



Air Force Association's CyberPatriot

The National Youth Cyber Education Program

CyberPatriot: Inspiring Student Interest in Cybersecurity and STEM

By 2018, the U.S. Department of Commerce estimates there will be 1.2 million unfilled science, technology, engineering, and mathematics (STEM) jobs in the United States. The CyberPatriot program is helping to fill that gap with qualified talent by exciting K-12 students about cybersecurity or other STEM disciplines through education and competition.

CyberPatriot features three programs:

National Youth Cyber Defense Competition

This event challenges high school and middle school students to act as IT professionals who must manage a small company network. Students compete in teams of five at their state and regional levels and are evaluated on how well they can find and protect against known vulnerabilities on a virtual network. Top teams earn an all-expenses-paid trip to Washington, DC, to compete in a national event to earn recognition and scholarships.

AFA CyberCamps

These five-day summer camps teach students across the country about cybersecurity and conclude with a mock competition.

Elementary School Cyber Education Initiative

Available to K-6 students, this free class teaches the importance of online safety and helps students learn how to protect themselves on the Internet.

Why Cybersecurity Matters

- Nearly all industries in the United States rely on cybersecurity, including banking, commerce, manufacturing, and defense
- Predators can exploit young children on the Internet if proper security practices aren't followed
- Cyber careers are in high demand and currently there's a workforce shortage of one million information security professionals, worldwide

CyberPatriot Benefits

- Helps students understand the importance of cybersecurity
- Equips students to better protect themselves on the Internet
- Teaches students skills that can be used in college and the workforce
- Encourages students to pursue cyber or STEM-related careers
- Raises cybersecurity awareness in schools
- Engages students to learn about cybersecurity and STEM disciplines
- Fosters teamwork and school pride among students
- Fuels competitive spirit

Cisco CyberPatriot Training Materials

All teams participating in CyberPatriot receive access to the [Cisco Networking Academy](#)® platform that includes three CyberPatriot-specific training courses:

- **Instructor Course** provides instructors an introduction to the site and instructions on how to start teaching teams
- **Content Course** includes team training modules that help students increase their networking knowledge. Coaches and mentors can create a content course once the instructor course is complete
- **Competition Course** allows teams to access quizzes and Packet Tracer activities

Questions about accessing the course materials should be directed to the CyberPatriot Program Office at cpoc@uscyberpatriot.org, not Cisco.

Participate in CyberPatriot: The Four-Step CSTP Method

1. Find a Coach

A coach is someone at your school who is passionate about providing this opportunity to students and who doesn't have to be an expert in cybersecurity or computers.

2. Get Support

Your team will need technical and non-technical support. Technical mentors are professionals, students, or IT-experienced adults who can volunteer to help your coach and team understand cybersecurity and related concepts in the competition. They can be at your school, in the local community, at a four-year college, or employed at a local business. Non-technical support includes adults willing to assist with transportation, set up, or simply provide encouragement.

3. Form a Team

A team consists of up to five students. Each competitor has his or her own role but the team needs to function as a whole as well. Players need a computer or laptop that can run the virtual images used for practice and competition and access the Internet.

4. Practice

Here's where the fun starts. Your team needs to practice often—at least several hours a week leading up to the competition. The stronger commitment your team has, the better chances you have of winning and moving onto finals in Washington, DC.

Cisco and STEM

Cisco is committed to inspiring more people to pursue STEM education and careers. We believe encouraging people to study STEM is imperative for society. Through mentoring, IT training, and support for schools and nonprofits, we are working to increase the pipeline of STEM talent around the world. We are excited to be a CyberPatriot sponsor and to share access to the Cisco Network Academy® with teams.

For More Information

Visit <https://www.uscyberpatriot.org/home> to register your team, sign up to volunteer, or explore more about the program, including costs, competition requirements, and available resources.

To learn about other Cisco® STEM programs, visit <http://csr.cisco.com/pages/stem-at-cisco>.

Sources:

- www.uscyberpatriot.org
- Source for shortage of one million information security professionals: [Cisco 2015 Annual Security Report](#)
- Source for 1.2 million unfilled STEM jobs: [U.S. Department of Commerce](#)