we are confronted every day. This introductory course will focus on reckoning with the complex visual world we live in using a range of examples from fine art to advertising, from architecture to film. Students will be encouraged to think broadly about what makes up their visual world and its cultural implications through careful looking, reading, and writing.



MCS357 History of Commercial Art

This course will introduce students to the history of the commercial arts from lithography to logos, book design to branding, and stencils to motion graphics, and including the origins and history of advertising.

MCS358 Communication in Advertising

This course introduces students to the study of advertising as social communication, as cultural representation, as an economic force, and as a central structural feature of consumer societies. The course will survey the history of advertising, investigate changing strategies used by advertisers over the past two centuries, examine social attitudes and ideologies as these emerge through advertisements, and introduce students to semiology and the semiotic analysis of promotional texts.

MCS359 Watching Films

This course introduces students to an interrelated set of approaches to film study, all of them defined by their attention to the filmic text. The course begins with an extended examination of the elements of film form, principally style (*mise-en-scène*, cinematographic properties, editing, sound) and narrative (structure and narration).

MCS360 History of Film

This course will introduce students to the history of world cinema from its origins to the present, emphasizing the work produced by major directors, historically and critically important movements and films, the emergence and development of film genres and national cinemas, the socioeconomic structure of the industry, and the development of new and innovative technologies.

MCS361 The Non-Fiction Film

This course will introduce students to a range of non-fiction film genres including documentaries, educational films, propaganda, ethnographies, autobiographies, cinematic

essays, and newsreels. Readings, lectures, and discussions will focus on issues of truth and accuracy, sociological and ethical questions raised by the films themselves, on their processes of production, and on the films as aesthetic and cultural texts. The course will pay close attention to the way these films reflect the social contexts in which they were produced.

MCS362 Introduction to Television Studies

Television is arguably the most influential and ubiquitous mass medium of the last half century. It is also often the medium most dismissed and maligned. Through an examination of the history of television, this course introduces students to a theoretical framework for thinking about and analyzing this important medium of communication. The course will cover interdisciplinary approaches to studying global television texts, audiences, and industries.

MCS363 Television, Newsmagazines, and Documentaries

This course will introduce students to the practice and principles of TV, newsmagazines, and documentaries. As part of the course work, students will watch, discuss, and write about a range of non-fiction narrative pieces. The course will also take students behind-the-scenes and explore how non-fiction stories come together from the first idea to the completed work. Students get the opportunity to try their hand at basic production techniques and create simple narratives of their own. This course works to build overall media literacy and enhances the ability to critically observe and analyze non-fiction media.

MCS364 Theories of Film and Television

A broad introduction to the major theories of film and television that will help students develop multiple strategies through which to analyze the many and varied visual narrative texts they encounter every day. Topics covered include genre theory, the psychology of

spectatorship, Hollywood and Bollywood studio star systems, ideologies of visual narrative, auteur theories, the gaze and the politics of identity, serialization, reality television, and apparatus theory.

MCS365 Narratives across Media

Artistic and popular media employ their own medium-specific techniques of storytelling. This course explores how narrative structures and models operate differently between film, television, and digital media in both fictional and non-fictional forms. Drawing heavily on various theories of narrative, the course will consider how different media offer possibilities to creators and viewers to tap into the central human practice of storytelling.

MCS366 Digital Activism and Democracy

How does the Internet affect politics? In the last decade, text message campaigns, online social networks, and citizen media have played a major role in world events. This course explores how digital technology changes both the manner and the meaning of democratic participation. Students will read and analyze case studies and both scholarly and popular readings about new media technologies and applications, and their measurable impact on global and local, social, and political structures.

MCS367 Media Convergence and the Virtual Public Sphere

The boundaries between forms of mediated communication have long been unstable; today, they have all but disappeared. This course investigates the social, cultural, and aesthetic effects of such convergences, the shifting roles of spectators, participants, artists, and industries across a range of media practices, and the pervasive impact these shifts have had on the way we understand our selves.

MCS401 Communication for Social Change

This course will introduce students to strategies through which they can use communication processes and techniques to facilitate social, economic, and technological change. We will read historical and contemporary theories of social change, assess case studies of communication campaigns that have made a difference in people's lives, consider the effect of new technologies in local and global contexts, examine independent and alternative news gathering organizations, leading to a major project that designs and executes a media campaign focused on a specific local social issue.

MCS491 / 492 Culminating Experience

The culminating experience is a 9-credit final project that includes both a written and an experiential component undertaken by students in their final year of study at IBA. Project proposals must be submitted before the beginning of the fall semester. The proposal should include a well-articulated research question, research methods to be used, an extensive bibliography that lists both primary and secondary sources to be consulted, and a brief summary of why the student wishes to pursue this line of inquiry. The final written component should be of at least 40-pages (including appendices), and both include a synoptic summary of the data collected and an extensive analysis of that data as it pertains to the research question.

POLITICAL SCIENCE COURSES

POL301 Research Methods in Political Science

Research is an important component of social / political sciences. It allows for a better understanding of the world. The course aims at making students think systematically, understand research, and the interface between data and theory. The focus of the course would be to develop an understanding of qualitative and quantitative techniques

and when and why scholars and researchers use them. Thus, inculcating an appreciation of how ideas produce research questions, how research questions lead to methodological choices, and how methodological choices help answer complex questions.

POL302 History of Political Thought

The history of political thought is interdisciplinary in nature. It covers a broad range of topics that helps students understand political processes and their contexts. The course will cover central themes in the history of political thought, political theory, and related areas of inquiry from classical Greek antiquity to contemporary debates.

POL303 Introduction to Comparative Politics

This course introduces students to the fundamental concepts political scientists use to study the processes and outcomes of politics in a variety of state settings, including the study of global economic and political change. The comparative component allows students to study politics and society in a comparative perspective both within the state and across the world. The course provides a general introduction to the concepts, methods and the substance of comparative politics.

POL351 Political Psychology

This course will seek to critically analyze the way the national political elite perceives the world. The course will focus on an examination of the psychological factors influencing or driving these views and behavior. Particular attention will be paid to how these elites conceptualize different policy issues, internal and external, and then formulate / implement differing approaches to attain "national objectives."

POL352 Foreign Policy of China

This course will critically analyze the foreign policy of the People's Republic of China. The course will focus primarily on contemporary

issues of salience in Chinese foreign policy - strategic imperatives, regional security dynamics, geo-economic factors, and bilateral and multilateral relations. Two different and yet interconnected levels of analysis will be employed. First, China's conceptualization of the world (elite perceptions) and the prescriptive policy initiatives being implemented; second, the course will also consider China's overall policy making system and the way that system shapes foreign policy output. The ultimate objective of the course is to further a deeper and more nuanced understanding of the variables shaping and influencing China's behavior within the international system.

POL353 State and Society

This course will undertake a philosophical examination of the concept of the state and its relation to those who reside therein. In this course, we will seek to examine the evolution of the modern state through a careful critical consideration of the "Social Contract" that serves as a mediating mechanism between the citizens and the state they inhabit. We will read classic texts such as Thomas Aquinas, Cicero, Thomas Hobbes, Machiavelli, John Locke, Rousseau, and John Stuart Mill to examine the philosophical rationale behind the "Social Contract".

POL354 War: Conceptual Underpinnings

This course will conduct a critical examination of the concept of war with particular attention to conflict between states. Is war a natural consequence of human nature? Can states only resolve their differences through the imposition of physical coercion? The philosophical rationale behind war will be examined. The history of violence between states and within states will also be touched upon. The main emphasis of the course will be on contemporary global conflicts, and will attempt to undertake a case study based approach to the concept of war.



POL355 Human Rights

Human Rights enjoy a significant place in international politics today. All states are expected to adhere to a basic, minimum standard of 'universal' human rights. Human Rights have often been violated by states claiming to be champions of the concept. It is important for all sections of civil society to understand the concept, its validity and its application, as well as the historical evolution of the practice.

POL356 Environment and Politics

The course will be designed to create a better understanding of issues related to the environment. The atmosphere, land, and oceans are all exposed to threats that can play havoc with human health. It will not be an exaggeration to say that this is the greatest challenge threatening all civilizations. Factors leading to pollution will be discussed. Strategies to control the problem will be given particular significance. Various dimensions of politics of environment will be discussed. The contribution of international organizations, non-governmental organizations, and specialized agencies to the cause of regulating the environment will also be discussed.

POL357 Diplomacy in a Globalized World

Diplomacy is an old institution traditionally relied onto resolve conflicts. Diplomacy was also used to build alliances, to isolate adversaries, and to promote dynastic interests. The evolution of diplomacy over the centuries will be briefly discussed. Two factors have had tremendous impact on diplomacy i.e. culture and technology. Culture provides the key to understanding the content and processes of diplomacy. The introduction of technology and increasing number of states today has increased the occurrence of crisis, reduced time available to diplomats for decision-making and enhanced psychological pressures on decision makers. Impact of media on diplomacy and the role of diplomats will also be discussed.

POL358 Islam and International Relations

International Relations are weaved around modern state system and are nurtured by power equations. Over the ages, various civilizations have had differing perceptions about states, their functions, the nature and role of power and the need for cooperation between civilizations. This course will consider Muslim states, Islamic empires and other Islamicate political entities, and their relations with other states, from the classical age of Islam to modern times. Islamic history saw the creation of a state at Medina. How did this state interact with other political entities? Further, various Islamic empires e.g. Umayyads, Abbasids, Fatimids, Seljuks, Ottomans and the Mughals to name just a few played an important role in the international politics of their own times. Toward the end, the challenges before the Muslim states in post-WWII period particularly since 9/11 will also be discussed.

POL359 The Modern Middle East

The Arab Spring has generated newfound interest in a region that has always held great geo-strategic importance. Though the Middle East is very much in the limelight at the moment, few people have a grasp on the region's history and development, political, social or economic. The purpose of this course is to introduce students to the region and to trace the history and development of its countries to the present day.

POL360 Theories of Democratic Transition

The fast growth of democracy in a wider mix of societies has put into questions many of the old theories of democratization, and has generated fresh ideas, debates, and controversies about the modes, processes, and the role of elites and civil society groups in bringing about democratic transition. This course will cover contemporary literature on democratic transition with a close focus on the Third Wave. We will start with an overview of the debate on social requisites of democracy,

background factors, and modernization theory. They will be critiqued in the light of new theories based on empirical evidence from Latin America and East European countries that reject cultural explanations. The question of compatibility between Islam and democracy has generated more heat than light and the literature is largely polemical with very few exceptions.

POL361 Democracy and Difference

In recent years, the project of liberal democracy has come under increasing criticism for being insufficiently sensitive to differences amongst human subjects. In this course, we will consider the merits and shortcomings of various arguments that have been advanced along these lines. We will also examine a number of texts that endeavor to "strike a balance" between democratic universalism and a politics attuned to the unique desires, beliefs, and ways of life of particular individuals and groups.

POL362 Pakistan's Foreign Policy

The course will begin by examining the main determinants that fashion foreign policy including preservation of sovereignty, national security and achievement of economic goals. The course would then examine the instruments of executing foreign policy. Once these international principles have been studied, the course will evaluate Pakistan's relations with its neighbors.

POL363 Purchasing Power: A Political History of Money

This course has been designed to stimulate a critical examination of the link between money and political power. The history of monetary thought and monetary systems is considered in light of the struggle for the control of resources within and among societies. Besides learning how monetary developments contributed to major historical shifts in the balance of power, students will gain an appreciation of how our understanding of money has been shaped by historical

developments. Students will also be introduced to the unique monetary history of South Asia, and its role in shaping the international financial system.

POL401 International Politics

This course introduces students to the analytic and normative study of international relations. We will survey various theoretical perspectives in the discipline to understand the chief problems, actors, and structures of international politics. Through the organizing concepts of security, identity, and political economy, students will explore a range of contemporary phenomena, including the state, nation, and ethnic group; international organizations and society; political change, resistance, and violence (including terrorism); normative concerns; and international political economy and its accompanying inequality.

POL491 / 492 Culminating Experience

The culminating experience is a 9-credit final project that includes both a written and an experiential component undertaken by students in their final year of study at IBA. Project proposals must be submitted before the beginning of the fall semester. The proposal should include a well-articulated research question, research methods to be used, an extensive bibliography that lists both primary and secondary sources to be consulted, and a brief summary of why the student wishes to pursue this line of inquiry. The final written component should be of at least 40-pages (including appendices), and both include a synoptic summary of the data collected and an extensive analysis of that data as it pertains to the research question.

PSYCHOLOGY COURSES

PSY301 Research Methods in Psychology

This course introduces students to concepts and methods used in behavioral research. Topics include the nature of behavioral research, testing of research ideas, quantitative

and qualitative techniques of data collection, analyzing and interpreting research data, and ethical considerations in research.

PSY302 Human Development

This course examines human development, defined as a systemic change within an individual and between an individual and his/her social environment, from psychosocial, cognitive, and neurobiological perspectives. Through primary readings and case studies, students will investigate why we behave the way we do, how these behaviors shape and affect our emotions, attachments and relationships, and how these emotions, attachments, and relationships change as we grow older. Theorists considered include Freud, Vygotsky, Piaget, Erikson, Kohlberg, Bronfenbrenner, Ainsworth, and Bowlby.

PSY303 Personality, Identity, and the Self

This course will introduce the students to the idea of self. The self is the subject of one's own experience of phenomena: perception, emotions, and thoughts. Current views of the self in psychology position the self as playing an integral part in human motivation, cognition, affect, and social identity. The self has many facets that help make up integral parts of it, such as self-awareness, self-esteem, self-knowledge, and self-perception. All parts of the self enable people to alter, change, add, and modify their aspects in order to gain social acceptance in society. Probably the best account of the origins of selfhood is that the self comes into being at the interface between the inner biological processes of the human body and the socio cultural network to which the person belongs.

PSY351 Introduction to Social Psychology

This course will introduce students to the psychological study of human social influence and interaction, to how human behavior, thinking, and feeling are socially influenced by the presence (imagined, implied, or actual) of other people. Topics covered will include

self-concept, social judgment, attitudes, persuasion, conformity, aggression, prejudice, and interpersonal relationships. Emphasis will be placed on developing critical / analytical and empirical research skills that help students develop a complex understanding of why and how the social world shapes how we act.

PSY352 Organizational Behavior and Industrial Psychology

This course surveys the history of psychology and the application of its principles and methods to industrial and organizational behavior. Topics covered include teams in organizations, motivation, individual differences, attitudes and emotions relevant to work, stress and well being, fairness and diversity within organizations, leadership, decision-making, conflict resolution, and organizational change and development.

PSY353 Psychology and the Media

This course examines the relationship between forms of mass media and psychology from two complementary perspectives: representations of psychological issues in the mass media (film, television, radio, news papers), and their psychological, cultural, and ethical implications; the impact of the mass media on human identity and human behavior.

