

Since 1955

Institute of Business Administration Karachi

Leadership and Ideas for Tomorrow

ARRENT REPORTS

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Program Announcement 2013-14

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# Our International Linkages and Strategic Alliances



#### Dear Readers,

This document aims to serve as a guide for those candidates who are seeking admission at IBA, both undergraduate and graduate level programs. The primary segment furnishes a general prologue to the institute, its faculty and scholastic backing utilities that will contribute to the intellectual growth of student. It introduces the policies, procedures relating to the admission in various programs, rules, regulations pertaining to conduct of studies, exams and an overview of the academic calendar, fee and financial support structure. The pages thereafter focus on the details of the academic departments i.e. Accounting & Law, Computer Science, Economic and Finance, Management, Marketing, Mathematical Sciences and Social Sciences & Liberal Arts and their individual offerings. This is followed by an itemized portrayal of the composition of our degree programs, including an outlining of their respective course content. The course content is discussed in the context of subjects, core and elective as well as advice on options and prerequisite for the completion of the chosen degree. Finally the program announcement provides the reader with a glimpse of the colorful and happening side of life within and outside the campuses of IBA at national and international level; this is done through a pictorial review of the enthusiastic participation of its students in various co/ extracurricular activities which adorn the event calendar of the institute. For further information please visit: www.iba.edu.pk

This prospectus provides the most updated and accurate information, till its publication. However, IBA reserves the right for any changes in courses offered and fee and financial support structure that may become necessary during the semesters / academic year.

# Message of the Dean & Director

The expansion in the physical and Information Communications & Technology infrastructure of IBA achieved during the last four years has now enabled us to diversify our program offerings in other areas besides consolidating the existing programs. As of now, we have completely revamped MBA and terminal BBA programs in place and the initial pangs of birth have been overcome.

The response of the students and the employers to both these programs has been very satisfying for all of us at IBA. Our BS, MS and PhD programs in Computer Sciences have gained wide recognition for their quality. The rebranding of IBA as a much broader institution of learning than a Business school only, is now gradually taking hold in public minds.

The initiation of the BS Economics & Maths program last year reinforced this trend. In 2013-14 we are launching two new programs BS Social Sciences & Liberal Arts and BS Accounting & Finance - an innovative program linked to professional degrees and diplomas such as Chartered Accountancy, Chartered Banking Diploma etc. The first degree course has been designed in close collaboration with professional bodies such as ICAP and IBP who have agreed to waive off some of the requirements for our BS degree holders on the basis of the courses we would be offering. I am sure parents will feel relieved that their wards will have employable skills at the end of this degree.

BS Social Sciences & Liberal Arts program is aimed at

catering to the large unmet demand of the students in this area, who were aspiring to study Liberal Arts, Humanities and Social Sciences in a high quality learning environment. IBA feels pleased in responding to this demand. These changes will impose many new challenges for our faculty and staff but all of us are committed to do our best.

#### 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



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# Patron

**Dr. Ishrat ul Ebad Khan** Governor of Sindh

#### **Board of Governors**

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**Mr. Justice Munib Akhtar** Judge High Court of Sindh

#### Members

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**Prof. Dr. Nazir A Mughal** Vice Chancellor University of Sindh

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

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**Dr. Fazlullah Pechuho** Secretary Education Government of Sindh

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

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**Mr. Shuaib Ahmed** Vice Chairman Pakistan Gum & Chemicals Company Ltd.

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

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Dr. Naved Ahmad Associate Professor Institute of Business Administration, Karachi

**Dr. Talat A. Wizarat** Professor Institute of Business Administration, Karachi Mr. Zahid Bashir Chairman The Premier Insurance Co. Pak Ltd. Members Dr. Ishrat Husain Dean & Director, IBA Mr. Sohail Wajahat H. Siddiqui Caretaker Federal Minister for Petroleum & Natural Resources Govt. of Pakistan Mr. Shahid Shafiq

Audit & Finance Committee

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Director Shahid Shafiq (Pvt) Ltd, Karachi

Ms. Musharaf Hai Chief Executive L' Oreal, Karachi

#### **Selection Board**

Chairman Dr. Ishrat Husain Dean & Director. IBA

#### Members

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

Mr. Jalees Ahmed Siddiqui Chief Executive IGI Insurance

Mr. Fayyaz Ali Khan Member Sindh Public Service Commission

Mr. Asad Umar Ex - President, CEO Engro Chemical Pakistan

Mr. Tariq Kirmani Former Chairman & MD Pakistan International Airlines

Mr. Najmus Saquib Hameed Honorary Vice Chairman & Chief Executive The Layton Rahmatullah Benevolent Trust (LRBT), Karachi Dr. Ishrat Husain Dean & Director, IBA **Members** 

Academic Board

Chairman

Dr. Matin A. Khan Professor Emeritus

Dr. Zeenat Ismail Professor, (IBA)

Dr. Mohammed Nishat Professor, (IBA)

Dr. Mahnaz Fatima Professor, (IBA)

Dr. Nasir Touheed Professor, (IBA)

Dr. Qazi Masood Ahmed Professor, (IBA)

Dr. Shakeel Ahmed Khoja Professor, (IBA)

Dr. Shahid Qureshi Professor, (IBA)

Dr. Talat Wizarat Professor, (IBA)

Dr. Noman ul Haq Professor, (IBA)

Dr. Sayeed Ghani Associate Professor, (IBA)

Dr. Naved Ahmad Associate Professor, (IBA)

Dr. Sajjad Haider Associate Professor, (IBA)

Dr. Nasir Afghan Assistant Professor, (IBA)

Mr. Adnan Siddiqui Country General Manager IBM Pakistan & Afghanistan, Karachi

Mr. Mohammad Shoaib Chief Executive Al Meezan Investments Management Ltd, Karachi Chairman Mr. Tariq Kirmani Former Chairman & MD PIA & PSO Members

**Advisory Council** 

.....

Mr. Ali Ahmed Khan

Mr. Anwar Rammal

Ms. Ayesha Tammy Haq

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Mr. Bashir Ahmed

Mr. Ghouse Akber

Mr. Hussain Lawai

Mr. Iftikhar A. Allawala

Mr. Nadeem Abdullah

Mr. Nadeem Jafarey

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Dr. Miftah Ismail

Mr. Mohsin Nathani

Mr. Muneer Kamal

Mr. Najmus Saqib Hameed

Mrs. Nasim Ahmed

Mr. Parvez Ghias

Mr. Pervez Igbal

Mrs. Rounag Lakhani

Mr. Safiuddin Zoomkawala

Mr. M. Yousuf Adil

Mr. Shahid Shafiq

Mr. Tahir Khaliq

Mr. Zafar A. Siddiqui

Mr. Zahid Bashir

Mr. Haris Tohid Siddiqui

# OUR VISION "To become a world-class business school for leadership and innovation in management"

# Institute Profile

IBA welcomes all its students with great warmth, generosity and high expectancy. In the past five decades, IBA students have firmly established a sterling reputation both in Pakistan and around the world. IBA is now aspiring to be ranked amongst the top 10 Business Schools in the Middle East and South Asia, keeping its core values of nurturing camaraderie and team work, along with a spirit of healthy competition.

In these turbulent times we address challenges and seize new opportunities for leadership through our teaching research, student activities and campus operations. Our vision at IBA is to educate leaders who will make a difference and infuse them with entrepreneurial advantages. IBA students are encouraged to undertake challenges and propose or justify resolutions. We foster a culture of innovation where students and faculty, constantly push towards the highest benchmark in excellence.

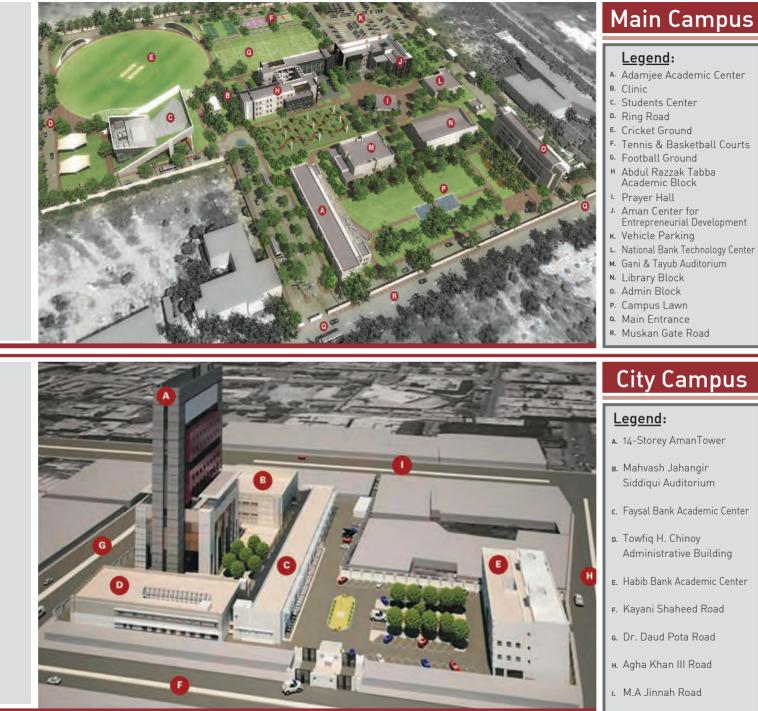
The initiation and strategic goals of pedagogy is evident in the campus planning process. The roadmap for renovation and new construction has provided the following:

• Aman Center for Entrepreneurs • Tabba Academic Block • Student Center & Play Fields • New Boys Hostel • New Girls Hostel • Visiting Faculty Hostel

The adding of 2 new premises to our residential campus is designed to enhance skills and build relationship that last for a lifetime. The last three years have witnessed myriad changes in life at IBA, and the pace of change is gaining continuous momentum. Now, more than ever before, numerous students are getting opportunities to attend national and international competitions and events. Exchange programs with universities abroad have opened wider avenues of exposure for students as well as faculty. Having undergone a rigorous selection process, our exuberant and diverse student body takes this 'Season of Change' in their stride, demonstrating their versatility and ability to adapt.



\* Islamic holidays are subject to the lunar calendar



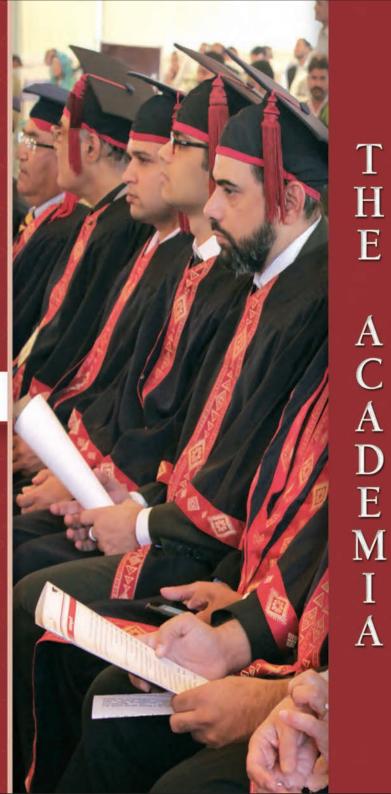
# Main Campus

- F. Tennis & Basketball Courts

# City Campus

- c. Faysal Bank Academic Center
- E. Habib Bank Academic Center

# The Academia



# Associate Deans



Faculty of Business Administration

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

Dr. Mohammed Nishat

Asad Ilyas

# Chairpersons Accounting & Law Economics & Finance





Dr. Khadija Malik Bari



Dr. Framji Minwalla

# Marketing

Dr. Sayeed Ghani

Dr. Huma Amir

Faculty of Computer Science

Areas of interest: Simulation and

Routing Issues in Mobile Adhoc

Risk Assessment of Systems

Columbia University, USA

Networks & Security

PhD & MS,

**Chairperson,** Department of Computer Science

BS, Massachusetts Institute of Technology

Performance Analysis of Wireless Networks,

Dr. Muhammad Shahid Qureshi

Mathematical Sciences

#### Faculty at a Glance

Full Time Faculty (Spring 2013)	
PhD's from Foreign Universities	27
PhD's from local Universities	-,
Pursuing PhD's abroad	3
Pursuing PhD's locally	
Pursuing M. Phil locally	1
Master's from Foreign Universities	
Master's from local Universities	
Total	84

Change in the Composition of the Faculty		2008 - 09		2012-13	
	Details	Number	% Share	Number	% Share
	PhD's Degree Holder	22	29	36	43
•	Doing PhD's	8	10	10	12
	Doing M. Phil locally	-	-	1	1
	Foreign Master's or Professional Degree Holders	12	16	23	27
	Local Master's Degree	34	45	14	17
	Total	76	100	84	100

#### **Professor Emeritus**



Dr. Matin A. Khan served as Dean & Director of IBA from 1972 to 1977 and contributed greatly to the development of academic standards of IBA. He received his M.A from the Wharton School of Finance and Commerce, University of Pennsylvania and DBA from the University of Southern California, USA

He was associated as Project Director for almost a decade with JRP-IV, a research project on Improvement of Slums while he was a visiting Professor at Ahmad Bello University, Nigeria. Dr. Matin is the author of a large number of books and articles on marketing and research methodology. Dr. Matin has served as a Life Research Professor at Hamdard University, Karachi. He was also the Dean of Faculty of Management Sciences at the Hamdard University. Presently he is the member of the Academic Board at IBA Karachi.

Dr. Matin A. Khan

#### Department of Accounting and Law



Chairperson Department of Accounting & Law CPA, Delaware, USA BBA (Accounting), Pace University, NY, USA Areas of interest: Small Business Management, Operations, Energy Management and Environmental Protection

**Ilyas, Mohammad Asad** Assistant Professor



Senior Research Fellow (CBER) Juris Doctor (Doctor of Law), Columbia Law School New York, USA

Bachelor of Science in Economics, Wharton School of Business - Philadelphia, USA Bachelor of Applied Science,

University of Pennsylvania - Philadelphia, USA

Ali, Mohammad Azam Assistant Professor



MS, (Computer Science) Fellow Cost & Management Accountant (FCMA) Chartered Certified Accountant (ACCA) Certified SAP Consultant, MA (Economics) Areas of interest: Business Analytics, IT & Computational Intelligence Applications in Accounting, ERPs

Asif Jaffer, Muhammad



M.Sc, Anglia Ruskin University, London College of Accountancy, United Kingdom ACMA, Chartered Institute of Management Accountants, United Kingdom PIPFA, Pakistan Institute of Public Finance Accountants B.Com, Punjab University, Shiblee College of Commerce, Faisalabad

Hasnie, Syed Sharjeel Ahmad Lecturer



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

Nazar, Mahreen 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 Costion

Saiyed, Aman U. Assistant Professor Author of Book: Managerial Accounting for Financial Services



Program Director EMBA Program MBA, Institute of Business Administration, Karachi DAIBP

Areas of interest: Banking, Accounting & Finance

Umer, Muhammad Saleem Faculty Member

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#### Department of Computer Science



Program Director Computer Science Program Postdoc (Appl. Math), University of Antwerp, Belgium PhD (Appl. Math), Delft University of Technology, The Netherlands MCS, M.Sc. B.Sc. (Hons.) (Applied Maths), University of Karachi

**bin Zubair, Hisham** Assistant Professor



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

**Ghauri, Maheen** Assistant Professor



Coordinator MBA Evening Program PhD Candidate at Institute of Business Administration, Karachi. MS (CS), National University (FAST), Karachi MAS, AERC, University of Karachi MCS, University of Karachi Areas of interest: Programming Languages, Information Retrieval, Graphic

Khan, Abdul Wajed Assistant Professor



PhD candidate at IBA, Karachi MS, George Washington University, USA PGD, Technical Education, Islamic University of Technology, (DIC) Dhaka B.Sc (Engg), NWFP University of Engg & Tech, Peshawar PMP Areas of interest: Information Security Management, Information Technology Policy and Planning Project Management

Nabi, Syed Irfan Assistant Professor



MBA in 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

Rizvi, Ameer H. Lecturer



PhD Candidate at Institute of Business Administration, Karachi M.Engg. (Internet working), Dalhousie University, Halifax N.S, Canada BE (Electrical), NED University of Engineering

Abedi, Raza Hasan

Assistant 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

Haider, Sajjad Associate Professor



PhD candidate at 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

Khan, Imran UI Assistant Professor



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

Rajput, Quratulain Nizamuddin Assistant Professor



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

Touheed, Nasir



PhD candidate at 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

Arain, M. Waseem Assistant Professor



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

Iradat, S. M. Faisal Assistant Professor



Post Doc Fellowship University of Southampton, UK PhD, University of Southampton, UK Bachelors of Engineering, UET, Mehran, Pak. Awarded Best Teacher Award 2003 and 2011 by Higher Education Commission (HEC) Research interest Area: Web Science, Learning Technologist and HCI

Khoja, Shakeel Ahmed Professor



Director (QEC) PhD, Salford University M.Sc, 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

Rashid, Amber Gul Assistant Professor



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

Zaheeruddin Asif (On Study Leave) Assistant Professor

#### **Department of Economics and Finance**



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

Bari. Khadija Malik Assistant Professor



Member IBA-BOG PhD. Northeastern University, Boston, USA M.Phil. Quaid-e-Azam University M.Sc (Economics), University of Karachi Areas of interest: Convergence Theory and Corruption

Ahmad, Naved Associate Professor



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

Jaffery, Tahira Marium Lecturer



Program Director MS Economics Program PhD, University of Minnesota M.Sc, University of Minnesota M.Sc (Agricultural Economics), Sindh Agriculture University Areas of interest: Stochastic Dynamic Programming. Market Integration, Environmental Economics

Lohano. Heman Das Associate Professor



Sr. Research Fellow. Center for Business and Economics Research (CEBR), IBA PhD (Economics), Northern Illinois University, USA MBA, Institute of Business Administration. Karachi BE, NED University of Engineering & Technoloav

Naeem-uz-Zafar Assistant Professor



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



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. Development and Macroeconomics

Eiaz. Lalarukh Assistant Professor



M.Sc (Economics), Warwick University U.K MA (Local Economic Development), University of Waterloo, Canada MAS University of Karachi Areas of interest: Applied Microeconometrics. Labour/Education Economics, and Local Economic Development

Khan, Amir Jahan (On Study Leave) Assistant Professor



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

Muhammad. Zahid Assistant Professor (On Long Leave)



Birmingham Business School, University of Birmingham, UK MBA, Finance/Marketing Institute of Business Administration, Karachi BE Mechanical, NED University Karachi

Nauman J Amin Assistant Professor



PhD candidate at the University of Auckland MS. University of Manchester, UK M.Com. University of Karachi Areas of interest: Capital Structure and Asset Pricing Models

Ahmed. Shama (On Study Leave) Lecturer



Research Fellow. Center for Business and Economic Research (CBER), Institute of Business Administration Karachi PhD in Banking Tilburg University, The Netherlands MBA Finance (Gold Medalist), JoBM, Karachi MSc Economics (Gold Medalist), University of Karachi

Assistant Professor



Development PhD. Management Sciences, France MS Finance & Management Control, France MBA Finance & Investment, NUST, Pakistan Fellow Academy of Entrepreneurship Fellow Eastern Finance Association

Khan, Haroon (On Long Leave) Assistant Professor



M Sc Economics Lahore University of Management Sciences BBA Finance. Institute of Business Administration. Karachi

Mehwish Ghulam Ali **Teaching Fellow** 



**Coordinator** BS Economics and Mathematics Program MBA. Institute of Business Administration. Karachi Level -III Candidate in CFA Program Areas of interest: Business Finance, Financial Management, and Financial Derivatives

Tauseef. Sana Lecturer



Elahi. Muhammad Ather

Sr. Fellow/Advisor Center for Entrepreneurship



#### Department of Economics and Finance (Continued...)



Manager (QEC) MBA, LUMS B Sc (Hons) Economics 111MS 4 years of Industry Experience Served as AVP Team leader in Mezan Bank

Awan, Amer Jabal Assistant Professor



PhD (Economics), PIDE, Islamabad (In progress) MS (Applied Economics), AERC, Karachi University of Karachi. M.Sc (Computer Science and Mathematics). University of the Puniab, Lahore, Pakistan

Haider, Adnan Assistant Professor

#### **Department of Management**



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 Mir. Shahid R.

Assistant Professor



PhD, USA, MBA, IBA Karachi, BE (Mech), NED University, 24 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, 40 research papers and 400 articles **Fatima, Mahnaz** in publications of international / national repute

Areas of interest: Corporate Strategy, Managerial Policy, Strategic Management, Development Economics,

Quality Management, Public Policy and Social Policy

Professor



Head of Policy & Strategy Advisory Unit PhD & M.Phil, (Public Policy Analysis), Pardee RAND Graduate School, USA MBA & BBA (Hons.), (Finance), Institute of Business Administration, Karachi Areas of Interest: Public sector reform; corporate strategy and restructuring.

Malik. Mohammed Rehan Assistant Professor



M Sc (Economics) 111MS B.Sc (Hons) - Economics, LUMS, Pakistan Former faculty member at SZABIST

Rasool, Warda Teaching Fellow



Head of Policy & Strategy Advisory Unit PhD & M.Phil, (Public Policy Analysis), Pardee RAND Graduate School, USA MRA & BRA (Hons.) (Finance) Institute of Rusiness Administration, Karachi Areas of Interest: Public policy analysis: institutional economics

Malik. Mohammed Rehan Assistant Professor



Program Director MBA Programs PhD. University of Twente. The Netherlands MBA. Maastricht School of Management. The Netherlands M.Sc, University of Karachi

Afghan, Nasir A. Assistant Professor



Doctoral Coursework in Business Administration at Institute of Business Administration, Karachi M.E.M, Yale University, USA MBA, Institute of Business Administration, Karachi BE, NED University Areas of interest: Small Business Management.

Production and Operations Management. Energy Management and Environmental Protection

Hussain. Mirza Sardar Assistant Professor



MBA. University of Hull, UK 33 years of Professional Experience Served as the Executive Director at Shell Pakistan

Menezes, Leon Professor of Practice



M.Sc Finance (Financial Engineering), London Business School BA in Mathematics (Actuarial Mathematics). University of Pennsylvania

Ghani. Omer J Assistant Professor

Personal Counselor to students

Diploma in Integrative counseling,UK (In progress) M.Sc Organizational Psychology. Birkbeck College, University of London, UK MS Management Sciences, SZABIST, Karachi MPA. University of Karachi Areas of Interest: Postmodernism and Career Development

Ansari, Nyla Aleem Assistant Professor



PhD (Management), LUMS, Pakistan (In Progress) MS (TQM), University of Puniab, Pakistan B.Sc Engineering, UET, Lahore, Pakistan 7 Years Industry & research Experience

Jajia, Muhammad Shakeel Sadig Assistant Professor



#### Department of Management (Continued...)



ME Texas A&M University **BS GIKI** Areas of interest: Operations Management. Small Business Management. Entrepreneurship

Mumtaz, Mohammad Kamran Assistant Professor



MA (Human Resource Management). George Washington University, USA MBA. Institute of Business Administration, Karachi BBA. Institute of Business Administration. Karachi Areas of interest: Human Resource Management. Organizational Behavior and Comparative Management

Sagib, Sved Imran Assistant Professor

#### **Department of Social Sciences & Liberal Arts**



Chairperson Department of Social Sciences & Liberal Arts 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 in Arts & Ideas and in Drama, University of Michigan-Ann Arbor, Ann Arbor, Michigan (USA)

Minwalla, Framii Assistant Professor



M.Phil in International Relations from the University of Cambridge MA International Relations. University of Karachi Areas of interest: U.S. Foreign Policy, Just War Theory, Discourse Analysis

Butool, Syeda Beena Assistant Professor



MA English Linguistics, University of Karachi BA (Hons.), University of Karachi Certificate in English Language Teaching to Adults (CELTA) awarded by University of Cambridge ESOL Areas of interest: Teacher Development and English for Academic Purposes (EAP)

Qayyum, Rabail (On Study Leave) Lecturer



MBA, City University, Hong Kong B.Sc (Hons), Computer Science, City University,

Hona Kona Worked at several multinationals.

Last served at JPMorgan

Chase Bank Singapore, Taught at various Institutions in Asia Pacific Nazir. Usman

Assistant Professor



Associate Director, Center for Entrepreneurial Development (CFD) 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

Qureshi, Shahid Assistant Professor

PhD in International Relations. University of Karachi Certified Trainer in Liberal Political Values from Germany Area of interest: Conflict in South Asia

Bagai, Huma Associate Professor



Masters (Applied Linguistics), London Metropolitan University, UK MA (English Linguistics). University of Karachi MA (English Literature), University of Karachi Areas of interest: Socio Linguistics & Pragmatics

Hasan, Maria Assistant Professor



MA Linquistics. University of Karachi BA (Hons), University of Karachi Areas of interest: Creative Writing and Translation

Rebaz, Javeria Lecturer



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

Anwar, Nausheen H Assistant Professor (Urban Studies)



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

Ismail, Zeenat Professor



Member IBA-BoG Warden, IBA Girls Hostel PhD. University of Karachi MA. University of South Carolina. MA, University of Karachi Areas of interest: Conflict Resolution, Crisis Management, West, South Asia and

Wizarat, Talat Impact of Technology on Interstate Relations Professor



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



Doctor of Philosophy, (Phd) University College London. Master of Science, University College London, Bachelor of Science (Engineering), Hull University, England.



Master's (Broadcast Journalism). Emerson College, Boston Bachelor's (International Relations & Films Studies). Mount Holyoke College, South Hadley, MA

Zaffar. Nadia Assistant Professor



Asif. Ghazal

Teaching Fellow

MA (Social Sciences), The University of Chicago, IL B.Sc. (Hons.) in Politics & Anthropology. Lahore University of Management Sciences (LUMS)

Nomanul Haq, Syed Professor

#### **Department of Marketing**



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

Amir. Huma Assistant Professor



MBA, (Marketing) Institute of Business Administration, Karachi BBA. Institute of Business Administration. Karachi Areas of interest: FMCG Branding & Retailing

PhD, Manchester, Business School, UK

BE, NED University, Karachi

& Quality

Khan, Ambarin Asad (On Study Leave)

MBA. Institute of Business Administration. Karachi

Area of Interest: Innovation, Consumer Behaviour

MS. SZABIST. Karachi

Baig. Farah Naz Lecturer



Master of Science (Marketing & Strategy), Warwick Business School, UK BBA (Marketing), Institute of Business Administration, Karachi

Gill, Obaid Pervaiz Lecturer



MBA. Institute of Business Administration, Karachi BBA. Institute of Business Administration. Karachi Areas of interest: Marketing Issues in Pakistan. Consumer Behavior, Rural Marketing, Oral Communication and Brand Management

Khan. Nida Aslam Lecturer

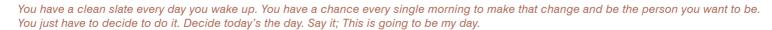


Director (QEC) PhD. Salford University M.Sc, UMIST BA (Hons.), Business Studies, University of Sheffield International Baccalaureate (IB) United World College of the Atlantic Areas of Interest: Active involvement in the Center for Entrepreneurship Development (CED) Female Entrepreneurship

Rashid, Amber Gul Assistant Professor



Fellow, Babson College, Massachusetts, USA Areas of interest: Entrepreneurial Marketing, Strategy, Advertising and Management



-Brendon Burchard



MBA, Institute of Business Administration, Karachi BBA. Institute of Business Administration. Karachi Areas of interest: Marketing Issues in Pakistan, Principles of Marketing, Consumer Behavior and Media Management

Husain, Saima Lecturer



MBA, University of Toronto, Canada MA. University of Karachi **BE, NED University** Areas of interest: Marketing Management, Export Marketing, Advertising & Business Marketing in SMFs

Mian, Ejaz A. Assistant Professor

Moiz, Jami Assistant Professor

#### Department of Marketing (Continued...)



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

Saeed, S.M. Lecturer



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

Zafar, Yasmin Assistant Professor

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

Akhund, Fatima **Teaching Fellow** 





**Chairperson** Department of Mathematical Sciences PhD. Institute of Space & Planetary Astrophysics University of Karachi M.Phil Mathematics, University of Karachi M.Sc, Applied Mathematics, University of Karachi

Qureshi. Muhammad Shahid Professor



PhD (Applied Mathematics), LUMS M.Sc (Pure Mathematics) with Distinction Areas of interest: Applied and Computational Mathematics. Sobolev Gradient Approach to Partial Differential Equations

Maiid. Abdul Assistant Professor



Chairperson Library Committee 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

Shah, Ahmed Ali Associate Professor



M.Sc. (Statistics). Baha-Ud-Din Zakariva University. Multan

Bashir, Amir Assistant Professor



M.Sc, 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

Meenai, Yaseen Ahmed Lecturer



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

Touheed. Nasir Professor



Program Director Computer Science Program Postdoc (Appl. Math), University of Antwerp, Belgium PhD (Appl. Math), Delft University of Technology. The Netherlands MCS. M.Sc. B.Sc. (Hons.) (Applied Maths). University of Karachi

bin Zubair. Hisham Assistant Professor



MA. Mathematics Kings College, Cambridge University Cambridge Mathematical Tripos Area of interest. Mathematics

Raza, Ahmad Assistant Professor



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

Khan. Junaid Alam Assistant Professor

Nothing in the world can take the place of persistence. Talent will not: nothing is more common than unsuccessful people with talent. Genius will not; un-rewarded genius is almost a proverb. Education will not the world is full of educated derelicts. Persistence and determination alone are omnipotent. The slogan, Press on, has solved and always will solve the problems of the human race.

-Calvin Coolidge

#### Department of Accounting and Law



Faculty

Visiting

Executive Director. The Institute of Chartered Accountants of Pakistan Deputy Chief Executive. The Citizens Foundation Director Finance, IUCN- The World Conservation Union FCA, CA, Institute of Chartered Accountants of Pakistan MAS (Finance, COBOL Programming), Puniab University Lahore



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

Former Senior Executive Vice President (SEVP)

Banking Diploma, Institute of Bankers, London

National Bank of Pakistan

LLM. University of Karachi

LLB. University of Karachi

B.Com. University of Karachi

Ahmed, M. Kaukab Sabahuddin



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

Former Managing Director / Chief Executive

Institute of Business Administration, Karachi

Officer Sind Engineering (Pvt) Ltd.

B.Sc (Maths, Physics & Chemistry),

Adamjee Science College, Karachi

MBA (Finance & Accounting).

Aziz. Rahat



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

Idress, Muhammad Hanif



Chief Consultant. Aslam Murad Associates FCA, CA. Institute of Chartered Accountants of Pakistan CMA. ICMAP Bachelor of Commerce, University of Karachi



Khan. Gul Nawaz

Senior Budget & Planning Analyst, ENI Pakistan Limited ACA Institute of Chartered Accountants of Pakistan ACCA, Association of Chartered Certified Accountants Specialization in Auditing, Budgeting & Planning Worked with A.F.Ferguson & Co. (Member firm of PricewaterhouseCoopers, PwC)



Deputy Collector. Customs, Sales Tax & Fed. Excise, CBR MBA (Tax Management), Institute of Business Administration, Karachi MA (Economics), SALU, Khairpur LLB, SALU, Khairpur

Shahani, Mustag Ali

Kidwai, Midhat Azim



Partner. A.R. Suriya & Co., Chartered Accountants FCA. Institute of Chartered Accountants of Pakistan FCMA, ICMAP

Suriva. Abdul Rahim

#### **Department of Computer Science**



Assistant Professor. Bahria University, Karachi MS (Computer Science), SZABIST, Karachi MBA (MIS), CBM, Karachi

Abbasi, Erum



Akhtar, Nadeem

Usman, Saad

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

Executive Director. State Bank of Pakistan (SBP) MS in Computer Engineering, GIK Institute of Engineering Sciences & Technology BE, NED University, Karachi

Akram, Muhammad Rizwan





Murad. Aslam



Ravda, Abdul Qadir

Financial Controller and Company Secretary

ACA, Institute of Chartered Accountants of

ACMA. Chartered Institute of Management

Bayer CropScience (Pvt) Limited

Pakistan (ICAP)

Accountants (CIMA), UK

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



Lecturer. Department of Computer Science & Main Communication Network, University of Karachi M.Phil /PhD in Management Information Systems, University of Karachi (In process) MS. SZABIST

MBA, Florida Institute of Technology, Melbourne, USA

BS, Electrical Engineering, University of Texas, USA

IT & Management Consultant

Ali, Syed Asim



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

AVP & Project Manager, United Bank Limited (UBL)

MBA, Institute of Business Administration, Karachi

B.Tech (Electrical), NED Engineering University

Professional Courses: ICND, MCSE, SAP BASIS

PhD (Computer Aided Design of Switched

Reluctance Motors). Imperial College,

Specialization Network Infrastructure, SAP BASIS

Hashmi. Ali Asghar



Enterprise Account Manager, Unisys, Pakistan MS, (Computer Science), SZABIST, Karachi BCSc, Dalhousie University, Canada

Mukhi. Shabbir



Assistant Professor. University of Karachi MS (Computer Science), LUMS PhD (In progress) University of Karachi

Saeed, Muhammad



Poonawala, Mazher

PhD (Computer Vision and Machine Learning), University of Surrey, UK M.Sc (Physics), University of Karachi B.Sc (Physics). University of Karachi

Sarim. Muhammad



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

Shaikh, Abdul Basit

Qamar, Shahid

University of London B.Sc (Hons) – Electrical and Electronic Engineering at Imperial College, University of London

TAF140 (FI)

Assistant Professor. Dept. of Computer Science, University of Karachi PhD, University of Karachi (In progress) MBA (Finance), University of Karachi MS (Computer Networks & Communication), Hamdard University BS Computer Engineering, Sir Syed University of Engineering & Technology, Karachi Siddigui, Farhan Ahmed

Zia. Shams Naveed

#### Department of Economics and Finance



Chairman & Associate Professor, Department of Economics, Faculty of Arts, University of Karachi. PhD (International Development). Graduate School of International Development. Nagoya University, Japan. (MAS) in Applied Economics from University of Karachi

Abdul, Waheed



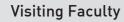
M.Sc (Accounting & Finance), London School of Economics MBA. Hamdard University BBA. Hamdard University

Ahmed, Syed Wagar



Eiaz. Muhammad

MBA. Institute of Business Administration, Karachi Candidate for CFA Level II



#### Department of Economics and Finance (Continued...)



Assistant Professor, MS (Finance), Institute of Business Administration, Karachi MBA, Institute of Business Administration, Karachi BE, Dawood Engineering College



Huda, Sadigul

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



Assistant Professor, Department of Statistics, University of Karachi PhD, (Financial Econometrics and Business Statistics), Monash University, Australia MAS (Applied Economics), AERC, University of Karachi M.Sc University of Karachi

Deputy Chief Accountant,

England and Wales-ICAEW

Economist, Research Department,

Pakistan Petroleum Limited (PPL)

Associate Chartered Accountant (ACA).

Associate Chartered Accountant (ACA).

State Bank of Pakistan, Pakistan (SBP)

MA (Economics), Boston College, USA

The Institute of Chartered Accountants in

the Institute of Chartered Accountants of Pakistan-ICAP

PhD (Economics), Boston College, USA (in progress)

Iqbal, Javed

Jalil. Muhammad Sagib



Masters (Public Administration in International Development), Harvard University, Harvard Kennedy School (HKS) Bachelor of Science (Hons), LUMS Coursework (Japanese language, history, and international relations), Waseda University, School of International Liberal Studies (Study abroad)

Jahangir, Asim



Joint Director, Monetary Policy, Islamic Banking and Research Department, State Bank of Pakistan MA (Development Economics), Williams College, Massachusetts, USA MAS (Applied Economics), University of Karachi

#### Khan. Muhammad Mazhar



Head of Compliance & Op Risk Group, Atlas Bank Limited, Pakistan MBA, LUMS, Lahore MA (Economics)

Saleem, Asad Ullah



Assistant Professor MBA, Institute of Business Administration, Karachi M.Sc University of Karachi

Haque, Ziaul



CFA® Charter, CFA Institute M.Sc (International Accounting & Finance), London School of Economics MBA (Finance), Institute of Business Administration, Karachi BBA (Hons), Institute of Business Administration, Karachi

Jameel, Muhammad Akmal,



Chief Executive Officer (CEO), Kings Clothing, Kings Aviation & Ace Travels Ltd & Medco (Kings Group of Companies) MBA, Imperial College London, Tanaka Business School M.Sc (Economics), Birbeck College, University of London

#### Memon, Naheed

MBA (MIS), Institute of Business Administration, Karachi BBA Hons (MIS), Institute of Business Administration, Karachi

Siddigui, Ahmed Ali



Pasha, Faroog

Assistant Professor, Karachi University Business School PhD (Economics), University of Karachi MBA, Institute of Business Administration, Karachi MA (Economics), University of Karachi CFA-Level 1, CFA Institute, USA

Siddiqui, Danish Ahmed

#### Department of Management



Director Research. Pakistan Business Council MBA. Institute of Business Administration. Karachi BE, NED University, Karachi

Amir. Samir S.



MBA Business Administration, Simmons College MA English Literature, Georgetown University, MA Literature and Linguistics. Lucknow University Teaching Diploma from Harvard University. Cambridge, M.A & Courses from Boston University, Boston,

CFA® Charter, CFA Institute

London School of Economics

Administration Karachi

MBA (Finance) Institute of Business

BBA (Hons). Institute of Business Administration, Karachi

Process Reengineering Lead,

Postgraduate Diploma, NILAT:

Karachi (In progress)

MS in System Design & Management.

Sloan School of Management, MIT, USA

MS Manufacturing Systems Engineering,

University of Wisconsin-Madison, USA

B.Sc (Hons), (Agri), Sindh LLB, Karachi

PhD\_Institute of Business Administration

Citibank N.A., Pakistan

M.Sc (International Accounting & Finance),

Davis. Talat Hameed



Chief Executive Officer (CEO) / Partner. Gold Mohur Cornoration PhD in Management Sciences, SZABIST (In Progress) M.Phil / MS in Management Sciences, SZABIST MBA Finance & Marketing, Institute of Business Administration, Karachi BAC. Institute of Chartered Accountants Pakistan

Practicing Member of ICMAP in Taxation, Project Finance, Secretarial Practices

FCMA. Institute of Cost & Management

MBA. Institute of Business Administration. Karachi

Hassan, Imran Javed



Corporate Compliance Officer, Human Resources Novartis Pharma Pakistan Limited MBA Institute of Business Administration Karachi

Jaliawala, Ashraf



M.Sc (Management of Training and Development), University of Edinburgh, Scotland Bachelors (Computer Science), SZABIST, Pakistan



Khusrow, Uzair M.

Khalid. Rameez



Khan. Asma Mustafa

Mapara, Shakeel



Business Manager, Jaffer Brothers Pvt Ltd MBA, Strategic Management, Illinois Institute of Technology, USA MS. Industrial Engineering Systems. University of Illinois, USA

Syed, Sabir A.



Raza, Syed Sultan

Executive Director. AMAN Foundation Former CEO of Philips Pakistan. MBA, University of Karachi MSEE. University of Southern California (USC), USA BE, NED Universitv



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

Salman. Munir





BS in Chemical Engineering & Computer Science, The Pennsylvania State University, USA Mahesri, Saiiad H.

#### Department of Social Sciences & Liberal Arts



Professor Director, Pakistan Study Centre, University of Karachi PhD (Social and Political Sciences). Cambridge University, UK M.Phil (Pakistan Studies), University of Karachi MA (Political Science). University of Karachi

Ahmed. Sved Jaffer



Visiting Faculty. River Oaks Academy MA English Literature, University of Karachi MA Mass Communication, University of Karachi



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

Bilal Munshi, Muhammad



MA (English Linguistics), University of Karachi MA (English Literature), University of Karachi BA St. Joseph's Government College for Women

Jaffer, Shadia



Lecturer, Department of General History, University of Karachi LLB University of Karachi MA (History), Islamia Arts and Commerce Degree College

Khan, Moiz



Lecturer. Department of English, University of Karachi PhD English Literature, University of Karachi (In progress) MA (English Literature). University of Karachi

Nazir, Faisal



Ahmed. Babar

Ali, Amjad

Consultant Clinical Psychologist Pakistan Petroleum Limited Former Faculty at AKU & University of Karachi PhD (Clinical Psychology) University of Karachi Post Magisterial Diploma Course in Clinical Psychology MA in Psychology, University of Karachi

PhD (Arab and Islamic Studies). University of Exeter, UK

Master of Arts (Philosophy), University of

Brandeis University Waltham, Massachusetts

Texas at Austin. Texas Bachelor of Arts

(Economics and Mathematics).

