

**RARITAN VALLEY COMMUNITY COLLEGE  
COMPUTER SCIENCE (CS) DEPARTMENT**

**CISY 102 - Computer Literacy**

**I. Basic Course Information**

- A. Course Number and Title: CISY-102, *Computer Literacy*
- B. Date of Proposal or Revision: Spring 2006
- C. Course Developer: John Sullivan and Pratap Reddy
- D. Sponsoring Department: Computer Science (CS) Department
- E. Semester Credit Hours: 3
- F. Weekly Contact Hours: 4 (2, 2)
- G. Prerequisite: none. Recommend student know how to type.
- H. Laboratory Fees: Yes, at current rate

**II. Catalog Description**

(Prerequisite: Recommend student know how to type) A computer literate person is referred to as one who understands how computers work, uses them, and identifies the role of computers in society. Students should have a basic understanding of computers and how to access information on the World Wide Web. Emphasis is placed on the application of microcomputers; the use of productivity software (word processing, spreadsheet management, presentation management, and data base management, search tools, and multimedia) to gather, analyze, organize, and present information; and the social, ethical, and privacy aspects of the impact of computers on society.

Students may not enroll for credit in this course if they have earned credit for a higher-level computer science course. Open lab time required.

**III. Statement of Course Need**

The skills acquired throughout this course are a valuable asset in other course students may take at Raritan Valley Community College or at other institutions or higher learning. In many college courses students are required to write a term paper, and/or prepare an oral presentation as part of their course load. In this course students learn how to produce research papers on word processors and how to prepare presentations that incorporate text, formulas, graphics, and sounds.

In order to adapt to changes in the technology the student will develop the ability that involves learning sufficient foundational material to enable one to acquire new skills independently after one's formal education is complete.

#### **IV. Place of Course in College Curriculum**

*Required for following degree programs:*

- CISO 102 can be used as a free or general elective in all departments except Computer Science

#### **V. Outline of Course Content**

*This course explores the following topics:*

1. Introduction
2. Digital Data Representation
  - a. Bits, Bytes and Data Representation Schemes
  - b. Digitizing Sound and Music
  - c. Digitizing Images
3. Hardware
  - a. Integrated Circuits and Processing
  - b. Storage Technologies
  - c. Peripherals
  - d. Selecting and Buying a Computer System
4. Software
  - a. Operating Systems and Utilities
  - b. Survey of Application Software
5. Networking
  - a. Telecommunications Technologies
  - b. Networking Applications
  - c. Home Networking
6. Internet/Web
  - a. Online research techniques
  - b. Internet Technology
  - c. Internet Communications
  - d. Web Technology
  - e. Web Applications
7. Societal and Ethical Issues
  - a. Information Security
  - b. Privacy
  - c. Ethics
8. Emerging Technologies
9. Microsoft Operating System
10. Microsoft Internet Explorer
11. Microsoft Outlook

- a. Email
  - b. Scheduling
  - c. Calendar functions
12. Microsoft Word
- a. Creating and Editing a Word Document
  - b. Flyers
  - c. Research papers
  - d. Cover letters and resumes
13. Microsoft Excel
- a. Creating a worksheet and embedded chart
  - b. Formulas, functions, formatting, and Web queries
  - c. What-if analysis, and charting
  - d. Inserting into Word
14. Microsoft Access
- a. Creating a database using design and datasheet view
  - b. Querying a database
  - c. Maintaining a database
15. Microsoft PowerPoint
- a. Using a design template and auto layouts to create a presentation
  - b. Putting together a presentation

## **VI. Educational Goals and Learning Outcomes**

### **Education Goals**

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

1. build electronic communication techniques to communicate effectively and clearly when preparing documents, spreadsheets, databases, and multimedia presentations. (G.E. 2)
2. apply design techniques to use the computer to enhance their creativity in preparing documents and presentations using multimedia. (G.E. 1, 3)
3. identify changes in the technology that involves learning sufficient foundational material to enable one to acquire new skills independently after one's formal education is complete. (G.E. 2)
4. investigate technological tools for research, information analysis, problem solving, decision making, quantitative analysis while recognizing, and evaluating ethical issues. (G.E. 3, 5)
5. assess information resources, including print and electronic library resources, as well as the Internet that enables students to use computer software applications, and enhance self-directed learning. (G.E. 3)
6. construct quantitative reasoning techniques to interpret data and solve problems (G.E. 7)

### **Learning Outcomes**

*At the conclusion of the course, students will be able to:*

1. examine basic computer concepts such as computer hardware, software, networks, information security, privacy, and the Internet

2. apply basic Windows skills and file management techniques
3. describe skills related to email use
4. investigate skills involved in Web-based research
5. apply word processing skills in order to write memos, letters, and research papers
6. examine simple formulas in spreadsheets to compute mathematical operations
7. build spreadsheets to summarize information and develop graphs that display a variety of information
8. apply working knowledge to create and maintain a database to prepare simple forms and reports
9. build a presentation with Microsoft PowerPoint to communicate effectively
10. investigate the manipulation of graphics and sound in presentations
11. generate Web pages from Microsoft Office applications
12. identify methods of sharing information between office applications
13. identify ethical issues related to computers and technology.
14. assess resource materials to learn new technology.

## **VII. Modes of Teaching and Learning**

- Lecture/Discussion - Lecture with demonstration of software, problem solving techniques, and present computer literacy concepts.
- Laboratory – Lab time to analyze, design, develop, write, and present computer projects.

## **VIII. Papers, Examinations, and other Assessment Instruments**

- Computer Projects – In-class and out of class assignments and projects
- Exam – Hands on software exams
- Other – Homework

## **IX. Grade Determinants**

- Projects
- Homework
- Hands on Software Exams
- Final Exam

## **X. Textbook: Suggestions**

Shelly, Cashman, & Vermaat, Enhanced Edition, Microsoft Office 2006 Introductory Concepts and Techniques, Course Technology, ISBN:0-7895-6251-0  
Evans, Martin, & Poatsy, Go! Technology in Action, 3<sup>rd</sup> Edition, Pearson – Prentice Hall, 2007, ISBN 0-13-187882-4

## **XI. Resources**

- Computer access
- Microsoft windows and accessories (graphics, sound)
- Microsoft Office
- Web Browser software that is Java Script enabled