

FRM204 Enterprise Risk Management

This course is designed to provide information to actuaries who do not yet regularly practice in enterprise risk management (ERM), but want to know more about it to help expand existing skills or meet professional development requirements. The course content is designed to be introductory, so provides less hard-core mathematics and more conceptual understanding and learning. ERM has been a hot topic for several years and the Society of Actuaries and its members have worked with other actuarial organizations around the world to develop best practices and share them within the actuarial community. The goal of this e-course is to introduce you to some of these initiatives, show you where to access ERM information and generally to help you learn and implement ERM at your organization. You will even be introduced to ERM for individuals.

FRM206 Institutional Investments

The course will start by reviewing basic investment practice, with a discussion about the differentiating institutional features of markets, instruments and benchmarks around the world. It will focus on investment theory, by reviewing the benefits of adding international securities to a domestic portfolio and the key elements of an investment program, starting with the definition of a philosophy and continuing with the construction of a process for managing international equity portfolios.

FRM302/402 Computational Methods in Risk

A historical perspective of market risk measurement, including the Markowitz, CAPM, and APT models; investigation of the value-at-risk approach and its variants and extensions, and a survey of other methods for evaluating risk, including multivariate methods for evaluating portfolios requiring copula tools. We will discuss approaches to measuring credit risk and determining default probabilities and company ratings based on financial ratios (logit, probit, and discriminate analysis, decision trees etc.). The software package S-PLUS is used. For 80% of the course, R or Matlab could be used instead.

FRM304/404 Risk Financing Techniques

The Risk Financing course explores the selection, implementation and monitoring of risk financing techniques — ways in which an organization can obtain funds to pay for accidental losses which strike it. Topics include risk financing objectives, various types of risk financing plans, insurance as a risk financing technique, capital market products for risk financing, forecasting accidental losses and risk financing needs, accounting and income tax aspects of risk management, and allocating risk management costs. Topics include understanding insurance as a risk financing technique, insurance plan design, forecasting accidental losses and risk financing needs, self-insurance plans, retrospective rating plans, reinsurance and its importance to risk financing plan, captive insurance plans, finite and integrated risk insurance plans, capital market risk financing plans, noninsurance contractual transfer of risk, and purchasing insurance and other risk financing services.

FRM403 Introduction to Financial Risk Management

This course covers the principles of financial risk management and financial engineering from the perspective of non-financial corporations. The first part of the course discusses how to measure risks and risk exposures, why firms should or should not hedge, and how to hedge basic exposures. You will also learn how to manage foreign exchange rate risk, interest rate risk, commodity price risk and credit risk. The second part of the course demonstrates how financial engineering, i.e., the issuance of complex financial securities, can increase shareholder value. This course provides a systematic and advanced treatment of financial risk management. It focuses on interest rate risk, market risk, liquidity risk, credit risk and operational risk.

FRM405 Advanced Financial Risk Management

This course is tailored to provide financial risk professionals with the necessary groundwork required to become a financial risk specialist including the latest standards that represent best practice. The course is essential for any person currently in or planning to enter careers in the financial sector, retail banking, investment & merchant banking, asset management, corporate finance, risk analytics and strategic consultancy. Topics covered in this course include, Introduction to Financial Risk Management, Derivative Basics, Option Basics, Stochastic Volatility Modeling, the Yield Curve, Value-at-Risk & Risk Measurement Methods, Credit Risk, Bank Capital and Basel I & II.

FRM501 Property Risk Management

Insurance company operations and management, including statutory accounting principles, financial management, underwriting, claims and reinsurance. Discussion of commercial property coverages and risk management techniques, including basic property insurance, consequential loss coverage, fidelity and surety bonding and crime coverage. An examination of the major commercial property loss exposures including fire, business interruption, crime, inland marine, ocean marine, and miscellaneous property coverage. The different risks are analyzed to select optimal combinations of risk treatment and insurance for financial protection against property losses.

FRM502 Management of Insurance Institutions

This course applies principles of economics and finance to the management of and creation of value in the insurance enterprise. Course topics encompass: 1) the theory of the firm as applied to the insurance enterprise; 2) the operational risk management of insurance institutions as a class of financial institutions; 3) the industrial organization of insurance markets within an integrated financial services industry; and 4) principal insurance business functions with an emphasis on significant issues and innovative strategies. The goal of this course is to equip students with concepts and tools that will help them respond to management challenges in a rapidly evolving industry.

FRM503 Corporate Risk Management

This course provides an introduction to modern methods of risk management. Lectures cover risk metrics, measurement and estimation of extreme risks, management and control of risk exposures, and monitoring of risk positions. The impact of risk management tools, such as derivative securities, will be examined. Issues pertaining to the efficiency of communication architectures within the firm will be discussed. Regulatory constraints and their impact on risk management will be assessed. The approach to the topic is quantitative. The course is ideal for students with strong quantitative backgrounds who are seeking to understand issues pertaining to risk management and to master modern methods and techniques of risk control

FRM504 Theory of Risk and Insurance

Nature of economic risk and its effect on allocation of resources. Preferences among risky prospects: expected utility theory and the theory of risk aversion. Subjective versus objective probabilities. Market allocation of risk and the role of insurance markets under complete information. Insurance under asymmetric information, moral hazard, and adverse selection. Can insurance markets function well in a competitive equilibrium? Role of asset markets in allocating risk. How some risks corporations face are associated with price fluctuations and can be hedged in financial markets? Hedging strategies using futures markets, and options and other derivative assets. Hedging credit risks.

GENERAL SCIENCES

GSC101 Physics

The course aims to cover vector review, Coulomb's law, electric fields, Gauss's law, electric potential, capacitors and dielectrics, d.c. circuits, Kirchoff law, RC and RL Circuits, magnetic fields, Ampere's and Farady's laws, energy stored in electric and magnetic fields, Biot and Savart law, electromagnetic oscillations, a.c. in resistive, inductive and capacitive, elements.

GSC201 Basic Thermodynamics

This course builds familiarity with thermo-physical properties. It teaches the students to apply the laws of thermodynamics so as to identify, formulate and solving engineering problems involving closed and open systems. It also develops knowledge of engineering analysis based on their knowledge of calculus and physics.

GSC401 Basic Electronics

The course aims to cover semiconductor materials, band theory types of diodes of applications, half wave; full wave rectifier, clipper, clamper, transistors & its different configurations; amplifiers, Op-amps & its circuits logic families, oscillators, active filters, voltage regulators, IC fabrication, AM & FM modulation receivers and transmitters.

HEALTH MANAGEMENT

MHM401 Introduction to Health Policy, Planning and Management

This course provides students with an overview of the health system in Pakistan and introduces them to the concepts of public health and the basis of public health programs in the country. Study of planning methodologies and role of health planners within the health care sector. Concepts and techniques of health planning as applied to community and institutional health systems are analyzed.

MHM402 Quantitative Analysis

The course includes introductory as well as advanced study of stochastic and quantitative analytical tools and concepts which can be used to compute vital statistical rates applicable to problems in public health. Topics, such as regression analysis, anova, chi-square are also discussed.

MHM403 Health Management Information Systems

Applications of computer technology for designing management information system for health care institutions. Topics include data collection, reporting and transmission, file design, record structure, report formats, processing requirements, medical records and statistical audit. Principles of managing the acquisition and development of health management information system are also discussed.

Pre-requisite: MIS 103

MHM404 Research and Survey Methodology

This course is designed to familiarize students with basic concepts surrounding surveys. It intends to expose students to the various components, techniques and methods of developing survey instruments and modes of survey conduction. It defines the basic concepts of research methodology and designing of sample survey, including data presentation through tables and graphs.

MHM501 Pharmaceutical Branding

This course emphasizes on the expressional area of promotion and capitalizes on the functional area as well. Student will be able to launch new brands, create strategy for brand equity with long-term sustainability, handle multi-brand portfolios and conduct evaluation of brands.

MHM502 Health Economics

This course deliberates on and applies general theoretical principles of economics to health care sector. The basic approach is to recognize the importance of scarcity and incentive allowing for any differences peculiar to health. Demand and supply of health and medical care are examined as they involve consumers, patients, nurses and hospitals.

Pre-requisite: ECO 401

MHM503 Financial Management of Health Services

The course exposes students to basic financial ratios and a general understanding of financial statements and some productivity, tracking systems and measurements typically utilized in health care organizations.

Pre-requisite: FIN 401

MHM504 Strategic Management of Health Services

The content of the course is developed around several health care trends including restructuring, innovation of health care delivery and finance and an increased emphasis on performance. It addresses basic theory, strategic plan development, organizational analysis and specific appropriate analytical techniques, implementation strategies and case studies.

Pre-requisite: MAN 401

MHM505 Concepts of Primary Health Care

The course familiarizes students with the basic concepts surrounding primary health care. It aims to provide the basic conceptual understanding of public health problems pertaining to the availability, accessibility and affordability of primary health care services.

Pre-requisite: MHM 401

MHM506 Managing Professional Health Care Organizations

The course will include application of management theory and concepts to health services systems and organizations. It characterizes functions, organizational structures of delivery system, fiscal management, personnel management and planning procedures.

Pre-requisite: MAN 401, MHM 401

MHM507 Introduction to Epidemiology

The course includes definitions, principles and factors related to the manifestation of infectious and non-infectious diseases, including tracing their sources, modes of survey conduction, controlling spread and initiating measures to prevent recurrences.

Pre-requisite: MHM 401

MHM508 Pharmaceutical Marketing & Quality Assurance

This course examines the nature of pharmaceutical industrial market and analyses of customer procurement strategy, product policy, pricing, distributing strategy and sales force management strategy. It identifies quality assurance as an integral structured organizational process for involving personnel in planning and executing standardized improvements in systems.

Pre-requisite: MKT 401

MHM509 Marketing of Health Services

The course aims to familiarize the students with methods most commonly used in marketing of health services. It focuses on the critical links between health service marketing as it relates to customers, competitors, market segmentation and definition of target markets. Solutions to service price, promotion and distribution problem are also discussed.

Pre-requisite: MKT 401

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MHM510 Introduction to Demography Methods

An introduction to the fundamental methods employed in the statistical study of human populations, especially their size, distribution and number of births/deaths and their health consequences. The students will also learn to apply computer technology to demographic studies.

MHM511 Population and Health

The course studies the impact of population growth on the health of the populace and its effect on the health care delivery system.

Pre-requisite: MHM 401, MHM 404

MHM512 Economics and Management of Pharmaceutical Industry

The course focuses on the nature of economic systems and how they constrain, control and impact the operational effectiveness of pharmaceutical organizations. Deliberation on contemporary management tools utilized by pharmaceutical organizations to overcome economic, financial, managerial and industrial constraints are also discussed.

Pre-requisite: ECO 401

MHM513 Managing Physicians

The course content examines the strategic advantage of attracting and retaining competent medical staff members as it relates to higher occupancy and decreased litigation. Simultaneously, it assesses physician co-operation in making cost effective and high quality care service delivery decisions. It examines strategies for mutually beneficial linkages between hospitals and physicians to realize the goals of hospitals.

MHM514 Environmental Health Assessment and Mgmt.

The objective of this course is to study the impact of environmental pollution and degradation on the health of populace. It provides theoretical instructions with a focus on environmental health assessment and knowledge of managing environmental health problems.

Pre-requisite: MHM 401, MHM 404

MHM515 Hospital Administration

The course addresses major functions and issues surrounding supervision of hospitals; organization and management of hospitals, relationships/differences between line and staff functions. Likerts Scale, Peter Principle, McGregor's Theory X and Y are also discussed. Strengths and weaknesses of employee performance appraisal are identified. Personal and professional skills necessary to provide a wide range of services and quality care in hospitals are emphasized upon.

Pre-requisite: MAN 401

MHM516 Health Program Evaluation

The course prepares students to discuss components of program evaluation and formulate credible evaluation questions. Students will be able to construct evaluation designs, recognize limitations of each, report evaluative results and critically assess evaluation reports.

Pre-requisite: MHM 501

MHM517 Research Project

A capstone course involving a supervised research project, applies curricular concepts and skills to problems in an organizational setting.

Pre-requisite: MHM 402, MHM 404

MHM518 Regulatory Affairs at Healthcare Industry

Healthcare is a highly regulated industry and the course provides an insight into the important laws and regulations controlling business in the healthcare sector. Upon completion of the course, students will be well versed with drug laws, good manufacturing practices, and laws governing operation of blood banks, breast feeding ordinance, 2002, environmental concerns and WTO.

Pre-requisite: MHM 401

MHM519 Financial Applications in Pharmaceutical Marketing

The course is designed to reach financial justification on acceptable accounting principles. Success of marketing activities, whether aimed at consumer satisfaction or otherwise are measured in terms of “revenue and profit”. This course introduces students to marketing activities involving financial justification.

Pre-requisite: FIN 401

MHM520 Product Management

This course focuses on creating and managing product and brand portfolios in pharmaceutical industry for long-term profitability, as established and mature products and brands are critical to an organization’s financial stability and strategic posture. Students will apply strategic frameworks for managing mature products for profitability, transferring existing competencies to new products and evolving market opportunities of a product portfolio.

Pre-requisites: MAN 401

MHM521 Pharmaceutical Sales Management

This course enables the students to develop analytical and managerial skills for estimating sales potential, forecasting sales, manning territories and controlling sales force in the pharmaceutical sector. Furthermore, the students will learn to apply these concepts for solving problems, through case studies, training and motivational exercises.

MHM522 Project Management of Health Services

In this course, students will be able to learn planning for quality, performing quality assurances activities, and closing project contracts keeping in view ethics, professional knowledge, stakeholder’s interests and cultural diversities. By the end of the course, students will be proficient in organizing and executing complex healthcare projects using techniques of project management software tools.

Pre-requisites: MAN 401, MIS 401

MHM523 Heath Ethics

In this course, the students will be able to learn the principles and theories of ethics related to health care delivery/administration and legal issues surrounding the relationships of patient, provider, and health care institution. This course also focuses on principles of autonomy and informed consent, confidentiality, truthfulness, professional standards and institutional ethics, corporate liability, medical malpractice, medical staff bylaws, patients’ rights, medical records and governmental regulation of personnel and health facilities. In addition, the course will cover the ethical problems related to death, reproductive rights, the ethics of transplants, cloning and the biomedical research.

HUMAN RESOURCE MANAGEMENT

HRM301/401 Human Resource Management

The course includes a wealth of conventional wisdom related to traditional human resource management challenges of recruitment and placement, training and development, compensation and labor relations. In addition, contemporary management challenges related to such issues as the strategic role of HRM & global HRM are included. Overall, the course is carefully crafted to present traditional HR management concepts, important contemporary HR management issues and insights so as to ensure organizational success. The pedagogical objective of the course is to impart specific actionable skills to the student.

Pre-requisite: MAN 301/302/401/402

HRM400 Foundation of Human Resource Management

This course is a study of approaches and theories of human resource management; an overview of the human resource profession, including emerging trends, professional roles and professional competencies.

HRM405 Research Methods in HRM

This course focuses on description, analysis and application of research methods for HRM professionals, studied in the context of key business and organizational decision-making processes.

Pre-requisite: STA 400, HRM 400, MAN 402

HRM406 Conflict Management and Negotiation

This course examines the nature and effects of conflict in organizations and relationships in the workplace, making conflict and negotiation productive and constructive. The course includes theories supporting effective conflict management strategies and tactics for use and resolution, practice of conflict resolution, negotiation and mediation methods.

Pre-requisites: HRM 400, MAN 400/402

HRM407 Seminar in Human Resource Management

This course focuses on discussions of current theory and research in human resource management and related topics. It is based on high quality contemporary research, case studies, discussion forums and available literature on human resource function as it relates to the overall strategy of the company. This course provides students the opportunity to apply knowledge acquired in prerequisite courses to resolve real-life workplace issues.