Arabic Teacher in Jamia Siddiqia

MA (Arabic). University of Karachi

PhD (Mass Communications).

University of Karachi, Pakistan

Sr. Arabic Teacher in various Institutes

Manager Communications & Public Affairs.

MA (Mass Comm.) University of Karachi

Institute of Business Administration, Karachi

Teaches Arabic Language in Various Institutes

MA Islamic Studies, University of Karachi

Diploma in Arabic, Society for the promotion of Arabic

#### Magbool, Erum



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

Alliance Francaise, Karachi Master in Literature from the University of Paris, France



Product Marketing Manager, Junior Manager, Unilever Pakistan Ltd

MA (Arabic), University of Karachi

BA (Hons). University of Karachi

MA (IR), University of Karachi (In Progress)

Additional Commissioner of Income Tax. Federal Board of Revenue, Government of Pakistan

Carbondale, ILLINOIS, USA

Visiting Faculty at SZABIST & University of Karachi

PhD (Sociology), Southern Illinois University.

M.Sc (Development Studies) London School of Economics and Political Science (LSE), London, UK

Haider, Syed Zeeshan

Alam, Sameen



Arabic Lecturer. Bahria College Worked in Pakistan Navy as Arabic interpreter BA (Arabic), International Islamic University, Islamabad MA (Arabic). University of Karachi

Khan, Abdullah M. Yousuf



Active Member of Arabic Language Club Teaching in Society for the promotion of Arabic Dars-e-Nizami from Jamia Arabia Ahsan-uloom Karachi Diploma in Advance Arabic and Quranic Arabic, Society for the promotion of Arabic MA Islamic History, University of Karachi

Mubeen, Fazilat



Scheik, Lubna

Instructor.

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



Siddigui, Kiran Shahid

Masters in History, University of Karachi BA University of Karachi



Deputy Director, Alliance Francaise, Karachi M.Phil from the University of Paris, France

Marketing & Product Management.

United Bank Ltd., Karachi, Pakistan

MSc in Marketing, UMIST, Manchester

MBA. Institute of Business Administration. Karachi

MBA. Institute of Business Administration. Karachi

MBA. Institute of Business Administration. Karachi

Group Head.

Head of Marketing,

National Industrial Parks

NED University, Karachi

BE, (Mechanical Engineering),

General Manager, Corporate Affairs

MS. Materials & Metallurgical Engg.

Pak-Arab Refinery Ltd (PARCO)

University of Michigan, USA



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

Suri, Abdul Wahab

#### Department of Marketing



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

Ashraf, Noaman



Alvi, Salman

Chief Executive Officer (CEO), Genesis Group of Companies MBA (Marketing), Institute of Business Administration, Karachi

Agrawalla, Najeeb

Ansari. Danish



Managing Director, Mindshar Pakistan's Director Marketing & Sales, Cartoon Network MBA in Marketing from South Eastern University, London

Husain, Fouad



MBA (Marketing), Institute of Business Administration, Karachi M.Sc (Mathematics), University of Karachi



Husain, Shah M. Saad

Imran. Muhammad

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



MBA, Institute of Business Administration Institute of Business Administration, Karachi



Director Strategic, Global Supply Chain Management, Getz Pharma (Private) Limited Fellow Member and Vice President, National Council of ICMAP M.Phil (Supply Chain Management), USA PhD in Enterprise Risk Management (In progress)

Ajari, Mohammad Hanif



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

Chaudhry, A. Jawad



Marketing Strategy & Planning Manager Procter & Gamble Pakistan MBA, Institute of Business Administration, Karachi

Hussain, Adnan





#### Department of Marketing (Continued...)



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



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



Director. Value Chain Optimization Chevron Pakistan Limited (formerly Caltex) MBA. Institute of Business Administration. Karachi Master of Engineering (Mechanical). Cornell University, USA Bachelor of Engineering, Brown University, USA

Quraishi. Muqtadar Ahmed

Lecturer.

Department of Mathematics.

M.Phil University of Karachi

B.Sc (Hons.), University of Karachi

University of Karachi



Mahmood, Javed

MBA. Institute of Business Administration. Karachi BBA (Hons). Institute of Business Administration Karachi



Akhter Raza, Sved

10 15

Mahmud, Sved Akhtar

Director. Alumni Public Affairs & Resource Mobilization Department Director, Center for Entrepreneurial Development (CED) MS. Marketing Communication, Chicago MBA, Institute of Business Administration, Karachi

Assistant Professor

University of Karachi

PhD (Computer Science).

M.Sc (Statistics), University of Karachi

Post Doc. (Stony Brook University)

Raza, Fariha



M.Sc Statistics, University of Karachi B.Sc Statistics & Mathematics. University of Karachi

**Department of Mathematical Sciences** 

Alam, S. Khursheed



Lecturer. Department of Mathematics. University of Karachi M.Phil in Operations Research. University of Karachi M.Sc in Applied Mathematics, University of Karachi

Inayatullah, Syed



PhD (Applied Mathematics). The University of Melbourne, Australia M.Phil (Applied Mathematics), University of Karachi M.Sc (Applied Mathematics), University of Karachi

Kamran, Khurram



PhD (Mathematics), University of Karachi M.Sc. (Mathematics), University of Karachi, Pakistan B.Sc (Hons) in Mathematics, University of Karachi

PhD (Geo-Space Science), ISPA, University of Karachi

M.Phil (Applied Mathematics). University of Karachi

M.Sc (Applied Mathematics), University of Karachi



Imtiaz, Muhammad

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

M.Sc (Applied Mathematics), University of Karachi

Jilani. Tahseen Ahmed



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

Rehman, Sagib ur

Siddigui, Raziuddin

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



PhD (Applied Physics). Chalmers University of Technology, Göteborg, Sweden MS (Physics of Matter, Materials and Biological Systems), Göteborg University, Göteborg, Sweden M.Sc. (Physics). University of Karachi

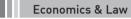


Yasmeen, Farah

PhD. Monash University, Australia M.Phil University of Karachi M.Sc (Statistics), University of Karachi B.Sc (Statistics), University of Karachi

#### Ulfat. Intikhab

# **Adjunct Faculty**





Executive Vice Chairman and Founding Partner, BMA Capital Management Limited 24 years of experience in capital markets and financial sectors Ex-Director Treasury American Express Bank Bachelors

from University of Manchester, Chartered Accountant Trains: Capital Markets, Business and Financial Sector Strategy

Khan. Farrukh H





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, Teaches: Global Economics and Political Environments Course at the MBA program besides delivering lectures and seminars for IBA Executive MBA Program

Raza. Sved Salim

# Social Sciences & Liberal Arts

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

Azhar, Wasim

Chairman,

School, London Sayeed, Sadeq Masters (Finance), Sloan School, MIT

Marketing

Metage Capital Ltd. UK

Former CEO Nomura International

First Boston and World Bank

Advisor JS Investment Ltd and Director Silk Bank

Adjunct Professor at Imperial College Business

Worked with Nomura Europe, Credit Suisse

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

Khan, Zaffar A.

#### **Economics & Finance**

Management

Former President & CEO.

Ex-Chairman, PIA, PTCL & KSE,

Mechanical Engineer by Profession

President of Overseas Chamber of Commerce

Engro Chemicals



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 M.Phil, Economics, University of Cambridge M.Sc, Social Planning in Developing Countries, London School of Economics & Political Sciences

Zaidi, S. Akber



#### Jabbar, Javed





# Academic Departments

# Academic Departments & Courses on offer

The Institute of Business Administration (IBA) has 2 faculties and 7 departments operating under its umbrella. These departments are headed by experienced and dedicated chairpersons who are renowned in their field, they supervise and maintain a curriculum which is updated regularly to match the changes in the business world. The Department wise offering of courses is as under:

# **Faculty of Business Administration**

#### Department of Accounting and Law

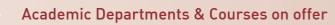
S.No.	Name of Course
	Accounting Courses (21)
1	ACC111 Principles of Accounting-I
2	ACC201 Principles of Accounting-II
3	ACC210 Principles of Accounting
4	ACC215 Financial Accounting
5	ACC220 Management Accounting
6	ACC222 Computer Applications
7	ACC301 Independent Study- Accounting
8	ACC310 Advanced Managerial Accounting
9	ACC312 Business Analysis and Decision making
10	ACC315 Financial Reporting
11	ACC320 Auditing
12	ACC381 Managerial Accounting
13	ACC401 Advanced Financial Reporting
14	ACC415 Actuarial Courses
15	ACC505 Accounting for Decision Making
16	ACC506 Financial Accounting and Information Systems
17	ACC507 Accounting Information Systems - For Small and Medium
1/	Enterprises
18	ACC557 Auditing Theory & Practice
19	ACC559 IFRS & Financial Reporting in Pakistan
20	ACC561 Analysis of Financial Statements
21	ACC589 Project Evaluation & Financing

S.No.	Name of Course
	Law Courses (8)
1	LAW105 Politics and Law
2	LAW205 Business Law
3	LAW301 Laws of Taxation

S.No.	Name of Course
	Law Courses (Contd)
4	LAW303 Taxation
5	LAW305 Corporate Law
6	LAW401 Tax Management and Optimization
7	LAW501 Legal and Regulatory Environment of Business
8	LAW553 Corporate Governance & Practices in Pakistan

#### Department of Economics & Finance

S.No.	Name of Course
	Economics Courses (34)
1	EC0103 Principles of Microeconomics
2	EC0104 Principles of Macroeconomics
3	EC0113 Intermediate Microeconomics
4	EC0114 Intermediate Macroeconomics
5	EC0301 Development Economics
6	EC0312 Microeconomics
7	EC0313 Macroeconomics
8	EC0341 Introduction to Econometrics
9	EC0342 Applied Econometrics
10	EC0403 Major Issues in Pakistan Economy
11	ECO411 Research Methods in Economics
12	ECO412 International Trade
13	EC0451 Public Finance
14	EC0452 Islamic Economic System
15	EC0453 Labor Economics
16	EC0454 Population Economics
17	EC0455 Comparative Economic System
18	ECO456 Economics and Strategy
19	ECO461 Natural Resource and Environmental Economics
20	EC0462 Rural Development



S.No.	Name of Course	
	Economics Courses (Contd)	
21	EC0463 Financial Economics	
22	EC0464 Game Theory	
23	EC0465 International Political Economy	
24	EC0466 Monetary Economics	
25	EC0467 History of Economic Thought	
26	EC0468 Agriculture Economics	
27	EC0469 Regional Economics	
28	EC0471 Health Economics	
29	EC0472 Urban Economics	
30	EC0473 Welfare Economics	ŀ
31	EC0474 Resource Economics	
32	EC0501 Managerial Economics	
33	EC0502 Macroeconomics	
34	EC0517 Global Economic and Political Environment	Ì

S.No.	Name of Course
	Finance Courses (43)
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	FIN425 Branch Banking
13	FIN426 Lending- Products, Operations & Risk Management
14	FIN427 Finance of International Trade and Related Treasury Operations
15	FIN428 Introduction to Marketing of Financial Services
16	FIN429 Information Technology in Financial Services
17	FIN451 Investment Banking

S.No.	Name of Course
	Finance Courses (Contd)
18	FIN452 International Finance
19	FIN453 Security Analysis
20	FIN454 Corporate Finance
21	FIN455 Portfolio Management
22	FIN456 Financial Risk Management
23	FIN457 Derivatives
24	FIN458 Fundamentals of Treasury and Fund Management
25	FIN506 Business Finance I
26	FIN507 Business Finance II
27	FIN531 Financial Intermediation
28	FIN532 Advance Credit Management
29	FIN533 Financial system – process, players, status and prognosis
30	FIN541 The Strategic Management of Banks
31	FIN552 International Financial Management
32	FIN554 Investment Banking & Financial Services
33	FIN556 Security Analysis & Capital Markets
34	FIN558 Regulation & Financial Markets
35	FIN559 Islamic Finance
36	FIN560 Advanced Corporate Finance
37	FIN563 Advanced Portfolio Management
38	FIN565 Treasury and Fund Management
39	FIN567 Risk Management
40	FIN568 Derivatives & Risk Hedging
41	FIN569 Financial Econometrics
42	FIN574 Financial Modeling
43	FIN577 Seminar in Finance





# Academic Departments & Courses on offer

## Department of Management

S.No.	Name of Course
	Management Courses (19)
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	MGT455 Executive Leadership
12	MGT506 Corporate Strategy
13	MGT510 Operations and Production Management
14	MGT512 Strategic Human Resource Management
15	MGT513 Business Strategy
16	MGT519 Personal Effectiveness and Communication (Non-Credit)
17	MGT552 Strategic Management
18	MGT555 Project Management
19	MGT557 Organizational Behavior and Leadership

S.No.	Name of Course
	Entrepreneurship Courses (16)
1	Foundation for Management & Entrepreneurship (FME) MGT102/103
2	ENT451 Marketing for Entrepreneurs
3	ENT452 Entrepreneurial Finance
4	ENT453 Business Law for Entrepreneurs
5	ENT454 Entrepreneurial Management
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

S.No.	Name of Course	
	Entrepreneurship Courses (Contd)	
12	ENT461 Sustainable Entrepreneurship Strategies	
13	ENT462 Corporate Entrepreneurship	
14	ENT463 Creativity and Innovation	
15	ENT464 Entrepreneurial Sales Strategy	
16	ENT465 Co-Curricular Activities	

S.No.	Name of Course
	Human Resource Management (HRM) Courses (19)
1	HRM401 Human Resource Management
2	HRM430 Recruitment and Selection Techniques
3	HRM445 Occupational Health and Safety
4	HRM450 The Legal Environment of HRM
5	HRM451 Industrial Relations Management
6	HRM452 Organizational Analysis and Research
7	HRM453 Life Career Development
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	HRM551 Industrial Relations Management
14	HRM552 Organizational Development
15	HRM557 Team Management
16	HRM558 Leading the Change Process
17	HRM562 Performance and Compensation Management
18	HRM570 Strategic Human Resource Management
19	HRM571 Training and Development

## Department of Social Sciences & Liberal Arts

S.No.	Name of Course		
	Social Sciences & Liberal Arts Courses (32)		
1	SSC101 English Grammar & Composition		
2	SSC106 Intermediate English Grammar & Composition		
3	SSC111 International Relations		
4	SSC121/HUM122 Major Themes in World History/General History		
5	SSC151/SSC222 Pakistan History		
6	SSC154 Research Methods in Social Sciences		
7	SSC201 Arabic I		
8	SSC202 Arabic II		
9	SSC203 Arabic III		
10	SSC204 Arabic IV		
11	SSC205 French I		
12	SSC206 French II		
13	SSC207 French III		
14	SSC208 French IV		
15	SSC209 Mandarin I		
16	SSC210 Mandarin II		
17	SSC211 Mandarin III		
18	SSC212 Mandarin IV		
19	SSC213 Advanced English Composition		
20	SSC216/HUM131 Culture, Media, Society/Media Studies		
21	SSC217 Introduction to Political Science		
22	SSC218/SSC104 Introduction to Psychology /Foundations of Human Behavior		
23	SSC221 South Asian History		
24	SSC231 Fundamentals of Sociology		
25	SSC232 Introduction to Historical Methods		
26	SSC233 Introduction to Social and Cultural Anthropology		
27	SSC234 Introduction to Urban Studies		
28	SSC235 Introduction to Linguistics		
29	SSC239 History of Ideas I		
30	SSC238 History of Ideas II		
31	SSC240 Personal Effectiveness		
32	SSC301 Socioeconomic Philosophy of Islam		

S.No.	Name of Course
	Natural Sciences Courses (7)
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 (19)
1	HUM201 Speech Communication
2	HUM351 Great Books
3	HUM352 Reading Poetry
4	HUM353 Introduction to Drama
5	HUM354 Introduction to Urdu Literature
6	HUM355 Anglo-Indian Narratives and the Postcolonial Subject
7	HUM356 Foundations of Philosophical Thought
8	HUM357 Philosophy, Logic, and Ethics
9	HUM358 Comparative Classical Philosophy
10	HUM359 Introduction to Comparative Religions
11	HUM360 Creative Writing
12	HUM361 Theater Project: The Living Newspaper
13	HUM363 Introduction to Visual Culture
14	HUM364 History of Art I: Classical Antiquity to the Middle Ages
15	HUM365 History of Art II: Renaissance to the Present
16	HUM366 Art of the Islamic World
17	HUM367 Theories of Design
18	HUM368 Colonial and Postcolonial Visual Cultures
19	HUM369 The Rhetoric of Architecture
	Media and Communication Courses (22)
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

S.No.	Name of Course		
	Media and Communication Courses (Contd)		
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		



S.No.	Name of Course
	Political Science Courses (18)
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 (18)
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



# Academic Departments & Courses on offer

S.No.	Name of Course	
	Psychology Courses (Contd)	
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**

Name of Course
Marketing Courses (32)
MKT201 Principles of Marketing
MKT301 Methods of Business Research
MKT401 Marketing Issues in Pakistan
MKT451 Advertising
MKT452 Consumer Behavior
MKT453 Sales Management
MKT454 Personal Selling
MKT455 Retail Management
MKT456 Export Marketing
MKT457 Dynamics of Distribution and Logistics
MKT458 Public Relations
MKT460 Direct Marketing
MKT461 Brand Management
MKT462 Essentials of Demand & Supply
MKT501 Marketing Management
MKT505 Advanced and Applied Business Research
MKT551 Advertising
MKT552 Consumer Behavior
MKT553 Entrepreneurial Management
MKT556 Social Marketing
MKT558 Customer Ascendancy
MKT559 Supply Chain Management
MKT561 Brand Management

#### **Department of Marketing**

S.No.	Name of Course	
	Marketing Courses (Contd)	
24	MKT566 Media Management	
25	MKT586 Retailing	
26	MKT651 Personal Selling	
27	MKT653 Sales Management	
28	MKT656 Services Marketing	
29	MKT657 Strategic Marketing	
30	MKT658 Business to Business Marketing	
31	MKT659 Global Marketing Management	
32	MKT752 Seminar in Marketing	



# Academic Departments & Courses on offer

# Faculty of Computer Science Department of Computer Science

S.No.	Name of Course
	MIS Courses (19)
1	MIS103 Introduction to Computer Application
2	MIS150 Essential Software
3	MIS202 Technical Report Writing (3,0,3)
4	MIS343 Data Warehousing (3,1,4)
5	MIS345 Data Mining
6	MIS405 Excel for Business Managers
7	MIS406 Social Computing (3,0,3)
8	MIS410 Basic Programming
9	MIS454 Audit, Ethics & IS Issues (3,0,3)
10	MIS458 Enterprise Resource Planning (3,0,3)
11	MIS502 Operations & Technology Management
12	MIS503 Enterprise Integration
13	MIS513 Information Industry Structure & Competitive Strategy
14	MIS541 SAP ABAP Programming I
15	MIS542 SAP ABAP Programming II
16	MIS550 Logistic & Supply Chain Management (3,0,3)
17	MIS552 Advanced Data Warehousing
18	MIS553 Social Computing Applications
19	MIS556 E-Commerce
	Computer Science & Allied Courses (44)
1	CSE141 Introduction to Programming (3,1,4)
2	CSE142 Object Oriented Programming Techniques (3,1,4)
3	CSE145 Introduction to Computing
4	CSE 203 Algorithms (3,0,3)
5	CSE209 Numerical Analysis & Algorithms (3,0,3)
6	CSE241 Digital Logic Design (3,0,3)
7	CSE243 Data Communication and Networking (3,1,4)
8	CSE246 Data Structures and Algorithms (3,1,4)
9	CSE307 Introduction to Artificial Intelligence (3,0,3)
10	CSE309 Theory of Automata (3,0,3)
11	CSE311 Object Oriented Design and Implementation (3,0,3)
12	CSE312 Software Engineering (3,0,3)
13	CSE341 Database Systems (3,1,4)
14	CSE342 Operating Systems (3,1,4)
15	CSE344 Compiler Design (3,1,4)
16	CSE345 Computer Architecture & Assembly Language (3,0,3)

S.No.	Name of	Course
	Compu	ter Science & Allied Courses (Contd)
17	CSE 346	Numerical Analysis (3,1,4)
18	CSE 4XX	Numeric Computation (3,0,3)
19	CSE406	Principles of Programming Languages
20	CSE407	Human Computer Interaction
21	CSE443	Modeling & Simulation (3,1,4)
22	CSE448	Microprocessor Interfacing (3,1,4)
23	CSE455	Network Security (3,0,3)
24	CSE460	Introduction to Game Programming and Robotics (3,0,3)
25	CSE491	Computer Science Project I (0,3,3)
26	CSE492	Computer Science Project II (0,3,3)
27	CSE557	Advanced Topics on Computer Networking
28	CSE561	Advanced Artificial Intelligence
29	CSE566	Software Quality Assurance
30	CSE567	Requirement Engineering
31	CSE568	Software Project Management
32	CSE569	Web Engineering
33	CSE572	Formal Methods
34	CSE573	Advanced Computer Architecture
35	CSE575	Advanced Human Computer Interaction
36	CSE576	Usability Engineering
37	CSE577	Interaction Design
38	CSE578	GUI Design
39	CSE579	Multimedia and Multi-Modal Systems
40	CSE651	Advanced Analysis of Algorithms
41	CSE652	Knowledge Discovery and Data Mining
42	CSE655	Probabilistic Reasoning
43	CSE656	Computational Intelligence
44	CSE660	Computer Vision
	ICT & A	Allied Courses (13)
1	ICT509	Network Architectures for Business
2	ICT511	Advanced Computer Networks
3	ICT512	Advanced Web Technologies
4	ICTXXX	Distributed Systems
5	ICTXXX	Mobile Computing
6	ICTXXX	Wireless Communication

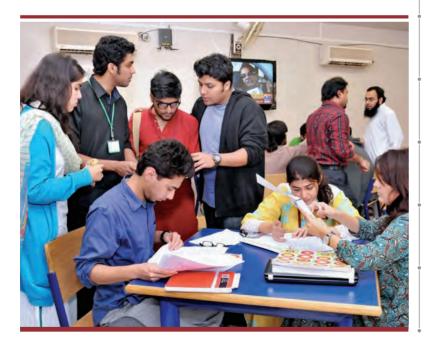
S.No.	Name of Course
	ICT & Allied Courses (Contd)
7	ICTXXX Information Security
8	ICTXXX Human Computer Interaction
9	ICTXXX Intelligent Systems
10	ICTXXX Software Engineering
11	ICTXXX Information Management
12	ICTXXX Theoretical Computer Science
13	ICTXXX None - Centric Computing

# Department of Mathematical Sciences

S.No.	Name of Course					
	Mathematics Courses (73)					
1	MTS101 Calculus-1 & Plane Geometry					
2	MTS102 Introduction to Statistics					
3	MTS110 Mathematical Methods					
4	MTS202 Statistical Inference (with econometrics lab)					
5	MTS203 Linear Algebra					
6	MTS211 Discrete mathematics					
7	MTS232 Calculus-2 & Solid Geometry					
8	MTS301 Real Analysis					
9	MTS302 Complex Analysis					
10	MTS303 Advanced Differential Equations					
11	MTS304 Stochastic Processes					
12	MTS305 Abstract Algebra-I					
13	MTS306 Numerical Analysis					
14	MTS401 Differential Equations					
15	MTS411 Functional Analysis-1					
16	MTS412 Functional Analysis-2					
17	MTS413 Abstract Algebra-II					
18	MTS414 Scientific Computing for Linear PDEs.					
19	MTS431 Numerical Solutions of PDEs					
20	MTS432 Integral Equations					
21	MTS433 Advanced Numerical Analysis I					
22	MTS434 Advanced Numerical Analysis II					
23	MTS435 Differential Geometry					
24	MTS437 Fluid Dynamics I					

S.No.	Name of Course						
	Mathematics Courses (Contd)						
25	MTS438 Fluid Dynamics II						
26	MTS441 Financial Mathematics with a Computational approach						
27	MTS442 Computational Finance						
28	MTS443 Modern Algebra I (Galios Theory & Applications)						
29	MTS444 Modern Algebra II (Commutative Rings & Fields)						
30	MTS445 Measure Theory I						
31	MTS446 Measure Theory II						
32	MTS447 Operations Research I						
33	MTS448 Operations Research II						
34	MTS451 Topology I						
35	MTS452 Topology II (Differential Topology)						
36	MTS506 Quantitative Methods for Decision-Making						
37	MTS511 Advanced Real Analysis						
38	MTS512 Measure Theory & Integration						
39	MTS513 Topics in Algebra						
40	MTS514 Topics in Commutative Algebra						
41	MTS515 Advanced Numerical Analysis						
42	MTS516 Topology						
43	MTS521 Scientific Computing						
44	MTS525 Stochastic Processes II						
45	MTS529 Stochastic Differential Equations						
46	MTS533 Integral Equations						
47	MTS537 Mathematical Astronomy						
48	MTS539 Homological Algebra						
49	MTS541 Computational Algebraic Geometry						
50	MTS545 Applicable Modern Geometry I						
51	MTS549 Algebraic Geometry I						
52	MTS553 Algebraic Cycles I						
53	MTS557 Arithmetic Algebraic Geometry						
54	MTS561 Exploratory Data Analysis						
55	MTS565 Mathematical Physics I						
56	MTS569 Statistical Data Mining & Knowledge Discovery						
57	MTS573 Statistical Machine Learning						
58	MTS577 Galois Theory						
59	MTS621 Numerical Treatment of P.D.E						
60	MTS625 Financial Mathematics I						

S.No.	Name of Course					
	Mathematics Courses (Contd)					
61	MTS629 Financial Mathematics II					
62	MTS637 Computational Astronomy					
63	MTS645 Applicable Modern Geometry II					
64	MTS649 Algebraic Geometry II					
65	MTS653 Algebraic Cycles II					
66	MTS657 Polylogarithms					
67	MTS661 Multivariate Statistical Analysis					
68	MTS665 Mathematical Physics II					
69	MTS671 Monomial Algebra					
70	MTS691 Topics of Special Interest I					
71	MTS692 Topics of Special Interest II					
72	SCI105 Physics I (Mechanics)					
73	SCI205 Physics II (Electromagnetism)					





# Academic Departments & Courses on offer

# Programs Menu

s.	Informet:	Bachelor of Business Bachelor of Science (BS)			Master of Business Adr	Master of Business Administration (MBA)		
No	Information	Administration (BBA)	Economics & Maths Computer Science	Social Sciences and Liberal Arts	Accounting and Finance	Morning	Evening	
1	Admission Requirement	Higher Secondary School Certificate with a Minimum of 65% marks <b>OR</b> 'A' Level (Minimum of 2 'B's an 1 'C') in 3 principal subjects <b>OI</b> American High School Diploma Minimum of 80% <b>OR</b> An International Baccalaureato (Minimum 25/45)	in 3 principal subjects including Mathematics <b>OR</b> American High School Diploma	Higher Secondary School Certificate (Any Group with 60% marks) <b>OR</b> 'A' Level (Minimum 1 'B' and 2 'C's) in 3 principal subjects <b>OR</b> American High School Diploma (Minimum of 80%) <b>OR</b> An International Baccalaureate (Minimum 24/45)		A Minimum 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 <b>OR</b> A Minimum of 2.50 CGPA on a scale of 4.00 (as applicable) <b>&amp;</b> A Minimum of 2 year's relevant work experience gained after graduation / completion of 16 years of education**		
2	Aptitude Test Component	<ul> <li>English Composition (MCQs)</li> <li>English Comprehension (Essay Writing Skills)</li> <li>Mathematics (MCQs)</li> </ul>	<ul> <li>English Composition (MCQs)</li> <li>Mathematics (MCQs)</li> </ul>	<ul> <li>English Composition (MCQs)</li> <li>English Comprehension (Essay Writing Skills)</li> <li>Mathematics (MCQs)</li> </ul>		<ul> <li>English Composition (MCQs)</li> <li>English Comprehension (Essay Writing Skills)</li> <li>Mathematics (MCQs)</li> </ul>		
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 <b>OR</b> ACT score of 29	Minimum 1840 score in SAT-I & Min 650 score in SAT-II (Mathematics) <b>OR</b> ACT score of 28	Minimum 1840 so <b>OR</b> ACT sco		BBA Degree from IBA, Min 2.5 CGPA & 2 year's Work Experience Minimum 600 score in GMAT		
5	Student	Avg Age: 19	Avg	Avg Age: 19			mid 20s	
_	Profile	(0.000		45 courses,			xp: 2 years BBA Background: 66 credit hours,	
6	Graduation Requirement	43 courses, 49 courses, 147 credit hours 147 credit hours + 3 Research Project BBA BBA [Entrepreneurshi	ts Research Project 42 courses, 150 credit 137 credit hours	144 credit hours 1 Culminating Experience/ Thesis Reasonable Citizen Initiative 8-10 week internship	42 courses, 138 credit hours	BBA Background: 66 credit hours, duration 18 months Non-BBA Background: 72 credit hours, duration 24 months Comprehensive exam	duration 24 months Non-BBA Background: 72 credit hours, duration 30 months Comprehensive exam	
7	Fees Fall 2013 ****	Rs 132,000 /Semester	Rs 78,000 /Semest	Rs 78,000 /Semester Rs 96,000 / Semester			Tuition fee of Rs 21,000/- per course for all part-time students	
8	Application Documents	<ul> <li>Matriculation / U Level certificate with transcript / mark sheet</li> <li>HSC / 'A' Level certificate with transcript / mark sheet</li> <li>HSC / 'A' Level certificate with transcript / mark sheet</li> <li>Migration certificate of the university / board concerned, except in the case of Karachi University</li> <li>Post Qualification Worl</li> <li>Karachi Board</li> <li>Equivalence certificate in case of holders of degrees / certificates issued by non-Pakistani</li> <li>Equivalence certificate in case of holders of degrees / certificates issued by non-Pakistani</li> <li>Equivalence certificate in case of holders of degrees / certificates issued by non-Pakistani</li> </ul>					/ mark sheet ce certificate rsity / board concerned, versity / Karachi Board holders of degrees / ani universities / boards	
9	Classes Start	September	February and September	Septemb	er	February and September		
10	Duration	4 years full time		years full time		2 year for Non - BBA Graduate 18 months for BBA Graduate	2.5 years to 7 years	
11	Campus	Main / City	Mair	n / City		Main	/ City	
	The above are extracts of the IBA Program Announcement 2013 - 14***All equivalency claims shall be evaluated by the HEC (www.hec.gov.pk)*Participation in Group Discussion & Interview is mandatory***IBA reserves the right to amend the above fees without notice*For details, see Work Experience requirement****Full-time MS students shall be paid stipend of Rs 25,000/- per month							

	Master of Scie	ence (MS)	Executive MBA	Doctor of	D)	
Computer Science	Leading to PhD (Economics)	Leading to PhD (Mathematics)	Various Specializations	Economics	Computer Science	Mathematics
A Minimum 16 year's of education out of which 4 year's should have spent in an HEC recognized university / degree awarding institute with: A Minimum of 60% aggregate marks OR A Minimum of 60% aggregate marks OR		out of which 4 year's should have spent in an HEC recognized university / degree awarding institute with: A Minimum of 60% aggregate marks 0R A Minimum of 2.50 CGPA on a	16 year's education with 3 year's post qualification work experience OR 14 year's education with 6 year's post qualification work experience	MS / M.Phil / Equivalent in relevant subject from HE recognized local / foreign university with:		
<ul> <li>English Composition (MCQs)</li> <li>Mathematics (MCQs)</li> <li>Specialization</li> </ul>		<ul> <li>English Composition (MCQs)</li> <li>Mathematics (MCQs)</li> </ul>	<ul> <li>English Composition (MCQs)</li> <li>English Comprehension \ (Essay Writing Skills)</li> <li>Mathematics (MCQs)</li> </ul>	<ul> <li>English Composition (MCQs)</li> <li>Mathematics (MCQs)</li> <li>Specialization</li> </ul>		Mathematics
	GRE General + Spec	ialization	GMAT	GRE General + Special	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 20's			Avg Age: mid 30s Avg work exp: 10 year's	Avg age: 26		
Please see page # 110	Please see page # 114	Please see page # 118	20 courses 72 credit hours 2 Projects Comprehensive exam	24 credit coursework 12 credit Dissertation Comprehensive Examinatior 2 internationally referred journal papers	7 core courses 4 electives courses + Dissertation	6 courses + Dissertation
per course	Tuition fee of Rs 21,000/- per course for all part-time students All MS full-time students are required to pay Rs 60,000/- per semester as tuition fee *****		Rs 30,000/- per course Rs 20,000/- per course (for Govt. Employees, armed forces and non-profit organizations)	A stipend of Rs 45,000 / month (provided by IBA)		
<ul> <li>Matriculation / 'O' Level certificate with transcript / mark sheet</li> <li>HSC / 'A' Level certificate with transcript / mark sheet</li> <li>Bachelors degree with transcript / mark sheet</li> <li>Migration certificate of the university / board concerned, except in the case of Karachi University / Karachi Board</li> <li>Equivalence certificate in case of holders of degrees / certificates issued by non-Pakistani universities / boards</li> <li>2 copies of a recent passport-size photograph</li> <li>Original Fee challan deposit slip</li> </ul>			<ul> <li>Matriculation / '0' Level certificate with transcript / mark sheet</li> <li>HSC / 'A' Level certificate with transcript / mark sheet</li> <li>Bachelors degree with transcript / mark sheet</li> <li>Migration certificate of the university / board concerned, except in the case of Karachi University / Karachi Board</li> <li>Equivalence certificate in case of holders of degrees / certificates issued by non-Pakistani universities / boards</li> <li>2 copies of a recent passport-size photograph</li> <li>Original Fee challan deposit slip</li> </ul>	Matriculation / 'O' Level certificate with transcript / mark sh HSC / 'A' Level certificate with transcript / mark sheet Bachelors degree with transcript / mark sheet Master's degree with transcript/mark sheet 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 2 copies of a recent passport-size photograph Original Fee challan deposit slip		
February a	February and September September		March, August and December	February and September		February
2-2.5 years			2 years - 5 years	4-5 years		
City Main		Main	Main	Main / City		

To apply for any of the above Programs

Please visit our website at www.iba.edu.pk or email info@iba.edu.pk

ALL ADMISSIONS ARE SUBJECT TO CANDIDATES MEETING, MINIMUM ELIGIBILITY REQUIRMENTS AND QUALIFYING APTITUDE TEST, GROUP DISCUSSION & INTERVIEW AS APPLICABLE

# Programs Menu

# **Overview of the Programs of Study**

The IBA offers full-time programs in Business Administration & Computer Science both at the Main and City Campus. It also offers a variety of part-time programs at the City Campus in the evening, it is not uncommon to find entrepreneurs, practicing managers, government employees and technocrats attending these programs. The diversity in their work backgrounds makes the interaction a rich educational experience. Specialized executive education programs are conducted by the Center for Executive Education (IBA-CEE) for professionals from the corporate world. The Masters Program offers specialization in the fields of Management, Human Resource Management, Finance, Banking and Marketing. Specializations of MS(CS) such as Net-Centric Computing, Human Computer Interaction, Software Engineering, Intelligent Systems, Information Management, and Theoretical Computer Science are offered in Masters of Computer Science Program. The programs of study are as follows:

#### Bachelor of Business Administration (BBA Program)

The BBA Program at the Main Campus and the City Campus is a full-time 4-year bachelor program. This program consists of 49 courses of 147 credit hours cumulative.

# Bachelor of Business Administration (Entrepreneurship)

A 4-year degree program developed in partnership with Babson College of Entrepreneurship in Boston, USA. The Programs develops students' abilities to formulate ideas, explore and create. It trains them to analyses disciplinary and inter disciplinary subjects, including providing hands on experience in industry, for applying the knowledge and training to generate and sell their ideas in the real world, thus increasing their confidence and creativity. The curriculum integrates core business courses, social science courses and entrepreneurship electives which will enable students to develop the necessary skills to became entrepreneurial in thinking and practice. The program consists of 147 credit hours.

#### Bachelor of Science (Accounting & Finance)

Developed jointly by the Institute of Chartered Accountants of Pakistan ICAP and Institute of Business Administration, Karachi IBA, the program provides an exclusive opportunity to the students to receive an academic degree that leads to a professional qualification. An exemption of 12 Exams of Module A to D will be granted to the prospective CA students who complete their BS (Accounting & Finance) degree from IBA. After graduating from IBA Karachi, would avail the following advantages:

- Exemption from Module A to D
- Complete training for 3 years
- Pass Module E & F (8 courses during training)
- Become a Chartered Accountant

#### Bachelor of Science (Computer Science)

The BS(CS) program is offered at both the campuses. It is a full-time four-year program, preparing students in Computer Science. This program consists of a minimum of 137 credit hours, comprising of a combination of core courses, supporting sciences, general education, computer science electives and general elective courses.

#### Bachelor of Science (Economics & Mathematics)

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. It provides a well coordinated curriculum for students interested in pursuing masters or PhD in economics and mathematics. The program consists of 150 credit hours. Major disciplines of economics and mathematics. The remaining courses are from other disciplines like social sciences, management and accounting.

# Bachelor of Science (Social Sciences and Liberal Arts)

A 4-year degree 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 necessary to understand how we interact with our social world through local and global contexts. The program focuses on how students can use strategies and frames of social analysis to understand and critique our increasingly interrelated economic and political mediated lives. Courses that comprise the Liberal Arts core introduce students to a selected range of traditional academic disciplines. that comprise the liberal arts and sciences. Through these courses, students will acquire comprehensive skills in both qualitative and quantitative thinking and analysis before they engage their major field of specialization.

#### Masters of Business Administration (MBA) (Morning Program)

The MBA Morning Program is a full-time program conducted at the Main Campus and the City Campus of the IBA. Specializations include Marketing, Finance or Human Resource Management.

#### Particulars of the course

a. For Candidates with BBAs background

Duration: 18 months/66 Credit Hours

**Pre-requisites:** 16 years education plus 2 years post qualification work experience plus min 2.5 CGPA in BBA (No entry test for Only IBA BBA students having CGPA equal or above 2.5. They will directly be qualified for Interview round & Group discussion.

**Program Structure:** 22 Courses including MBA Project, No Internship

#### b. For Candidates with Non-BBAs background Duration: 24 months/72 Credit Hours

**Prerequisites:**16 years education plus 2 years post qualification work experience plus min 60% aggregate marks in last degree

**Program Structure:** 24 Courses including MBA Project & Summer Internship

#### MBA Evening

The MBA Evening Program is offered only at the City Campus. Specialization include Marketing, Finance or Human Resource Management. The duration of this program may vary depending on the capacity of the student to complete the course load during each semester.

#### a. For Candidates with BBAs background Duration: 24 months/66 Credit Hours

**Pre-requisites:** 16 years education plus 2 years post qualification work experience plus min 60% aggregate marks in last degree. To be eligible for admission, IBA BBA graduates must have minimum CGPA of 2.5 **Program Structure:** 24 Courses including MBA Project & Summer Internship

#### b. For Candidates with Non-BBAs background

Duration: 30 months / 72 Credit Hours

**Pre-requisites:**16 years education plus 2 years post qualification work experience plus min 60% aggregate marks in last degree. To be eligible for admission, IBA BBA graduates must have minimum CGPA of 2.5

**Program Structure:** 24 Courses including MBA Project

#### 18 months MBA Program (Morning)

For those who have obtained BBA degree from HEC recognized institute will finish their Full time MBA in just 18 months instead of 24 months (for Non-BBAs)

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thus resulting in the saving of the tuition fees for one full semester and start the job 6 months earlier IBA BBA with the CGPA of 2.5 and have acquired two years work experience will no longer be required to appear at the IBA entry written test for MBA beginning 2012. They will directly be qualified for the next round i.e. Interview, Group discussion and Essay submission.

