17 APPLIED INFORMATION TECHNOLOGY

Prerequisite: None   Credits: 3

Overview

This course is designed to provide students with the knowledge of the range applications of computers in education, generally and in the hospitality industry. Hardware and software components will be examined.

General Objectives

This course is designed to:

1   sensitize the student to the concept of "information", its meaning, application and function
2   give the student an insight into the world of computers, and a basic explanation of some of the jargon used in the discipline
3   give the student hands on experience to the operation of various aspects of a property management system
4   sensitize the student to the various interfaces of property management systems and the practical application of such interfaces

Learning Objectives

Upon successful completion of this course, the learner will:

1   sensitize the student to the concept of "information", its meaning, application and function
2   give the student an insight into the world of computers, and a basic explanation of some of the jargon used in the discipline
3   give the student hands on experience to the operation of various aspects of a property management system
4   sensitize the student to the various interfaces of property management systems and the practical application of such interfaces

Topics

1.0   Computer Hardware

Objectives

Upon completion of the topic the student will be able to:

1.1   describe the various components of computer hardware;
1.2   list functions of the various categories of devices;
1.3   explain how the CPU functions;
1.4   explain the uses of primary and secondary storage;
1.5   list various types of input and output devices;
1.6   describe the various types of storage media;
1.7   define various measurements used in the computer field – bits, byte, kilobyte, megabyte, gigabyte, hertz, megahertz, gigahertz

Content

- Computer hardware
- The functions of categories of devices
- The functions of the CPU
- Uses of primary and secondary storage
- Input and output devices
- Storage of information
- Measurements in the computer field

2.0   Computer Software

Objectives

Upon completion of the topic the student will be able to:

2.1   explain what is a computer program;
2.2   explain what is meant by software;
2.3   distinguish between system and application software;
2.4   explain how the operating system functions;
2.5   explain the need for generalized and specialized software;
2.6   list some specialized software, their usefulness and limitations;
2.7   format CDs, copy and backup files;
2.8   install a software package which is to be used to aid instruction.
2.9   list the essential commands of the software;

2.10 list some specialized software, their usefulness and limitations;
2.11 explain the purpose of the software;
2.12 explain how the software is executed;
2.13 explain the usefulness of the software;
2.14 explain the limitations of the software.
2.15 carry out the varied functions of file management
2.16 create and retrieve needed information with the appropriate software packages;
2.17 competently use a Microsoft Windows Operating system

Content

- Definition of computer programs
- Systems and application software
- The function of the operating system
- The uses of generalized and specialized software
- Formatting CDs
- File management
- The installation and purpose of software packages used for instruction
- The usefulness and limitations of this software

3.0 Representation of Data

Objectives

Upon completion of the topic the student will be able to:

3.1 define byte, field, record, file;
3.2 explain sequential and random access of a file;
3.3 explain how data is stored on media;
3.4 explain the term "word";
3.5 convert decimal numbers to binary and hexadecimal.

Content

- Definition of "byte", "field", "record" and "file"
- Definition of "word"
- Accessing a file
- Storage of information
- Storage media
- Binary and Hexadecimal numbers

4.0 Operating Systems

Objectives

Upon completion of the topic the student will be able to:

4.1 boot up a computer from hard drive or CD drive;
4.2 format CD;
4.3 save and retrieve files;
4.4 copy files from one drive to another;
4.5 create directories and more files between directories;
4.6 manipulate data in DOS and Windows

Content

- Booting the computer
- Formatting a CD
- Handling files
- Data manipulation using different operating systems

5.0 Database Management

Objectives

Upon completion of the topic the student will be able to:

5.1 start up a relational database management program;
5.2 create a database;
5.3 add and delete records from a database;
5.4 sort a database;
5.5 display all the records of specified records from the database;
5.6 print reports from the database.

Content

- An introduction to a relational database program
- Handling information using a database program

6.0   Spreadsheet Management

Objectives

Upon completion of the topic the student will be able to:

6.1   start a spreadsheet program;
6.2   use the toolbars and menus;
6.3   use the help facility;
6.4   create a worksheet;
6.5   save and retrieve a spreadsheet file;
6.6   manipulate data in a spreadsheet program
6.7   explain the data types;
6.8   enter text and numbers;
6.9   enter formulas and functions;
6.10   use the spreadsheet functions;
6.11   sort data in the spreadsheet
6.12   insert and delete rows and columns;
6.13   use the program to create graphs and charts
6.14   discuss the possibility of spreadsheet in education;
6.15   print spreadsheet information

Content

- Starting and using a spreadsheet program
- Manipulating data in a spreadsheet program
- Identifying data types
- Printing data

7.0   Word Processing and Desktop Publishing

Objectives

Upon completion of the topic the student will be able to:

7.1   start a word processing program;
7.2   create and edit a document;
7.3   insert and delete characters, words, paragraphs and blocks of text;
7.4   move and copy blocks of text;
7.5   save and retrieve a document;
7.6   change the appearance of text;
7.7   print a text file;
7.8   use a word process to prepare course materials.