HRM408 Human Resource Issues in Pakistan

This course focuses on five key issues that present the greatest opportunities and challenges for HR professionals today and examines their implications in Pakistan. The course explores ways to realign HR and to explain the professional competencies needed to play a leadership role in realizing organizational change; examines the opportunities and benefits of planning for and managing a diverse workforce; defines the role of HR in managing a team environment; evaluates ways to design and implement alternative work schedules, reward system, human capital metrics and long term human resource strategies with a variety of organizations from not-for-profit to government organizations and local companies.

HRM409 Management of Excellence & Innovation in Organization

This course aims to enhance students' understanding of innovation processes in the organization and how to manage such processes effectively. It introduces the key concepts, models, and techniques of innovation and organizational change management. Particular areas of emphasis will be the nature of innovation, innovation process, innovation typologies, changes in the external environment and drivers for change, models of organizational innovation and change, individual and group creativity, factors associated with innovation, practices for developing innovative organizations, organizational culture and transformational leadership.

HRM501 Recruitment and Selection

This course offers an understanding of effective techniques of the recruitment and selection process. It equips students with generic, technical, analytical and evaluative skills relevant to recruitment and selection. The course encompasses an in-depth knowledge of the entire recruitment process, right from the planning of staff requirement to designing of the job descriptions and advertisements, interviewing and testing applicants till the final selection and job offer. It encapsulates relevant information about the candidate through effective methodologies applied in the interviewing procedure.

Pre-requisite: HRM 301/401/402

HRM502 Industrial Relations and Labor Laws

The course deals with relationship issues arising from interaction between parties in the workplace. It develops an understanding of the principles & philosophy of industrial relations; labor-management relationship and labor administration; industrial relations attitudes and approaches; development and objectives of trade unions; their federations; employers' associations, collective agreements; trade & consideration and process of collective bargaining. The course also focuses on grievance handling, problem solving and role of social partners in industrial conflict resolution; labor and productivity bargaining; labor laws and international labor standards and their influence on industrial relations.

Pre-requisite: HRM 301/401/402

HRM503 Employee Training and Development

The course emphasizes the changing role of training as a tool in giving organizations a competitive advantage in the highly competitive business environment. It covers a broad understanding of strategic training models, need assessment techniques, learning theories and program design evaluation. Traditional training methods, use of new technologies in training and interactive training. It also focuses on the importance of employee development for organizational excellence and in this context deals with issues of career planning, career development and succession planning with an emphasis on special issues in training and development, special challenges in career management and the future of training and development.

Pre-requisite: HRM 301/401/402

HRM504 Negotiation Skills and Collective Bargaining

Explains the principles of exchange and develops confidence and skills to conduct negotiations and achieve a mutually acceptable outcome. It covers the method of negotiation developed by the Harvard negotiating project, known as Principled Method of Negotiation. The course covers the whole process of negotiations and collective bargaining in the context of business labor laws, industrial relations and practices; from preparation to closing a deal and includes essential guidelines for devising a negotiation strategy; how to reach consensus; what to do when negotiation breaks down and how to make use of a third party to break deadlock and resolve conflict.

Pre-requisite: HRM 301/401/402

HRM505 Organizational Change and Development

The course will help students gain insight into Behavioral Science techniques and practices to help corporate managers and practitioners to formulate and implement changes that promote organizational effectiveness and efficiency and improve quality of life and environment.

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HRM506 Strategic HRM

The course provides an in-depth understanding of how the major components of the HR practice fit in with each other in order to develop a “high-performance working environment”. This course will give first hand experience about the hidden traps that hinder HR-effectiveness in real life situations and what options does an organization has to avoid these traps. It will explain the core systems of HR like training & development, performance management, succession planning, career planning & development, management development, competency profiling, etc.

Pre-requisite: HRM 301/401/402

HRM507 Public Relations and Event Management

The course focuses on public relations as management process in business, government and society; decision-making constraints, use of authority, power play of social, political, economic, technological, and moral issues in decision-making and the limitation and abuse of authority.

Pre-requisite: HRM 301/401/402

HRM508 Salary and Compensation

The course analyzes compensation strategies and practices from the perspective of the industry as well as an individual. It addresses the flexibility propositions in a compensation package which enables a company to adapt to the changing environment.

Pre-requisite: HRM 301/401/402

HRM509 Leadership Studies

This course is designed to cope with the rapid change which the world has been undergoing for the past five decades; more stringent and varying demands are being placed on management leadership for the growth of their organizations, if not for their actual survival.

Pre-requisite: HRM 301/401/402

HRM510 Personnel Development

This course extends training in the area of performance appraisals and is an integral part of Human Resource Development (HRD). It highlights the procedures for assessment of training needs, employee feedback and counseling, career planning and growth, and ways to enable companies to fulfill the intrinsic needs of its employees.

Pre-requisite: HRM 301/401/402

HRM511 Performance Appraisal and Management

The success of an organization depends on its results, which are achieved by its employees. Unless organizations select, develop & retain the best talent, they cannot succeed. Organizations plan, coordinate and review the activities of employees so as to achieve the desired results. The purpose of this course is to understand the links between human resource planning, performance and compensation. Students will study the new concepts and prevailing practices of performance management besides learning skills of managing the employee-employer expectation and tools of performance evaluation and appraisal.

Pre-requisite: HRM 301/401/402

HRM517 Personnel Management & Industrial Relations

This course aims to cover the theoretical foundations and empirical practice of HRM and IR. It provides students exposure to a wide variety of organizational practices; to manage and develop employees, ensure their welfare and understand changing employment legislation essential to business survival. This course enables students to develop practical skills in the subject area to equip them for a career in HR/IR.

HRM518 Coaching Skills and Techniques

This course builds and/or refines the student's repertoire of basic coaching skills applicable to most executive coaching situations (e.g. self-awareness, empathy, listening, questioning, giving and receiving feedback, confrontation, limit setting, demonstrating leadership, etc.). It seeks to develop the specialized techniques of executive coaching, peer coaching, management coaching, leadership coaching and individualized skill. Students learn how to coach and understand organizational culture to develop high-performing cultures that strengthen business results.

HRM519 International HRM

The course will review the theories, models and concepts developed in the areas of international management, international organizational behavior, cross-cultural management, and study their implications on international HRM practices. A major focus of the course will be on international human resource management & development issues of recruitment and selection, compensation and reward systems, training and development, performance appraisal, expatriation, repatriation and career development.

LANGUAGES

LAN101 Introduction to Arabic

This is an introductory course in Arabic. It is structured for those who have no prior knowledge of the Arabic language. It starts from the basics and brings the students to a level at which they can develop phrases and understand spoken Arabic.

LAN102 Introduction to French

This course is designed for those who do not have any prior knowledge of this language. It enables the students to carry out basic conversation in French. Students are prepared in a manner that they can put the message across. This course is designed to bring about awareness about the business taking place between Pakistan and France. This course also gives some knowledge about French culture. The main objective of this course is to bring the students to a level where they can read, write, speak, and understand foreign language and comprehend and appreciate foreign cultures.

LAN103 Introduction to Spanish

This is an introductory course in Spanish. It is structured for those who have no prior knowledge of the Spanish language. It starts from the basics and brings the students to a level at which they can develop phrases and understand spoken Spanish.

LAN104 Introduction to German

This is an introductory course in German language. It is structured for those who have no prior knowledge of the German language. It starts from the basics and brings students to a level at which they can develop phrases and understand spoken German.

LAN105 Introduction to Japanese

This is an introductory course in the Japanese language. It is structured for those who have no prior knowledge of the Japanese language. It starts from basics and brings students to a level at which they can develop phrases and understand spoken Japanese.

LAN106 Introduction to Italian

This is an introductory course in Italian. It is structured for those who have no prior knowledge of the Italian language. It starts from basics and brings the students to a level at which they can develop phrases and understand spoken Italian.

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LAN107 Introduction to Russian

Introductory course structured for beginners. Students will learn basic grammar, pronunciation and dialogue interaction so as to develop phrases and understand spoken language.

LAN201 Intermediate Arabic

This course is for those who have a basic understanding and command of Arabic language. It is oriented towards advanced sentence structuring and composition while improving one's speech style.

Pre-requisite: LAN 101

LAN202 Intermediate French

This course is designed for those who have basic knowledge of the language and are able to conduct a simple conversation. This course further enables students to converse in French on a higher level for specific purposes. This course is designed to give general knowledge of different operative systems of France. It prepares the students in manner that they can deal with different situations while traveling and contact and correspond with French natives by letter writing or e-mail. The main objective of this course is to bring the students to a level where they can communicate well and deal with different situations in French.

Pre-requisite: LAN 102

LAN203 Intermediate Spanish

This course is for those who have a basic understanding and command of the Spanish language. It is oriented towards advanced sentence structuring and composition while improving one's speech style.

Pre-requisite: LAN 103

LAN204 Intermediate German

This is an advanced course for those who know the basics of the German language. It teaches advanced sentence structuring and composition while improving one's speech style.

Pre-requisite: LAN 104

LAN205 Intermediate Japanese

This course is for those who have a basic understanding and command of Japanese language. It is oriented towards advanced sentence structuring and composition while improving one's speech style.

Pre-requisite: LAN 105

LAN206 Intermediate Italian

This course is for those who have basic understanding and command of the Italian language. It is oriented towards advanced sentence structuring and composition while improving one's speech style.

Pre-requisite: LAN 106

LAN207 Intermediate Russian

The course is oriented towards advanced sentence structuring and composition while improving dialogue interaction.

Pre-requisite: LAN 107

LAN401 Functional Urdu

The course will give an insight into the basics of Urdu language. Students will be able to shape language to communicate effectively, while applying appropriate conventions of language usage and grammar. The course will also focus on vocabulary and reading, writing and speaking skills.

LAW

LAW101/102 Mercantile Law I & II

The course aims to enable the students to develop a professional approach towards matters connected with Mercantile Law in the performance of their duties as chartered accountants.

LAW103/104 Company Law I & II

This course provides candidates with knowledge of the Companies Ordinance, 1984, and helps them to develop an understanding of their application to corporate and other business environment, excluding advanced topics, such as provisions relating to arbitration, arrangements and reconstruction, prevention of oppression and mismanagement, winding up, etc.

LAW201 Corporate Law

The aim of the course is to provide knowledge about the practical aspects in the areas of the companies ordinance, 1984, e.g., incorporating/registering different types of companies & joint ventures, raising finances from different modes like issuance of different types of shares, debentures (TFCs) and other capital maintenance issues; practical aspects of holding and managing company meetings and decision making; powers, duties & responsibilities of directors and other company officers in the light of corporate laws & governance; practical aspects of mergers & acquisitions and the reasons and consequences of liquidations.

LAW401 Business Law

The course provides an in-depth study of law relating to commercial associations/ entities with a particular focus on companies. The topics includes legal system/framework of Pakistan, an introduction to the concepts and sources of laws; different aspects of contract laws as in day to day commercial life, performance/ discharge of the contract with particular emphasis on the specialized contracts made by companies, e.g., agency, industry & guarantee, bailment (which includes carriage of goods & pledges). Topics also include the selected parts of partnership laws and sale of goods laws.

LAW405 Media Law and Business Ethics

This course is based on interaction between media and the public sphere and examines the way moral criteria have been used to underpin the legitimate ethics of journalistic practice. It aims to develop a new framework, which can take an account of the way in which information is produced and distributed in the new environment by examining a broad range of issues, including commercial pressures. The course also introduces laws and ethics in the Pakistani context, especially issues of freedom of expression, absolute vs. responsible freedom, code of conduct and ethics of APNS and CPNE.

LAW406 Professional Ethics and Legal Issues

This course addresses the legal and ethical issues in organizations from a multicultural perspective. The course explores managerial decision-making and reinforces ethical considerations in test decision making, employment selection, compensation, performance appraisal and general treatment of employees at work. The emphasis is on the study of multiple perspectives on an issue, analysis and problem solving strategies to create policy and sustain practices that conform to the spirit of ethics codes of the American Psychological Association and the Society of Human Resources Management in its applicability both domestically and globally.

MANAGEMENT

MAN101/301/401 Principles of Management

The purpose of this course is to prepare students to be managers. The course includes a wealth of conventional wisdom related to traditional management challenges of planning, organizing, leading and controlling. In addition, the contemporary management challenges related to such issues as people, quality, diversity, ethics and the global environment are included. Overall, the course is carefully crafted to present traditional management concepts, important contemporary management issues and insights so as to ensure organizational success. The pedagogical objective of the course is to impart specific actionable skills to the student.

MAN201 Personal Management

The importance of self-management is stressed for productive results. Topics include time management, stress and conflict handling. Development of emotional maturity is discussed and interpersonal skills are developed through transactional analysis.

Pre-requisite: MAN 101/301/401

MAN302/402 Organizational Behavior

Organizational behavior is a study of how people behave as individuals, in groups and how groups behave as parts of organizations. An effective organization is the one that understands and manages optimum levels of these three types of behavior. The course includes a wealth of conventional wisdom related to traditional organizational behavior issues of the individual, the group and the organization. In addition, the contemporary management challenges related to such issues as the design of HR practices, technology, work design and organizational dynamics are included. The course is carefully crafted to present traditional OB concepts integrated with important contemporary OB management issues and insights so as to ensure organizational success. The student must learn to critically analyze and apply principles to specific, real or created situations.

Pre-requisite: MAN 101/301/401

MAN303/406 Production and Operations Management

The course will provide a student-oriented presentation of the subject. It will reflect current production and operations management practices and techniques. An integrated approach featuring management process, resource conversion and concepts, models, and behavior applications within the production/operations function will be followed.

Pre-requisite: MAN 101/301/401, STA 202, MTH 103

MAN305 International Relations

This course aims at providing basic knowledge of international relations. In this course, the key theoretical concepts and terms of the field will be discussed, such as level of analysis of international relations, theory and theory building, important actors in the international arena and the world system, and relations between states. Students will also be introduced to contemporary and future problems and issues in international politics.

Pre-requisite: MAN 201

MAN321 Organizational Behavior & HRM

This management area focuses on (1) individual, group, and organizational attributes and behavior to describe and explain the functioning and structuring of work organizations, and (2) the practical aspects of human resource management. Students seeking managerial careers in any business function can valuably learn about leadership, motivation, morale, performance, teams, organizational culture, and organizational design. Students interested in careers as human resource management specialists and managers can gain technical knowledge about selection, performance appraisal, training, compensation, workforce diversity, work and family programs, and strategic human resource management.

MAN403 Entrepreneurship & Small Business Management

To provide an understanding of the person and the process of creating and growing a new venture, this course introduces the entrepreneurial perspective and focuses on all the elements in the entrepreneurial process that are part of creating a new venture. It introduces a new venture through alternative sources of capital in financing. Particular emphasis is laid on managing a new venture during early operations, growth and expansion.

Pre-requisite: MAN 101/301/401, MKT 302/402, FIN 202

MAN404 Operations Research and Management

The course aims to enhance the capability of decision-making through application of modern methods of mathematical science to complex problems. The topics include linear programming, transportation and assignment models, network models, queuing models, simulation, replacement models, etc.

Pre-requisite: MKT 303, MAN 303

MAN405 Strategic Management

The course is intended to be a challenging and exciting capstone course for a graduate business school curriculum. It is the first course about strategy and its implementation. Students will be exposed to the state of the art of strategy analysis, formulation, implementation and control. Through case studies, students will develop skills relating to the application of industry and competitive analysis, the ingredients of an attractive strategic plan, the importance of building a sustainable competitive advantage and the special demands of operating in an increasingly global competitive environment.

Pre-requisite: MKT 302/402, MAN 301/401, 302/402, HRM 301/401/402

MAN407 Organizational Management

This course is a study of the entire process of management. It gives an insight into the development of managerial skills for effective running of business operations. Along with the in-depth knowledge of the functions of management it serves as a basis for understanding motivation techniques for human resource which is critical for synergies in business.

MAN408 Analysis of Pakistani Industries

Students get a micro and a macro environmental exposure and understanding of the various issues facing the industry. This course also aims at benchmarking the various functional processes so as to achieve organizational excellence.

