VEER NARMAD SOUTH GUJARAT UNIVERSITY

MASTER OF BUSINESS ADMINISTRATION

(Evening)

(With Effect From July 2002)

Semester – V

Optional Courses

2. Information Technology Group

OIT 501 System Analysis & Simulation

OIT 502 Information System Design & Implementation

OIT 503 RDBMS & SQL Concepts

OIT 504 Business Data Networks

OIT 505 Security & Control of Information System

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INFORMATION TECHNOLOGY GROUP

OIT 501

System Analysis & Simulation

Course Contents*:*

1. 'C' Programming Language
2. Role of Modeling in System Analysis
3. Simulation of Stochastic Systems
4. Generation of Pseudo-Random Numbers and Stochastic Varieties using the computer
5. Simulation of Queuing Systems, using Special purpose Languages for Simulating Queuing Systems
6. Simulation of Inventory Systems
7. Simulation Software
8. Simulation of Manufacturing & Material Handling Systems
9. GPSS and/or SLAM
10. System Dynamics
11. Simulations of Systems with feedback, using DYNAMO in System as dynamics
12. Validation & Calibration of Simulation Model
13. Cases on Simulation in Production, Finance, Marketing and Corporate Planning, Project work.

Suggested Readings:

1. Kanetkar Y. : Let us C, BPB,
2. Kanetkar Y. : Understanding Pointers in C, BPB,
3. Gottefridth : Programming in C, Tata MacGrow Hill,
4. Cochan Stephan : Programming in C, PHI
5. Holzner S.,: C Programming, PHI
6. Kelly – Bootle, : Mastering Turbo C, BPB
7. Lewin Morton H., : Elements of C,
8. Hutchison Robert & Just Steven B. : Programming Using the C Language, McGrow Hill
9. Sahni Horowitz : Fundamental of Computer Algorithms, Galgotia
10. D. Ravichandran : Programming in C, Newage International
11. Law & Kelton : Simulation Modelling & Analysis, McGraw Hill
12. N. Deo : Simulation with Digital Computers, PHI
13. Banks J. : Discrete Event System Simulation, PHI
14. Gordon G. : System Simulation, PHI

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OIT 502

Information System Design & Implementation

Course Contents:

1. Information System Analysis and Design (Elements of Computer Systems Analysis and Design –Systems Life Cycle, Data Flow diagram, Data Dictionary, Tools for representing process logic).
2. Case studies for Design of Information System and its implementation.
3. CASE Tools
4. Software Design Alternatives
5. Basic Concepts and terminology related to files, Sequential, Indexed sequential, Random Files, their design and maintenance, Special File structures
6. Cases related to Design and Implementation DBTG Network Data Models
7. Issues related to Data Base Processing (Crash recovery)
8. Logical Database Design
9. Database Languages
10. Normalization Theory
11. Function Point Analysis
12. COCOMO Model
13. Currency Control
14. Security and Integrity

Suggested Readings :

1. Senn James A. : Analysis & Design of Information System,
2. Husain and Husain : Information Systems : Analysis, Design & Implementation,
3. Kanter Jarom : Management Information System
4. Brien James O. : Management Information System
5. Jawadekar : Management Information System
6. Sudarshan, Korth & Abraham : Database System Concepts,
7. Date C. J. : Database Systems
8. Urman : Oracle – 8 : PL/SQL Programming
9. Yeates Don : System Analysis & Design,
10. Awad : System Analysis & Design
11. Gruber M. : Understanding SQL,
12. Deshpande P. S. : Oracle
13. Jain G. C. : Oracle

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OIT 503

RDBMS & SQL Concepts

Objective:

The students are to be provided basic understanding of the RDBMS & SQL and the skills to make use of these in business organization.

