

# COMPUTER CERTIFICATE PROGRAMS

## Computer Business Applications

This certificate prepares students to be highly skilled in the use of a variety of computer applications in an office environment.

### Program Outcomes

*Successful graduates will be able to:*

- demonstrate the ability to install, configure, and troubleshoot computer operating systems;
- create a variety of spreadsheets using simple and complex formulas, functions, graphics, database features, sorts, linkages within and between spreadsheets, and macros;
- demonstrate advanced editing techniques, formatting, tables, creation of databases, mail merge, and the creation and use of macros to facilitate program use;
- demonstrate knowledge and skills of database principles and apply them to developing relational databases and generating simple and complex reports;
- explain and demonstrate the process of creating, accessing, and updating data files in Visual Basic; and
- explore pathways for educational and career development in the student's field of study.

**Total credits: 28**

### Required Courses

*All courses are 3 credits unless specified.*

- CIS-2040 - Management Information Systems
- CIS-1041 - Microcomputer Applications I
- CIS-1042 - Microcomputer Applications II
- CIS-1151 - Website Development
- CIS-1322 - Intermediate Word Processing
- CIS-1350 - Desktop Operating Systems (4 cr)
- CIS-1360 - Intermediate Database Management Systems
- CIS-1410 - Intermediate Spreadsheets
- CIS-2011 - Visual Basic Programming



**For more information visit [www.ccv.edu](http://www.ccv.edu),  
call 800-CCV-6686 or your local CCV office.**

CCV is committed to non-discrimination in its learning and working environments for all persons. All educational and employment opportunities at CCV are offered without regard to race, color, gender, sexual orientation, religion, national origin, age, veteran status, or disability.

*Certificate students must demonstrate basic skills proficiency appropriate for their specific program.*

## Computer Systems Management

This certificate gives students the skills necessary to be a computer administrator in a small business or any environment that uses microcomputers in its daily operations.

### Program Outcomes

*Successful graduates will be able to:*

- demonstrate knowledge and skills that meet industry standards and certification requirements in the use of computer hardware and operating systems technology;
- utilize technology to obtain information through a variety of methods, including the internet, databases, and other sources;
- demonstrate proficiency in application software (word processing, spreadsheets, web page design, presentation programs) to communicate information effectively in a professional setting;
- use a computer programming language to solve problems in a workplace setting and implement appropriate solutions;
- upgrade, repair, and install hardware and software applications with emphasis on problem anticipation and user support;
- prepare a plan to implement a local area network in a small business setting; and
- explore pathways for educational and career development in the student's field of study.

**Total credits: 29**

### Required Courses

*All courses are 3 credits unless specified.*

- CIS-1041 - Microcomputer Applications I
- CIS-1042 - Microcomputer Applications II
- CIS-1151 - Website Development
- CIS-1350 - Desktop Operating Systems (4 cr)
- CIS-2040 - Management Information Systems
- CIS-2110 - Concepts of PC Hardware (4 cr)
- CIS-2120 - Concepts of Local Area Networks

*plus 6 credits in programming*

*Choose one set of programming languages from the following:*

- CIS-2011 - Visual Basic Programming
- CIS-2012 - Intermediate Programming: Visual Basic

*or*

- CIS-2031 - C/C++ Programming I
- CIS-2032 - C/C++ Programming II

*or*

- CIS-2140 - Programming for the Internet
- CIS-2430 - Intermediate Programming for the Internet

*or*

- CIS-2271 - Java Programming
- CIS-2272 - Intermediate Java Programming