Pre-requisite: MAN 302, HRM 301, ECO 402

MAN409 Principles of Management & Human Resource Management

This course highlights management concepts, principles, processes and functions of management, namely, planning, organizing, leading and controlling which provides a sound basis for carrying out required tasks and successfully achieving goals in any organization today. In this environment, effective management of human resource is one of the few levels that managers have at their disposal to accomplish their organizations strategic objectives. The course enhances the students' understanding of the strategic aspects of managing human resources in an environment, which is constantly changing.

MAN410 Industrial Management

The course introduces industrial management operation system & includes objectives; entrepreneurship, project identification, evaluation, project & operation cost, productivity, break even analysis, process management, operations strategy, competitive strategy framework for competitor analysis, structural analysis of industry, total quality management, capacity planning & facility location, inventory management, supply chain management, project management, project control and technology management.

Institute of Business Management

MAN411 Project Management

The course covers project initiation, discovery and analysis, time and cost estimates, project planning, network diagram, critical path, recourse management plan, project execution, monitoring and managing, project control, project closure plan, managing operation transfer plan.

MAN413 Corporate Social Responsibility

This course examines the responsibilities of business corporations to shareholders and other constituencies as they are manifested in the day to day issues faced by the senior management. It begins by exploring the rationale behind the proposition that business has a responsibility to society beyond that of wealth creation. It then emphasizes value-based decision making and challenges the students to explore and apply their own values to issues.

Pre-requisite: MAN 401

MAN416 Corporate Governance

Corporate Governance is the structured system of policies and processes established and maintained by a board of directors and senior management to oversee an organization's strategic activities and evaluate the resulting performance. The system exists to ensure proper accountability, probity, and openness in the conduct of an organization's business for the long-term benefit of all its stakeholders. As such, Corporate Governance focuses on effectuating sound relationship among board of directors, top management, investors, employees and various other stakeholders. Corporate Governance encompasses board size, structure, membership, member nomination, election, and tenure committee structure and the nature, composition, and duties of the individual committees rights, responsibilities and relationship of directors, management, and shareholders policies/procedures relating to accounting, auditing, executive compensation, disclosure and financial reporting.

Pre-requisite: MAN 401

MAN417 Services Management

This course focuses on service industries, such as dealing with intangibility and inseparability. It also examines the problems faced by professional, not-for-profit, social and financial services marketers.

MAN501 Total Quality Management

This course revolves around the customer satisfaction model and deals with the areas of benchmarking, ISO-9000 (quality management systems), ISO-14000 (environmental quality systems), statistical process control, customer satisfaction approaches/models (management tools). There is special emphasis on research project & case studies in this course.

Pre-requisite: MAN 101/301/401, MAN 303

MAN502 Business Process Re-engineering

This course is designed to develop an understanding about organizing, managing & improving the ongoing process & systems essential for sustained growth of the organization.

Pre-requisite: MAN 101/301/401, MAN 303

MAN503 Supply Chain Management

The course is one of the most important organizational functions which brings in operational efficiency in production and serves as a bridge for company's customer ROI maximization as well as internal cost efficiency and profit optimization. The objectives of this course are to give students practical exposure to the conceptual framework and operational aspects of this very important science, and discuss various conventional and modern tools applied to achieve better results.

Pre-requisite: MAN 101/301/401, MKT 301/401

MAN504 Business Balanced Scorecard

This course is a set of measures that provide a comprehensive business overview. It includes not only measures that track past actions, but also those that drive future performance. In this course students will build the skills to create a strategy map and a Balanced Scorecard for an organization.

MAN507 Business Etiquette

The course deals with the ingredients necessary for career growth, apart from technical competence, e.g., protocol in the office, personal grooming and dress, relationship with colleagues and customers, etc.

MAN508 Comparative Management

This course exposes students to the different work-related values and norms prevalent in various countries of the world. The main aim of this course is to expose students to different cultural mindsets and the effective leadership styles which have been developed in different parts of the world.

MAN509 Logistics and Inventory Control

The course is based on analysis and designing of domestic and international logistics systems. Topics include transportation, warehousing, inventory control, materials handling and packaging, and plant and warehouse locations. The course may serve as preparation for the American Society of Transportation and Logistics Certification examination in logistics systems management.

Pre-requisite: MAN 304

MAN510 Management Infrastructure

This course is a study of the entire process of management. It gives an insight into the development of managerial skills for effective running of business operations. Along with the in-depth knowledge of the function of management it serves as a basis for understanding the motivation techniques for human resource which is critical for synergies in business.

MAN601 Advanced Research Methodology

This course introduces students to issues involved in developing appropriate research strategies for investigation business and organizational issues and concerns. Extensive literature review, presentation and research article summaries constitute its essential part. Quantitative research techniques are discussed at a higher level and software, such as SPSS, MINITAB and EVIEWS are used to analyze secondary data. The unit is also designed to facilitate the completion of an applied research project.

MAN602 Survey of Current Research Literature in Management

The course provides a review of management research literature under the supervision of PhD faculty. It provides an opportunity to analyze quality research published in different professional journals in the field of Management. The course concentrates on organizational behavior, business policy, human resource management and behavioral sciences.

MANAGEMENT INFORMATION SYSTEMS

MIS001 Introduction to Computers

The course is an overview of computers, understanding the machines, binary (bits and bytes), different goals, different machines and their sizes, history of computers and parts of computers.

MIS102 Computer Concepts

The course provides an overview of computers, understanding the machines, binary (bits and bytes), different goals, different machines and their size, history of computers and parts of computers. Problem solving techniques using computers, flow charting and algorithm design, processing methods and programs, types of computer languages, types of computer software and an introduction to operating systems is also part of the course.

Institute of Business Management

MIS103 Computer Applications I

The course is a study of microcomputer applications software, including operating systems, word processing, presentation graphics, spreadsheet, and implementation of solutions using appropriate applications software.

Pre-requisite: MIS 102

MIS104 Computer Programming and Graphics

This is the first course in computer programming for engineers, involving an extensive development of programming skills required in engineering disciplines, the concepts of source and object programs, compilation, data and program distinction. It provides mathematical and practical knowledge of graphical standards necessary to meet the requirements of today's industrial engineering practices.

MIS106 Computer Applications in Business

The course is a study of microcomputer applications software, including operating systems, word processing, presentation graphics, spreadsheet, and implementation of solution using appropriate application software. The course helps to develop integrated business microcomputer based applications.

MIS201 Computer Applications II

The course helps to develop integrated business microcomputer-based applications. It emphasizes on design principles of transaction processing, management reporting, decision support, and executive support.

Pre-requisite: MIS 103

MIS401 Computer Applications

The course is a study of information technology used in business information systems, including input, processing, storage and retrieval, output hardware and software, including operating systems and management reporting, decision support, and executive support systems. It emphasizes on microcomputer applications software, including operating system, word processing, presentation graphics, spreadsheet, database software, design principles of transaction processing and executive support systems.

MIS402 Computer Concepts and Applications

This course has been designed for students to learn basic concepts of Management Information Systems, components and types of MIS, relationship between information technology and MIS; information about software, their types and application, hardware components of a computer system; devices attached to a computer, use of internet, e-mail and e-commerce.

MIS403 Web Authoring

The course provides an introduction to IIS, internet architecture, creating simple web document, HTML, DHTML, linking web pages together, advanced formatting options, adding images to web document, CGI forms, etc.

Pre-requisite: MIS 401, MIS 402, MKT 301/401

MIS404 Computer Programming Language

The course includes computer cultural impact, its history and uses the essential features of computers and computing systems, problem analysis, development of basic algorithms, introduction to a high level language with general applications, digital computer organization, machine language, instruction execution, addressing techniques, digital representation of data symbolic coding and assembly system, macros, conditional assembly; I/O control subroutine linkage, system and utility programs.

Pre-requisite: MIS 401

MIS405 Visual Basic

The course provides an introduction to Visual Basic, database access objects, maintaining databases using Visdata, input validation rules, creating user interface, error handling using VB, an overview of SQL server, active X data object, security issues, report writing, etc.

Pre-requisite: MIS 404

MIS406 Operations Research

The course focuses on the nature of operations research, formulating problems and objective analysis, types of problems, risk situation, sequential decisions models, linear programming model, graphical method, simplex method, etc.

Pre-requisite: MIS 401

MIS407 Programming in JAVA

Introduction to object oriented methods, fundamental programming structure in JAVA, GUIs, applets, application, script programming, JAVA database connectivity, JAVA beans, etc.

Pre-requisite: MIS 401, MIS 404

MIS408 Web Page Development and Adobe Photoshop

The course includes an introduction to World Wide Web, hypertext and browser; basic HTML and WWW linking web page together; creating simple web documents, advanced formatting options, adding tables to web pages, adding images to web documents; working with URLs, using external media and plug-ins, linked windows and frames; uploading web pages on internet server, CGI and forms, image maps and dynamic documents. Adobe photoshop has been included as one of the web tools regarding text and images to be added in a web page. The software will teach how to add, edit and format text with color combination, etc. Advanced features are included to enhance the student's skills and professional ability.

Pre-requisite: MIS 401

MIS409 Computer Applications and MIS

This course has been designed to teach basic concepts of Management Information Systems, components and types of MIS, relationship between information technology and MIS, information about software, their types and application, hardware components of a computer system; devices attached to a computer and the use of internet, e-mail and e-commerce. Students would also learn about organization, logical design, and methods of computer usage in the area of mathematical science, algorithm development and presentation, number systems, flow of control; basic number codes.

MIS413 Information Technology I & II

The objective of this course is to provide students with adequate knowledge of computer hardware and software; important elements and concepts of information systems; basic principles of computer programming and computer software application. It also gives an insight in the IT Security and controls; focuses on practical experience on performing various general procedures and the use of standard packages.

MIS414 Computer Practical

The course includes Microsoft Windows and Internet, MS-Excel, Microsoft Word, Microsoft Power Point, Microsoft Access, Microsoft Project and Microsoft Outlook / Outlook Express. This practical examination is a comprehensive form of basic computer and internet as per ICAP's requirements.

MIS501 Information Systems Management

The course covers information systems planning techniques, information systems portfolio analysis and management control and auditing techniques related to information systems. In addition, it focuses on organizing and managing international information systems.

Pre-requisite: MIS 103/401

Institute of Business Management

MIS502 Electronic Commerce

The course covers information systems that provide services to multiple organizations linking many buyers and sellers electronically. The topics include telecommunications, electronic data interchange, and doing business on the internet. It emphasizes international information policy issues affecting electronic commerce. Pre-requisite: MIS 103, MIS 201, MIS 401

MIS503 System Analysis and Design

The course focuses on the methodologies and software tools in analyzing business processes. Topics include business re-engineering and information systems cost-benefit concepts; total quality management concepts; systems-building methods, including the system life cycle, prototypes, and end-user development techniques.

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

MIS504 Oracle/ Developer 2000

The course teaches design, implementation and management of relational database systems. The basic topics, such as creation of tables, indexes, constraints (referential integrity), views and querying data and advanced topics, such as rollback segments, parallel processing options and triggers are covered in the course.

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

MIS505 Software Engineering

The course introduces the architectural make up of some well-known operating systems (from micro to mini to mainframe systems). It also introduces different programming techniques using fifth-generation languages such as C++ to visual basic.

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

MIS506 Data Communication and Networking

This course is designed to teach from the very basic to advanced network design methodologies and modern trends in data communications. Design and implementation of windows NT server 4.0 covering topics, such as installation of user accounts, groups, domains and trust relationships, sharing of drives, directories and files are taught. It also covers network protocols, such as NetBeui, IPX/SPX and TCP/IP and communication protocols.

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

MIS507 Relational Database Management Systems

The course includes continuation of data structure covering file structures & databases, random, indexed sequential inverted & multi-list file structures, concept of data models, data security and data integrity, etc.

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

MIS508 Programming in C++

The course includes the basic concepts of object oriented programming, functions, classes, linked list and procedures.

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

MIS509 Software Project Management

The course emphasizes the use of Computer-Aided Software Engineering (CASE) tools and object-oriented design and programming; configuration management and simulated project management; examination of software design issues and techniques. It includes a survey of design representation and a comparison of design methods; planning, scheduling and control of projects including cost estimating techniques; network analysis, time analysis, CPM and PERT, resource allocation, constraining & leveling; review of commercially available software and the use of PC based project management package.

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

MIS510 Object Oriented Systems Analysis and Design Elective

The course introduces an object-oriented and web-based software focusing upon the object model describing classes, their relationships to other objects, and their attributes and operations.

Pre-requisite: MIS 407, MIS 503

MIS511 E-Commerce, Web Design and Graphic Design

The course introduces students to the multi-disciplinary field of electronic commerce; basic e-commerce concepts; a review of relevant internet technologies; LANS, internet, DNS, web browsers, HTML, HTTP, databases, server architectures; commerce workflow models, business models for e-commerce, the value chain, roles and functional architectures; protocol architectures, issues of compatibility portability, transaction processing: database integrity, transaction processing (local key cryptosystem, internet security and security applications for e-commerce (key management, certificate authorities, standards, WWW security, transport and tunnel mode, secure sockets layer, Secure Electronic Transactions (SET), e-Auctions, e-advertising; CRM, supply chain management, internet banking, e-Government and future of e-commerce and technological needs.

MIS521 Record Management

This course particularly caters to the needs of management responsibilities; IT professionals and perspective on some of the unique issues facing the management of IT professionals. Organization Leaders often set the tone and establish the benchmarks for success. In this course, the focus is on developing a successful leadership style that facilitates team-building, collaboration, and a corporate culture that promotes success. Different decision-making techniques will be explored in the context of successful leadership styles.

Pre-requisite: MIS102/MIS401/MIS402

MIS522 Business Information Systems

The course provides strategic views of information systems in modern business as well as the opportunity to examine and build IS solutions. It also provides ample opportunities to gain practical programming skills necessary for successfully developing business applications using modern development technologies and methodologies which constitute the core of this course.

Pre-requisite: MIS102/MIS401/MIS402

MIS523 Decision Systems

The course helps to gain an insight into different decision levels and practical problems of organizations. The course emphasizes the study of decision theory, decision systems development and enabling technologies. The course includes the application and critical evaluation of methods and technologies in the decision-making path in current business scenarios.

Pre-requisite: MIS522

MIS524 Decision Support Systems

This course provides a review of the literature in the area of decision support systems (DSS) and DSS frameworks, the process of decision-making and issues involved in the design, implementation and evaluation of DSS. Additional topics include data mining, user interfaces, knowledge-based DSS, and research directions in DSS; the design and implementation of a DSS prototype.

Pre-requisite: MIS523

MIS525 Enterprise Systems

This course examines enterprise systems from the perspectives of Information systems and operations management. It examines cross-functional integrated computer-based information systems, commonly referred to as Enterprise Resource Planning (ERP) systems, designed to support an organization's information needs and operations. Common business processes, re-engineering/change management, and enterprise reference models are introduced from a holistic perspective. The course considers issues associated with the selection, analysis, design, implementation, and configuration of such enterprise systems. It investigates how such systems implement transaction processing, management information, and decision support across an organization's various business processes. Strategic issues relating to success/failure and human aspects will also be introduced.

Pre-requisite: MIS501

MIS526 Enterprise Resource Planning Systems

This course examines the cross-functional integrated computer-based information systems, commonly referred to as Enterprise Resource Planning (ERP) systems. Systems, common business processes, re-engineering/change management, and enterprise reference models are introduced with a holistic and research-oriented perspective. It focuses on issues associated with the analysis, design, implementation, and configuration of such enterprise systems and investigates topics, such as supply chain, planning and control systems, optimization, scheduling systems, electronic commerce and business information warehousing.

Pre-requisite: MIS525

MIS527 Information Security

The course presents technical arrangements for making information systems more secure. The process starts with defining the proper security requirements that are usually stated as a data security policy. Other topics include: identification and authentication, access control, security kernel, physical security, eavesdropping, hardware security, system software security, encryption techniques, public key infrastructure, security protocols and handling subversive software.