PSY354 Psychology of Conflict

This course introduces students to the psychology of human aggression, intergroup bias, stereotyping, and discrimination, and investigates methods and strategies of negotiation and conflict resolution. It proceeds from the assumption that transforming cultures of violence into cultures of peace requires an understanding of the psychological roots of human aggression.

PSY355 Introduction to Developmental Psychology

This course explores human psycho physiological, cognitive, and emotional development and change from conception to



old age. Students will be introduced to major theories (that explain how humans develop over time), to research, and the case studies on which these theories are based. Theorists and practitioners considered include Freud, Piaget, Vygotsky, Kohlberg, Erikson, and Ainsworth.

PSY356 Attachment and Loss

Attachment Theory, formulated by John Bowlby and extended by his colleague Mary Ainsworth serves as the dominant approach to social development in children and adults. This course introduces students to Bowlby's work on attachment, separation, and loss, and explores how events experienced in early childhood impact individual behaviors, in both personal and professional settings.

PSY357 Child and Adolescent Development

This course offers a chronological examination of the physical, cognitive, and psychosocial aspects of development from conception through early adulthood. Major topics of focus include the interactive influences of heredity and the environment, prenatal development and birth, parenting, schooling, peer-groups, religion, the mass media, emotional and / or physical abuse, and transitions during puberty.

PSY358 Psychology of Aging

Psychology of Aging examines age-related changes, both normal and pathological, that people experience in their learning, memory, and intellectual skills, their personalities, their social relationships, and their interaction with the physical environment. Research evidence for change as well as stability in multiple psychological domains will be examined in the context of changing paradigms of aging.

PSY359 Introduction to Cognitive Psychology

Cognitive psychology is the scientific study of mental processes, of how the mind works (and fails to work), how it absorbs, selects, processes, and transforms sensory information. Students

will investigate how perceptual information enters the mind, how knowledge is organized, how new information is added to memory, and how knowledge is transformed by inductive and deductive reasoning.

PSY360 Sensation and Perception

This course serves as an introduction to how humans (and some other animals) sense and perceive their environment. Students will investigate major psychological approaches to sensation and perception including behaviorist, empiricist, gestalt, Gibsonian, and computational theories

PSY361 Human Memory

This course provides an overview of classic and current issues in the study of human memory. It will examine research findings to gain a better understanding of the structure and organization of memory. Topics will include working memory, encoding and retrieval processes, implicit memory and multiple memory systems, reconstructive processes in memory, eyewitness memory, developmental changes in memory, etc.

PSY362 Abnormal Psychology

This course will introduce students to fundamental psychological, biological, and socio-cultural concepts and principles that help define psychopathological human behavior. Readings and discussions will focus on how psychologists define, describe, classify, assess, and diagnose mental disorders; their causes and treatment options; and preventive strategies that help reduce the disruptive impact of maladaptive behaviors.

PSY363 Psychology of Human Emotion

What are emotions? What purpose do they serve? Where do they come from? How do they relate to our thoughts about and behaviors toward others? Why can't we stop ourselves from feeling? Is the love or anger we feel the same as the love or anger someone else feels? These and many other questions

will serve to ground the investigation of human emotions, their impact on cognitive processes, on human development, and on the very architecture of our social interactions.

PSY401 Language, Memory, and the Human Mind

This course introduces students to major issues and debates about how the mind encodes and decodes information, forms concepts, categorizes thought, and acquires language. Topics explored include information theory, recognition memory, perceptual development, decision-making processes, and the representations of meaning and knowledge.

PSY491 / 492 Culminating Experience

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Department of Marketing

MARKETING COURSES

MKT201 Principles of Marketing

This is an introductory course for exposing students to the discipline of marketing by equipping them to analyze the political, economic, social, and technological environments. Students are encouraged to make observations about their marketing environment, detect signals about changes in the market place, formulate need analysis, and learn about consumer and organizational markets.

MKT301 Methods of Business Research

In today's borderless and highly competitive environment, the research culture needs to be nourished. This course is designed to conceive, implement, and apply research programs in organizations. The managerial aspects of conducting research are discussed thoroughly with applications from various facets of business. The course directs the students towards the scientific research methodology, so that they can observe business processes, formulate hypothesis, conduct experiments, draw conclusions and disseminate them. Given Research is a tool for decision making, the Research Process is closely intertwined with the business decision making process.

Prerequisite MKT 201 / MTS 202

MKT401 Marketing Issues in Pakistan

The premise of this course is the understanding that any marketing strategy which does not reflect local environment and nuances will be ineffective. This course fulfills the need to understand the local marketing landscape and the peculiar challenges it poses for marketers in Pakistan. Class room discussions are highly interactive and focus on emerging topics like bottom of the pyramid marketing, issues in market research, new product development, etc. Teaching pedagogy



includes frequent guest speaker sessions from marketing practitioners and case study discussions.

Prerequisite: MKT 201

MKT451 Advertising

The purpose of this course is to provide students with an understanding of how the practice of advertising is applied in a marketing environment. There is a need to equip students with knowledge of the importance of the role of advertising in the economy, and its place in the media of mass communications. This course emphasizes the preparation and execution of a media strategy. The students will gain an in-depth understanding of advertising appeals, product and market research, selection of media, testing of advertising effectiveness, and organization of the advertising profession. Students will also develop skills in scientific media planning and management. The course will place a heavy emphasis on the underlying marketing disciplines of customer-focus and branding. Prerequisite: MKT 201

MKT452 Consumer Behavior

Consumer Behavior begins with an overview of importance of understanding consumers as buyers and users of products and services, and the course delves into deeper issues revolving around consumer decision making. Multiple factors forming the foundations of consumer behavior such as economic, social, psychological and cultural factors are discussed in the light of individual behavior variables such as needs, motives, perceptions, attitudes, personality and learning. Lectures, interactive sessions, and mini real-life cases are all included in the pedagogical design to enable students to understand how the marketing mix can be developed to satisfy demanding consumers. The module culminates in a research based project where students extend their learning and map consumer behavior of a segment in any product category by incorporating one or more concepts of CB.

Prerequisites: MKT 201; MKT 301

MKT453 Sales Management

Sales Management is critical to the success of any business enterprise, as it focuses on the development of sound sales and distribution strategy. The objective of this course is to familiarize BBA level students with the concepts and practices of sales management. The course focuses on setting up sales objectives, planning and implementing sales programs, supervising the sales effort and measuring sales performance. The areas of sales forecasting, budgeting, hiring, sales force motivation, compensation, and performance evaluation are also covered. Prerequisite: MKT 201/MKT 401

MKT454 Personal Selling

In the highly competitive and complex environment of the business world, personal selling has an even more important and critical role to play. Personal Selling has evolved into a different activity than it was just a decade ago. At BBA level, this course provides an overview of personal selling, providing insight into the operating paradigm of today's personal selling endeavors.

Prerequisite: MKT 201/MKT 401

MKT455 Retail Management

This course will help the students to see how retailing fits within the broader disciplines of business and marketing. It will help them grasp the role of retailing in society and, conversely, society's impact on retailing. This course is meant for the students who ultimately envisage fulfilling a managerial function in any area of retailing.

Prerequisite: MKT 201

MKT456 Export Marketing

The course is designed to familiarize students with the procedures, policies, and management problems faced by Pakistani exporters. It includes a study of the Pakistani exporters, types of export channels, sources of export market information, locating sales channels through international publications, etc. Prerequisite: MKT 201

MKT457 Dynamics of Distribution and Logistics

The course reviews all pertinent concepts making the subject a timely issue. The course also serves as a training tool to someone who wants to broaden his/her knowledge about the difference between logistics and distribution from that of supply chain management. The first objective of this course is to study the strategic importance of logistics and distribution management, planning and operations. The second objective is to differentiate between logistics and other related disciplines such as Supply Chain Management, material handling, and also between distribution management and inventory management, warehousing and transportation. The basic aim is to develop an understanding of the four key areas and their interrelationships, namely strategic role of logistics and distribution management, difference between logistics and distribution and related disciplines.

Prerequisite: MKT 201

MKT458 Public Relations

Public Relations (PR) has gained prominence in the marketing communications mix, especially today, since media proliferation and high costs are forcing marketers to find more targeted approaches to achieve their objectives. Public Relations will provide students with the basic framework for creating and managing a PR Campaign. Through practical exercises students will also learn how to create, edit, and evaluate PR texts for various publics and different situations. They will also be able to conduct basic research for PR purposes, create a PR plan, budget and implement it, and finally evaluate the results. Prerequisite: MKT 201

MKT460 Direct Marketing

Direct marketing has become a powerful tool for an overall integrated marketing strategy. It is the study of the ability to reach a specific audience, create or enhance

customer bonding, create dialogue or combine various media and disciplines. Here the student will learn the interactive use of advertising and other promotional media to stimulate consumer behavior, predominantly through database and targeted marketing, in order to obtain a measurable response. The course will include the study of one- to-one and customer relationship marketing, in which measuring customer value and building customer loyalty are major concepts.

Prerequisite: MKT 201

MKT461 Brand Management

The study of brand management is a crucial area in marketing and business curriculum, as brands are amongst the most valuable assets a company has, in today's highly competitive marketplace. The course includes an understanding of the psychological aspects of consumers awareness, preference, and loyalty to brands which is vital in developing long-term company growth. Topics include the importance of product, service and corporate brands, multi-brand portfolios, extensions, brands as a driving force for standardization and globalization, with explicit examples of branding drawn from the local industries of Pakistan.

Prerequisite: MKT 201

MKT462 Essentials of Demand and Supply

The practice of Supply Chain is becoming widespread in all industries around the globe, and firms are quickly realizing the benefits provided by the efficient Demand & Supply Process. The new paradigm has evolved to include and give more importance to Supply Chain Management. Students will be introduced to the concepts of the Value Chain Model and an understanding of the analytical tools necessary to solve Demand & Supply Chain problems. New concepts, namely Demand-Driven Company, Demand-Driven Economy, '5th P' will also be introduced.

MKT501 Marketing Management

This course takes a simulation approach so that the principles of marketing can be applied for planning, analyzing, implementing, and controlling marketing strategies. Product, Price, Place, and Promotion programs are discussed in detail. Students are also involved in conducting marketing audits. It build upon the philosophy of integrated marketing and focuses on giving a top level leadership overview of managing businesses.

MKT505 Advanced and Applied Business Research

The purpose of the course is to study advance tools and techniques of Marketing and Business Research, which are imperative to effective decision-making. Throughout this course students practice various forms of qualitative and quantitative methods of information collection, analysis, and interpretation, and learn how to apply them effectively in different situations. This learning is achieved through case-based class discussions, interaction with the industry, through guest speakers, and a live semester long project.

Prerequisite: MKT501/ MTS 506

MKT506 Branding and Creative Corporate Communication

Please see on website

MKT551 Advertising

The purpose of this course is to provide students with an understanding of how the practice of advertising is applied in a marketing environment. The course caters to the need to equip students with knowledge of the importance of the role of advertising in the economy, and its place in the media of mass communications. This course emphasizes the preparation and execution of a media strategy. The students will be given an indepth understanding and study of advertising appeals, product and market research, selection of media, testing of advertising

effectiveness and organization of the advertising profession. Students will develop skills in scientific media planning and management.

Prerequisite: MKT 501

MKT552 Consumer Behavior

Consumer Behavior will help the student understand how buying decisions are made among the plethora of market alternatives. The consumer's journey is studied through reflection on personal behavior and experience; discussion of market practices, and analysis of Pakistani products. The student is exposed to CBBE model; motivational strategies involving perception and learning models; and the bridge between personality traits, positioning (STP), and attitude change towards brands and services. The role and influence of culture, family, and environment is also studied to show how marketers may adapt and improve marketing campaigns to effectively reach the consumer through live case examples. Through classroom exercises, market observation, and corporate speaker sessions, students will study CB insight-based strategic marketing decisions made with limited consumer knowledge. The students' learning will culminate in a 360 degree recommended strategy for a product or service by incorporating CB insights, and provide a solution for gaps discovered through primary and secondary market research.

Prerequisite: MKT 501

*Recommended elective for Marketing Major

MKT553 Entrepreneurial Management

The objectives of this course are:

- To appreciate the role of entrepreneurship in economic growth and thereby personal career growth of business managers.
- To acquaint the students with the virtues of entrepreneurship for the society so as to enable them to consider it as one of the early or late career options. The course imparts knowledge about entrepreneurial & entrepreneurial process, business



lifecycle, principle concepts and general guidelines for establishing a new business enterprise at a small or large level in a dynamic business environment.

Prerequisites: Principles of Management / Introduction to Business Finance

MKT556 Social Marketing

Pakistan ranks very low in social indicators and the majority of the population are living below the poverty line. Social marketing is an approach towards behavior change that has been developed by using the principles of commercial sector marketing. Yet, the goals of social marketing are extremely different from the goals of commercial entities. In the United States, social marketing has been used successfully to combat smoking in public places to increase physical activity, improve nutrition, reduce heart disease, increase the use of seat belts, and in improve the environment. This course is designed to examine research and practice in the area of social marketing, with the purpose of developing an excellent understanding of the application of social marketing principles and approaches. Social marketing relies heavily on consumer research, and students will be expected to apply research techniques, such as in-depth interviews to do consumer research on target groups as part of developing a strategy for a social marketing project of their choice. The course will focus on deepening the understanding of target markets through research and on use of information collected through research to manipulate the 4 Ps and develop an effective social marketing campaign.

Prerequisite: MKT501

MKT557 Dynamic Distribution & Logistics

Please see on website

MKT558 Customer Ascendancy

The course helps to understand Marketing in the 21st Century and transforming ordinary marketing organizations into Customer Driven

Businesses. The students will apply marketing concepts and theories, learnt in basic marketing courses, to develop strategies and plans for maximizing Customer Satisfaction and Market Leadership. Customers are the reason why businesses exist. Identifying their needs and changing expectations, developing matching offers, delivering the offers, designing customer service programs, customer relationship management, making strategies to maximize customer satisfaction, obtaining customer feedback, and monitoring customer satisfaction are included in this important course for all marketers. The project report is a major pedagogical tool of this applied course. Prerequisite: MKT501

MKT559 Supply Chain Management

The objective of this course is to generate a basic level understanding and translating conceptual exposure among the students and professionals as to why supply chain management is among the top initiatives for businesses of all sizes. Yet most purchasing, operation, planning, and finance managers feel they don't have good control over their supply chains. Even the best informed are saddled with questions about establishing organization buy-in, defining metrics and benchmarks, optimizing material and transactional flow, and conducting relevant competitive analysis to define business opportunities. The challenges involved in optimizing a company's supply chain are substantial. While studying SCM, students will be able to understand and appreciate the significance of a strong SCM model; to help top management to make decisively differentiated options to counter their competition. The course will include analysis of these key elements and how they may be used on a conceptual level during supply chain design, planning and operation to improve performance.

