

Doctor of Philosophy in Business Administration \ Management Information Systems

Number of required units is (3[\]) study units, elective units (6), in addition to (12) study units for thesis as follows:

Semester (1)

Code	Course Name	Hours
BA 601	Theory Development in Business Administration	3
ECON 606	Advanced Economic Analysis	3
QUA 608	Advanced Business statistics	3
Total		9

Semester (2)

Code	Course Name	Hours
QUA 609	Applied Multivariate Analysis	3
MIS 611	Research Seminar in Management Information Systems	3
MIS 613	Enterprise Information Infrastructure Planning	3
Total		9

Semester (3)

Code	Course Name	Hours
MIS 614	Technology Innovation, Adoption and Diffusion Theories	3
MIS 616	Business Intelligence	3
MIS xxx	Elective Course (1)	3
Total		9

Semester (4)

Code	Course Name	Hours
MIS 630	Directed Readings in Management Information Systems	3
BA 698	Seminar in Advanced Research Design	3
MIS xxx	Elective (2)	3
Total		9

Semester (5)

Code	Course Name	Hours
COM 700	Comprehensive Exam	-
MIS 699	Thesis Proposal Preparation in MIS	1
Total		1

Semester (6) (8) & following levels

Code	Course Name	Hours
MIS 700	Thesis	12
Total		12

Elective Course: student must select (2) courses from the following

Code	Course Name	Cr Hrs	Cr Hrs (Total)
MIS 618	Digital Information Systems Strategy	3	student must select (2) courses
MIS 620	Information Security and Privacy	3	
MIS 622	Social Media and Network Analysis	3	
MIS 624	Managing Technological Change and Innovation	3	
MIS 626	Special Topics in MIS	3	
BA 661	Measurement Theory and Method	3	
QUA 611	Applied Nonparametric Statistics	3	
MIS 618	Digital Information Systems Strategy	3	

• **Description of Courses:**

A. Courses Managed by the Council of Graduate Programs in Business		
Course Code & No.	Name	No. of study Units
BA 601	Theory Development in Business Administration	3 (3+0)
<p>The effective use of epistemology in generating, defending and clarifying logically rigorous arguments is explored. Students from diverse business disciplines will examine the processes which have guided theory development and theory testing. Attention will focus on what criteria are used to assess the adequacy of explanations and useful theories. Topics include philosophy of science, finding and formulating research problems and questions, literature reviews and searches, basic concepts in measurement, sampling, and qualitative and quantitative research methods and designs. During the course, each student is expected to prepare a research proposal/literature review.</p>		
BA 661	Measurement Theory and Method	3 (3+0)
<p>This course is designed to provide theoretical and methodological issues in social science measurement. The basics of measurement including Classical Test Theory, Reliability, Validity, and Item Response Theory are covered. Measurement analysis such as Exploratory and Confirmatory Factor analysis are included as well. Students are to model measurement error using Structural Equation Modeling, with mediation and moderation effects. This course relies on a broad use of statistical packages such as SPSS, AMOS, LISREL, and EQS.</p>		
BA 698	Seminar in Advanced Research Design	3 (3+0)
<p>This course discusses advanced research techniques and designs, and their applications to business problems. The course contributes to developing the students' skills in preparing the dissertation proposal. The course objectives include developing the students' ability to: 1) acquire advanced research techniques in business administration, 2) identify a research area of interest, 3) conduct a literature review, 4) form research questions and operational hypotheses, 5) develop a research design, and 6) delineate a data analysis and interpretation plan.</p>		
B. Courses From Other Departments		
ECON 606	Advanced Economic Analysis	3 (3+0)
<p>This course covers in a wide range of topics related to micro-economic theory like Market Structures, Imperfect Competition, Game Theory, Oligopoly, Strategic Behavior, Welfare and General Equilibrium Theories, Risk and Uncertainty, and Externalities and Market Failures. It also discusses certain topics related to macro-economic theory such as Consumption, Investment and Unemployment, Monetary Policy, Inflation and Price Setting, Growth theories and Business Cycle Theories.</p>		
QUA 608	Advanced Business Statistics	3 (3+0)

This course covers parametric and nonparametric statistics, intermediate and advanced statistics, and the review of descriptive statistics with applications using the statistical package SPSS. The contents will be more oriented toward practical applications, its use and interpretation, rather than mathematical derivation. Course topics include: role and purpose of statistics, descriptive statistics, summary measures for quantitative and qualitative data, data displays, modeling random behavior: elementary probability and some probability distribution models, normal distribution, statistical inference: confidence intervals and tests for means, variances, and proportions, linear regression analysis and inference, control charts for statistical quality control, introduction to experimental designs and ANOVA, simple factorial design and its analysis.

QUA 609

Applied Multivariate Analysis

3 (3+0)

This course is designed to provide students with knowledge of the concepts underlying multivariate techniques with an overview of actual applications in business. Topics covered include: review of matrix theory, univariate normal, t, chi-squared and F distributions, and multivariate normal distributions. Inference about multivariate means, Hotelling's T², multivariate analysis of variance, multivariate regression, and multivariate repeated measures. Inference about covariance structure, principal components, factor analysis, and canonical correlation. Multivariate classification techniques, discriminant and cluster analysis, measures of validity and reliability.

