



# SIR PADAMPAT SINGHANIA UNIVERSITY

Udaipur

## SCHOOL OF MANAGEMENT

### Course Curriculum of Ph.D. Degree Programme in INFORMATION TECHNOLOGY MANAGEMENT (Batch-2017-18)

#### Credit Structure

Category	Credits
Departmental Major Subjects	6
Minor Subject	3
Total	9

Note: The student has to select the courses of minimum 6 credits from the departmental major subjects and a compulsory Research Methodology course (common to all PhD Scholars) of 3 credits.

## Course Structure: Ph.D. Degree (2017-18)

### Departmental Major Subjects

S. No.	Code	Course Title	L	T	P	Credits
1	BM-613	Theories in Information Systems Research	3	0	0	3
2	BM-614	Electronic Commerce Strategy	3	0	0	3
3	BM-615	Business Intelligence & Data Mining	3	0	0	3
4	BM-616	Knowledge Management	3	0	0	3

### Minor Subject

S. No.	Course Code	Course Title	L	T	P	Credit (s)
1	BM-617	Research Methodology	3	0	0	3

**Detailed Syllabus for Ph.D. Degree Programme  
in  
Information Technology Management**

**Semester - I**

**(Departmental Major Subject)**

BM-613	L-T-P-C
Theories in Information Systems Research	3-0-0-3

**Objective:** *The aim of this course is to familiarize the researcher with the prominent theories which are applicable & relevant in Information Systems Research.*

**Course Content**

The course requires a thorough review & presentation of selected theories in the area of Information Technology & Systems. The choice of theories is according to the requirement of the study undertaken. Few suggested theories are:

Innovation diffusion Theory

Theory of Reasoned Action

Technology Acceptance Model

Theory of Planned Behaviour

Socio-Technical Systems Theory of Acceptance

Task-technology Fit theory

Unified theory of acceptance and use of technology

**Text/Reference Books**

1. Diffusion of innovations Rogers, E.M. 5th Ed. New York: Free Press. 2003
2. Perceived usefulness, perceived ease of use, & user acceptance of information technology. Davis F. D. MIS Quarterly, 13(3): 319–340. 1989
3. Understanding user evaluations of information systems. Goodhue D. L. Management Science, 41(12):1827-1844.1995.
4. Task-technology fit & individual performance. Goodhue D. L. & Thompson R. L. MIS Quarterly.19(2):213-236. 1995
5. A theory of task/technology fit & group support systems effectiveness. Zigurs I. & Buckl & B. K. MIS Quarterly. 22(3): 313-334. 1998.
6. Understanding attitudes & predicting social behavior. Ajzen I. & Fishbein M. Englewood Cliffs. Prentice-Hall. 1980

7. Belief, attitude, intention, & behavior: An introduction to theory & research. Fishbein M. & Ajzen I. Addison-Wesley. 1975
8. The theory of reasoned action. In Dillard J.P. & Pfau M. (Eds.) The persuasion handbook: Developments in theory & practice. Hale J.L., Householder B.J. & Greene K.L. pp. 259–286. Thousand Oaks. CA: Sage. 2002.
9. The theory of planned behavior. Ajzen I. Organizational Behavior & Human Decision Processes. 50 (2): 179–211.1991.
10. From intentions to actions: A theory of planned behavior. In J. Kuhl, & J. Beckmann (Eds.), Springer series in social psychology. Ajzen I. pp. 11-39. Berlin: Springer. 1985.
11. User acceptance of information technology: Toward a unified view. Venkatesh, Viswanath, Morris, Michael G.; Davis, Gordon B.; Davis, Fred D., MIS Quarterly, 2003, 27, 3, 425-478

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in  
Information Technology Management**

**Semester - I**

**(Departmental Major Subject)**

BM-614	L-T-P-C
Electronic Commerce Strategy	3-0-0-3

**Objective:** *The aim of this course is to provide a strong research foundation in e-commerce domain. It presents a comprehensive coverage of essential business issues which helps in understanding how e-commerce is revolutionizing businesses.*