Prerequisite: MKT501

MKT561 Brand Management

The astronomical growth in the wealth and the cultural influence of multinational corporations over the last 40 years can arguably be traced back to a single, seemingly innocuous idea developed by management theorist in the mid 80s': successful companies must produce brands. Brands are known as the most valuable assets that a company has invested in and developed over time. This is true for large global conglomerates as well as small local start-up companies. Often a company itself is considered a brand. For marketers a brand is a promise of quality to customers. Lack of branding is perceived as a major weakness in marketing in Pakistan. Brand management is the application of marketing techniques to a specific product / services, product line, or brand.

Prerequisite: MKT501

*Recommended elective for Marketing Major

MKT566 Media Management

Media planning is a crucial part of the advertising process and ultimately of the brand planning process, yet little has been done towards imparting formal education on this relatively new field of Marketing Communications. Since media is closely linked to technology, it is continuously changing in dynamics and affecting the overall brand marketing process, hence closely knitting the subject with Brand Management and Marketing Management. This course is the key to developing a synergized thought process amongst students with a Marketing major. Prerequisite: MKT 501

MKT569 Global Marketing Management

Please see on website

MKT570 Strategic Sourcing & Procurement

Please see on website

MKT571 Strategic Sourcing & Negotiation Skills

Please see on website

MKT573 Markstrat

Please see on website

MKT586 Retailing

The present day marketer needs to be equipped with a sense of the interface between channels and consumers. An understanding of retailing concepts and strategies facilitates an understanding of the retail channel in the marketing mix. The objective of this course is to familiarize students with the decisions involved in running a retail firm and the concepts and principles for making those decisions. While the course focuses on the retail industry, including retailers of consumer services, the content of the course is useful for students interested in working for companies that interact with retailers, such as manufacturers of consumer products, or for students with a general management, or entrepreneurial interest. The course will focus a great deal on the value of strategic planning, including a detailed review of the titans of retailing.

Prerequisite: MKT 501

MKT651 Personal Selling

The field of Personal Selling has matured into a professional endeavor. To-day, selling may be a stronger profession because of the obstacles it has overcome and sometimes still faces. Personal selling gives hands-on training to the students by inviting them to make sales presentations in class. A working insight into the personal selling area is developed, so that sales managers can empathize with the sales people and make more informed decisions. The course also emphasizes the connections of personal selling with other marketing activities. It has a modular approach, covering communications, prospecting, negotiating, and sales presentations.

Prerequisite: MKT501

MKT653 Sales Management

Sales Management as a function of marketing focuses on the development of a sound sales

and distribution strategy. Rapid changes in technology, a higher level of customer orientation, the globalization of business, and increasing competition have made sales and distribution management critical to the success of any business enterprise. The aim of this course is to familiarize students with the concepts and practices of sales management. Sales are a culmination of the marketing effort. Allocating resources optimally by careful territory design is the key to its success. This course looks at all these aspects with real life examples from the Pakistani market. Sales management efforts in different industries of Pakistan are also studied in depth. Prerequisite: MKT501

MKT656 Services Marketing

The service sector forms an increasingly important part of the world economy. The Services Marketing Module seeks to provide an understanding of the differences and similarities between goods and services as well as analyzing services marketing, to enable students to become an expert service marketer. This course is designed to cater to the continuous dominance of services over products. Many economies, especially in the developed world, are now known as service economies. This course addresses the issues of intangibility of the service environment. The course also looks at the use of technology in the conception, design, and, execution of the service product. Keeping in view Pakistan's demography, whereby human resource is a great asset, service differentiation through people is a cornerstone of this course. Prerequisite: MKT501

MKT657 Strategic Marketing

The goal of this course is to help make better business decisions - from high level strategic choices to tactical decisions on product policy, promotions, pricing, and distribution, which require a thorough understanding of marketing. Effective marketing results not from simply internalizing marketing facts and institutional

detail, but from systematic critical thinking and the reasoned application of the underlying principles. The framework applied is described as the 4 C's: Customer, Company, Competition and Collaborator. What sets marketing apart from many other disciplines is its focus on the customer, and a great deal of time will be spent discussing ways in which marketers view customers. But given the messy, real-world problems, any framework designed requires a balanced view that includes company, competitive, and collaborative factors. This framework will be used to discuss strategies as well as tactical decision-making that focuses on elements of the marketing mix, often called the 4 P's: price, place (distribution), product, and promotion. Prerequisite: MKT501

MKT658 Business to Business Marketing

This specialized course in marketing is concerned with management of business-to-business marketing transactions and developing marketing strategies for industrial, corporate, and institutional customers. The students will develop an understanding of how organizations make buying decisions; what are the various organizational influences, and the methodologies for addressing the various concerns of these influences. Further they will also understand the role of B2B market research, branding of B2B brands, and the innovative field of B2B Services. Discussions on marketing to the Government and other institutions are incorporated throughout the course.

Prerequisite: MKT501

MKT659 Global Marketing Management

The marketing function can no longer be demarcated across boundaries and needs to be seen in the context of an increasingly globalised world. Various forces affect the marketing of goods and services around the globe, and the savvy marketer needs to be aware of them and use them to his / her advantage, while remaining socially responsible.



This module will take students on the journey to become the best global marketer that they can possibly be - and will also look at global marketing in the Pakistani context. The key theme running throughout the course will be 'Think Globally, Act Locally'.
Prerequisite: MKT 501.

MKT752 Seminar in Marketing

Seminar in marketing is capstone marketing course. This is a modular course with practitioners and experienced experts leading most of the sessions. This is enriched by presenting various points of view of leading marketing gurus and incorporating practical implementation strategies. Research is undertaken, specifically of interest to the marketing community, and a solution provided. In this course students are, thus, expected to contribute to marketing knowledge through research and review of cutting edge marketing concepts.

Prerequisite: MKT501 / MKT505



Department of Computer Science

MIS COURSES

MIS103 Introduction to Computer Applications (2,1,3)

The course provides a fundamental understanding of computer applications with the core focus on Microsoft Office Application (Microsoft Word, Microsoft Excel, and Microsoft PowerPoint). This is a complete lab-based course where students would be learning these applications by working on class assignments in the lab. The course topics include Basics and Fundamentals of Microsoft Word, Microsoft Excel, and Microsoft Power Point. Students would also cover the basic concepts in Computer Hardware and Operating Systems and the usage of the Internet.

Pre-Requisite: None

Offered Semester: Both

MIS150 Essential Software

Please see on website

MIS343 Data Warehousing (3,1,4)

This course is a study of the techniques for planning, designing, and building, populating, and maintaining a successful data warehouse. The data warehouse continues to be one of the most organizationally complex and technically interesting projects in Information technology. This course provides students with an in-depth knowledge of the different phases of building data warehouse. Throughout the course, the special focus is given to the practical aspects of dimensional modeling, ETL, Data Quality and cleansing, and decision support through OLAP.

Pre-Requisite: CSE 341

Offered Semester: Fall

MIS405 Excel & Access for Business Managers (2,1,3)

Spreadsheet and database applications are widely used in most organizations for data analysis. These applications help management

to take better decisions. Spreadsheet and database applications come either in the form of desktop or web based applications. Microsoft Excel and Access are well known, general purpose desktop-based spreadsheet and database software. Unfortunately, many managers hardly know the basics of the Excel and Access, and as a result they spend hours on simple tasks that could be completed in minutes. The purpose of this course is to produce skilled MBA students so that they may enter in the market as effective Excel and database users and can become efficient managers. This course will enable them to use Microsoft Excel and Access to improve their work, analysis, and decision making skills. Offered Semester: Summer/Winter Orientation Program.

MIS406 Social Computing (3,0,3)

The course focuses on the emerging area of 'Social Computing,' which is becoming quite popular and important these days within the discipline of Information Systems. As Information Systems are becoming more social, Information Systems increasingly require both social and technological perspectives. Social computing hinges on this intersection of social and computer sciences. This course's pedagogy also reflects this new paradigm and is not teacher-centric. It incorporates collaborative learning, where peers learn from each other and the role of the teacher becomes that of a guide, resource-person and moderator. The students make use of a class wiki as their collaborative learning platform. Typical topics covered include: network theory, theories of social influence, analysis and design of social online environments.

Pre-Requisite: None

Offered Semester: Fall

MIS450 Technopreneurship (3,0,3)

This course aims towards developing Technopreneurial skills in CS students so that they are able to start up a technology-based business. With the amalgamation of class

discussions, mentoring, and sharing real life practical experiences, students would develop an understanding of what it takes to start a technology business. Students would be prepared for challenges & risks that a technopreneur is likely to face.

Pre-Requisite: CSE 141

Offered Semester: Fall

MIS454 Audit, Ethics & IS Issues (3,0,3)

The course analyzes the impact of computers on society. Topics included are privacy issues, changing patterns of interaction, security, control of information systems, breakdowns, vulnerability, hazards, computer crimes, fraud, defenses, access controls, audit planning and execution, disaster recovery, and risk management.

Pre-Requisite: MGT 211

Offered Semester: Both

MIS456 E-Commerce (3,0,3)

The course introduces the e-commerce concepts, objectives, market drivers that affect techniques and technologies. The topics in the course include: intelligent agents, client/server model, commitment, concurrency, recovery, and network service and application management. It also discusses policy and regulatory issues in e-commerce. It also identifies the various e-commerce applications in the areas of finance, securities, trading, auctions, and travel.

Pre-Requisite: CSE 248

Offered Semester: Spring

MIS458 Enterprise Resource Planning (3,0,3)

The course is designed to provide an overview of enterprise resource planning systems. In particular, the course focuses on the ERP Life Cycle. The course introduces students to problems that traditionally fragmented information systems create and ; therefore, to the underlying need for integration of business processes and information in large organizations. A part of the course is set aside

for demonstrations and “hands on” exercises. Students use this software to perform some of the processes and tasks to create, track, and communicate enterprise information.

Pre-Requisite: ACC 111

Offered Semester: Fall

MIS463 Mobile Marketing - A Technological Perspective (3,0,3)

This course examines the business potential of using the mobile platform for marketing purposes. It encompasses both the technology opportunities and technology challenges involved in the implementation of a successful mobile marketing campaign. Students learn how to assess different mobile technologies and platforms, examine the right technology to implement a mobile marketing campaign, and identify associated technology challenges.

Pre-Requisite: CSE 312, CSE 341

Offered Semester: Spring

MIS464 Financial Services Technologies (3,0,3)

The role of Financial Services Technologies is becoming increasingly essential and critical in order to achieve efficiency in the delivery of low cost transactions to the customers. It is now inevitable to deploy effective controls and security in the financial institutions. The systems used are: integrated banking systems and applications, payment solutions, innovative e-delivery channels, e-commerce, exploiting mobile platforms with sustainable risk management framework under robust IT Services Delivery Infrastructure and Management consisting of Data Centre Management, and Network, and Security. The purpose of this course is to equip students with the knowledge of the fundamental components involved in the evaluation, implementation, integration and operation of Financial Services Technologies.

Pre-Requisite: None

Offered in Spring Semester. Spring

MIS502 Operations & Technology Management

Please see on website

MIS503 Enterprise Integration (3,0,3)

This course provides students with the theories, models, and analytic techniques required to develop solutions for integrating heterogeneous information systems. Basic concepts that enable diverse applications developed in different are explored and illustrated. This course serves as a focused introduction to the concept that information systems must be re-used rather than redeveloped. Independent- as well as- group assignments, provide the students with the opportunity to investigate Enterprise Integration Solutions from the Web and from the local environment.

Pre-Requisite: Track-IM

Offered Semester: Upon Request

MIS513 Information: Industry Structure & Competitive Strategy

Please see on website

MIS541 SAP ABAP Programming I

Please see on website

MIS542 SAP ABAP Programming II

Please see on website

MIS550 Logistics and Supply Chain Management (3,0,3)

Logistics is one of the most important aspects of supply chain and its importance is growing rapidly as the world is moving towards globalization. Modern day logistics is quite different from the older logistics practices. New logistics practices and the usage of Advanced Technologies have made logistic-handling a competitive advantage for many companies. After completing this course, the students are expected to have a clear understanding of what supply chain management is and the role of logistics in the modern supply chain paradigm. The course is specifically designed



for students who are proactive in their work style and want to sharpen their problem solving and solution designing skills. The students learn how to identify issues / problems and develop solutions in areas such as procurement management, supplier management, inventory handling, warehouse management, logistics etc. The course covers areas such as inventory management & bull-whip effect (SCM game), domestic and international transport, logistics outsourcing (3pl and 4pl), designing the transport network, and actual performance measurement along the supply chain.
 Pre-Requisite: Track-IM
 Offered Semester: Upon Request

MIS552 Advanced Data Warehousing (2,1,3)

Data warehouses are databases of a specific kind that periodically collect information about the activities performed by an organization. This course will discuss advanced topics of data warehousing, in order to provide a detailed know-how of the subject to the student. Course topics include: discussion on conventional data warehousing techniques, spatial data warehousing techniques, temporal data warehouses, designing conventional data warehouses, designing spatial and temporal data warehouses, and ongoing research in warehousing.
 Pre-Requisite: Track-IM
 Offered Semester: Spring

MIS553 Mobile Marketing Strategies (3,0,3)

Marketers nowadays have become increasingly mobile savvy. Hence, this course is designed to provide students with a sound understanding of the mobile channel as a marketing tool in both the international and local markets. The course takes a very practical and realistic approach to examining Pakistan's own mobile marketing eco-system and the opportunities and challenges therein. The course also emphasizes how the mobile has become an essential component of both digital and cross-media marketing campaigns. The course is primarily for MBA / MS students with several years of experience.
 Offered Semester: Fall

MIS555 Auditing IT Infrastructures (3,0,3)

The course will discuss the components and basic requirements for creating an audit plan to support business and system consideration. In this course we explore the various parameters required to conduct and report on IT infrastructure audits for organizational compliance. The course also discusses the qualifications, ethics, and certification organizations for IT auditors.
 Pre-Requisite: Track-IM
 Offered Semester: Upon Request

MIS564 Social Computing Applications

Please see on website

MIS565 Advance E-Commerce (3,0,3)

The course will stress on the understanding of end to end technological infrastructure to establish and support e-commerce. Other business aspects of e-commerce such as marketing, logistics, third party integrations among others, will also be discussed. The course includes an overview of some of the commercial B2C and B2B e-commerce systems.
 Pre-Requisite: MIS 456
 Offered Semester: Upon Request

MIS566 Fundamentals of SAP-ABAP Programming-I (2,1,3)

The first section of this course comprises Introduction to SAP ABAP, SAP architecture, and ABAP Development work bench tools. The second section deals with the study of an ABAP workbench in detail, which in turn includes the study of flow of an ABAP program, and the ABAP workbench. The third section of this course is based on an in-depth study of an ABAP dictionary, including study of data objects, performance, input checks, object dependencies, views, search and performance monitoring.

