

COURSE OUTLINE

CMSY-138

Information Systems and Computer Applications

3 Semester Hours

HOWARD COMMUNITY COLLEGE

Description

This course focuses on knowledge and basic concepts of computers and their applications. Students will study concepts and techniques applicable to computer hardware and its functions, computer software, system development life cycles, computer programming, data management, telecommunications, organizational and user support systems, information processing management, and social and ethical issues.

Overall Course Objectives

Upon completion of this course, the student will be able to:

1. Describe the components of a computer system
2. Discuss the steps involved in the analysis and design of a system for use on a computer and identify the importance of each step
3. Describe and execute the steps involved in writing a program written in a high-level language
4. Document the logic of a computer program via a structured chart and flowchart.
5. Communicate more effectively with other programmers and system analysts.
6. Define numeric variables and constants; use the arithmetic operators in expressions and use string variables to store character data
7. Produce well-formatted output with the appropriate programming statements
8. Write your own “custom” programs in Quick Basic which will allow you to understand the basic data structures of other programming languages (Visual Basic, C ++, etc.)
9. Create products using the Microsoft Office Applications such as MS Word, PowerPoint, Excel, and Access

Major Topics

- I. Computer System Hardware Components
- II. Communications and Networks
- III. Computer Security and Ethics
- IV. Systems Analysis and Development
- V. Programming
 - a. Structure charts
 - b. Flowcharts
 - c. Basic programming structures
 - d. High level programming languages
- VI. Introduction to Software Applications
 - a. Word
 - b. Power Point
 - c. Excel
 - d. Access

Course Requirements

Grading will be determined by the individual faculty member but will include at least 2 quizzes, 2 major exams and various graded assignments which will include 3 simple programs.

Other Course Information

Meets College definition of a Business Elective.