**Course Content**

Electronic commerce: Principles, models, Disintermediation, Electronic commerce technology, Internet technology, Infrastructure, Electronic publishing, Electronic commerce Security, Electronic money, Secure electronic transactions

Web strategy: Attracting & retaining visitors, Web Assurance, Factors influencing online customer's intentions & behavior

Promotion: Integrated Web communications, Promotion & purchase, Measuring effectiveness, Web marketing communication.

e-retailing: e-Retailing Practices, e-Retailing Application Perspective, Customer loyalty in the age of E-retailing; role of E-CRM ; Third party assurance in retailing

Distribution: Distribution strategy, The Internet distribution matrix, effects of technology on distribution channels, Service: Cyber service, What makes services different?

Challenges: Technological Challenges, Behavioral & Educational Challenges

**Texts/Reference Books**

1. E-Business: Roadmap for Success. Kalakota. R. & Robinson M. Addison Wesley.1999
2. E-Commerce: Strategy Technologies & applications. Whiteley D. TMH.2001.
3. Frontiers of Electronic Commerce. Kalakota R. Pearson. 2008.
4. E-Business & E-Commerce Management : Strategy, Implementation & Practice. Chaffey D. 5<sup>th</sup> edition. Pearson Education.2013.
5. ERP – A Managerial Perspective. Sadagopan S. Tata McGraw-Hill.1999.

6. Taking Care of e-Business. Siebel T.M. Doubleday Business. 2001.

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in  
Information Technology Management**

**Semester - I**

**(Departmental Major Subject)**

BM-615  
Business Intelligence & Data Mining

L-T-P-C  
3-0-0-3

**Objective:** *The course aims at introducing popular data mining methods for extracting intelligence from business data. The course provides an insight in conceptual understanding of data mining from a strategic business perspective.*

**Course Content**

Database Concepts: building data models, database keys and relationships, normalization and integrity rules, ER Model, Query handling, data reporting and presentation,

Data Mining: data warehousing and its architecture, data marts, OLAP concepts, Data mining, concepts and the Virtuous Cycle of Data Mining, Decision Trees and tables, data segmentation & classification, Cluster Detection, Data Mining Best Practices , Business Intelligence: need, Business Intelligence spectrum, Building ad-hoc queries, User Interface design issue and dashboards, data migration issues.

Business Intelligence applications in commerce, Marketing/advertising, promotion & pricing policies, Market Basket Analysis, Market Research Analysis, Personnel Planning, Mining on an Enterprise level, E-commerce & data mining, Business intelligence case studies, research areas in data mining.

**Texts/Reference Books**

1. Business Intelligence: A Managerial Approach. Turban E., Sharda R., Aronson J.E. & King D. Pearson Prentice Hall.2013.
2. Data Mining Techniques. Berry M. & Linoff G. 3rd Edition. Wiley India. 2011.

3. Data Mining for Business Intelligence: Concepts, Techniques, & Applications in Microsoft Office Excel with XLMiner. Galit Shmueli G., Patel N.R. & Bruce P. C. Wiley. 2010.
4. Data Mining – Concepts & Techniques. Han J. & Kamber M. 3rd Edition. Morgan Kaufmann. 2011.
5. Successful Business Intelligence: Secrets to Making BI a Killer Application. Howson C.TMH. 2007.



**Detailed Syllabus for Ph.D. Degree Programme  
in  
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**Semester - I**

**(Departmental Major Subject)**

BM-616  
Knowledge Management

L-T-P-C  
3-0-0-3

**Objective:** *This course provides a comprehensive insight into the main aspects of knowledge management & equips participants with skills to build KM interface. It provides managerial perspective on knowledge transfer.*

**Course content**

Understanding Knowledge: Cognitive Psychology, Data, Information & Knowledge, Thinking & Learning in Humans, Knowledge Management Systems Life Cycle, Knowledge in Organizations, social networks, Managing Knowledge in Organizations, Integrative Framework: technology, person and organization, Organizational Learning & “The Learning Organization”, Knowledge Management System (KMS).