Pre-Requisite: CSE 341

Offered Semester: Upon Request

MIS567 Simulated Approach to SCM (1,5,1,5)

In today's competitive environment organizations are struggling for sustainability and profitability. Besides Marketing and Financial issues, Supply Chain issues like poor planning and forecasting, long lead times, poor ordering, poor quality raw material, poor quality finished products and poor logistical activities, make a deep negative impact on organizational image and performance. Successful organizations employ Supply Chain Management (SCM) techniques to minimize the supply chain issues which ultimately improve organizational performance and profitability.

Pre-Requisite: MKT 201, MGT 311

Offered Semester: Upon Request

MIS568 Business Processes Management in ERP using SAP

This course focuses on major business processes that are form part of modern ERPs. SAP is used as a learning tool for understanding the business processes and their functioning and integration across various parts of enterprise. As such, the course is a fully SAP ERP integrated course which covers fundamentals of SAP ERP Financial Accounting (FI), Managerial Accounting (CO), Materials Management (MM), Production Planning (PP), Sales & Distribution (SD), Human Capital Management (HCM) and Project Systems (PS).

MIS 651 Theoretical Foundations of IS (3,0,3)

The field of Information Systems is still in its fledgling state and in the process of building native theories. This course aims to introduce the students to the evolving theoretical foundations of the discipline. The students are exposed to the major theories utilized and appropriated in the field during the last few decades. The students acquire philosophical perspectives on theories, models, and explanations. The above objectives are achieved by reading and comprehending the latest research in information systems.
 Pre-Requisite: Track-IM
 Offered Semester: Upon Request

MIS653 Advanced Theoretical Concepts in IS (3,0,3)

The course aims to review and critically evaluate recent advances in Information Systems theories. The students are asked to read and critically analyze and discuss three to four recent research papers each week. This engages the student in the current debate and discourse on theoretical issues in information systems and their impact on organizations, society, and individuals. The course is not based on lectures; rather it is based on participatory learning paradigms. The students are expected to produce a conceptual paper at the end of the semester, analyzing a locally relevant and important research problem utilizing theoretical understanding acquired during the semester.
Pre-Requisite: MIS 651
Offered Semester: Upon Request

COMPUTER SCIENCE & ALLIED COURSES

CSE141 Introduction to Programming (3,1,4)

This is a first of a series of programming-based courses. It introduces fundamental problem solving skills and algorithm development with the help of a programming language. It covers concepts such as variables & data types, selection and iteration structures, methods and recursive methods, arrays and structures, file I/O and optionally elementary 2D graphics based on certain tool kits. It also covers flowchart design and pseudo code approaches for representing solution to problems as well as debugging and testing techniques. Many standard programming languages possess the features required for this course.
Pre-Requisite: None
Offered Semester: Both

CSE 142 Object Oriented Programming Techniques (3,1,4)

This course aims to teach Object Oriented Programming (OOP). OOP is the paradigm of choice for large programs. It distributes the code into reusable chunks called classes. Principles of abstraction, encapsulation,

inheritance, and polymorphism are explored with an understanding of code structuring and design philosophies. It requires a thorough understanding of the fundamentals of programming. Imparted concepts include class definition, constructors, destructors, access control, method overloading and overriding, inheritance, static and dynamic binding, exception handling, object life cycle, garbage collection, and name spaces. Java, C#, or C++ is used for implementation of concepts learned in this course.

Pre-Requisite: CSE 141
Offered Semester: Both

CSE145 Introduction to Computing (3,1,4)

This course takes a breadth-wise approach to different areas of computing. It overviews topics from number representation, hardware architecture, operating systems, databases, as well as some computing models, languages and grammars, software development and engineering, networking, and graphics. Java or C++ is used to demonstrate certain concepts.
Pre-Requisite: None
Offered Semester: Both

CSE241 Digital Logic Design (3,1,4)

This course introduces basic concepts of digital computer logic including switching logic, combinatorial circuits, minimization methods, adders, comparators, multiplexers, synchronous and asynchronous sequential circuits, registers, counters, flip-flops, encoders, decoders, buffers, RAM, switches, PLDs, instruction set design, processor implementation techniques serial and parallel arithmetic units, pipe lining, and memory hierarchy.
Pre-Requisite: CSE 145, MTS 201
Offered Semester: Both

CSE247 Data Structures (3,1,4)

This course provides students with a foundation in the basic concepts of programming data structures. Students are taught how to select and design data

structures and algorithms that are appropriate for problems that they have. The course focuses on comparing algorithms and studying their correctness and computational complexity. Students are provided a mixture of theoretical knowledge and practical experience using any programming language (JAVA, C, C++ or C#).

Pre-Requisite: CSE 142, MTS 201
Offered Semester: Both

CSE248 Computer Communications and Networking (3,1,4)

This is an introductory course in data communications in computer networks. It is a four credit hour course comprising of three hours for theory and three hours of lab teaching per week. The course will help students to develop thorough understanding of the techniques, applications control of modern data communication networks and technologies such as TCP/IP, 802.11, Ethernet, DNS, DHCP, NAT, etc. Topics included are error detection and correction, multiple-access, bandwidth allocation, routing, internetworking, reliability and if time permits quality of service issues in real-time applications. The fundamentals on which the Internet work would be followed as a case in point to forward these concepts. In addition the course will closely map onto Cisco technologies and hands on laboratory sessions/tutorials and assignments to help students prepare for CCNA in future using Wireshark for protocols' examination and Packet tracer for simulations.

Pre-Requisite: CSE 142, CSE 145
Offered Semester: Both

CSE 307 Introduction to AI (3,0,3)

This course provides an overview of the theoretical and practical aspects of designing intelligent computer systems. Students are expected to implement the concepts learned during the course using standard and AI-specific programming languages and tools.
Pre-Requisite: CSE 247, MTS 201
Offered Semester: Both



CSE308 Web Based Application Development (3,0,3)

The main objective of the course is to enable students to start their own digital venture. The course curriculum is a project-based introduction to web design, development, and application development. Students will learn website design, development and application development. They will also learn how to create and maintain quality web pages, web design standards and their importance, and manipulation of images.

Pre-Requisite: CSE 341

Offered Semester: Both

CSE309 Theory of Automata (3,0,3)

This course is about the theoretical foundations of computer science. Mathematical and abstract computational models are explored with special reference to the theory of formal languages. Concepts include Kleene's Closure, Regular Expressions and Languages, Deterministic and Non-Deterministic Automata, Transition Graphics, Context Free Grammars and Derivations, Push-Down Automata and Pumping Lemma, Turing Machines and other equivalent machines, and Chomsky Hierarchy of Languages. The domains and limitations of each computational model are also explored.

Pre-Requisite: MTS 211, CSE 141

Offered Semester: Both

CSE312 Software Engineering (3,0,3)

This course introduces students to the fundamental principles and methodologies of large-scale software development. Students learn the theory and practice of software engineering. They apply software engineering practices to their projects in order to identify their strengths and shortcomings through the use of Personal Software Process (PSP). Additionally, they work as part of a team on a full life cycle software project that includes planning, software specification, software design, coding, inspections, and testing.

Pre-Requisite: CSE 247

Offered Semester: Both

CSE 317 Design and Analysis of Algorithms (3,0,3)

This course is a core course, and requires a working knowledge of the basic algorithms, such as searching, sorting, hashing, and various other computational algorithms. Students are taught how to analyze these methods and design efficient ones. The key emphasis is on algorithms that are in widespread use.

Pre-Requisite: CSE 247, CSE 142

Offered Semester: Both

CSE318 Design Patterns (3,0,3)

This course is an advancement of the techniques learned in Object Oriented Programming. Concepts include Object Modeling, Functional Requirements for a system and produces implementation specifications. Unified Modeling Language is used for representing various phases of analysis and design.

Pre-Requisite: CSE 247, CSE 142

Offered Semester: Spring

CSE331 Operating Systems (3,0,3)

The objective of this course is to introduce the organization of operating systems. Concepts included are process management and scheduling, interaction of concurrent processes, interrupts, I/O, device handling, memory and virtual memory management, and file management. A survey is carried out of the design and implementation of distributed operating systems, both by introducing basic concepts and considering examples of current systems: UNIX and recently developed operating systems such as Linux, Vista are presented.

Pre-Requisite: CSE 247

Offered Semester: Both

CSE341 Database Systems (3,1,4)

The course covers the foundations of database systems, database management systems and the design and implementation of database systems using industries top DBMS such as Oracle, SQL Server, etc. Topics included are

fundamentals of database architecture, focusing on basics such as the relational algebra and data model, deriving a physical design from the logical design, schema normalization and de-normalization, data security, data integrity, query optimization, transactions management, and introduction to distributed databases, object oriented databases and data warehousing.

Pre-Requisite: CSE 247

Offered Semester: Both

CSE344 Compiler Design (3,1,4)

This course examines the design consideration, constraints, and implementation techniques for developing compilers and interpreters. Programming language code translation issues are explored with reference to problem domains, resource requirements, and runtime requirements. Concepts include Compiler back-end Operations like Scanning, Parsing (top-down and bottom-up parsing), BNF/EBNF and Syntax Trees, Semantic Analysis and Annotated Grammars, and Compiler Front end Operations like Runtime Environments, Code Generation and Introduction to Code Optimization.

Pre-Requisite: CSE 309, CSE 310, CSE 310

Offered Semester: Fall

CSE345 Computer Architecture and Assembly Language (3,1,4)

This course is an introduction to computer system structure and organization. Topics include representation of information, processor architecture, input/output, CPU, ALU, memory hierarchy, arithmetic circuits, micro and macro instructions, arithmetic shifts, overflow and underflow situations, fixed point and floating point data, instruction codes, super scalar structures, VLIW, and other modern CPU architectures.

Pre-Requisite: CSE 241, CSE 247

Offered Semester: Both

CSE403 System Modeling and Simulation (3,0,3)

The course focuses on two areas, analysis of practical problems and their solution using computational techniques. The standard single queue server problem is used to introduce the student to problem analysis techniques and computational modeling. The use of statistical techniques is introduced to model random processes in a non-mathematical way. These techniques are then used to solve other practical problems in which convergence, system behavior, performance measures and validation are discussed. Programming skills are a prerequisite of the course.

Pre-Requisite: CSE 248

Offered Semester: Fall

CSE407 Human Computer Interaction (3,0,3)

This course aims to give students an understanding of how the study of Human Computer Interaction (HCI) affects the design of interactive systems, hardware and software and improves students' awareness of the issues that determine the usability of an interactive computer system. Humans are the key deciding factor to make a computer system successful. This course discusses the key issues and their solutions to make a system more human friendly. Effective design is reliant upon understanding the human context in which a new artifact has to fit. This course provides the necessary knowledge and skills to design, prototype and evaluate usable human-computer interaction in both its narrow sense (the user interface) and its broad sense (information systems, people, organizations, even societies and cultures).

Pre-Requisite: CSE 312

Offered Semester: Both

CSE441 Systems Programming (3,1,4)

The purpose of this course is to provide the students with an introduction to system-level programming. The course is primarily based on Linux Operating Systems Programming and C/C++ is used as the programming language.

General OS Systems Concepts and Windows OS Systems concepts are discussed also. It covers a selection of systems programming topics in multitasking, process synchronization, inter-process communication, and operating system mechanisms and interaction.

Pre-Requisite: CSE 331

Offered Semester: Both

CSE448 Microprocessor Interfacing (3,1,4)

This course covers the fundamentals of Intel x86 assembly language and the basic architecture of the Intel microprocessor. Concepts include assembly language, microcomputer system hardware, input/output devices, and bus discipline. In addition, 8051 Micro controller Programming and Interfacing is also covered. This course also has hardware lab sessions.

Pre-Requisite: CSE 345

Offered Semester: Upon Request

CSE450 Application Development for Mobile Devices (3,0,3)

The main objective of the course is to familiarize students with application development (web or native) challenges for mobile devices. The course imparts concepts such as Differences between Conception, UI-Design, Coding, Launching of a mobile application and a traditional application; developing a basic Mobile website; Understanding some discrete techniques to enhance user experience used uniquely in mobile devices.

Pre-Requisite: CSE 142, CSE 312

Offered Semester: Both

CSE455 Network Security (2,1,3)

Students are introduced to the security issues in computing, communications, and electronic commerce. The course covers security requirements and vulnerabilities, legal and ethical issues, basic cryptology, private and authenticated communication, electronic commerce security, software security, viruses and other malicious codes, operating system protection, trusted systems design, network

security, firewalls, auditing, physical security and disaster recovery.

Pre-Requisite: CSE 211

Offered Semester: Fall

CSE459 Business Intelligence (3,0,3)

Business intelligence (BI) refers to technologies, applications and practices for the collection, integration, analysis, and presentation of business information. The purpose of business intelligence is to support better business decision making. This course provides an overview of the technology of BI and the application of BI to an organization's strategies and goals.

Pre-Requisite: CSE 341, MIS 343

Offered Semester: Spring



CSE460 Introduction to Game Programming and Robotics (3,0,3)

The course introduces the fundamentals of game programming and robotics. This is a programming intensive course and students are required to spend a significant amount of time in developing interactive games and creating virtual simulation environments to be used in conjunction with robots. Students will get hands on experience of XNA Studio Express, Microsoft Robotics Development Studio, and Lego Robots. The main focus of the course is on the processes, algorithms, and mathematics necessary to create 3D computer games and to build autonomous robots for various tasks. The course provides great opportunity to students to expand their programming and engineering skills even if they are not interested in pursuing careers in robots or video games development. Pre-Requisite: CSE 307
Offered Semester: Upon Request

CSE461 Mathematics for Games (3,0,3)

The course focuses specifically on the necessary mathematics required to represent object behavior in practical gaming. Areas covered include bouncing balls, with and without energy loss, projectile analysis, bouncing projectiles, fireworks, and explosions. The theory is taught followed by practical programming of the theory via an example. Pre-Requisite: CSE 403
Offered Semester: Upon Request

CSE491 Computer Science Project – I (0,3,3)

This is the first of a two-semester intensive Software development project under faculty supervision. Students may propose their own projects for departmental approval or may apply for a project proposed by a faculty member. Students are expected to have a complete prototype ready for demonstration at the end of the first semester. An industry partner or equivalent is part of the requirement. Pre-Requisite: CSE 341, CSE 312
Offered Semester: Both

CSE492 Computer Science Project – II (0,3,3)

This is the second of the two-semester intensive Software development project. Students are expected to look into the advanced issues of implementation of their prototype developed in the first part and possible commercialization aspects of their project. Pre-Requisite: CSE 491
Offered Semester: Both

CSE503 Software Project Management (3,0,3)

This course deals with the lifecycle of Software Project Management, project planning, software estimation, software project schedules, reviewing work products, system requirements, project automation, software metrics, testing, bugs and diagnosis, and change configuration. Pre-Requisite: CSE 312
Offered Semester: Fall

CSE556 Image Processing for Recognition (3,0,3)

This course would help students to understand how concepts of image processing provide the basis for Machine recognition. The course would explain how images and sequence of images could be used to understand the scene and real world problems. The course focuses on different models which are used for object recognition. The course also includes machine learning techniques which are used for object classification and recognition. Pre-Requisite: CSE 559
Offered Semester: Fall

CSE558 Mobile Computing (3,0,3)

This course presents an extensive overview of the technical as well as business aspects of mobile computing and wireless communications. Main topics to be covered are: mobile applications, mobile computing platforms, wireless networks, architectures, security, and management of mobile computing and wireless communications. The role of

wireless Internet and Mobile IP is reviewed and the mobile computing platforms are examined with a discussion of wireless middleware, wireless gateways, mobile application servers, WAP, i-mode, J2ME, BREW, Mobile Internet Toolkit, and Mobile Web Services. Pre-Requisite: CSE 142
Offered Semester: Upon Request

CSE559 Image Processing (3,0,3)

Image processing is an applied course and designed in a way that students would be able to use this course toward their postgraduate research or final year project. The course is designed to provide students intermediate level expertise in image processing. The course explains formation of image and its digitization by using different sampling criteria. The student would learn Human visual system and different color systems used to represent images. Different image transformations will be explained which are important in image registration. Student will learn how to enhance images using different enhancement filters. Different spatial filters will be implemented during the course for image pre-processing and obtaining edges of objects in an image. Different seminal segmentation algorithms will be implemented to obtain segmentation of image in objects and meaningful regions. Application of segmentation to biometrics will be investigated. Motion analysis is performed to extract rigid/non-rigid foreground objects in a video sequence. Stereo geometry will be explained which is used for 3D object reconstruction and texture mapping. Pre-Requisite: Track-IS
Offered Semester: Upon Request

CSE564 Software Systems Engineering (3,0,3)

Computers and software that directs our daily operations are the driving elements of the so-called "information revolution," which has changed the face of much of modern industry, commerce, finance, education, entertainment – in fact the very way of life.

