Course Code: MISS 3101

Subject Matter

Strategic Planning for the use of I.T.

- The strategic planning process, mission, goals and objectives.
- The formulation of IS/IT strategy and its role within overall corporate strategy.
- The use of IS/IT to gain strategic advantage using Porter's and other appropriate models.

Hardware, Software, Data Communications

- Understanding the purpose and mode of operation of
    - Central Processing Unit
    - Peripheral Devices, input, file storage, output
    - Software – systems and application software
- Data Communications, local area networks and wide area networks

- The technology used in Internet, Intranet, Extranet, EDI and understand the business role of this technology.

Project Planning and Control

- Membership, roles and purpose of Project Board
- Contents of Project Initiation Document.
- The Project Manager's role and responsibilities
- Different project team structures and describe team member's roles
- The process of team building – forming, storming, norming, performing
- Draw up and interpret
    - Work Breakdown Structure (WBS)
    - Network diagram, and find critical path
    - Gantt Charts
- Learn how to create these on Microsoft Project
- Project control, methods of measuring progress, reasons for delays, quality assurance, change control mechanism
- Feasibility Study
    - Purpose of feasibility study

- Different kinds of feasibility
    - Technical,
    - Economic
    - Ecological
    - Organisational feasibility
- Typical costs and benefits, both tangible and intangible
- Methods of evaluating costs and benefits such as NPV, IRR, time to Payback
- Contents of a Feasibility Study report

Systems Analysis and Design Lifecycles

- Necessity of a lifecycle model
- Alternative models such as
    - Traditional linear approach
    - Spiral methodology
    - Prototyping
    - SSADM
- Combining life cycles
- Investigating Requirements
- Difficulty in defining requirements
- Functional and non-Functional Requirements
- Advantages, disadvantages and appropriateness of
    - Interviews, prepare, conduct, review.
    - Questionnaires, design, difficulties

    - Document Analysis
    - Activity Sampling
    - Observation
- Nature and purpose of prototyping and its use in clarifying requirements
- How the investigation would differ in an organisation currently using I.T.

<u>Documenting and modelling user requirements – dynamic and static</u>

- Explain why it is necessary
- Draw up and interpret
    - Data Flow Diagrams
    - Entity Relationship diagrams
    - Entity Life History
- Show how it is possible to use these diagrams to describe user requirements
- How the models fit in to the lifecycle
- Design of User Interface
- Understand and explain the significance of the principles of screen design
- Be capable of describing the design of documents for input and output
- Use of prototyping in design of user interface

Implementation

- Describe the contents and purpose of an Invitation to tender.
- List and explain different methods of valuation of proposals from suppliers.
- Evaluate and describe the options of
    - Purchase
    - Lease
    - Rent
- Evaluation of packages
- Sources of software, advantages/disadvantages of different sources such as package, bespoke or in-house development
- Define the scope of and nature of testing
    - Module
    - System
    - Acceptance
- Explain the need for Education and Training
- Different methods that could be employed for Education and Training
- Draw up a plan and schedule for file conversion and creation, describe problems that might occur in the process.
- Methods of Changeover – Parallet, Direct, Pilot, Phased

Software for Systems Analysis and Design

- Define CASE tool
- Introduction to SELECT SSADM Case tool
- Describe how a CASE tool could be used in a project
- Define 4GL
- List the features of a 4GL

Legal Issues

- Provisions of Data Protection Act and its implications for system design
- Computer Misuse Act
- Licensing software and copyright issues

Post-Implementation Review

- Explain how to measure performance and how to collect data on performance
- The purpose and agenda for close of project review meetings
- The purpose, contents and participants in post-implementation review
- Reports on reviews

Maintenance

- Different types of maintenance
  - Perfective
  - Adaptive
  - Corrective

- Explain how the maintenance work should be undertaken and controlled
- Discuss the role of user groups in this context

The I.S/I.T. Function

- The traditional structure, roles and functions, advantages and disadvantages
- Evaluate the centralised Vs. decentralised structure
- End User Computing, its problems, its benefits, the role of an Information Centre
- Outsourcing the function and explain why a firm might consider this option, describe the issues, legal, financial etc.

Charging for the I.S/I.T. Function

- Costs of the I.S./I.T. function

- Methods of charging for the function
- Discussion of issues relating to setting it up as a cost or profit centre

Quality Control

- The linkage between project and the development life cycle
- Describe how quality assurance is conducted during the life cycle, e.g. walkthroughs.
- The basic project management triangle – time, cost, quality
- The role of the accountant

Reading List

- Laudon, K.C. and Laudon J.P., *Essentials of Management Information Systems*, Prentice Hall 1997
- *Use of web site - Essentials of Management Information Systems*, Laudon and Laudon
- SSADM, A PRACTICAL APPROACH, Mike Goodland with Caroline Slater, McGraw-Hill, 0-07-709073-X
- Lucey, T., *Management Information Systems*, 8th edition, DP Publications, London, 1997

- Robson, W., *Strategic Management and Information Systems*, 2nd edition, Pitman Publishing, London 1997