LEARNING OUTCOMES

1. An introductory understanding of a range of important and/or current IT issues
2. An understanding of the core principles and components of the Information Systems discipline
3. A recognition of how information systems can be used to improve business performance
4. A competence with basic information technology applications, including basic computer management, e-mail, web browsers, web-page creator and productivity software
5. An understanding of how such applications work, to a level where students can learn new material without requiring formal training
6. An exposure to a 4th-generation programming environment

WEEK 1 – IS IN THE LIFE OF BUSINESS PROFESSIONALS

1. Why Management Information Systems (MIS)?

Because of Moore's Law the cost of data communications and data storage is essentially zero, so *future business professionals need to be able to assess, evaluate and apply emerging information technology to business.*

Moore's Law – 'the number of transistors per square inch on an integrated chip doubles every 18 months'
- The speed of a computer chip increases in proportion to the density of the transistors → density doubles, speed doubles
- Price/performance ratio of computers has fallen dramatically – computers are smaller, less expensive

2. What is an Information System (IS)?

A group of components that interact to produce information – five fundamental components of computer-based information systems:
- Computer hardware – consists of everything in the physical layer of the information system:
    - Input systems e.g. keyboard, mouse
    - Output systems e.g. computer display
    - Processors
    - Servers
    - Networks
- Software
- Data
- Procedures
- People

Example: Airline reservation system:
- Computer hardware – hundreds of computers, routers etc. linked together
- Software – hundreds of different programs to record customer details, reservations, promotions etc.
- Data – about flights, customers, reservations etc.
- Procedures – followed by airline personnel, travel agents, customers
- People – customers, travel agents, airline staff, IT personnel

Why do companies use information?

Companies use information as a weapon in the battle to:
- Increase productivity
- Deliver quality products and services
- Maintain customer loyalty
- Make sound decisions

3. What is MIS?

Management information systems (MIS) is the development of information systems that help businesses achieve goals and objectives – key elements of MIS:
- Development and use
- Information systems
- Business goals and objectives

Development and use of information systems: business professionals need to:
- Take an active role in IS to ensure that systems meet their needs
- Understand how IT systems are constructed
- Consider users' needs during development
- Learn how to employ IT systems
- Take into account ancillary IT functions:
    - Security
    - Backup

Achieving business goals and objectives: MIS aids businesses in achieving their goals and objectives:
- Businesses do not do anything on their own
- It is people within the business that perform work
→ Therefore – MIS empowers users to achieve business objectives:
- Information systems exist to assist business people
- Information systems exist to achieve business goals and objectives

4. How does IS differ from IT?

IT includes raw technology such as: