Department of Teaching & Learning
Parent/Student Course Information

Foundations of Creative Coding & Computer Solutions
(BE 3215)
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 provides basic exploratory activities in computer software applications and coding fundamentals. Students learn to create computer programs that will help them learn to collaborate with others, develop problem-solving skills, and persist through difficult tasks. They will study programming concepts, computational thinking, digital citizenship, and develop interactive games or stories they can share. This course is open to students in grades 6 through 8, and serves as the foundation for the Creative Coding and Computer Solutions II 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
None

OPTIONS FOR NEXT COURSE
Creative Coding and Computer Solutions II

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.

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, activities, employment, or enrollment, 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, 6-33, 6-7, 7-48, 7-49, 7-57 and Regulations 4-4.1, 4-4.2, 5-44.1, 7-11.1, 7-17.1 and 7-57.1) provide equal access to courses, programs, enrollment, counseling services, physical education and athletic, vocational education, instructional materials, extracurricular activities and employment.

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.

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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