This has come about by automating tasks that had previously been performed by human beings, thereby making more complex operations possible, and introducing a whole range of new complex computer-controlled systems. These new systems are now embedded in nearly every device. The products however have become quite sophisticated. This course introduces students to the concept of systems engineering and the use of software for systems engineering.
Pre-Requisite: CSE 141, CSE 142
Offered Semester: Fall

CSE566 Software Quality Assurance (3,0,3)
This course teaches software quality requirements, assessment of the quality of a software design, explains specific methods of building quality software, helps students understand software reliability models and metrics, and develop a software quality plan. This course also covers software quality planning, validation and verification methods and techniques, risk analysis, and software review techniques.
Pre-Requisite: Track-SE
Offered Semester: Spring

CSE567 Requirements Engineering (3,0,3)
This course teaches concepts for systematically establishing, defining, and managing the requirements for a large, complex, changing and software-intensive system, from many perspectives including technical, organizational, and management. The course also considers the past, present and the future paradigms and methodologies in requirements engineering.
Pre-Requisite: Track-SE
Offered Semester: Spring

CSE569 Web Engineering (3,0,3)
The aim of this course is to teach the students the technologies and techniques for creating large-scale hypertext information systems on the WWW. Based on recent hypertext research and current WWW standards it will address the

issues of publishing individual documents and sites together with the problems of global information management. Course topics will include, principles of web architecture, web information design, searching the web graph, factors that have led development of the web in its present form and current trends in the development of hypertext in the web.
Pre-Requisite: Track-SE
Offered Semester: Spring

CSE572 Formal Methods
Please see on website

CSE575 Advanced Human Computer Interaction (3,0,3)

This course aims to give students an understanding of how interactive systems are developed and used. The hardware and software issues that determine the usability of an interactive computer system will also be studied in this course. Usability of systems is the main focus of this course. As humans are the key deciding factor in making a computer system successful this course discusses the key issues and their solutions to make a system more human friendly. Effective design is reliant upon understanding the human context in which a new artifact has to fit. This course provides the necessary knowledge and skills to design, prototype and evaluate usable human-computer interaction in both its narrow sense (the user interface) and its broad sense (information systems, people, organizations, even societies and cultures). It further provides a strategic grounding in both theory and good practice for students to make effective use of applying HCI principles to IS design in their professional work.
Pre-Requisite: Track-HCI
Offered Semester: Upon Request

CSE576 Usability Engineering
Please see on website

CSE577 Interaction Design
Please see on website

CSE578 GUI Design
Please see on website

CSE579 Multimedia and Multi-Modal Systems
Please see on website

CSE651 Advanced Analysis of Algorithms
Please see on website

CSE652 Knowledge Discovery and Data Mining (3,0,3)

This course offers a comprehensive coverage of well-known Data Mining topics including classification, clustering, and association rules. A number of specific algorithms and techniques under each category are discussed. Methods for feature selection, dimensionality reduction, and performance evaluation are also covered. Students will be exposed to relevant Data Mining research.
Pre-Requisite: Track-IM
Offered Semester: Upon Request

CSE654 Combinatorial Optimization (3,0,3)

This is a graduate level introductory course on optimization. The course covers fundamental concepts in optimization theory, generic algorithmic approaches, as well as modeling optimization problems and their numerical solution. In particular, the topics include elements of convex analysis, linear programming, sensitivity analysis, Lagrangian duality, and introduction to discrete optimization. Optimization algorithms, including the simplex method and its variants, and branch-and-bound method are introduced.
Pre-Requisite: Track-IS
Offered Semester: Upon Request

CSE655 Probabilistic Reasoning (3,0,3)

This course provides an in-depth analysis of Bayesian Belief Networks which have become the tool of choice for reasoning under uncertainty. The course focuses on the syntax and semantics of Bayesian Networks and how to use BNs to model and analyze uncertain



situations. Models that aim to integrate time and uncertainty such as dynamic Bayesian networks, dynamic Influence Nets, Markov Nets as well as the learning of structure and parameters of a Bayesian network are discussed in detail. The course is intended for graduate level CS students and a significant amount of time is spent on the current research issues in the field of probabilistic reasoning. Students are expected to use various software and develop their own tools to implement various reasoning and learning algorithms.

Pre-Requisite: Track-IS

Offered Semester: Upon Request

CSE657 Essentials of Theoretical Computer Science (3,0,3)

This course is about those aspects of theoretical computer science that study the limits of what can be done with computing machines. The course is divided into three parts, corresponding to the three ways of modeling computations. In the first part we consider the model of finite state automata. This is a very simple model, and includes a small set of string processing algorithms. In the second part we see how all conceivable discrete computing devices can be simulated by Turing machines, a conceptually simple abstract device. This is an extremely powerful model which enables us to solve difficult problems. Finally, we study polynomial time computations, a more pragmatic model of the computations that can actually be realized in practice. Being the most realistic, this is also the most intricate field of study. The course concludes by teaching some mathematically beautiful and unexpected results regarding complexity theory.

Pre-Requisite: Track-TCS

Offered Semester: Upon Request

CSE658 Knowledge management and e-learning systems (3,0,3)

This course aims to introduce a wide range of methods and techniques that are currently used and researched in knowledge

management systems and applications that are based on knowledge of human understanding. A focused approach on the topics of “structured information retrieval” is used to impart some techniques of knowledge and data acquisition.

Pre-Requisite: Track-IM

Offered Semester: Upon Request

CSE659 Computational Intelligence (3,0,3)

The course presents the fundamentals of computational intelligence. Topics included are evolutionary algorithms, particle swarm optimization, ant colony optimization, artificial immune systems, artificial neural networks, fuzzy systems, and hybridization of the above techniques. The course focuses on the applications of these techniques on real world problems and shows how they are designed, implemented and analyzed for a given a problem domain. This is a programming intensive course and students are expected to spend a significant amount of time on implementing all the techniques studied in the course and applying them on a significantly complex problem of their choice.

Pre-Requisite: Track-IS

Offered Semester: Upon Request

CSE660 Computer Vision (3,0,3)

Computer Vision is a study in algorithms, tools, and techniques that enable computers to extract information out of digital images. This course offers an introduction to the core concepts, some industrial-strength tools and recent breakthroughs in Computer Vision. By the end of this course, students should be able to analyze problems in Computer Vision and break them into simpler solvable problems.

Pre-Requisite: Track-IS

Offered Semester: Upon Request

CSE661 Semantic Web (3,0,3)

The Internet has changed the way people conduct business and share knowledge. This explosive growth of the Web has led to the problem of information overload. The Semantic

Web is often viewed as the solution to the problems of the www. In this course, we examine existing Semantic Web technologies: XML, RDF (Resource Description Framework), RDFS, OWL (Web Ontology Language), understand the role of ontology, ontology modeling, reasoning, and querying mechanisms. Latest papers published in recent Semantic Web conference proceedings and journals are also discussed. This course also offers a practical experience using Protégé ontology editor, Jena ontology API with JAVA programming language. Students are required to complete the semantic web project at the end of the semester.

Pre-Requisite: Track-IS

Offered Semester: Upon Request

CSE662 Parallel Processing (3,0,3)

This course requires sequential programming concepts and practices as a pre-requisite. It is a beginner's introduction to parallel processing, and introduces the concepts from the fundamental architectural differences in terms of memory and data. Inter-process communication is motivated and introduced. Teaching MPI (Message passing interface), which is the main implementation tool for parallel algorithms, is an integral part of this course. The goal is to provide students with a proper grounding (at entry level) in concurrent programming concepts and to equip them with the tools necessary to build their own parallel programs.

Pre-Requisite: Track-TCS

Offered Semester: Upon Request

CSE665 Information Retrieval and Web Search - I (3,0,3)

This course covers the foundations of Information Retrieval (IR) as well as advanced or more recent topics in Web Information Retrieval (WIR). Core topics include material necessary to understand how an IR system is constructed. In IR, topics such as IR models (Boolean, vector space, probabilistic, latent semantic indexing, and neural nets), indexing

models (storing and accessing), file organization, query processing, and document clustering will be covered. Moreover, advanced research topics such as Aggregated Search, Digital Advertising, Digital Libraries, Discovery of Spam and Opinions in the Web, Evaluation, Information Retrieval in Context, Multimedia Resource Discovery, Scalability Challenges in Web Search Engines, and Users in Interactive Information Retrieval Evaluation will also be discussed.

Pre-Requisite: Track-IM

Offered Semester: Upon Request

CSE666 Information Retrieval and Web Search - II (3,0,3)

This is a research-based course with heavy influence on reading latest research articles in Information Retrieval and their application on tools such as Lucene, Solr, Luke, Knime, etc. The course covers the advanced and most recent research topics of Information Retrieval. Topics such as aggregated search, discovery of opinions in a corpus, digital advertising, digital libraries, and information retrieval in context, multimedia resource discovery, and scalability challenges in web search engines will be covered and their experiments conducted.

Pre-Requisite: CSE 665

Offered Semester: Upon Request

CSE668 Big Data Analytics (3,0,3)

The course covers the recent trends and advances in Data Analytics. The focus is on analyzing massive structured and unstructured data sets using Hadoop-based Big Data platform. The list of covered topics include text analytics, sentiment analysis, social network mining, streaming data mining, recommender system, time-series analysis, kernel-based learning, advanced visualization. The course makes heavy use of analytics software such as R and KNIME. Students participate in multiple data analytics competition hosted on Kaggle.com or on places like KDD, PAKDD. The course also prepares students for several

company-specific certifications in Data Science. In addition to lectures and class-room discussion, the course makes extensive use of online material available on sites such as UdaCity, Coursera, Youtube, amongst others. Pre-Requisite: CSE 652

Offered Semester: Upon Request

CSE690 MS Research Survey (0,3,3)

The Research Survey is required to be taken by all students, regardless of whether they opt for a Thesis or non-Thesis based MS degree. Students opting to do a thesis



ICT & ALLIED COURSES

ICT512 Advanced Web Technologies (3,0,3)

To deliver in-depth knowledge of the basic concepts and general principles associated with web application development, illustrating specific technologies. To provide an understanding of different concepts, architectures, techniques, and infrastructures for service oriented computing in web development. The course explains the principles and practice of web services. It provides a comprehensive overview of state of the art web services and associated disciplines, relating concepts to practical examples and emerging standards. Pre-Requisite: CSE 308

Offered Semester: Upon Request

ICT515 Distributed Systems (3,0,3)

This course deals with an in-depth understanding of Distributed Systems. Distributed system is a computer system consisting of several independent computers, include: the World Wide Web, net worked file systems, DNS, and massive multiprocessor super computers. This course focuses 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. The main objectives of this are: to present the principles underlying the functioning of distributed systems; to create an awareness of the major technical challenges in distributed systems design and implementation; to expose students to modern and classic technology used in distributed systems and their software; to expose students to past and current research issues in the field of distributed systems; and to provide experience in the implementation of typical algorithms used in distributed systems.

Pre-Requisite: CSE 341 Offered Semester: Fall



ICT554 Information Security (3,0,3)

The objective of this course is to establish the strategic importance of information security. This course provides solid foundation needed for multi-disciplinary approach to this multifaceted challenge of securing information requiring holistic view of security. This is a very rigorous course comprehensive grounding in theoretical basis, explaining high-level frameworks, discussing available standards and deliberating upon best practices of information security. It is a very demanding course and one has to be really passionate and enthusiastic about information security to successfully compete this course. Pre-Requisite: Track-IM Offered Semester: Upon Request

ICT556 RFID Technologies (3,0,3)

This course provides the students with an understanding of the fundamentals of Auto IDs (machine readable IDs) and its uses in our life. The course then focus on RFIDs and goes in depth. Starting with fundamentals of wireless technology (as RFID is based on wireless), its various components, how it works, standards, operations and ends on applications of RFIDs including Internet of Things (IoT). Pre-Requisite: Track-NCC Offered Semester: Fall

ICT651 Computer Communication Networks & Simulation – I (2,1,3)

This is a PhD level course that focuses on the architecture and performance evaluation of wireless and wired network protocols for data and telecommunications networks. Students are expected to have a strong mathematical background and an understanding of probability theory. Topics discussed will include: queuing theory, performance of data link and network layers; flow and congestion control and routing; Networks considered include Sensor, Local, Metropolitan and Wide Area Networks as well as broadband, satellite, mobile and wireless networks. Network simulations and Wireless Sensor Networks test bed will

also be used to establish certain concepts where possible.

