Computer Information Systems  
(BE 6612)  
One Credit, One Year  
Grades 9 - 12

Counselors are available to assist parents and students with course selections and career planning. Parents may arrange to meet with the counselor by calling the school's guidance department.

COURSE DESCRIPTION
Students apply problem-solving skills to real-life situations through word processing, spreadsheets, databases, multimedia presentations, and integrated software activities. Students work individually and in groups to explore computer concepts, operating systems, networks, telecommunications and emerging technologies.

CERTIFICATION
Upon successful completion of practice exams, students who qualify may sit for the Microsoft Office Specialist certifications. These certifications can be used for student-selected verified credit.

COOPERATIVE OFFICE EDUCATION (COE)
Cooperative Office Education (COE) is the supervised on-the-job instructional phase of an occupational preparation program. Students attend classes for all or part of the day and work in an approved business/office position part of the day. The teacher-coordinator and business training sponsor develop an individualized training plan that identifies learning experiences according to the student’s career objective. Transportation is the responsibility of the student. Many Business & IT courses are eligible for the cooperative office education method of instruction. Participation in COE is optional for Business and Information Technology students.

STUDENT ORGANIZATION
The Future Business Leaders of America (FBLA) is the co-curricular organization for secondary Business and Information Technology students. The organization enhances occupational preparation for students by helping them attain the following goals: leadership skills; knowledge of the American enterprise system; self-confidence; improvement of home, business, and community; scholarship; citizenship; and career goals.

PREREQUISITE
None

OPTIONS FOR NEXT COURSE
Advanced Computer Information Systems

REQUIRED STUDENT TEXTBOOK
None
COMPETENCIES FOR COMPUTER INFORMATION SYSTEMS

Demonstrating Workplace Readiness Skills: Personal Qualities and People Skills
001 Demonstrate positive work ethic.
002 Demonstrate integrity.
003 Demonstrate teamwork skills.
004 Demonstrate self-representation skills.
005 Demonstrate diversity awareness.
006 Demonstrate conflict-resolution skills.
007 Demonstrate creativity and resourcefulness.

Demonstrating Workplace Readiness Skills: Professional Knowledge and Skills
008 Demonstrate effective speaking and listening skills.
009 Demonstrate effective reading and writing skills.
010 Demonstrate critical-thinking and problem-solving skills.
011 Demonstrate healthy behaviors and safety skills.
012 Demonstrate an understanding of workplace organizations, systems and climates.
013 Demonstrate lifelong-learning skills.
014 Demonstrate job-acquisition and advancement skills.
015 Demonstrate time-, task- and resource-management skills.
016 Demonstrate job-specific mathematics skills.
017 Demonstrate customer-service skills.

Demonstrating Workplace Readiness Skills: Technology Knowledge and Skills
018 Demonstrate proficiency with technologies common to a specific occupation.
019 Demonstrate information technology skills.
020 Demonstrate an understanding of Internet use and security issues.
021 Demonstrate telecommunications skills.

Examining All Aspects of an Industry
022 Examine aspects of planning within an industry/organization.
023 Examine aspects of management within an industry/organization.
024 Examine aspects of financial responsibility within an industry/organization.
025 Examine technical and production skills required of workers within an industry/organization.
026 Examine principles of technology that underlie an industry/organization.
027 Examine labor issues related to an industry/organization.
028 Examine community issues related to an industry/organization.
029 Examine health, safety and environmental issues related to an industry/organization.

Addressing Elements of Student Life
030 Identify the purposes and goals of the student organization.
031 Explain the benefits and responsibilities of membership in the student organization as a student and in professional/civic organizations as an adult.
032 Demonstrate leadership skills through participation in student organization activities, such as meetings, programs and projects.
033 Identify Internet safety issues and procedures for complying with acceptable use standards.