Pre-requisite: MIS506

MIS528 Advanced Information Security

The course addresses concerns regarding confidentiality, privacy and the volatility of information resulting from the use of information technology. It emphasizes such managerial security issues as system security and controls, legal and ethical issues arising from protecting computer files both from a Pakistan and world perspective, disaster recovery and contingency planning and other tools used for protecting information system resources.

Pre-requisite: MIS527

MIS530 Information Systems Research

The course provides an opportunity for a substantive review of research in the discipline of information systems as the essential part. Behavioral, strategic and social issues relating to the design, implementation and impact of information technology applications will also be studied.

Pre-requisite: MIS501, MKT404

MIS532 New Perspectives on Organizations and Information Systems

The course investigates the major issues facing organizations in adopting, implementing and using information systems for competitive advantage. It also provides an opportunity to explore a set of critical issues from both an academic and practical perspective. The topics include strategic information systems, e-commerce, knowledge management, the emergence of the business process, ERP implementation, virtual teams and global IT, IS and developing countries, etc.

Pre-requisite: MIS522, MIS525

MARKETING

MKT301/401 Principles of Marketing

This is an introductory course in marketing. It is aimed to give an insight into the philosophy of marketing in organizations. Through this course students will get an elaboration of marketing concepts which will form a foundation for all marketing related courses.

MKT302/402 Marketing Management

This course is designed to familiarize students with the process of marketing management. It is an application of the marketing concepts to real life situations. Students learn to develop a situational framework for analyzing marketing problems and opportunities and pursue suitable objectives and strategies. It is a practical course based on case studies, incorporates preparation of a comprehensive marketing plan and discussion of contemporary marketing issues through article presentations.

Pre-requisite: MKT 301/401

MKT304 Strategic Marketing

This course develops an understanding of the technique, concepts, approaches and skills in marketing management and strategy planning. It incorporates strategic management techniques developed from models for the corporate environment, campaign marketing for the public-environment and international marketing.

MKT403 Sales Management

This course enlightens students on how organizations sales goals can be met in an effective & efficient manner through planning, staffing, training, leading & controlling organizational resources. The course teaches students to prepare sales plans and forecasting, territory planning, and time management among other topics.

Pre-requisite: MKT 301/401, 302/402

MKT404 Methods in Business Research

The course aims at providing an understanding of the research process application to various segments of business and social life. It is designed to impart methods and techniques of scientific research and report writing. It also aims to develop an attitude of objectivity and scientific thinking.

Pre-requisite: MKT 301/401, 302/402, STA 202/403/404

MKT405 Marketing Research

This course teaches the function that links the consumer, customer, and public to the marketer through information. Students learn methods to collect information, manage and implement the data collection process, analyze, and communicate the findings and their implications.

MKT501 Strategic Marketing and Planning

This course develops an understanding of the techniques, concepts, approaches and skills in marketing management and strategy planning. It incorporates strategic management techniques developed from models for the corporate environment, campaign marketing for the public environment and international marketing.

Pre-requisite: MKT 301/401, 302/402

MKT502 Packaging, Printing and Graphic Design

This course prepares students to make marketing decision based on knowledge of visual/aesthetics and business considerations. It also covers paper proportioning and structural designing using different material vis-à-vis steel, aluminum, plastic, paper, etc and hence translating the brand concept to the final sales package. This module provides an appreciation of the factors affecting style, design, color perception, etc., in packaging.

Pre-requisite: MKT 302/402

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MKT504 Advertising

This course helps students to acquire a full understanding of the function of advertising in the marketing process, develop their skills in designing an effective advertising campaign and judging and evaluating the advertising proposals. The course will familiarize them with the process and techniques of advertising production, its budgeting & control process.

Pre-requisite: MKT 302/402

MKT505 Industrial Marketing

The course includes the nature of the industrial market, analysis of customer procurement strategy, product policy, pricing, distribution strategy, sales force management and key account selling strategy.

Pre-requisite: MKT 302/402

MKT506 International Marketing

This course analyzes opportunities, distinctive characteristics, and emerging trends in foreign markets; explores alternative methods and strategies for entering foreign markets; organizational planning and control; and impact of social, cultural, economic and political differences.

Pre-requisite: MKT 302/402

MKT507 Services Marketing

This course provides an in-depth appreciation and understanding of the unique challenges inherent in managing and delivering quality services. Students will have the opportunity to work with tools and strategies that address these challenges.

Pre-requisite: MKT 302/402

MKT508 Personal Selling

In this course the students are taught the art of oral communication with potential buyers of a product with the intention of making a sale. Among marketing jobs, more people are employed in selling than any other field, hence this course gives good textbook knowledge to equip the student for such a position in the practical field.

Pre-requisite: MKT 302/402

MKT509 Consumer Behavior

Consumption is so prevalent that we are often unaware of its importance in shaping our lives. This course adopts a psychological approach to consumer behavior and explores the implications for individual consumers and marketers. It deals with the crucial issues of why consumers buy what they buy and how they respond to marketing and advertising influences.

Pre-requisite: MKT 302/402

MKT510 Direct Marketing and Sales Promotion

This course gives an insight into the nature and purpose of direct marketing and how companies can use the various promotional tools to gain a competitive edge. It differentiates the various elements of communication mix and explains where these are used to access targeted consumers. It describes the steps, problems and issues involved in the implementation and execution of a project of direct marketing.

Pre-requisite: MKT 302/402

MKT511 Brand Management

This course considers strategies to build and effectively manage brand equity. It covers the role of brand awareness and image; brand extension principles, integrated marketing communications, and financial and marketing research measures.

Pre-requisite: MKT 302/402

MKT512 Export Marketing

The course offers a guide to the practicalities of entering international markets. The topics includes are international trade and regional comparative advantage, soliciting markets, documentation and financing of exports.

Pre-requisite: MKT 302/402

MKT513 Media Planning

The course prepares the student for the changing media scenario by enabling them to specialize in the handling and effective selection of media. The course elaborates how the advertising budget can be used optimally across various media.

Pre-requisite: MKT 302/402

MKT514 Event Management

Courses on event management are the talk of the town nowadays because of the element of glitz, glamour, flamboyance and style associated with important social and corporate events like marriages, birthday parties, company conferences, seminars, workshops, product launches and a host of other activities. This course teaches the student to plan for such events right from brainstorming to the final execution.

MKT515 Print Media

The objective of the course is to provide specific study of print media for those students who aspire for a career in newspapers, magazines, periodicals and other publications. The course teaches students about process and production of print media, printing technologies, production strategies, thus equipping the students with knowledge and skills to enter the print media industry.

MKT516 Electronic Media

This course prepares students to acquire a full understanding of the function of radio and television in all its modern manifestations, including cable TV. Students will learn how to formulate advertising plans & monitor results taking cognizance of problems, opportunities and regulatory matters.

MKT517 Media Marketing

This course teaches techniques which are used by marketers to sell media as well as methods employed to convince advertisers of how their applications can be used to obtain optimum results. Often this takes the form of presentations to advertisers and could include the preparation of a media plan for each campaign to help clients.

MKT518 Role of Media in World Affairs

This course teaches the students of the importance media as a vehicle for creating an atmosphere conducive to international relations. It teaches the students how the media has undergone significant changes over the years and the power it has on the formation of public opinion and the external environment for marketers and others.

MKT519 Marketing of Financial Services

This course teaches students how financial products- banking and insurance primarily- are marketed. Students are taught through local examples and made to apply marketing concepts to local players in the industry.

Pre-requisite: MKT 301/401, 302/402

MKT520 Merchandising and Sales Promotion

The course aims to touch upon a frequently overlooked facet of marketing; visual marketing and the role it plays in sales promotions. The course will explore the definition and use of visual merchandising with an emphasis on local companies and then move on to the role it plays in sales promotion.

Pre-requisite: MKT 301/401, 302/402

MKT521 Distribution and Channel Management

The battle of consumer products is now fought in the field of distribution. Even the best advertising and communication and positioning strategy will not be capitalizing on the investments made until there are operational executions in the battlefield, i.e., distribution. Hence, this course has been designed to prepare students with a framework as well as operational plan for the execution of a successful distribution strategies related to the local multi-national and national environment, keeping in view the key elements of Pakistani markets.

Pre-requisite: MAN 101/301/401, MKT 301/401, 302/402

MKT522 Introduction to Media in Pakistan

This course comprehensively covers contents like print, electronic, out-of-home media in Pakistan. The course also discusses the Pakistani environment in the context of media laws & ethics, the role it plays in world affairs, and marketing, planning and research processes prevalent in the country.

MKT524 Multimedia and Film Production

The course focuses on aspects of multi-media, video and film production. This course provides the student hands-on knowledge of planning, organizing, directing, controlling and promoting, provided by professionals from the field. The work-like atmosphere enables students to prepare for careers in this area.

MKT525 Advertising and Out-of-Home Media

Out-of-home includes public display media, such as signs, billboards, talking boards located out-of-home, usually near where the audience is and at the point of purchase. This course prepares students to acquire a full understanding of the function of advertising in the marketing process and to develop their skills in designing effective advertising campaigns.

MKT526 Public Relations and Event Management

Public relations is increasingly being recognized as an important business function. Accordingly, this course prepares students to acquire a full understanding of the function of public relations in a complex, social, economic and political environment. This course will also familiarize the students with the processes, tools and techniques required for effective public relations.

Pre-requisite: MKT 302/402

MKT527 Integrated Marketing Communication

The course focuses on how to plan, develop and execute integrated marketing communication programs using the tools of advertising, direct marketing, sales promotion, public relations, special events marketing, online advertising and personal selling.

MKT530 New Product Development

This course educates the student on the whole cycle of launching a new product. It engulfs areas right from conceptualization to research, design, testing, manufacturing and finally at the heart of it- marketing the new product. Segmentation, pricing, profitability, distribution strategies in the light of conjoint portfolio analysis are also included.

MKT531 Retail Management

This course provides a good understanding of the concepts, strategies, and trends associated with a retail operation in the marketplace. It explores the current retail environment and key retail management strategies from managing merchandise and employees to advertising and promotion. The course incorporates environmental, demographic and social issues into the discussion of retail operations.

MKT535 Media Research and Public Opinion

Mass media research introduces graduate students to applied audience research for electronic media. The emphasis will be on Pakistan's media market and students will gain hands on experience with syndicated and custom audience research for print and electronic media. Students will be exposed to various aspects of media audience research including Gallup ratings for TV, radio and cable TV and other music research. Students are expected to become familiar with the Pakistan media market specially in electronic media, based on TV, radio, cable systems and cinema through mass media research based on research process, research approaches, data analysis and research application.

MKT601 Survey of Current Research Literature in Marketing

This course offers a comprehensive review of research materials from professional marketing journals, allows students to carry out their exploratory and research activities. Moreover, it focuses on data analysis, applications of multivariate statistics, and multiple-regression factor analysis to marketing research problems. Considerable time is devoted to multi-attribute preference model in various marketing fields including brand, product, direct, consumer, advertising, sales, and global marketing.

MATHEMATICS

MTH011/012 Business Maths and Statistics I & II

This course will provide an in-depth study of the concepts of statistics and quantitative business tools. The course will mainly emphasize learning quantitative techniques along with their application to economics and business. The topics include inequalities, function notation and inverse, linear, quadratic, polynomial and exponential functions and mathematics of finance.

MTH101 College Algebra

The course is a review of exponents, equations and inequalities, function notation, composition and inverse, linear, quadric, polynomial, exponential and logarithmic functions and their graphs.

MTH102 Pre-Calculus

This course is designed for those students who have not studied mathematics in intermediate or equivalent. It helps students in learning basic mathematical skills like, algebra, factorization, geometry and trigonometry. Introduction to functions and matrices would also be a part of this course. Students who have already passed a mathematics course in intermediate or equivalent are exempted.

MTH103 Calculus for Business Decisions

The aim of the course is to develop the ability to analyze problems logically, recognize when and how a situation may be represented mathematically, identify and interpret relevant factors and, where necessary, select an appropriate mathematical method to solve problems. The course includes the concepts and business application of functions, differential and integral calculus, optimization methodology, transformation and assignment model.

Pre-requisite: MTH 101

Institute of Business Management

MTH104/401 Calculus I

The course covers the functions and graphs, system of linear equations, Cramer's rule, sequences, limits and continuity, differentiation, chain rule, mean value theorem, maxima and minima and integration of simple functions.

MTH105/402 Calculus II

The course includes techniques of integration, areas between curves, continuity of functions of several variables, partial differentiation, differentiation derivations, line integral, multiple integral, calculus of variations, etc.

Pre-requisite: MTH 104/401

MTH201 Discrete Mathematics

The course will cover mathematical fundamentals of computer science and some techniques of discrete mathematics. The topics covered will include: proposition calculus, predicate calculus inference imprecation, recursive functions, sequences and series, inclusion/exclusion, recurrence relations, graphs and trees, Boolean algebras, and ordered sets. The course emphasizes introducing students to formal mathematical notation and proofs and concepts useful in computer science. Other topics include computer related arithmetic, propositional and predicate logic.

MTH202 Engineering Mathematics

The course covers vector algebra, dot & cross product, gradient, divergence & curl, functions limits, derivative, slope & rate of change, techniques of differentiations, higher derivatives, maxima/minima, optimization, integration techniques, matrices, solution of system of equations, fourier series, sequences & their convergence.

MTH204 Linear Algebra

The course is an introduction to abstract vector spaces, the algebra and geometry of R^n , and the abstract theory of vectors spaces. It aims to approach the material through a blend of theoretical ideas, such as vector space axioms and their consequences, and computational methods, such as Gaussian elimination for solving systems of linear equations. Various applications illustrate the main ideas, and lab which reinforces the course material.

Pre-requisite: MTH 105/402

MTH205 Financial Mathematics

Considering the problem of derivatives pricing in finance the necessary tools from probability theory and stochastic processes will be introduced in the course. The first part presents the main objects of interest from finance in the context of discrete models. Discrete probability spaces will be reviewed and fundamental results on Martingale theory will also be discussed including the optimal stopping problem applied to American options. The second part helps to move from discrete to continuous models. The course will include the celebrated Brownian motion and the associated Ito's stochastic calculus. The third part the course will show how to use these tools for pricing various types of derivatives (European, American, Asian, etc.) in the context of continuous models, such as Black-Scholes. The relation with PDEs will be explained and numerical issues will be discussed. Models for interest rates and associated pricing problems will also be presented. In the last part of the course generalizations to stochastic volatility models and calibration issues will be discussed.

Pre-requisite: STA 301

MTH206 Multivariate Analysis

This course is designed to provide an integrated, in-depth, but applied approach to multivariate data analysis and linear statistical models in behavioral science research. The topics will include regression analysis, univariate and multivariate ANOVA and ANCOVA, disarmament analysis, logistic regression, canonical co-relation analysis. Principal components, factor analysis, LISREL models, cluster analysis and multi dimensional scaling will also be covered.

Pre-requisite: MTH 204

MTH207 Stochastic Models and Maths Finance

The course is an introduction to mathematical modeling, analysis, and solution procedures applicable to uncertain (stochastic) production systems, including probability theory and stochastic processes. Applications relating to design and analysis of problems, capacity planning, inventory control, waiting lines, and system reliability and maintainability will also be included in the course.

Pre-requisite: MTH 205

MTH208 Differential Equations and Complex Variables

Differential equation is of fundamental importance in engineering mathematics because many physical laws and relations appear mathematically in the form of such equations. The course of differential equation will give us an understanding of how to transform the given physical situation to its corresponding mathematical model.

Pre-requisite: MTH 202

MTH209/409 Financial Mathematics I

Time value of money, simple interest, compound interest, accumulation function, future value, present value/net present value discount factor, discount rate (rate of discount), convertible mthly, nominal rate effective rate, force of interest, equation of value, annuity-immediate, annuity-due, perpetuity, payable mthly, level payment annuity, arithmetic increasing/decreasing payment annuity, geometric increasing/decreasing payment annuity, term of annuity, loans, principal, interest, term of loan, outstanding balance, final payment (drop payment, balloon payment), amortization sinking fund .