Contents:

RDBMS: Introduction – Database and DBMS Software, Three Layered Architecture, Advantages and Disadvantages of a Database, History, Data Modeling- Object Oriented and Record Based models, E-R Model and E- R diagram Examples and Exercises, Hierarchical Model, Network Model and Relational Model, Normalization techniques- First Normal Form, Second Normal Form and Third normal Form, Examples and Exercises, E. F. Codd's 12 Rules for a relational Database, Database concepts – Transaction Management, Properties of a Transaction, Commit and Rollback, Concurrency, Locking, Access Control, Data Integrity, Integrity Constraints, Auditing, Backup and Recovery, Data Dictionary- System Catalogue, Distributed Database and Distributed Data Access, Introduction to Client-Server and ODBC connectivity. SQL : SQL language-DML commands-Select, Insert, Update, Delete – retrieving data, summarizing data, adding data to the database, updating data to the database and selecting data. Simple queries – use of Where, Arithmetic, Comparison and logical operators, Order By, Group By and Group Functions, Multi table queries, Sub-queries, views; DDL commands – Table and View, Create, Alter, Drop Integrity Constraints, Transaction Processing – Commit, Rollback, Save point

LAB : SQL & MS Access

Suggested Readings:

1. Coleman, Pat and Peter Dyson, Internets, BPB Pub., Delhi, 1997
2. Keen, Peter and Mark MacDonald, The e-Process Edge, Delhi, Tata MacGraw Hill, 2000
3. Oberoi, Sundeep, e-Security and You, Delhi, Tata MacGraw Hill, 2001
4. Ricart, Alberto Manuel and Stephen Asbury, Active Server Pages 3, IDG Books, Delhi, 2000
5. Rich, Jason R. Starting an E-Commerce Business, IDG Books, 2000
6. Samantha Shurety, 'E-business with Net Commerce', Addison Wesley, Singapore, 2001
7. Schneider, Robert D. & J. R. Garbus Optimizing SQL Server 7, N. J. Prentice – Hall, 1999

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OIT 504

Business Data Networks

Objective:

The course has been developed to introduce the concepts of electronic marketplace and electronic commerce among the potential information technology leaders.

Course Contents:

Computers and Communications: The Information Technology; The concepts of Global Village, Computer Network: (Architecture, software, standards), Expansion of Networks, Management of Networks, Communications Networks, Communications Channels, Communication Control Devices, Managerial Issues related to telecommunications. Digital Networks, Value added Networks, Wireless Networks, Intranet, Extranet, Internet, Online Information Service, Interactive video, Electronic Data Interchange and its Applications, Enterprise Resource Planning systems, Inter Organizational Information Systems, Data Warehousing, Data Mining, Managing in the Market space, E –commerce and Internet, Application of Internet.

Suggested Readings:

1. Derfler, Frank J. Guide to Linking LANs. Emeryville, California, Ziff –Davis Press, 1992
2. Derfler, Frank J. Guide to Connectivity.2nd Edition, Emeryville, California, Ziff –Davis Press, 1992
3. Estabrooks, Maurice. Electroinc Technology. Corporate Strategy and World Transformation, Wastport, Quoram Books, 1995
4. Fitzgerand, Jerry. Businesss Data Communications; Basic Concepts, Security and Design, 4th edition, New York, John Wiley, 1993
5. Keen, Peter and Cummins, Michael. Networks in Action: Bsuiness Choices and Telecommunications Decesions, Belmont, CA, Wads Worth, 1994
6. LaQuey, Tracy. The Internet Companion: A Beginner's Guide to Global Networking. California, Addison Wesley, 1994
7. Salemi, Joe. Client/Server Data Bases. Emeryville, California, Ziff-Davis Press, 1993.

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OIT 505

Security And Control Information System

Objective :

The objective of the course is to familiarize the participants with Security and control Information system use in the business world.

Course Contents:

Introduction to Security, Need for security and control, Risks to Information system data and resources, Definitions of Information security, Computer crimes and virus, Internal control, Types of security, Physical Security, Fire, and theft protection Environmental hazards, Logical Security, Threats to security, Access control-Identification, Authentication, Authorization, Password control and management, Access control software, Data Security, Threats to security, Access controls, Back-up and recovery strategies, Data input/output control, Data encryption, Tele-communication Security, physical security, Logical Access Security, Network management control, Authentication protocols, Internet / Intranet / Extranet security, Computer Configuration and Operation Security, Hardware/Software security, Start up/Shut down procedures, Journals, Back-up/recovery strategies, Personal Security, Threat Security, Protection from people, Protection of employees, Security Planning, Risk and Security policy, Security Management , Business continuity planning, Security audit.

Suggested Readings :

1. Ron Weber; EDP Auditing
2. Stephen Cobb; PC and LAN Security
3. Michel E. Kabey; Enterprise Security – Protecting Information Assets
4. Miora; Enterprise Disaster Recovery Planning
5. Computer Security for Dummies
6. Derek Atkins ; Internet Security