#### Master of Business Administration (MBA) (Evening Program)

MBA evening is offered at the City Campus. The prerequisite of this program is a Postgraduate Diploma in Business Administration. The duration of this program may vary depending on the capacity of the student to complete the course load each semester. Students must complete the entire coursework within 5 years of completion of Postgraduate Diploma to qualify for the degree. This program consists of 12 courses for cumulative 36 credit hours. Out of these, 8 courses are compulsory and the rest are electives.

#### Master of Science (Computer Science) (Evening Program)

The MS(CS) Program is offered at the City Campus. This is a part time program, preparing students in computer science. This program consists of a minimum of 30 credit hours for those students opting for MS thesis, 24 credit hours of coursework and 6 credit hours of research work is required. For students opting for coursework only, 27 credit hours of coursework along with 3 credit hours of research survey is required. Courses comprise a combination of compulsory and elective courses in core and supporting areas.

#### **MS Economics Program**

The 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. This program emphasizes on applied economics, and caters to the growing market for economic analysts. Option will be available to students either to join the morning session or the evening session. However, if a sufficient number of students is available only then morning session will also be started. Experience is not mandatory for admission to the MS Economics program.

#### PhD (Computer Science)

The Faculty of Computer Science of the IBA is offering PhD programs in Artificial Intelligence and Cognitive Robotics, Wireless and Mobile Communications, Social Computing, Operations Research, Information Security, Numerical Analysis and Computing, Multimedia & Web and Human Computer Interaction. Students may avail a full teaching / research assistantship which comprises of an attractive monthly stipend and full tuition fee waiver. The program is composed of coursework credits and dissertation credits.

#### PhD (Economics)

PhD program in Economics provides graduate students an opportunity to make a contribution in the development and application of knowledge in Economics. It enable students to conduct quality research in their specialized fields. Students after successfully completing their doctoral degree from the IBA are prepared for careers in universities, business enterprises, national and foreign banks, companies and government organizations. This 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 and tuition waiver.

#### MS leading to PhD in Mathematical Sciences

This program is geared towards cutting edge research in modern as well as contemporary areas of pure and applied mathematics. It aims to streamline, and *(academically)* help raise individuals having successful careers of mathematics. The program targets students who have had graduate level training in mathematics, physics, engineering, and allied sciences. Their existing knowledge base of mathematics is complemented with the MS program, the successful culmination of which naturally leads to a tenure of doctoral research.

#### **Executive MBA**

This program has been designed for the mid- career professionals, executives, managers serving at corporate houses, banks and financial services and public sector and are eager to upscale their knowledge and skills and move forward towards the leadership role. It offers Master degree in Business Administration on a schedule that minimizes disruption of work and personal pursuits. This program is a combination of class room learning through interactive and group discussion and experience sharing by participants and faculty. An all encompassing curriculum is developing the analytical and decision making skills of knowledge seekers. Relevant for all those who are ready to do the hard work in seeking C- suite (CEO, CFO, COO etc.) or entrepreneurial roles.

#### Postgraduate Diploma in Business Administration (PGD) (Evening Program)

PGD is offered at the City Campus in the evenings. The duration of this program may vary from 1½ to 3½ years, depending on the capacity of the students to complete the course load each semester. The students must complete the coursework in 7 consecutive semesters. The course load for PGD students is three in the regular semester and two in the summer semester. This program consists of 12 courses of 36 credit hours cumulative, all of which are compulsory. This program leads to MBA degree pursued in the evening program.

#### Certificate Courses (Evening Program)

Candidates interested in attending single courses of PGD and MBA, offered in the evening, are awarded certificates upon successful completion of the course. These certificate courses are available for people with a bachelors degree or equivalent from a recognized university. Relaxation in this requirement may be allowed for candidates sponsored by their employers. These courses are useful for those who cannot join the full-length degree or diploma programs. Students can have their status converted to that of visiting students, upon request, before the first hourly examination of the course.

#### Visiting Students Program (Evening Program)

The Institute also admits, without any prerequisite, visiting students in single PGD and MBA courses in the evening program, provided seats are available. These students are not allowed to take regular examinations. The visiting participants are awarded a certificate without any grade for attending the course if they maintain the attendance requirement. A visiting student is not allowed to have his/her status changed to that of a regular student during the semester.

# Academic Calendar 2013 - 2014

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		S	umme	r Sem			Begins: July 01,			
								2013 (1101144),		
Month	Total Days	Sunday	Holidays	Exams. Days	Teaching Days		Activity	Action By	Commencement Date	Completion Date
July, 2013	31	4	-	2	25		Online Course Registration	Students	June 17, 2013	June 19, 2013
							Mid Term Exams	Controller of Exams	July 22, 2013	July 23, 2013
August, 2013	17	2	4	-	11		Teachers Evaluation	Students	August 01, 2013	August 02, 20
Total Days	48	6	4	2	36		Preparatory Holiday	Controller of Exams	August 18, 2013	August 18, 20
Totat Days	40		4	2			Final Examinations	Students	August 19, 2013	August 20, 20
re-Summer S							Promulgation of Results	Faculty	August 28, 2013	August 28, 20
re-Summer S Duration of							Promulgation of Results Comprehens		August 28, 2013	5
		ster: Ju	ine 17th t	:o 30th, 2	<sup>2013</sup> Fall		Comprehense Comprehense Comprehense	sive Exams	August 3	August 28, 20 1 <b>1, 2013</b>
Duration of	f Seme	ster: Ju Fal	ll Sem	ester	<sup>2013</sup> Fall 2013 Be		Comprehens emester 2013 is: September 02	sive Exams 2, 2013 (Monday	August (	1, 2013
		ster: Ju	ll Sem	:o 30th, 2	<sup>2013</sup> Fall 2013 Be		Comprehense Comprehense Comprehense	sive Exams	August 3	1, 2013
Duration of	f Seme Total	ster: Ju Fal	ll Sem	ester Exams.	2013 Fall 2013 Be Teaching		Comprehense emester 2013 is: September 02 Activity	sive Exams 2, 2013 (Monday	August (	Completi Date
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**Final Examinations** 

Promulgation of Results Faculty

Student Development Program:

**Comprehensive Exams** 

Controller of Exams.

Will take the First Term Exam in the afternoon. Consequently, Classes of MBA will continue undisturbed in morning hours from October 07 to 12, 2013.

Orientation

August 29, 2013

February 01, 2014 August 30 & 31, 2013

Jan 25, 2014 Jan 25, 2014

Jan 6,2014

Jan 17, 2014

			Sprin	ig Sem	ester Beg	gins	: February 03, 20	14 (Monday)		
Month	Total Days	Sunday	Holidays	Exams. Days	Teaching Days		Activity	Action By	Commencement Date	Completion Date
February, 2014	26	3	1	-	22			Evening Students	Jan 18, 2014	Jan 18, 2014
March, 2014	31	5	1	6	19			Senior Students MBA	Jan 20, 2014	Jan 20, 2014
April, 2014	30	4		6	20			Junior Students (MBA)	Jan 22, 2014	Jan 22, 2014
May, 2014	30	4	- 1	-	26		Online Course Registration	Sophomore Students (BBA, BS)	Jan 24, 2014	Jan 24, 2014
Total Days	118	16	3	12	87			Junior Students (BBA, BS	Jan 27, 2014	Jan 27, 2014
								Senior Students (BBA, BS	Jan 29, 2014	Jan 29, 201
Exams	otes MBA classes will be held as per schedule during the 1st Term Exams week (March 10 to 15, 2014). BA Faculty members who opt to conduct one Mid-Term Exam only:							Freshman Students (MBA, MS & BS)	Jan 31, 2014	Jan 31, 2014
MBA Faculty me	embers who	opt to conc	luct one Mid	-Term Exan	n only:		1st Terms Exams	Controller of Exams.	March 10, 2014	March 15, 20
	id-Term Exams of MBA courses will be conducted from April 21 to 26, 20 BA Faculty members who opt to conduct two Term Exams:				21 to 26, 2014.		2nd Terms Exams	Controller of Exams.	April 21, 2014	April 26, 201
MBA Faculty me	embers who	opt to conc	duct two Terr	n Exams:			Teachers Evaluation	Students	May 5, 2014	May 7, 2014
Will take the Firs	st Term Exa	im in the af	ternoon. Con	sequently, (	Classes of		Preparatory Holiday	Students	June 1, 2014	June 1, 2014
MBA will continu	ue undisturi	bed in morr	ning hours fro	om March 1	0 to 15, 2014.		MBA Preparatory-Week	Students	May 26, 2014	June 1, 2014
				Final Examinations Controller of Exams.		June 02, 2014	June 12, 201			
l i			Semester				Promulgation of Results	Faculty	June 21, 2014	June 21, 201
Duration	n of Sem	ester: J	anuary 17	7th to 25	th, 2014		Comprehen	isive Exams	August 3	0, 2014
	S	pring Sem	nester Orier	itation				January 25, 2014 (Satu	rday )	
Spring Semester Orientation Summer Semester 201										
					Juini	ier	Semester 2014			
			Sumr	ner Se			Semester 2014 Begins: June 23, 3			
			Sumr		mester 2			2014 (Monday)		
Month	Total Days	Sunday	Sumr Holidays	ner Ser Exams. Days				2014 (Monday)	Commencement Date	Completion Date
	Days	Sunday		Exams.	Teaching Days		Begins: June 23, 1	2014 (Monday) Action By	Date	
Month June, 2014		Sunday		Exams.	mester 2		Begins: June 23, Activity	2014 (Monday) Action By Students	Date June 14, 2014 .	Date
	Days	Sunday 1 4		Exams.	Teaching Days		Begins: June 23, 2 Activity Online Courses Reg.	Action By       I         Students       I         Controller of Exams       I	Date           June 14, 2014         .           July 14, 2014         .	Date June 16, 2014

# Spring Semester 2014

	Month	Total Days	Sunday	Holidays	Exams. Days	Teaching Days			Activity	Action By	Commencement Date	Completi Date
J	une, 2014	8	1	_	_	7		ľ	Online Courses Reg.	Students	June 14, 2014	June 16, 20
18						,			Mid Term Exams	Controller of Exams	July 14, 2014	July 15, 201
J	uly, 2014	31	4	3	2	22		Ľ	Preparatory Holiday	Students	August 09, 2014	August 10, 2
A	ugust, 2014	8	1	_	_	7			Final Examinations	Controller of Exams	August 11, 2014	August 12, 2
11	otal Days	47	6	3	2	36		Pre-Summer Semester 2014 Duration of Semester: June 7th to 21st, 2014				
	Fall Semester 2014											

Fall Semester 2014 Begins: August 25, 2014 (Monday)

			JUL	.Y		
Sun	Mon	Tue	Wed	Thu	Fri	Sat
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14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

2013										
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2014 🥢

**FEBRUARY** 

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22	23	24	25	26	27	28
29	30	31				

Tentative Lis for 2013 (*	
<b>9, 10 &amp; 11</b> August	Eid-ul-Fitr
14 August	Independence Day
15 & 16 October	Eid-ul-Azha
9 November	Iqbal Day
<b>13 &amp; 14</b> November	Youm-e-Ashura
17 December	Bhittai Day
25 December	Quaid-e-Azam Day
27 December	Benazir Bhutto's Death Anniversary

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26	27	28	29	30	31	

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	26	27	28	29	30	31							
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JUNE

Mon Tue Wed Thu F<u>ri Sat</u> 

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24 25 26 27 28

	Tentative List of Holidays for 2014 (1435-36AH)							
	<b>13</b> January	Eid Milad un-Nabi						
•	5 February	Kashmir Day						
	23 March	Pakistan Day						
	1 May	Labor Day						
	<b>29, 30 &amp; 31</b> July	Eid-ul-Fitr						
	14 August	Independence Day						
	5 & 6 October	Eid ul-Azha Youm e Ashura						
	3 November							
Ĭ	9 November	Iqbal Day						
	6 December	Bhittai Day						
	25 December	Quaid-e-Azam Day						
	27 December	Benazir Bhutto's Death Anniversary						

\* Islamic holidays are subject to the lunar calendar

\*\* National holidays are subject to the declaration by the Government of Pakistan.

\*\*\* Provincial holidays are subject to the receipt of notification from the Governor House.

# Enhancing our Outreach

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 calibre 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 non profit 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. IBA is already providing a few of such services on a sporadic basis but they have to be further expanded and enlarged in a more systematic way. The vehicle through which this will take place are the Center for Entrepreneurship Development, Center for Executive Education and the Center for Access to finance.

# 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 is a 6-8 week mandatory internship aimed to raise the level of awareness of the "future business leaders" of PK regarding the Social Sector and the challenges it faces. It is offered to our BBA 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 the best brains in PK 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 Program a win-win proposition.

#### Center for Access to Finance (CAF)

One of the major factors inhibiting rapid progress in poverty reduction and better income distribution is the inaccessibility of institutional finance to the low and middle income groups in Pakistan. The CAF carries out analytical studies, action research, monitoring and evaluation of the existing infrastructure, institutions and networks supplying finances. It also assesses the demand and demand side constraints through surveys, focus groups and structured interviews. The Center will link with the Center for Entrepreneurship Development (CED) in future and help transformation of business ideas into reality.

#### Center for Entrepreneurship Development (CED)

BBA (Entrepreneurship) is a 4-year degree program; the program has been developed in partnership with Babson College of Entrepreneurship in Boston, USA. The Entrepreneurship specialization develops 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.

The curriculum integrates core business courses, social science courses and entrepreneurship electives which will enable students to develop the necessary skills to became entrepreneurial in thinking and practice. The program consists of 147 credit hours, including 43 courses and 3 research projects.

The Specialization in Entrepreneurship would inspire potential students to think like an entrepreneur, by being innovative and creative in their thoughts and action. Some students who are fortunate enough to have a legacy of entrepreneurship in their family may want to help grow the family business, or learn how to improve the business by applying creative ideas. Furthermore, the entrepreneurial spirit may appeal to some who are looking to explore and experience a different way of running businesses.

#### Career Development Center (CDC)

The goal of the Career Development Center is to help the students find the right job in their preferred field, with their "employer of choice". The CDC achieves this through developing strong and tangible linkages between employers and IBA graduates, and aligning the needs of employers with the competencies of our graduates. Professional lectures, seminars, panel discussions and workshops on career development and related skills are also organized. Other activities include arranging mock interviews of graduating students with Alumni, organizing and facilitating job fairs, coordinating internships, 5-months projects, and job placements in an efficient and smooth manner. The CDC also sponsors visits of head hunting teams to facilitate on-campus recruitment activities, as well as ensuring the timely compilation, publication, and circulation of the IBA Graduate Directory for BBA and MBA classes. At CDC, we tend to channel our energy and efforts for the career development of our students so that their strengths and competencies are showcased in a manner that is appealing and facilitative for the employers.

# Center of 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, and 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.

#### Enhancing our Outreach

### **Center for Executive Education (CEE)**

The IBA's Center for Executive Education (CEE) focuses on developing managers and providing opportunities for refining the skills needed to succeed in today's business environment. It is a nucleus for activities designed to enhance organizational effectiveness through training and developing working professionals in various disciplines and equipping them with the tools and knowledge to improve their managerial skills. The programs offered are designed to strengthen the participants' leadership skills with a focus on personal development, productivity improvement and strategic thinking.



Additionally, the CEE works in partnership with the clients to understand their needs and to develop the best possible solution for them.Particulars of some of the training conducted by CEE in 2012 are appended as under:

#### A. Open Enrolment Programs

#### Leadership

- Leadership Skills for Top Management
- Leadership Development Program (LDP) for Banks & Financial Institutions
- Entrepreneurial Leadership

#### Strategy & Management

- Balance Scorecard
- Project Management
- Negotiation & Conflict Resolution Skills

#### Sales & Marketing

- Optimal Pricing Strategies & Tactics
- Mobile Marketing Strategies
- Building Strong Generic Pharma Brands

#### Law, Finance & Accounting

- Financial Modelling (Basic & Advance)
- Corporate Credit Risk Analysis
- Finance and Accounting for Engineers & Technical Executives
- Risk Analysis of Insurance Companies
- Financial Crisis Management
- Corporate Reporting
- Operational Risk Management
- Application of Corporate Laws for Decision Making

#### Communications

• Effective Business Communication

#### IT & SAP

- SAP ERP
- Doing Wonders with Excel 2010 (Advance)

#### Human Resource Management

- HR as Strategic Business Partner
- High Impact Train the Trainer
- Finance & Accounting for HR Professionals

#### B. Client Specific/Customized Programs

- Verbal and Written Communication Workshops: NIBAF (State Bank of Pakistan) Habib Bank Limited
- Building Strong Pharma Brands: Searle Pakistan Limited, SANOFI-aventis Pakistan



- Developing Project Proposals: Sindh Coastal Development Authority
- Export Marketing & Supply Chain Management in Livestock & Dairy Business, Farming, Horticulture: Agribusiness Support Fund (ASF)
- GAT Preparation: Sui Southern Gas Company Limited



#### C. Conferences, Seminars & Lectures

- Video Conference Discussion on on "Return on Training Investment (ROTI)" Moderator: Dr. Khurram Sharif, Qatar University
- Conference on **"Supply Chain Management"** Speaker: William Peace - Purdue University, Panelist: Sean Culley - CEO Seven Collaborative Solutions
- Video Conference by Rajesh Achanta on "Competitive Supply Chain"
- Lecture by Sadiq Sayeed on "Financial Crises and the Behavior of Government and Regulators".
- Roundtable discussion on **"Access to Finance for Women Entrepreneurs"** with IFC & The INSEAD Alumni Association of Pakistan
- Seminar on "Career Counseling for Competitive Examination" for Youth Affairs Department-Government of Sindh
- Seminar on **"Managing Family Businesses"** by Prof. Parimal Merchant (Director S.P. Jain Institute of Management and Research)

IBA launched the Sindh Talent Hunt Program (STHP) in 2009 jointly financed by the IBA Karachi & Community Development Program(CDP), Planning & Development Department -Government of Sindh with the objective to prepare talented students from the deprived areas of Sindh region for the preparation of aptitude test for BBA/BS degree courses. This program primarily targets students from the backward areas of Sindh who are unable to apply for

Enhancing our Outreach

respective Intermediate boards of Sindh are selected for this program. Trainees, lodging and boarding and tuition are provided free of cost, plus a small stipend is provided to cover other personal expenses. Ever since inception of the program in 2009 as many as 80 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 Sindh Talent Hunt Program (STHP) is now

Students Trainec at the Orientatior Program	· · · · · · · · · · · · · · · · · · ·	BBA	BS (Computer Science)		
17	3	-	1	1	
24	6	1	5	6	
28 7		3	4	7	
	t the Orientation Program 17 24	t the Orientation Programqualify the Aptitude Test173246	t the Orientation Programqualify the Aptitude TestBBA173-2461	t the Orientation Programqualify the Aptitude TestBBA Science)(Computer Science)173-124615	

14

14 4 10 18 9 5 4

BS

(Computer

Science

2

1

5

Total

BS

(Economics &

Mathematics)

Total

students

admitted

1

3

1

1

2

7

14

18

47

The program has been revised for a larger scope. For eligibility criteria and further information please visit: http://nthp.iba.edu.pk

To prepare talented Students from under-privileged areas of Pakistan for IBA Entry Test and to

IBA launched the National Talent Hunt Program (NTHP) in 2004 jointly financed by IBA & corporate

and public sector organizations with the objective to prepare talented students from the deprived

areas of the country for the preparation of aptitude test for BBA/BS degree courses. This program primarily targets students from the backward areas of Balochistan, Punjab, Sindh, FATA, Khyber

Pakhtunkhawa and Gilgit Baltistan who are unable to apply for admission in IBA due to financial

constraints. Students who have secured A-1 grades their respective Intermediate boards of Pakistan

are selected for this program. Trainees, lodging / boarding and tuition are provided free of cost, plus

BBA

1

1

1

1

1

2

finance the education of students who are able to clear the IBA entry test.

#### IBA Foundation Program (FP)

Students Trained

Program

19

31

15

12

23

16

36

32

Year at the Orientation

2004

2005

2006

2007

2008 2009

2010

2011

2012

**Talent Hunt Programs** 

National Talent Hunt Program (NTHP)

a small stipend is provided to cover other personal expenses.

Successfully

qualify the

Aptitude Test

1

3

1

1

2

7

No activity in 2008

Objective



IBA has entered in to collaboration with the Community Development Program, Planning & Development Department, Government of Sindh, to launch the IBA - Foundation Program for Sindh region. All expenses for the Foundation Program are mutually borne by IBA & CDP-Government of Sindh. The first batch of the Foundation Program has commenced its training at the IBA Main campus in December 2012. Further information please visit: http://sfp.iba.edu.pk

#### Sindh Talent Hunt Program (STHP)

admission in IBA due to financial constraints. Students who are among the top-20 in the merit list in their

revamped as the IBA Foundation Program. Total



# **Admission Policy**

IBA takes pride that it has never compromised quality in its standards of student intake, classroom instruction and discipline, assessment and testing during the fifty 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 best practices.

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

#### **Salient Points**

- Admission will be offered to all those who qualify following a strict merit-based admission criteria irrespective of their race, religion, gender, ethnicity or socio-economic background.
- There are no reserved / quota seats for any category at IBA.
- No effort will be made to fill all available seats or the lower 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 Aptitude Test scores 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 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; such 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 admitted to the BBA & MBA Programs (to be published at the culmination of the admission process) 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, related activity 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 mark sheet / transcript of the same.
- Provide equivalence certificate in case of holders of degrees/certificates 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 (by reappearing in the same subjects, or having their scores rechecked) and submit the new grades before the start of the classes.

#### Aptitude Test, Group Discussion & Interviews

- The aim of the Aptitude Test is to evaluate candidates for their quantitative and analytical abilities, 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, academic and other achievements, leadership potential, extracurricular interests, verbal communication, mannerism, integrity, appearance and enthusiasm.
- The interviews are designed to bring out the qualities needed 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 having 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 having a minimum score of 1840 in SAT-I or ACT score of 28.
- Candidates applying for admission to BS Programs [Eco & Maths, CS] and having 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 having a minimum score of 600 in GMAT.
- Candidates in possession of 'Admission Offer' letter of Lahore University of Management Sciences, Karachi School for Business & Leadership or from any of the institutions with which IBA Karachi has



#### **Admission Policy**

signed a MOU / exchange program or from any of the top 100 universities.

- However, students dropped out from schools mentioned above will not be exempted.
- Candidates applying for admission to MS / PhD [Computer Science / Mathematics / Economics] Programs and having 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 having two years work experience (Three years work experience in case of EMBA).
- 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.

#### 0R

#### Applicants to the BS Programs (CS, Economics & Mathematics) must have completed their: Higher Secondary School Certificate (Pre-Engineering) with a minimum of 60% marks

0R

Higher Secondary School Certificate (General Group with Mathematics] with a minimum of 60% marks 0R

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



#### 0R

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

#### 0R

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

#### 0R

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 16 years of education out of which 4 years should have been spent in an HEC recognized university / degree awarding institute\*.

A minimum of 2 years of relevant work experience gained after graduation / completion of 16 years of education. (Not required for MS Program). For details. see Work Experience Requirement given below. A minimum of 60% aggregate marks in the last degree; provided numerical scores of each subject are mentioned in the mark sheet. 0R

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

A minimum of 3.0 CGPA on a scale of 4.00 in the last degree where applicable\*

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 Programs must have: Passed Bachelors level examination

16 years' education plus 3 years' relevant work experience

#### 0R

14 years of education plus 6 years of relevant work experience.

For details, see Work Experience Requirement given below

#### **Admission Policy**

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

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.

#### **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 rankings 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.
- 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.

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.
- The IBA admission test may be waived for such candidates.
- Interviews would 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 earned from any of the top 100 universities of the world as well as LUMS, KSBL and the universities with which IBA will signing MOU's will be included in the calculation of the CGPA and such students will be entitled to compete for positions/medals. However the credits for grades earned from other universities will be decided on case to case basis but will not be included in CGPA calculation. Their positions/rankings will depend only on the courses they complete at IBA. This will be applicable for all degree programs at IBA.

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, and the grade is acceptable 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 post graduate of 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. This committee will comprise of the members of the Admission Committee, Director MBA Program and an IBA alumnus with at least 10 years work experience. This work requirement will only be considered provided it has been achieved after applicants have obtained 16 years of education. The education requirement should meet the criteria established by HEC.

#### For applicants of EMBA Program:

Experience requirement for admission to IBA's Executive MBA programs will comprise of 3 years work experience (for those having 16 years of education) and 6 years of work experience (for those having 14 years of education). 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 the members 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. The education requirement should meet the criteria established by HEC.

#### For applicants of 18 Months MBA Program (Morning):

Holders of BBA degree from HEC recognized institutions will complete their Full time MBA in 18 months instead of 24 months (as in the case of Non BBAs). IBA BBA graduates with the CGPA of 2.5 and having two years work experience after their BBA degree are not required to appear in Aptitude Test but will have to participate in Interview, Group discussion and Essay submission activities.

#### 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 and sign it, print a bank call (also available at the easier) and take these papers to the designated bank branches to deposit along with the admission processing fee for obtaining bank challan. Bank Challan alongwith copy of the admission application form is then to be taken to the Admissions Office for collection of the Admit Card as per the procedure described below:

#### Issuance of Admit Cards

Applicants residing in Karachi can obtain their Admit Cards by visiting the Admissions Office at IBA City Campus with a copy of the bank Challan, a copy of the duly signed-in Admission Form and two recent passport sized color photographs. Applicants residing outside Karachi can collect their Admit Cards from designated bank branches after payment of processing fees and submitting a copy of the signed Admission Form and two recent passport sized color photographs. List of authorized branches is given on the IBA web site.

#### Aptitude Test

The Aptitude Test is conducted simultaneously in Karachi, Lahore, Islamabad, Peshawar, Quetta and /or other cities announced through media on a specified date. 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 at both the campuses and 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 displayed at both the campuses and on our website. These candidates may obtain their Admission Letter and Fee Challan from the Admission Office in the City Campus upon depositing of the transcripts bearing proof of their having met the minimum eligibility requirements for the respective programs.

#### Enrollment

Candidates who have received their Admission Letter and Fee Challan should deposit their fee in the prescribed bank and collect Enrollment Form from the respective Program Offices for commencing studies at IBA. These candidates must, however, submit the following documents in original, along with copies attested by a gazette officer to complete the enrollment process:

- Matriculation / 'O' Levels certificate with transcript
   / marks sheet
- 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
- 6 copies of a recent passport-size photograph
- Photocopy 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 in 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 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 the academic conduct are approved in the secondary portion:

#### **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 behaviour during their studies at the IBA. A student shall be deemed to have lost good standing if his/her conduct and behavior 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. Late comers 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 75minute's course and 3 during a summer course.

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**

- 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:
  - a. The student must have held a Master's degree with 60% marks at the time of admission to the Certificate Program
  - b. The semester final grade in the course was at least 'B'
- c. 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 coursework, can take MBA courses only as certificate students and may get credits for these courses in their degree coursework later, subject to the following conditions:

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

#### Course Load

- I. The course load for PGD and MBA Evening Program students is 3 in the regular semester and 2 in the summer semester. The students may take 4 courses if they maintain their CGPA at 3.0 and above.
- II. The course load for full-time degree program students is 6 in the regular semester. 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 coursework.



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#### **Rules & Regulations**

#### Withdrawal from a Course

 Full-time students are allowed to withdraw from one course 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.

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'.

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 Evening Program office within one week of the second term examination result or within one week after the announcement of midterm examination results in the summer semester.

#### Make-up Examinations

- I. Morning Program Students of Both Campuses: Under normal circumstances, no make-up examination shall be allowed for missing Term or Semester Final Examination.
- II. Evening 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 Even in Program students for only one of the two term 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 term examinations.
- c. The concerned student shall be required to provide the following documents at least one week before the scheduled exam:
- i. A certificate 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. 5000/-

#### Make-up Exams

In extremely serious cases, authenticated by recognized hospitals, a 'Special Committee' comprising the concerned faculty and the concerned chairperson may consider to allow make-up exam in term exams only. The committee's decision in this regard shall be final. This facility shall, however, be allowed for only one of the two term examinations in a semester. The policy on make-up exams will include the cases **(i)** in which student's spouse is hospitalized in extremely serious condition, or **(ii)** in case of the death of mother / father of a student. 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 unavoidable circumstances he / she may apply for 'I'(Incomplete) with all supporting documents including medical certificates through his / her respective program coordinator to the Executive Committee. If the Executive 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 is Rs. 5000/- per course.

#### **Rechecking of Final Paper**

Rechecking of final papers is allowed subject to a deposit of Rs. 7000 /- per course, which is refundable if any significant improvement in grades / marks is found after rechecking.

#### **Transcript of Record**

Students of MBA, BBA and Postgraduate Diploma programs can get a transcript of their grades from the Institute within 2 weeks on payment of Rs.1,000/-. Urgently required transcripts can be obtained within three working days on payment of an additional Rs. 1,000/-.

#### 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 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:

- a. The student should fall within the top 5% of his/her class and subject to having a minimum CGPA of 3.5
- b. The student must not have C- or lower grades in any of the courses during the semester.
- c. 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).
- d. 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.
- e. 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 6 in the regular semester.

- f. The grades earned from any top 100 universities of the world as well as LUMS and the universities with which IBA will be signing MOUs will be included in the CGPA and such students 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 / rankings will be determined on the courses they would be doing 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 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 abovementioned criteria, he/she will be awarded a gold medal and there will be no silver or bronze medal.

#### MBA Morning, Overall Medals

Top three students of the MBA Morning Program meeting the following criteria will be awarded Gold, Silver and Bronze medals respectively:

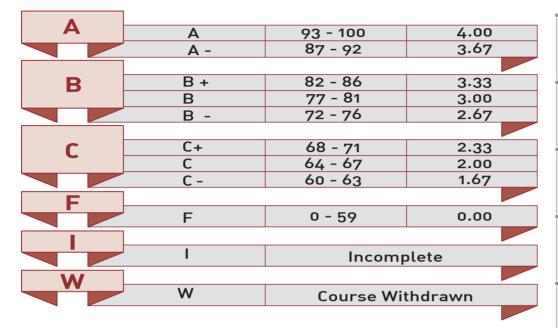
a. Medal shall be awarded on the basis of CGPA obtained in MBA second, third and fourth semester courses only, with the provision that the MBA (direct) student should not have any C in 18 courses and MBA through BBA student should not have any C in 18 courses of MBA.

- 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 Gold Medal.
- c. No award will be made unless there is a candidate of sufficient merit. For example, if only one student qualifies according to the abovementioned criteria, he/she will be awarded with gold medal and there will be no silver or bronze medal.



# **Grading & Evaluation**

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



In addition to the above absolute scale, Relative Grading is also being encouraged. Faculties 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:

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

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

The initial CGPA of the PGD/MBA/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.

#### Minimum GPA Requirements

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

2.0 and 2.2 is put on probation for one semester.

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/MBA Degrees

- If a BBA 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.

#### 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. 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 coursework. This 4 to 6 hour examination is held after every regular semester. After completion of coursework, 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 coursework with no restriction on number of attempts. 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 coursework 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 coursework. 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 in 5 years from completion of course work.

- a For coursework, the period shall be counted from the date of admission.
- b. For comprehensive examination 10/5 years shall be counted from the date of completion of coursework.

#### For Evening Program Students:

Maximum time allowed for PGD : 3 1/2 years\* Maximum time allowed for MBA : 5 years from date of PGD completion Maximum time allowed for Comprehensive Exam : As above (10/5 years)

\*In case a student opts to do PGD only, then 3½ years seven years time period.



# Departmental Heads Ahmed Zaheer Mobin Khalili **Moeid Sultan** Registrar **Controller of Examinations Director Finance** Mr. Imran Batada Ayesha Menai Zafar Siddiqui Engr. Rehan ul Ambia Riaz

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Acting Head ICT, Senior Manager IS & Project Manager ERP

Director Human Resource

Director Alumni. Public Affairs & Resource Mobilization Director Projects

## General

The Institute of Business Administration, Karachi has two campuses spread about 52 acres, constructed in the early sixties. These compare in size and splendor to any campus of a world-class institution of higher learning. The facilities are immaculately maintained in line with the IBA tradition of excellence in all facets of its activities. In 2008, the Institute embarked on a multi- prong strategy to develop its programs, faculty and facilities to make it eligible to be graded among top 100 business schools of the world by 2015. A development plan was thus launched in all three areas. On the facilities side, this plan comprised refurbishing, renovation and upgrading of the existing buildings, facilities and infrastructure at both campuses and construction of a series of new buildings to enhance capacity and meet international standards. The ensuing year and 2012 witnessed these efforts bear fruit in a multitude of areas, whereby two new state of the art academic premises and one new student residential facility have been commissioned, along with the completion of work on refurbishing /renovation of the entire old infrastructure. All instructional spaces are now centrally air-conditioned and fully equipped with the latest audio-visual, video conferencing facilities to boost the overall learning endeavors. Two new state of the art multi-story academic premises (the AMAN Center for Entrepreneurial Development and Tabba Academic Block) have been commissioned at main campus, doubling its capacity and making it capable of accommodating around 3000 students in a single shift. A brand new 108-rooms hostel (Haleem Siddiqui, Boys Hostel) has also been commissioned at the main campus. Civil work is in advanced stage at the IBA Staff Town, neighboring the main campus, for construction of a new 96 bed Girls Hostel and a 14 person's capacity suite-style facility for visiting faculty.

The IBA Main campus is a large complex of buildings spread around lush green sprawling lawns, which serve as ideal backdrop to an extremely conducive environment for academic pursuit. It houses the Administration and Faculty Offices, Academic Block, Library and Auditorium Building. Located in the environs of the Karachi University's Complex on main university road & Abul Hasan Isphani Road, the main campus infrastructure includes the Administration and Instructional areas, plus two residential areas, namely the Boys' Hostel and the IBA Staff Town, which also houses the Girls' Hostel and the Visiting Faculty Hostel. These comprise an administration block, some 40 classrooms, 8 seminar rooms, five computer labs, 14 break out rooms located in the three academic buildings namely (Adamjee Academic Center, the Abul Razzak Tabba Building and the Aman Center for Entrepreneurial Development) the Gani & Tayub Auditorium with a capacity of 300 persons, a library with around 40,000 books, video conferencing room, faculty lounge and an under completion student center comprising an amphitheater, dining area, indoor sports facilities, sports arena and an entire range of sports facilities.

The City Campus is in the heart of the business district of the city. It houses the Chinoy Administration Block, the Faysal Bank Academic Block, the Habib Bank Technology Block and the Center for Executive Education which together field excellent premises for various regular and executive education programs. The City Campus is also home to the Evening Program, which is attended mainly by professional managers. Existing facilities include 18 class-rooms, 4 IT and computer laboratories. The campus is also the venue of two major construction projects, namely, building of a 14-storey instructional-cum-residential premises, the IBA - Aman Tower being built with funding made available by the Aman Foundation, and construction of a modern 250-seats auditorium being funded by the JS Foundation. Once completed in 2014, these facilities will add a new dimension to IBA's ability to support the business studies related programs for regular students as well as part time and executive students

#### Projects

During the last 3 years, a series of buildings and facilities at both the campuses have undergone modernization and new ones have been added. Work on these buildings and facilities has been undertaken by professional architects, consultants and project managers under the supervision of Projects Department comprising highly experienced team of professional engineers. The following is the upto date status of the projects at both campuses:

- 1. Students Centre at Main Campus Scheduled to be completed in August 2013.
- Abdul Razzak Tabba Academic Block at Main Campus - It was completed and inaugurated in May 2013.
- Renovation and up gradation of Library at Main Campus - work is in full swing, expected to be completed by September 2013.
- Renovation and up gradation of Academic Block and Administration Block at City Campus – have been completed; the blocks have been



### **Facilities**



inaugurated as' Faysal Academic Center' and Chinoy Administration Building.

- Renovation and upgradation of FCS Building at City Campus - is scheduled for completion in August 2013. Will be commissioned as 'Habib Bank Center for Technology'.
- Construction of Visiting Faculty Hostel at Main Campus - (within the premises of IBA Staff Town) is scheduled for completion in December 2013.
- Renovation and upgradation of Administration Block at Main Campus - work is scheduled for completion in March 2014.



- Construction of Aman Tower at City Campus (Multi-storied building) - Work on Construction of Aman Tower at City Campus – a ground + 12 storied building has commenced and scheduled for completion in 2014.
- 9. **Construction of Sports Arena at Main Campus** Work on Sports facilities comprising a cricket ground, football ground, two tennis courts and basket court is nearing completion.
- Construction of Prayer Hall at Main Campus Construction of Prayer Hall is in final stages and likely to be completed by August 2013.
- Construction work on external development of Main Campus - Work has commenced and expected to be completed in December 2014.

#### **Hostel Facilities**

IBA provides residential facilities for full-time IBA students from outside Karachi. The Boys' Hostel comprises two blocks spread over an area of about two acres a short walk from the Main Campus. The two blocks, together provide single and shared accommodation for about 240 students accommodated in single rooms, dormitories and double rooms. The facilities include dining facilities, indoor and outdoor game facilities, TV lounges equipped with a large LCD screen television, satellite decoder, and high speed internet service available via LAN and radio link connectivity. The City Campus students are provided transport to commute between the City Campus and the Hostel. A car park is also available for students who wish to bring their own vehicles. Accommodation is usually in high demand and therefore available on a first- come-first-serve basis. The construction of new hostel buildings for both male and female students has greatly improved the living conditions for the hostel

residents and enabled IBA to increase enrolments from abroad, specially wards of overseas Pakistanis.

The construction of a brand new 96 bed Hostel in the IBA Staff town area for female students is a very significant development and meets a long time requirement of Pakistani expatriates. It has been constructed with funding provided by the Govt. of Sindh



#### Transportation

IBA owns 3 buses and 5 coasters serving different routes for the convenience of its students. Besides, private and public transport also serve both the campuses. The City Campus, being located in the downtown area, is accessible from all parts of the city by public transport available round-the-clock. Parking facilities have been provided at both campuses for students who wish to bring their own transport.

The IBA also runs a convenient point service through private contractors for students' pick and drop, covering the entire city. As classes are held at both campuses simultaneously, IBA offers its students an option to take classes at either or both campuses. For this purpose, the institute operates and hourly shuttle service between IBA Main and City Campuses during class timings.



## Facilities

# The Libraries

The IBA Libraries aspire to support teaching, learning and research at IBA by developing and promoting the systems and resources that are essential to provide access to relevant information. Libraries strongly believe in introducing innovative services and acquiring resources to encourage synthesization of thoughts, thus contributing into transfer of knowledge worldwide.

Libraries house around 60000 volumes on the subjects related to the academic programs being offered at the institute e.g. business, management, marketing, finance, computer sciences, social sciences and other related areas. To keep its learning communities abreast with cutting-edge concepts, libraries subscribe to over 60 international and local journals and newspapers.

Libraries at both campuses regularly acquire learning materials like books, case-studies, online resources (e-books and e-journals). Specialized sources of information e.g. annual reports of stock listed companies, research published by the educational institutions; national and international research organizations; and government agencies are also gathered and made available to facilitate indigenous research related to different sector of the economy.

Campus-wide and remote access to very rich collection of multidisciplinary digital databases, in full-text, consisting of e-books, e-journals, case studies and industry related research/analysis reports is the core of libraries' collections and services. Currently, libraries subscribe to more than 20 e-databases, which provide access to around 10000 e-journals and 50000 e-books; some of the leading electronic products accessible to our community are being listed here:

- EBSCOhost: Business Source Complete, Academic Search Premier, and EconLit with fulltext, three essential databases through this single interface: http://search.ebscohost.com
- 2. World Advertising Research Center: http://www.warc.com/security/login/autologin.aspx
- Emerald: http://www.emeraldinsight.com/index.htm
- Wiley-Blackwell Journals: http://onlinelibrary.wiley.com

- 5. Taylor & Francis Journals: http://www.tandfonline.com
- 6. Springer Link: http://www.springerlink.com
- 7. Cambridge Journals: http://journals.cambridge.org
- 8. Project Muse: http://muse.jhu.edu
- 9. Edinburgh University Press: http://www.euppublishing.com
- 10. Institute for Operations Research and the Management Sciences: http://journals.informs.org
- University of Chicago Press: http://www.jstor.org/action/showPublisher? publisher Code=ucpress
- 12. Duke University Press Journals: http://www.dukejournals.org
- 13. Beech Tree Publishing: http://www.ingentaconnect.com/content/beech
- 14. Association of Computing Machinery: http://dl.acm.org
- 15. Pakistan Law Site: http://www.pakistanlawsite.com
- 16. Ebrary: http://site.ebrary.com/lib/ibakarachi/home.action
- 17. World Bank e-Library: http://elibrary.worldbank.org
- 18. IMF eLibrary: http://elibrary.imf.org/

- McGraw Hill Access Engineering: http://www.accessengineeringlibrary.com
- 20. McGraw-Hills Access Science: http://www.accessscience.com
- 21. IET Digital Library: http://digital-library.theiet.org
- 22. JSTOR: http://www.jastor.org

Libraries endeavor to conceptualize and offer host of information services to the members of its community to contribute into their scholastics and life-longlearning. The on-site library collections are searchable through online public access catalogue, a Library Management System to enable users to explore the learning materials, easily and efficiently.

