

THE INSTITUTE OF COMMERCIAL MANAGEMENT

SUBJECT SYLLABUS



Managing Computer Systems

Unit code: MCS-0908

Level: Advanced Diploma

Credits: 20

Unit leader: PY

Pre-requisites:

Main Aims of the Unit:

This unit introduces organisational structures and some general management principles but concentrates on management in an IT/computing context. The unit considers roles of people in real business situations and how they are managed for effective processing. The unit also considers the management role in setting up appropriate security systems and monitoring them to ensure their effectiveness.

Main Topics of Study:

A. Organisational Structures

1. Hierarchical structures in business.
2. Matrix structures in business.
3. Management by objectives.
4. Centralisation of a business. Affects of decentralisation.

B. General Management Principles

1. Management control of a business.
2. Planning and scheduling.
3. Time management.
4. Reporting methods. Reporting to management.
5. Communication channels in business.
6. Motivation.

C. Information

1. Distinction between data and information.
2. Information at different levels – operational, tactical, strategic.
3. Presenting information – different methods.
4. What makes “good” information?
5. Form and report design.

D. Business processes

1. Forecasting.
2. Budgeting.
3. Decision systems. Executive information systems. Decision support systems. Expert systems.
4. IT aids for the manager.

E. Network Analysis/PERT

1. Network analysis as a means of project control.
2. Definitions of Activity, Event, Critical path, Float, Dummy activity. Activity resources.
3. Conventions for drawing a network diagram.
4. Draw a network from a table of activities.
5. Determine critical path and minimum project duration.
6. Gantt Chart. Draw a Gantt. Aggregating resources within a Gantt chart. Levelling resources over the duration of the project.
7. The role of the computer in project control.

F. IT Personnel - The roles of IT personnel in the business - their job descriptions.

1. Data Processing Manager, Computer Manager.
2. Network supervisor/controller.
3. Systems Analyst.

4. Programmer, Systems Programmer, Programmer Analyst.
5. End users and data clerks.

G. Training and Recruiting

1. Methods of recruiting particularly for IT staff.
2. Methods of selection particularly for IT staff.
3. Benefits/drawbacks of training existing staff against recruiting new already-trained staff.
4. Training needs. Individual training programs. Personnel development records (PDR).
5. Means of providing the right training.

H. Security and Privacy of computer systems

1. Difference between Security and Privacy.
2. Threats to the security of computer systems – hardware, software and data.
3. Means of minimising security problems.
4. Privacy issues in business data.
5. The manager’s role in controlling security and privacy problems.

I. The effects of computers on business

1. Managing changes in business methods.
2. Changing role of personnel.
3. Changes which affect customers.
4. Health issues related to computer use.
5. Data Protection Acts and other laws relating to computer systems which affect management and staff.

J. The small business

1. Differences in running a small business compared with larger organisations.
2. Benefits of IT for the small business related to a PARTICULAR business
3. Business plans.
4. Choosing the right computer system.
5. Problems facing the small business with regards to IT.
6. Leasing and Maintenance contracts.

Learning Outcomes for the Unit:

At the end of this Unit, students will be able to:

1. Describe different organisational structures and general management principles
2. Understand the manager’s role in the operation of effective computer systems
3. Implement project management techniques and understand the role of key personnel
4. Evaluate the manager’s role in changing systems

The numbers below show which of the above module learning outcomes are related to particular cognitive and key skills:

Knowledge & Understanding 1-4
 Analysis 3, 4
 Synthesis/Creativity 3
 Evaluation 4
 Interactive & group Skills -
 Self-appraisal/Reflection on Practice -
 Planning and Management of Learning 3
 Problem Solving 3, 4
 Communication & Presentation 2
 Other skills (please specify) -

Learning and teaching methods/strategies used to enable the achievement of learning outcomes:

Learning takes place on a number of levels through lectures, class discussion including problem review and analysis. Formal lectures provide a foundation of information on which the student builds through directed learning and self managed learning outside of the class. The students are actively encouraged to form study groups to discuss course material which fosters a greater depth learning experience.

Assessment methods weightings which enable students to demonstrate the learning outcomes of the Unit:

3 hour examination: 100%
(Answer 5 questions from 8, each question representing 20% of the paper)

Indicative Reading for this Unit:

Main text

Refer to the ICM website for appropriate learning material

Alternative Texts & Further Reading:

Management Theory and Practice by G A Cole (DPP) ISBN 1 85805 166 5 (Fifth edition)

Quantitative Techniques by T.Lucey (DPP) ISBN 1 84480106 3 (Sixth Edition)

Management Information Systems by T Lucey (Letts) ISBN 1 855805 303 X (Eighth edition)

Guideline for Teaching and Learning Time (10 hours per credit)

Lectures / Seminars / Tutorials / Workshops: 50 hours

Tutorial support includes feedback on assignments and may vary by college according to local needs and wishes.

Directed learning: 50 hours

Advance reading and preparation / Class preparation / Background reading / Group study / Portfolio / Diary etc

Self managed learning: 100 hours

Working through the course text and completing assignments as required will take up the bulk of the learning time. In addition students are expected to engage with the tutor and other students and to undertake further reading using the web and/or libraries.

Guidelines

- This module covers some general management principles but mainly tests aspects of management where computers are involved. Answers to questions generally should take the approach of the manager looking on rather than the staff performing tasks.
- Students should be introduced to the roles of people in real business situations and how they are managed for effective processing. Make every effort to relate people management to the real world.
- The module contains a section on security and privacy. The emphasis must be on the management role in setting up appropriate security systems and monitoring them to ensure their effectiveness. A list of problems without REALISTIC solutions is unlikely to satisfy a question relating security of computer systems.
- Similarly, in recruiting and training, the emphasis must be on the special problems of handling IT staff where the needs change so rapidly. Sending an employee off to a general college on a lengthy standard IT course is unlikely to be a solution to new needs in almost all situations. Distinguish carefully on WHAT training is needed (content) and HOW it will be delivered (WHERE, WHEN and by WHOM). Candidates frequently confuse these two aspects of training. Giving trainees a newspaper is hardly likely to be productive but this often appears.
- Approaching the teaching through case studies with student involvement is likely to produce more success than a traditional teaching approach.