MTH210/410 Financial Mathematics II

Bonds price, redemption value, par value/face value, coupon, coupon rate, term of bond , yield rate callable/non-callable book value, book value accumulation of discount general cash flows and portfolios, yield rate/rate of return, dollar-weighted rate of return/time-weighted rate of return, current value, duration (macaulay and modified), convexity, portfolio, spot rate, forward rate, yield curve, stock price, stock dividend Immunization, cash-flow matching; immunization (including full immunization); redington immunization. The term structure of interest rates, continuous models, stochastic approaches to interest are featured in the course.

MTH211 Actuarial Mathematics

Advanced problems in the mathematical theory of life contingencies; force of mortality, laws of mortality; premiums and reserves for insurance and annuities based on a single life; joint life probabilities, annuities and insurances; multiple-decrement theory; pension fund mathematics are a part of this course.

MTH400 Mathematics for Business

This course is designed for all business students. It will assist students in reaching a level of increased competence in mathematics and expanded understanding of the applications of mathematical concepts in business activities. Emphasis is placed upon learning mathematical concepts through practical application to common business problems.

MTH403 Numerical Computing / Analysis

The course covers errors, calculations and importance in numerical computing; various methods of solution of non-linear equations, Newton's method and condition of convergence, interpolating polynomials, forward differences () Newton's Forward (NF) polynomial, backward differences (), Newton's Backward (NB) polynomial; error analysis, unequal spaced values, inverse interpolation; numerical differentiation, formula for higher derivatives, numerical integration, rectangular rules; trapezoidal rule, simpson's 1/3, 3/8 and 14/15 rule, romberg's approximation, gauss's quadrature, and multiple integrals. MATLAB and a programming language will be used to teach all topics.

Pre-requisite: MTH 105

MTH406 Finite Element Analysis (FEA)

The course includes variation function, interpolation function, one-dimensional finite elements, two-dimensional finite elements; boundary-value problems, variational principles, Galerken approximation; partial differential equations, initial value problems and numerical integration.

Pre-requisite: MTH 202

MEDIA MANAGEMENT

MMM410 Introduction to Film / Cinema

Such aspects of introduction to film/cinema are learnt in theory and practice as planning, organizing, directing, controlling and promoting, including hands-on training given by professionals in an ideal work-like atmosphere enabling students to excel in careers, jobs or business.

MMM411 Introduction to Radio

The course will focus on the importance of the radio, nature of the medium, broadcast by objectives, target audience, areas / population covered, planning, production and presentation, formats (drama, music, feature, documentaries, investigative reports, interviews, road shows, musical stories, discussions, magazines), computer planning systems, terminologies of broadcasting (OB, Vet, DJ, Dubbing, Cue, Fading), broadcast engineering (kinds of transmitters, frequency spectrum, process of sending and receiving signals, what is AM (MW), FM (SW, LW), copyrights / royalty, legality of broadcasting, ethics of broadcasting, feedback (listeners' participation, surveys).

MMM412 Media Time and Priorities Management

This course aims at providing fresh ideas and insights for media personnel to manage time and priorities in a tough and tedious routine and special conditions by delegating work responsibilities or by skillful multiple tasks adjustments. Time and priorities management are intensively addressed in all media forms relating to radio, TV, newspapers and magazines as well as in advertising, public relations and event management, of course, according to local and indigenous conditions.

MMM414 Introduction to Television

The course will focus on companies and channels...terrestrial, satellite, cable: basic difference and distribution system, areas and audiences covered; videotapes discs and view data, viewing trends; audience information, planning, buying and selling; sponsored programs and campaigns, structure of rate cards/station costs, frequencies of impact, computers in planning, programs and campaigns and human interest programs of interest.

MMM415 Media Sponsorships and Supplements

The objective of this course is to help students how to plan, organize, direct, control and promote sponsorships and supplements for the media in order to generate business. The course emphasizes on advertising and supplements for the print media through building and capitalizing on potential clients and contacts and on the editorial, layout and production side of supplements. Similarly, the dynamics of seeking and coordinating sponsorships for the electronic media, including private TV and FM radio channels, will also be emphasized.

MMM416 Introduction to Web (New Media)

Students are introduced to multidisciplinary field of Electronic Commerce. The course covers basic e-commerce concepts, a review of relevant internet technologies (LANs, Internet, DNS, Web, browsers, HTML, HTTP, databases, server architectures) commerce workflow models (business models for e-commerce, the value chain, roles and functional architectures); protocol architectures, issues of compatibility portability; transaction processing (database integrity, transaction processing (local key cryptosystem; Internet security and security applications for e-commerce (key management, certificate authorities, standards, WWW security, transport and tunnel mode; Secure Sockets Layer, Secure Electronic Transactions (SET), e-auctions, e-advertising, CRM; Supply Chain Management, internet banking, e-government and future of e-commerce and technological trends.

MMM417 Media Programming and Product Development

Students are familiarized with contemporary trends in planning, organizing, directing and controlling programming and product development.

MMM418 Media Planning and Buying

The purpose of media planning is to conceive, analyze and select channels of communication that will direct advertising to the right people in the right place and at the right time. As the media becomes more complex and challenging over the years, media decisions become even more critical and the clients even more demanding. In this new advertising environment media planning and buying have become more complicated due to media options, fragmentation of the audience, cost, increasing complexity in the media buying and increasing competition. This course provides students with a comprehensive study of the subject and they will be able to understand the importance of the elements of media strategy.

MMM419 Media Entrepreneurship

To provide an understanding of the person and the process of creating and growing a new media venture, this course introduces the media entrepreneurial perspective and focuses on all the elements in the entrepreneurial process that are part of creating a new venture. It introduces students to aspects of financing a new media venture through alternative sources of capital. Particular emphasis is laid on managing a new venture during growth, early operations and expansion.

MMM420 Media Brand and Image Management

Brand Management considers strategies to build and effectively manage brand equity. It covers the role of brand awareness and image, brand extension principles, integrated marketing communications, and financial and marketing research measures.

MMM421 Media Sales

This course enables students to acquire pertinent knowledge and information pertaining to concerned clients and customers and the sales strategy of media management at large.

MMM422 Strategic Media Marketing

Strategic Marketing is an understanding of the technique, concepts, approaches and skills in marketing management and strategy planning. It incorporates strategic marketing techniques developed from models for the corporate environment, campaign marketing for the public environment and international marketing.

MMM423 Specialized Communication Skills

The course is designed to train and equip students with specialized verbal and written communication acumen required in efficient and effective information and entertainment dissemination through print and electronic media and advertising and public relations.

MMM424 Media in World Affairs / International Media

The media is an important vehicle for creating an atmosphere conducive to harmonious international relations. Editorial comments, headlines and news giving a particular twist to upcoming conferences, negotiations, etc. have a major impact in forming concerned public opinion. The course covers pertinent aspects, such as media professionals vision and understanding of world affairs, their ability to manage sensitive situations skillfully and congenially and their positive and potential coordination with relevant national and international organizations.

MMM425 Future Concepts and Trends

This course incorporates the contemporary tools and techniques regarding technological and business aspects of the Media Management program comprehensively including print and electronic media as well as advertising and communication and media oriented public affairs and promotional strategies.

MMM426 Crisis and Conflict Management

The fact that conflicts and crises arise in challenging and changing media situations, irrespective of print or electronic media, or all media oriented advertising and public relations, there is a growing need for techniques in crises and conflict management. This course offers an efficient and effective account of the measures or modus operandi devised and adopted to manage conflicting situations.

MMM427 Citizen Journalism

Students are familiarized with such aspects of Citizen Journalism as civic and social issues or problems pertaining to education, health planning, vehicular traffic, public utilities etc. This course does not only identify issues and problems as regards social and civil life but also enables students to devise and apply practical models to address them through media efficiently and effectively.

MMM428 Script Writing

The art of script writing is best learnt through professionals in various fields of print and electronic media in terms of conceiving an idea, developing a plan, devising convincing headlines, scripting the idea and concluding with an exclamation, if not a consensus.

MMM429 Digital Media

Digital Media includes interactive multimedia, digital video and film production, web design, image creation, digital animation, 3D Modeling, digital sound technology, graphic designing, basically pertaining to digital technology as a part and parcel of electronic media.

MMM430 Time, Priorities and Conflict Management

This course aims at providing fresh ideas and insights for media personnel to manage time and priorities in tough and tedious routine and special conditions by delegating work responsibilities or by skillful multiple tasks adjustments. Time and priorities management are intensively addressed in all media forms relating to radio, TV, newspapers and magazines as well as in advertising, public relations and event management, of course, according to local and indigenous conditions.

MMM431 Imaging and Photo Journalism

This course is characterized by quick, easy and workable and affordable ways and means to use the camera traditionally or digitally for the pictorial content which is a part and parcel of journalism. It not only covers the technical aspects of photography and developing and printing but would also comprise the photo library for a reference as and when required.

MMM 433 FM Radio Dynamics

The course will highlight the subject in its various forms and manifestations, including the procedure, paraphernalia and personal involved in setting up an FM Radio Channel. Planning, programming, production, presentation and promotional sides are covered comprehensively indeed.

MEDIA PSYCHOLOGY

MMP401 Introduction to Mass Communication

It provides an overview of the historical and social contexts of mass media. Emphasis is placed on the experience and comparative analysis of various media. The purpose of this course is to introduce students to the various dimensions of the media so they will become competent to carefully consider and criticize mass media content and policy. The course presents the study of media from a social scientific perspective with focus on the role of an ethical journalism professional.

MMP402 Media and Self

This course studies the dynamic relationships between media, culture, and self that render a consumerist world view. Using a critical lens, this course explores research and theory of media's role in sustaining the cultural way of life and its consequences on the individual.

MMP403 Typography

Typography is the art and technique of arranging type, type design, and modifying type glyphs. Type glyphs are created and modified using a variety of illustration techniques. The arrangement of type involves the selection of typefaces, point size, line length, leading (line spacing), adjusting the spaces between groups of letters (tracking) and adjusting the space between pairs of letters (kerning).

MMP404 Media Writing

Students will gain an 'Analysis & Writing Skills' of media composition, contexts, and intentions using visual and language theories. This course addresses how overall perceptual impact of specific words and images influences our response to the content itself.

MMP405 Media Literacy

Students will learn to critically read media texts, analyze the impact of media and technology on society and culture from the perspective of educators and educational institutions, understand and evaluate the current place of media and technology in the curriculum and design and develop improved curriculum based on theory and research.

MMP406 New Media Rhetoric

This course enables students to study the theories of persuasion and argument as they are used in, and changed by, modern media channels. This course introduces students to new media concepts such as interactivity, information design, usability, navigation, accessibility, non-linearity, motion and presentation design.

MMP407 Electronic and Print Media

This module is to raise student awareness of the medium and, at the same time, sharpen their research skills. This module will introduce aspects of electronic & print media and examine the many applications of these media in different contexts. Students will be given an opportunity to gain a broad understanding of interactive technologies, how the background to electronic & print media has formed our current view of 'the computer as media', and what strategies are needed to conceive and create compelling pieces of interactive media.

MMP408 Media Technology: Sound and Music

The course explores and analyzes how music and sound function in our creation of meaning from mediated messages. Students will explore many areas of music technology including surround sound recording and reproduction, sound synthesis and processing, and the creative combination of these to produce new musical sounds and effects.

MMP409 Capstone Project

In the final capstone project, students create a digital portfolio of written papers and multimedia presentations. One may choose to include a written thesis, a website, a photographic essay, video or film, or a combination of these elements. The portfolio will be reviewed by the faculty instructor at the conclusion of coursework and can serve as a tool for further research or professional practice.

MMP501 Media Technology: Games

This module provides emphasis on 'Gaming and multimedia' which have taken an important place in our society, giving rise to a booming industry with turnovers exceeding the entertainment movie industry and leaps forward in computer software and hardware development. Students will explore new types of games and hardware reaching the market regularly. The value of games as an educational tool is recognized more and more, hence the students would integrate multimedial tools into their everyday life for creating fertile grounds.

Institute of Business Management

MMP502 Adobe Photoshop

This course will enable students to learn graphics editing program developed and published by Adobe Systems. It is the current market leader for commercial bitmap and image manipulation software, and is the flagship product of Adobe Systems. It has been described as “an industry standard for graphics professionals”. Adobe’s 2003 “Creative Suite” rebranding led to Adobe Photoshop 8’s renaming to Adobe Photoshop CS. Thus, Adobe Photoshop CS4 is the 11th major release of Adobe Photoshop.

MMP503 Role of Media in Environment

Media plays the role of facilitator of development, disseminator of information, and being an agent of change. Regarding the issue of environment awareness, media plays a vital role in spreading the true message. Along with bringing it into the hub of debates and discussions, it tries to suggest alternatives to people and policy-makers. First of all, the mere awareness also creates a genuine interest to probe into the exact matter. Thus, environment awareness is one of the important issues which media presents consciously and effectively to say a few things to people.

MMP504 Electronic Broadcasting

This course familiarizes students with the basics of electronic media, which they will build upon through other radio and television broadcasting classes. Students practice using microphones and video systems. They create short clips which they present in class. This electronic broadcasting course is a practical, hands-on course which gives students the opportunity to get their feet wet in electronic media.

MMP505 Contemporary Issues in Media Studies

This course aims to provide students with a critical understanding of the main theoretical approaches in the closely related disciplines of critical media and cultural studies, which are necessary for any study of contemporary media, and are particularly relevant to appreciating the distinctiveness of non-Western media and the problems in their study. The course also aims to familiarize students with the richness and diversity of Asian media production, distribution, reception and commentary, both by introducing contemporary issues addressed by media in different regions and by requiring students to engage in project research on some specific aspect of media discourse in Asia.

MMP506 New Media Technologies: Audio, Video & Multimedia

Production Management, event production, audio/video support, teleprompter services, etc. will be studied by the students. In addition students will specialize in video editing, DVD development, web design & development, remote audio recording, interactive CD-ROM development and interactive game development.

POLICY STUDIES

PLY101 Policy Making in a Globalized World

The course focuses on theory of policy – liberal, socialist and nationalist approaches. The state, the market and the individual in capitalist order; global policy makers – multinational, financiers, multilateral agencies and private sector raters; the surveillance standardization regime, the system pegemon and global policy; policy making in Pakistan, state policy makers; the State Bank; the impact of de-regulation and privatization. Private sector policy makers associations NGO’s, the media and the influence of global policy on national policy making in Pakistan.

PAKISTAN / ISLAMIC STUDIES

PRL301 Pakistan / Islamic Studies

The course covers various movements which led to the creation of the Islamic Republic of Pakistan. The history of Pakistan is discussed with an analysis of the various leaders and their contributions to the development process. The course discusses how different messengers of Allah came to spread His word. It further discusses the need for Islam: its five pillars, the life of the Prophet Muhammad (PBUH), the companions of the Prophet (PBUH), and the several Surahs, Ahadiths, and Ayats.

POLITICAL SCIENCES

PSC301 Pakistan Studies

The course on Pakistan Studies is an in-depth course covering various movements which led to the creation of the Islamic Republic of Pakistan. The history of Pakistan is discussed with an analysis of various leaders and their contributions to the process of national development. It also discusses the two nation theory in detail.

PSC401 Pakistan Studies and Current Affairs

The course is an in-depth study covering the various movements which led to the creation of the Islamic Republic of Pakistan. The history of Pakistan is discussed with an analysis of the various leaders and their contributions to the development process. Issues related to current affairs will also be discussed.

PSYCHOLOGY

PSY400 Introduction to Organizational Psychology

This course examines the psychological aspects of organizational behavior and individual psychological processes and behavior. The topics will include social norms, group and team processes, leadership and power, motivation, job attitudes and satisfaction and organizational change.

PSY401 Psychometric Testing

This course focuses on psychological testing and measurement in industry and organizations. Various tests such as aptitude test, vocational interest test, personality test, attitude test and predictors used in industry and organization will be demonstrated. Practice using, modifying, making psychological tests, including analyzing and reporting results of the psychological tests will also be discussed.