Both, main and city campuses, libraries are currently being reconstructed and remodeled. The main campus library is scheduled to be operational in Fall 2013, once completed, it will be one of its kind infrastructure in the city with state-of-the-art facilities, critical in promoting learning environment capable to cater the needs of 21st century learners. For further details / information / updates, keep visiting library website http://library.iba.edu.pk.



# **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 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.

Striving hard to provide essential services the dept works day and night to meet the end users requirements of Internet, email, distance learning (video conferencing), unified communications (VoIP) etc.

- Centralized UPS backed power supplies are provided for all IT equipment in the entire institute. It's a versatile and cost efficient solution for protecting critical IT equipment from going down by providing an incessant power supply in case of a power outage.
- A series of high end, IBM brand servers have been configured and commissioned. These ultra high configuration servers shall cater for the future requirements of virtualisation, and in turn, help in conserving space as well as power.
- Construction of permanent data center at City Campus is well under way, and shall be operational soon. The data center will house computer systems and associated components, including telecommunications, storage systems, backup power supplies, data communications connections, environmental controls (e.g., air conditioning, fire suppression) and security devices.
- A Gigabit speed network infrastructure supported by Cat 6 cabling and network devices of latest technology provides backbone connectivity between different segments of the network; this network has been upgraded from copper to fiber.
- Wireless connectivity is fully available at all the locations, especially available for mobile users so that they can utilize IBA ICT services as per their convenience while being off the campus.

- Traditional voice communication system has been replaced by latest technology unified communication system, which utilizes ICT network infrastructure.
- Video conferencing is fully implemented at both campuses. Video conferencing meetings, video lectures sessions, and other video training session are being done using the video conferencing facility at both campuses.
- LAN and WAN security has been implemented and all traffic goes through the security checks and controls



- At City Campus an Internet Bandwidth of 34 Mbps, provided by HEC, is fully operational. At Main Campus an Internet bandwidth of 105 Mbps,provided by HEC, is operational which is shared among boys hostel, girls hostel and Main Campus. Both campuses are connected through services provider link of 34 Mbps bandwidth. A backup radio link has recently been upgraded from 11 Mbps to 34 Mbps bandwidth.
- 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. Built on a centralized database and normally utilizing a common computing platform, ERP systems consolidate all business operations into a uniform and enterprise-wide system environment. Within

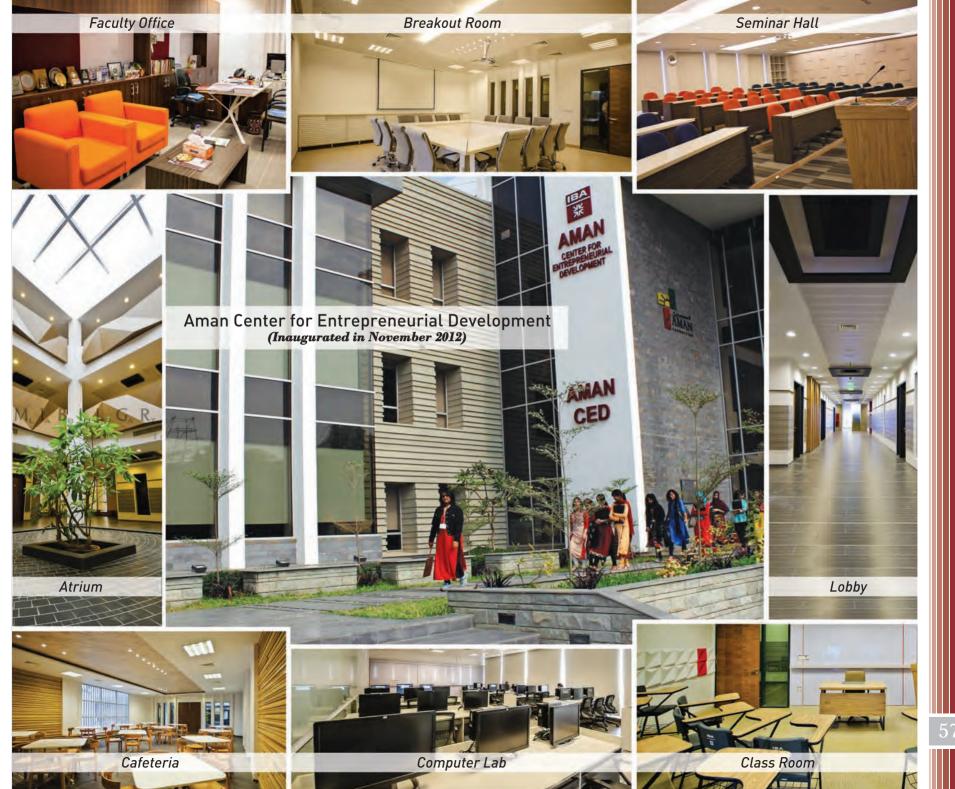
IBA, ERP has now been implemented and is now used to automate the workflow between teaching departments, functional departments (IHR, Finance and Admin, etc.) and Program Offices. Some tasks performed by the ERP System implemented at IBA include Online Course Registrations, Grades & results entries, Faculty Evaluations, Reports Generation and many more. The ERP System is now used at IBA for effective decision making for the middle and higher management.

- The ICT Department initiated Web Radio and Web TV which are run through IBA website. Web radio broadcasts radio programs organized by IBA staff and students.
- 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 either separately or by studying it as a part of their academic curriculum.
- SAKAI (Learning Management System) has been customized and integrated with the IBA ERP.The system is now also integrated with Turnitin for plagiarism checking for all the uploaded contents (Assignments, Reports and Case Studies etc.)
- The ICT Department has successfully implemented & integrated People Soft ERP System with SMS application. On posting every course result, all enrolled students in their specific subjects get SMS alert through the ERP system.
- SSL Implementation on For securing all the transactions, SSL on both ERP links have been successfully implemented.
- IBA New Website and related sub-domains Recently, the ICT Dept has revamped IBA website and its related sub-domains like CEE, MBA, IRC and Research etc.



Administration Building (Main Campus)

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Bricks & Mortar takes shape

# Important Events & Activities 2012-13

#### Conferences, Collaborations, Seminars & Workshops

#### 2012

- IBA organized its first ever Research-based International Conference on Marketing. The theme of the conference was "Contemporary Market Trends". Several international scholars also attended the conference
- Book launch of 'Chinese Made Easy' ceremony was held at IBA on October 5. The author Mr. Hasan Javed, Pakistan's High Commissioner to Singapore presented a user friendly approch by giving urdu english trascription of Chinese characters
- The first collaborative event with the Indian School of Business, Hyderabad was held on October 14-16. Prof. Clive Rubery of London School of Business was the trainer for the workshop on 'Leadership Skills for top Management'.
- An e-Seminar on Spurring Entrepreneurship was held at IBA on October 19 in collaboration with the South Asia Initiative of Harvard University and Aman Foundation. Prof. Tarun Khanna of Harvard Business School was the key note speaker.
- A two-day workshop on 'Managing Family Businesses' was organized on October 19-20 in collaboration with S. P. Jain Institute of Management and Research. Prof. Parimal Merchant delivered the workshop.
- An MoU of collaboration was signed with the University of Malaya (UM), Kuala Lumpur, Malaysia at the Main Campus, Karachi. It encompasses a Student and Faculty Exchange Agreement along with joint researches, sharing of publications and academic material.

#### 2013

- Mr. Parimal Merchant of SP Jain Institute, Mumbai organized "Managing Family Businesses' Workshop on March 15-16.
- Prof. Shailendra Mehta of Indian Institute of Management, Ahmedabad was the lead speaker at IBA-ISB joint training session on 'Strategic Thinking & Execution for Top Management' on March 19-21.



- IBA signed an MOU with IAE Aix Graduate School of Management Aix Marseille Université, France the first Graduate School of Management in the French public university system this School is accredited with both EQUIS and AMBA.
- An MOU was signed with ICAP to add value to the BS (Accounting & Finance) Program.
- A seminar was held at IBA jointly by IBA & LUMS in collaboration with Citi Foundation on making higher education more relevant for industry and community.
- About twenty leading Social Scientists working in academia, think tanks and other organizations attended an interactive session with the faculty members of the IBA Social Science Department and gave their feedback on the BS Social Sciences & Liberal Arts Program launched in Fall 2013.

- An Alumni Reunion was organized at the Main Campus on at the initiative and under the guidance of the Alumni representative on the Board, Mr. Shahid Shafiq. About four hundred alumni attended the event and were taken on a tour to visit the various buildings and facilities on the campus.
  - Prof. Gideon Maas of Coventry University, U.K. conducted a two day Workshop on Technology Entrepreneurship. Fifty two faculty members from IBA and other partner Universities attended the workshop.
  - A seminar on Geopolitics and Geo-strategy of Mineral Resources in Pakistan and Afghanistan was held in collaboration with the French Embassy and was attended by the officials of the Sindh Government, industry, academics and students.
  - IBA Summer School was institutionalized with a formal head as Director to look after its affairs and a mandate to revamp and expand the offerings during summer session.

#### **Resource Mobilization**

- HBL Foundation donated a sum of Rs.100 million to IBA. The refurbished and renovated Faculty of Computer Sciences Building at the City Campus will be named as 'HBL Academic Centre.'
- PepsiCo has donated an amount of Rs. 18.7 million for financing the Dining facilities at the Student Centre.
- Marine Group of Industries presented a check in the amount of Rs.75 million to the Building and Infrastructure Fund. The New Boys Hostel Block A will be named as 'Haleem Siddiqui Boys Hostel.'
- Bestway Foundation (UK) headed by Sir. Anwar Pervez has made a generous donation of Rs.100 million to IBA.
- English Biscuit Manufacturing (EBM) donated Rs.30 million for the Gymnasium at the new Students Centre at the Main Campus.
- Twelve new major donors provided additional scholarship during 2012-13.

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#### Honors and Awards

 Center for Executive education (CEE) has been approved as Registered Education Provider (REP) by the world's largest project management member association the Project Management Institute (PMI)



- Syeda Beena Batool, Assistant Professor in Social Sciences received the Best Paper Award at the XVI International Conference of young scholars 2012 held at the Jan Masaryk, Prague.
- Muhammad Ali Mirza (BBA senior) was adjudged among the top three contestants at Global Entrepreneurship Summer School held at Ludwig Maximilian University of Munich.
- The IBA delegation at the European Model Union Nations held at Maastricht, Netherlands received six recognitions, the highest by any individual team at the conference.
- A modest ceremony was held to honor the first ever EMBA Graduating class and particularly those who received the Gold medals.

# Ground Breaking / Inauguration & Dedication Ceremonies

#### **Ground Breakings**

- Mavesh and Jahangir Siddiqui Auditorium at the City Campus The auditorium will accommodate about 400 persons.
- Standard Shipping & Byco Group of Companies Prayer Hall at the Main Campus.

- Visiting Faculty Hostel in the IBA staff town
- 100 Bed Girls Hostel in the IBA staff town

#### **Dedication Ceremonies**

- AMAN Center for Entrepreneural Development' at the Main Campus (November 2012).
- 'Faysal Bank Academic Center' (FBAC)' at the City Campus (January 2013).
- 'Towfiq Chinoy Administration Building' at the City Campus (February 2013).
- 'Abul Razzak Tabba Academic Block' at the Main Campus. (May 2013)
- Haleem Siddiqui Boys Hostel (May, 2013)

#### Visitors

- Dr. Javaid Laghari, Chairman HEC
- British Council HEC Mission on Educational Leadership Scoping led by Mr. Hank Williams from United Kingdom.
- Lt. Gen (R) Mustafa Khan, Managing Director, Fauji Foundation
- Mr. Javed Hamid, the first Dean of LUMS
- Mr. Shuaib Ahmed, an alumnus and ex-Global Risk Head of Citibank
- Prof. Zahoor Hassan, former VC of LUMS.
- Dr. G. Anand Anandalingam, Dean, Robert H. Smith School of Business

- Tan Sri Dr. Ghauth Jasmon, Vice Chancellor, University of Malaya
- Professor Safwan M. Masri, Vice President for Global Centers at Columbia University
- Mr. Fadi Ghandour, the Founder and CEO of Aramex International
- Ambassador Shahid Kamal, Advisor Science, Technology & Innovation Organization
- Mr. Peter Upton Country Director, British Council Pakistan
- Mr. Deepak Chandra, Deputy Dean, Indian School of Business
- Mr. Muhammad Javed Malik, Federal Secretary Population and Planning, Govt of Pakistan
- Professor John F May, Visiting Fellow, Center for Global Development, USA
- •` Mr. Khalid Mahmood, MD & CEO Getz Pharma
- Mr. Zakir Mahmood, President Habib Foundation
- Michael Dodman, Consul General USA in Karachi
- Mr. Sadeq Sayeed, Chairman METAGE Capital, London
- Mr. Philippe Theibaud, French Ambassador to
  Pakistan
- Mr. Hartmut Wellerdt, from the University of Bremen
- Dr. Kamran Asdar Ali, President American Pakistan Studies Institute University of Texas
- Prof. Gideon Maas of Coventry University, U.K
- Prof. Shailendra Mehta of Indian Institute of Management



# Activities of Students Societies (2012-13)

S.No	Society / Club	Patron	Events Conducted	S.No	Society / Club	Patron	Events Conducted
1	Adventure Club	Ms. Maheen Ghauri	- IBA Snorkeling Trip & Para Gliding Trip			Mr. Imran Khan	- Annual Islamic Conference 2013
2	Alumni Society	Mirza Sardar Husain	- Alumni Reunion 2013	16	Iqra Society		- Entrepreneurship Workshop
3	Arts Society	Ms. Sana Fatima	- Enigma 2013				- Scattered Pearls Series
4	Boys' Hostel Society	Mr. Jami Moiz	- IBA United Fall Progress				- Muslim Film Festival
			- Basketball Tournament DOW Medical	17	Boys' Indoor Sports Society	Mr. Asad Ilyas	- Inter Batch Table Tennis Tournament
			- Basketball Match with AKU	18	Leadership Club	Dr. Nasir Afghan	- IBA Leadership Conference 2013
5	Community Welfare Society	Ms.Saima Husain	- Triangular Series with FAST, SZABIST	19	Literary Society	Mr. Imran Saqib	- Tajdeed-e-Ehd-e-Wafa - Play
			- Charity Carnival 2013				- Taming of the Shrew
			- Movie for a cause				- Battle of the Brains
			- Bake sale				- Screening of T20 Matches
6	Dramatics Society	Ms. Maria Hasan	- Annual Play 'Kuttey'			Mr. Jami Moiz	- DIG - IT Conference
7	Economics Club	Dr. Khadija Bari	- Economics outlook	20	Marketing Club		- Cornetto Adwar
		Dr. Shahid Qureshi	- IREC 2012				- Bandorama
	Entrepreneurship Society		- EQHO				- Dive into Journey (Movie Night)
8			- Invent 2013				- Dubai Study Tour 2013
			- Avant 2013	21	Media & Publications Society	Ms. Nadia Zaffar	- Ghandhara Films Festival
			- Mybiz Pakistan				- IMARC 2013
			- Global Entrepreneurship week	22	Music Society	Mr. Humayun Ansari	- Voice Hunt 2012
9	Finance Club	Mr. Shabih Haider	-INFER 2013				- Movie Night
10	Girls' Hostel Society	Dr. Talat Wizarat	- Annual Farewell	23	Photography Society	Mr. Ameer Rizvi	- Annual Exhibition 'Mazdoor'
			- Culligan Girls Throwball Championship	24	Placement Society	Mr.Mirza Sardar Husain	- Career Fair 2013
11	Girls' Sports Society	Ms. Farah Naz Baig	- Inter University Basketball Tournament				- Personal Effectiveness Sessions
			- Table Tennis Tournament	25	Public Speaking Society	Ms. Nadia Sayeed	- MUNIK 2013
			- Basketball & Football Training Camp				- Debate Competition
12	Go Green Society	Mirza Sardar Husain	- Earth Hour 2013	26	Social Sciences Club	Ms. Beena Batool	- Coronation 2013
13	HR Club	Ms. Nyla Aleem Ansari	- HR Reponsivet	27	Boys' Outdoor Sports Society	Mr. Asad Ilyas	- AKU Basketball Tournament
			- HR Summit 2013	28	IBA Executive MBA Club	Mr. Saleem Umer	- Pehchan
	Infosys Society		- Computer Science Summit 2012				- U-PS (Unique Public Sector)
14		Dr. Hisham bin Zubair	- Pro Battle 2013				- Welcome Dinner
			- Rozeepk Event	29	IBA Student Council	Mr. S. M. Saeed	- Beach Picnic
15	Web Society	Mr. Imran Batada	- Global Startup Battle, RJ Competition Connexions 2013, W/Shops on Web Tech				- Seminar on Leadership Qualities of Hazrat Imam Hussain

# Review Pictorial Student Societies



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# **Pictorial Review** Student Societies





# **Pictorial Review** Student Societies

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# IBA GIRLS OLYMPICS 2013

Don't let the fear of failure stop you from playing...

Date: March 29 2013

# Convocation 2012

The Graduation ceremony, at IBA, is one of the most memorable and remarkable event for all who have been associated with IBA in any capacity. The scholarly formal attire, the pomp of the scholarly parade and the conferment of degrees is coloured by the shades of spectrum.

A grand Convocation Ceremony was held on Saturday December 8, 2012 in the sprawling gardens of IBA, Main campus. Around 1500 individuals; including jubilant graduating students, proud parents, faculty, philanthropists and eminent personalities from the various reputable fields attended the auspicious occasion.

A total of 447 students were conferred degrees this year of these 69% were male and 31% female graduates belonging various Bachelors and Masters' Programs including seven Executive MBA students.

A distinctive feature, of the convocation this year, was the conferment and Award of the Degree - Honoris Causa, Doctorate of Management to respected Dr. Adibul Hasan Rizvi, Professor and Director SIUT, was a proud and bright moment in the history of IBA. The honorary degree -Doctorate in Management is to acknowledge his outstanding leadership and managerial skills in the field of public health.



#### Anatomy of the Graduating Batches (2012)

		Batch No	o. of Student	ts	Year	Cumulative Total of Graduates
11%24%		BBA - Fall 2008 (Main Campus)	10	07	1957 - 2003	6178
<sup>2%</sup> 6%		BBA - Fall 2008 (City Campus)	8	86	2004	6473
		BBA - Fall 2007 (City Campus)	4		2005	6805
		BBA (MIS) - Fall 2008 (City Campus)	2	9	2006	7067
		BS - Fall 2008 (City Campus)	12	2	2007	7417
		MBA (Direct) - Fall 2010 (Main Campus)	4	2	2008	7875
19%	6	MBA - Evening (Graduated in 2011) (City Ca		34	2009	8373
9% 1%		MBA - MIS- Evening (Graduated in 2011) (Cit		5	2010	8857
3% 7 6%		MS (CS) -Evening (Graduated in 2011) (City C			2011	9467
		Executive MBA (Main & City Campus)	5	j1	2012	9914











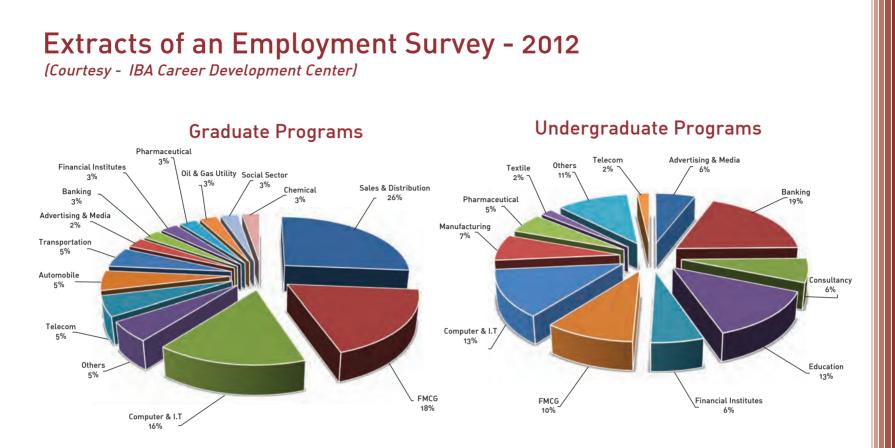
















Employment Survey - 2012

## **Scholarships**

The IBA offers financial assistance to deserving students in the form of scholarships and loans. No applicant who qualifies the admission test and fulfils other requirements is refused admission because of inability to afford the costs of the programs at the Institute. A financial aid committee scrutinizes the applications of students seeking financial aid and sanctions assistance for those who demonstrate need. In the academic sessions 2012-13, as many as 396 students received scholarships amounting to Rs. 63,918,612/- million. IBA gratefully acknowledges the long-term support and generous contributions made by the following organizations, companies and individuals.

Abdul Fatah Memon Scholarship Abdul Waheed Khan & Asghari Khanum Memorial Fund Scholarship Amir Saleem Scholarship Anonymous Scholarship Bhaimia Foundation Scholarship BURJ Bank Scholarship Chevron Pakistan Limited Scholarship Fauzia Rashid Scholarship G.M. Qureshy Scholarship Government of Sindh Endowment Fund Scholarship Habib Metropolitan Bank Ltd. Scholarship Helium (Pvt) Limited Scholarship Higher Education Commission – USAID Funded Merit & Need Based Scholarship IBA Alumni Chapter IBA Alumni Online Donation IBA Faculty Scholarship Infag Foundation Scholarship Lucky Cement / Abdul Razzak Tabba Scholarship Mateen Family Scholarship Mr. Jamshed Marker Mr. Raza Ali Khan Mubashira Hafeez Scholarship Oxford & Cambridge aSociety Scholarship Philip Morris (Pakistan) Limited Punjab Education Endowment Funds Scholarship Shell Pakistan Scholarship SSGC Scholarship Sumitomo Corporation Scholarship Syed Sarfaraz Ali Ghori Scholarship Shaban Ali G Kassim Scholarship - Karam Ceramics Limited United Bank Limited Scholarship

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)

#### TALENT HUNT PROGRAMS

CDP-Government of Sindh - Foundation Program

Government of Sindh

Ihsan Trust – Meezan Bank

#### **STUDENT LOAN (QARZ-E-HASNA)**

Ihsan Trust – Meezan Bank

National Bank of Pakistan

#### FACULTY / STUDENT EXCHANGE AND VISIT PROGRAM

- Engro Foundation
- Engro Foods
- Infaq Foundation
- Mr. Sadeq Sayeed



# **Endowment Funds**

# **Endowment Funds**

Being a public sector institution, the IBA mainly caters to the students from middle class and lower income groups – its fee increase is mostly modest and covers only a fraction of the costs. Therefore, reliance has to be placed on other sources of funding / financing such as endowments, etc. The income generated from these funds is utilized to supplement the faculty salaries, provide research funds to them, contribute to the hiring of foreign faculty / eminent scholars, academic program enhancement, case study development, external accreditation and professional development of academia through participation in seminars and conferences, 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 IBA is appended as under:

### DEVELOPMENT FUND Abdullah Foundation (Sapphire) Adamjee Foundation Allied Bank Limited Arif Habib Corporation Limited Aziz Tabba Foundation Donor Wall Education & Literacy Department, Govt. of Sindh Fauji Fertilizer Bin Qasim Limited Higher Education Commission (HEC) IBA Alumni Student Centre Mahvash and Jehangir Siddigui Foundation National Bank of Pakistan Philip Morris International (PMI) Standard Shipping Pakistan (Pvt.) Ltd. The Aman Foundation The HUB Power Company Ltd (HUBCO) TPL Holdings (Pvt.) Ltd. United Bank Ltd. **Bestway Foundation** Pepsico International Industries Limited (IIL) Engro Foundation HBL Foundation Marine Group of Companies **ENDOWMENTS / ENDOWED CHAIRS FUNDS** Allied Bank Limited Askari Bank I td

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
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
ENDOWMENT FUND BY IBA – ADVISORY COUNC
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 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.

### 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, FSQ, National Foods I imited ENDOWMENT FUND FOR SCHOLARSHIP Aftab Associates Endowment Atlas –IBA Scholarship Endowment Fund Dr. I. A. Mukhtar Endowment for Scholarship (IBA-Alumni) Feroz Textile Mills Limited HBFCL Endowment Scholarship Fund HBL- Endowment Scholarship IBA-Karachi Class of 1986 Other Scholarship Endowment Fund PSO Endowment Scholarship Sardar Yasim Malik Scholarship Sved Mumtaz Saeed Scholarship The Sapphire Endowment Scholarship Muhammad Umar Khan Shaheed Scholarship Mowjee Foundation (Sultan Mowjee Endowed Scholarship)

**Financial Assistance** 

# Financial Assistance & Scholarship Schemes (Fall 2013)

#### General

 The IBA offers financial assistance to deserving students in the form of Financial Assistance's and loans. No applicant who qualifies the admission test and fulfils other requirements is refused

admission because of inability to afford the costs of the programs at the Institute. IBA has a dedicated Financial Aid Office and Financial Assistance Committee who administer all students financial need related affairs throughout the year. A Financial Assistance committee scrutinizes applications of students seeking financial aid and sanctions assistance for those who demonstrate need. IBA Financial Assistance strategy and procedure to award Financial Assistance to needy students is given hereunder:

#### Objective

2. The Institute is committed in:

- Providing quality education to all the students(other than evening / part time programs) admitted to the IBA.
- Ensuring that no deserving student is denied admissions because of financial difficulty / constraints.

#### Eligibility

3. Financial aid shall be offered to eligible applicants who have been assessed to be needy. This is 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**

4. The Financial Aid Packages include the following:

- a. Installment Plan
- In principle, tuition fee for each semester is payable in full; those students', who are not able to pay the due fee in full, may apply to Director Finance for installment method of payment.
- There are two main types of equal installment plans:
- Plan (A) Three installments
- Plan (B) Five Instalments
- The student can apply for any of the 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.
- Whatever plan is opted by the student, he or she is preferred to make payment of instalments by giving post-dated cheques for the agreed dates.

#### b. Deferment of Fees

- In case student did 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 due.
- 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 to the amicable solution for the recovery of fees. The student shall also be directed to avail other options available in "Financial Aid Package", which are discussed later in this document.

- If there is no other option available and the circumstances necessitate, the Director Finance may defer the payment of fee to a certain date.
- In all cases when fee is overdue for payment of any semester, Director Finance shall always write to student and ask for payment of dues.
- If student is unable to pay in full then as a first step the Finance Department shall compel the student to make payment through postdated 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 postdated cheques is dishonored 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.

#### c. Need based Financial Assistance / Scholarships

- There are numbers 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 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 Scholarships

Merit scholarship are extended to candidates whohave 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 & 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

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 in above, will also apply to these new scholars.

#### e. Study loans

• IBA also 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 criteria for the same.

#### 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 Dept promulgates each semester along 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 for other times during the year)
- 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.

### Study Expenses Financed by Corporations

5. 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 company 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).



I was the privileged recipient of a 50% financial scholarship at IBA This aid greatly helped me to continue my studies as my father had retired from his job, we had no other means for a stable and substantial income which could have allowed me to pursue my academic career.



IBA Financial Assistance program is one of its kind that solves the financial problems of the bright students with weak financial background. The students which come from the remote and rural areas of Pakistan possess tremendous talent but the only bottleneck they face is affordability of quality education in a reputable institute like IBA.

# Fee Structure - Fall 2013

	Undergraduate & Graduate Programs (Morning Programs)					
	Particulars	BBA & MBA	MS (Economics & Mathematics)	BS (Accounting & Finance)	Computer Science, Eco	BS o & Math, Social Sciences & Liberal Arts)
	Tuition Fee	Rs. 126,000/-	Rs. 60,000/-	Rs. 90,000/-		Rs. 72,000/-
	Student Activity Charges	Rs. 3,000/-	Rs. 3,000/-	Rs. 3,000/-		Rs. 3,000/-
	Lab cum Library Charges	Rs. 3,000/-	Rs. 3,000/-	Rs. 3,000/-		Rs. 3,000/-
	Total Recurring Charges (per Semester)	Rs. 132,000/-	Rs. 66,000/- Per Course Fee Rs. 15,000/-	Rs. 96,000/-		Rs. 78,000/-
	Evening Programs			One-Tir	me Charges (At th	e time of Admission)
	Particulars		, IT & Mathematics) Evening,	Admissior	-	Rs. 10,000/-
	Tuition Fee	Pak F	Rupees	Transcr	ript Fee	Rs. 1,000/-
	One Course	Rs. 2'	1,000/-	Total One-Ti	me Charges	Rs. 11,000/-
	Two Courses	Rs. 42	2,000/-			_
	Three Courses	Rs. 6;	3,000/-			
	Four Courses	Rs. 8/	4,000/-			
	Lab cum Lib. Charges ( Per Semester)	Rs. 3,	000/-			
	For those	e students who w	ish to use the transport /	hostel facilities, rele	evant charges are	as under
_	Transport Foo (por comostor)				Pc 20.00	20/

Transport Fee (per semester)	Rs. 20,000/-
Hostel Fee (per semester)	Rs. 20,000/-
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.

\* Pay order/Cheque 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.

\* For details of fee payment, refund policies & other financial guidelines, students are requested to consult the student financial guidelines posted on the IBA website.

- \* 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 Zafar Chaudhry (Finance Department) @ 0213-111 422 422 Ext. 2309



Bachelor of Business (76 Administration (BBA)

Bachelor of Business Administration (82) (BBA) - Enterpreneurship

> Bachelor of Science (87 (BS) - Accounting & Finance

Bachelor of Science (91 (BS) - Computer Sciences

> Bachelor of Science (93 (BS) - Eco & Math

Bachelor of Science (96 (BS) - Social Sciences & Liberal Arts



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# **Bachelor of Business Administration 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; it 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 to 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 (eight 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 husiness world

### 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/HUM357	0	EC0103 / EC0113 &			
Philosophy, Logic and Ethics	55C3U/HUM35/	3	EC0104 / EC0114			
Pakistan History	SSC151/SSC222	3	-			

#### B. Business Core Courses

Course Title	Course Code	Credit Hours	Pre Requisite
Principles of /Intermediate Microeconomics	EC0103/EC0113	3	-
Principles of Accounting-l	ACC111	3	-
Principles of/Intermediate Macroeconomics	EC0104/EC0114	3	-
Principles of Management	MGT201	3	-
Principles of Accounting ll	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

#### **Curriculum Structure**

Duration	4 years
Semesters	8
Courses	49
Total Credit Hours	147

#### **Required Courses**

Section	Knowledge Area	Courses
А	University Core Courses	4
В	Business Core Courses	25
С	C Business Electives	
D	D Non - Specialization Courses	
Total Courses		49

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

Course Title	Course Code	Credit Hours	Pre Requisite
Business Communication (2+1 CH)	MGT211	3	MGT201, SSC102
Financial Management	FIN401	3	FIN201
Analysis of Pakistani Industries	ECO211	3	EC0103/EC0113 & EC0104/EC0114
Managerial Accounting	ACC381	3	CC201
Business Law	LAW205	3	-
Methods in Business Research	MKT301	3	MKT201,MTS202
Human Resource Management	HRM401	3	MGT201, MKT201
Development Economics	EC0301	3	EC0103/EC0113 & 104/EC0114
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	EC0103, EC0113, FIN201, HRM401,
Managenatroticy	10101430 5	5	MGT201, MGT211, MGT221, MKT201
Experiential Knowledge	RJ490	12	Equivalent to 4 courses
Philosophy, Logic & Ethics	HUM357	3	-

### 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	EC0312	3	ECO113
Introduction to Econometrics	EC0341	3	EC0103/EC0113, EC0104/EC0114 & MTS202
Applied Econometrics	EC0342	3	EC0341
International Trade	EC0412	3	EC0103/EC0113
Major Issues in Pakistan Economy	ECO403	3	EC0103/EC0113 & EC0104/EC0114
Research Methods in Economics	ECO411	3	EC0103/EC0113, EC0104/EC0104 & MTS202
Public Finance	EC0451	3	EC0103/EC0113, EC0104/EC0114
Islamic Economic System	EC0452	3	EC0103/EC0113, EC0104/EC0114
Labor Economics	EC0453	3	EC0103/EC0113, EC0104/EC0114
Population Economics	EC0454	3	EC0103/EC0113, EC0104/EC0114
Comparative Economic System	EC0455	3	EC0103/EC0113, EC0104/EC0114
Economics and Strategy	EC0456	3	EC0103/EC0113, EC0104/EC0114
Natural Resource and Environmental Economics	EC0461	3	EC0103/EC0113, EC0104/EC0114
Rural Development	EC0462	3	EC0103/EC0113, EC0104/EC0114
*Subject to availability of seats & required good average grade point			

# C. Business Electives (Contd...)

Course Title	Course Code	Credit Hours	Pre Requisite
Financial Economics	EC0463	3	EC0103/EC0113, EC0104/EC0114
Game Theory	EC0464	3	EC0103/EC0113, & MTS101
International Political Economy	EC0465	3	EC0103/EC0113, EC0104/EC0114
Monetary Economics	EC0466	3	EC0103/EC0113, EC0104/EC0114
History of Economic Thought	EC0467	3	EC0103/EC0113, EC0104/EC0114
Agriculture Economics	EC0468	3	EC0103/EC0113, EC0104/EC0114
Regional Economics	EC0469	3	EC0103/EC0113, EC0104/EC0114
Health Economics	EC0471	3	EC0103/EC0113, EC0104/EC0114
Urban Economics	EC0472	3	EC0103/EC0113, EC0104/EC0114
Welfare Economics	EC0473	3	EC0103/EC0113
Resource Economics	EC0474	3	EC0103/EC0113, EC0104/EC0114
Investment Banking	FIN451	3	EC0103/EC0113, EC0104/EC0114 & FIN401
International Finance	FIN452	3	EC0104/EC0114 & 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
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
Sales Management	MKT453	3	Mł

# C. Business Electives (Contd...)

Course Title	Course Code	Credit Hours	Pre Requisite
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 & Societies	SSC216	3	-
Research Methods in Social Sciences	SSC154	3	-
History of Ideas - I	SSC239	3	-
Personal Effectiveness	SSC240	3	-
Fundamental of Sociology	SSC231	3	-
Introduction to Social & Cultural Anthropology	SSC233	3	-
Creative Writing	HUM360	3	-

# D. Non - Specialization

Course Title	Course Code	Credit Hours	Pre Requisite
Foundations of Human Behavior	SSC102	3	-
Introduction to Computer Applications	MIS103	3	-
Calculus I	MTS101	3	-
Calculus II	MTS111	3	MTS101
Introduction to Statistics	MTS102	3	-
International Relations	SSC111	3	-
Statistical Inference (with econometrics lab)	MTS202	3	MTS101
Business Mathematics and Linear Algebra	MTS211	3	MTS101
Personal Effectiveness	SSC240	3	SSC201
Language-I	-	3	-
Language-II	-	3	-

# Bachelor of Business Administration Program

# D. Non - Specialization (Contd...)

Course Title	Course Code	Credit Hours	Pre Requisite
Non - Specialization Elective Courses			
One Social Sciences Elective from the following:			
Social Psychology and Self Development	HUM122	3	-
General History	HUM131	3	-
Media Studies	SSC153	3	-
Research Methods in Social Sciences	SSC154	3	-
History of Ideas - I	SSC239	3	-
Corporate Social Responsibility	SSC253	3	-



# Impressions - Undergraduate Students



<sup>66</sup>A whole bunch of capable teachers, latest equipment, updated curriculum and excellent facilities can be found under one umbrella **99** 

66 It is only when we interact with people from other universities and the corporate world we then

realize that IBA has provided us excellent exposure 9

# Mahad Barlas

Haneen Ahmedani





<sup>66</sup> IBA! A place where leaders are born <sup>99</sup>

Maria Rana

66 IBA has created a culture that is both competitive and inclusive - a place where big ideas can, and do, thrive. **99** 

M. Rayyan Taqdees



# Bachelor of Business Administration (Entrepreneurship) Program

Entrepreneurship is considered the liberal art of business education. Connecting theory with practice, we infuse entrepreneurial thought and action throughout our curricula and co-curricular activities. The skills learned through our entrepreneurship programs are vital to the success of any business - large or small, public or private, corporate or non-profit, family business, local or global. The Entrepreneurial Center at IBA is a living laboratory, where we experiment, improve, and evolve how to teach entrepreneurial process and foster entrepreneurial mind sets. We then take what we learn from our faculty research executive clients' students' experiences to accelerate the ever-extending outer frontier of the field of entrepreneurship education.

The Specialization in Entrepreneurship inspires potential students to think like an entrepreneur, by being innovative and creative in their thoughts and action. Some students who are fortunate enough to have a legacy of entrepreneurship in their family may want to help grow the family business, or learn how to improve the business by applying creative ideas. These students would be provided with a platform to experiment, and realize their ideas. Furthermore, the entrepreneurial spirit may appeal to some who are looking to explore and experience a different way of running businesses. Rather than pursuing the conventional specializations that we have today, an Entrepreneurship

Specialization would open new doors for potential candidates, who may be looking to become skilled at a new field.

The Entrepreneurship Specialization enables the students to carry out in-depth analysis of disciplinary and interdisciplinary subjects, and acquire hands-on experience in the 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.

The IBA-CED is working in partnership with Babson College of Entrepreneurship, Boston in providing the curriculum for the entrepreneurship specialization and also training IBA faculty in electives courses at Babson relating to entrepreneurship studies.

