

# COMPUTER

The Computer department prepares students for entry-level employment and/or potential further study in the field of computer programming and information systems through the study of skills in computer programming, web development, databases, maintaining computer programs and databases, as well as general computer and office skills.

**Career Opportunities:** Upon successful completion of the program, students will be prepared for careers or employment in the following fields: computer programming, web design, computer technical support, database development/maintenance, and various office position involving computers.

## Contact Information

### Business Division Chair

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**Related Areas of Study:** Computer Science (<https://catalog.cos.edu/areas-study/computer-science/>) and Information Communications Technology (<https://catalog.cos.edu/areas-study/information-communications-technology/>)

## Associate Degree

- Associate of Science in Computer Programming & Information Systems (AS) (<https://catalog.cos.edu/areas-study/computer/associate-science-computer-programming-information-systems-not-for-transfer-as/>)

## Certificates

- Certificate of Achievement in Computer Applications (<https://catalog.cos.edu/areas-study/computer/certificate-achievement-computer-applications/>)
- Certificate of Achievement in Computer Programming & Information Systems (<https://catalog.cos.edu/areas-study/computer/certificate-achievement-computer-programming-information-systems/>)

For a complete list of courses and descriptions visit: COURSES (<https://catalog.cos.edu/course-descriptions/>)

### COMP 005 Computer Concepts

4unit(s)

Hours: 4 Lecture/Discussion

COMP 5 introduces students to computer hardware and software systems, the impact of computers on society, ethical issues, and applications of computer technology in many career fields. Students will learn to use a microcomputer and applications software packages, including word processing, electronic spreadsheets, database, and presentation software. It is recommended that students have a keyboarding speed of 20wpm before enrolling in this course.

**Advisory on Recommended Preparation:** on Recommended Enrollment: Keyboarding skill of 20 wpm is recommended for this course. (C-ID ITIS120)

### COMP 006 Programming Fundamentals

3unit(s)

Hours: 2.5 Lecture/Discussion Hours:

1.5 Lab

This course introduces students to problem analysis and programming techniques for preparing computerized solutions using Visual Basic.

**Advisory on Recommended Preparation:** COMP 005 or COMP 130 and BUS 270 or equivalent college course with a minimum grade of C or equivalent skills as determined by departmental assessment. (C-ID COMP112)

### COMP 008 Programming Concepts (JAVA)

4unit(s)

Hours: 3.5 Lecture/Discussion Hours:

1.5 Lab

This is an advanced computer class designed to teach students how to plan and program typical business problems utilizing JAVA, a high-level, object-oriented language.

**Advisory on Recommended Preparation:** COMP 006 and BUS 270 or equivalent college course with a minimum grade of C.

### COMP 009 Advanced Application Software

3unit(s)

Hours: 2.5 Lecture/Discussion Hours:

1.5 Lab

This course advances the Visual Basic .NET techniques learned in COMP 6 with the inclusion of file handling techniques, interconnectivity to an RDB (such as MS Access), and advanced software development using the management of visual objects on microcomputers. Emphasis of the course is on structure and style, using visual environments (windows and graphs), program planning, and logic structures.

**Advisory on Recommended Preparation:** COMP 006 or equivalent college course with a minimum grade of C or equivalent skills as determined by departmental assessment.

### COMP 130 Introduction to Personal Computers

4unit(s)

Hours: 4 Lecture/Discussion

This course is designed to teach students how to use a computer. Topics include an introduction to computer concepts/ Windows, word processing, spreadsheet, and database applications. Transfer students should check with their counselors to see whether COMP 130 or COMP 5 would be more appropriate for their major.

**Advisory on Recommended Preparation:** BUS 270 or BUS 360 or equivalent college courses with a minimum grade of C or equivalent skills as determined by departmental assessment.

### COMP 135 Desktop Publishing for Business

4unit(s)

Hours: 4 Lecture/Discussion

This course in desktop publishing addresses the essentials of design, typography, graphics and text using publication software to produce materials appropriate for businesses.

**Advisory on Recommended Preparation:** BUS 270 or equivalent college course with a minimum grade of C or equivalent skills as determined by departmental assessment.

### COMP 140 Computer Operating Systems

3unit(s)

Hours: 3 Lecture/Discussion

Computer Operating Systems is designed to provide a theoretical and practical background to utilizing computer operating system tools and accessories. A keyboarding speed of 20 correct words per minute (CWPM) is recommended.

**COMP 200 Ethics in Computer Programming**

Hours: 3 Lecture/Discussion

This course covers examples of ethical situations computer programmers may face. Students will first study the Association for Computing Machinery's (ACM) Code of Ethics and Professional Conduct. Using this, both current and historical examples of ethical situations as relates to computer programming and system development will be discussed.

**3unit(s)****COMP 229 Web Page Design and Development**

Hours: 3 Lecture/Discussion

This course emphasizes the design and creation of web pages. Students will learn how to use a web publishing software program, such as Macromedia Dreamweaver, to create professional-looking web sites.

**Advisory on Recommended Preparation:** COMP 005 and LIBR 102 or equivalent college course with a minimum grade of C.

**3unit(s)****COMP 230 Java Script/XML**

Hours: 2.5 Lecture/Discussion Hours:

1.5 Lab

This course teaches students to use JavaScript and advanced HTML techniques to add functionality to web pages, including scrolling messages, animations and dynamic images, data input forms, pop-up forms, pop-up windows, and interactive forms.

**Advisory on Recommended Preparation:** COMP 229 or equivalent college course with a minimum grade of C.

**3unit(s)****COMP 232 Server-Side Scripting and SQL**

Hours: 2.5 Lecture/Discussion Hours:

1.5 Lab

This course will teach students how to write server-side scripts for the web in a language such as PHP that interact with a database using SQL.

**Prerequisites:** COMP 005 and COMP 230 or equivalent college course with a minimum grade of C.

**3unit(s)****COMP 233 Database Processing**

Hours: 3 Lecture/Discussion

**Equivalent Course: COMP 133**

Database processing for microcomputers emphasizes relational database theory, design, and implementation. Practical applications will include using the database software to create tables, queries, forms, and reports.

**Advisory on Recommended Preparation:** BUS 270 or BUS 360 or a minimum keyboarding speed of 20 wpm and completion of COMP 130 or COMP 005 or equivalent college courses with a minimum grade of C.

**3unit(s)****COMP 238 Spreadsheet for Business**

Hours: 3 Lecture/Discussion

**Equivalent Course: COMP 138**

This course emphasizes the design, creation, and use of spreadsheets for business applications. Students will learn beginning to advanced features of microcomputer spreadsheets, including proper use of formulas, customizing charts, and using pivot tables. A keyboarding speed of 20 cwpm is recommended.

**3unit(s)****COMP 250 Software Fabrication**

Hours: 2.5 Lecture/Discussion Hours:

1.5 Lab

This course will give an introduction to the study of software fabrication. Students will study topics including the software development life cycle, estimation, motivation, teamwork, feature-set control, task scheduling and productivity tools.

**Prerequisites:** COMP 006 or COMP 008 or equivalent college course with a minimum grade of C.

**3unit(s)**

## Computer

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