QUA 611

Applied Nonparametric Statistics

3 (3+0)

Theory and applications of various nonparametric statistical methods are covered for one-sample, two-sample, and multi-sample problems. Goodness of fit techniques such as Chi-square and the Kolmogorov-Smirnov test are covered along with graphical analysis based on P-P and Q-Q plots. Computer software such as MINITAB, SAS, SPSS, and STATXACT are used.

C. Management Information Systems Department Courses

MIS 611

Research Seminar in Management Information Systems

3 (3+0)

This course provides doctoral students with a foundation for becoming Management Information Systems researchers and scholars. In covering the management information systems (MIS) research literature, we will overview the field of Information Systems, reading "classic" articles as well as more current research in a variety of Information Systems domains. It explores applicable research theories and frameworks, research concepts, and exemplary MIS research. Students will become familiar with the range of types of research carried out by MIS academics. They will study exemplar research papers to further their understanding of the research process and will set the stage for future research work in this important area.

MIS 613

Enterprise Information Infrastructure Planning

3 (3+0)

This course introduces students with methods and practices involved in the planning and design of information infrastructure commonly found in large and medium enterprises. The course blends concepts and techniques found in project planning, system design and development, technology planning, with the goal of providing students with the ability and understanding of how to plan and design an information infrastructure for a firm.

MIS 614

**Technology Innovation, Adoption
and Diffusion Theories**

3 (3+0)

This course provides an overview of management information systems theories. It examines the adoption and diffusion of technology innovations. Specific topics covered include adoption/assimilation, technology acceptance, s-curves and diffusion modelling, implementation process models, adoption of inter-organizational systems, attitude behavior models, diffusion of innovations, social-cognition, satisfaction and individual differences.

MIS 616

Business Intelligence

3 (3+0)

The course introduces the concepts, practices, systems and technologies of business intelligence. It emphasizes on the study of expert systems and artificial intelligence and the use of knowledge in making managerial decisions. The course will emphasize on how to extract and apply business intelligence to improve business decision making and marketing strategies.

MIS 618

**Digital Information Systems
Strategy**

3 (3+0)

This course is designed to expose the students to the opportunities and challenges associated with strategic management of information technology (IT). We will examine strategic and managerial issues associated with using IT for enhancing business performance. We will learn about the key issues confronting senior IT executives and understand the managerial decisions facing them. The course will largely adopt a managerial approach. Skills of critical reasoning, ability to communicate clearly both orally and in writing and creativity will be emphasized in this class.

MIS 620

Information Security and Privacy

3 (3+0)

Information security and privacy issues have become an intensely argued issue for organizations due to the progressions in information technology. Information security management and privacy breaches necessitate an absolute knowledge of technical as well as philosophical and theoretical perspectives of the predicament. The purpose of the course is to prepare business decision makers who recognize the threats and vulnerabilities present in current business information systems and know how to design and develop security solutions. The students will be engaged in conducting distinctive research regarding efficiently securing information and privacy in organizations.

MIS 622

Social Media and Network Analysis

3 (3+0)

A contemporary research recognizes that social media and network analysis significantly influence an organization's technological innovation performance. The course reveals the students to the theory,

research and methodological issues equated with social media in organizational contexts. In the studies, students will learn about the changing nature of social media and network practices. The students will build a framework and pioneer their ideas in the growing field of digital marketing.

MIS 624

**Managing Technological Change
and Innovation**

3 (3+0)

This course provides the student with a review and case studies of successful change management, innovations in business, their components, and strategies in information technology. The course combines entrepreneurial, strategic, marketing, legal, societal and financial themes in support of change and innovative businesses in the context of IT services and products. The course addresses the design of effective strategies given particular technological capabilities and competitive markets.

MIS 626

Special Topics in MIS

3 (3+0)

This course include recent advanced research topics in MIS such as web mining, big data management and analytics, cloud computing, management information systems and cyber security, and other potential new topics.

MIS 630

**Directed Readings in Management
Information Systems**

3 (3+0)

The development and exchange of scholarly information, usually in a small group setting. The scope of work shall consist of research by the instructor, his/her research interests and other selected topics, with the exchange of the results of such research through discussion, reports, and/or papers.

MIS 699

Thesis Proposal Preparation in MIS

One Study Unit

The proposal course is offered during the student's fourth term of study. It is a co-requisite with BA 698 (Seminar in Advanced Research Design). This course is designed to provide a forum to help students develop their dissertation proposal. The outcome of these two courses is the first draft of the doctoral research proposal.

COMP 700

Comprehensive Exam

(0)

The student sits for a comprehensive exam managed by the department of Management Information Systems, which aims to link the knowledge side in terms of depth and comprehensiveness in understanding topics related to management information systems, as well as linking the intellectual aspects in terms of analysis, innovation, conclusion and proposing appropriate solutions.

MIS 700

Dissertation

(12) Study Unit

The course aims to address a topic in management information systems and is supervised by a faculty member from the department. The subject of the thesis must be of scientific originality, as it contributes effectively to enriching research related to management information systems.