#### A. University Core Courses

Course Title	Course Code	Credit Hours	Pre Requisite
English Grammar & Composition	SSC201	3	-
Speech Communication	HUM201	3	SSC101
Socioeconomic Philosophy of Islam/		2	EC0103 / EC0113 &
Philosophy, Logic and Ethics	SSC301/HUM357	3	EC0104 / EC0114
Pakistan History	SSC151/SSC222	3	-

#### B. Business Core Courses

Course Title	Course Code	Credit Hours	Pre Requisite
Principles of /Intermediate Microeconomics	EC0103/EC0113	3	-
Principles of Accounting-l	ACC111	3	-
Principles of/Intermediate Macroeconomics	EC0104/EC0114	3	-
Principles of Management	MGT201	3	-
Principles of Accounting ll	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

#### **Curriculum Structure**

Duration	4 years
Semesters	8
Courses	43
Research Project	3
Total Credit Hours	147

#### **Required Courses**

Sec	ction	Knowledge Area	Courses
A	4	University Core Courses	4
E	В	Business Core Courses	25
(	C	Entrepreneurship Electives	10
[	D	Non - Specialization Courses	10
		Total Courses	49

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

Course Title	Course Code	Credit Hours	Pre Requisite
Business Communication (2+1 CH)	MGT211	3	MGT201, SSC102
Financial Management	FIN401	3	FIN201
Analysis of Pakistani Industries	ECO211	3	EC0103/EC0113 & EC0104/EC0114
Managerial Accounting	ACC381	3	CC201
Business Law	LAW205	3	-
Methods in Business Research	MKT301	3	MKT201,MTS202
Human Resource Management	HRM401	3	MGT201, MKT201
Development Economics	EC0301	3	EC0103/EC0113 & 104/EC0114
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	EC0103, EC0113, FIN201, HRM401,
	101430	5	MGT201, MGT211, MGT221, MKT201
Experiential Knowledge	RJ490	12	Equivalent to 4 courses
Philosophy, Logic & Ethics	HUM357	3	

### C. Entrepreneurship Electives

Course Title	Course Code	Credit Hours	Pre Requisite
Foundation for Management & Entrepreneurship (FME) - I	MGT102	3	-
Foundation for Management & Entrepreneurship (FME) - II	MGT103	3	-
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	-
*Subject to availability of seats & required good average grade point			

### C. Entrepreneurship Electives (Contd...)

Course Title	Course Code	Credit Hours	Pre Requisite
Analysis of Financial Statements*	ACC561*	3	ACC201
Corporate Governance & Practices in Pakistan*	LAW553*	3	LAW501
Microeconomics	EC0312	3	EC0113
Intermediate Microeconomics	EC0113	3	EC0114
Introduction to Econometrics	EC0341	3	EC0103/EC0113, EC0104/EC0114 & MTS202
Applied Econometrics	EC0342	3	EC0341
International Trade	EC0412	3	EC0103/EC0113
Major Issues in Pakistan Economy	EC0403	3	EC0103/EC0113 & EC0104/EC0114
Research Methods in Economics	EC0411	3	EC0103/EC0113, EC0104/EC0104 & MTS202
Public Finance	EC0451	3	EC0103/EC0113, EC0104/EC0114
Islamic Economic System	EC0452	3	EC0103/EC0113, EC0104/EC0114
Labor Economics	EC0453	3	EC0103/EC0113, EC0104/EC0114
Population Economics	EC0454	3	EC0103/EC0113, EC0104/EC0114
Comparative Economic System	EC0455	3	EC0103/EC0113, EC0104/EC0114
Economics and Strategy	EC0456	3	EC0103/EC0113, EC0104/EC0114
Natural Resource and Environmental Economics	EC0461	3	EC0103/EC0113, EC0104/EC0114
Rural Development	EC0462	3	EC0103/EC0113, EC0104/EC0114
Financial Economics	EC0463	3	EC0103/EC0113, EC0104/EC0114
Game Theory	EC0464	3	EC0103/EC0113, & MTS101
International Political Economy	EC0465	3	EC0103/EC0113, EC0104/EC0114
Monetary Economics	EC0466	3	EC0103/EC0113, EC0104/EC0114
History of Economic Thought	EC0467	3	EC0103/EC0113, EC0104/EC0114
Agriculture Economics	EC0468	3	EC0103/EC0113, EC0104/EC0114
Regional Economics	EC0469	3	EC0103/EC0113, EC0104/EC0114
Health Economics	EC0471	3	EC0103/EC0113, EC0104/EC0114
Urban Economics	EC0472	3	EC0103/EC0113, EC0104/EC0114
Welfare Economics	EC0473	3	EC0103/EC0113
Resource Economics	EC0474	3	EC0103/EC0113, EC0104/EC0114
Investment Banking	FIN451	3	EC0103/EC0113, EC0104/EC0114 & FIN401
International Finance	FIN452	3	EC0104/EC0114 & 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

### C. Entrepreneurship Electives (Contd...)

Course Title	Course Code	Credit Hours	Pre Requisite
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
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	-
Personal Effectiveness	SSC240	3	-
Fundamental of Sociology	SSC231	3	-
Introduction to Social & Cultural Anthropology	SSC233	3	-
Creative Writing	HUM360	3	-
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# Bachelor of Business Administration (Entrepreneurship) Program

# D. Non - Specialization

Course Title	Course Code	Credit Hours	Pre Requisite
Core			
Foundations of Human Behavior	SSC102	3	-
Introduction to Computer Applications	MIS103	3	-
Calculus I	MTS101	3	-
Calculus II	MTS111	3	MTS101
Introduction to Statistics	MTS102	3	-
International Relations	SSC111	3	-
Statistical Inference (with econometrics lab)	MTS202	3	MTS101
Business Mathematics and Linear Algebra	MTS211	3	MTS101
Personal Effectiveness	SSC240	3	SSC201
Language-I	-	3	-
Language-II	-	3	-
Electives			
One Social Sciences Elective from the following:			
General History	HUM122	3	-
Culture, Media & Societies	HUM131	3	-
Research Methods in Social Sciences	SSC154	3	-
History of Ideas - I	SSC239	3	-
Corporate Social Responsibility	SSC253	3	-
		3	-



# 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), Institute of Bankers Pakistan (IBP) and Chartered Financial Analyst (CFA) 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 the 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 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 Module A to D
- Complete training for 3 years & save 6 months
- Pass Module E & F (8 courses during training)
- Become a Chartered Accountant

#### Association of Chartered certified Accountants

**(ACCA):** A CCA has exempted FOUR examinations (F1 to F4) & review is underway for five more exemptions.

**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 facilitate qualifying CFA examinations.

#### **Curriculum Structure**

Duration	4 years
Semesters	8
Courses	42
Research Courses	2
Total Credit Hours	130 + 8*

\* Internship

#### **Required Courses**

Section	Knowledge Area	Courses
А	University Core Courses	4
В	Accounting	14
С	Finance	14
D	Non-Specialization	10
	Total Courses	42

#### 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	-
Islamic Studies/ Ethics	SSC301/SSC×××	3	-

### **B.** Accounting Courses

Course Title	Course Code	Credit Hours	Pre Requisite
Principles of Accounting	ACC210	3	-
Financial Accounting	ACC215	3	-
Management Accounting	ACC220	3	-
Independent study (Accounting)	ACC301	4	-
Taxation (Direct & Indirect)	LAW303	3	-
Business Law	LAW205	3	-
Computer Applications	MIS103/ACC222	4	-

#### C. Finance Courses

Course Title	Course Code	Credit Hours	Pre Requisite
Introduction to Business Finance	FIN201	3	-
Financial Institutions and Markets	FIN301	3	-
Independent study (Finance)	FIN310	4	-
Financial Management	FIN401	3	-
Regulations & Financial Markets	FIN558	3	-
Financial Modeling	FIN574	4	=



# Bachelor of Science (Accounting & Finance) Program



### D. Non-Specialization

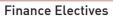
Course Title	Course Code	Credit Hours	Pre Requisite
Introduction to Statistics	MTS102	3	-
Statistical Inference	MTS202	3	-
Principles of Microeconomics	EC0103	3	-
Principles of Macroeconomics	EC0104	3	-
Organizational behaviour	MGT221	3	-
Calculus-1 & Plane geometry	MTS101	3	-
Principles of Marketing	MKT201	3	-

### Accounting Electives

Course Title	Course Code	Credit Hours	Pre Requisite
Advanced Managerial Accounting	ACC310	3	-
Business Analysis and Decision Making	ACC312	3	-
Financial Reporting	ACC315	3	-
Auditing	ACC320	3	-
Data Mining	MIS345	3	-
Advanced Financial Reporting	ACC401	3	-
Actuarial Courses	ACC415	3	-
Basic Programming	MIS410		-
Accounting information Systems (For Small to Medium Enterprises)	ACC507	3	-
Public Finance	EC0451	3	-
Corporate Law	LAW305	3	-
Tax Management and Optimization	LAW401	3	-
Legal and Regulatory Environment	LAW501	3	-
Corporate Governance	LAW553	3	-
Strategic Management	MGT552	3	-

# **Finance Electives**

Course Title	Course Code	Credit Hours	Pre Requisite
Essential Software	MIS150	3	-
Alternative Investments	FIN305	3	-
Real Estate Investments Analysis and Financing	FIN308	3	-
International Banking	FIN310	3	-
Behavioral Finance (with lab- 4 credit)	FIN312	4	-
Corporate Restructuring	FIN315	3	-



Course Title	Course Code	Credit Hours	Pre Requisite
Empirical Research in Finance	FIN320	3	-
Venture Capital and the Finance of Innovation	FIN405	3	-
Buyouts and Acquisitions	FIN410	3	-
Fixed Income Investments	FIN425	4	-
Branch banking	FIN425	3	-
Lending- Products, operations &risk management	FIN426	3	-
Finance of international trade & related treasury operations	FIN427	3	-
Marketing of financial service	FIN428	3	-
Information technology in Financial services	FIN429	3	-
Investment Banking	FIN451	3	-
International Finance	FIN452	3	-
Security Analysis (4 credit-lab)	FIN453	4	-
Corporate Finance	FIN454	3	-
Portfolio Management (4 credit-lab)	FIN455	4	-
Financial Risk Management	FIN456	3	-
Derivatives	FIN457	3	-
Advanced Corporate Finance	FIN560	3	-
Advance Portfolio Management & Wealth Planning	FIN563	3	-
Treasury and Funds Management	FIN565	3	-
Financial Econometrics	FIN569	3	-

### Non-Specialization Electives

Course Title	Course Code	Credit Hours	Pre Requisite
Mathematical methods	MTS112	3	-
Foundation of Human Behavior	SSC102	3	-
Social Psychology and Self Development	SSC103	3	-
Calculus-II and Solid Geometry	MTS201	3	-
International Relations	SSC111	3	-
Principles of Management	MGT201	3	-
Human Resource Management	HRM401	3	-
Development Economics	EC0301	3	-
Applied Probability	MTS112	3	-
Introduction to Econometrics	EC0341	3	-
International Trade	EC0412	3	-
Global Economic and Political Environment	EC0517	3	-
Marketing management	MKT501	3	-
Politics & Law	LAW105	3	-
Executive leadership	HRM455	3	-
Business Mathematics & Linear Algebra	MTS211	3	-



# Bachelor of Science (Accounting & Finance) Program



#### Academic Options

On academic front, students have two ADDITIONAL options:

Students can attain a degree of BS in Accounting by taking 3 extra papers of Accounting.

Likewise, students also have the option of awarding a degree of BS in Finance by taking 3 extra papers of Finance.

Potential of post undergrad degree from local or foreign university.

Accounting Electives compulsory for CA & ACCA exemption		
Advanced Managerial Accounting	ACC310	
Financial Reporting	ACC315	
Auditing	ACC320	
Corporate Law	LAW305	
Advanced Financial Reporting	ACC401	

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

# Bachelor of Science (Computer Science) Program

BS (Computer Science) is a 4-years degree program that combines a solid core of theoretical Computer Science courses and a range of applied courses to inculcate problem solving skills in students and to make them ready for the challenges of the ICT Industry. The program consists of 137 credit hours out of which 62 are core CS courses while 36 are from supporting disciplines (Math's, Physics and General Education). In addition to these core requirements, students are allowed to take electives from a wide range of CS courses including but not limited to Enterprise Resource Planning, Supply Chain Management, Social Computing, Introduction to Robotics, Game Programming, Data Warehousing, Distributed Systems, E-Commerce, Software Project Management and others, etc. This wide selection of courses gives students enough flexibility to pursue a career path of their choice.

In addition, the availability of numerous courses in humanities and management sciences strongly encourages students to actively participate in a widerange of student bodies which help them in developing a well-rounded personality. As CS/IT graduates are required to closely work with members of other professions, this breadth-based approach makes sure that students have enough understanding of the issues they will face after graduation. The placement of IBA BS(CS) graduates in top software houses, financial institutions, business solution providers and multinational corporations is a living proof of the success of this philosophy.

#### **Curriculum Structure**

Duration	4 years
Semesters	8
Courses	42
Total Credit Hours	137

#### **Required Courses**

Section	Knowledge Area	Courses
А	University Core Courses	17
В	Supporting Sciences	7
С	General Education	5
D	Computer Science Electives	7
E	General Electives	6
	Total Courses	42

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
Introduction to Programming	CSE141	4
Object Oriented Programming Techniques	CSE142	4
Introduction to Computing	CSE145	4
Digital Logic Design (DL and Computer Arch)	CSE241	4
Data Communications and Networking	CSE243	4
Data Structures and Algorithms	CSE246	4
Design & Analysis of algorithms	CSE287	3
Introduction to Artificial Intelligence	CSE307	3
Theory of Automata	CSE309	3
Software Engineering (Introduction to Software Development)	CSE312	3
System Programming	CSE315	3
Database Systems	CSE341	4
Operating Systems	CSE342	4
Computer Architecture and Assembly Language	CSE345	3
Human Computer Interaction	CSE407	3
Computer Science Project (I & II)	CSE491 & 492	6
Logic and Discrete Structures	MTS 201	3

#### **B.** Supporting Sciences

Course Title	Course Code	Credit Hours
Calculus-I (Calculus and Analytical Geometry)	MTS101	3
Introduction to Statistics (Probability and Statistics)	MTS102	3
Linear Algebra	MTS203	3
Calculus-II (Multivariate Calculus)	MTS232	3
Differential Equations	MTS401	3
Physics - I (Mechanics)	SCI105	3
Physics - II (Electromagnetism)	SCI205	3

# C. General Education

Course Title	Course Code	Credit Hours
Business Communication	MGT211	3
Technical Report Writing	MIS202	3
Audit, Ethics & IS Issues	MIS454	3
English Composition	SSC101	3
One course from Group I	SSCXXX	3

# D. Computer Science Electives

Course Title	Course Code	Credit Hours
Object Oriented Design and Implementation	CSE311	3
Compiler Design	CSE344	4
Microprocessor Interfacing	CSE448	4
Introduction to Game Programming and Robotics	CSE460	3
Software Project and Quality Management	MIS305	3
Data warehousing	MIS343	4
Social Computing	MIS406	3
E-Commerce	MIS456	3
Enterprise Resource Planning	MIS458	3
Customer Relationship Management	MIS459	3
SAP ABAP Programming-I	MIS541	4
SAP ABAP Programming-II	MIS542	4
Logistic and Supply Chain Management	MIS550	3

# E. General Electives

Course Title	Course Code	Credit Hours
Principles of Accounting I	ACC111	3
Principles of Microeconomics	EC0103	3
Principles of Macroeconomics	EC0113	3
Introduction to Business Finance	FIN201	3
Principles of Management	MGT201	3
Principles of Marketing	MKT201	3

### E. General Electives (Contd...)

Course Title	Course Code	Credit Hours
Principles of Management	MGT201	3
Principles of Marketing	MKT201	3
Social Psychology and Self Development	SSC103	3
Foreign Language (French, German, etc.)	SSCXXX	3
Numerical Analysis	CSE346	3
Numeric Computation	CSE4XX	3
Algorithms	CSE203	3

# Group 1 Courses

Course Title	Course Code	Credit Hours
International Relations	SSC111	3
Pakistan's History	SSC151	3
General History	HUM122	3
English Literature	SSC112	3



# 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
А	University Core Courses	4
В	Economics	16
С	Mathematics	18
D	Non-Specialization	10
	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	EC0103	3	-
Principles of Macroeconomics	EC0104	3	-
Intermediate Microeconomics	EC0113	3	EC0103, MTS101
Intermediate Macroeconomics	EC0114	3	EC0104, MTS101
Development Economics	EC0301	3	EC0103, EC0104, MTS112
Microeconomics	EC0312	3	EC0113, MTS112, MTS201
Macroeconomics	EC0313	3	EC0114, MTS112, MTS201
Introduction to Econometrics	EC0341	4	EC0103, EC0 104 & MTS202
Applied Econometrics	EC0342	4	ECO341
Major Issues in Pakistan's Economy	EC0403	3	EC0301
Research Methods in Economics	EC0411	3	EC0342
International Trade	EC0412	3	EC0113, EC0114
Economics Elective-1	ECO×××	3	-
Economics Elective-2	ECO×××	3	-
Economics Elective-3	ECO×××	3	-
Economics Elective-4	ECO×××	3	-
Economics Research Project	EC0441	4	EC0342



# Bachelor of Science (Economics & Mathematics) Program



# C. Mathematics

Course Title	Course Code	Credit Hours	Pre Requisite
Calculus-1 & Plane Geometry	MTS101	3	-
Mathematical Methods	MTS110	3	-
Linear Algebra	MTS203	3	-
Discrete Mathematics	MTS211	3	-
Calculus-2 & Solid Geometry	MTS232	3	MTS101
Real Analysis	MTS301	3	MTS232
Complex Analysis	MTS302	3	MTS301
Advanced Differential Equations	MTS303	3	MTS401
Stochastic Processes	MTS304	3	MTS202 & MTS301
Abstract Algebra-I	MTS305	3	MTS203
Numerical Analysis	MTS306	3	MTS232
Differential Equations	MTS401	3	MTS232
Functional Analysis-1	MTS411	3	MTS302
Functional Analysis-2	MTS412	3	MTS411
Abstract Algebra-II	MTS413	3	MTS305
Scientific Computing for Linear PDE's.	MTS414	3	MTS232, MTS303 & MTS306
Mathematics Elective-1	MTS×××	3	-
Mathematics Elective-2	MTS×××	3	-

# D. Non-Specialization

Course Title	Course Code	Credit Hours	Pre Requisite
Introduction to Computer Applications	MIS103	3	-
Essential Software	MIS150	3	-
Introduction to Statistics	MTS102	3	-
Statistical Inference	MTS202	3	-
Applied Probability	MTS112	3	-
Regression Analysis &	MTS210	2	
Experiment Design	MT 5210	3	-
Non-Specialization Elective-1	*****	3	-
Non-Specialization Elective-2	*****	3	-
Non-Specialization Elective-3	*****	3	-
Non-Specialization Elective-4	*****	3	-

# Bachelor of Science (Economics & Mathematics) Program

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

Course Title	Course Code	Credit Hours	Pre Requisite
Public Finance	EC0451	3	EC0103, EC0104
Islamic Economic System	EC0452	3	EC0103, EC0104
Labor Economics	EC0453	3	EC0103, EC0104
Population Economics	EC0454	3	EC0103, EC0104
Comparative Economic System	EC0455	3	EC0103, EC0104
Economics and Strategy	EC0456	3	EC0103, EC0104
Natural Resource and Environmental Economics	ECO461	3	EC0103, EC0104
Rural Development	EC0462	3	EC0103, EC0104
Financial Economics	EC0463	3	EC0103, EC0104
Game Theory	EC0464	3	EC0103, EC0104, MTS101
International Political Economy	EC0465	3	EC0103, EC0104
Monetary Economics	EC0466	3	EC0103, EC0104
History of Economic Thought	EC0467	3	EC0103, EC0104
Agricultural Economics	ECO468	3	EC0103, EC0104
Regional Economics	EC0469	3	EC0103, EC0104
Health Economics	EC0471	3	EC0103, EC0104
Urban Economics	EC0472	3	EC0103, EC0104
Welfare Economics	EC0473	3	EC0103
Resource Economics	EC0474	3	EC0103, EC0104

\*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.



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

Course Title	Course Code	Credit Hours	Pre Requisite
Numerical Solutions of PDE*	MTS431	3	MTS306
Integral Equations	MTS432	3	MTS401
Advanced Numerical Analysis I	MTS433	3	MTS301, MTS306
Advanced Numerical Analysis II	MTS434	3	MTS433
Differential Geometry	MTS435	3	MTS401, MTS301
Fluid Dynamics I	MTS437	3	MTS303
Fluid Dynamics II	MTS438	3	MTS437
Financial Mathematics with	MTC//4		MTS232, MTS304,
a computational approach	MTS441	3	MTS306
Computational Finance	MTS442	3	MTS441
Modern Algebra I (Galios Theory & Applications)	MTS443	3	MTS413
Modern Algebra II (Commutative Rings & Fields)	MTS444	3	MTS443
Measure Theory I	MTS445	3	MTS301
Measure Theory II	MTS446	3	MTS445
Operations Research I	MTS447	3	MTS203, MTS232
Operations Research II	MTS448	3	MTS447
Topology I	MTS451	3	MTS301
Topology II (Differential Topology)	MTS452	3	MTS451

# 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 the social sciences and the 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 engage in their chosen fields of study.

#### **Curriculum Structure**

Duration	4 years
Semesters	8
Courses	45
Research Projects	02
Total Credit Hours	144

#### **Required Courses**

Section	Knowledge Area	Courses
А	University Core Courses	4
В	Non-Specialization Courses	11
С	Supporting Courses	11
D	Major Core + Electives	19
	Total Courses	45

#### A. University Core Courses

Course Title	Course Code	Credit Hours	Pre Requisite
English Grammar and Composition	SSC101	3	-
Pakistan History	SSC222/SSC151	3	-
Speech Communication	HUM201	3	-
Socioeconomic Philosophy of Islam	SSC301	3	-
Foundations of Philosophical Thought	HUM356	3	-

### **B. Non-Specialization Courses**

Course Title	Course Code	Credit Hours	Pre Requisite
Core			
Calculus 1	MTS101	3	-
Introduction to Statistics	MTS102	3	-
Intermediate English Composition	SSC106	3	-
Advanced English Composition	SSC213	3	-
Foreign Language I	SSC201/205/209	3	-
Foreign Language II	SSC202/206/2010	3	-
Foreign Language III	SSC203/207/2011	3	-
Foreign Language IV	SSC204/208/2012	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	-

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

Course Title	Course Code	Credit Hours	Pre Requisite
Electives (Contd)			
Anglo-Indian Narratives and the Postcolonial Subject	HUM355	3	-
Foundations of Philosophical Thought	HUM356	3	-
Philosophy, Logic, and Ethics	HUM357	3	-
Comparative Classical Philosophy	HUM358	3	-
Introduction to Comparative Religions	HUM359	3	-
Islamic Philosophical Thought	HUM360	3	-
Creative Writing	HUM361	3	-
Theater Project: The Living Newspaper	HUM362	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/General History	SSC121/HUM122	3	-
South Asian History	SSC221	3	-
Statistical Inference	MTS202	3	-
Computational Research Methods	CSExxx	3	-
Electives			
Natural Science			
History of Science	NSC351	3	-
Ideas of Physics	NSC352	3	-
Space, Time, and Space-Time	NSC353	3	-
Introduction to Environmental Sciences	NSC354	3	-
Principles of Ecology and Conservation	NSC355	3	-
History of Evolution	NSC356	3	-
Introduction to Geology	NSC357	3	-





# C. Supporting Courses (Contd...)

Course Title	Course Code	Credit Hours	Pre Requisite
Visual Studies			
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	SSC132	3	-
Introduction to Economics	EC0104	3	-
Introduction to Social and Cultural Anthropology	SSC233	3	-
Introduction to Urban Studies	SSC234	3	-
Introduction to Linguistics	SSC235	3	-
Introduction to Political Science/International Relations	SSC216/HUM131	3	-
Culture, Media, Society/Media Studies	SSC217/SSC153	3	-
Introduction to Psychology	SSC218/SSC104	3	-
Foundations of Human Behavior/	330210/330104	3	-
Political Science Core			
Research Methods in Political Science	P0L301	3	-
History of Political Thought	P0L302	3	-
Introduction to Comparative Politics	P0L303	3	-
International Relations: History, Theory, Practice	POL401	3	-

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

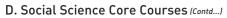
Course Title	Course Code	Credit Hours	Pre Requisite
Political Science Electives			
Political Psychology	POL351	3	-
Foreign Policy in China	POL352	3	-
State and Society	POL353	3	-
War: Conceptual Underpinnings	POL354	3	-
Human Rights	POL355	3	-
Environment and Politics	POL356	3	-
Diplomacy in a Globalize 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	-
Purchasing Power: 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	-





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

Course Title	Course Code	Credit Hours	Pre Requisite
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	-
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	-



Course Title	Course Code	Credit Hours	Pre Requisite
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	-



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# **Impressions - Graduate Students**



<sup>66</sup> IBA has contributed immensely to my professional and personal development. Besides exposing me to real-world situations through the case study method, it has also broadened my horizons through its experienced faculty and diverse student body. **29** Nazish Faroog

<sup>66</sup> My learning at IBA goes above and beyond conventional on-campus activities. Extra-curriculars varying from sports and entertainment, to conferences and international study tours, provide an ideal fusion of experiences for excellence in the real world. **99** 





<sup>66</sup>IBA gives an excellent learning environment, which develops confidence to express your ideas and utilize your potentials. IBA has given me a great platform to start my career **99** 

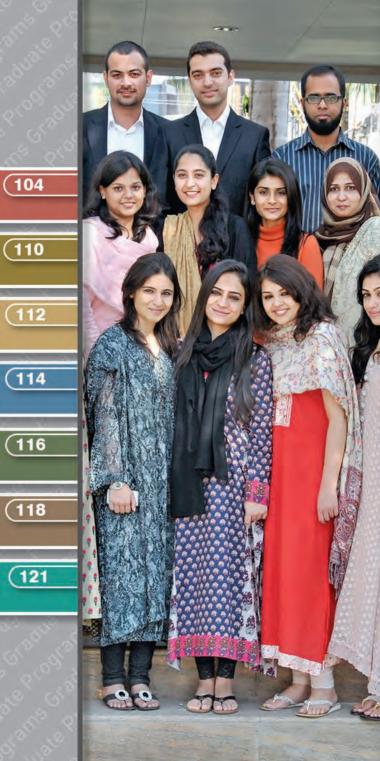
### Saad Alam

66 Working in the industry made me realize that the IBA alma mater is one of the most well rounded and determined in the country whose class remains largely unparalleled. I am back for my MBA and i am proud to be a student and alumni of this institution **99** 

Ayesha Tariq Allawala







Master of Business Administration (MBA) (104

Master of Science (Computer Science) (110

PhD (Computer Science)

Master of Science leading to PhD (Economics)

PhD (Economics) (116

Master of Science leading to PhD (Mathematics) (

Executive MBA (EMBA)

# **MBA Programs**

#### MBA Morning

#### MBA Morning

The MBA Morning Program is offered at City and Main Campuses. Specialization include Marketing, Finance or Human Resource Management.

#### For candidates with BBA background (18 Months Full Time Program)

**Duration/Credit Hours:** 18 months/66 Credit Hours

#### **Pre-requisites:** 16 years education plus 2 years post qualification work experience plus min 2.5 CGPA in BBA

**Program Structure:** 24 Courses including MBA Project, and Non Credit Core Courses. No Internship

# For Candidates with Non-BBA background (24 Months Full Time Program)

#### Duration/Credit Hours:

24 months/72 Credit Hours

#### **Prerequisites:**

16 years education plus 2 years post qualification work experience plus min 60% aggregate marks in last degree

**Program Structure:** 26 Courses including MBA Project and Non Credit Courses. Summer Internship is Mandatory.

#### MBA Evening

#### MBA Evening

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

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

#### For Candidates with BBA background

Duration/Credit Hours: 24 months/66 Credit Hours

**Pre-requisites:**16 years education plus 2 years post qualification work experience plus min 60% aggregate marks in last degree .

**Program Structure:** 24 Courses including MBA Project and Non Credit Core Courses.

#### For Candidates with Non-BBA background

Duration/Credit Hours: 30 months/72 Credit Hours

**Pre-requisites:**16 years education plus 2 years post qualification work experience plus min 60% aggregate marks in last degree

**Program Structure:** 26 Courses including MBA Project and Non Credit Core Courses.

IBA BBA Students with the CGPA of 2.5 and have acquired two years' work experience will no longer be required to appear at the IBA entry written test for MBA beginning 2012. They will directly be qualified for the next round i.e. Interview, Group discussion and Essay submission.

#### **Required Courses**

		Non - BBA Stream		BBA Stream	
		Course	Credit Hours	Course	Credit Hours
А	Foundation Courses	3	9	-	-
В	Core Courses	9	27	9	27
С	Capstone Course ( Corporate Strategy)	1	3	1	3
D	Experiential Learning MBA Project	2	6	2	6
Ε	Electives	9	27	10	30
F	No Credit Compulsory Courses	2	0	2	0
	Total Credit Hours	26	72	24	66

# Enrollment Payment of Fees Structured Interviews **Group Discussions** Document Check Aptitude Test

Process of

Admission at IBA

Collection of Admit Card





# Academic Year 2013 - 14

No	on BBA Stream (M
Semester 1	Course Code
Business Finance I (F*)	FIN506
Financial Accounting and Information Systems (F*)	ACC506
Legal and Regulatory Environment of Business	LAW501
Managerial Economics	EC0501
Marketing Management	MKT501
Operations & Production Management	MGT510
Organizational Behavior and Leadership	MGT557
Quantitative Methods for Decision Making (F*)	MTS506
Semester 2	Course Code
Accounting for Decision Making	ACC505
Advanced and Applied Business Research	MKT505
Business Finance II	FIN507
Macroeconomics & the Global Economic Environment	EC0504
Personal Effectiveness and Communication (Non-Credit)	MGT519
A minimum of two courses from Electives	
Summer	Course Code
Internship / Summer Project (See Table)	
Semester 3	Course Code
Corporate Strategy **	MGT506
MBA Project (Core Course)	PRJ701
A minimum of three courses from Electives	

Morning & Evening)			
Semester 4	Course Code		
MBA Project (Core Course)			
A minimum of four courses from Electives			
** = Corporate Strategy can only be taken after completion			
of all Core Courses			
F* = Foundation Courses for Non-BBA Background			
Students			
Remedial Program	Course Code		
Excel for Business Managers (Non-Credit)	MIS405		
Business English			
Business Mathematics			
Business Economics			
Business Accounting			
** = Corporate Strategy can only be taken after completion o	** = Corporate Strategy can only be taken after completion of all Core Courses		
F* = Foundation Courses for Non-BBA Background Students			

#### **Remedial Program and Exemptions**

Remedial course can be exempted if a student has done the same course from his/her university/college with more than 60% of marks except MIS 405 - Excel for Business Managers, which is compulsory for all students.

A Challenge test will be taken for all Remedial Courses and students who pass the challenge test with more than 60% of marks will have their respective Remedial Courses exempted. In case you are not able to clear the test, you will have to take the remedial Courses before the start of MBA Program. Remedial Courses are Free of Charges except **MIS 405** - **Excel for Business Managers** 

	BBA Stream (MBA
Semester 1	Course Code
Legal and Regulatory Environment of Business	LAW501
Managerial Economics	EC0501
Marketing Management	MKT501
Operations & Production Management	MGT510
Organizational Behavior and Leadership	MGT557
A minimum of two courses from Electives	
Semester 2	Course Code
Accounting for Decision Making	ACC505
Advanced and Applied Business Research	MKT505
Business Finance II	FIN507
Macroeconomics & the Global Economic Environment	EC0504
Personal Effectiveness and Communication (Non-Credit)	MGT519
A minimum of three courses from Electives	

orning & Evening)	
Summer	Course Code
MBA Project (Core Course)	PRJ701
Semester 3	Course Code
Corporate Strategy	MGT506
MBA Project (Core Course)	PRJ701
A minimum of five courses from Electives	
** = Corporate Strategy can only be taken after completion of	all Core Courses
Remedial Program	Course Code
Excel for Business Managers (Non-Credit)	MIS405

### Remedial Program

All BBA background students are exempted from the Remedial Program, except MIS 405 - Excel for Business Managers.



# The Three Stage Learning Process

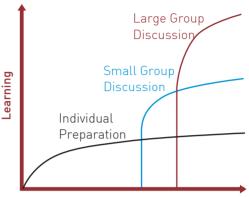
# Pedagogy

## **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 decisionmaking, 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 below 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.



Time



# **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 time 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 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 having 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 'W' grade (however, it will not be counted as 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

Grading Matrix						
	Fixed Gra	ading	Relative Grading			
Grades	Percentage	GPA	Grades	Percentage	GPA	
A	93 - 100	4.00 grade points	A	4.00 grade points	Approx. 10% - 20%	
A-	87 - 92	3.67 grade points	A-	3.67 grade points	Students	
			B+	3.33 grade points	Approx. 65% - 75%	
B+	82 - 86	3.33 grade points	B	3.00 grade points	Students	
В	77 - 81	3.00 grade points	B-	2.67 grade points		
B-	72 - 76	2.67 grade points	C+	2.33 grade points	Approx. 10% - 20%	
			С	2.00 grade points	Students	
C+	68 - 71	2.33 grade points	C-	1.67 grade points		
С	64 - 67	2.00 grade points	F	0.00 grade points	Approx. 0% - 10%	
C-	60 - 63	1.67 grade points		0.00 grade points	Students	
	<u> </u>		W	Withdraw from the course		
F	0 - 59	0.00 grade points		Incomplete grade		

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. 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 followup 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 two years of work for multinationals, large domestic corporations, and large family business. For self employed and smaller family businesses the Work Evaluation Committee will decide that if the experience is acceptable for admission to IBA. This committee will comprise of the members of the Admission Committee, Director MBA Program and an IBA alumnus with at least 10 years work experience. This work requirement will only be considered after applicants have obtained 16 years of education. However, such work experience will be post 16 years education. The education requirement should also meet the criteria established by HEC.

#### **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

#### **MBA Foundation Course**

MBA (Morning) students will be required to take courses of Managerial Communication, Business Mathematics and Statistics if not - their performance is to be considered unsatisfactory for the IBA MBA test. These students will be required to pass the foundation MBA semester which is essential to prepare students for the intensive and rigorous IBA MBA program. The duration of the Pre MBA semester is 5 weeks and classes will be held at the City Campus from 9 AM to 5 PM every day except Sunday.

## 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 delivery of the MBA Program through timely information flows, the establishment of a strong support network, and the encouragement of student involvement in IBA life.

## Role in Academic Life

The MBA Program Office is committed to being the best service unit of its kind, providing the highest levels of courtesy, responsiveness, and professionalism. It will work towards fairness and consistency in the design and implementation of policies, while being attentive to students' individual needs. The academic policies and functions of the office are designed in concert with other offices, faculty, and students.

Other 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 course and teacher. 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
- Dual degree advising
- Tutor referrals
- Course selection
- Information about other resources

## **Role in Student Activities**

MBA Program Office will create opportunities for cultivating and maintaining a strong sense of community. Students who actively engage in IBA activities will experience a first-hand sense of community service aimed at promoting a richer overall IBA experience. It 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 goal 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.

# MS (Computer Science)

**Required Courses** MS Computer Science has 6 tracks, each with a different set of pre-reg (foundation) courses MS with Thesis MS without Thesis Course **Credit Hours** Credit Hours Course Found /Pre-reg (Str. dep) 1,2,or 3 3.6. or 9 1,2,or 3 3.6.or 9 А В Core 0 0 0 0 Elective 8 С 24 0 27 Research Survey D 1 3 1 3 Research Work F 3 0 1 0 Total 11.12.or 13 33,36,or 39 33,36,or 39 11,12,or 13

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 FCS has 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 at 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 guite 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 former is aimed at students who will pioneer future technology or play various development roles towards the evolution of computing sciences. The latter is poised at producing skilled graduates with rapid problem solving skills, who will potentially make the usage of computing technologies in various capacities widespread.

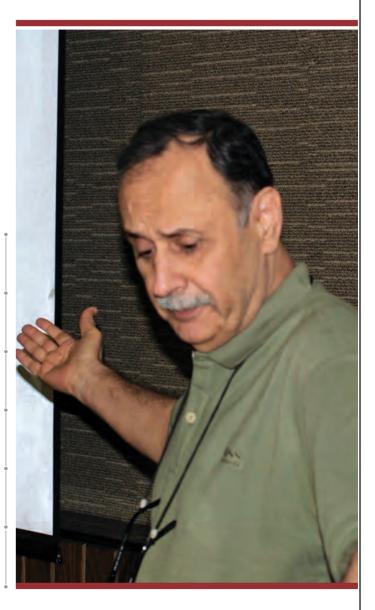
The key-objectives of the MS-CS program are:

\* 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 junior 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 Prere	quisites)	Ī	List	of Specialization Tracks
1.	Net-Centric Computing			4.	Software Engineering
	Advanced Computer Networks	ICT511			Software Quality Assuran
	Mobile Computing	ICT558	•		Requirement Engineering
	Wireless Communication	ICT553			Software Project Manage
	Distributed Systems	ICT555			Web Engineering
	Information Security	ICT554		5.	Information Managemen
2.	Human Computer Interaction				SAP ABAP Programming
	Advanced Human Computer Interaction	CSE575			SAP ABAP Programming
	Usability Engineering	CSE576			Operations & Technology
	Interaction Design	CSE577			Enterprise Integration
	GUI Design	CSE578			Social Computing Applica
	Multimedia and Multi-Modal Systems	CSE579	Ĭ		Information: Industry Str
	Advanced Web Technologies	ICT512			Advanced Data Warehous
3.	Intelligent Systems				Knowledge Discovery and
	Advanced Artificial Intelligence	CSE561		6.	Theoretical Computer Sc
	Knowledge Discovery and Data Mining	CSE652	1		Advanced Analysis of Alg
	Computational Intelligence	CSE659			Formal Methods
	Probabilistic Reasoning	CSE655			Scientific Computing
	Computer Vision.	CSE660			Combinatorial Optimizati

List	List of Specialization Tracks (Courses and Prerequisites)					
4.	Software Engineering					
	Software Quality Assurance	CSE566				
	Requirement Engineering	CSE567				
	Software Project Management	CSE503				
	Web Engineering	CSE569				
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	MTS551				
	Combinatorial Optimization	CSE654				



# 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 competences 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 offers 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 be assigned to one of the following research labs, which will not only offer a stimulating environment and allow students to gain rigorous research training, but will also provide interaction with enthusiastic and highly committed people.



- Telecommunications Research Lab (TRL)
- Artificial Intelligence Lab
- Distributed Computing Lab
- Digital Futures Lab

#### **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: performance analysis, modeling and simulation of Mobile Ad Hoc Networks (MANETs), call admission control in integrated wireless 802.11e voice and data networks, routing issues in MANETs, and Wireless Sensor Networks, performance analysis and simulation of cluster-based Wireless Sensor Networks using Bayesian Networks, as well

# PhD (Computer Science)

as research in Layer 2 and Layer 3 protocols for MANETs and VANETs. The TRL is equipped with modern simulation tools such as qualnet v5.0, NS2 and Matlab. During 2010/11, the TRL plans to expand research into cutting-edge areas such as Long Term Evolution (LTE) with the acquisition of OPNET simulation software and also creation of a Wireless Sensor research lab. A modern Cisco networking lab on core routing issues, network security and VOIP is also planned. Staff at TRL contributes frequently to publications in international conferences and journals. PhD students 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 young researchers and experienced professionals to manifest their innovative capabilities through development of sophisticated research projects. Being established in 2008, AI LAB at IBA is a dynamically growing research center focusing in the core areas of AI namely probabilistic reasoning, data mining/machine learning, semantic web, computational intelligence and cognitive/educational robotics. The following is a list of the current active projects:

- AI Lab has partnered with the Innovation and Enterprise Research Lab of the University of Technology, Sydney to form a joint RoboCup Soccer team under 3D simulation league. The team was established in late 2010 and has since then participated in Iran Open 2011 and has also successfully qualified for the World RoboCup to be held in Istanbul, Turkey this year. This is a remarkable achievement for a team that is less than a year old as typically teams have to wait for 2 years before they can qualify for the World RoboCup.
- Several other educational robotics related projects have also been initiated by the lab. This includes the incorporation of a hands-on robotics exposure in "Introduction to Artificial Intelligence" course. Starting from Fall 09, a senior level course, Introduction to Game Programming and Robotics, has also been introduced in the BS(CS) curriculum. A series of robotics workshop for high school students has also been initiated. The purpose of these workshops is to expose our youth to the exciting field of Robotics/Artificial Intelligence.
- 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. The tool can be accessed and tested via the lab website.



- Another tool released by the AI Lab is IBA yes which is a probabilistic reasoning tool that allows a user to model uncertain situations and to perform inference using Bayesian networks and Influence Nets. It is freely available for download from the lab website.
- An Anti-Money Laundering System (AMLS) is currently under development in partnership with Credit-Chex, a consumer credit bureau services and total risk management solution provider. Once fully developed, AMLS would serve as a decision support tool and would aid financial institutions and State Bank in identifying suspicious financial transactions and in curbing anti money laundering activities.

For further details Visit: cs.iba.edu.pk/programs.html

# Master of Science leading to PhD (Economics)

MS leading to 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 to be intellectually challenging and personally rewarding.

MS leading to PhD (Economics) 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.

#### Option of MS:

In this program, students will have the option to complete either the MS (Economics) program or may continue to PhD (Economics) program.

#### **Eligibility:**

Candidates must have a minimum 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 from three subjects: English, Mathematics and Economics.

