



ANTELOPE VALLEY COLLEGE

Academic Affairs Office  
Course Outline of Record

**COURSE SUBJECT & NUMBER:** CA 103  
**COURSE NAME:** \*Introduction to Microcomputers  
**COURSE UNITS:** 3  
**COURSE HOURS:** 4

**COURSE REQUISITES:** *(Follow format of similar courses found in the college catalog.)*

Advisory: Eligibility for ENGL 099, READ 099 and MATH 070.

**COURSE DESCRIPTION:** *(Write a short paragraph providing an overview of topics covered. Be sure to identify target audience--transfer, major, GE, degree/certificate, etc. If repeatable, state the number of times at end of description).*

This course is designed to teach the first-time computer user the features of a microcomputer, how a microcomputer operates, and how to select a microcomputer that best fits individual needs. Students will learn how to use the major features of popular software applications, including word processors (MS Word), spreadsheets (MS Excel), database managers (MS Access), presentation managers (MS PowerPoint), and Internet browsers. This course includes hands-on operation of a microcomputer. No prior computer experience is needed. NOTE: Business majors who have completed ACCT 201, with a grade of "C" or better, and are planning on transferring to a university, are advised to take CA 221. Computer-oriented majors should consider CIS 101.

**COURSE OBJECTIVES:** *(Should be stated as performance-based, measurable expected student outcomes. Use Bloom's taxonomy to formulate clear and concise objectives. These objectives are common to all students; they must be clearly related to course content, assignments, and methods of evaluation.)*

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

1. Discuss the major uses of a microcomputer.
- \*2. Operate a personal computer.
3. Describe the major software applications and their uses.
- \*4. Control the operating system to perform tasks such as making backup copies, copying files, and organizing disk storage.
- \*5. Write papers and letters using word processing software.
- \*6. Design worksheets, enter formulas, and chart results using spreadsheet software.
- \*7. Manage a database using database management software.
8. Identify and discuss devices used for input and output.
9. Identify and discuss the components of the system unit, how main memory stores programs and data, and the sequence of operations that occurs when instructions are executed.
10. Explain storage operations and identify and discuss the various types of secondary storage.
11. Discuss the Internet, networking, and communications.
- \*12. Use a browser to search the Internet and the World Wide Web.
13. Discuss the legal and ethical aspects of copying software.
14. Discuss the proper care, cautions, and the use of microcomputers.
15. Discuss emerging software and technologies.

\* Denotes SCANS competencies.

**COURSE CONTENT:** *(Enter course content in terms of specific topics or a specific body of knowledge that each instructor must cover. Put topics in outline form with major and minor headings. Title 5 requires that each instructor covers all material listed here.)*

1. Overview and major uses of a microcomputer
  - a. Components of a computer
  - b. Using a Windows operating environment
    - i. Functions of a mouse, keyboard, and special function keys
    - ii. Handling, opening, closing, and controlling windows
    - iii. Saving, deleting, copying, and renaming and managing files
    - iv. File and folder organization
2. Computer Software
  - a. System software
    - i. Types of operating systems
    - ii. Operating system functions
  - b. Overview of applications software
    - i. The role of software
    - ii. Survey of software categories
  - c. Features and use of word processing software
    - i. Creating, editing, formatting, saving, and printing documents.
  - d. Features and use of spreadsheet software
    - i. Planning, designing, creating, editing, saving, and printing a spreadsheet
    - ii. Using charts
  - e. Features and use of database management software
    - i. Data hierarchy and integrity
    - ii. Relational and object-oriented databases
  - f. Features and use of presentation software
    - i. Create, edit, save, and print presentations
  - g. Internet and World Wide Web
    - i. Internet browsers and Netiquette
    - ii. Internet technologies and businesses
3. Computer Hardware
  - a. Input and Output devices
    - i. Pointing devices, scanners, trackballs, and other types of inputs
    - ii. Printers, monitors, speakers, and other types of output
    - iii. Input and output devices for the physically challenged
  - b. The system unit and the central processing unit
    - i. The system unit and the central processing unit
    - ii. Types of memory and cache
    - iii. Ports and buses
  - c. Storage
    - i. Memory versus storage
    - ii. Floppy diskettes, hard drives, CD-RW, DVD, and tapes
  - d. Communications and networks
    - i. LANs, WANs, and network topologies
    - ii. Communication devices and transmission media
4. Emerging software and technology
  - a. Careers and Certifications
  - b. Workplace issues
    - i. Software privacy and security
    - ii. Health risks
    - iii. Ethics

