

Discovering...

High School

# Computers and Cyber Security Camp



The Computers and Cyber Security Camp includes problem-based instruction and hands-on activities with a strong emphasis on exposing students to computer security/information assurance careers, especially in the financial services industry. Students will be involved in many activities designed to protect and defend personal privacy and information systems, and they will learn techniques for information system restoration by incorporating protection, detection, and recovery capabilities.

## WHO SHOULD ATTEND THIS CAMP?

This camp is for students entering grades 9–12 who are interested in computers and information technology. Experience with computer networks is helpful but not required. The camp runs Monday–Friday, 8:30 a.m.–4:00 p.m., Monday–Friday, and lunch is included.

**JULY 9-13**

**FEE: \$625/Residential, \$350/Commuter**

**Camp runs Monday–Friday, 8:30 a.m.–4:00 p.m.**

## CAMP INCLUDES THE FOLLOWING SUBJECTS

### Networking and Internet Protocols:

Basic function of the TCP/IP layers; addressing (IP, port numbers, physical); network topologies; client/server paradigm

### Introduction of Information Security and Privacy:

Information confidentiality, integrity, and availability; terminology of information security; digital rights; privacy; threats to information security and privacy

### Technology for Information Security:

Cryptography; symmetric encryption algorithms; asymmetric and public key encryption; hashing; authentication and authentication factors (passwords, smart cards, biometrics)



### PC Security:

Patching and software updates; detecting and protecting against malicious software; PC firewalls; PC vulnerability analysis; browser and e-mail security; protecting files and folders using encryption and password; backups, restoring computers, and disaster recovery; PC security policies

### Networking and Internet Protocols:

Network firewalls and network defense; intrusion detection; physical security for networks; network administration

**\*All camp participants are responsible for their own transportation to and from the campus. Lunch will be provided.**

*\*The camp activities shown are based on last year's camp and are subject to change at the instructor's discretion.*

To sign up, go to: [berks.psu.edu/summercamps](http://berks.psu.edu/summercamps)