Exploring Computer Concepts
034 Explain the functions of computer system components.
035 Illustrate the information processing cycle.
036 Trace the development of computers and their impact on society.
Demonstrate the use of various computer input devices.
Describe wireless and mobile devices.
Describe various computer output devices.
Describe various auxiliary storage devices.
Identify basic networking components.

Exploring Ethical Issues Related to Computers and Computer Systems
Identify security issues related to computer hardware, software, and data.
Identify concepts related to copyright, public domain, copy protection, intellectual property and licensing agreements, including, but not limited to, software, media (e.g. music, pictures), and logo requirements.
Identify concepts of security, honesty, courtesy, and confidentiality related to information and e-mail systems and social networking (e.g., spam, viruses, e-mail etiquette).
Investigate physical and logical security issues related to technology (e.g., viruses, firewalls, spam, system backup, passwords).
Investigate Internet privacy issues and computer crimes, including identity theft.

Managing Computer Systems
Maintain workstation, equipment, software, and supplies.
Identify information needed to purchase or replace computer equipment and peripherals.
Obtain assistance via electronic and hard-copy references and documentation.
Troubleshoot hardware problems (e.g., power supply, network and peripheral connections, printer malfunctions).
Operate components of the user interface (e.g., menus, toolbars, ribbons, icons).
Manage the desktop environment (e.g., creating shortcuts/aliases).
Manage files and folders/directories (in networked and stand-alone environments).
Backup/restore programs and data files.
Scan storage devices and equipment for viruses and spyware, and disinfect as needed.
Describe the steps to install and remove software.
Operate peripherals (e.g., flash drive, scanner, digital camera, fax machine, modem, CD/DVD burner, USB devices, LCD projector).
Identify safety precautions and devices (e.g., surge protectors, anti-static mats and pads, power plugs, and UPS systems) associated with computer use.

Producing Word Processing Documents
Compare features of a word processing program to determine the best tools to use for a given task.
Compose a variety of documents (e.g., letters, memoranda, reports, and tables).
Use word processing programs to perform desktop publishing functions (e.g., to create brochures, pamphlets, flyers, business cards, newsletters, programs).
Proofread and edit documents.
Enhance layout of documents by using a variety of formatting features.
Import graphics, using a variety of tools (e.g., from file, scanner, digital camera) and sources.
Analyze and use writing tools (e.g., speller, thesaurus, grammar check, readability test, comparison tools).
Utilize advanced word processing operations (e.g., merge, macros, template wizards).
Integrate databases, graphics, and spreadsheets into a word-processed document.
Manipulate word-processed documents in a variety of formats (e.g., .pdf, .html).

Developing Electronic Spreadsheets
Compare features of various spreadsheet programs to determine the best software for an individual's or organization's needs.
Create and edit a spreadsheet.
Enhance a spreadsheet by using formatting features and graphics.
Construct arithmetic formulas to solve typical business-oriented problems.
Apply basic function commands (e.g., AVG, MIN, MAX, SUM).
Apply intermediate functions.
Analyze and interpret data.
Create graphs and charts (embedded or stand-alone) to represent data visually.
Integrate word processing and database information.
Format graph features (e.g., chart titles, labels, colors).

Developing and Managing Databases

Determine when it is appropriate to use a database and identify the benefits derived.
Compare features of various database programs to determine the best software for an individual's or organization's needs.
Plan, design, and create a database file.
Edit a database file.
Sort, index, and filter databases.
Create and run queries to access information.
Generate reports and forms.
Enhance reports using formatting features and graphics.
Integrate database information into word processing and spreadsheet applications by creating links.

Developing Multimedia Presentations

Identify the components of an effective presentation.
Describe various output options from presentation software (e.g., slide show, transparencies, slide handout, streaming, interactive whiteboards).
Research and organize information for a multimedia presentation.
Plan and build a multimedia presentation.
Proofread and edit a multimedia presentation.
Utilize options for creating, inserting, and editing objects (e.g., styles, shapes, fills, borders).
Enhance a multimedia presentation with specialized features (e.g., color, transitions, animations, timings, backgrounds, graphics, charts, graphs).
Integrate a variety of software applications into a multimedia presentation.
Deliver a multimedia presentation according to the principles of effective communication.
Critique the clarity and effectiveness of multimedia presentations.