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**TYPICAL READING, WRITING, AND COMPUTATIONAL HOMEWORK ASSIGNMENTS**

*This material is necessary for all credit courses. Assignments should be clearly related to course objectives, content, and methods of evaluation. (See sample of a "Model Outline" in the AP&P Standards & Practices handbook.) Include a range of assignments (minimum of three) from which faculty may choose when designing their syllabus.*

**1. Describe nature and frequency of typical reading assignments if applicable; note if any are required:**

Students may be required to read 1 chapter each week (40-50 pages) and other reading assignments as appropriate.

**2. Describe nature and frequency of typical writing assignments if applicable; note if any are required:**

Students may be required to complete weekly end-of-chapter assignments that may include short-answer, multiple choice, and fill-in-the blank answers. A 4-5 page written semester project addressing issues related to computers and computer purchases may be assigned. Students may be required to write one-page chapter summaries.

**3. Describe nature and frequency of typical computational assignments if applicable; note if any are required:**

Students may use basic math to develop simple financial spreadsheets to simulate budget management.

**4. Describe other types of assignments that students may be asked to complete:**

Through the process of reading and hands-on laboratory work, students will learn to compose written essays in a word processor, design financial worksheets in a spreadsheet program, design databases in a Database Management Program, and organize ideas into a presentation format.

**5. If course is degree applicable/transfer, describe those critical thinking skills that are required; be sure that they reflect course objective. (Title 5 requirements can be found in the AP&P Standards and Practices book.)**

Students may be required to complete weekly computer-based projects that will require a demonstration of proficiency in the use of application software. Students may be required to give an oral presentation that will require a demonstration of proficiency in the use of presentation software.

**6. For categories 1-4 above,  describe the estimated time per week it would take a student to complete typical out-of-class assignments. The Carnegie formula uses a 2:1 ratio as follows: 1 hr. lecture = 2 hrs. homework; 2 hrs. lecture = 4 hrs. homework; etc. For example: reading text—2 hours; writing reports—3 hour; etc.**

**Reading:** 2-3 hours

**Writing:** 2-3 hours

**Computational:** 1-2 hours

**Other:** 3-4 hours (hands-on computer assignments)

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**METHODS OF INSTRUCTION:** *(Methods must be consistent with content and appropriate to objectives; state in terms of what instructor will be doing in order to present course content to students.)*

Lecture and discussion  
Hands-on lab work  
Demonstrations

**METHODS OF EVALUATION:** *(These must be clearly related to course content, assignments, and objectives, in order to comply with Title 5 requirements. Describe what instructor will be looking for when evaluating assignments and tests in order to determine whether students have met course objectives. Grades must be based on demonstrated proficiency in subject matter and determined, where appropriate, by essays, objective and essay tests, research papers, problem solving exercises, or skills' demonstrations.)*

Students may be evaluated through the completion of weekly written assignments that will demonstrate the student's comprehension of chapter topics.

Students may be evaluated through the completion of weekly computer application projects designed to demonstrate proficiency in the use of the software.

Students may be evaluated through written examinations.

Students may be evaluated through a hands-on demonstration of proficiency in the use of the computer applications.

Students may be evaluated based on a written semester project.

Students may be evaluated based on an oral presentation.

**Suggested Texts or other Instructional Materials (include title, author, publisher, date, and edition):**

*Discovering Computers Fundamentals*, Shelly, Cashman, and Vermaat, Thomson Course Technology Publishing, 2005, Second Edition.

*Microsoft Office 2003 Introductory Concepts and Techniques*, Shelly, Cashman, and Vermaat, Thomson Course Technology Publishing, 2006, Second Edition.

**Effective Date:** \_\_\_\_\_

(date course can first be offered to be filled in by Office of Academic Affairs)