

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.

CAMP INSTRUCTOR

Abdullah Konak, Ph.D., has been a faculty member in Information Sciences and Technology at Penn State since 2003. He received his doctoral degree from the University of Pittsburgh and is he has a strong interest and background in computer networks, security systems, and telecommunications technology. Konak has successfully taught youth programs for both middle and high school students.

JULY 11–15

FEE: \$550/Residential, \$325/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