



VIRGINIA BEACH CITY PUBLIC SCHOOLS
CHARTING THE COURSE

Department of Teaching & Learning
Parent/Student Course Information

Creative Coding & Computer Solutions II
(BE 3216)
No Credit, One Quarter
Grades 6 - 8

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

This nine-week course expands upon the Foundations of Creative Coding and Computer Solutions course. Students will continue their exploration of coding by building on what they learned in the foundations course. They will delve into more complex concepts such as controlling game flow with loops, events and conditional statements, and add animation using sprites. Admission to this course is based upon the successful completion of the Foundations of Creative Coding and Computer Solutions course.

CERTIFICATION

None

STUDENT ORGANIZATION

The Future Business Leaders of America (FBLA) is the co-curricular organization for middle and 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

Foundations of Creative Coding and Computer Solutions

OPTIONS FOR NEXT COURSE

Advanced Creative Coding and Computer Solutions

REQUIRED STUDENT TEXTBOOK

None

COMPETENCIES FOR FOUNDATIONS OF CREATIVE CODING & COMPUTER SOLUTIONS

Demonstrating Workplace Readiness Skills: Demonstrating Personal Qualities and People Skills

- 001 Demonstrate creativity and innovation.
- 002 Demonstrate critical thinking and problem solving.
- 003 Demonstrate initiative and self-direction.
- 004 Demonstrate integrity.
- 005 Demonstrate work ethic.

Demonstrating Workplace Readiness Skills: Demonstrating Interpersonal Skills

- 006 Demonstrate conflict-resolution skills.
- 007 Demonstrate listening and speaking skills.
- 008 Demonstrate respect for diversity.
- 009 Demonstrate customer service skills.
- 010 Collaborate with team members.

Demonstrating Workplace Readiness Skills: Demonstrating Professional Competencies

- 011 Demonstrate big-picture thinking.
- 012 Demonstrate career- and life-management skills.
- 013 Demonstrate continuous learning and adaptability.
- 014 Manage time and resources.
- 015 Demonstrate information-literacy skills.
- 016 Demonstrate an understanding of information security.
- 017 Maintain working knowledge of current information-technology (IT) systems.
- 018 Demonstrate proficiency with technologies, tools, and machines common to a specific occupation.
- 019 Apply mathematical skills to job-specific tasks.
- 020 Demonstrate professionalism.
- 021 Demonstrate reading and writing skills.
- 022 Demonstrate workplace safety.

Addressing Elements of Student Life

- 023 Identify the purposes and goals of the student organization.
- 024 Explain the benefits and responsibilities of membership in the student organization as a student and in professional/civic organizations as an adult.
- 025 Demonstrate leadership skills through participation in student organization activities, such as meetings, programs, and projects.
- 026 Identify Internet safety issues and procedures for complying with acceptable use standards.

Exploring Work based Learning

- 027 Identify the types of work-based learning (WBL) opportunities.
- 028 Reflect on lessons learned during the WBL experience.
- 029 Explore career opportunities related to the WBL experience.
- 030 Participate in a WBL experience, when appropriate.

Demonstrating Keyboarding Skills

- 031 Identify computer system components.
- 032 Boot, access, and exit operating system and software.
- 033 Key alphabetic, numeric, and symbol information, using a touch system and correct techniques.
- 034 Improve keyboarding techniques, speed, and accuracy.
- 035 Proofread copy.
- 036 Edit copy.

037 Describe ergonomic guidelines related to safe computer use.

Using Word Processing Software to Solve Problems

038 Key and format documents (e.g., letters, memoranda, reports, outlines, flyers, newsletters, and tables).

039 Compose documents (e.g., letters, memoranda, reports, outlines, and tables).

040 Apply word-processing skills to solve a problem.

041 Use word-processing program to develop notetaking skills.

Using Database Software to Solve Problems

042 Create a database by defining fields and designing formats.

043 Populate the database.

044 Process material using database features such as sort and merge.

045 Apply database skills to solve a problem.

Using Spreadsheet Software to Solve Problems

046 Input data and formulas.

047 Edit data within the spreadsheet (e.g., retrieve, update, move, and save).

048 Create graphs and charts to visually represent data.

049 Apply spreadsheet skills to solve a problem.

Using Telecommunications to Solve Problems

050 Identify emerging telecommunication technologies available to solve problems.

051 Identify local and worldwide network communication systems.

052 Use search strategies to retrieve electronic information.

053 Use electronic sources (e.g., encyclopedias, almanacs, indexes, and catalogs) to retrieve and select relevant information.

054 Analyze a problem to determine the telecommunication options needed for a solution.

055 Apply telecommunication skills to solve a problem.

Solving Ethical and Security Problems Relating to Computers

056 Identify security issues related to computer hardware, software, and data.

057 Analyze problems involving integrity, courtesy, and confidentiality related to information and communications systems.

058 Analyze the impact of regulations such as copyright and licensing agreements in computer software applications.

Solving Problems Relating to Computer Maintenance

059 Identify safety precautions associated with computer use.

060 Describe the care necessary for internal and external storage devices.

061 Describe methods of preventing the spread of computer viruses.

Local Competencies

062 Identify and locate bugs in a program.

063 Define ideas using code and symbols.

064 Modify an existing program to solve errors.

065 Create a program to complete an image using sequential steps.

066 Identify the benefits of using a loop structure instead of manual repetition.

067 Determine whether a conditional is met based on criteria.

068 Describe when a loop, nested loop, or no loop is needed.

069 Use a while loop to create programs that can solve problems with unknown values.

070 Translate spoken language conditional statements and loops into a program.

Aaron C. Spence, Ed.D., Superintendent
Virginia Beach City Public Schools
2512 George Mason Drive, Virginia Beach, VA 23456-0038

Produced by the Department of Teaching and Learning.
For further information, please call (757) 263-1070.

Notice of Non-Discrimination Policy

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Title IX Notice: Complaints or concerns regarding discrimination on the basis of sex or sexual harassment should be addressed to the Title IX Coordinator, at the VBCPS Office of Student Leadership, 641 Carriage Hill Road, Suite 200, Virginia Beach, 23452, (757) 263-2020, Mary.Dees@vbschools.com (student complaints) or the VBCPS Department of School Leadership, 2512 George Mason Drive, Municipal Center, Building 6, Virginia Beach, Virginia, 23456 (757) 263-1088, Elizabeth.Bryant@vbschools.com (employee complaints). Additional information regarding Virginia Beach City Public Schools' policies regarding discrimination on the basis of sex and sexual harassment, as well as the procedures for filing a formal complaint and related grievance processes, can be found in School Board Policy 5-44 and School Board Regulations 5-44.1 (students), School Board Policy 4-4 and School Board Regulation 4-4.3 (employees), and on the School Division's website at [Diversity, Equity and Inclusion/Title IX](#). 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, Plaza Annex/Family and Community Engagement Center, 641 Carriage Hill Road, Suite 200, Virginia Beach, VA 23452.

The School Division is committed to providing educational environments that are free of discrimination, harassment, and bullying. Students, staff, parents/guardians who have concerns about discrimination, harassment, or bullying should contact the school administration at their school. Promptly reporting concerns will allow the school to take appropriate actions to investigate and resolve issues. School Board Policy 5-7 addresses non-discrimination and anti-harassment, Policy 5-44 addresses sexual harassment and discrimination based on sex or gender. Policy 5-36 and its supporting regulations address other forms of harassment.

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