Pre-Requisite: CSE 248, MTS 102 Offered Semester: Upon Request

ICT654 Computer Communication Networks & Simulation - II (2,1,3)

This is a continuation of the Computer Communication Networks and Simulation-I (CCNS-I) course at the PhD level that will focus on the architecture and performance evaluation of network protocols for wireless networks. As required in CCNS-I, students are expected to have a strong mathematical background and an understanding of probability theory as well as a good working knowledge of programming concepts. Topics discussed will include: simulation of advanced concepts in queuing theory, performance of wireless networks, including 802.11x (WiFi), WiMax and Long Term Evolution (LTE) network. The prime emphasis in the course will be towards completion of projects initiated during CCNS-I and publishing of results. Time permitting, issues pertaining to data link; network layers; flow and congestion control and routing may be discussed. Pre-Requisite: ICT 651

Offered Semester: Upon Request

ICT659 Wireless Sensor Networks (1,2,3)

This focus of this PhD level course is on the research aspects of wireless and sensor networks. Students are expected to have a good understanding of data communications and networks as well as a working knowledge of programming concepts. The course will be lab intensive with 2 credit hours for labs and 1 credit hour for theory. The objective of the labs will be to expose students to extensive hands-on programming of sensor networks. In addition simulation of sensor networks will be conducted where necessary. Topics discussed will include: physical layer, MAC Layer, IEEE 802.15.4 and ZigBee, routing protocols, energy management, mobility, and sensor network programming. An important component of the

course will be conduct of a research project and publishing of results. Time permitting, issues pertaining to time synchronization, localization and security may also be discussed. Reading assignments will be given from both books, training material as well as published papers.

Pre-Requisite: CSE 248, CSE 141, MTS 102 Offered Semester: Upon Request

ICT660 Advanced Topics in Wireless Sensor Networks (1,2,3)

This course will build up on the concepts studied in ICT659 (Wireless Sensor Networks) and will pursue existing and new research topics. The new areas of research will be based on focusing on recent advances in the field of wireless sensor networks, and in particular will focus on cross-layer and context-aware protocols for sensor networks. The course will be lab intensive with 2 credit hours for labs and 1 credit hour for theory. The objective of the labs will be to expose students to extensive hands-on programming of sensor networks. In addition simulation of sensor networks will be conducted where necessary. Group and individual research topics will be pursued with possibilities of international research collaboration. Topics discussed will include: cross-layer design of wireless sensor network protocols; implementation of SMAC (Sensor Medium Access Network) protocol, and other recent cross-layer protocols in TinyOS; concepts of context-aware protocols. An important component of the course will be conduct of a research projects and publishing of results. Detailed topics covered would be based on the individual research topics selected which will subsequently be covered in the mid-term and final exams. Important issues will relate to the MAC layer, time synchronization, and energy efficient protocols. Reading assignments will be given primarily from recent research papers.

Pre-Requisite: ICT 659

Offered Semester: Upon Request

ICT661 Applications of Mathematical and Computational Techniques to Networking (3,0,3)

The course focusses on the practical applications of mathematical and computational techniques to networks. Using graph theory and statistical techniques, computational models of different networks are developed and analysed. Typical problems such as shortest path optimization, max flow min cut algorithm, travelling salesman problems are computationally modelled. Pre-Requisite: Track-NCC
Offered Semester: Upon Request

ICT 662 WSN P rotocols and Appli cations (3,0,3)

This is a broad-based PhD level course that focuses on a review of the current trends in Wireless Sensor Network protocols, applications, implementations and standards. Students will be expected to conduct a broad literature review of the field from the academic research as well as the industry implementation and standardization points of view. The topics will be covered initially of the various protocol layers and subsequently of advanced topics. At each stage emphasis will be given to the following issues: academic research direction, industry implementation, standardization and finally future research directions. Students will be expected to review the literature and present presentations with focus on debating the future direction of research in each selected area. Discussions will also focus on the direction of the academic community vis-à-vis the WSN industry. A detailed review of the various research areas that exist in WSN along with the innovations being explored in each area will be routinely conducted. A broad range of papers will be selected for review and their conclusions will be analyzed. A review of industry implementation trends and standardization efforts will be made. The outcome of this course will be to equip current PhD students with a comprehensive overview of the field which will allow them to select future

research topics, or to modify their existing research areas to meet future demands in this field. Students will also be expected to select a research topic or modify their research topic to meet the demands of the evolving industry. They will also compare and contrast existing research areas to determine futuristic areas of research.

Pre-Requisite: CSE 248
Offered Semester: Upon Request

Department of Mathematical Sciences

MATHEMATICS COURSES

MTS101 Calculus-1 & Plane Geometry

This course develops concepts of Functions and Algebra of Functions, Limits and Continuity of Functions, Derivability and Integrability. Techniques and associated properties are taught in detail specially the differential properties leading to better understanding of curve sketching. Theorems like Rolle's theorem and the Mean Value Theorem to Taylor's and Maclaurin's Expansion are taught to lay down foundations for higher level courses. Integrals as sum and representing areas leading to techniques of integration are taught with rigor. Pre-Requisite: College Algebra or Inter / A-Level Math.

MTS102 Introduction to Statistics

This is intended as an introductory course for data analysis, presentation, and probability. The aim is to acquaint students with the basic methods of data handling, which are required for different kinds of analysis as well as for the requisite knowledge of Advances Statistics and Business Research Methods, in their academic terms.

MTS104 Calculus with Application-I (pre-requisite: Mathematics at Intermediate or A levels or MTS105)

This course is meant for students not doing a major in mathematics. It covers the basic concepts in differential and integral calculus

of single variable functions, with an emphasis on applications in various areas. Wherever possible the mathematical rigor is reduced, in order to spare time for an in-depth understanding of the applications in business, management, social sciences, etc.

MTS106 Calculus with Applications-II (pre-requisite MTS104)

This course includes the basic concepts in differential and integral calculus of functions of two and more variables, with emphasis on applications in various areas. Wherever possible the mathematical rigor is reduced in order to spare time for an in-depth understanding of the applications in business, management, social sciences, etc.

MTS110 Mathematical Methods

The knowledge of methods and investigative techniques of mathematics employed in various domains is imparted in this course. The course has four major components, elements of Complex Variables, Infinite Sequences and Series, The Fourier Series and elements of Abstract Algebra. Successful students are thus prepared to understand higher level courses.

MTS111 Essential Software

This course has two components, Mat lab, and Latex. This is a first year standard course and assumes that the audience knows high-school mathematics, and has some basic understanding of functions and graphs. The use of Mat lab as a computational tool is introduced without dependence on any previous computer programming experience. The second component is LaTeX, which is a standard document production tool. Students are trained in LaTeX programming, and are exposed to mathematical document production with all formalities of the document in place.

MTS112 Applied Probability Theory (pre-requisite MTS202)

All Statistical inferences are based on Probability Theory. Probability distributions for



discrete and continuous data are introduced. Limit theorems, generating functions, bivariate distributions and sampling distributions of popular statistics are derived. Applications of distributions in real life problems are highlighted.

MTS201 Logic & Discrete Structures
(pre-requisite MTS101)

The main purpose of this course is to introduce the students to a variety of discrete mathematical and combinatorial structures related to science, engineering, and computing. The course will provide an opportunity to learn the nature and scope of discrete mathematical structures in the areas of Mathematical Logic & Set Theory, Elementary Number Theory, Analysis of Algorithms, Elementary Combinatorics & Discrete Probability, and Graph Theory.

MTS202 Statistical Inference
(Pre-Requisite: MTS101, MTS102)

This course is intended for sampling, decision analysis, and data modeling using sample information. This course provides basic methods for research and practice in social and physical sciences and business administration. The aim is to acquaint students with the advanced methods of data.

MTS203 Linear Algebra

This is a standard sophomore course of linear algebra, and aims to ground students in linear algebraic concepts and structures, such as vector spaces: direct sums of sub-spaces of a finite dimensional vector space as well as linear transformations. Deeper issues such as dimension theorem, null spaces, image spaces of linear transformations, rank and nullity of a linear transformation, relation between rank, nullity, and dimension of the domain of a linear transformation, etc. are then introduced. The ultimate aim is to empower students sufficiently so that they may use linear algebraic techniques in diverse application areas, such as, designing good numerical solution techniques for applied problems.

MTS204 Calculus-3
(pre-requisite MTS232)

This course is the third in a sequel of three undergraduate courses in calculus. It requires the audience to be versed in topics of analytic geometry of plain and space curves. It builds on these concepts, and extends to advanced concepts of multivariate calculus, which include the limit and continuity of multivariate functions as well as differentiability. The partial derivatives and multiple integrals are dealt with rigor. The course concludes on general vector calculus.

MTS210 Regression Analysis and Experimental Design (pre-req MTS112)

Simple linear regression model is studied in detail. Inverse regression, general linear test and multiple linear regression are introduced. Some elementary Designs of Experiments are also introduced. Computation is carried on by SPSS or SAS.

MTS211 Discrete Mathematics

This course serves two purposes. It aims to introduce symbolism and logic as well as treating the subject of discrete mathematics at a sophomore standard. Topics at a glance include Logic, Discrete Sets, Functions, Algorithms, and their complexity, as well as Mathematical Reasoning, and Methods of Proofs.

MTS212 Business Mathematics & Linear Algebra (pre-req MTS106)

Algebra of Matrices and matrix methods of solving systems of linear equations are taught in this course with particular emphasis on application to areas in business and management. Linear Programming Problem is also taught as a tool of optimization in business and management. Some other mathematical models and tools of practical importance are also included in this course.

MTS232 Calculus-2 & Solid Geometry
(Pre-Requisite: MTS101)

Concepts from calculus and geometry are integrated in this course. Topics include multivariate differential calculus and their applications. It is expected that students taking this course would develop a good understanding of how calculus might be employed for solving geometrical problems.

MTS241 Introduction to Differential Equations (pre-req MTS101)

This course will mainly focus on the theory and applications of Ordinary Differential Equations (ODEs). The students will be introduced to the terminology, formulation and solution procedures for ODEs in the context of physical sciences and engineering problem. They will be able to appreciate the scientific significance of applications and computational procedures for ODEs.

MTS301 Real Analysis
(Pre-Requisite: MTS232)

This is a course on Real Analysis, Topics include completeness properties of the real numbers, limits of numerical sequences, properties of continuous functions on closed bounded intervals, Point-wise and uniform convergences. This course aims to provide a pure grounding in Real Analysis, and therefore facilitates related courses such as Stochastic Processes.

MTS302 Complex Analysis
(Pre-Requisite: MTS301)

This course complements the Real Analysis course MTS 301. It includes the algebra and the geometry of complex numbers, Cauchy-Riemann equations, and harmonic functions. Advanced topics covered expose students to Laurent series, uniqueness of representation, and zeros of analytic functions.

MTS303 Advanced Differential Equations
(Pre-Requisite: MTS241)

This course mainly deals with partial differential equations (PDEs). This course exposes students to first order PDEs, the classification

of second order PDEs, and their canonical forms. Then the standard diffusion, heat, and the wave equations in Cartesian, cylindrical, and spherical polar coordinates are treated. Students finishing the course the skills required for modeling and solving important problems in a diverse application area.

MTS304 Stochastic Processes
(Pre-Requisite: MTS202, & MTS301)
Stochastic Processes form the basis of mathematical models of many phenomena which have a mathematical side to them. They include credit-crisis, stock movements in stock markets, dynamics of financial derivative prices as well as the dynamics of elementary particles. The goal of this course is to impart the understanding and the appreciation of non-deterministic phenomena, and their mathematical treatment.

MTS305 Abstract Algebra-I
(Pre-Requisite: MTS110)
This is a pure mathematics Abstract Algebra course, and aims to develop the skills of recognizing mathematical abstractions. Purely abstract concepts such as groups, subgroups, generators, cyclic groups, cosets, and quotient sets are introduced first. Followed by permutations, symmetric, and alternating groups, rings, finite and infinite fields.

MTS306 Abstract Algebra II
(Pre-Requisite: MTS305)
This course aims to teach Abstract Algebra at a senior level, and requires Abstract Algebra 1 as a pre-requisite. Topics in brief include: review of rings and fields, introduction to integral domain, ideals, prime, and maximal ideals.

MTS411 Functional Analysis-I
(Pre-Requisite: MTS302)
This senior level Functional Analysis course deals with the following topics: Completeness, convergence, and completion of metric spaces.

Normed spaces, Banach spaces, Bounded and continuous linear operators, and functional, dual spaces.

MTS412 Functional Analysis-II
(Pre-Requisite: MTS411)
This course brings the subject of Functional Analysis to a sufficiently sophisticated standard, suitable for senior level students. In brief, topics incorporate affine spaces, Banach spaces, and Hilbert spaces. Students who successfully finish this course are expected to apply the knowledge for further research in this and related fields.

MTS413 Numerical Analysis
(Pre-Requisite: MTS232)
Mathematical models in different problems happen to be much more sophisticated than the available analytic solution methods. In such problems switching to numerical and computational techniques that aim to approximate the real solution with prescribed accuracy become necessary. This course imparts the skills of numerical analysis and techniques for solving different problems.

MTS414 Scientific Computing for Linear PDEs
(Pre-Requisite: MTS303 & MTS413)
Linear PDEs model a wide variety of interesting problems in science and finance. This course aims to impart the theoretical foundation as well as the practical implementation of some of the methods used for solving PDEs. The numerical solution of important PDEs, such as the Poisson and the Helmholtz PDEs is dealt with in this course.

MTS431 Numerical Solutions of PDEs
(Pre-Requisite: MTS306)
This course aims at developing computational skills required for numerically solving partial differential equations (second order). Different discretization methods are introduced from scratch and different solution strategies, some for linear PDEs and some for non-linear PDEs

are built. Successful completion of this course implies having the skill-set required for direct numerical solutions of PDEs.

MTS432 Integral Equations
(Pre-Requisite: MTS303)
Some of the major topics in this course include: Linear integral equations, Fredholm integral equations, Eigenvalue problems, Volterra integral equations, Singular integral equations.

MTS433 Advanced Numerical Analysis I
(Pre-Requisite: MTS301 & MTS413)
The main aim of this course is to teach modern techniques of solving a system of linear equations, obtained from PDE discretization of various kinds. Students taking this course should be able to contribute to the development of these iterative solvers as well as solve any consistent system of linear equations.

MTS434 Advanced Numerical Analysis II
(Pre-Requisite: MTS453)
This is an advanced course for the iterative solution of discretized Partial Differential equations of the second-order. The iterative solution technique taught here is Multigrid. Concepts related to solving PDEs on multiple resolutions that correspond to each other are built here.

MTS435 Differential Geometry
(Pre-Requisite: MTS241 & MTS301)
The course introduces the basic language of differentiable manifolds, important in understanding geometric objects independent of any ambient space. On completion of this course, student is expected to have the basic tools of modern geometric methods applicable in modern physics.

MTS437 Fluid Dynamics I
(Pre-Requisite: MTS303)
The study of fluid mechanics helps to understand many other aspects of engineering and applied sciences, for example food industry,



energy conversion systems, and fluid control systems. Fluid mechanics deals with fluids either in motion or at rest. The aim of this course is to study the famous principles of classical mechanics such as Newton's laws of motion, conservations, and basic equations used in fluid mechanics.

MTS438 Fluid Dynamics II
(Pre-Requisite: MTS437)

This course follows Fluid Dynamics I and deals with Rheology and some of its properties like shear thinning and shear thickening viscoelasticity are discussed. Students are also taught geostrophic flow and Kelvin-Helmholtz instability.

