

**VIRGINIA DEPARTMENT OF EDUCATION  
OFFICE OF CAREER AND TECHNICAL EDUCATION  
VIRGINIA CYBERCAMP 2016 PROGRAM**

**OVERVIEW**

**1) GOALS**

- Increase awareness of careers in cybersecurity among teachers and students;
- Engage students in project-driven learning; and
- Introduce students and teachers to cybersecurity-related industry credentials (pretest/practice tests) and provide students a foundation in which they can pursue a certification during the 2016-2017 school year.

**2) ELIGIBLE SCHOOL DIVISIONS/CAMP LOCATION**

- For purposes of this program, a challenged school division is based those with 50 percent or more of its enrolled students who are eligible for free and reduced price meals.
- A single school division (with one or more high schools) or multiple school divisions within a region may submit a Virginia CyberCamp 2016 *Application to Participate*.
- The completed application should not exceed a total of six pages—consisting of contact information, an abstract (not to exceed two pages) of the proposed instructional activities; a proposed “start-up budget” for planning and professional development and the proposed camp budget; and a signed agreement by the division superintendent certifying the division and school will comply with the statement of assurances.
- The Virginia CyberCamp 2016 Application is due to VDOE by January 25, 2016.

**3) CAMPSITE REQUIREMENTS**

- Must be located on a high school campus in a challenged school division
- Must provide appropriate insurance coverage
- Must offer a total of 70 hours of instructional time, which should include guest speakers, field trips, project-driven learning opportunities, and a culmination/recognition program
- Offer up to 25 individual student computer stations in a classroom/lab environment conducive for teamwork. Priority must be given to students enrolled in the host school/division (with multiple schools) before admitting students from nearby eligible division(s)
- Provide applicable instructional resources and promotional materials
- Provide meals (breakfast, lunch, and nutritional snacks)
- Provide bus transportation (in compliance with state and federal regulations) to and from the camp, and cybersecurity related field trips

**4) ELIGIBLE STUDENTS**

- Rising tenth-, eleventh-, and/or twelfth-graders who have expressed an interest in cybersecurity careers or who have started a program of study related to the cybersecurity sector.

- Each student participant and parent or guardian shall sign an assurance that the student agrees to follow the school's Code of Conduct during the camp and all related camp activities.

## **5) STAFFING**

- Each core implementation team for CyberCamp 2016 shall consist of a project manager, an on-site camp director, at least four teachers (one mathematics, one science, one English (language arts), and one or more career and technical education (CTE) teachers, at least one high school counselor, and a ready-access IT specialist.
- The teachers and school counselor(s) will be selected by the division/school.
- Other team members involved in the planning phase may include representatives from business and industry, postsecondary education, parent association, student leadership organization, CTE advisory committee, and community economics and work force leaders.

## **6) ROLE OF CORE PLANNING AND IMPLEMENTATION TEAM**

- The core implementation team shall be responsible for selecting and preparing the campsite, working with VDOE and professional development providers, Cyber Innovative Center, and preparing communication materials for parents, recruiting students, business and industry partners, postsecondary education partners, obtaining insurance coverage, arranging transportation and meals, implementing and evaluating the entire camp experience, completing all required reimbursement and data reporting to the Virginia Department of Education.

## **7) PROFESSIONAL DEVELOPMENT**

- The VDOE, in partnership with the Cyber Innovative Center (CIC), will provide focused professional development and technical assistance in planning the camp activities (at no cost) for each local implementation team between February-April 2016.

## **8) IMPLEMENTATION GUIDELINES AND REQUIREMENTS**

### Summary of Instructional Component

- Cyber literacy will be introduced through hands-on experiences. These experiences will include problem-driven integrated STEM (science, technology, engineering, and mathematics) activities that use robotics, artificial intelligence, and ethics to explore the challenges and opportunities of cybersecurity.
- Using a cybersecurity curriculum developed by the National Integrated Cyber Education Research Center and supported by the U.S. Department of Homeland Security, the camp will provide knowledge-based and performance-based experiences related to cyber issues, cyber careers, and the role that cybersecurity plays in daily life. Work force issues are examined in lessons that address the consequences of acts of terrorism, the necessity of a networked society, and cybersecurity threats.
- During the camp, students will be introduced to the Virginia Education Wizard, a one-stop, online career planning tool.
- Additionally, to make the work force information more relevant, students will utilize an online career development program, LifeJourney™, in which virtual mentors from many

different companies expose students to real-world cybersecurity careers and show them the path and the skills they will need for the future.

- Each camp shall include at least a one-day field visit to local employers who will share with students how Virginia businesses are addressing cybersecurity threats. Students will learn about the types of information technology, criminal justice, and human services careers that are available in their communities to meet the challenges of cybersecurity and the postsecondary cybersecurity education and training programs at nearby community colleges and universities.

## 9) EVALUATION AND NEXT STEPS

- Students and on-site camp teachers and staff will be administered a pre- and post-survey to measure overall effectiveness of the CyberCamp.
- Students and teachers will be administered a cybersecurity-related pretest at the beginning and at the end of the camp to measure technical knowledge and skills attained. The students learning activities and experiences during the camp will provide a foundation in which they can pursue an industry certification during the 2016-2017 school year.
- Students and teachers may take an appropriate Virginia Board of Education-approved credentialing exam, such as the Microsoft Technology Associate (MTA), CompTIA or the IC3 GS4.
- A certificate of completion will be awarded to student and teacher participants who successfully complete CyberCamp 2016.
- A written evaluation of the camp by the core implementation team will outline next steps for continued instruction, promotion, and recruitment to increase the number of high school students that complete a cybersecurity related program of study.

## 10) PROPOSED TIMELINE

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|-----------------------|--|
| • December 18, 2015   | Intent to Participate Due to VDOE  |
| • January 25, 2016    | Camp Application Due to VDOE   |
| • February 1, 2016    | Send Notifications (including start-up funding) to School Divisions  |
| • February-April 2016 | Preparation for Camp (including participation in the required professional development for the core implementation team) |
| • May-August 2016     | Conduct Camps  |
| • June 10, 2016       | Final request for reimbursement due to VDOE  |
| • September 25, 2016  | Final closeout financial reports/documentation due to VDOE   |