



## OCCUPATIONS

- Computer Network Architect
- Database Administrator
- Information Security Analyst
- Programmer
- Systems and Data Analyst
- Software Developer
- Software Quality Assurance Engineer
- Website Developer



# PROGRAMMING & COMPUTER SCIENCE

*Year 1- 2.0 Elective Credits and 1.0 Math Credit*

*Year 2 - 2.0 Elective Credits and 1.0 Science Credit*

## ABOUT THE PROGRAM

This project-based program prepares students in one of three related career pathways: Programming, Web Development, or Cybersecurity. First year students learn fundamentals for each pathway, which apply to all: web basics (HTML and CSS), coding basics (JavaScript), and Linux command line basics (using Virtual Machines). Second year students apply these skills to create digital portfolios with Wordpress, text adventure games with HTML, CSS and Javascript, and participate in the US Air Force's CyberPatriot simulation. Students also learn communication and presentation skills as they teach each other via presentations and screencasts, and through Quality Assurance and Help Desk services. In year two, students apply these skills to deeper projects and simulations, connecting to mentors, clients and collaborators through remote Work-Based Learning experiences.

## CREDENTIALS, CERTIFICATIONS, WORK-BASED LEARNING AND LEADERSHIP OPPORTUNITIES

**Web Development** students staff a free web redesign clinic, obtaining personal references and digital portfolio artifacts. **Programming** students help maintain an open source project with peers and mentors, developing team freelancing skills. **Cybersecurity** students offer digital security audits to organizations and individuals, building business and customer relations skills.

## PROGRAM OUTCOMES

Students completing this program continue their studies in certificate and degree programs in Computer Science-related fields, support college with freelance computing work, and participate in open source software development and civic hacking community service.

## NOTES:

### **Equal Employment Opportunity and Non-Discrimination Statement**

Applicants for admission and employment, students, parents, employees, sources of referral of applicants for admission and employment, and all unions or professional organizations holding collective bargaining or professional agreements with the Burlington School District are hereby notified that it is the intent of the Burlington Board of School Commissioners that the District will not discriminate against employees and/or applicants for employment, students or other designated beneficiaries of the statutes listed below on the basis of race, sex, gender (including but not limited to pregnancy and parental status), color, age, creed, religion, disability, handicap, ancestry, place of birth, national origin, marital status, political affiliation, sexual orientation, gender identity or gender expression in any of its employment and education practices, policies, procedures or decisions or in the operation of, access to, participation in, benefit of or admission to its programs, activities, services and facilities and that it will provide equal access to the Boy Scouts of America and other designated youth groups in compliance with and to the extent provided by the laws listed below. Pursuant to the §504 of the Rehabilitation Act of 1973, the Board will take positive steps to employ and advance in employment qualified handicapped persons in programs receiving federal assistance under the Education of the handicapped Act (Individual with Disabilities Education Act) and make reasonable accommodations to the known physical or mental limitations of the qualified handicapped applicant or employee to the extent required by law. The superintendent of his or her designee shall prepare, and the board shall approve, guidance to applicants and employees regarding requests for reasonable accommodations, including provisions for undue hardship. The District's Title VI Coordinator, the Age Discrimination Act Coordinator and Americans with Disabilities Act Coordinator for employees and others is Ze Susan Anderson-Brown, Human Resources Director, Burlington School District (802) 864-2159; 1-800-253-0191 TDD; The District's Title IX Coordinator for employees, students, parents and other such relatives, friends, guest speakers or visitors is Ze Susan Anderson-Brown, Human Resources Director, Burlington School District (802) 864-2159; 1-800-253-0191 TDD. The District's Americans with Disabilities Act Coordinator for students and §504 Coordinator is Laura Nugent, Director of Student Support Services of the Burlington School District (802) 864-8456; 1-800-253-0191 TDD Burlington Technical Center - 52 Institute Road, Burlington, VT 05408 802-864-8426-phone 802-864-8521-fax [burlingtontech.org](http://burlingtontech.org)