MTS441 Financial Mathematics with a Computational approach

Financial mathematics is the basis of understanding financial markets, which are deriving the world economy today. This course aims to introduce financial mathematics from a sufficiently elementary level to a computational level. Basic stochastic processes are introduced and market dynamics are connected to well-defined processes. Stochastic calculus is also taught in this course. Successful students will have the skills required for setting and pricing derivatives. Pre-Requisite: MTS304 & MTS306

MTS442 Computational Finance

Many models used in finance end up in formulation of highly mathematical problems. Therefore, we have to look for efficient numerical algorithms for solving complex problems such as option pricing, risk analysis, portfolio management, etc. This course provides a systematic introduction to the development, analysis and implementation of numerical methods for solving financial problems.

Pre-Requisite: MTS441

MTS443 Modern Algebra I (Galois Theory & Applications)

Galois Theory is one of the most spectacular mathematical theories. It gives a beautiful connection between the theory of polynomial equations and group theory. The aim of this course is to impart a comprehensive and working knowledge of the classical field and Galois Theory from a theoretical and a computational perspective.

Pre-Requisite: MTS413

MTS444 Modern Algebra II
(Commutative Rings & Fields)

Commutative Algebra deals with the properties of commutative rings and modules over them. This course aims to introduce commutative algebra and also present it in conjunction with homological algebra. Successful completion of this course implies the abilities required to work in core areas of mathematics such as algebraic geometry and algebraic topology.

Pre-Requisite: MTS443

MTS445 Measure Theory I

Measure theory is the study of measures. It generalizes the intuitive notions of length, area, and volume. The objective of this course is to introduce the notion of abstract measure space and the corresponding integral. After this course, students will be able to use these new expertise acquired in the context of the analysis and probability courses.

Pre-Requisite: MTS301

MTS446 Measure Theory II

This course is a brief introduction to the theory of Lebesgue Integration. The aim of this course is to introduce the Lebesgue measure on $\mathbb{R}$, and to show how this theory leads to the Lebesgue integral on $\mathbb{R}$. On successful completion of this course students will be able to understand the manipulation of Lebesgue integrals using basic theorems.

Pre-Requisite: MTS445

MTS447 Operations Research I

Operational Research is a discipline that deals with the application of advanced mathematical techniques to help make better decisions. The aim of this course is to introduce the key aspects of operations research methodology. This course will introduce mathematical models, including transportation, network, linear and integer programming. Successful completion of this course implies that a student has the required skills to formulate, analyze, and solve mathematical models that represent real world problems.

Pre-Requisite: MTS203

MTS448 Operations Research II

This course is a follow up course of Operation Research I. It will cover topics such as network optimization models, branch-and-bound algorithm for combinatorial optimization and advanced integer programming.

Pre-Requisite: MTS447

MTS451 Topology I

Topology is an important Mathematical Language, which plays a role in virtually all areas of modern mathematical inquiry. The aim of this course is to introduce topology, covering topics fundamental to modern analysis and geometry. Successful students will have the skills required for advance courses like algebraic topology and differential topology.

Pre-Requisite: MTS301

MTS452 Topology II (Differential Topology)

Differential topology deals with the extension of differential calculus to manifolds. The main aim of this course is to provide some basic tools with which to study manifolds and, as is the case with the best mathematics, gives proofs of results about familiar objects that are not easy to obtain by elementary means. Successful completion of this course implies the abilities required to work in the category of smooth manifolds.

Pre-Requisite: MTS451

MTS506 Quantitative Methods for Decision-Making

One of the primal aims of the course is to give a thorough insight and understanding of fundamental statistical concepts in the context of social & management sciences, in particular economics and management problem situations. The objective of this core course is to make students critical consumers of statistical analysis using available software packages.

MTS511 Advanced Real Analysis

This is a 3 credit hours course designed for a graduate degree in mathematics. This course starts with the basic concepts of set theory and then gradually builds up preliminary concepts of real analysis such as real number system, sequence of real numbers, open sets and closed sets. This course is more dynamic and solution-oriented than demonstrative and rote-based.

MTS512 Measure Theory & Integration

This is a 3 credit hours course on Measure Theory designed for advanced graduate students of PhD Mathematics. The course treats Measure Theory in an abstract and a rigorous way. Additionally, some topics from Functional Analysis are also included, in order to understand the Measure Theory in its real spirit. Course has been divided into four modules.

MTS513 Topics in Algebra

Algebra is the language of modern mathematics. This course introduces students to algebra through a study of group and ring theories. Group theory studies the algebraic structures known as groups. Groups recur throughout mathematics, and the methods of group theory have strongly influenced other disciplines, both inside and outside mathematics, such as geometry, number theory, cryptography, chemistry and physics. Ring theory is also an important area of abstract algebra. It is the study of rings which

is an algebraic structure in which addition and multiplication are defined and have similar properties to those of integers. The aim of this course is to introduce the students to some of the basic ideas and results of group and ring theories through case studies.

MTS514 Topics in Commutative Algebra

In this course, the object of study is predominantly a commutative ring, hence the title commutative algebra. We introduce theory of commutative rings along with modules on them as our main tool of representation in studying such rings. We also introduce the basic homological characterization of modules with the help of exact sequences that has many applications both in Algebra, Topology and Geometry in general, at an advanced level. Fractions and localizations are introduced with the intention of application-besides algebra-both in geometry and analysis where they arise naturally as germs of functions locally determining both the geometry and analysis, of which meromorphic functions on Riemann Surfaces is just a special case. The idea of Neothriannes is very important in obtaining strong results that has application in many branches of mathematics along with Hilbert basis theorem.

Pre-Requisite: MTS513

MTS515 Advanced Numerical Analysis

This is a 3 credit hours course designed for a graduate degree in Mathematics. This course is basically Numerical Functional Analysis that deals with both theoretical and numerical issues of partial differential equations such as condition number, perturbation, spectral theory and also thorough treatment of some of the advanced methods for linear and non-linear systems.

MTS516 Topology

This course introduces topology at graduate level covering both general and algebraic aspects. Starting from basic point set topology, one of the goal is to prepare students

attending the course for applications in mathematical analysis besides topology itself at advanced level. On the other hand algebraic topology is introduced to help develop necessary tools for calculations involving invariants, and develop necessary background in dealing classification issues up to an equivalence.

MTS521 Scientific Computing

This course is aimed at developing PDE based Problem-solving skills. The course takes on from a fairly basic level such as problem discretization, and carries on to a relatively advanced stage, such as developing and trying novel pre-conditioners for a discrete linear system. Successful students are expected to be fully capable of actually using computers to solve a wide variety of applied problems. Pre-Requisite: MTS515

MTS525 Stochastic Processes II

This course is a successor to Stochastic Processes I and requires participants to understand the basic stochastic processes, and probability space laws. Successful students are expected to understand continuous and discrete processes and to successfully apply this knowledge to solve applied problems.

Pre-Requisite: MTS304

MTS529 Stochastic Differential Equations

This course is aimed at providing students the background that they will require for stochastic analysis of financial derivatives, and developing exotic contingent claims later on. Sound comprehension skills for stochastic processes and equations are expected of successful students.

Pre-Requisite: MTS304

MTS533 Integral Equations

This course emphasizes concepts and techniques for solving integral equations from an applied mathematics perspective. Material is selected from the following topics:



Volterra and Fredholm equations, inverse scattering transform, and group theory. Examples are taken from fluid and solid mechanics, acoustics, quantum mechanics, and other applications.

MTS537 Mathematical Astronomy

The purpose of this course is to provide the students with fundamental knowledge of the mathematical tools used in exploring positional astronomy. Starting with the basics of spherical trigonometry, it describes the various terrestrial and celestial coordinate systems and coordinates transformations. This course also explores the basic issues in celestial dynamics starting with Kepler's Planetary laws and the Kepler's equation.

MTS539 Homological Algebra

The approach we intend to follow in this course is one that can be considered as a special case of taking Homological Algebra as a theory of a function of two variables, one abelian and the other non-abelian. The other approach comes from Grothendieck which converts it into the theory of a single abelian variable, leading to algebraic geometry in its range of applications.

Pre-Requisite: MTS513

MTS541 Computational Algebraic Geometry

The main focus in this course is the computational aspects of algebraic geometry, hence the title. Since many major calculations in algebraic geometry involve calculations only in the corresponding affine neighborhoods, major relevant ideas are all developed from scratch in context of affine algebraic geometry.

Pre-Requisite: MTS513

MTS545 Applicable Modern Geometry I

In this course, we intend to establish the transition from vector calculus in $\mathbb{R}^n$ to a more general setting, that of manifold, and show that the former is just a special case of the latter. This also helps to us establish a deep and rich interplay between topology and

analysis, especially when we do integration on manifolds.

Pre-Requisite: MTS511, MTS513, MTS516

MTS549 Algebraic Geometry I

In this course, the primary object of study is the classical algebraic variety (or a pre-variety i.e. EGA) with affine varieties serving as its local model. For this course, a basic background in commutative algebra is assumed. However, to handle all algebraic instruments necessary for both local and global analysis of varieties, required details can be filled. Some intersection theory is included, in both affine and projective cases, to help student develop an appreciation for the advanced topics in the context of applications.

Pre-Requisite: MTS513, MTS516

MTS551 Scientific Computing & Software Calculus-3

Same as MTS521 Scientific Computing.

MTS553 Algebraic Cycles I

This course provides a rigorous introduction to the most important objects and concepts of algebraic geometry and number theory. At the end of this course students will be familiar with the concept of schemes and higher chow groups.

Pre-Requisite: MTS513

MTS557 Arithmetic Algebraic Geometry

This is an introductory course on Diophantine geometry that deals with Fermat's equations as well as Diophantine equations and inequalities. At the end of this course students will be familiar with L-functions and zeta-functions.

Pre-Requisite: MTS513

MTS561 Exploratory Data Analysis

The aim of this course is to provide an understanding of the nature of scientific data and the subsequent need for statistical analysis. Students will enhance their statistical expertise and critical judgment in scientific

studies, including an awareness of ethical issues in research and analysis.

MTS565 Mathematical Physics I

The course includes the following topics: Complex Analysis, Ordinary Differential Equations, and Partial Differential Equations and Boundary Value Problems.

MTS569 Statistical Data Mining & Knowledge Discovery

Development of high performance computing facilities have given way to testing and implementation of those concepts that were assumed impossible, and so were not given their proper status. Computing facilities provided the chance to breakthrough the conventional requirement of mathematical rigidity and formality of solutions learning. Statistical Data Mining and Knowledge Discovery bring together a stellar panel of experts to discuss and disseminate recent developments in data analysis techniques for data mining and knowledge extraction. This carefully edited collection provides a practical, multidisciplinary perspective on using statistical techniques in areas such as marketing research, risk management, financial forecasting and classification, rule based systems in decision support systems, image and speech analysis, health informatics.

MTS573 Statistical Machine Learning

Please see on website

MTS577 Galois Theory

This course gives a detailed introduction to Galois Theory that starts with review of group action on a set and Sylow Theorem with its application. Students will understand the concept of field extension and Galois groups. Students will also study separable and inseparable extensions.

Pre-Requisite: MTS513

MTS621 Numerical Treatment of P.D.E

This course is an introduction to numerical methods for hyperbolic partial differential equations. Successful students are expected to be able to solve a wide variety of hyperbolic PDEs numerically.

Pre-Requisite: MTS515

MTS625 Financial Mathematics I

This course develops concepts of financial mathematics, mainly for pricing financial derivatives. Another aim of the course is to develop and re-visit stochastic calculus concepts applied to options and different exotic contingent claims.

MTS629 Financial Mathematics II

This course aims to develop numerical methods for solving different PDEs related to mathematical finance. Tool-development in Matlab and C also forms a part of this course. Successful students are expected to be comfortable solving different finance problems related to pricing of derivatives.

Pre-Requisite: MTS515

MTS637 Computational Astronomy

In this course advanced techniques of computations of the major celestial phenomenon based on positional astronomy are explored. The objective is to prepare students to compute details of astronomical events and phenomena independent of any commercial software.

Pre-Requisite: MTS537

MTS645 Applicable Modern Geometry II

This course goes beyond the study of the fundamental instruments of differential geometry of manifolds. Moreover, it investigates some of the algebraic and topological invariants associated with a manifold. After completing this course the student will be expected to use the techniques learned in theoretical physics, or pursue his/her studies further in differential geometry.

Pre-Requisite: MTS545

MTS649 Algebraic Geometry II

This course is the core of modern algebraic geometry as pioneered by Grothendieck and his "French-School." This course encompasses the basic ideas that form the basic language of modern algebraic geometry, the language of sheaves and schemes. A comprehensive introduction to Sheave Theory is developed to help students learn the basic tools required, in context of the Moduli Theory of sheaves on schemes.

Pre-Requisite: MTS549

MTS653 Algebraic Cycles II

This course follows Algebraic Cycles I. It provides an in-depth knowledge of higher chow groups and additive higher chow groups.

Pre-Requisite: MTS549

MTS657 Polylogarithms

This course can also be studied after Algebraic Cycles I. Students are familiarized with polylogs, infinitesimal and tangential versions of polylogs, and their relations with the groups generated by geometric configurations.

Pre-Requisite: MTS557

MTS661 Multivariate Statistical Analysis

Multivariate analysis arises with observations of more than one variable, when there is some probabilistic linkage between the variables. In some cases, it might make sense to isolate each variable and study it separately. In most cases, however, the variables are interrelated in such a way that analyzing the variables in isolation may result in failure to uncover critical patterns in the data. The construct of the course also includes computer assignments.

Pre-Requisite: MTS525

MTS665 Mathematical Physics II

This is an advanced level course that builds the basic mathematical techniques to be used in exploring deeper issues in the theoretical and particle physics.

Pre-Requisite: MTS565

MTS671 Monomial Algebra

Monomial ideals are ideals in polynomial rings that can be described in combinatorial and geometric terms. These descriptions make monomial ideals quite accessible by allowing us to employ intuition and tools from discrete mathematics and geometry to study them.

Pre-Requisite: MTS514

MTS691 Topics of Special Interest I

To be described by the supervisor offering the course.

MTS692 Topics of Special Interest II

To be described by the supervisor offering the course.

SCI105 Physics-I (Mechanics)

The course includes the following topics: Statics-Mathematics & Physics of Scalars & Vectors, Calculation of CM & CG, Newton's Law, Work Energy Theorem and its Application, A Brief Introduction to the Fundamentals of Relativistic Mechanics and Quantum Mechanics, etc.

SCI205 Physics-II (Electromagnetism)

This course covers elementary topics in Vector Analysis, namely Electrostatics, Magnetism, and Induction.



STATISTICS COURSES**STA601 Linear Statistical Models**

This course focuses on theory of the Gaussian linear models with applications to illustrate and complement the theory. The theory and applications of standard tests and estimators in multiple regression and ANOVA models are covered in detail. The course then covers tools for judging the failure of model assumptions, residual diagnostics, model selection and transformations.