Content

- Starting and using a word processing program
- Manipulating data using a word processing program

- Manipulating files using a word processing program
- Printing data
- Preparing course material

8.0   Use of Generalized Software to Create Computer Aided Instruction Applications

Objectives

Upon completion of the topic the student will be able to:

8.1   use a database management program to create a knowledge base for a given subject;
8.2   develop a structure for a knowledge base for a subject;
8.3   update the database;
8.4   explain how the database is accessed, and updated by a user;
8.5   use the spreadsheet management program to demonstrate graphs and charts;
8.6   use the spreadsheet to demonstrate the use of mathematical functions;
8.7   use the word processor to develop writing skills;
8.8   use the word processor to improve spelling.

Content

- Software used to create computer aided instruction applications
    - Database management program
    - Spreadsheet management
    - Word processing program

9.0   Presentation

Objectives

Upon completion of the topic the student will be able to:

9.1   start a presentation program
9.2   define presentation software terms
9.3   create and edit a presentation
9.4   save and retrieve a presentation document
9.5   work with various program objects and graphics
9.6   various selection methods, and uses of selection techniques
9.7   print handouts
9.8   competently carry out a presentation using technology

Content

- Presentation programs
- Presentation software terms
- Creating and editing of presentations
- Retrieving presentation documents
- Working with program objects and graphics
- Selection methods and techniques
- Printing handouts
- How to execute a presentation

10.0 Internet

Upon completion of the topic the student will be able to:

10.1   define the internet and describe how it works
10.2   distinguish between the web and the internet
10.3   explain virus alerts
10.4   define the terms internet address, URLs, Hostnames
10.5   use search engines
10.6   use of email and messaging
10.7   demonstrate respectful use the internet

Content

- Introduction to the internet
- Overview of the web and the internet
- Virus alerts
- Internet address, URLs, Hostnames
- Search engines
- Email and messaging
- Respectful use of the internet

11.0 Property Management Systems

Objectives

Upon completion of the topic the student will be able to:

11.1   Reservations Management
- demonstrate how to access the electronic Reservation Chart
- record and verbally state a forecast for a specified period
- show how to deduce the room availability
- create an electronic reservation
- demonstrate imputing the components that guide the system in calculating room pricing

- type of room
- no. of persons
- arrival date
- departure date
- meal plan
- guest type

11.2   Rooms Management
- Demonstrate changing the housekeeping room statuses, for example:
  - VD to VC
  - OD to OC
  - OOO to VR
- Demonstrate how to register a walk-in-guest
- Demonstrate how to retrieve and register guaranteed reservations
- Show how to make room assignments

11.3   Guest Account Management
- Post charges for goods and services daily to:
  - Master folios
  - Non-guest folios
  - Guest folios
- Monitor credit balances, daily
  - Establish credit limits
  - Demonstrate how to complete an employee audit

11.4   General Management
- Retrieve and print revenue analysis reports on request
- Retrieve and state operating statistics on request
  - Occupancy
  - Nationality, etc
- Maintain guest histories
- Utilize histories to enhance customer service

Content

- Electronically managing:
  - Reservations
  - Housekeeping rooms status
  - Guest accounting
  - General information

12.0   Departmental Interfaces

Objectives

Upon completion of the topic the student will be able to:

12.1   Back Office Interfaces
- Record Account Receivables
- Record Account Payables
- Process time and attendance records
- Process tax withholdings
- Process pay distributions
- Produce a balance sheet
- Produce an Income statement
- Print transactional analysis reports

12.2   Front Office Interfaces
- Compare electronic postings to hard copy totals
- Activate in-room telephone access after electronic registration
- Deactivate in-room telephone access at departure
- Transfer all direct debit bills to city ledger at departure
- Zero out guest bills at departure

Content

- Back office interfaces
- Front office interfaces

Instructional Methodology

Lecture
Demonstrations

Assessment and Evaluation

- Six assessments in the following areas (60%):
  - Introduction to basics
  - File management
  - Word Processing
  - Spread Sheets
  - Presentation
  - Database
- One comprehensive project worth 35%
- Participation – 5%

Recommended Text

Computer Literacy and Information Technology: How to Make Computers Work for You; RSA; Heinemann Educational Books

Resources

Tutor Notes
Computer Applications

Attendance

Students are encouraged to attend all class sessions as all information presented may not be covered in the required text. Participation of students is an integral component of the learning process.