Knowledge Architecture: Knowledge Creation, Knowledge Architecture, Acquiring the KM System, Capturing the Tacit Knowledge, Knowledge Codification, Codification Tools/Procedures, content and Meta analysis, Knowledge acquisition and transfer issues

Transferring & Sharing Knowledge: Identifying Key Issues, How Managers view Knowledge Transfer, Managing Knowledge Workers, Knowledge management research topics, research trends.

**Texts / Reference Books**

1. Working Knowledge: How Organizations Manage What They Know. Davenport TH & Prusak L. Harvard Business Press. 2013
2. Knowledge Management Challenges, Solutions, & Technologies. Becerra FI, Gonzalez A, & Sabherwal R. Prentice Hall. 2014
3. Knowledge Management. Awad EM& Ghaziri HM. Prentice Hall.2007

4. Knowledge Management – Through the technology glass. H&zic M. World Scientific Publishing. 2004

**Detailed Syllabus for Ph.D. Degree Programme  
in  
All Disciplines  
Semester - I  
(Minor Subject)**

BM-617  
Research Methodology

L-T-P-C  
3-0-0-3

**Objective:** *This course aims at helping students appreciate the importance of carrying out research in a planned and systematic manner. It discusses different research designs before providing students with an understanding of sampling for research purposes. It also provides students statistical tools to analyse and compare research data and test hypotheses for arriving at statistical valid results. Finally the course discusses ethical issues relating to sampling & research before providing inputs on development of synopsis that forms the basis of formal research.*

**Course Content**

Research & its Methodology: Definitions, Nature, Scope & Types of research, Stating the research problem and developing an approach, Importance of statement of research objectives.

Research Design and Research Instruments: Comparison on important research designs (Exploratory, Descriptive and Experimental); Methods of Data Collection - Observational and Survey Methods, Questionnaire Design.

Sampling Methods and Sampling Distributions: Statistics and Parameter, Sampling distributions - conceptual basis; standard error; sampling from normal populations; relationship between sample size and standard error; Finite Population Multiplier.

Measurement and Scaling: Discussion on primary scales of measurement, discussion on comparative scaling technique (paired comparison scaling, rank order scaling, constant sum scaling) and non-comparative scaling techniques (continuous rating scale, itemized rating scale, Likert scale, Semantic differential scale, staple scale);

Challenges of ensuring accuracy (reliability and validity of research).

Hypothesis Testing: Basic Concepts – Null and Alternative Hypotheses; Type I and Type II errors; the significance level. Chi-square and Analysis of Variance: Chi-square as a test of (a) independence and (b) goodness of fit; ANOVA, Non parametric tests & its applications.

Multivariate analysis using SPSS: Factor Analysis, Multiple Regression Analysis, Multiple Discriminant Analysis and Logistic Regression, Multivariate Analysis of Variance.

Presenting Research findings: Tabulation of Data, Synopsis & Report Writing, Ethical aspects of research.

Use of Analytical Tools for Research: Analysis of data through spreadsheets, Use of SPSS, Use of open source tools like R for research.

### **List of Exercises (Excel/SPSS/R)**

1. Estimating regression & correlation coefficients;
2. Estimating probability based on Binomial, Poisson & Normal distribution;
3. Estimating standard error using central limit theorem (small & large population);
4. Hypotheses testing for all three kinds of hypotheses;
5. Use of Chi-Squared value to estimate population variance & hypotheses testing;
6. Use of F-distribution for comparing multiple samples;
7. Non parametric testing as a tool for hypotheses tests;
8. Use of other open source software packages for research purposes.

### **Text/Reference Books**

1. Statistics for Management. Levin R.I. and Rubin D.S. 7<sup>th</sup> Ed. Dorling Kindersley Pvt Ltd. 2008.
2. Quantitative Techniques. Kothari C.R. Vikas Publishing House. 2009
3. Multivariate Data Analysis. Hair J.F.Jr., Black W.C. and Babin B.J. 7<sup>th</sup> Ed. Prentice Hall. 2009.
4. Statistical Methods. Gupta S.P. 30<sup>th</sup> Ed. Sultan Chand. 2012.
5. Statistical Methods. Das N.G. McGraw Hill Education (India) Pvt. Limited. 2008.