STA602 Generalized Linear Models

This course provides an overview of generalized linear models, which extend the linear modeling framework to allow response variables that are not normally distributed. The course first reviews the general linear model with continuous response and considers its restrictions, motivating the development of generalized linear models (GLMs).

STA603 Advanced Probability Theory

This course introduces the elements of advance probability theory. The course starts with the description of random variables, expectations and independence and convergence concepts. Then spaces of Probability measures and characteristic functions are discussed.

STA604 Stochastic Processes

Stochastic processes are collections of interdependent random variables. This course is an advanced treatment of such random functions, with emphases on extending the limit theorems of probability from independent to dependent variables, and also on generalizing dynamical systems from deterministic to random time evolution. Familiarity with advance probability is required, but the course will emphasize on developing a sound and intuitive understanding of the material.

STA605 Advanced Statistical Inference

This course covers the main aspects of Statistical inference. The approaches to Statistical inference i.e. frequent and Bayesian are introduced. The decision rules and criteria for decision rules, minimax are discussed.

STA 606 Multivariate Statistical Analysis

This course aims at covering the Statistical principles and techniques of multivariate Statistics. Estimation, an inference for the mean vectors for multivariate data are introduced and several associated tests are discussed e.g. Hotelling's T2 test, Wilks, Pillai-Lawley, Roys tests, etc.

STA611 Time Series Analysis and Forecasting

This course introduces the fundamental Stationary and non-Stationary models and associated estimation, inference and diagnostic and forecasting tools for univariate and multivariate time series.

STA612 Experimental Design and ANOVA Models

This course is aimed at covering the models and techniques for the analysis of the data arising from the planned experiments. The basic building blocks of randomization, replication, local control, orthogonally are discussed.

STA621 Statistical Machine Learning

Statistical machine learning merges Statistics with computational science, computer science, systems science and optimization. Machine learning and Statistics are one and the same discipline, with different communities of researchers attacking essentially the same fundamental problems from different perspectives.

STA622 Statistical Data Mining and Knowledge Discovery

This course carefully provides a practical, multidisciplinary perspective on using Statistical

techniques in areas such as marketing research, risk management, financial forecasting and classification, rule based systems in decision support systems, image and speech analysis and health informatics.

STA631 Classifications and Pattern Recognition

This course combines the statistical and computer science techniques for classification and recognition of patterns in complex data sets. The course starts with the discussion of linear classifiers, linear discriminant function for minimum mean square error, binary outputs, and perception learning algorithm. Nearest neighbor decision rules, convergence, finite sample considerations, use of branch and bound methods are covered next.

STA632 Optimization Techniques

This course covers a variety of optimizing techniques covering linear and non-linear programming, transportation and assignment problem, network flows, branch and bound methods. Simplex method, two phase method and Charnes' M-techniques are discussed.

STA641 Bayesian Statistics

This course provides an introduction to the theory and application of Bayesian Statistical methods. The course begins with fundamental notions such as probability, exchangeability and Bayes' rule and covers topics such as one parameter models, the normal models, and posterior approximations with Gibbs sampler.

STA642 Reliability and Survival Analysis

This course introduces the elements of reliability theory and survival analysis. The course starts with discussion of binary coherent structure, minimum, lower/upper bounds of reliability functions, bridge structure, closure properties of coherent structures of IFRA components and the concept of time order and random censoring are covered. Estimation and inference on several life distributions e.g. exponential, Gamma, Weibull,

Lognormal, Pareto is discussed using maximum likelihood. The course then focuses on Life tables, failure rate, mean residual life, aging classes IFR, IFRA, NBU, NBUE, HNBUE. Semi-parametric regression for failure rate data, Cox's proportional hazard models with one and several covariates is also discussed.

STA651 Non-Parametric and Semi-Parametric Statistics

This course presents the Statistical and mathematical principles and applications of smoothing techniques using non-parametric and semi-parametric methods. Non-parametric functions estimation for cross sectional data using kernel smoothing method is introduced. Several methods of non-parametric regression estimation are covered. The course then focuses on semi-parametric generalized regression models using the link function or index argument with generalized partial linear models, additive and partial additive models. The generalized additive models concentrate on additive structure of the index with fixed link function to balance the difficulty of high-dimensional smoothing with the flexibility of non-parametrics.

STA652 Simulation and Resampling Methods

This course discusses the Monte Carlo simulation and resampling methods that allow researchers to explore and often relax both theoretical and statistical assumptions, to better exploit their data. These methods allow researchers to use computers and data as experimental laboratories for data analysis.

STA661 Advanced Operations Research

The course aims at providing the knowledge of interior point techniques for linear programming problems including techniques that constitute the alternative to Simplex point methods, especially for large-scale optimization.

STA662 Stochastic Financial Models

This course introduces continuous financial time series concepts and their applications in derivatives pricing including forward and future contracts, arbitrage and hedging, options market, properties and stock option prices of both American and European options.

STA 671 Financial Time Series

This course aims at modelling, forecasting and analysis of financial time series. The course begins with the discussion of returns and their empirical characteristics, measuring dependence between returns using correlation, Kendall's Tau, Spearman's Rho and tail dependence..

STA672 Advanced Econometrics

This course covers the estimation and inference of single equation and multi equation regression models. The course briefly covers simple and multiple regression, and violation, implication and remedial of the assumptions of the classical linear regression

STA681 Econometric Analysis of Time Series

This course is aimed at covering the econometric methods in the analysis of time series data. The course briefly covers univariate time processes and their mathematical properties. Tests of unit roots are discussed before moving on to vector auto regression, co-integration and error correction model.

STA682 Longitudinal and Panel Data Models

This course begins with the introduction and applications of the longitudinal and panel data from many disciplines in which longitudinal data analysis is used. The heterogeneity and dynamic features of the data are also covered.

STA691 Functional Data Analysis

This course focuses on the theory and application of functional data analysis. The functional data analysis is about the analysis

of information on curves or functions. The course will cover the methodological aspects of functional data analysis.

STA692 Functional Time Series Analysis

This course introduces the analysis of functional time series that are curves observed sequentially in time, one curve being observed in each time period e.g. curves formed by annual death rates as a function of age, or annual fertility rates as age, curve being the yield of a bond as a function of the maturity of a bond.



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City Campus	1105	1005	1502	1008 & 1005	1468	146

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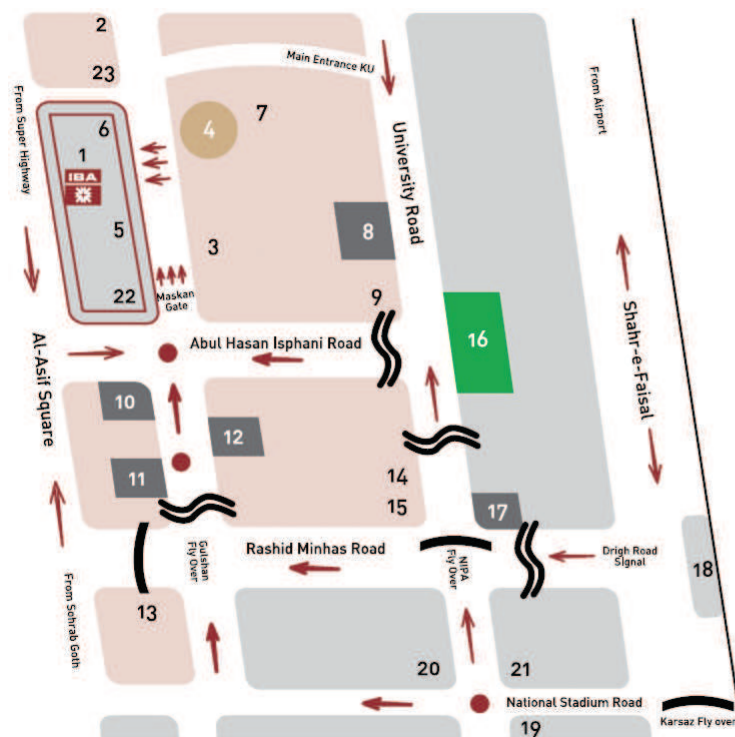
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Samiya Shaikh
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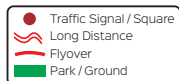


Direction Map

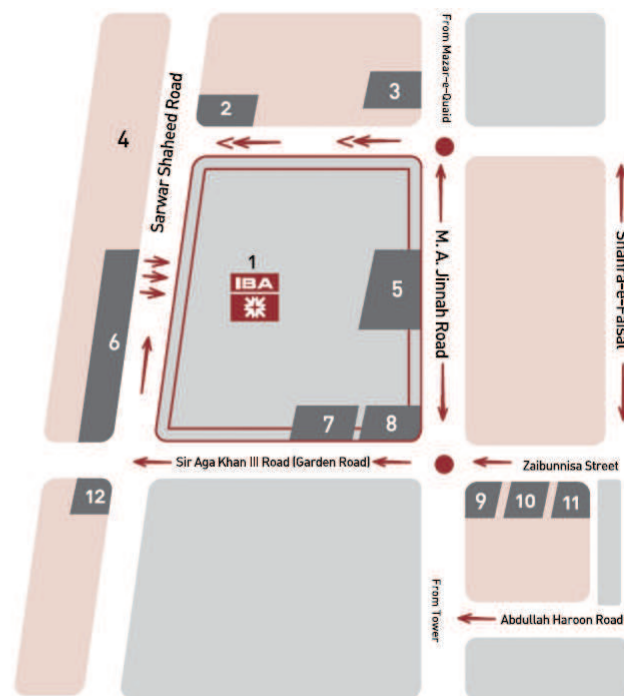
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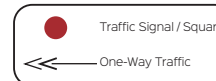
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|-------------------------------------|------------------------------|---------------------|
| 1. IBA Main Campus | 10. Maskan Apartments | 19. Civic Center |
| 2. IBA Staff Town | 11. Disco Bakery | 20. Hasan Square |
| 3. IBA Boys Hostel | 12. KFC | 21. Expo Center |
| 4. Cricket Ground | 13. Oxford School | 22. Bhayani Heights |
| 5. Commerce Department | 14. Petrol Pump | 23. HEJ |
| 6. Applied Economic Research Center | 15. Nadeem Medical Centre | |
| 7. United Bank Limited | 16. Safari Park | |
| 8. NED University | 17. NIPA | |
| 9. SGTC | 18. Drigh Road Train Station | |



City Campus



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|-------------------------------------|-------------------------|
| 1. IBA City Campus | 10. Bambino Cinema |
| 2. OMI Hospital | 11. Star Cinema |
| 3. Prince and Princes Cinema | 12. Anklesaria Hospital |
| 4. Headquarter Pakistan Coast Guard | |
| 5. Nishat Cinema | |
| 6. APWA Building | |
| 7. Pakistan Medical Association | |
| 8. Kandawala Building | |
| 9. Lyrics Cinema | |



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JULY 2015

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13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

AUGUST 2015

Mon	Tue	Wed	Thu	Fri	Sat	Sun
31					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

SEPTEMBER 2015

Mon	Tue	Wed	Thu	Fri	Sat	Sun
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

Gazette / Public Holidays 2015

Labor Day	01 May - 15
Eid ul Fitr*	18, 19 & 20 July - 15
Eid ul Azha*	24, 25 & 26 Sep - 15
Independence Day	14 August - 15
Ashura*	23 & 24 October - 15
Birthday of Allama Iqbal	09 November - 15
Birth Anniversary of Quaid e Azam	25 December - 15

OCTOBER 2015

Mon	Tue	Wed	Thu	Fri	Sat	Sun
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

NOVEMBER 2015

Mon	Tue	Wed	Thu	Fri	Sat	Sun
30						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

DECEMBER 2015

Mon	Tue	Wed	Thu	Fri	Sat	Sun
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Local / Optional Holidays-2015**

Urs of Shah Abdul Latif Bhittai (14 Safar)**	26 November - 15
Death Anniversary of late Benazir Bhutto**	27 December - 15

Gazette / Public Holidays 2016

Kashmir Day	05 February - 16
Pakistan Day	23 March - 16
Labour Day	01 May - 16
Eid-ul-Fitr*	7, 8 & 9 July - 16
Independence Day	14 August - 16
Eid ul-Azha*	11, 12 & 13 Sep - 16
Ashura*	11 October - 16
Birthday of Allama Iqbal	09 November - 16
Birth Anniversary of Quaid e Azam	25 December - 16

Local / Optional Holidays-2016**

11 Rabiull Awal**	10 December - 16
Death Anniversary of late Zulfiqar Ali Bhutto**	4 April - 16
Urs of Shah Abdul Latif Bhittai (14 Safar) **	14 November - 16
Death Anniversary of late Benazir Bhutto**	27 December - 16

* Subject to sighting of the moon
** Subject to receiving notification from Govt. of Sindh



Notes

The Karachi Edge



The City of Karachi encapsulates a multitude of cultures, nations, architecture, sight-seeing places, career opportunities and so much more. It is a standing monument to the efforts of the Father of the Nation, whose dream is now a reality and which we now live in today. The 3rd largest city in the world with regard to population and the 20th largest metropolis in the world, its flyovers, high rises and expansive roads present never-ending opportunities for ambitious and creative minds looking for innovation and challenges. While holding its glorious title as the gateway to Asia, the city generates 65% of the total national revenue and is the major port city of the country.

This industrial, financial and commercial powerhouse of the country has more than 600 listed companies on its stock exchange and is the headquarters of most of the local and multinational companies in Pakistan. It offers ample career opportunities in various market sectors including financial institutes, oil and petroleum industry, FMCGS, multinationals, telecommunication / media, television, production, publishing, software production, business and market research, education and tourism and so many more.

Looking for recreation? This city will not disappoint you. Bowling, go-carting, Cineplex, amusement and water parks like Aladdin and Dream world, gaming zones, boating, and crabbing; it's all here. The Arena offers you the best ice- skating, rock-climbing and swimming experiences while concerts, theatres and drive-in cinemas await to give you the movie experience of your life.

That's not all. A city is incomplete without any landmarks of its history and culture and you will find plenty of these in the City of Lights. Top of the list is the white marble glory of the Quaid-e-Azam's Mausoleum. The most visited sight of all, this memorable place is home to hundreds of tourists who come to pay respects to the Father of the Nation and admire the beauty of the structure and the impressive change of guards' ceremony. In addition, you will find museums and art galleries like the Maritime, PAF and National Museums, the Fayzee Rahman Art Gallery, and Sadequain Gallery in Frere Hall, among others. And not to forget, the ancient and compelling splendor of the Mohatta Palace.

Finally, purely from a professional point of view, it is noteworthy that this city is a hub of local and international business organizations. All major employers of Pakistan are located in the City of Karachi, making it a perfect choice for a business school. IBA Karachi welcomes you to this extraordinary city and promises you the experience of your lifetime!

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