Candidates who have a minimum 650 score in quantitative section of GRE (International) or 160 score

Required Courses for MS Economics		s <mark>rent</mark> Trac	k - A	Track - B		
		BS Econom	ics Stream	Non - BS Economics Stream		
		Course	Credit Hours	Course	Credit Hours	
Α	Foundation Courses	-	-	5	15	
В	Core Courses	6	18	6	18	
С	Elective Courses	4	12	4	12	
D	Thesis	1	9	1	9	
	Total Credit Hours	11	39	16	54	

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
MS & PhD (Economics)	4 to 6 years
Maximum time allowed	8 years

#### Financial Assistance:

All full time MS students will be provided financial support (Rs.25,000/= per month) 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. After transferring to PhD, students will be provided financial support (Rs.45,000/= per month) through teaching and research fellowship with full tuition fee waiver.

## Requirements for MS (Economics)

#### Track A:

Course requirements if the candidates are from BS in Economics and Mathematics, Bachelors or Masters in Economics (with 16 years of education) or equivalent degree: MS Courses: 30 Credit Hours (10 Courses)

MS Courses: 30 Credit Hours (10 MS Thesis: 9 Credit Hours

Note: Track A is subject to the recommendation from panel interview.

#### Track B:

Course requirements if the candidates are from other disciplines BBA/BS (with 16 years of education) or equivalent degree:

MS Courses:	45	Credit Hours (15 Courses)
MS Thesis:	9	Credit Hours

#### Coursework Option:

Students have the option to take two additional elective courses (6 credit hours) and one MS Research Project (EC0698) under faculty supervision (3 credit hours) instead of thesis of 9 credit hours.

#### **Transfer to PhD**

After completing the coursework of the MS degree program, candidates who score a CGPA of 3.5 and a minimum of 'B' in each course will be eligible to transfer to PhD program.

The rest may work on their MS thesis or requirements of coursework option (9 credit hours) to get MS degree. After completing MS degree requirement, they can apply for admission to PhD program, which requires minimum 3.0 CGPA.

#### PhD Courses

PhD Courses	C. Code	Cr. Hours
Microeconomic Theory III	EC0641	4
Macroeconomic Theory III	EC0642	4
Econometric Analysis I	CO647	4
Econometric Analysis II	EC0648	4
Elective V		4
Elective VI		4
Graduate Research Seminar for PhD	EC0791	4
Dissertation	EC0799	27
Total		55

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Course Title	Course Code	Credit Hours	Pre Requisite
Microeconomic Theory II	EC0631	3	EC0531
Macroeconomic Theory II	EC0632	3	EC0532
Econometrics II	EC0538	3	MTS536, EC0537
International Trade	EC0539	3	EC0531
Development Economics and Issues in Pakistan Economy	EC0530	3	EC0531, EC0532
Research Methodology	EC0591	3	EC0538, 631 & 632
Elective I		3	
Elective II		3	
Elective III		3	
Elective IV		3	
MS Thesis	EC0699	9	-

# MS Courses - Track A

# MS Courses - Track B

Course Title	Course Code	Credit Hours	Pre Requisite
Microeconomic Theory I	EC0531	3	EC0533
Macroeconomic Theory I	EC0532	3	-
Mathematics for Economists	EC0533	3	-
Microeconomic Theory II	EC0631	3	EC0531
Macroeconomic Theory II	EC0632	3	EC0532
Mathematical Statistics and Linear Algebra	MTS536	3	-
Econometrics I	EC0537	3	MTS536
Econometrics II	EC0538	3	MTS536, EC0537
International Trade	EC0539	3	EC0531
Development Economics and Issues in Pakistan Economy	EC0530	3	EC0531, EC0532
Research Methodology	EC0591	3	EC0538, 631 & 632
Elective I		3	
Elective II		3	
Elective III		3	
Elective IV		3	
MS Thesis	EC0699	9	-

## List of Elective Courses

	Course Title	Course Code	Cr. Hours	Pre Requisite
	Environmental and		3	EC0631, EC0533
	Resource Economics	EC0561	3	LC0031, LC0533
	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
Ĭ	Transport Economics	EC0568	3	EC0531, EC0533
	Industrial Economics	EC0571	3	EC0631
	General Equilibrium and	ECO570		500/00 500-00
	Welfare Economics	EC0572	3	ECO631, ECO533
	Game theory and	EC0573	3	EC0631
	Competitive Strategy	2003/3	5	LCOUSI
	Combinatorial Optimization	CSE654	3	EC0533 & EC0531
	Labor Economics	EC0654	3	ECO631, ECO538

## 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 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.

For further details Visit: economics.iba.edu.pk

# 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 to be intellectually challenging and personally rewarding.

PhD (Economics) 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.

## **Credit Hours:**

Credit hours of coursework:	40 (11 courses)
PhD Dissertation:	27
Total credit hours in PhD program:	67

## **Duration:**

Duration of the PhD 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 PhD program.

IBA allows the 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

## **Required Courses**

Course Title	Course Code	Credit Hours	Pre Requisite
Microeconomic Theory II	EC0631	3	-
Macroeconomic Theory II	EC0632	3	-
Econometric Analysis I	EC0647	4	-
Microeconomic Theory III	EC0641	4	EC0631
Macroeconomic Theory III	EC0642	4	EC0632
Econometric Analysis II	EC0648	4	EC0647
Elective I	-	3	-
Elective II	-	3	-
Elective III	-	4	-
Elective IV		4	-
			EC0648
Graduate Research Seminar for PhD	EC0791	4	EC0641
			EC0642
PhD Dissertation	EC0799	27	-
	Total	67	



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# PhD (Economics)

#### 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 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.45000 per month) and 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 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.

#### Major Areas of Specialization:

Macroeconomics Development Economicst International Trade Public Finance Monetary Economics Environmental Economics Industrial Organization Financial Economics Labor Economics

#### For further details Visit: economics.iba.edu.pk



# MS leading to PhD in Mathematics

#### Eligibility:

In order to be eligible to apply for admission in MS leading to PhD in Mathematical Sciences a candidate should:

- a. Possess a BS / M.Sc (16 year education) degree from a recognized university in Mathematics.
- b. 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 M.Sc) allowed for 2013 admissions)

All eligible candidates would be required to:

- a. Appear and qualify in an aptitude test (equivalent to GRE general / GAT general of NTS) and if successful, appear in an interview / presentation before a selection panel.
- b. Candidates who have a minimum 650 score in quantitative section of GRE (International) or 160 score in guantitative section of Revised GRE (International) or 60% score in GAT General, are exempted from the IBA aptitude test, BUT not from the interview.



#### **Required Courses**

		MS wit	h Thesis	MS without Thesis		
		Course Credit Hours		Course	Credit Hours	
А	Found /Pre-req (Str. dep)	0	0	0	0	
В	Core units	6	18	6	18	
С	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	

#### Duration:

MS:	
MS - PhD:	
possible is 8 years)	

**Financial Assistance:** 

to a full tuition fee waiver.

1.5 vears.

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 those students who maintain a cumulative GPA 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

The fee-structure in the MS (Mathematics) morning

program matches that of the BS-morning program.