Communicating through Technology

Identify various new and emerging devices, methods, and channels for communicating electronically.
Describe networking features and concepts.
Describe how the Internet works (e.g., network structures, devices and components, protocols, Internet service providers, online services).
Explore uses of the Internet in business applications.
Incorporate information from the World Wide Web into a business project.
Create a Web site using Web page design software.
Describe Internet services (e.g., e-mail, FTP, instant messaging, newsgroups, file storage).
Describe the uses of electronic commerce (e-commerce).
Explore trends in emerging communications technology and information processing.
Preparing for Industry Certification

107 Describe the process and requirements for obtaining industry certifications related to the Computer Information Systems course.

108 Identify testing skills/strategies for certification examination.

109 Demonstrate ability to successfully complete selected practice examinations (e.g., practice questions similar to those on certification exams).

110 Successfully complete an industry certification examination representative of skills learned in this course (e.g., MOS, IC3, NOCTI).

Developing Employability Skills

111 Research career opportunities in Computer Information Systems.

112 Develop/update a résumé.

113 Compose a letter of application.

114 Complete manual and electronic application forms.

115 Create and maintain a portfolio.

116 Participate in a mock interview.

117 Compose an interview follow-up letter.

118 Identify criteria for evaluating self-performance.

119 Identify the steps to follow in resigning from a position.

120 Identify potential employment barriers for nontraditional groups and ways to overcome the barriers.
Notice of Non-Discrimination Policy

Virginia Beach City Public Schools does not discriminate on the basis of race, color, religion, national origin, sex, sexual orientation/gender identity, pregnancy, childbirth or related medical condition, disability, marital status, age, genetic information or veteran status in its programs and activities and provides equal access to the Boy Scouts and other designated youth groups. School Board policies and regulations (including, but not limited to, Policies 2-33, 4-4, 5-7, 5-19, 5-20, 5-44, 6-7, 6-33, 7-48, 7-49, 7-57 and Regulations 2-33.1, 4-4.1, 4-4.2, 4-4.3, 4-6.1, 5-44.1, 7-11.1, 7-17.1 and 7-57.1) provide equal access to courses, programs, counseling services, physical education and athletic, vocational education, instructional materials and extracurricular activities.

To seek resolution of grievances resulting from alleged discrimination or to report violations of these policies, please contact the Title VI/Title IX Coordinator/Director of Student Leadership at (757) 263-2020, 1413 Laskin Road, Virginia Beach, Virginia, 23451 (for student complaints) or the Section 504/ADA Coordinator/Chief Human Resources Officer at (757) 263-1133, 2512 George Mason Drive, Municipal Center, Building 6, Virginia Beach, Virginia, 23456 (for employees or other citizens). Concerns about the application of Section 504 of the Rehabilitation Act should be addressed to the Section 504 Coordinator/Executive Director of Student Support Services at (757) 263-1980, 2512 George Mason Drive, Virginia Beach, Virginia, 23456 or the Section 504 Coordinator at the student’s school. For students who are eligible or suspected of being eligible for special education or related services under IDEA, please contact the Office of Programs for Exceptional Children at (757) 263-2400, Laskin Road Annex, 1413 Laskin Road, Virginia Beach, Virginia, 23451.

Alternative formats of this publication which may include taped, Braille, or large print materials are available upon request for individuals with disabilities. Call or write The Department of Teaching and Learning, Virginia Beach City Public Schools, 2512 George Mason Drive, P.O. Box 6038, Virginia Beach, VA 23456-0038. Telephone 263-1070 (voice); fax 263-1424; 263-1240 (TDD) or email at Theresa.Dougherty@vbschools.com.

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VIRGINIA BEACH CITY PUBLIC SCHOOLS
CHARTING THE COURSE

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