Annexure 2

International School of Information Management
University of Mysore

One-Year Post Graduate Diploma in Information Management

Course Objective

The objective of the One-Year Post-Graduate Diploma in Information Management is to impart quality training and education in the field of information management for preparing entry-level professionals with capabilities to assist and manage information systems in organizations. The programme imparts knowledge and understanding of principles and concepts in the disciplinary areas that underpin the field of information management.

Syllabus Outline

Semester 1	
1.	Office Productivity Tools
2.	Programming and Data Structures
3.	Fundamentals of Business Management
4.	Business Communication
5.	Network Management – Practical
Semester 2	
6.	Management Information Systems (MIS)
7.	Data Management
8.	Web Technologies
9.	Business Statistics
10.	Project

Detailed Syllabus

Semester 1

1. Office Productivity Tools

Course Objective

The objective of this course is to impart skills and competencies to use office productivity tools such as MS Word, MS Excel, MS Access, MS PowerPoint, MS Publisher, MS Outlook. The course covers the entire range of topics beginning with an understanding of these applications to the complete mastery of the application.

Course Contents

- MS Word 2007: Creating specific documents, Converting documents, Viewing and navigating, Margins and page set up, Headers and footers, Formatting, Tracking changes and comments, Tables, Working with graphics and charts, Mail merge, File management, Saving and printing,
- MS Excel 2007: Workbook Management, Worksheet and excel table basics, Forms, Formula and name basics, Function reference, Filtering, sorting and conditionally formatting data, Summarizing and outlining data, validating data, charts, security and privacy, macros, working with graphics
- MS PowePoint 2007: File Management, Creating a presentation, Format slides or presentations, Working with graphics and charts, Using templates and masters, Creating support materials, Animation effects, Adding sounds or movies, Import content from other applications, work with photo album, Macros
- MS Outlook 2007: Business contact Manager for Outlook, Attachments, Calendar, contacts, Data files and .psts, Email messages, accounts and profiles, Junk e-mail, Personalizing outlook, Rules and alerts, signatures
- MS Publisher 2007: Page layouts, General graphics and objects, pictures, moving and grouping graphics and objects, working with text, borders, tables, file management, designing, creating and publishing website
- MS Access 2007: Data collection, Data pages, Database design, external data, Forms and reports, queries, filtering and sorting, Tables, Adding charts, diagrams or tables, File and data management, Access projects
- Open Office
- Google Docs
- Overview & usage of PDF

Text Book

1. Shelly et al (2007): Microsoft Office 2007: Introductory Concepts and Techniques, Windows XP Edition, Shelly Cashhman Series.
2. Microsoft Official Academic Course: Microsoft Office Word 2003 Core Skills
3. Microsoft Official Academic Course: Microsoft Office Excel 2003 Core Skills
4. Microsoft Official Academic Course: Microsoft Office PowerPoint 2003 Core Skills

5. Microsoft Official Academic Course: Microsoft Office Outlook 2003 Core Skills
6. Microsoft Official Academic Course: Microsoft Office Access 2003 Core Skills
7. Document Management – Portable Document Format – Part 1: PDF 1.7, First Edition (July, 2008) http://www.adobe.com/devnet/acrobat/pdfs/PDF32000_2008.pdf

2. Programming and Data Structures

Course Objective

The objective of this course is to introduce students to the concepts of programming and data structures. The course provides a solid background by introducing the fundamentals of programming and data structures and tries to familiarize students with more advanced topics.

Course Contents

- Fundamentals of Programming
- Algorithm / pseudo code, flowchart, program development steps, structure of C program, A Simple C program, identifiers, basic data types and sizes, Constants, variables, arithmetic, relational and logical operators, increment and decrement operators, conditional operator, bit-wise operators, assignment operators, expressions, type conversions, conditional expressions, precedence and order of evaluation.
- Input-output statements, statements and blocks, if and switch statements, loops- while, do-while and for statements, break, continue, goto and labels, programming examples.
- Arrays- concepts, declaration, definition, accessing elements, storing elements, arrays and functions, two-dimensional and multi-dimensional arrays, applications of arrays. pointers-concepts, initialization of pointer variables, pointers and function arguments,
- Introduction to data structures, singly linked lists, doubly linked lists, circular list, representing stacks and queues in C using arrays and linked lists, infix to post fix conversion, postfix expression evaluation
- Trees- Binary tress, terminology, representation, traversals, graphs- terminology, representation, graph traversals (dfs & bfs)

TEXT BOOKS :

1. Computer science, A structured programming approach using C, B.A. Forouzan and R.F. Gilberg, Third edition, Thomson.
2. DataStructures Using C - A.S.Tanenbaum, Y. Langsam, and M.J. Augenstein, PHI/Pearson education.