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

Minimum Time Policy for MS Mathematics

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2 - 4 years.
4 - 6 years. (Max.
```

# Subsequently PhD) Degree

#### For award of an MS in Mathematical Science a candidate should:

Requirements for the Award of MS (and

- a. Complete 30 credit hours that include 24 credit hours (8 courses) of course work and 6 credit hours of thesis
- b. Six courses (listed below) 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 student acquiring 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 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	-	-
Topics in Algebra	MTS 513	-	-
Advanced Numerical Analysis	MTS 515	-	-
Тороlogy	MTS 516	-	-
Semester: 2			
Measure Theory & Integration	MTS 512	-	MTS511
Topics in Commutative Algebra	MTS 514	-	MTS513
Elective I	MTS 5XX	-	-
Elective II	MTS 5XX	-	-

# List of Electives\*

as and when required.

Course Title	Course Code	Credit Hours	Pre Requisite
Scientific Computing	MTS 521	-	MTS515
Stochastic Processes II	MTS 525	-	MTS304 (or equivalent)
Stochastic Differential Equations	MTS 529	-	MTS304 (or equivalent)
Integral Equations	MTS 533	-	
Mathematical Astronomy	MTS 537	-	
Homological Algebra	MTS 539	-	MTS513
Computational Algebraic Geometry	MTS 541	-	MTS513
Applicable Modern Geometry I	MTS 545	-	MTS511/513/516
Algebraic Geometry I	MTS 549	-	MTS513/MTS516
Algebraic Cycles I	MTS 553	-	MTS513
Arithmetic Algebraic Geometry	MTS 557	-	MTS513
Exploratory data Analysis	MTS 561	-	
Mathematical Physics I	MTS 565	-	
Statistical Data Mining & Knowledge Discovery	MTS 569	-	
Statistical Machine Learning	MTS 573	-	
Galois Theory	MTS 577	-	MTS513

\*The Departmental Research Committee is authorized to introduce any new course added to the above list





# Policy for PhD Candidacy

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 student that qualifies for MS thesis (at IBA) and submits to the Departmental Research Committee (henceforth DRC) subsequently defends a research proposal within two months of completion of the MS course work in consultation with his/her supervisor. If the DRC approves the synopsis the same shall be sent to the Board of Advanced Studies and Research for final approval.
- (2) The applicant has earned an MS (in Mathematics or allied areas) from a foreign / local university of international repute, and in addition to it:
- Clears IBA's entry test, or scores 650 in GRE Subjective (Mathematics), or scores 60% in GAT Subjective (Mathematics).
- (ii) Goes through a successful interview at IBA.

## Other rules:

- (1) A PhD student would be required to teach undergraduate courses as per IBA policy.
- (2) A PhD student shall be paid a stipend as per IBA policy.
- (3) PhD students will be required do to six courses



## Courses:

The Departmental Research Committee 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 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 about 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/DRC.

# 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 external examiners foreign to Pakistan.

For further details Visit: mathematics.iba.edu.pk

# **Executive MBA Program**

# Executive MBA drives Professionals for the "C" Suit

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. Since launching it attracted over 450 professionals serving at 100 multi business segments. The first batch of qualified Executive MBAians has been entered in the market in January 2013.

#### IBA Corporate Leaders Advisory Board (ICLAB)

At IBA we believe in creating meaningful collaboration between the industry and academia so that all our programs should be reflective of their aspiration and needs. In order to ensure regular interaction with the corporate leaders a high level Advisory Board has been formed:

S. No.	Name	Designation	Organization
1	Mr. Asad S. Jafar	Chairman & CEO	Philips Electronics
2	Ms. Ayesha Aziz	MD	Pak Brunei Invest. Co.
3	Mr. Hasan A. Bilgrami	CEO	BankIslami Ltd
4	Mr. Hasan Ali Khan	MD	Continental Biscuits
5	Mr. Jamal Mustafa Siddiqui	Former MD	Makro Habib Pak. Ltd.
6	Mr. Khalid Rahman	Former DMD	Pakistan Petroleum
7	Mr. Nadeem Elahi	CEO	The Resource Group
8	Mr. Nadeem Hussain	President	Tameer Micro Finance Bank
9	Mr. Najam Ali	CEO	Next Capital
10	Mr. Salman Burney	MD	GlaxoSmithKline
11	Mr. Sikander M. Khan	Chairman	Millat Group of Co.
12	Mr. Sohail P. Ahmed	Vice Chairman	House of Habib
13	Mr. Tabish Gauhar	Chairman	KESC
14	Mr. Tariq Wajid	MD & GM	Sanofi Aventis Pak. Ltd.

IBA has established its reputable name globally by establishing collaborations, signing memberships and building successful partnerships with foreign universities and institutes. Recently, our undergraduate students have been sent to The Washington Center (TWC) and USA for exchange program whilst our graduate students were sent to Tsinghua University, China and IBA, Dhaka, Bangladesh

..... Dr. M Nishat





# **Executive MBA**

Preparing leaders for the corporate world

- Intermediate & Advanced Business Theory, Skills

To create solid technical and theoretical background, 20 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 2 projects on a subject of critical importance duly approved by the Subject Advisory Committee / Director Executive MBA Program.

#### - Format

Learning sessions are scheduled on: Saturdays -300 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 having:

16 years education with three years' post

- qualification work experience; **OR** 14 years education with six years' post qualification work experience.
- Satisfactory performance in the IBA admission test and interview.

#### - Fee Structure

Rs. 30,000/- per course.

Rs. 20,000/- per course for government employees, armed forces, and public sector/govt. Organizations.

For further details, see the IBA Admission Policy

#### Required Courses

Course Title	Course Code	Credit Hours	Pre Requisite
Core			
Managerial Communication	MGT503	3	-
Quantitative Methods for Decision Making	MTS506	3	-
Managerial Economic	EC0102	3	-
Marketing Management	MKT501	3	-
Financial Accounting & Information System	ACC506	3	-
Legal & Regulatory Environment of Business	LAW501	3	-
Advanced and Applied Business Research	MKT505	3	-
Business Finance I	FIN506	3	-
Operations and Production Management	MGT510	3	-
Business Finance II	FIN507	3	-
Organizational Behaviour and Leadership	MGT557	3	-
Global Economics & Political Environment	EC0517	3	-
Accounting for Decision Making	ACC505	3	-
Corporate Strategy	MGT541	3	-

## List of Electives

Course Title	Course Code	Credit Hours	Pre Requisite
Brand Management	MKT561	3	Marketing Management
Supply Chain Management	MKT559	3	Marketing Management
Advance Corporate Finance	FIN501	3	Managerial Fitnance
Islamic Finance	FIN559	3	
Risk Management	FIN567	3	Managerial Finance
Accounting Information System with SAP	ACC507	3	Financial Accounting & Info. System
Entrepreneurial Management	MKT553	3	Marketing Management
Corporate Governance	LAW553	3	Legal and Regulatory Environment
Treasury & Financial Derivatives	FIN535	3	
Corporate Investment Banking	FIN536	3	
More courses will be added as per needs			

"In the end, all business operations can be reduced to three words: people, product and profits. Unless you've got a good team, you can't do much with the other two."

..... Lee lacocca

S.No.	EMBA Participants Serving in				
1	Unilever Pakistan Ltd.				
2	GlaxoSmithkline Pakistan				
3	Procter & Gamble Pakistan				
4	IBM				
5	Siemens Pakistan Engineering Ltd.				
6	Standard Chartered Bank				
7	Shell Pakistan Ltd.				
8	Ernst & Young				
9	British Oxygen Company Pakistan				
10	Transasia Refinery Ltd.				
11	Engro Corporation				
12	Roche Pharmaceuticals				
13	World Wide Chemtech Pvt. Ltd.				
14	Armstrong International Pvt. Ltd.				
15	Novartis Pharma Pakistan Ltd.				
16	ICI Azkonobel Pakistan Ltd.				
17	IGI Funds				
18	Mobilink				
19	Telenor Pakistan Ltd.				
20	Adamjee Enterprises				
21	Bayer Pakistan Pvt. Ltd.				
22	Sheraton Karachi Hotel				
23	BP Pakistan Exploration and Production Inc.				
24	Attock Petroleum Ltd.				
25	Johnson & Johnson Pakistan Pvt. Ltd.				
26	Wi-Tribe Pakistan				
27 Kalsoft					
28 Orient Advertising Pvt. Ltd.					
29	PARCO				
30 Media Max Pvt. Ltd.					
31	Lakson Tobacco Company Ltd.				
32	Lotte-Pakistan PTA Ltd.				
33	KSB Pumps Company Ltd.				
34	Inbox Business Technologies				

S.No.	Participants of Banks/ Financial Institutions Serving at
_	
1	State Bank of Pakistan
2	Habib Bank Limited
3	United Bank Limited
4	Allied Bank Limited
5	MCB Bank Limited
6	Alfalah Bank Limited
7	Bank Al Habib Limited
8	Standard Chartered Bank
9	Faysal Bank Limited
10	Silk Bank Limited
11	Habib Metropolitan Bank
12	HSBC
13	Citi bank
14	NIB
15	First Women Bank
16	My Bank
17 Dawood Islamic Bank	
18 Dubai Islamic Bank	
19 Engro Fertilizer	
20	Gul Ahmed Textile Mills
21	Ameer Microfinance
22	JS Global
23	AKD Securities
24	KASB Group
25	Karachi Stock Exchange
26	Habib Modaraba
27	National Insurance Company
28	Pak Oman Investment Company
29	UBL Fund Managers
30	Bank of Khyber
	-

S.No.	Participants of Public Sector Organizations belong to	
1	SUPARCO	
2	Federal Board of Revenue	
3	NADRA	
4	NAB	
5	Pakistan Army	
6	Pakistan Air Force	
7	Pakistan Navy	
8	N.H.A	
9	Air Weapons Complex	
10	P.P.L	
11	S.E.C.P	
12	P.T.A	
13 H.B.F.C		
14	Ministry of Education	
15	Pakistan Coast Guards	
16	Pakistan Atomic Energy Commission	
17	National Logistics Cell	
18	Government of Sind	
19	Ministry of Engineering	
20	Ministry of Labor	
21	Karachi Shipyard & Engineering Works	
22	C.A.A	
23	Enar Petrotech Services	
24	N.E.D University of Engineering & Technology	
25	Other Public Sector Organizations	

"Outstanding leaders go out of their way to boost the self-esteem of their personnel. If people believe in themselves, it's amazing what they can accomplish"

..... Lee lacocca

# **Executive MBA Program - Fall 2013** Academic Plan: August - December 2013

Month	Sessions	Friday	Saturday	Sunday
	1	August 16	August 17	August 18
August	2	August23	August 24	August 25
	3	August 30	August 31	Sept 1
	4	Sept 6	Sept 7	Sept 8
September	5	Sept 13	Sept 14	Sept 15
September	6	Sept 20	Sept 21	Sept 22
	Midterm Exam	Sept 27	Sept 28	Sept 29
	7	Oct4	Oct5	Oct6
October	8	Oct11	Oct 12	Oct 13
	9	Oct 25	Oct 26	Oct 27
	10	Nov 1	Nov 2	Nov 3
November	11	Nov 8	Nov 9	Nov 10
November	12	Nov 15	Nov 16	Nov 17
	Final Exams		Nov 29 - Dec 15	

# **Executive MBA Program -Spring 2014** Academic Plan: January - April 2014

Month	Sessions	Friday	Saturday	Sunday
January	1	Jan 3	Jan 4	Jan 5
	2	Jan 10	Jan 11	Jan 12
	3	Jan 17	Jan 18	Jan 19
	4	Jan 24	Jan 25	Jan 26
February	5	Jan 31	Feb 1	Feb 2
	6	Feb 7	Feb 8	Feb 9
	Midterm Exam	Feb 14	Feb 15	Feb 16
	7	Feb 21	Feb 22	Feb 23
March	8	Feb 28	March 1	March 2
	9	March 7	March 8	March 9
	10	March 14	March 15	March 16
	11	March 21	March 22	March 23
	12	March 28	March 29	March 30
April	Final Exams	April 11 - 20		

# Executive MBA Program - Summer 2014 Academic Plan: April - August 2014

Month	Sessions	Friday	Saturday	Sunday
April	1	April 25	April 26	April 27
	2	May 2	May 3	May 4
	3	May 9	May 10	May 11
Мау	4	May 16	May 17	May 18
	5	May 23	May 24	May 25
	6	May 30	May 31	June 1
	Midterm Exam	June 6	June 7	June 8
	7	June 13	June 14	June 15
	8	June 20	June 21	June 22
June/July	8.5	June 27	June 28	June 29
	9	July 4	July 5	July 6
	9.5	July 11	July 12	July 13
	10	July 18	July 19	July 20
	11	Aug 1	Aug 2	Aug 3
August	12	Aug 8	Aug 9	Aug 10
	Final Exams		Aug 15 - 24	

Target Dates					
Semester	Test Date/Day	Semester Beginning Date/Day			
Fall 2013	June 23, 2013 Sunday	August 16, 2013 Friday			
Spring 2014	November 10, 2013 Sunday	December 6, 2013 Friday			
Summer 2014	-	March 28, 2014 Friday			



# What do employers think about IBA graduates?

*W* inning in any competitive market is only possible through assembling a winning team, it is for this very reason we actively recruit year on year from IBA. IBA instills a business acumen into students that makes their transition from scholars to integral members of our team completely seamless. From, Management Trainees to Mid Career Recruits to Management Committee Members, IBA graduates are part of every level of Unilever and this is a relationship we only want to strengthen further. IBA and its graduates are important stakeholders for us and I predict them to be even more vital in the coming years.

Mr. Ahmed Ali Zia, Director HR, Unilever Pakistan

he Institute of Business Administration carries a rich legacy of being one of the finest institutes of our country, producing talented, future leaders. Over the past years, Standard Chartered Bank has hired a significant number of IBA graduates through its International Graduate Programmes for Wholesale Banking, Consumer Banking and also its Fast Track Graduate Programme.

Needless to say, the IBA product never fails to impress us - IBA graduates exhibit a strong sense of work ethics and responsibility. They prove their mettle through immense hard work and are focussed towards achieving their aspirations at all times. With a laser-focussed approach to attaining goals, an IBA graduate never shirks from responsibilities and exemplifies adaptability to change at all times! Positive attitude, willingness to work and humility ... all describe the IBA product.

Ayesha Saleem, HRRM (WB & Specialist Functions), Human Resources

t Teach For Pakistan we have hired many IBA graduates in the last two years. They are a highly motivated group of young people, who have shown great passion and commitment towards social change in this country. IBA's renewed focus on social initiatives make their graduates a group of socially conscious individuals- a trait we value in our employees. Their commitment to excellence is visible through the hard work they put in and initiative they show in their work. We look forward to working with the Career Placement department at IBA to hire more graduates in the coming years.

Meha Shah, Recruitment & Selection Coordinator, Teach For Pakistan

# Our Distinguished Alumni

# **Our Distinguished Alumni** Asad Umar Alumnus 1983, 1 Ex-Chief Executive Officer and President of Engro Corporation Amir Adnan Alumnus 1987. Renowned Fashion Designer Ayesha Aziz Alumnus 1986, 3 Managing Director - Pak Brunei Investment Company Faisal H. Ali Sabzwari Alumnus 1996, 4 Country Head - Procter & Gamble Farrukh Ansari Alumnus 1982 5 Chief Executive Officer - Saudi Pak Leasing Company Husain Lawai Chief Executive Officer - Summit Bank Irfan Mustafa Alumnus 1973, 7 Managing Director for Yum! Restaurants International Mir Mohammad Ali Alumnus 1989, 8 Chief Executive Officer - UBL Fund Managers Mohsin Ali Nathani Alumnus 1987, 9 Chief Executive Officer - Standard Chartered Pakistan Muhammad Ali Khan Alumnus 1990, 10 Ex-Chairman - Securities and Exchange Commission of Pakistan Muhammad Mannan Alumnus 1991, 11 Board of Director - Silk Bank Muneer Kamal Alumnus 1977, President - KASB Bank Limited. Omar Yaqoob Shaikh Alumnus 1995, 13 Managing Director - Shell Pakistan Sarim Khalid Sheikh Alumnus 1995, 14 Country Head - General Electric Global Saifuddin Zoomkawala 15 Chairman - EFU General Insurance Ltd.

Shaukat Aziz Alumnus 1969, 16 Ex - Prime Minister of Pakistan

Chief Executive Officer- Reckitt Benckiser, Turkey

Tahir Malik Alumnus 1995,

 Tabish Gauhar Alumnus 1996,
 17

 Chief Executive Officer - KESC





# **Description of Courses**

**Faculty of Business Administration** 

# **Department of Accounting & Law**

## ACCOUNTING COURSES

#### ACC111 Principles of Accounting-I

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 Principles of Accounting-II

This course is the continuation of Principles of Accounting-I and concentrates on the discussion of accounting principles and procedures relating to stock holder's equity,long-term and current liabilities with reference to corporate organizations. Modules offered include formation of corporations, issuance of shares, treasury stock,dividends, appropriations of retained earnings, bonds payable, analysis of financial statements and preparation of statement of cash flow. Prerequisite: ACC111

#### ACC210 Principles of Accounting

Principles of accounting emphasizes how general purpose financial statements communicate information about the business corporation's performance and position for users external to management. This course emphasizes from Accounting cycle to other elements such as cash flows, Ratio analysis, Retained earnings, dividends, Capital stock structure, Investments, bonds, and other liabilities and stocks.

#### ACC215 Financial Accounting

Financial accounting is the first in-depth accounting course. Theory, the conceptual framework, development & application of International Financial reporting framework (IFRS) are stressed. Topics include financial statements, Treatment of Inventory & PPE in FS, partnerships & particular emphasis is placed on ethics in accounting & business environment.

#### ACC220 Management Accounting

This course is an in-depth study of cost accounting focusing on its role in internal reporting and the resulting decision-making processes. Students will evaluate the foundation, ethics and basic costing systems employed in the management accounting profession; analyze budgeting, cost behavior, pricing and profitability concepts and principles; determine how cost allocations, product quality, and Costing methods are applied by management accountants; determine how current trends in various industries impact cost accounting; and demonstrate knowledge that is in accordance with the educational requirements for the ICAP, ACCA examinations.

#### ACC222 Computer Applications

This lab based course starts from fundamental understanding of computer applications with core focus on Microsoft Office. The basic concepts of Computer hardware, operating systems and internet usage will also be discussed. Afterwards, this course will focus purely on Advance Excel skills covering;

- Excel formulas and features
- Statistical analysis, Financial calculations and modeling
- Operation research (using solver)
- Data summarization, Reports and pivotal tables
- Automation using excel macro

#### ACC301 Independent Study - Accounting

This course in accounting research provides students with an in-depth examination of the International Financial reporting Standards (IFRS) and acceptable alternative reporting practices. Through comprehensive case studies, students will develop the research application skills necessary to analyze and make decisions regarding accounting reporting dilemmas in the corporate world.

#### 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 specially 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 it process. The role of, standard for, auditing continue 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 and that is the whole idea of this course.

#### ACC381 Managerial Accounting

The aim of this course is to equip students with the managerial 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: 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 from 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. Besides, the course focuses on cost and managerial accounting concepts and techniques including cost volume profit analysis, capital budgeting, responsibility accounting, relevant costing, balanced scorecard, transfer pricing, internal control, flexible budgeting and financial measures of performance evaluation for enhancing organizational capabilities. 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 -For Small and Medium Enterprises

This course is fully SAP integrated course which covers fundamentals of SAP financial accounting FI, Managerial accounting CO, Material management MM and Sales & 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 organization elements rather than the accounting information itself. As against the traditional AIS curriculum, this course is more focused on business processes in SAP with minimum discussion of the technical aspects of systems development. The course is delivered with hands on experience on SAP.

#### ACC557 Auditing Theory & Practice

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, together with accountability and ethical issues.

#### 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 underlying the data being analyzed and the analytical tools and techniques used for meaningful decision-making. The topics covered include discussion of adversarial nature of financial reporting, balance sheet limitations, revenue exaggeration and expense manipulation, nature and types of reserves, deferred taxes, performance measures and ratios, financial flexibility and leveraged buyouts and growth rates and valuation via restructuring potential. 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, developing project cash flows under special decision situations, investment appraisals under conditions of uncertainty and capital rationing, foreign tax credits, pre-investment and excess capacity related issues. 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.

#### LAW301 Laws of Taxation

This course familiarizes students with the fundamentals of income tax in Pakistan. Major emphasis is placed on the concept of taxable income, preparation of income tax returns for individuals, partnerships and joint stock companies.

Prerequisite: MGT201/MGT400

#### 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. Taxes consist of Direct Taxes and Indirect Taxes. The challenge for any Government is designing and implementing a taxation system which creates an equitable taxation regime based on sound taxation principles. In wake of the above background objective of this course will enable students to;

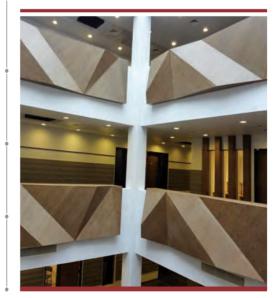
- Understand the structure of taxation system & laws in Pakistan;
- Learn practical application of taxation laws for decision making and planning in different economic and business scenarios.

#### 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, the evaluation of corporate problems, identifying appropriate legal obligations, duties, rights and remedies are an integral part of this course.

#### LAW401 Tax Management and Optimization

This course is an extension of initial tax paper. It emphasizes on 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 effective tax strategy.

# LAW501 Legal and Regulatory Environment of Business

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 level 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 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 detailed examination and critical evaluation of the Code of Corporate Governance of Pakistan along with their implementation-related issues. Qualifications, responsibilities, powers and functions of the 'Board of Directors', 'Chief Financial Officer (CFO)' and 'Company Secretary' are thoroughly discussed. Responsibilities of internal and external auditors for financial reporting and corporate compliance are also discussed. This course is conducted on a seminar basis ensuring greater participation of students in the classroom discussions.

# Department of Economics & Finance ECONOMICS COURSES

#### EC0103 Principles of Microeconomics

The course is intended to give an understanding of the basic concepts and terminologies of microeconomics. The course starts with an overview of the social system and economic problem. The topics of discussion include laws of demand and supply, market equilibrium and determination of price, the utility theory, laws of diminishing marginal utility and equi-marginal utilities, budget constraint and consumer's equilibrium, business enterprises, objectives of the firm, production and cost functions and market structure.

#### EC0104 Principles of Macroeconomics

The objective of this course is to introduce the macroeconomic concepts, issues and their mutual relationships. Topics like business cycles: boom and depression, inflation and unemployment, measures of national income: gross domestic product (GDP) and gross national product (GNP), open and closed economy models, aggregate markets: product, money, labor and capital markets, components of aggregate demand, theories of absolute and comparative advantage, and balance of payment. The course also introduces the meaning and objectives of fiscal and monetary policies.

#### EC0113 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: EC0103, MTS101

#### EC0114 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 discussion 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: EC0104, MTS101

#### EC0301 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 sectoral output and employment relations and various developmental policies/strategies regarding distribution of income and sectoral development are focused upon. Pre-requisite: EC0103, EC0104& MTS112

#### EC0312 Microeconomics

The objective of this course is to confront 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: EC0113, MTS112 & MTS201

#### EC0313 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 are confronted 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: EC0114, MTS112 & MTS201

#### EC0341 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, autocorrelation and the simultaneous equations models. Pre-requisite: ECO103, ECO 104 & MTS202

#### EC0342 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: EC0341

#### EC0403 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, sectoral development, employment pattern, population growth, international debt dependency, inflation, foreign trade deficit and other emerging issues.

Pre-requisite: EC0301

#### EC0411 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: EC0342

## EC0412 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: EC0113 & EC0114

#### EC0451 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: EC0103 & EC0104

#### EC0452 Islamic Economic System

The course includes the discussion of the concept of Islamic method of economic life, rules and legal provisions that govern the economic life and financial transactions, universality of Islam and the perfection in terms of attention to matters in various economic fields, and the extent of its effectiveness in finding appropriate solutions. The course as compared to the foundations of Islamic economic system.. Pre-requisite: EC0103 & EC0104also discusses the Islamic economic system as a reference for each senior development in the arena of economic life and the failure and ineffectiveness of economic systems status in solving the economic problems and volatility,

#### EC0453 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. Students will have an opportunity to use both economic theory and empirical evidence to analyze in depth topics such as income distribution, wage structures and differentials and the impact of immigration and globalization on the labor market. Pre-requisite: EC0103 & EC0104

#### EC0454 Population Economics

The course aims at exposing the students with 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. Special emphasis will be placed on discussing the population programs in Pakistan and their impacts, regional / provincial distribution of population in Pakistan and the impact of population growth on our economic development. Pre-requisite: EC0103 & EC0104

#### EC0455 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 Islamic economic system and the economic system of Pakistan. Pre-requisite: EC0103 & EC0104

#### EC0456 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: EC0103 & EC0104

# 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, agricultural issues related to pesticides use, salinity and water logging, urban environmental issues, public and private efforts to improve environment quality, Ozone depletion and the economics of global warming. Environmental policy and strategy in Pakistan will also be discussed in detail. Pre-requisite: EC0103 & EC0104

#### EC0462 Rural Development

The course introduces the structure of the rural economy encompassing 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: EC0103 & EC0104

#### EC0463 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 markets, and the potential application of these themes. 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: EC0103 & EC0104



#### EC0464 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; games with incomplete information: Bayesian Nash equilibrium; cooperative games: core stability and the Shapely value. Pre-requisite: EC0103, EC0104& MTS101

#### EC0465 International Political Economy

The objective of this course is to train the student to think systematically about the current state of the economy and 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 the operation and impact of government policies. Pre-requisite: EC0103 & EC0104

#### EC0466 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, and various monetary economic phenomena including monetary policy actions will be analyzed within such frameworks. Major schools of thought in monetary economics, and their differences, which give rise to different policy implications, will also be discussed within those theoretical frameworks along with the empirical evidence. Further, the review of tools of empirical analysis will help student in organizing their thoughts and applying monetary theories on Pakistani data. 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: EC0103 & EC0104

#### EC0467 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 classical school: Adam Smith, Malthus and Ricardo, socialism, neoclassical economics, Keynesian and post Keynesian schools and the emergence of modern economic thought.

Pre-requisite: EC0103 & EC0104

#### EC0468 Agriculture Economics

This course illustrates the role the agriculture 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: EC0103 & EC0104

#### EC0469 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 interregional 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: EC0103 & EC0104

#### EC0471 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: EC0103 & EC0104 EC0472 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: EC0103 & EC0104

#### EC0473 Welfare Economics

This course introduces students to basic concepts in welfare economics to allow 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: EC0103

#### EC0474 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, Pricing of market and non marketresources, application of environmental policy instruments, economic valuation principles. Pre-requisite: EC0103 & EC0104

#### EC0501 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. **EC0502 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.

#### EC0517 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.

#### **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 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 on 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 (international trade financing, participation in the interbank foreign exchange and Eurocurrency markets, international investment banking services, and sovereign lending), 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 ownership or control, 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. Structured finance techniques include the design of debt, equity and hybrid financing techniques in order to resolve particular issuer or investor problems that cannot be solved by conventional methods



#### 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. The classes intend to provide hands on experience with an econometric package such as STATA and will focus on a careful interpretation of the empirical results obtained.

#### 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, decisiontrees, 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. This will allow students to (1) evaluate transactions through valuation approaches and (2) structure deals employing financial innovation as a response to legal framework and economic frictions. This course should be of interest to students interested in pursuing careers as private equity investors, advisors in investment banking and corporate managers that deal with these issues. This course will be demanding and assumes familiarity with valuation analysis.

#### 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. Information about the prevailing mark up rates, their structures and the impact they have on income recognition is made part of the syllabus. 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.

#### 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. This includes Secondary Markets (trading in the stock markets), Primary Markets (listing regulations, pricing of Equity and Term Finance Certificates for the Initial Public Offers), Financial Innovation, the concept and the basic building blocks of Financial Engineering, Eurobonds, Funds Management, and the Regulatory Framework interfacing the Investment Banking Industry.

Prerequisites: EC0103/EC0113, EC0104/EC0114 & 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: EC010413/EC0114 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 market structure and market efficiency. Security valuation models, setting investment goals and policies, equity and fixed income portfolio strategies and portfolio performance, transaction costs, turnover and trading are also covered. 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

#### 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, net present value, internal rate of return, identify techniques used to manage acceptable levels of net working capital, and ratio analysis.

#### 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 would be 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, Credit-related regulations in Pakistan, Principles for management of credit, Program-based vs. Relationship-based credit management, Credit management, Credit rating, Credit portfolio management, Credit rating, Credit documentation, Problem credits management.

# FIN533 Financial system - process, players, status and prognosis

The Course will cover detailed study of the financial system significance and role in the Economy, Financial institutions, financial markets, financial instruments - term and type based, financial services, monetary policy, Forex and debt management, financial sector reforms: analysis and suggestions, financial system: issues and challenges, global financial crisis and lessons learnt, macro prudential financial stability framework, financial safety nets / ensuring financial soundness and financial infrastructure.

#### 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 non-financial 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. Those cases are used that 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: EC0501/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. This includes: Secondary Markets (trading in the stock markets), Primary Markets (listing regulations, pricing of Equity and Term Finance Certificates for the Initial Public Offers), Financial Innovation, the concept and the basic building blocks of Financial Engineering, Eurobonds, Funds Management, and the Regulatory Framework interfacing the Investment Banking Industry.

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. Short cases and problems are used to clear concepts. 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 haraam.

#### 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 and their use in constructing profitable investment portfolio. Topics include designing portfolios, risk diversifications, conceptual framework for making risk management and insurance decisions in order to increase business value and individual welfare, institutional aspects of the managed funds sector in Pakistani market structure and market efficiency. 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 handson 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 to 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

#### FIN574 Financial Modeling

The course teaches how to conceive and build a financial 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. Distinction will be made between personality ethics and character ethics to draw the contours of corporate behavior. Special attention will be paid to the legislative nature of intentionality as the foundation of the principles of ethics. Fundamentals of lessons of Islamic society and those of all other religions are also included. 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. The course includes the study of various systems/models and cross cultural issues such as the Japanese Managerial System, the western model, the [Ex-] socialist countries models, the developing countries models, and the Islamic Countries Models as well as the Gulf Countries Models. Prereauisites: 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 process, business lifecycle, principle concepts and general guidelines for establishing a new business enterprise at a small or large scale in a dynamic business environment.

Prerequisites: MGT201, FIN201, MKT201

#### MGT 430 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. As a course in business statesmanship and leadership, it intensively uses case studies to develop class discussions on real life situations. Prerequisites: MGT201, MGT211, MGT221, FIN201, MKT201, HRM401, EC0103, EC0113.pread over 2 semesters, 3 credits each. The FME course will be taught by two faculty members from different disciplines. The students will take this course in semester 3 & 4.

#### MGT455 Executive Leadership

This course provides a comprehensive review of current theories and best practices to students, which enables to understand the role of Effective Leadership in Building Successful Corporate Culture. The students will comprehend the well known fact that the sources of competition today have more to do with the ways one manages people and the ways those people interact. Unlike patent, technology and other competencies, it is the only unique value proposition that cannot be copied. It also provides opportunities for leadership research projects.

Prerequisites: MGT201, HRM401

#### 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.

#### 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 and at the same time increase its competitiveness in terms of cost, speed, quality, innovation, flexibility and dependability.

#### 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 the same. 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. The course will be taught through case method and augmented with required text and industry academia interaction.

#### 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. Topics include the analysis of industry economics, boundaries of the firm, strategic positioning and competitive advantage and the role of resources and capabilities in sustaining and shaping competitive business advantages.

# MGT519 Personal Effectiveness and Communication (Non-Credit)

This course introduces the students to being more '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. Without these aspects, it's almost impossible to bring the picture of our preferred future or vision sharply into focus. 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 teambased environment.

#### 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 the organization. It is an integrative course that pull together all the functional areas in marketing, finance, human resource, operations/ production, labour 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 by elevating external environmental scan and analysis to functional level importance. As a part of this course, a conceptual base is prepared first that is followed by case analysis to demonstrate how business enterprises effectively steer their course in rapidly changing external environments with a view to accomplishing the mission of the organization. As a part of case analysis, strategic alternatives are generated and a strategic choice is made.

#### 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, Project Information Management System, Project Communication, Project Control, Project Change Management, Project Teams and Successful Completion of Projects. These topics are taught with reference to the Project Management Institute PMBOK standard.

Prerequisite:MGT201/MGT400



#### 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 structure, small group behavior and inter-group conflict are extensively covered. This course exposes students to frameworks for diagnosing and solving problems in organizational settings.

## ENTREPRENEURSHIP COURSES

# Foundation for Management & Entrepreneurship (FME) MGT102/103

FME is a year-long course which encompasses the world of business in which student teams create, develop, launch, manage, and liquidate a business. During the year, students study entrepreneurship, marketing, accounting, organizational behaviour, information systems, and operations. The CED, IBA will fund up to Rs.100,000/- as start-up money for these student businesses. Each team comprises of approximately 15-20 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 two 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 examines how start-up and small/mediumsize companies reach the marketplace and sustain their businesses, within highly-competitive industries. Recognition is given to the need of management to operate flexibly, make maximum effective use of scarce resources in terms of people, equipment and funds, and the opportunities that exist within new and established market niches. Classes focus on a combination of brief lectures, extensive case study analyses and a term-long group assignment involving student-generated entrepreneurial product 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 and 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: 1) 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. Frequent quests ranging from entrepreneurs, private equity venture capital, banking and legal professionals will bring the entrepreneurial experience to life in this course



#### 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 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 multigenerational 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 and in starting up businesses with family members. It is intended for those who are now affiliated with family firms or may be in the future, or those who may start their own businesses. 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. Entrepreneurial behavior is a human universal and the course will approach it 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. It explores entrepreneurial thinking and how thinking affects our behaviors that lead to entrepreneurial action.

#### 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 quest lectures. In each case, we consider what difference gender makes. It covers the constraints and enables the unique contribution of these women leaders, what barriers they faced, what are the qualities of a good leader, are they the same for men and women. 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 selfassessment; self-leadership development; and exploration of leadership philosophy, traits and styles within diverse cultures and contexts from a woman's perspective. You 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 course 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. The students are made to understand that for profit and non-profit entrepreneurs lead various types of social enterprises involved in a wide range of social sector causes, encompassing education, health care, economic development, youth services, social advocacy, and environment.



#### 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, that of the investors backing the VC, and stock-market investors. Entrepreneurial ventures often contend with the challenge of raising capital for their development and growth. By addressing issues of risk and return with various providers of capital, this course equips entrepreneurs with an informed perspective in dealing with these parties. The objective and means of building venture value will likewise be studied with the view of maximizing outcomes from possible harvest scenarios. Venture valuation methods will consequently be taught. 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. Technology entrepreneurship, in itself, is a spirited approach to business leadership that involves identifying highpotential, technology-intensive commercial opportunities, gathering resources such as talent and capital, and managing rapid growth and significant risks using principled decision-making skills. 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. There will be a special focus on climate change abatement and adaptation, poverty alleviation and healthy living. 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 endeavours as well as to gain insight concerning the effective implementation of technological and organizational innovations in a corporate setting. It examines the challenges and opportunities for both employees and companies in creating and maintaining a culture that fosters intrapreneurial endeavours. The focuses primarily on managerial efforts aimed at the identification, development and exploitation of technical and organizational innovations, the management of new product or process developments, and on effective new venture management in the context of large corporations in manufacturing as well as in service industries.

#### ENT463 Creativity and Innovation

This course is a comprehensive introduction into innovation from both a practical and 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. Also covered are the use of sales tools and skills (presentation, negotiation, territory management, and pipeline development), building successful channel partners, and the keys to successful selling including solution selling vs. product selling.

#### ENT465 Co-Curricular Activities

- Hatchery Development & Management
- Venture Accelerator
- Women Entrepreneurship Centre
- Youth Entrepreneurship Centre

\*\* 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 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 starting from recruitment through development and the separation of employees from the corporations.

Prerequisite: MGT201

#### 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 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. The focus of the module is on academic research and not on presenting a prescriptive model of evidence-based method of selection. A good selection system depends upon the changing nature of work, the context in which selection takes place and the organization's procedures and policies. Therefore, organizations must be flexible enough to embrace changes and adapt to the environment in which it operates to make appropriate firm-specific selection decisions. Prereguisites: 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. In addition, positive health and safety initiatives made by proactive employers are also examined. Prerequisites: MGT201, HRM401

#### HRM450 The Legal Environment of HRM

The students will be exposed to diverse areas like employment standards, workers' compensation, pay equity, human rights and unionization. The corresponding rights and responsibilities of employers and employees will be examined. The contractual nature of the modern employment relationship, the elements of the contract, and remedies for the breach of the contract will be studied. Differences between the independent contractor, the contract employee, the individual employee and the unionized employee will be discussed. The employer's rights and how to respond to employee action are also discussed. Prerequisite: MGT201/MGT400

#### 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 some of the topics discussed in this course.

Prerequisites: MGT201, HRM401

#### HRM 452 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 stocks of knowledge related to various career models and theories available, to critique and evaluate their usefulness and application in making appropriate career decisions in a life space available to an individual. A variety of career interventions are discussed including career guidance and career counseling. Prerequisites: MGT201, HRM401

#### 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 and training transfer to work place. 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.

HRIS is a cross-disciplinary subject and encompasses two critical areas, namely, Human Resource Management (HRM) and Information Technology /Systems (IT/IS). 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. In addition, the HRIS assessment items expose students to a variety of HRIS issues and subsequent application problems. 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 for 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 maximizing 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 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 of importance in the examination of the validity and fairness of selection systems. Prerequisites: MGT201/MGT400

#### HRM551 Industrial Relations Management

The course is centered on management of labor

#### HRM552 Organizational Development

The course is about the study of behavioural science techniques to improve organizational health and effectiveness, internal relationships and problemsolving capabilities. Organizational learning, transition processes, changing values, diversity of labor forces and other challenges put forward by globalization are some of the topics discussed. Prerequisite: MGT201/MGT400

Prerequisite: MG1201/MG140

#### 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 are important ingredients of the course. 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

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 for 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 maximizing its performance.

Prerequisite: MGT201/MGT400

#### HRM570 Strategic Human Resource Management

The course aims to help us understand the value of HRM to contemporary organizations, by looking at its origins and the factors for its emergence in the late 1980s. This is followed by a critical review of the theories which underpin various versions of HRM, explores the links between HR practices and firm performance, analyzing this in an organizational context. Prerequisites: MGT201/MGT400

#### HRM571 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 and training transfer to work place. 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/MGT400





# Department of Social Sciences & Liberal Arts

#### SOCIAL SCIENCES COURSES

#### SSC101 English Grammar & Composition

This course highlights the key aspects of writing for academic purpose. 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.

## 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.

## SSC121/HUM122 Major Themes in World History / General 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.

#### SSC151/SSC222 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 Pakistani 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. Upon completion of this course, students should be able to understand simple, non-edited text and oral passages of medium length without reference tools, to be able to sustain an elementary conversation with a native speaker, and to be able to communicate effectively in writing on general topics.

#### 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. At the end of the semester, students will be required to take both an oral and a written examination that evaluates their achieved level of proficiency. Students will be tested in five areas: listening comprehension, reading comprehension, grammar, writing ability, and speaking ability.

#### 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, 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.Upon completion of this course, students should be able to understand simple, non-edited text and oral passages of medium length without reference tools, to be able to sustain an elementary conversation with a native speaker, and to be able to communicate effectively in writing on general topics.

#### 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. 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 French.

#### 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. At the end of the semester, students will be required to take both an oral and a written examination that evaluates their achieved level of proficiency achieved. Students will be tested in five areas: listening comprehension, reading comprehension, grammar, writing ability, and speaking ability.

#### 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. At the end of the semester, students will be required to take both an oral and a written examination that evaluates their achieved level of proficiency. Students will be tested in five areas: listening comprehension, reading comprehension, grammar, writing ability, and speaking ability.

#### 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 in-depth 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/SSC111 Culture, Media, Society/Media Studies

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.

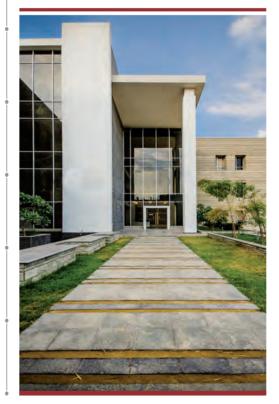
#### SSC217 Introduction to Political Science

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/SSC104 Introduction to Psychology/ Foundations of Human Behavior

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. It will also introduce students to methods of theoretical and empirical analysis through which social scientists have proposed answers to the complex questions they ask.

#### 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:

- Questions of anthropological heterogeneity, and on how varying social and cultural forces define and describe these regional, national, and local differences;
- 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;
- 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.

#### 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.

#### 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.

#### 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, believes and behaviors and how it influences others perception of them. It would also work towards development of leadership strategies for changing limiting believes to empowering believes. An understanding of the role of assertive behavior and assertive communication as a business skill. The importance of image management and power dressing. Developing a range of influencing interpersonal skills for clients, customers and other members of the staff and last but not least an opportunity to put these skills into practice in the safe environment of the training room under the supervision of a professional.

#### 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.

#### 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. One is the relation between science and utility: what is science for and how have sensibilities about the utilities of science changed over time?



Second, 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 guantum 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. Students will learn how to think critically about these concepts; develop the ability to analyze, manipulate, present and interpret scientific data; and understand how to review and critigue scientific reports on scientific problems.

#### 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 Communications

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.

#### HUM351 Great Books

Great Books is a course designed to introduce students to enduring works of literature and philosophy. 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 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 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. Topics considered include the social and psychological construction of vision, the function and cultural production and consumption of visual images, ideologies of the visual, originality and reproduction, visual narratives and cultural specificity, and semiotic approaches to interpretation.

# 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 especial 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 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.

#### HUM369The Rhetoric of Architecture

This course will introduce students to basic principles and concepts in architectural design. Students will learn how 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 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 participantobservation, 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; postmodernism and the post-colonial; nationalism and identity; alternative media and resistance; ethnicity, indigeneity and hybridity; and language and representation.

#### MCS352 Media, Law, and Ethics

This class 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. Topics covered include freedom of expression, privacy, and media regulation; public vs.

private media; stakeholders and vested interests (governments, industry, civil society); social and governmental protections; intellectual, economic, and technological tensions in media policy; law and governance within global media systems; ethics and responsibilities; and the challenges posed by new media technologies.

## 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 televisual representation through the study of how racial and ethnic diversity have been represented, and how various racial and ethnic groups have participated in film and television production and consumption, and how gender and class complicate how we interact with these visual media.

#### 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 shapeour world: climate change, global disease, 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 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. Theseimages inform our individual and collective identities since we are partially determined by thevisual representations we produce and consume. It is therefore imperative that we not onlylook, but also reflect on the images with which we are confronted every day. This introductorycourse 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 tothink broadly about what makes up their visual world and its cultural implications throughcareful 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 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). After students have an initial grounding in the principles of film form, we will examine how different types of film operate formally by examining cinematic texts that typically do not depend upon narrative (i.e. the documentary and the avant-garde). In particular, we will investigate analytical approaches to mainstream films, with a concentration on how the critical categories of genre and author have proven relevant. Finally, we will consider several alternatives to commercial practice, taking up questions of film's representational strategies (particularly of gender and race).

#### 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 nonfiction 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 and their processes of production, and 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 globaltelevision 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 coursework, 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 enhance 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 mediumspecific 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. We will focus on works that challenge convention in a variety of ways, centered on new media and contemporary trends in narrative technique.



#### 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 peoples 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.

#### MCS 491/492 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 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 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 waythe 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." Consequently, social-psychological factors (culture, language, socioeconomic background, education, institutional and individual psyche) will be treated as intervening variables that play a pivotal role in shaping a "national consciousness." Understanding this "national consciousness" is the ultimate objective of this course.

#### 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 policymaking 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 being paid 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, as will the political and economic imperatives that ultimately drive and shape human interactions. 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. Case studies of the application of the concept during conflict situations e.g. Iraq, Afghanistan, Palestine, Kashmir, Rwanda, Chechnya etc. will be focused on. International institutions and their approach, NGOs dealing with Human Rights issues and the approach of international public opinion on the issue will also be considered

#### 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, nongovernmental 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 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 decisionmaking and enhanced psychological pressures on decision-makers. Impact of media on diplomacy and the role of diplomats will also be discussed. Use of diplomatic channels for non-diplomatic activities (espionage) and economic diplomacy will also be included.

#### 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. Ummayads, Abbasids, Fatimids, Seljuks, Ottomons 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. We will raise the question why Muslim societies have not made transition to democracy and



under what conditions they are likely to do so? And what role external factors can or should play in developing democracy around the world, including Islamic states?

#### 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 achieving 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 - India, China, Afghanistan, Iran and the Arab Gulf States - moving on to Pakistan's adherence to regional blocs - SAARC and ECO - and multilateral associations like the UN, NAM and the Commonwealth. The significance of relations with the Great Powers would be discussed in reviewing Pakistan's relations on a bi-lateral and multi-lateral basis.

## 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 help 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 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**

#### PSY301Research 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 systemic change within an individual and between and individual and 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

What do we mean when we talk about the self? Is this self synonymous with our personality? Or is it a catchall term referring to a collection of diverse cognitive functions? Can we locate the self in our bodies? Or are we using the term metaphorically as a way to define who we are in opposition to others? Does the self change over time, and if it does what allows to make claims about our individuality? This course investigates these and other vexing questions about how the social, psychological, and biological determinants of the self and identity interact and shape one another.



#### 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 and application of psychological 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 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. Theoretical readings and case studies will address a range of perspectives on the psychology of victims, perpetrators, and witnesses; on the social and psychological effects of trauma; and on genetic, biological, social, and cultural influences on human behavior.

#### PSY355 Introduction to Developmental Psychology

This course explores human psychophysiological, cognitive, and emotional development and change from conception to old age. Students will be introduced to major theories that attempt to explain how humans develop over time, and to research and 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 will introduce students to Bowlby's work on attachment, separation, and loss, and explore 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. Students will learn to distinguish between changes that occur with normal adult development (otherwise known as primary aging) and those that might occur secondary to systemic disease and mental disorders (secondary 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, how information is retrieved from memory, How individuals convey information through language, 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. Topics explored include seeing (vision), hearing (audition), tasting (gustation), smelling (olfaction), feeling (somatosensation), and the range of methods psychologists use to study these senses.

#### PSY361 Human Memory

This course provides an overview of classic and current issues in the study of human memory. We 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, neuropsychological correlates of memory and memory disorders, source memory, memory improvement, and the repressed/recovered memory controversy.

#### 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? Why do different people respond differently to the same emotional event or provocation? These and many other questions will serve to ground this investigation of human emotions, their impact on cognitive processes and on human development, and on the way they structure the very architecture of all 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

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 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.



#### **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, learn about consumer and organizational markets, learn about personalities and their impact on consumer behavior, observe about how marketing departments are organized, explore pricing mechanisms, decide about the appropriate distribution channels and structures, learn about various promotional techniques and tools, and the challenges which the explosion of new media pose in the marketers' world.

#### 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 covering all the aspects of business entities and business functions. This course empowers the students towards the scientific research methodology so that they can observe business processes, formulate hypothesis, conduct experiments, draw conclusions and disseminate these conclusions for organizational benefits. Given Research is a tool for decision making, the Research process is closely intertwined with the business decision making process. From problem definition to developing alternate courses of action and then monitoring the implementation of decision made research is used across all of these. Prerequisite MKT 201/MTS 202

#### MKT401 Marketing Issues in Pakistan

The launch of this course is an outcome of an understanding that any marketing strategy that 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, evolving Pakistani consumer, brand Pakistan, issues in branding, and challenges in export marketing, changing retail landscape in Pakistan, sales and distribution issues and social marketing. Teaching pedagogy also includes frequent guest speaker sessions from marketing practitioners and case study discussions.

Prerequisite: MKT 201



#### MKT451 Advertising

he 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 have an in-depth 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 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. Understanding high value customer segments and delivering branded satisfaction to those segments through innovative communication techniques is an imperative for all marketers today. This imperative will be examined in an advertising context across multiple business sectors including consumer packaged goods, financial services, information technology, retail, and the marketing of people. An investigation of the nature and scope of advertising and its place within marketing strategy decisions and society falls within the gambit of this course. Prerequisite: MKT 201

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#### 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, personalities and learning. Lectures, interactive sessions, and 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. A field project is incorporated to allow students to extend their learning to designing an effective communication plan for a product or service. Prerequisites: MKT 201: MKT 301

#### MKT453 Sales Management

Sales Management is critical for the success of any business enterprise, as it focuses on the development of sound sales and distribution strategy, the management of marketing channels, and sales force management in a business organization. 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 implementation of 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 t he operating paradigm of today's personal selling endeavors. This course encompasses all new concepts, technologies, and techniques that have contributed to this evolution. It also describes approaches to personal selling and presents the sales process as a series of interrelated steps.

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 and will introduce them to the basic concepts and strategies in retailing. 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. It will help them to analyze the importance of store location,merchandising, products and pricing.

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, export yardsticks, advertising and sales promotion and packaging for exports, export terms and documents, banking services and transportation for exports. 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. It will enable them to learn about tools as to how to be a cost-effective market leader. The first objective of this course is to learn about the strategic importance of logistics and distribution management, planning and operations and it brings about a competitive edge to the overall business. The second objective is to differentiate between logistics and other related disciplines such as Supply Chain Management, material handling and also to differentiate between distribution management and inventory management, warehousing, and transportation. The basic aim is to develop 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, key activity centers of logistics and distribution, analytical tools and techniques for logistics and distribution management. The strategic concepts discussed in the course are tied together through a variety of examples that show that a combination of concepts is needed to achieve significant increase in performance. 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. Topics which will be taught will include the publics in PR, PR tools, research methods in PR, planning, budgeting and implementing a PR campaign, and creating and managing relationships. Effective targeted writing skills and event management are also part of this course. Prerequisite: MKT 201

#### MKT460 Direct Marketing

Direct marketing has become a powerful tool as part of 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. Tools include direct mail, telemarketing, TV and press advertising, web banner ads,door drops and inserts. 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 which will relate to the concept of mass customization.

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 can have 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, what brands are, how they are created and managed, and how they add value to consumers and the firm. Topics include the importance of product. service and corporate brands, how awareness, loyalty, perceived quality, strategies and tactics for maintaining and reviving brands, multi-brand portfolios, extensions, brands as a driving force for standardization and globalization with explicit examples of branding drawn from local industry in 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 - Planning, Inbounds, Operations, Outbound and Measurements with a balanced equation of Demand and Supply 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' are also to be introduced whereby 'Precision' Demand Planning will be focused as a backend 'pillar' of the subject.

#### 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 along with cases highlighting the impact of changes in the elements of the marketing mix on profitability and productivity. Students are also involved in conducting marketing audits. It dilates upon the philosophy of integrated marketing and focuses on giving a top level leadership view of managing businesses. Upon completion, students should be able to understand the role of marketing led decisions and appreciate the criticality of the marketing function in order to achieve organizational success.

#### MKT505 Advanced and Applied Business Research

The purpose of the course is to have the students learn advance tools and techniques of Marketing and Business Research which is imperative to effective decision-making. Research is systematic and scientific and as such it carries with it a huge knowledge bank of dos and don'ts. 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 semesterlong project. Advanced statistical techniques are taught for data analysis and interpretation and reinforced through their application to the assigned research project. Students are also encouraged to use sophisticated software for data analysis, such as SPSS, and classroom learning is extended to the interpretation of the software outputs and their relevance to decisionmaking.

Prerequisite: MKT501/MTS 506

#### 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

The course helps in better understanding of the individual as a consumer. The concepts and theories that underlie consumer behavior provide a deeper understanding of how the consumer contributes to the success of a brand or firm. Students learn how to apply concepts like learning, personality, motivation. perception, attitudes, communication and decision making in tailoring marketing and brand strategies to persuade customers to purchase. The need of understanding consumers and their role in building brand loyalty and brand equity is vividly discussed with each concept. The research based project is a live practical application incorporating strategies like developing the product and improving it; determining a price point for the brand and designing marketing strategies especially advertising, direct marketing techniques and nontraditional communication. Prerequisite: MKT501 : MKT505

\*Recommended elective for Marketing Major

### MKT553 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 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 and has been used to increase physical activity, improve nutrition, reduce heart disease, increase the use of seat belts, and in improving 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 indepth 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 understanding of target markets through research and on using information collected through research to manipulate the 4 Ps to develop an effective social marketing campaign.

Social marketing as opposed to commercial marketing focuses on behavior change of various cross-sections of society. This behavior change relates to habits which are detrimental to the uplift of society. Through a combination of theory and demonstration of practical projects, the students are exposed to the techniques of social marketing. This exposure will broaden the employment prospects of students in non-profit and non-governmental organizations in addition to social welfare organizations in Pakistan. Prerequisite: MKT501

#### 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. Knowledge of theory, concepts, processes and practices for attaining customer ascendancy in organizations is predominantly discussed through case studies. 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 professional 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. They will learn the strategic importance of an efficient supply chain design, planning and operation within the strategic framework. 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. The strategic frameworks and concepts are tied together through a variety of examples that show how a combination of concepts is needed to achieve significant improvement in overall performance. Prerequisite: MKT501

#### MKT561 Brand Management

The astronomical growth in the wealth and the culture 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. Marketers see a brand as an implied promise that the level of quality people have come to expect from a brand will continue with future purchases of the same product. Lack of branding is perceived as a major weakness in marketing in Pakistan, both in domestic market and the international markets. Brand management is the application of marketing techniques to a specific product/services, product line, or brand. It seeks to increase a product's perceived value to the customer and thereby increase demand for a particular brand and its brand equity. Brand Management will help you to understand how to apply concepts like brand identity, brand name, brand logo, brand value, brand equity, brand positioning and image so as to culminate in the growth of a premium brand. Brand audits are conducted so that students can learn how to map consumer behavior insights for effective brand building activities.

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 there has been little 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. However, the fact that since media is the second highest cost on the P&L for most FMCG or Marketing Services companies, it is equally important for finance-based graduates to go through the course so that they have a fair idea of the subject and its implications to the overall budgeting process involved. Taking this course may not make students media experts but it will provide a solid grounding in the process, terminology, and practice of advertising media planning. Prerequisite: MKT 501

