

**ANNE ARUNDEL COMMUNITY COLLEGE
ARNOLD, MARYLAND**

COURSE OUTLINE

COURSE NAME: Introduction to Computers
COURSE NUMBER: CSI 113
CREDIT HOURS: 3 hours of lecture weekly
DEPARTMENT: Computer Information Systems

CATALOG DESCRIPTION

CSI 113

Introduction to Computers

3 credit hours — Three hours of lecture weekly; one term.

The first course in the program sequence for CSI majors. It provides an overview of the concepts, operating characteristics and capabilities of modern computer systems. Topics include computer hardware and software, communications and networking, personal computer tools, management information systems, computer ethics and computer security and systems analysis. Ten hours of hands-on experience in a PC environment and demonstrations of technology are included.

Prerequisite: Eligibility for ENG 111.

Note: Credit is not given for both CSI 112 and CSI 113.

LEARNING OBJECTIVES

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

- a. Explain the purpose and functions of the hardware and software components of a computer system.
- b. Differentiate among the typical applications of information processing systems in business, education, government, and science.
- c. Explain the purpose and functions of the components of data communication systems and computer networks.
- d. Discuss the systems development cycle of management information systems.
- e. Explain the purpose of operating system software, applications packages, and programming languages.
- f. Discuss the programming development process.
- g. Demonstrate rudimentary skills and knowledge of personal computer operations.
- h. Use the basic features of word processing, spreadsheet, Internet search, e-mail, and database management software.
- i. Discuss the impact of information technology on society and the ethical issues related to computers.

DIVISION OF SUBJECT MATTER

<u>Main Topics</u>	<u>Lecture Hours</u>
1.0 Introduction to Computer Systems	3.0
2.0 Hardware	9.0
3.0 Data Communications and Networking	3.0
4.0 Software	16.0
5.0 Systems Analysis and Design	3.0
6.0 Computer Systems and Organizations	3.0
7.0 Ethical and Societal Issues	3.0
8.0 Technological Trends	2.0
9.0 Testing	<u>3.0</u>
Totals	45.0

DETAILED COURSE OUTLINE

- 1.0 Introduction to Computer Systems
 - 1.1 Components of a Computer System
 - 1.2 Evolution of Computer Systems
 - 1.3 Categories of Computer Systems

- 2.0 Hardware
 - 2.1 Central Processor and Internal Memory
 - 2.2 Data Representation
 - 2.3 Input and Output Devices
 - 2.4 Auxiliary Storage Devices

- 3.0 Data Communications and networking
 - 3.1 Components of a Data Communications System
 - 3.2 Network Topology and Concepts
 - 3.3 Distributed Processing

- 4.0 Software
 - 4.1 Programming processes and Programming Languages
 - 4.2 Operating Systems and User Interfaces (Command Line and GUI)
 - 4.3 Applications Programs
 - 4.4 Word Processing and Desktop Publishing
 - 4.5 Spreadsheet processing
 - 4.6 Database management
 - 4.7 Internet access, search, and e-mail
 - 4.8 Other Types of packages

- 5.0 Systems Analysis and Design
 - 5.1 Systems Life Cycle

- 5.2 Analysis and Design Tools
- 6.0 Computer Systems and Organizations
 - 6.1 Computers on the Job
 - 6.2 Management Information Systems
 - 6.3 Professions in Computer and Information Systems
- 7.0 Ethical and Societal Issues
 - 7.1 Effect of Technology on Society and Culture
 - 7.2 Applied Ethics: Computer Usage and Technological Change
 - 7.3 Security
- 8.0 Technological Trends
 - 8.1 Artificial Intelligence
 - 8.2 Expert Systems
 - 8.3 Robotics
 - 8.4 New research
- 9.0 Testing

TEXTBOOKS

TITLE:	Exercises Using Microsoft Application (REQ) 5th Edition
AUTHOR:	Renz
PUBLISHER:	McGraw-Hill-Irwin
ISBN:	007284106-0 (May be shrink-wrapped with the next one)
TITLE:	Using Information Technology (REQ) 5 th Edition
AUTHOR:	Williams; Sawyer
PUBLISHER:	McGraw-Hill-Irwin
ISBN:	0-07-115105-2