REFERENCES :

1. C& Data structures - P. Padmanabham, B.S. Publications.
2. The C Programming Language, B.W. Kernighan, Dennis M.Ritchie, PHI/Pearson Education

3. C Programming with problem solving, J.A. Jones & K. Harrow, Dreamtech Press
4. Programming in C - Stephen G. Kochan, III Edition, Pearson Education.
5. Data Structures and Program Design in C, R.Kruse, C.L. Tondo, BP Leung, Shashi M, Second Edition, Pearson Education.

3. Fundamentals of Business Management

Course Objective

This course intends to equip the students with the fundamental concepts and methodologies of present-day Business Management.

Course Contents

- Overview; Nature & Challenges of the Mgt. Profession; Managers and Entrepreneurs.
- The Evolution of Mgt. Thought; The Changing Managerial Environment; International & Cross-Cultural Mgt.; Management's Social & Ethical Responsibility
- The Basics of Planning; Strategic, Long-Term Planning.
- Decision-Making & Creative Problem- Solving;
- Organization Structure, Effectiveness, & Culture; Newer Approaches to Organizing.
- Human Resources Management
- Communicating in the Computer Age.;
- Motivating Job Performance; Group Dynamics & Teamwork

Textbook

1. Robert Kreitner, Management. Boston, Houghton-Mifflin Co., 1998

4. Business communication

Course Objective

This course is designed to build up student's capability and capacity to deal effectively with business and organizational communication. Raising the awareness and importance of business communication, this course explores the different concepts and techniques of business communication and provides an advanced understanding of business communication.

Course Contents

- Overview of communication in business: Communication and organizational effectiveness; Perception and conception; Formal and informal communication systems; Communication networks and communication technology
- Intercultural communication: Taken-for-granted assumptions; Cultural foundations (values, religion, patterns for decision-making); Profiles of diverse cultures; Communicative implications for managers

- Effective business writing: Style, word-usage, organization, mechanics, and form (including electronic mail with attached documents) for specific objectives; Primary and secondary research for business report-writing including; electronic databases; Revising and proofreading; Writing for maximum effect; using language checkers
- Employment-Process Communication: Cover letter, resumé, follow-up; On-line resumé submittal forms; Interviewing skills (interviewer and interviewee); Listening skills
- Public presentation: Audience analysis; Research; Organization of presentation; Delivery of presentation; Nonverbal communication (including business etiquette and protocol)
- Legal and ethical considerations for business communicators: Equal employment opportunity; Invasion of privacy; Misrepresentation and fraud; Ethical perspectives and their implications for responsible communication

Textbooks

1. Lesikar, R.V. and M.E. Flatley (2008). *Basic Business Communication*, 11th edition. New York. McGraw-Hill.

5. Network Management – Practical

Course Objective

The objective of this course is to provide a comprehensive overview and understanding of network management and practically teaches the technical know-how of networking concepts. The fundamental concepts and principles in computer networks and protocol design are studied.

Course Contents

- Installing network hardware
- Installing and managing WFWG network
- Installing and managing Windows NT network
- Installing and managing Novell network
- Comparing NT and Novell networks
- Installing and managing UNIX network
- Diagnosing problems with a computer network
- LAN terminology and concepts; LAN maintenance
- Evaluating Computer Networks

Text Books

- *Introduction to NETWORKING 3rd Edition* by Barry Nance; QUE 1994.

Semester 2

6. Management Information Systems (MIS)

Course Objective

The objective of this course is to understand the role of Information Systems in organizations. The course is designed to enable the student to participate as a user in analysis, design and control of a system and understand the impact of technological change in accessing and disseminating information. The course equips the student to use information systems as a resource in decision making.

Course Contents

- Foundation of IS in Business
- Competing with Info Technology
- Computer Hardware, Software
- Data Resource Management
- Telecommunication and Networks
- Electronic Business Systems
- Electronic Commerce Systems
- Decision Support Systems
- Developing e-Business Solutions
- Security and Ethics
- Enterprise and Global Management

Textbook

1. James O'Brien: Introduction to Information Systems; 11th Edition. McGraw-Hill Irwin; 2003

7. Data Management

Course Objective

The course provides insights into fundamental concepts of database systems theory and design, along with representative implementation examples. All major data models are dealt extensively with emphasis on practical knowledge.