#### 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 as an outcome of this course gives them that critique. An analysis of existing generalizations and principles related to the economic and social role of retailing, competitive strategies, efficiency in retailing, and essential concepts for retail management gives 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 battles. 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 is approached with 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, the management of marketing channels, and sales force management in a business organization. Rapid changes in technology, a higher level of customer orientation, the globalization of business, and increasing competition have made sales and distribution management critical for the success of any business enterprise. The aim of this course is to familiarize you with the concepts and practices of sales management. With a focus on setting sales objectives, planning and implementing sales programs, supervising the sales effort and measuring sales performance; sales forecasting, budgeting, hiring, sales force motivation, compensation and performance evaluation is also covered. Sales are a culmination of the marketing effort. Allocating resources optimally by careful territory design is the key 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. Prereguisite: 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 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 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 and how that enhances the quality of strategic business decisions. 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 decisionmaking that focus on elements of the marketing mix, often called the 4 P's: price, place (distribution), product and promotion. The course will apply this framework in a variety of settings: from consumer goods to business-to-business marketing, to service markets to e-commerce to business to government. Prereauisite: 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 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 various occasions of organizational decision making, the role of B2B market research, branding of B2B brands and the innovative field of B2B Services. Discussions on marketing to the Government and marketing to institutions are incorporated throughout the course. The course discusses the industrial marketing environment, modern concepts of interaction, buying behavior of businesses, role of technology, industrial marketing research and planning. 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 be taking 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. Political, economic, cultural and regulatory issues will be considered, as well as issues that belong to exportoriented firms. Multi-nationals will also be examined in terms of their impact on the global economy, and how they formulate marketing strategies that work in different regions. The key theme running throughout the course will be 'Think Globally, Act Locally'. Prereguisite: MKT 501

#### MKT752 Seminar in Marketing

Seminar in marketing is a capstone marketing course. This is a modular course with practitioners and experienced experts leading many sessions. This is value added by presenting various points of view of leading marketing gurus and thoroughly debated incorporating practical implementation strategies. The important issues in marketing especially those of the local environment, customer ascendancy, nation branding, differentiation, segmentation and positioning are discussed. 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

## Faculty of Computer Science Department of Computer Science

#### MIS COURSES

MIS103 Introduction to Computer Application The course provides a fundamental understanding of computer applications with the core focus on Microsoft Office Application (Microsoft Word, Microsoft Excel and Microsoft Power Point). 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 be covering the basic concepts in Computer Hardware and Operating Systems and the usage of the Internet.

#### MIS150 Essential Software

This course consists of Matlab installation, environment and work place. Then move on towards programming concepts like programming in C and essential header files, static and dynamic arrays and memory allocation etc. Further LaTeX, mathematical documentations and page making coupled with customizing page geometry are also essential ingredients of this course.

#### MIS202 Technical Report Writing (3,0,3)

Topics covered in this course include a study of the particular requirements of technical report writing, coupled with a review and refinement of basic grammar and composition skills. Students will be taught about the research process and analytical reports: how to gather, analyze, and organize data for writing a formal research report on an identified and approved businessrelated topic, write references using required MLA or APA styles, and document design. Fall. Prerequisite: MGT211

#### MIS343 Data Warehousing (3,1,4)

This course is a study of the techniques for planning, designing, building, populating, and maintaining a successful datawarehouse. The data warehouse continues to be one of the most organizationally complex and technically interesting projects in Information Technology. This course provides students 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.

#### MIS345 Data Mining

Data for managerial decision making can be stored at an incredible rate due to a host of technological advances. Electronic data capture has become inexpensive due to innovations such as the internet, e-commerce, electronic banking, point-of-sale devices and bar-code readers. Such data is often stored in data warehouses specifically intended for management decision making. Data mining is a rapidly growing field that is concerned with developing techniques to assist managers to make intelligent use of these repositories. The field of data mining has evolved from the disciplines of statistics and artificial intelligence. This course will examine methods that have emerged from both fields and proven to be of value in recognizing patterns and making predictions from an applications perspective.

#### MIS405 Excel for Business Managers

Spreadsheet Applications are widely used in most organizations for data analysis. These applications help management to take better decisions. Spreadsheet applications comes either in the form of desktop or web based applications. Microsoft Excel is a wellknown general purpose desktop based spreadsheet software. Unfortunately, many managers hardly know the basics of the Excel capabilities and as a result they spend hours on simple tasks that could be completed in minutes. Spreadsheets created by such users are difficult to update. They fail to understand the core drivers in business models developed by others and undermining their decision-making ability. The purpose of this course is to produce skilled MBA students so that they may enter in the market as effective Excel users and can become efficient managers. This course will enable them to use Microsoft Excel to improve their work, analysis and decision making skills.



The course is divided into six(6) major modules.

- Module 1: Excel Formulas & Features
- Module 2: Statistical Analysis and Modeling
- Module 3: Financial Calculations and Modeling
- Module 4: Operation Research (using Solver)
- Module 5: Data Summarization, Reports and Pivot Tables
- Module 6: Automation using Excel Macro

#### 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. Rather it is 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, blogosphere, business applications of social computing, collective intelligence, computer supported cooperative work, folksonomies, prediction markets, recommender systems, reputation management systems, social collaboration, social network analysis and visualization, tagging, virtual communities of practice, wiki technology and culture.

#### MIS410 Basic Programming

This course is intending to enable students of Accounting and Finance background to develop basic understanding of backend knowledge for software development. It introduces fundamental problem solving skills, and algorithm development with the help of programming language. It covers topics like Variables and data types. Selection and iteration structures. Method and recursive methods, Arrays and structures, File I/O and optionally elementary 2D graphics based on certain toolkits. It also covers flow chart design and pseudo-code approaches for representing solution to problems as well as debugging and testing techniques.

#### 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. Prerequisite: MIS102

#### MIS458 Enterprise Resource Planning (3,0,3)

Now a days the corporate world is moving towards ERP Implementations. ERP has become the backbone of modern corporate world and it is hard to imagine a corporation without ERP. The ERP course will give the students a clear understanding what is ERP and what is does and what are the issues in the organizations that lead toward ERP implementation. The ERP course will cover areas such as Fundamental Concepts about ERP, Major ERP Vendors, ERP Selection Process (including ERP Business case development, Business Requirement definition, ERP Budgeting, Request for Proposal and ERP Vendor demos and ERP selection criteria), and Project Management and Information flows in ERP. The course will also cover the overview of SAP modules (Sales and Distribution, Material Management, Production and Supply Chain Management). The Students are required to do presentations and conduct surveys about ERP related topics. A term report will also be submitted at the end of the Semester.

#### MIS502 Operations & Technology Management

Technology is becoming an indispensable tool for companies to stay competitive in the fast changing business environment of today and there is an increasing demand for effectively introducing and managing technology in the corporate world. The course will cover the management of business systems that produce goods, as well as those that provide services. It will discuss key issues in Operations Management including Lean Production, Six Sigma, 5S. JIT. Kaizen, and Continuous Process Improvement and explore the implementation of technology to solve operational problems. It will provide tools for analyzing business processes for improvement and for incorporating and managing technology to provide sustainable competitive advantage to the organization. problems. It will provide tools for analyzing business processes for improvement and for incorporating and managing technology to provide sustainable competitive advantage to the organization.

#### MIS503 Enterprise Integration

This course provides students with the theories, models, and analytic techniques required to develop solutions for integrating heterogeneous information systems. Basic concepts that must be applied to enable diverse applications developed in different environments under a variety of rules and standards to process cooperatively will be explored and illustrated. This course serves as a focused introduction to the concept that information systems must be utilized (i.e., re-used) rather than redeveloped and will give consideration to the role of users and the impact of information systems on those people. Independent and group assignments will provide the students with the opportunity to investigate Enterprise Integration solutions from the Web and in use in local environments

## MIS513 Information Industry Structure & Competitive Strategy

This course draws upon the most recent experience in the impact of information technology upon diverse industries, ranging from securities trading to consumer packed goods relating. It integrates the experience with relevant theory to develop a theory of competitive strategy for electronic commerce, and for informationbased strategies more generally. It is not tools and techniques course or a quantitative analysis course; likewise it is not a technology or an implementation course. It provides a focused and modern complement to strategic planning.

#### MIS541 SAP ABAP Programming I

The first section of this course comprises of Introduction to SAP ABAP, SAP architecture, and ABAP Development workbench tools. The second section deals with study of ABAP workbench in detail, which includes, study of flow of an ABAP program, ABAP workbench, ABAP dictionary, ABAP language elements, data retrieval, subroutines and ABAP events. The third section of this course is based on in-depth study of ABAP dictionary, including study of data objects, performance, input hecks, object dependencies, views, search and performance monitoring.

#### MIS542 SAP ABAP Programming II

This course is divided into three sections. The first part deals with Object Oriented paradigm in SAP ABAP. Object Oriented Programming techniques, Repository Objects, Exception handling and RTTS are covered in the first part of this course. The second part is advanced ABAP and covers topics such as ABAP runtime, types and data objects, internal tables and function groups. The third part deals with developing user dialogs within ABAP. This section covers topics such as screen programming, program interface, screen elements, lists and context menus.

#### MIS550 Logistic & Supply Chain Management (3,0,3)

Logistics is one of the most important aspect of supply chain and its importance is growing rapidly as the world is moving towards globalization. After completing this course the students will have a clear understanding what is supply chain management 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 will learn how to identify issues / problems and develop solutions in the areas such as procurement management, supplier management, inventory handling, warehouse management, logistics etc. The course will cover areas such as understanding the supply chain, purchasing management, supplier management, strategic sourcing, demand forecasting and collaborative planning, inventory management & bull-whip effect (SCM game), domestic and international transport, logistics outsourcing (3pl and 4pl). designing the transport network, performance measurement along the supply chain. A term report will also be submitted at the end of the semester.

#### MIS552 Advanced Data Warehousing

Data warehouses are databases of a specific kind that periodically collect information about the activities being performed by an organization. This course will discuss advanced topics of data warehousing in order to provide a detailed knowhow of the subject to the student. Topics included in this course are: 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 ware housing.

#### MIS553 Social Computing Applications

The course will focus on the new area of Social Computing and its Applications, which is becoming quite popular and important these days. The course will examine a sampling of the social, technical and business challenges social web sites must solve to be successful, teach students how to use high-level tools to analyze, design or build online communities, and help them understand the social impact of spending at least part of their lives online.

#### MIS556 E-Commerce

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, network service and application management, quality of service management, service level agreement management, application service providers and security management. It 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.

#### **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 topics like 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 toolkits. It also covers flowchart design and pseudocode approaches for representing solution to problems as well as debugging and testing techniques. Many programming languages support the required functionalities for this course.



## CSE142 Object Oriented Programming Techniques (3,1,4)

This course describes another paradigm as a better replacement for structured/procedural programming paradigm (CSE141) for managing large programs to segregate code into reusable chunks called classes. Principles of Abstraction, Encapsulation, Inheritance and Polymorphism are explored as well as developing an understanding of code structuring and design philosophies. It requires a thorough understanding of fundamentals of programming. Topics include class definition, constructors, destructors, access control. method overloading and overriding, inheritance, static and dynamic binding, exception handling, object life cycle and garbage collection, and namespaces. Either Java, C+ or C++ is used as a tool for implementation of concepts learnt in this course. Prereguisite: CSE141, CSE145

#### CSE145 Introduction to Computing

This course takes a breadth-wise approach to different areas in the discipline of computer science. It overviews topics from number representation, hardware architecture, operating systems, databases, some computing models, languages and grammars, software development and engineering, networking and graphics. Java or C is used to demonstrate certain concepts. Spring and Fall.

Prerequisite: None

#### CSE 203 Algorithms (3,0,3)

This course is a senior 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. Integer algorithms as well as matrix computations are also covered. The aim is to enable students to design competing alternatives of their own by creative design and analysis.

#### CSE209 Numerical Analysis & Algorithms (3,0,3)

This course introduces concepts and analysis of numerical methods. Topics covered are solutions of nonlinear equations (interval-halving, linear interpolation, Newton, Fixed point, etc.), Interpolating polynomials, various types of differences, representation of polynomials by difference operators and their relation, symbolic derivation, interpolation with unequal intervals, inverse interpolation, 2nd and 3rd dimensional interpolations, numerical differentiation and integration. Prerequisites: CSE246, MTS203

#### CSE241 Digital Logic Design (3,0,3)

This course introduces basic concepts of digital computer logic including switching logic, combinational 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, pipelining, and memory hierarchy. Prerequisite: CSE145, MTS201

#### CSE243 Data Communication and Networking (3,1,4)

This is an introductory course in data communications and networking. It is a 4 credit course comprising of 3 hours of theory and 3 hours of lab teaching per week. It familiarizes the students with the techniques, applications and control of modern data communications networks. Topics included are network models, digital and analog transmission, multiplexing, circuit and packet switching, LAN, WLAN and WAN Networks.

#### CSE246 Data Structures and Algorithms (3,1,4)

The purpose of this course is to provide students a solid foundation in the basic concepts of programming: data structures and algorithms. Students are taught how to select and design data structures and algorithms that are appropriate for problems that they might encounter. 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 (C, C++, C# or JAVA). Other topics covered in the course include analysis of algorithms, primitive types, arrays, stack,

queues, recursion, link list, trees, binary search trees, multi-way search trees, priority queues and graphs, sorting, searching, and hash table. Prerequisites: CSE142, MTS201

#### CSE307 Introduction to Artificial Intelligence (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 Al-specific programming languages and tools. Topics included are history and overview of artificial intelligence, state space representation, uninformed and informed search techniques, search in games, decision trees, neural networks, evolutionary algorithms, propositional and predicate logic, inference in logic, probabilistic reasoning, robotics and various machine learning and computational intelligence techniques.

Prerequisites: CSE246, MTS201

#### 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 programming languages. Topics 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. Fall.

## CSE311 Object Oriented Design and Implementation (3,0,3)

This course is an advancement of the techniques learnt in Object Oriented Programming. Topics include Conceptual and Object Modeling, Functional Requirements for a system and produces implementation specifications. Unified Modeling Language is used for representing various phases of analysis and design.

Prerequisites: CSE142, CSE246

#### CSE312 Software Engineering (3,0,3)

This course introduces students to the fundamental principles and methodologies of large-scale software development. Students learn about the theory and practice of software engineering. It requires a programming background. Students apply the taught practices on their individual programming effort 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 lifecycle software project that includes planning, software specification, software design, coding, inspections, and testing. Prerequisite: CSE246

#### 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 & denormalization, data security, data integrity, query optimization, transactions management, and introduction to distributed databases, object oriented databases and data warehousing. Prerequisite: CSE246



#### CSE342 Operating Systems (3,1,4)

The objective of this course is to introduce the organization of operating systems. Topics 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.

Prerequisites: CSE246, CSE310

#### 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. Topics include Compiler Backend Operations like Scanning, Parsing (top-down and bottom-up parsing), BNF/EBNF and Syntax Trees, Semantic Analysis and Annotated Grammars, and Compiler Frontend Operations like Runtime Environments, Code Generation and Introduction to Code Optimization.

Prerequisites: CSE310, CSE309

## CSE345 Computer Architecture & Assembly Language (3,0,3)

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. Prerequisites: CSE141,CSE208

#### CSE346 Numerical Analysis (3,1,4)

This is a junior standard elective course of numerical analysis. Basic paradigms and concepts of -numerically computing what cannot be analytically estimated- are introduced. The beginning deals with numerical techniques of finding roots of non-linear univariate equations, and system of non-linear equations with Newton's method. This is followed by system of linear equations and iterative as well as direct solution methods. Interpolation and averaging based on 1dimensional and 2-dimensional grids are treated next. This gives way to numerical calculus, which -in turnis followed by time integration methods aimed at solving linear ordinary differential equations. Some introduction to numerical techniques for partial differential equations ends the course. Successful students should be capable of appreciating, understanding, and constructing numerical methods for solving mathematical models that belong in the solution domain of numerical techniques taught in this course.



#### CSE4XX Numeric Computation (3,0,3)

This senior level elective course of numerical analysis is more focused towards computational techniques for scientific problems, rather than theoretical analysis of numerical methods. Students are required to be well-versed with numerical methods, such as the ones taught in the junior course of numerical analysis. This course starts with partial differential equation of the linear type and introduces grid discretization concepts. Finite Difference and finite volume techniques on cell centered and vertex centered regular grids are taught. Numeric computation involving iterative solutions of discretized PDEs, such as multigrid are taught here. Multigrid components, and multigrid preconditioned Krylov subspace methods are also covered. Successful students are expected to be capable of solving actual PDE models numerically.

#### CSE406 Principles of Programming Languages

This course develops understanding of programming language design and implementation issues with respect to computational models their domains and ease of use. It covers topics like data types, declarations, static and dynamic binding, evaluation order, scopes and lifetimes, evaluation order and interpretation and compilation as well as just in time compilation. A comparison of fundamental characteristics of structured, scripting, logical and functional languages is also drawn.

Prerequisite: CSE142

#### **CSE407 Human Computer Interaction**

This course aims to gives 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 artefact 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.

#### CSE443 Modeling & Simulation (3,1,4)

This course looks at simulation, which is one of the most widely adopted techniques in problem solving. It includes an overview of system modeling and simulation, manual example on simulation of discrete event individual life and health insurance, regulation, and insurer operations and functions.

#### CSE448 Microprocessor Interfacing (3,1,4)

This course covers the fundamentals of Intel x86 assembly language and the basic architecture of the Intel microprocessor. Topics include assembly language, microcomputer system hardware, input / output devices, and bus discipline. In addition, 8051 Microcontroller Programming and Interfacing will also be covered. This course consists mostly of hardware labs in which students develop projects on electronics, leading to a final semester project. Prerequisite: CSE310

#### CSE455 Network Security (3,0,3)

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. Prerequisite: CSE243

## 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.

Prerequisite: CSE142 and CSE307

#### CSE491 Computer Science Project I (0,3,3)

This is a two semester 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. Prerequisites: CSE311, CSE312, CSE341

#### CSE492 Computer Science Project II (0,3,3)

This is the second part of Computer Science Project to be taken after the successful completion of Computer Science Project-I Prerequisite: CSE491

#### CSE557 Advanced Topics on Computer Networking

This course is intended to provide senior level students a thorough understanding of modern networking concepts and technologies. It discusses various networking technologies in detail, in particular for Metropolitan Area and Wide Area Networking, introducing them to tradeoffs between various protocols, and services. Topics covered include: VSATs, ATM, Sonet, Optical Net works, Voice over IP, MPLS, Wireless LAN, 3G Mobile Services, Bluetooth, Mobile/Cellular Networks. Prerequisite: CSE243

#### CSE561 Advanced Artificial Intelligence

This course discusses a breadth of advanced issues in artificial intelligence including but not limited to data mining, machine learning, probabilistic reasoning, evolutionary computation and computer vision. The emphasis on different topics may vary from one offering to the next. The primary audience of this course is those students who are not doing specialization in the AI track but are interested in the application of AI in different fields (computer networks, human computer interaction, software engineering, etc.). Being a graduate level course, students are expected to read a lot of recent research papers and do a resear ch project - preferably on application of AI techniques in a field of their choice.

#### CSE566 Software Quality Assurance

This course addresses process considerations in software systems development. It discusses advanced

material in software planning, mechanisms for monitoring and controlling projects, and leadership and team building. Furthermore, it provides knowledge and understanding of the concepts, principles, techniques, and tools that are used in the management of software projects. Some the topics included are Size and Cost Estimation, Schedule Plan, Risk Management, Quality Management and Configuration Management. Students work in a team to develop a project plan for a small project according to the established standards based on best practices of the global IT industry.

#### CSE567 Requirement Engineering

Students will learn to gather correct, concise, clear and complete set of requirements. Some of the topics included in this course are requirements engineering process, requirements elicitation and analysis, requirements validation and requirements management. Moreover, cseacquired knowledge to document requirements for a software application.

#### CSE568 Software Project Management

This course deals with 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, change configuration, managing organization, team and project, software process improvement. This course will enable



students to have a complete view of Project Management, as described by PMBOK.

#### CSE569 Web Engineering

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.

#### CSE572 Formal Methods

The aim of this course is to expose students to mechanized formal tools which help ensure correctness and hence reliability of computer systems. Students will learn about the theory underlying model checking and will gain experience with model checking tools. Upon completion of this course the student will be able to demonstrate knowledge and understanding of temporal logics, theoretical underpinnings of model checking and model-checking tools and their uses.



#### CSE573 Advanced Computer Architecture

Comprehensive coverage of the architecture and system issues that confront the design of a high performance workstation/PC computer architectures with emphasis on quantitative evaluation. Topics covered in this course are Quantitative Principles of Computer Design, Instruction Set Principles and Examples, Advanced Pipe-lining and Instruction-Level Parallelism, Memory-Hierarchy Design, Storage Systems, Interconnection Networks and Multiprocessors.

#### CSE575 Advanced Human Computer Interaction

This course aims to gives students an understanding of how interactive systems are developed. The hardware and software issues that determine the usability of an interactive computer system will also be read in this course. 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). 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.

#### CSE576 Usability Engineering

This course introduces methods for usability engineering alongside basic concepts of usability and the design of human computer interfaces. One of the prime requirements of any software is usability; however the term usability has many facets. Usability is not only determined by the design of the human computer interface, but also by the underlying task model and data model of the software. In practice, usability is determined by a development process that takes users, their environment and tasks into account. The course relies on practical exercises during which participants learn to apply usability engineering methods. In this way participants gather the necessary skills required for improving the usability of their software systems. The course enables participants to apply selected usability engineering methods in their own projects in order to improve the usability of the software systems they develop.

#### CSE577 Interaction Design

This course provides theoretical knowledge and practical experience in the fundamental aspects of Interaction Design. The course focuses on the process of designing the user experience by examining works of interface design from the perspective of psychology, graphic design, and human-computer interaction conceptual frameworks. Topics included are: concept and planning of Interaction Design, Prototyping, User testing, Market Testing, Iteration, Product Specifications, Production Matrixes, Follow-up and maintenance.

#### CSE578 GUI Design

This course introduces design and analysis methods for Graphical User Interface design. Relevant perceptual psychology is introduced, and guidelines for user interface design are derived. Design methods are discussed. Analysis of interfaces by experimentation on humans is described. Exploring effective Web applications design through theory and handson exercises, exploring user interaction characteristics and incorporating them in application design is also covered in this course.

#### CSE579 Multimedia and Multi-Modal Systems

This course will extensively cover the growing field of multimedia by introducing advanced programming on different multimedia applications. Topics covered in this course are Multimedia Authoring tools, Graphics and Image data representation, color in image and video, fundamental concepts of digital audio and video, data compression, video compression, MPEG I and II video coding, media communication and retrieval and content based retrieval in digital libraries.

#### CSE651 Advanced Analysis of Algorithms

The objective of this course is to read advanced topics of the core area of computer science which enables students to focus on the study of abstract models of computation. These abstract models allow the students to assess via formal reasoning what could be achieved through computing when they are using it to solve problems in science and engineering. The course exposes students to the computability theory, as well as to the complexity theory. The goal is to allow them to answer fundamental questions about problems, such as whether they can or not be computed, and if they can, how efficiently.

The course defines advanced computation models and their properties, and the necessary mathematical techniques to prove more advanced attributes of these models. The students will be able to express computer science problems as mathematical statements and to formulate proofs. Upon completion of this course the students are expected to become proficient in key topics of theory of computation, and to have the opportunity to explore the current topics in this area.

#### CSE652 Knowledge Discovery and Data Mining

This course will offer 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 will be discussed. Methods for feature selection, dimensionality reduction and performance evaluation will also be covered. Students will be exposed to relevant Data Mining research.

#### CSE655 Probabilistic Reasoning

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 will be discussed in detail. The course is intended for graduate level CS students and a significant amount of time will be spend on the current research issues in the field of probabilistic reasoning. Students are expected to use various softwares and develop their own tool to implement various reasoning and learning algorithms.

#### CSE656 Computational Intelligence

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. Real world applications include portfolio optimization in financial domain, control and strategy optimization in robotics, route optimization in path planning and network traffic flows, and so on. A significant amount of time will be spent on the current research issues in computational intelligence. 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.

#### CSE660 Computer Vision

Computer Vision is a study in algorithms, tools and techniques that enable computers to extract information out of digital images. Computer Vision is being used extensively for driving autonomous vehicles, planetary exploration, life-saving medical imaging techniques, enhancing the Human-Computer-Interaction experience and preservation of accumulated human wisdom by digitizing books. This course will offer 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, break them into simpler problems, associate these simpler problems to established solution techniques, design efficient algorithms using these established techniques and make computer programs based on these algorithms.



On the research front, the Faculty of CS contributed significantly towards top quality journal research papers indexed by ISI Thompson. In addition, the TRLs Wireless Sensor Networks (WSN) Lab expanded its portfolio of sensor equipment to include a complete set of new sensor equipment from Hanbeck which included acceleration, GPS, pressure and humidity sensors apart from the earlier light and temperature sensors from Crossbow

..... Dr. Sayeed Ghani

#### **ICT & ALLIED COURSES**

**ICT509 Network Architectures for Business** The information architecture of the Internet enabled organization including the use and development of client/server and distributed systems. A detailed analysis of networking and telecommunications including data, voice, image, video, network hardware, and topology concepts, models, architectures, and standards for the design, implementation, integration, security, and management of distributed Internet and Intranet enabled systems and networks is done. This helps to understand the role of the information architecture and distributed systems in organizational design and management strategy.

#### ICT511 Advanced Computer Networks

This course will cover advanced concepts in computer network such as: Advanced Internet addressing (CIDR and NAT), End-to-end protocols, Multicast Address resolution server, Multi protocol over ATM, IP Switching / Tag Switching, Multi protocol label Switching(MPLS), scheduling and congestion control in the Internet, Quality of service in the Internet, Internet Routing Architecture, Border Gateway Protocol (BGP), Resource Reservation Protocol (RSVP), IP version 6, Wi-Fi and Wi-Max, and Mobile IP.

#### ICT512 Advanced Web Technologies

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.

#### **ICTXXX** Distributed Systems

This course deals with an in-depth understanding of Distributed Systems. Distributed system is a computer system consisting of several independent computers, connected by a network, that can work together to perform a task or provide a service. Typical examples

include: the World Wide Web, networked file systems, DNS, and massive multiprocessor supercomputers. 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

#### ICTXXX Mobile Computing

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.

#### **ICTXXX Wireless Communication**

The objective of this course is to provide the student with an adequate understanding of the prevalent Mobile Wireless Networks. The course will discuss the protocol reference model(s) that relate to Mobile Wireless Communication Systems. It will mainly cover the physical, data link, and the application layers from user plane perspective as they apply to mobile wireless networks in use today. Additionally, it will cover the management and control plane functions.

#### **ICTXXX Information Security**

The purpose of this course is to introduce students to the fundamental concepts and issues of information security. Basic principles for information security; threats and defenses; cryptography; introduction to network security and security management are covered in this course. By the end of this course the student should be able to understand the importance of information security in software systems, understand what a security policy is and what are the major mechanisms for implementing security policies, have a background in information security sufficient for the study of computer networking, be familiar with the major educational resources available for information security and be able to effectively present ideas about information security in written, oral, and web formats.

#### Human Computer Interaction

#### Intelligent Systems

Prerequisite: Artificial Intelligence, Object-Oriented Programming, Introduction to Statistics

#### Software Engineering

Prerequisite: Object-Oriented Programming, Introduction to Software Engineering

#### Information Management

Prerequisite: Database Systems

#### Theoretical Computer Science

Prerequisite: Computer Architecture, Algorithms.

#### Net - Centric Computing

Prerequisite: Operating System, Data Communication & Networks, Introduction to Statistics



#### **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 Differentiability. After handling the basic concepts, deeper indulgence in theoretical concepts such as the Mean Value Theorems, Higher derivatives, Generalization of Mean Value theorem, Taylor's and McLaurin's Expansions, Curve Sketching and other applications of derivatives are taught. Students also explore Integral Calculus by studying Anti-Derivatives and techniques of Integrations, Riemannian Sum, Fundamental Theorem of Integral Calculus. Curves in a plane, differential and integral properties of curves. Successful completion implies thorough understanding of basic univariate calculus. 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 to provide them with the requisite knowledge for taking up courses of advances Statistics and Business Research methods in their academic term.

#### MTS110 Mathematical Methods

The methods and investigative techniques of mathematics as employed in various domains of application, is imparted in this course. This course covers Complex Numbers, Circular and Hyperbolic Functions and Complex Exponential and Logarithms. Furthermore, students get exposed to Infinite Sequences and Series, as well as theoretical matters relating to Convergence of Sequences and Infinite Series. This also includes Piece-wise, continuous and bounded functions, Periodic Functions, and especially Fourier Series. A little bit of elementary abstract algebra such as the concepts of Groups, Rings and Fields, also form part of this course. Similarly, some bits of elementary linear algebra such as Matrix methods and their Algebra, Determinants, and elementary Vector Spaces are also included. Successful students may be expected to use these methods successfully in any area of application.

#### MTS202 Statistical Inference (with econometrics lab)

This course in 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. Pre-requisite: MTS101, MTS102

#### 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 subspaces 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. Subsequently, students are exposed to advanced concepts such as inner product spaces, Cauchy Schwartz inequality and its application, orthogonal and orthonormal bases, similar matrices and matrix diagonalization. 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.

#### MTS211 Discrete Mathematics

Symbolism and logic as used in mathematics merits proper training. 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. Graph theory and Boolean Algebra at the sophomore standard are also treated here.

#### MTS232 Calculus-2 & Solid Geometry

Concepts from calculus and geometry are integrated in this course. Topics (in brief) include, multivariate differential calculus and their applications; Lines, curves and surfaces in 3D;Surface and Solid of Revolution; Double and triple integrals; Arc length, surface area and volumes; Scalar and Vector Fields; Vector Valued Functions and Elementary Vector Calculus; Gradient Divergence and Curl; Theorems of Gauss and Green. It is expected that students taking this course, would develop a good understanding of how calculus might be employed for solving geometrical problems.

Pre-requisite: MTS101

#### MTS301 Real Analysis

This is a pure mathematics real analysis course at the junior standard. Topics include Ordered sets, completeness properties of the real numbers, limits of numerical sequences, properties of continuous functions on closed bounded intervals, Point-wise and uniform convergence. Functions and calculus in several variables, properties of continuous functions on compact sets, and Taylor series in Rnwith applications, the inverse and implicit function theorems. This course aims to provide a pure grounding in Real Analysis and therefore facilitates related courses such as Stochastic processes.

Pre-requisite: MTS232



## **Description of Courses**

#### MTS302 Complex Analysis

This course, in its own spite, is the complement of the Real Analysis course MTS 301. It includes the algebra and the geometry of complex numbers, Cauchy-Riemann equations, and harmonic functions. The study of complex calculus is amply treated here in junior standard detail, and includes, Contour integrals, the Cauchy-Goursat Theorem, Cauchy integral formulas, the Morera Theorem, maximum modulus principle, the Liouville theorem, and the fundamental theorem of algebra. Advanced topics covered expose students to Laurent series, uniqueness of representation, zeros of analytic functions. Residues and poles, integrals around a branch point., the argument principle, and the Roche theorem.

Pre-requisite: MTS301

#### MTS303 Advanced Differential Equations

This course mainly deals with partial differential equations (PDEs). PDEs form the mathematical model of many problems of interest, typically, the ones that admit a mathematically analyzing approach. A thorough grounding in the analytic methods and techniques of forming models and solving PDEs therefore merits inclusion in this program. This course exposes students to first order PDFs, 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. The solution of PDEs by different methods is introduced next, closely followed by the Fourier, the Laplace and the Hankel transforms. Students finishing this course are expected to have the skills required for modeling and solving important problems in a diverse application area.

Pre-requisite: MTS241

#### MTS304 Stochastic Processes

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. This subject here is only treated upto the junior standard. Briefly, it includes basic



stochastic processes, probability spaces, random variables and moments. Then moves on to develop random walks, Gambler's ruin, Markov chains, decomposition of state space etc. After that stochastic calculus is introduced and the concepts of continuity, differentiability, Ito's lemma, Ito's integral, spectral representation, and Martingales, is brought in. Finally some advanced topics such as white noise, and Kolmogorov forward/backward equations are handled. The goal is this course is to impart the understanding and the appreciation of non-deterministic phenomena, and their mathematical treatment. Pre-requisite: MTS202, & MTS301

#### MTS305 Abstract Algebra-I

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. Permutations, symmetric, and alternating groups, rings, finite and infinite fields are treated next. Finally advanced concepts, such as Normalizers and Centralizers of a subset of a group, congruency classes of a group, quotient groups, homomorphism and isomorphism between groups, as well as , automorphisms, finite p-groups, orbits, and the 1st, the 2nd and the 3rd Sylow theorems are given. Pre-requisite: MTS110

#### MTS306 Numerical Analysis

Phenomenally, mathematical models of different problems happen to be much more sophisticated than the available analytic solution methods. Fortunately, this issue can be addressed in most cases by resorting to numerical and computational techniques that aim to approximate the real solution upto a prescribed accuracy. This course imparts the skills of numerical analysis and techniques for different problems. Computer arithmetic is introduced, and different iterative methods for the solution of nonlinear equations and their error analysis is treated. Interpolation and numerical calculus follows, incorporating important techniques and algorithms. Finally, direct numerical solution of systems of linear equations is treated. Pre-requisite: MTS232

#### MTS241 Introduction to Differential Equations

This course introduces the concepts of equations involving derivatives. The Introduction, formation, solution and applications of first-order-differential equations is first dealt, paving the way for the introduction and solution of higher order linear differential equations. The approach to this subject in this course is analytic (as opposed to numerical /computational). Advanced concepts that merit an inclusion at the sophomore standard such as differential equations with variable coefficients; Sturm-Liouville (S-L) system and boundary-value problems are brought in next. The course culminates on concepts such as series solutions and Bessels Function. Pre-requisite: MTS232

#### MTS411 Functional Analysis-1

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 functionals, Dual spaces, Finite dimensional spaces, F. Riesz Lemma, The Hahn-Banach Theorems, The open mapping theorem, The closed graph theorem, Uniform boundedness principle and its applications. Applications in Differential and Integral equations. Also included are the Inner-product space, Hilbert space, orthogonal complements, the Gram-Schmidt orthogonalization process, besides other topics. The course facilitates Functional Analysis-2. Pre-requisite: MTS302

#### MTS412 Functional Analysis-2

This is an add-on course to Functional Analysis-1 and 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.Calculus on manifolds, homomorphic spaces, Urysohn's lemma, and Baire category theorem. Metrization of spaces , and spaces with measure, measurable functions, idea of ??fields. Students who successfully finish this course are expected to apply the knowledge for further research in this and related fields. Pre-requisite: MTS411

#### MTS413 Abstract Algebra-II

This course aims to teach Abstract Algebra at a senior level, and requires Abstract Algebra 1 as a prerequisite. Topics in brief include, review of rings and ?elds, introduction to integral domain, ideals, prime and maximal ideals, ?eld of quotients of an integral domain, and ?eld extensions. Advanced topics incorporate free Abelian groups, Z-modules, scissors congruence group, simplicial complexes, homology groups, and their computations. Splitting ?elds, and Galois theory is treated last. Pre-requisite: MTS305

#### MTS414 Scientific Computing for Linear PDEs.

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 PDE is dealt in this course. Discretization techniques, and multilevel iterative solution methods are the main highlights. Implementation of the algorithms is another salient feature.

Pre-requisite: MTS303 & MTS306

#### MTS431 Numerical Solutions of PDEs

This course aims at developing computational skills required for numerically solving partial differential equations (second order). Different discretization methods are introduced from the scratch and different solution strategies, some for linear PDEs and some for non-linear PDEs are built. Discretization methods include, the Finite Difference Methods and the Finite Volume Method. The resulting linear / linearized systems are solved directly using suitable LU decompositions. Successful completetion of this course implies the skill set required for direct numerical solutions of PDEs.

Pre-requisite: MTS306

#### MTS432 Integral Equations

The major topics discussed in this course include Linear integral equations, Fredholm integral equations, Eigenvalue problems, Volterra integral equations, Singular integral equations, Systems of linear integral equations, Nonlinear integral equations, Miscellaneous special kernels, Integro-ordinary differential equations, Integro-partial differential equations, Qualitative behavior, Abstract integral equations, integral equations in abstract spaces, Integral operators, Inverse problems, Random integral equations Pre-requisite: MTS303

#### MTS433 Advanced Numerical Analysis I

The main aim of this course is to teach modern techniques of solving a system of linear equations, obtained from PDE discretizations of various kinds. The solution method used in this course would be iterative, in particular, the Krylov subspace family of iterative methods prototyped by Conjugate Gradients. Students taking this course should be able to contribute to the development of these iterative solvers as well as solving any consistent system of linear equations. Pre-requisite: MTS301 & MTS306

#### MTS434 Advanced Numerical Analysis II

This is an advanced course for the iterative solution of discretized Partial Differential equations of the secondorder. The iterative solution technique taught here is multigrid. Concepts related to solving PDEs on multiple resolutions that correspond to each other are built here. Different multigrid components are constructed and the students are encouraged to explore the comparative merits of these components. Multigrid preconditioned Krylov methods are also taught, which form some of the fastest known solvers. The skill set developed in this course would include solving PDEs through multigrid based solvers. Pre-requisite: MTS453

#### MTS435 Differential Geometry

The course introduces the basic language of differentiable manifolds, important in understanding geometric objects independent of being embedded in any ambient space. Differential forms and its integration are introduced to emphasize the intrinsic notion of calculus. By introducing tangent and cotangent bundles, the aim is to lay down a strong foundation for a general theory of vector bundles, very important for the gauge theory of mathematical physics. This is followed topics such as Lie bracket, Lie derivative of vector fields and introduction to Riemann geometry. On completion of this course, student is expected to have the basic tools of modern geometric methods applicable in modern physics.

Pre-requisite: MTS241 & MTS301

#### MTS437 Fluid Dynamics I

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. We concentrate on fluid in motion and the forces on them (fluids include liquids. gases, and plasmas). The aim of this course is to study famous principle of classical mechanics such as Newton's laws of motion, conservations and basic equations used in fluid mechanics. We will study many useful situations by using simple idealized fluid models and classical principle of mechanics. On completion of this course, students will be able to formulate solutions to flow problems, including those based on differential analysis, using appropriate fluid properties, flow conditions, and coordinate representations. Pre-requisite: MTS303

#### MTS438 Fluid Dynamics II

This course is a follow up course of fluid dynamics I. In this course we study about rheology and some of its properties like shear thinking and shear



thinningviscoelasticity. The motion of a fluid in the neighborhood of a sliding or rotating cylinder is of great interest. Students are taught about geostrophic flow and Kelvin-Helmholtz instability. This is followed by more advanced topics such as constitutive models and Orr-Sommerfeld equation. This concludes the course.

Pre-requisite: MTS437

## 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 and to take it up to computational level. Basis stochastic processes are introduced and market dynamics are connected to well defined processes. Stochastic calculus is also taught in this course as well as all requisite concepts which finally give way to the Black-Scholes equation for pricing options. Different kinds of derived contracts are also studied both theoretically as well as mathematically. 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. Solving these equations exactly in closed form is impossible as the experience in other fields suggests. Therefore, we have to look for efficient numerical algorithms in solving complex problems such as option pricing, risk analysis, portfolio management, etc. This course will provide a systematic introduction to the development, analysis and implementation of numerical methods for solving financial problems. After this course, the students will understand the basic concepts of quantitative finance and will be aware of the major hedging, and pricing problems in finance. They will also learn how to formulate these problems as mathematical models. and understand the computational technique to solve the arising model.

Pre-requisite: MTS441

## MTS443 Modern Algebra I (Galios 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. It also gives complete answers to questions such as the solution of equations by radicals and the devising of a circle into n equal arcs using ruler and compasses. The aim of this course is to impart a comprehensive and working knowledge of the classical field and Galois Theory from a theoretical as well as a computational perspective. It deals with "field extensions", and the central topic is the "Galois correspondence" between extensions and groups. Students taking this course should be able to understand "solvability" of wide range of problems. 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 with respect to homological algebra point of view. It starts with the quick review of rings and modules, following different notions related with it, a Special class of rings: Noetherian rings, Artinian rings and their properties are studied. 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. We construct integrals with respect to a Lebesgue-Stieltjes measure and state their most relevant properties, together with the most important convergence result, the Monotone Convergence Theorem and the Dominated Convergence Theorem. After this course, students will be able to use these new tools 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. H. Lebesgue introduced the integral that bears his name. His key idea was to extend the notion of length from intervals to more complicated subsets of R (and Rn). The aim of this course is to introduce the Lebesgue measure on R and to show how this theory leads to the Lebesgue integral on R, and to introduce the concept of Hausdorff dimension of sets in Rn. Lebesgue integral integrates any function which is Riemann integrable, and also has good limit properties. 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 required skill set 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. It deals with subjects like topological spaces and topological properties. Further topics such as function spaces and the fundamental group are included. 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. Manifolds provide the natural setting for a general study of differentiable (smooth) functions and mappings. 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. For example, we shall give a proof of the fundamental theorem of algebra from this point of view, as well as the famous Brouwer fixed-point theorem. We shall also define and study the Euler characteristic for compact orientable manifolds; this classifies compact orientable manifolds. 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 try 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. The fundamental statistical tools & methodologies enable the student to analyze a wide variety of quantitative and qualitative data collected in diverse problem-situations encountered in the real world. The purpose of the inferential statistics is to test, deduce and infer the validity of different types of hypotheses and models built on the basis of the raw data collected in a variety of problem-situations. Key concepts also include interpretation of regression analysis, time series analysis and decision-making under uncertainty.

#### 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. Once foundation is laid down we discuss Riemann integration, measurable sets, outer measure, measurable functions. Lebesque measure and Lebesgue integral. This course has some additional things that are very unlikely to a standard course in Advanced Real Analysis that along with Riemann Integration we also introduce Lebesgue Integration without going into formal theory of measure spaces. The course has been divided into four parts. First module is all about set theory and introductory real analysis. In the second, module we discuss Riemann theory of integration and also talk about Lebesgue integration. Third module is mainly about convergence in measure. Fourth module is actually some topics from functional analysis that will prepare students for the next course in this series, Measure and Integration Theory, in which a thorough treatment of measure spaces is given. We presuppose that student has good foundation of an undergraduate real analysis before taking this course. This course aims to be more dynamic and problems solving oriented than just proving theorems and asking students to reproduce them in the exams.

#### MTS512 Measure Theory & Integration

This is a 3 credit hours course on Measure Theory designed for advanced graduate students of PhD Mathematics. Here we treat measure theory in the abstract and rigorous way. In addition, some topics from Functional Analysis have also been added in order to understand measure theory in its real spirit. Course has been divided into four modules. In the first module, mainly we define measure as a set valued function and discuss the properties of measure and Lebesgue measure in abstract setting. In the second module we define measure on sigma algebra, drive outer measure from the measure and define measurable sets. Third model defines mappings on the measure spaces. Fourth module is about defining measure on a class of locally compact Hausdorff Spaces. Pre-requisite: MTS512

#### 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 preconditioners 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. From this stage it builds up the more involved concepts of Martingales and uses various examples to motivate the study. Models from Finance are also discussed to motivate continuous time Markov models. Successful students are expected to understand continuous and discrete processes and to be able 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. The same comprehension skills for stochastic processes and equations is expected of successful students. Pre-requisite: MTS304

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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, Fredholm theory, the Hilbert-Schmidt theorem; Wiener-Hopf Method; Wiener-Hopf Method and partial differential equations; the Hilbert Problem and singular integral equations of Cauchy type; 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. It also addresses the issues related to time that are fundamental to astronomy and astrophysics. This course also explores the basic issues in celestial dynamics starting with Kepler'sPlanetary 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 function of two variables, one abelian and the other non-abelian. This is in spirit of axiomatic (Co)homology theory of Eilenberg-Steenrod, which have had its roots in (Co)homology theories of topological spaces. The other approach comes from Grothendieck which modifies it to convert into the theory of a single abelian variable, leading to algebraic geometry in its range of applications-the line which we find beyond the scope of this course. The student is assumed to have background in algebra, specially in the class of rings and modules determined by various finite and stationary conditions, and exact sequences. However, the details can be filled in whenever necessary. It is in this background we introduce very basic homological machinery that could be dealt justly in 1-semester graduate course. Thus it is expected that after completing this course, the student will be able to use it in algebraic topology and will be able to pursue his study further into (Co)homoloay theories of Groups. Lie Algebras and Associative Algebras.

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 only calculating in the corresponding affine neighborhoods, we thus develop the main tools accordingly, hence major relevant ideas are all developed from scratch in this respect in context of affine algebraic geometry. The first step towards this goal is Hilbert's Nullstellensatz which we introduce to establishes the theoretical dictionary needed to transfer the computations from pure algebra into geometry. In order to extend or enlarge the applications to geometry from smooth to mildly non-smooth cases, we introduce normalizations. This also helps extending the theoretical dictionary further when applied to nonsingular models of affine curves. Projective setting is introduced to extend the span of the local scope of affine geometry and exemplify the local nature of affinness in the course's computational aspects. Pre-requisite: MTS513

#### MTS545 Applicable Modern Geometry I

In this course, we intend to establish the transition from vector calculus in R<sup>n</sup> to the more general setting, that of manifold, and show that the former is just a special case of the latter via the fact that every manifold offers a calculus intrinsic to its own isomorphism class in the corresponding category. This also helps us establish a deep and rich interplay b/w 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 for a pre-variety as in EGA) with affine varieties serving as its local model. Throughout the course, everything is modeled on an algebraically closed field: however, one can extend most of the arguments to the fields of characteristic zero. We introduce the concept of a rational map giving rise to birational geometry along with resolution of singularities, very powerful aspects of algebraic geometry. It also aims at appreciation and application of the Riemann-Roch theorem, one of the most important results of algebraic geometry. For this course, the 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 always be filled in whenever necessary. 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

#### MTS553 Algebraic Cycles I

This course provides 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 able to define higher chow groups.

Pre-requisite: MTS513

#### MTS557 Arithmetic Algebraic Geometry

This is an introductory course on Diophantine geometry that deals Fermat's equations as well as Diophantine equations and inequalities. At the end of this course students will be familiar with L-functions and zetafunctions.

Pre-requisite: MTS513

#### MTS561 Exploratory Data Analysis

Analysis of scientific data and experiments: Design of experiments and ethical research. Data modeling management, Exploratory data analysis, Randomness and probability. Statistical analysis including linear regression, analysis of variance, logistic regression, categorical data analysis and non-parametric methods.The aim of this course is to provide an understanding of the nature of scientific data and the subsequent need for statistical analysis. You will develop your statistical expertise and critical judgment in scientific studies, including an awareness of ethical issues in research and analysis. You will learn about the different types of data and how each can be visualized and summarized, and how you can make conclusions and predictions from the statistical analysis. You will also see that these statistical tools are based on simple mathematical ideas and associated assumptions.

#### MTS565 Mathematical Physics I

Complex Analysis: Analytic functions, Contour integration. Ordinary Differential Equations : Exact solutions, special functions Series solutions Approximation methods (WKB, perturbation theory). Linear Algebra: Vector spaces and matrices, Infinitedimensional spaces; Fourier and other transforms. Partial Differential Equations and Boundary Value Problems: General properties, Green's functions, Boundary-value problems.

#### MTS569 Statistical Data Mining & Knowledge Discovery

Development of high performance computing facilities have given the way for testing and implementation of those concepts that were assumed impossible and so were not given their proper status. This list includes complex mathematical function mapping and classification techniques, linguistic and imprecise computing and machine learning paradigms. These approaches are capable to handle complex and gigantic real world problems. Computing facilities provided the chance to make breakthrough against the conventional requirement of mathematical rigidity and formality of solutions that even become impossible due to high complexity. These techniques replaced the complexity of exactness of solution with proximity of solution.On the other hand, massive data sets pose a great challenge to many cross-disciplinary fields, including statistics. The high dimensionality and different data types and structures have now outstripped the capabilities of traditional statistical, graphical, and data visualization tools. Extracting useful information from such large data sets calls for novel approaches that meld concepts, tools, and techniques from diverse areas, such as computer science, statistics, artificial intelligence machine 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 for decision support systems, image and speech analysis, health informatics.

#### MTS573 Statistical Machine Learning

Development of high performance computing facilities have given the way for testing and implementation of those concepts that were assumed impossible and so were not given their proper status. This list includes complex mathematical function mapping and classification techniques, linguistic and imprecise computing and machine learning paradigms. These approaches are capable to handle complex and gigantic real world problems. Computing facilities provided the chance to make breakthrough against the conventional requirement of mathematical rigidity and formality of solutions that even become impossible due to high complexity. These techniques replaced the complexity of exactness of solution with proximity of solution. On the other hand, massive data sets pose a great challenge to many cross-disciplinary fields, including statistics. The high dimensionality and different data types and structures have now outstripped the capabilities of traditional statistical, graphical, and data visualization tools. Extracting useful information from such large data sets calls for novel approaches that meld concepts, tools, and techniques from diverse areas, such as computer science, statistics, artificial intelligence machine 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.

#### MTS577 Galois Theory

This course gives a detailed introduction to Galois theory that starts from review of group action on a set and Sylow theorem with its application. Here 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 intended to be an introduction to numerical methods for hyperbolic partial differential equations. These equations require special treatment which do not often form part of standard numerical analysis courses for PDEs. 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 be able to compute details of astronomical events and phenomena independent of any commercial software. This would enable them to work in areas for which software are not available and make them do highly complicated computations for the various areas of research in Astronomy. Pre-Requisite: MTS537

#### MTS645 Applicable Modern Geometry II

In this course, we intend to go beyond the study of the fundamental instruments of differential geometry of

manifolds and investigate some of the algebraic and topological invariants associated to a manifold, along with some algebraic techniques which are useful in handling modern research tools. We introduce theory of Lie groups and Lie algebras which have applications in theoretical physics where they naturally arise in solving problems, for instance, by translating inherent symmetries via transformation groups. After completing this course the student will be expected to use the techniques learned in theoretical physics, or pursue his 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". In this course we have just touched the basic ideas that form the basic language of modern algebraic geometry, the language of sheaves and schemes. Even though, it is considerably difficult to adopt a main line towards a significant goal from just a scratch, but we still hope that with the very basics of cohomological machinery and basic ingredients of intersection theory along with big results of Hirzebruch-Riemann-Roch and Hodge-Index-Theorem, that we have introduced by the end of semester, will help and prepare student with some advanced topics in intersection theory, specially in case of low dimensional algebraic geometry, where he should find himself prepared, to some extent, for handling intersection form determining intersection theory on complex algebraic surfaces. Also, equipped with the basic technical language of schemes, a student is expected to be prepared to venture into the geometric invariant theory pioneered by Mumford and Deligne, very important tool in moduli theory. On the other hand, a comprehensive introduction to sheave theory is developed to help student learn the basic tools required, with a view towards application in classification accounts in Algebraic Geometry, in context of Moduli Theory of sheaves on schemes. Pre-requisite: MTS549

#### MTS653 Algebraic Cycles II

This course is the extension to algebraic cycles I that provides in depth knowledge of higher chow groups

and additive higher chow groups. It also provides the relations between higher chow groups and polylogs. Pre-requisite: MTS549

#### MTS657 Polylogarithms

This course can also be studies after algebraic cycles I as well. Students will be familiar 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 practice, most data collected by researchers in virtually all disciplines are multivariate in nature. 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. Multivariate data analysis consists of methods that can be used to study several variables at the same time so that the full structure of the data can be observed and key properties can be identified. This course covers estimation, hypothesis tests, and distributions for multivariate mean vectors and covariance matrices. We also cover popular multivariate data analysis methods including multivariate data visualization, maximum likelihood, principal components analysis, multiple comparisons tests, multidimensional scaling, cluster analysis, discriminant analysis and multivariate analysis of variance, multiple regression and canonical correlation, and analysis of repeated measures data. Coursework will include 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. In spite of their simplicity, monomial ideals are powerful tools. For example, in algebraic combinatorics they are used to attach algebraic invariants to finite simple graphs and, more generally, simplicial complexes. These invariants have led to the solutions of several important problems in combinatorics. 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 contents of this course Mechanics: Statics ---Mathematics & Physics of Scalars & Vectors; Mechanics of Coplanar & Non-Coplanar Forces; Torque & Principle of Moments; Equilibrium of Rigid Bodies in 2- and 3- dimensions & Free-Body Diagrams; Calculation of CM & CG: Moment of Inertia & Radius of Gyration: Parallel & Perpendicular Axis Theorem; Dynamics--- Kinematics & Kinetics of Particles and Rigid Bodies in 2- and 3-dimensions: Newton's Laws; Work -Energy Theorem & its Applications; Static & Kinetic Friction (Tribology); Gravity & Gravitational Potential; Impulse & Conservation of Linear Momentum; Collisions & Impacts; Angular Momentum & its Conservation. A Brief Introduction to the Fundamentals of Relativistic Mechanics and Quantum Mechanics.

#### SCI205 Physics-II (Electromagnetism)

This course covers elementary topics in Vector Analysis, Electrostatics: Electric charge and its conservation, Coulomb's law, Electric Field and Potential, Flux & Gauss's Law, Capacitance, Dielectrics and Energy storage. Electrodynamics: Current, Resistance, Ohm's law, Power and RC circuits. Magnetism: Sources of Magnetic Fields, Force in Magnetic Field, Lorentz Equation, Biot-Savart Law, Ampere's law, Solenoids, Toriods etc. Induction: Faraday's law, Lenz's law, Mutual and Self Inductance, Inductors, Transformers, LC, LR and LRC circuits. Basics of AC circuits, Maxwell's Equations and Electromagnetic Waves. Pre-Requisite SCI105



#### Maintenance Main Gate ICT Transport Administration Security 2010 2005 2504 2020 & 2010 2465 2464 1105 1005 1502 1008 & 1005 1/.68 1461 Rashid Ali Khan Dr. Erum Hafeez Sumera Gul Security Services Manager Transport Manager Communication Major (R) Qamar Abbas Rizvi Deputy Librarian Ext: 2011 Ext: 2005 Security Coordinator (Main Campus) (Public Services) Email: rkhan@iba.edu.pk Email: ehafeez@iba.edu.pk Ext: 2465 Ext: 2278 Email: sgrizvi@iba.edu.pk Email: squl@iba.edu.pk Tanveer Ahmed Center for Executive Education Financial Aid Assistant Cdr (R) Sved Fahim Uddin Izhar M. Hussain Sadiga Parveen Ext: 2312 Security Coordinator (City Campus) Director CEE . Deputy Librarian Email: tahmed@iba.edu.pk Ext: 1460 Ext· 1800 (Collection Services) Email: svedfahim@iba.edu.pk Email: imhussain@iba.edu.pk Ext: 2272 **Facilities & Maintenance** Sved Fahim Uddin Program Directors Examinations & Affiliations Email: sparveen@iba.edu.pk Manager (General Maintenance) Dr. Nasir Afghan Mohin Khalili **Projects Planning** Ext: 2520 MBA Programs Controller of Examinations Engr. Rehan ul Ambia Riaz Ext: 2878 Ext: 1900 Director Projects Email: nafghan@iba.edu.pk Email: mkhalili@iba.edu.pk Ext: 2500 Muhammad Saleem Umer **Career Development Center** Email: rriaz@iba.edu.pk EMBA Program Ayesha Menai Ext: 2800 Director CDC & HR **Testing Services** Email: msumer@iba.edu.pk Ext: 2400 Dr. Nasir Touheed Email: amenai@iba.edu.nk Dr. Heman Das Lohano MS Economics Program Ext: 2620 **Corporate Affairs** Ext: 1620/2643 Shamsuzzoha Jafri Email: hlohano@iba.edu.pk Manager Corporate Affairs Program Offices Aman U. Saived Ext: 2352 BBA Program Email: siafri@iba.edu.pk Ext: 2604 Finance & Audit Email: ausaived@iba.edu.pk Moeid Sultan Ext: 1819 Dr. Hisham bin Zubair Director Finance Computer Science Programs Ext: 2300 Ext: 2618 Email: msutan@iba.edu.pk M. Akmal Khan Email: hbinzubair@iba.edu.pk Zafar Islam Chaudhry (Main Campus) Assistant Manager

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Samiya Shaikh Incharge Girls Hostels Ext: 2022/2028

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Executive Secretary to Director

City Campus

Dr. Ishrat Husain

Dean & Director

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Ext: 1001

Ext: 2013

Ext: 1817

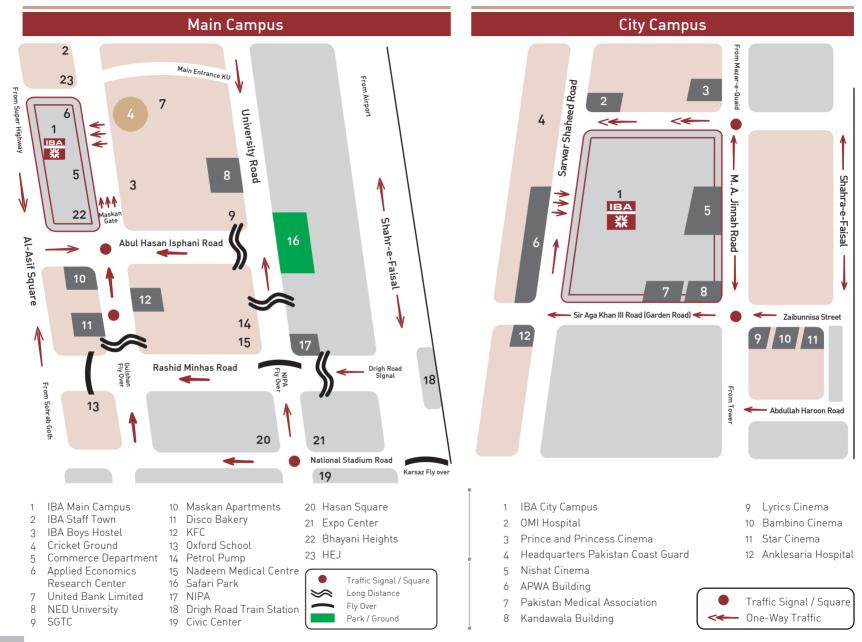
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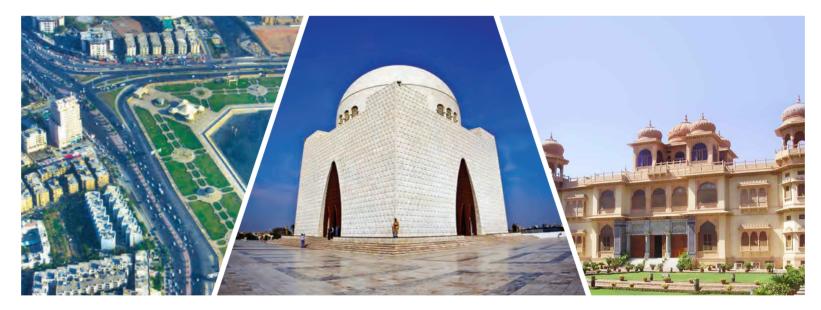
# **Direction Map**



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## 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, Bhanbore, Thatta, and Mohenjo-Daro, to name a few.

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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