Pre-requisite: PSY 400

PSY402 Counseling Psychology

This course focuses on the basic approaches, principles, and procedures of counseling. Students will be engaged in some directed role playing of counseling techniques as well as prepare a class demonstration based on their personal integration of readings and practice. Research related to counseling as well as issues regarding the nature of the counseling relationship will also be focused.

Pre-requisite: PSY 400

PSY403 Consumer and Advertising Psychology

This course focuses on the type and behavior of consumer, effects of psycho-social factors in decision making, satisfaction, loyalty, attitude, and changing attitude of consumer, ethics and principles of psychology in advertising, media selection, and methods in developing a research study in the area of consumer and advertising psychology.

PSY404 Research Methods in Organizational Psychology

This course builds on the fundamentals of research design and knowledge of basic statistical techniques to provide a broad overview of the major research methods of applied psychological research. Students learn to frame inquiries and problems as research questions. The relative merits and drawbacks of major research methods are explored. This course will help students to understand and critically evaluate research reports. Students will also learn how to carry out the entire research process, starting with identifying the research problem and ending with a thesis or research report.

Institute of Business Management

PSY405 Group Dynamics

This course presents theories of group dynamics and illustrative application to understand personal, marital, political, industrial and professional life. Personal participation by the student in a group interactive process will be emphasized. The course is designed especially to help group leaders understand the complex underlying dynamic forces that influence our behavior in groups.

PSY406 Psychology of Industrial Relations

This course surveys individual behavior in work places, recruitment training and development, grievance procedures, employee counseling, employee efficiency improvement programs, compensation, administration in Pakistan, employee relations with groups and the union, problems and problem solving in labor relations.

PSY407 Personnel Psychology

This course focuses on psychological methods and knowledge applied to the personnel functions of industry. It provides an analysis and discussion of theories and research studies on the following topics: organizational management and development; manpower planning, selection, placement, training, and other important personnel problems.

PSY408 Seminar in Organizational Psychology

This course covers the most recent advances, issues and problems in industrial and organizational psychology through relevant professional journals, technical literature, legislation and judicial decisions, advanced research techniques, and consulting practice in order to prepare students for continued education or applied practice of their field. Students will critique professional journals and review the development of topics in their field.

PSY409 Special Topics in Organizational Psychology

This course provides an in-depth view of important theoretical and methodological issues in various areas of psychology. It is designed to provide students with a comprehensive analysis of a selected contemporary issue (or issues) in psychology.

PSY411 Introduction to Psychology

This course seeks to enhance student knowledge of general principles of psychology, which are applicable to humans everywhere. The individual differences among individuals are of great interest – not only because of the desire to understand individual uniqueness, but also because a complex society demands specialized roles for its complex members. The scientific study of psychology introduces students to topics such as attitude, conditioning, perception, cognition, emotion, motivation, decision-making, intelligence, personality and social behavior.

PSY412 Media Psychology and Social Change

Media psychology applies psychological theory to understanding the way this new media landscape impacts the use, experience, and production of media technologies across all economic sectors. This understanding is relevant to applications and careers in telecommunications, education, entertainment, public policy, law, politics, advertising, healthcare, and education. Students will consider how media research is interpreted and presented to the public, how social media has redefined the way people, businesses, and groups connect, how media technologies can facilitate learning, and the societal implications of continuing technological change.

PSY413 Social Psychology

Social psychology studies the influence of others on an individual's thoughts, emotions and behaviors. This course gives special attention to four recent trends: first, cognition has regained its preeminence in social psychology; second, applications of social psychological knowledge have been implemented, extending the reach of the field. Social psychologists are often called on to make contributions in business, medicine, law, and other fields. Third, the field is now represented in other areas of psychology, such as developmental, clinical, counseling, cognitive, industrial and organizational psychology. Fourth, our national interest in diversity and culture has caused a reexamination of research findings and theory with the intent of identifying those that are universal and those that are culture bound.

PSY414 Psychology of Gender

In this course students will study the psychology of gender from a variety of theoretical perspectives (e.g., positivist-empirical, postmodern), with attention to how both quantitative and qualitative methodologies are used to inform our knowledge. Students will examine the ways in which mainstream psychology is gendered, as well as, various feminist approaches to studying issues of gender in psychology. Because sex and gender do not influence people's behavior in isolation from other socially constructed categories, students will examine the intersection of race/ethnicity, sexual orientation, and social class with gender in our analysis.

PSY415 Culture and Psychology

It is a course designed to inform students about the causes and consequences of stereotyping, prejudice, and discrimination. It focuses on theories and empirical research on these topics. In addition, it has excerpts from popular books, political statements, laws, religious texts, and so forth designed to illustrate how prejudice and discrimination are present in everyday life.

PSY416 Counseling Psychology

This course prepares students to work with individuals, couples, families, and groups in various settings, including community mental health centers, schools, hospitals, and consulting agencies. The objective of this course is to introduce students to the basic principles and techniques of counseling families and individuals. Students will become familiar with the major theoretical paradigms for counseling psychology practice. Each student will be encouraged to begin the search for the psychotherapeutic approach as a professional counselor.

PSY417 Media and Forensic Psychology

Forensic psychology is the intersection between psychology and the criminal justice system. This course involves understanding criminal law in the jurisdictions of media world, in order to be able to interact appropriately with judges, attorneys and other legal professionals. An important aspect of forensic psychology is the ability to testify in court, reformulating psychological findings into the legal language of the courtroom, providing information to legal personnel in a way that can be understood.

PSY418 Psychology of Personality

'Personality' is a broad term applied to the wide traits of people who are employed and managed across the economy. Organizations of any size require additional staff to provide psychological assessment and management of their human resources. It enables students to become proficient in understanding the attitudes, behavior and cognitions of personnel in organizations.

PSY419 Psychological Impact of Film and TV

This course aims to provide students with an understanding of the major themes, topics and theoretical perspectives that constitute film and television studies. Attention will be focused on the producer-text-audience relationships which are central to the understanding of the meanings that are created and the impact of the medium. The course will cover audience and reception analysis, film and television genres and their characteristics, film - television and gender, as well as film - television and ethnicity.

PSY420 Work Psychology

This course covers recent developments, such as self-monitoring and sensation seeking in personality, self-efficacy and social identity in motivation, extra-sensory perception, emotion, knowledge management in learning, investor psychology, trust, virtual teams, upward and lateral leadership, transformational leadership, political skills, virtual organization and other contemporary organizational issues, culture and diversity, business ethics, corporate governance, innovation, models of change, use of technology in selection, mentoring, career development, e-learning, continuous professional development, bullying at work, cognitive strategies to deal with stress, and workplace counseling.

PSY421 Community Psychology

Community psychology draws on interdisciplinary perspectives and approaches to examine social problems and promote the well-being of people in their communities. While the field draws heavily from psychology, it also draws from theory and practice in sociology, community development, ecology, public health, anthropology, cultural and performance studies, public policy, social work, and social justice movements. Through community research and action, community psychologists produce knowledge that can inform social policies, social service work, helping practices, and community change.

PSY422 Psychological Assessment

This is a course that involves the integration of information from multiple sources, such as tests of normal and abnormal personality, tests of ability or intelligence, tests of interests or attitudes, as well as information from personal interviews. Collateral information is also collected about personal, occupational, or medical history, such as from records or from interviews with parents, spouses, teachers, or previous therapists or physicians.

PSY501 Work Motivation and Attitude

The course covers concepts in various theories of motivation, both content and process theories, job satisfaction and its relationship with motives and performance efficiency; applications of theories of motivation to increase performance; problems and solutions of motivation in Pakistani society; research and development of motivational techniques to increase performance efficiency. Critical and in-depth examination of the research evidence for understanding group dynamics and personal, environmental and cultural factors influencing organizational behavior and attitudes are also featured in the course.

PSY502 Career Counseling and Development

This course focuses on the processes of career and academic development, including an emphasis on theories of career education and counseling, culturally different populations, the interface between the individual and the organizational climate and the resources utilized in the career and academic counseling process. The course introduces tools used in career counseling process. The topics include: information about the nature of job market, methods of advising individual and groups implementing career and role of interest, skills, values and personality in the career development process.

PSY503 Organizational Leadership and Strategic Change

This course is designed to enhance skills for facilitating/consulting with organizational leadership in organizational change. Theories and techniques for understanding and facilitating change processes within diverse organizational cultures are discussed and applied.

PSY504 Quality of Work Life

This course focuses on theories and research relating to quality of life at work, application of knowledge in health; safety at work, environment and working motivation; educating managers and employees to enable them to deal with sickness and problems caused by working, and concentrate on their physical and mental health.

PSY505 Psychology of Religion

This course will provide literature on the relationship between religion and psychology. Psychologists consider that there are various ways in which religion may benefit both physical, mental and spiritual health, including encouraging healthy lifestyles, providing social support networks and encouraging an optimistic outlook on life; prayer and meditation to benefit physiological and psychological functioning.

PSY506 Psychology of Attitude Change

Students will learn the possibility of changing someone's attitude via persuasion. Hovland established that attitude change had to be understood as a response to communication. Experimental research was conducted in the following areas as a means of understanding the process of attitude change: target characteristics, source characteristics, message characteristics, and cognitive routes. Students will gain the expertise that the exact nature of a particular message can play a major role in persuading individuals. A lot of time, a consideration of both sides to a case will help someone change their attitude. The person will be presented with data and subsequently motivated to evaluate that data before arriving at a conclusion that necessitates a change of attitude.

PSY507 Cognitive Psychology

Cognitive psychology is a discipline within psychology that investigates the internal mental processes of thought, such as visual processing, memory, thinking, learning, feeling, problem solving, and language. Students will learn to use psychophysical and experimental approaches to understand, diagnose, and solve problems, concerning themselves with the mental processes which mediate between stimulus and response. Cognitive theory contends that solutions to problems take the form of algorithms—rules that are not necessarily understood but promise a solution, or heuristics—rules that are understood but that do not always guarantee solutions.

PSY508 Health Psychology

Health psychology is concerned with understanding how biology, behavior, and social context influence health and illness. The four divisions include clinical health psychology, public health psychology, community health psychology, and critical health psychology. The allied field is occupational health psychology. Students will have practical assignments to gain experience within these areas.

PSY509 Organizational Psychology

This course applies psychology to organizations and the workplace. Students will learn to contribute to an organization's success by improving the performance and well-being of its people. They will conduct research and identify how behavior and attitudes can be improved through hiring practices, training programs, and feedback systems. The course examines the psychological aspects of organizational behavior with emphasis upon the organization which is affected by individual psychological processes and behavior. Areas covered include social norms, group and team processes, leadership and power, motivation, job attitudes and satisfaction, and organizational change.

PSY510 Contemporary Issues in Psychology

This course will introduce students to a variety of contemporary topics in psychology. Topics vary from year to year, but would typically include: evolutionary psychology; comparative psychology; polylingualism; brain imaging; and gender differences. Assignments will enable students to gain hands on experience.

PSY511 Psychological Impact of Internet & Mobile Technology

The increasingly widespread use of text-messaging has led to the questioning of the social and psychological effects of this novel communication medium. The fact that internet can help some people develop relationships is drawn upon and taken a step further by exploring the differences between those who prefer texting ('Texters') and those who prefer talking on their mobiles ('Talkers'). Students will gain insight that there is something special about texting that allows some people to translate their loneliness and/or social anxiety into productive relationships while for others the mobile does not afford the same effect.

RELIGIOUS STUDIES

REL101 Islamic Studies

The course begins with a discussion of how different messengers of Allah came to spread His word. It discusses the need for Islam, the five pillars, the life of the Prophet Muhammad (PBUH), the companions of the Prophet (PBUH), several Surahs, Ahadiths, and Ayats.

SUPPLY CHAIN AND LOGISTICS MANAGEMENT

SCM501 Supply Chain Management

In the challenging environment the companies strive to identify their competitive edge, so the application of supply chain concepts will continue to exert greater influence on overall business success. This module covers a wide range of topics in supply chain strategies, design, planning, operations and development. Pre-requisite: MAN 101/401

SCM502 ERP Systems Design and Implementation

This course provides a technical overview of enterprise planning systems and their impact on organizations. Selected software solutions are introduced to illustrate the concepts, fundamentals, general information technology context and integration of business enterprise applications. Case studies will be used to discuss various stages of implementing ERP solutions.

SCM503 Strategic Supply Chain Management

This course covers a wide range of Supply Chain Management activities including formation and management of strategic alliances, buyer selections and management, negotiations, global sourcing, ethics in contracting situations and applications of information technology in SCM. Pre-requisite: MAN 101/401

SCM504 Procurement and Inventory Management

The synchronization of supply with demand in order to provide customer value has to be designed, controlled and improved. In supply chain management these activities have to be coordinated along different stages in different enterprises. This module deals with understanding and overcoming the problems arising in those multistage inventory systems using case studies.

SCM505 Storage and Warehouse Techniques

In order to operate, optimize or understand warehouse systems, a sound knowledge about the various technical realizations of warehouse functions is essential. This module provides an overview of various in-house transporting and storage systems and indicates the preferred areas of usage. Case studies will be used as modus operandi in the course.

SCM506 Transportation Techniques and Management

The module aims to give an understanding of the basic techniques used in transportation. All major techniques in the fields of road-traffic, air traffic, railroad and navy are discussed. Transport chains using freight-villages, intermodal transports, combined transport-chains as location planning, design and organization of dispatch departments, supply-chain-management tracking- and- tracing are investigated using the case study approach.

SOCIAL SCIENCES

SSC101/402 Introduction to Psychology

Its subject matter includes human development, memory cognition, perception and psychopathology. The course explores the field of psychology, teaches to learn about oneself, the mind and the science of psychology.

SSC102 Sindh History Cultures

The course provides history of the Indus valley civilization, the Arabs in Sindh, Sindhi dynasties, Sindhi literature and the contribution of the Sufi movement. It focuses on the art and architecture of Sindh, the impact of migration on Sindhi art and culture, cultural movements in Sindh.

SSC103 Business Ethics and Corporate Governance

This course entails an understanding of the general principles of ethical conduct. It studies the relationship of what is good and right for businesses. This course shall proceed to place modern business practices in their historical context. The ethical attitude of ancient, medieval, modern and postmodern communities would be contrasted and the nature of modern business practices.

SSC201 Policy Studies

The Liberal, Marxist and Weberian approaches to policy making. The market and the state, bureaucracy and administration regulatory systems. Non-state sources of policy conception and implementation corporations, association, NGOs policy making and implementation processes in Pakistan.

SSC202 Environmental Studies

This course covers the national, state and the global market. Global regulatory systems with special reference to finance, international law and international policy. The role of international organizations, UN security organization, the IMF, FSF, WTO and the development agencies (World Bank and ADB).

SSC301 History of Ideas

The course has been divided into different sections, e.g., man, theory of knowledge, ethics, politics, religion and science. The course will logically discuss the most representative ideas related to each section and attempt to put them together into an overall picture of man and his relation to the world.

SSC401 Business Ethics

This course entails an understanding of the general principles of ethical conduct. It studies the relationship of what is good and right for businesses. This course proceeds to place modern business practices in their historical context. The ethical attitude of ancient, medieval, modern and postmodern communities would be contrasted and the nature of modern business practices.

SSC403 Social Psychology

This course focuses on human behavior in its social context to reveal how one's feelings and actions can be influenced by other people. The topics include processes of human interaction and the social influences of family, membership groups, mass media, and socioeconomic class on individuals and groups. The course is based on the basic concepts, theoretical and research perspectives on social processes. Students examine the selected forms of social reaction patterns.

SSC405 Business Ethics & Financial Responsibility

The course examines ethical issues in the context of business theory and practice. In the process of exploring these issues and raising questions, students draw on a wide body of literature including the humanities, management theory, and the social sciences.

SSC406 Psychology and Learning

The course examines major theories of learning with relevance to instrumental and classical (Pavlovian) conditioning, cognitive learning processes, motivation, affect, and memory. The students will explore relevant research on traditional and contemporary issues in learning, with an emphasis on human learning from both behavioral and cognitive perspectives.