Course Contents

Database context: Data and information, File processing versus database approach, Database development life cycle.

Database analysis and design:

The entity-relationship (E-R) model

- entities, attributes and relationships
- Subtypes and supertypes
- Business rules: cardinality, structural and operational constraints

The relational model

- relational properties - tuples; domains.
- candidate, primary, composite and foreign keys.
- Integrity constraints: domain, entity and referential integrity constraints.
- Transforming E-R diagrams into relations.
- Well-structured relations: insertion, deletion and modification anomalies.
- Normalisation: first, second and third normal forms.

Mapping logical database designs to physical storage mechanisms.

- sequential, indexed and hashed file organisations.
- Indexing: primary and secondary key

Database processing:

The Structured Query Language (SQL)

- Database definition: CREATE TABLE, ALTER TABLE, CREATE VIEW.
- Database manipulation: SELECT, INSERT, UPDATE and DELETE statements.
- SQL expressions and functions, comparison and boolean operators, ORDER BY, GROUP BY and HAVING clauses, table joins, sub-queries.

Data administration:

- Roles of Data and Database Administrators.
- Data dictionaries and repositories.
- Data quality.
- Database security: types of failures, backup and recovery.
- Authentication and authorisation, encryption.
- Concurrent access.
- Optimistic and pessimistic concurrency control.

Distributed databases:

- Client-server architecture, replication and partitioning.
- Location, replication and failure transparency.
- Internet and Intranet databases.

Textbook

- Hoffer, J.A., Prescott, M.B. & McFadden, F.R., *Modern Database Management Information Systems*, 6th edition., Prentice-Hall, Upper Saddle River, New Jersey, 2002.

- Kroenke, D.M., 2000 *Database Processing: Fundamentals, Design and Implementation* 7th edition, Prentice-Hall, Upper Saddle River, New Jersey.
- Rob, P. & Coronel, C., 2000 *Database Systems: Design, Implementation and Management* 4th edition, Course Technology, Cambridge, Mass.
- Watson, R.T., 1999 *Data Management: Databases and Organisations* 2nd edition, Wiley, New York.

8. Web Technologies

Course Objective

The WWW and the related technologies offer global access to information resources in uniform way via user-friendly applications and services. The course is designed to provide knowledge and understanding of different aspects of Web Technologies with emphasis on practical learning and implementation of web technologies.

Course Contents

- Structure of basic website
- Website Management: Website planning, Issues in purchasing web-space, technical requirements, Hosting – how to use FTP
- HTML: Basic formatting and meta tags, links and anchors, lists, adding images and sound to web pages,
- XHTML: Difference between XHTML and HTML, basic XHTML, text manipulation, lists, images, linking, tables, frames, forms
- Cascading Style Sheets: CSS basics – span tag, style attribute, CSS-P: Positioning with Style Sheets, CSS Box Properties
- JavaScript: JavaScripts basics, Recycling JavaScripts, Event Handlers, Introduction to Scripting, Methods, Functions, Operators, Object Arrays, Condition Statements, Creating JavaScript Menus
- Web Analytics. Search Engine Optimization

Text Book

1. *Internet and World Wide Web: How to Program - 4th Edition* by P. J. Deitel and H. M. Deitel
2. **HTML The Definitive Guide** 3rd Edition, by Musciano & Kennedy.
   Published O'Reilly & Associates. ISBN 1-56592-492-4
3. **Cascading Style Sheets The Definitive Guide**, by Meyer
   Published O'Reilly & Associates

9. Business Statistics

Course Objective

The objective of this course is to provide students the understanding and knowledge of the basic concepts of statistics. The course aim at teaching the use of computer software for

data analysis and improve the ability to use statistics in the real world. The course also focuses on improving the ability to communicate the results of statistical analyses.

Course Contents

- Data and Statistics
- Descriptive Statistics: Tabular and Graphical Methods; Numerical Methods
- Introduction to Probability
- Discrete Probability Distributions
- Continuous Probability Distributions
- Sampling and Sampling Distributions
- Interval Estimation
- Hypothesis Testing
- Comparisons Involving Means
- Comparisons Involving Proportions
- Simple Linear Regression Analysis
- Multiple Regression Analysis

Text Book

1. *Statistics for Business and Economics 10e revised,* by David R. Anderson, Dennis J. Sweeney, and Thomas A. Williams, Thomson South-Western College Publishing

10. Project