SSC501 Epistemology and Moral Philosophy

This course will examine the basic questions and principles of moral reasoning. Among the issues to be considered: What makes an action moral? Does might make right? Do moral judgments admit of exceptions? Is pleasure a relevant factor in deciding what to do? Does moral reasoning rest on a grand mistake?

STATISTICS

STA101/102 Quantitative Methods I & II

The objective of the course is to train students in the use of quantitative techniques in business and finance. The students are required to gain thorough theoretical knowledge of the subject and understanding of the application of such knowledge.

STA103 Sampling and Probability Theory

The course highlights the basis concepts of statistics, sample space, events, classical and axiomatic definition of probability, conditional probability and Bayes' theorem, binomial, Poisson, normal distribution and moment generating functions.

STA201/401 Quantitative Business Analysis

This course will provide an in-depth study of the concepts of statistics and quantitative business tools. The emphasis will mainly be on learning quantitative techniques along with their applications to economics and business. The topics include inequalities, function notation and inverses, linear, quadratic, polynomial and exponential functions and mathematics of finance.

Pre-requisite: MTH 103

STA202 Quantitative Skills and Managerial Statistics

The course introduces the use of statistical method to proceed beyond the collected data into the area of decision making through statistical analysis. It provides an in-depth introduction to probability, sampling theory and sampling distribution, estimation of parameters, hypothesis testing, analysis of variance, decision theory and quality control charts.

Pre-requisite: STA 201/401

STA203 Probability Theory and Statistics

The course includes the basic concepts of statistics, sample space, events, classical and axiomatic definition of probability, conditional probability and Bayes' theorem, binomial, Poisson and normal distribution, moment generating functions, etc.

STA204 Industrial Applications of Statistics

The course teaches an applied approach to statistical quality control utilizing theoretical tools acquired in other mathematics-statistics courses. It emphasizes on understanding and applying statistical analysis methods in real-world situations in engineering.

STA210 Sampling Theory

The purpose of this course is to provide students with theoretical background in survey sampling. The course will expose students to a wide range of sample designs and estimation techniques used in practice, including simple random sampling, sampling with unequal probabilities, stratification, single-stage and multi-stage cluster samples, ratio and regression estimators, variance estimation in complex surveys, introduction to model-assisted estimation, calibration and estimating equations approach.

STA301/402 Model and Inferences

Statistical models and random samples, informal methods of checking models, estimation and prediction, methods of maximum likelihood and least squares and their applications within the frame-work of programming are taught in this course. Regression, analysis of variance and hypothesis testing; data and regression analysis using MiniTab will also be included.

Pre-requisite: MTH 201, STA 203, STA 302

STA302 Methods of Data Analysis

The course is an introduction to the use of computers as a powerful tool in data analysis. Topics will include statistical graphics, advanced regression techniques, curve fitting and smoothing, generalized additive models, CART, multivariate techniques, cross-validation and the bootstrap. Additional topics may include survival analysis, simulation methods and neural networks.

Pre-requisite: STA 203

STA303 Time Series Analysis and Forecasting

The course serves as an introduction to the use of statistical methods for analyzing and forecasting data observed over time. The topics include; trigonometric regression, periodogram/spectral analysis, smoothing autoregressive moving average models regression with auto correlated errors, linear filters and bivariate spectral analysis. Stress on methods and applications, software implementations are extensively used in assignments.

Pre-requisite: STA 302

STA305 Applied Regression Analysis

Linear regression and correlation; maximum likelihood and least square estimators and their properties. nonlinear regression models; generalized linear regression models; introduction to time series; time series model building and forecasting with focus on data of interest to actuaries are features of this course.

STA307 Decision Theory

Common sampling models in business and economic problems, information from data, likelihood function of parameters, choices of models, Bayes' Theorem, subjective basis for probability, sequential nature of Bayesian inference, prior and posterior distributions of parameters in binomial, Poisson, exponential and normal populations, comparison of two normal distributions, predictive distributions, decision theory, utility, risk aversion, extensive form of analysis, two-action problems, point estimation, best population problems, economics of sampling. Dependence of observations in economic and business data, trend, moving averages, autoregressive series, non-stationary models and their applications, Bayesian estimation of parameters, adaptive forecasting, control theory, elements of difference calculus, dynamics, models for inventory control are features of this course.

STA309 Loss Models

Definition and selection of probability distributions appropriate for insurance data that are heavily tailed and skewed, estimation of parameters of probability distributions appropriate for insurance data that are heavy tailed and skewed, such as Exponential, Gamma, Gumbel, Weibull, and extreme-value distributions, assessment of credibility of data for ratemaking are taught in this course.

STA311 Operations Research & Management

The course will include, deterministic models, stochastic models, simulation, independent study, simulation theory, simulation modeling and languages, mathematical programming, seminar, special project and thesis.

STA403 Statistics and Mathematics

The course introduces the use of statistical & mathematical methods to proceed beyond the collected data in the area of decision-making. The course includes frequency distribution, measures of central location, measures of dispersion, linear equation, quadratic, exponential & logarithmic function, mathematics of finance, matrix algebra differentiation & optimization. A systematic exposure to the statistical analysis of business situations covering descriptive statistics will also be provided.

STA404 Statistical Inference

The course concentrates on the application of statistical techniques to the analysis of data and estimation procedures. The topics include counting techniques, probability & its distributions, sampling, estimation of parameters, testing of hypothesis & analysis of variances, regression & correlation.

Pre-requisite: STA 403

STA405 Simulation and Modeling

The course includes various types of models, properties of linear models, model building techniques, the black box approach, random number generation and testing, transformation; test of randomness, parameter estimation, least mean square, bootstrap, jackknifing, re-sampling procedures, query models and applications using MINITAB, SIMULA.

Pre-requisite: STA 203 CSC 306 / CSC 409

STA406 Statistical Methods in Social Sciences

This course includes an overview of quantitative methods, basic concepts in descriptive and inferential statistics. It emphasizes on the development of critical thinking skills and the methodological tools necessary for functioning as an Industrial Organizational Psychologist in applied settings. The focus is on non-parametric and parametric statistical procedures including when and how to use each quantitative method including choice of the most appropriate research method and strategies to address common problems encountered and using computer programs for data analysis.

TELECOMMUNICATION MANAGEMENT

TCM201 Electromagnetic Theory

Time-varying fields, transmission line, wave propagation through wave guides and antenna theory, basic vector operations, coordinate systems and their transformation, surface and volume integral of symmetrical objects, force fields exerted by point charge and generalize to charged line, surface and other objects, electric flux density, Gauss's law and its application, energy and potential of a fields, conductors, dielectrics and capacitance. Introduction to Poisson's and Laplace's equation, the steady magnetic fields, Biot-Savart law, Ampere's circuital law, magnetic flux and flux density are a part of the course.

TCM203 Amplifiers and Oscillators

The student will become capable of assembling and analyzing analog circuits. Topics include: FET characteristics and circuits, differential amplifiers, integrated circuit fabrication, negative and positive feedback, operational amplifier characteristics, analysis of common operational amplifier circuits, Class B power amplifiers, power supply characteristics, and circuits using discrete and integrated circuit technology.

TCM204 Signals and Systems

Linear system theory, signals, types of signals, transformations of independent variable, signal properties, exponential signals, impulse and step functions, systems, input-output models of system, properties of system, linear time-invariant system, time domain analysis of linear systems, properties of LTI system, LTI analysis of linear differential equations, complex exponential inputs to LTI system, frequency analysis, orthogonal transforms, continuous time fourier series(CTFS), continuous time fourier transform(CTFT), discrete Fourier transform(DFT), discrete time Fourier transform(DTFT), sampling and reconstruction, overview of sampling systems, sampling, reconstruction, the Z-transform, definition of Z-transform, region of convergence, Inverse z-transform, properties of z-transform and Inverse z-transform, left and right hand signals, stable and unstable signals, causal and anti-causal signals, analysis of discrete time systems, FIR and IIR systems, stability analysis are taught in the course.

TCM205 Control Systems

Classification of open and closed loop control, advantages and disadvantages, effects of feedback, servomechanism, systems model and characterization, block diagrams and canonical form., control systems from telecom applications such as satellite tracking, LNAV/VNAV in aviation, flight control system, heading tracking, signal flow graphs, DE and laplace transforms, transfer function, poles and zeros, time domain analysis, steady state error using static error coefficient method, dynamic error constant method, feedback characteristics of control systems, and sensitivity of control systems, basic action of controllers (proportional, integral, PI and PID controllers), stability assessment (Routh, Bode, Nyquist, Nicholes chart), compensation and compensators design for telecommunications applications and state space are featured in the course.

TCM206 Analog Communication

Types of electronic communication, modulation and multiplexing, the electromagnetic spectrum, bandwidth, gain, attenuation, and decibels, tuned circuits, filters, noise, baseband and pass band signals, frequency spectra of non sinusoidal signals, analog vs digital communication, AM concepts, modulation index and percentage modulation, sideband and frequency domain, AM powers, single sideband modulation, basic principles of AM, FM. AM, FM and phase modulators. FDM, TDM and duplexing, antenna principles, microwave concepts, satellite communication and optical communication principles are a part of this course.

TCM301 Digital Communication

Significance of digital communication, base band modulation, analogue-to-digital conversion, sampling theory and applications, quantization and its types (Uniform-nonuniform), pulse code modulation (PCM), differential PCM, delta modulation, adaptive differential PCM (ADPCM), inter symbol Interference, equalization, synchronization, basic detection theory and optimum receiver design, multiplexing, TDM, FDM, T1 systems and hierarchy, E1 systems hierarchy, digital modulation techniques, amplitude shift keying (ASK), frequency shift keying (FSK) and phase shift keying (PSK, DPSK, DEPSK, QPSK), differential encoding and M-Ary signaling, performance of binary and M-Ary signaling, performance comparisons of modulation schemes, forward error correction codes (FEC) and basic concepts of information and coding are taught in this course.

TCM302 Antenna and Microwave Engineering

Various definitions, parameters, radiation, comparison between antenna and transmission lines. Power patterns, radiation, pattern of arbitrary shape, gain, field and phase pattern. Arrays of two isotropic point sources, pattern multiplication, arrays of N-isotropic point sources of equal amplitude and spacing broadside vs. end fire array, pattern determination of linear arrays, Schelkunoff theorem for linear arrays, Dolph-tchebyscheff distribution for linear arrays, short electric dipole, field components, resistance, radiation pattern and thin linear antenna. Small loop, short magnetic dipole, loop antennas, field pattern and its resistance. Helical geometry, transmission, and wide band characteristic of helical antenna, horizontal and vertical antennas above a ground plane, arrays with parasitic elements, scanning arrays, retro arrays, adaptive arrays and smart antennas, long wire antennas, and folded dipole antennas, slot antennas, its patterns, babinets principles and complementary antennas, impedance of slot antennas, various types of horn antennas, dielectric, reflector lens antennas, broadband antennas, log periodic, yagi-uda, corner log periodic array are featured in this course.

TCM303 Transmission & Switching Systems

Transmission systems including PDH and SDH, synchronization, routing techniques, line encoding techniques. Telecommunication networks, PSTN, PLMN, PABX, exchange hierarchies, digital exchanges, routers, bridges, switches, hubs, gateways and signaling systems are taught in the course.

TCM304 Optical Fiber Communications

The aim of this course is to understand the optical fibre communication technology and networks & their applications in telecommunication industry. The main objectives of this module is to understand the photonic circuits, functionality and principles of optical devices. Another objective of this module is to learn the present and emerging optical technologies and techniques like SDH, SONET and WDM

TCM305 Telecommunication Regulations & Policy

This course is designed to provide an introduction to the key issues, developments and trends within the telecommunications sector. Policies and regulations within telecommunications have to be able to address a dynamic and rapidly changing environment. Exponentially developing technologies that spawn new services and applications, coupled with regulatory reforms, changing legal frameworks and the emergence of new markets have given rise to increased demands for training and skill development. The course content covers telecommunications systems, technologies and markets, international trends driving telecommunications reforms, laws, regulations, governance and institutional framework; prices and tariffs regulations, licensing and monitoring, scarce resource monitoring and other international laws of using resources.

TCM306 Wireless and Mobile Communications

The aim of this module is to understand the fundamentals of wireless and mobile communications & the use of wireless technology in the telecom industry. The main objectives of this module are to understand the design of basic wireless channel models, functionality of wireless systems and the know how of cellular mobile technologies in telecommunications. Another objective of this module is to learn the latest and future mobile and wireless technologies and their applications in everyday life.

TCM401 Introduction to Technology Management

Surveys the history and recent developments of technology management in the corporate and government environments. Major aspects of domestic and international technology management are discussed. Information technology management is the focus of this course. Other topics include project and system management, computer information systems, telecommunications management, distribution, marketing, logistics, manufacturing and aspects of international technology management.

TCM402 Introduction to Teletraffic Engineering

Focuses on the application of telecommunication traffic. The course is centered over the basic concepts of the telecommunication traffic and its use. Teletraffic involves the various telecom traffic models, their controls, traffic prediction and plan. It covers the simulation of traffic models, various queuing disciplines and optimization techniques.

TCM403 Global Communications: Industry and Policy

Focuses on understanding how the changing structures of telecommunications in North America, South America, Europe, Asia/Pacific and Japan, and how global decisions affect local actions. The course explores current and merging issues in global telecommunications including deregulation, transition to new business models and affordable access to technology. The students will learn how some of the most powerful global regulatory bodies create and establish legal and regulatory policy, and how their actions affect business and consumers.

TCM404 Management of Telecommunication

Focuses on the growing integration of the professional, organizational and industry aspects of telecommunications. The course emphasizes on value-added research and analysis, consultative and entrepreneurial skills of the telecommunications professional and explores the business value of telecommunications technology in organizations. It also provides an introduction to industry products and services, technology and regulation.

TCM405 Optical Communication Network

Introduces basic fiber optical technologies. The major components of a fiber communications link, including splices, connectors, optical sources, detectors, optical amplifiers, splitters and modulators are covered. Optical switching systems and technologies will be studied in detail as well as some fiber based standards and networks such as FDDI, SONET.

TCM406 Network Design

Explores advanced network design and optimization of switching systems and networks. It focuses on issues and challenges of network capacity, cost and bandwidth tradeoffs, traffic volumes, and peak traffic considerations applied to different business requirements. It also discusses considerations of network design for businesses in regional, national and global communications contexts and features a case study design approach.

TCM407 Broadband Communications

Review of basic digital hardware and the structure of digital computer and the digital switching networks. Topics include voice digitization, line coding, time division multiplexing, basic digital modulation formats, network control and synchronization, digital technologies and switching systems for high-speed data and voice networks in examples of T1/T3, ATM, SONET/SDH, B-ISDN, PBX, ACD and LANs. Different types of media, such as fiber optics, cable and wire, cellular as well as local and long distance switching systems are also covered.

TCM408 Advanced Mobile and Wireless Communications

Focuses on key technologies used in mobile and wireless communications, including cellular NGSM, TDMA, CDMA paging, PCS and infrared. It emphasizes on key service providers, design of wireless data and voice communications systems, security, and advances in mobile and wireless technology; addresses growth of PDAs and other mobile devices, and their impact on enterprise networks and features a case study approach on the application of these technologies.

TCM409 Customer Service and Call Center Technologies

Focuses on customer service and call centers as the contact point between a customer and a company's products and services; Emphasizes on critical call center technologies, including Computer Telephony Integration (CTI), workflow software, ACD and PBX systems, messaging systems (voice and email) and knowledge management systems. Students will learn how to implement customer service applications, such as help desk, customer support and field service.

TCM410 Management of Network Security

Defines network security in the context of networks, information and computer systems. This course identifies threats and vulnerabilities; major aspects of encryption, digital signatures and other authentication procedures are covered. LAN, Wireless and other aspects of network security are reviewed with discussions focusing on firewalls, VPN, and ISO17700 compliance. Strong emphasis is placed on analysis, monitoring and evaluation of network security. Intrusion and detection strategies are reviewed. An in-depth overview of vendors and other security resources is covered.

TCM411 Telecommunication Marketing

Telecommunication Marketing is one of the courses being offered the MBA in Telecommunication Management program. Topics in this course include the nature of the telecommunication market, analysis of customer procurement strategy, product policy, pricing, distribution strategy, sales force management and key account selling strategies.

TCM501 Management of Telecommunication Regulatory System

Introduction to graduate level study of telecommunications law and policy and its intersection with economics and technology. Fundamental principles and theories of telecommunications law, policy and policy-making. and methodological approaches are covered.

TCM502 The Future of Emerging Technologies

Focuses on emerging technologies and the use of scenario planning as a comprehensive tool to explore the trends and factors impacting technical decisions for business, industry and other organizations. It explores emerging technologies, e.g., biotech, Micromechanical Electrical Systems (MEMS), nanotechnologies, etc. and their potential effect on established systems and technologies. Emphasis is on applying scenario planning tools and techniques as a way to develop and respond to evolving industry scenarios.

TCM503 Electronic Business, System and Technologies

Provides a high-level overview of the e-business industry with a focus on both business-to-business and business-to-consumer electronic commerce. Discussion of e-government issues will also be covered. Topics include framing the electronic commerce market opportunity, the evolution from simple e-commerce to comprehensive e-business, exploring various business models, identifying key elements of branding and the customer interface, implementation, analytics and industry trends. It examines the fine balance between creating a personalized user experience and maintaining a customer's privacy.

TCM504 Management of Physical Security Technology and Systems

Emphasizes the securing and protection of physical assets with concentration on communications and computing facilities, including computers, servers, etc. Consideration will also be placed on securing key personnel when they are off site. Focus is also placed on processes and procedures that minimize business disruption while insuring site(s) and asset protection.

TCM505 Telecommunication Business Continuity Process and Crisis Management

Emphasizes the development of protocols and procedures designed to minimize business and enterprise risks associated with disasters and other major disruptions to ensure the rapid recovery of critical business functions. Focus is placed on planning and plan maintenance; business impact analysis identifying critical business processes and systems; and development of alternative operating or recovery procedures. Additionally, considerations for virtual continuity and collaboration with intercom any business-continuity planning teams will be covered.

TCM506 Telecommunication Business Process

Focuses on the dramatic transformation of business and organizational models realized through the convergence of communications and computers via the Internet and web, and other networks. Emphasis is placed on the global considerations an enterprise an organization must hold as policies, systems and technologies evaluated for the enterprise or organization. This core MSEBST program course will discuss and analyze relevant case studies.

TCM507 Optimization of Telecommunication Systems

Application of economic principles to policy and strategy issues in the print, online, broadcasting, multi-channel, home video, and motion picture industries, the production, distribution, and pricing of information products and services; intellectual property and new technologies; information networks and compatibility, policy and strategy applications are covered in this course.

TCM508 Managing Telecommunication in Media Application

Examines the information processing of mediated messages and theories underlying memory, attention, and cognition. Advanced analysis of cognitive psychology and emotion theory as they apply to the study of media, case studies in marketing and competitive strategies of media and telecommunications firms. Effects of technological change on industry structure and strategy are covered in this course.

TCM509 Internet Telephony

Focuses on different media and technologies used to deliver integrated data/voice communications, including integrated data/voice switching, voice-over IP and IP Telephony. It discusses current and emerging standards in the industry. Emphasises on the selection, design and implementation of integrated data/voice applications throughout the enterprise is a feature of this course.

TCM510 Managing the Creative Process

Examination of the business side of video production with emphasis on the role of the producer and/or production manager, including production team organization, schedules, budgets, contracts, markets and intellectual property are the course features.

TCM515 Multimedia Communication

This course introduces technologies for multimedia communications. It will address how to efficiently represent multimedia data, including video, image, and audio, and how to deliver them over a variety of networks. In the coding aspect, state-of-the-art compression technologies will be presented. Emphasis will be given to a number of standards, including H.26x, MPEG, and JPEG. In the networking aspect, special considerations for sending multimedia over ATM, wireless, and IP networks, such as error resilience and quality of service, will be discussed. The H.32x series, standards for audiovisual communication systems in various network environments, will be described. Current research results in multimedia communications will be reviewed through student seminars in the last weeks of the course.

TCM516 Error Control coding

Channel coding, cyclic codes, encoding by polynomial, multiple error correction, finite field arithmetic, BCH codes, reed Solomon codes, performance calculation of block codes, multistage coding, iterative decoding, the soft-output Viterbi Algorithm are taught in the course.

TCM517 Multimedia Systems

Multimedia data has become an indispensable part of our daily life and modern research projects. In this course, students will be introduced to principles and current technologies of multimedia systems, multimedia standards, and gain hands-on experience in this area. Issues in effectively representing, processing, and retrieving multimedia data, such as sound and music, graphics, image and video will be addressed.

TCM518 Video and Channel Coding

The course contains video basics, what is video? Recording and playback and history of video, analog video, the video image, formats and standards, composite and component video, digital video, comparing digital and analog video, compression, formats and standards, encoding and streaming, video codecs, MPEG, streaming video, video products, cameras and recorders, video networks and cisco video products.

TCM519 Speech Coding

This course will throw light upon the topics, such as models for speech production: the human vocal tract, linear prediction used for vocal tract parameter estimation, parameters for the male/female, and child voice, models for speech perception: the human ear, frequency analysis and pitch perception, intensity discrimination, time/frequency masking, sound localization and auditory perception, the interaction between visual and auditory information, speech coding and recognition, etc., are features of this course.

TCM520 Network Security and Cryptography

This course focuses on algorithms and protocols for secure network communication. Topics include cryptographic algorithms (DES, Diffie-Hellman, RSA), authentication, key management, secure networking, certification, trust management, and secure electronic.

TCM521 Voice Over Internet protocol

The objective of this course is to provide a technical and practical overview of Voice over IP (VoIP). The course identifies the main elements of the technology and presents them in an accessible format. At the end of the course students will be conversant with VoIP technology and understand the role of VoIP in their customer's company and marketplace.

TCM522 Information Theory and Coding

The topics covered include basic concepts of information theory—entropy, mutual information, channel capacity, information rate, Shannon’s noiseless coding theorem and Shannon’s fundamental coding theorem; modeling of information sources—zero-memory and Markov models; modeling of information channels—BSC and BEC channels, additively of information and cascaded channels; construction of compact source codes—Kraft inequality, compact codes, Huffman and LZW compression codes; and analysis and design of error-control channel codes—Hamming distance, binary linear codes and the parity-check matrix, Hamming codes, checksum codes, cyclic codes and the generator polynomial and CRC codes

TCM523 Wireless Adhoc Networks

Introduction, foundations of wireless communication, wireless channels, modulations, WPANs, WLANs, and MAC Layers, wireless protocols, mobile IP, wireless routing, wireless TCP, source coding, QoS, introduction to wireless sensors networks, data dissemination and network security are covered in this course.

TCM524 Broadband Communication

This course covers various systems that transmit data including, multimedia data at high speed networks and networks, ATM, T1/E1 circuits, multiplexing of T1/E1 standards, optical channels, cable systems, satellite transmission and broadband issues, ISDN, and its variants. High speed multimedia communications systems.

TCM525 Mobile and Pervasive Computing

This course will cover the topics, such as introduction to wireless communication systems, evolution of mobile radio communications, infra-red systems, paging systems, cordless telephone systems, cellular telephone systems and wireless LANs. In addition, it includes analog and digital transmission, channel capacity, transmission and multiplexing, communication networks, antenna and wave propagation, spread spectrum, satellite communication, cellular wireless networks, mobile radio propagation model, wireless systems and standards, cordless systems and wireless local loop and wireless LAN technologies are also covered.

TCM526 Next Generation Networks

This course provides students the opportunity to research and report on near term “Next Generation Networks”. The course consists of discussions on one type of Next Generation Network followed by each student researching two additional Next Generation Network types. A case study approach will be utilized.

TCM527 Satellite Communication

The students in this course will be exposed to historical background of satellite communication, uplink and downlink frequencies, synchronous satellite, international regulations and frequency coordination, frequency allocation and band spectrum, general and technical characteristics of satellite communication signals, advantage and disadvantages of satellite communication, active and passive satellites. In addition to this, the course covers orbits and launching methods, radio wave propagation, atmospheric losses, rain attenuation, the space segment, altitude control, station keeping, thermal control, transponders and antenna, earth segments and the space link, inter connect and technical regulation and compliance approval of CPE and convergence are also features of the course.

TOURIST SERVICES MANAGEMENT

TSM101 Introduction to Cultural Studies

The course includes theoretical approaches to cultural studies – Modernist, Post Modernist, Marxist, culture, society and politics. (Adorned, Giddens, Eagleton, Foucault), cultural forms and structures, literature, music, architecture, a global culture or multiculturalism in Pakistan, historic heritage (special emphasis on Moenjodaro and Gandhara). Islamic culture (special emphasis on Sufism), post independence cultural development (special emphasize on literature in Urdu, Sindhi and English) and the impact of globalized cultural on Pakistan – a case study of the Feminist movement in Pakistan are taught in this course.

TSM102 Tourist Services and Hospitality Management

The course includes social Anthropology: aims and scope of social anthropology, the evaluation and development of human societies, major theories of social development (with special emphasize on Ibn-e-Khaldun, Max and Weber) anthropology of South Asia, symbols, communication and culture, human ecology (including behavioral genetics) race and ethnicity techno science as a cultural artifact and an introduction to present studies in Punjab and the NWFP are features of this course.

CERTIFICATE COURSES

External students are allowed to register for 15-week Certificate Courses of their areas of interest. The following are some of the Certificate Courses being offered during 2008-2009:

Accounting

Accounting Information Systems
Advanced Financial Accounting

Human Resource Management

Strategic Human Resource Management
Salary and Compensation
Leadership Studies

Marketing

Advertising
Personal Selling
Brand Management
Media Planning

Finance and Banking

Analysis of Financial Statements
Corporate Finance
Money and Capital Markets
Treasury and Fund Management

Management Information Systems

Oracle/Developer 2000
Software Engineering
Data Communication and Networking
Programming in C++

Health Services Administration

Strategic Management of Health Services
Pharmaceutical Marketing and Quality Assurance



Dr. Humeira Jawed Abidi

MBA, Health and Hospital Management Program

"I haven't just 'studied' at IoBM, infact, the uniqueness of my program, exceptional mentoring, awe-inspiring activities of my student society, friendly associates and state-of-the-art campus environment has inculcated and polished my personality both professionally and personally. As a doctor, I am now able to think and act more holistically to help manage the changing paradigms of health care and contribute to community welfare. IoBM has made me a Health Manager. I am proud of it!"



A view of Gym at Student Activity Center



Zain Zaidi

BBA (Honors), Vice President, IoBM Marketing Society

"IoBM is more than an academic institute. It is a place where not only you learn business management, but also how to meet challenges every day. It has a wide range of courses to study, societies to join and to participate. Term projects and internships give you an insight into the real world. It also helps build your interpersonal and time management skills. Overall, IoBM is an experience."



ACADEMIC CALENDAR



ACADEMIC CALENDAR

FALL 2010

- > **Registration & Fee Payment:**
(On Board Students) Saturday, July 17, 2010 to Wednesday, September 01, 2010
(New Students) Saturday, July 17, 2010 to Wednesday, July 28, 2010
- > **Last Day of Enrollment & Fee Payment:**
(On Board Students) Friday, September 04, 2010
- > **Last Day to Drop Courses without Penalty:** Wednesday, September 02, 2010
- > **Orientation:** Saturday, September 04, 2010
- > **Commencement of Regular Classes:** Monday, September 06, 2010
- > **Commencement of Executive Classes:** Saturday, September 11, 2010
- > **Eid-ul-Fitr*:** Saturday, September 11 to Monday, September 13, 2010
- > **Last Day to Drop Courses with Penalty:** Sunday, October 24, 2010
- > **Iqbal Day:** Tuesday, November 09, 2010
- > **Eid-ul-Azha*:** Wednesday, November 17 & Thursday, November 18, 2010
- > **Classes End:** Sunday, December 12, 2010
- > **Break:** Monday, December 13 to Sunday, December 19, 2010
- > **Muharram*:** Thursday, December 16 & Friday, December 17, 2010
- > **Quaid-e-Azam's Birthday:** Saturday, December 25, 2010
- > **Final Exam:** Monday, December 20, 2010 to Saturday, January 08, 2011

Exam Schedule for Regular and Executive Students

6 th	1 st	10/11 – 10/14	10/16 – 10/17
11 th	2 nd	11/15 – 11/18	11/20 – 11/21
16 th	Final	12/20/2010	- 01/08/2011

**Subject to the appearance of moon.*

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

SPRING 2011

- > **Registration & Fee Payment:**
(On Board Students) Saturday, November 20, 2010 to Sunday, December 19, 2010
- > **Last Day to Drop Courses without Penalty:** Wednesday, January 05, 2011
- > **Last Day of Enrollment & Fee Payment:**
(On Board Students) Saturday, January 08, 2011
- > **Commencement of Regular Classes:** Monday, January 10, 2011
- > **Commencement of Executive Classes:** Saturday, January 15, 2011
- > **Last Day to Drop Courses with Penalty:** Sunday, February 27, 2011
- > **Eid-e-Milad-un-Nabi*:** Thursday, February 17, 2011
- > **Classes End:** Sunday, April 17, 2011
- > **Break:** Monday, April 18, 2011 to Sunday, April 24, 2011
- > **Final Exam:** Monday, April 25, 2011 to Monday, May 09, 2011
- > **Labour Day:** Sunday, May 01, 2011

Exam Schedule for Regular and Executive Students

6th	1st	2/14 – 2/17	2/19 – 2/20
11th	2nd	3/21 – 3/24	3/27 – 3/28
16th	Final	4/25/2011	- 5/9/2011

**Subject to the appearance of moon.*

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



Dr. Clarence Lusane, Professor of Political Science and IR, School of International Human Rights, US, giving lecture to IoBM students on “The Rise of African Americans in American Politics”

SUMMER 2011

- > **Registration & Fee Payment:**
 - (On Board Students) Saturday, April 09, 2011 to Sunday, May 15, 2011
 - (New Students) Saturday, March 05, 2011 to Sunday, March 20, 2011
- > **Last Day to Drop Courses without Penalty:** Sunday, May 15, 2011
- > **Last Day of Enrollment & Fee Payment:** Tuesday, May 17, 2011
- > **Commencement of Executive Classes:** Saturday, May 21, 2011
- > **Orientation:** Saturday, May 21, 2011
- > **Last Day to Drop Courses with Penalty:** Sunday, July 03, 2011
- > **Classes End:** Sunday, August 21, 2011
- > **Eid-ul-Fitr*:** Thursday, September 01 to Saturday, September 03, 2011
- > **Final Exam:** Saturday, August 27, 2011 & Saturday, September 03, 2011
Sunday, August 21, 2011 & Sunday, September 04, 2011

SUMMER CRASH 2011

- > **Registration & Fee Payment:**
 - (On Board Students) Monday, April 18, 2011 to Thursday, May 26, 2011
 - (New Students) Thursday, May 26, 2011 to Wednesday, June 01, 2011
- > **Last Day to Drop Courses without Penalty:** Thursday, May 26, 2011
- > **Last Day of Enrollment & Fee Payment:** Sunday, May 29, 2011
- > **Commencement of Regular Classes:** Monday, June 13, 2011
- > **Last Day to Drop Courses with Penalty:** Thursday, July 14, 2011
- > **Classes End:** Thursday, August 11, 2011
- > **Independence Day:** Sunday, August 14, 2011
- > **Break:** Friday, August 12, 2011 to Sunday, August 21, 2011
- > **Final Exam:** Monday, August 22, 2011 to Thursday, August 25, 2011

**Subject to the appearance of moon.*

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