



Cybersecurity Camps: Questions and Answers

What are Whatcom Community College (WCC) Cybersecurity Camps?

WCC Cybersecurity Camps are focused learning activities that provide students a basic understanding of the components of a network, virtualization, connectivity, operating systems, network vulnerabilities, and an understanding of potential careers in cybersecurity, including educational pathways for success.

Who are the camps for?

The Cybersecurity Camps are targeted at high school junior and senior students who have a strong interest in computers and a strong interest in exploring information security, which includes protecting information and information systems from unauthorized access, destruction, or misuse. These camps are intended to expose students to career options in information security, which is a growing and high-demand field in the U.S. and worldwide.

Where will the camps be located?

Camps will be located at Whatcom Community College (WCC) in the Computer Information Systems (CIS) network and security lab, located at 237 West Kellogg Road, Bellingham, WA.

When will the camps be held?

The first camp was held winter 2012 and the second camp will begin in January, 2013. Each camp is made up of 6 sessions. The camp session starting Winter 2013 will be held on Saturdays, from 10:00 a.m. – 3:00 p.m. Session dates are as follows: Jan 5, Jan 12, Jan 26, Feb 2, Feb 9, Feb 23 – Cyberdefense competition

How do students apply?

Information sessions for high school faculty, advisors and interested students will be held at local high schools in October, 2012. Information and applications will be made available at participating high schools and on WCC's website (www.whatcom.ctc.edu/cybercenter). All application packets are due back to WCC by ~~Thursday, November 15, 2012~~ **Deadline extended to Friday, November 30, 2012!** Students must return their completed packets to WCC.

How do students get selected?

Students are selected through an application process. Selection will be based on GPA, stated goals, an essay, and teacher recommendation. Selections will be handled by a small committee of WCC faculty and administrators led by Principal Investigator (PI) Corrinne Sande.

How much does it cost?

While most of the expenses are covered by the National Science Foundation Advanced Technology Education Grant, there is a \$60 non-refundable charge for the camp. A limited number of partial scholarships will be available for low-income students to cover \$50 of this charge and help with transportation expenses. Students who attend will also receive a camp tee-shirt and lunch.

What are the benefits for students?

Cybersecurity Camps will offer a unique opportunity for high school students to participate in hands-on cybersecurity learning activities in a growing and emerging high-demand field. High school students who attend all sessions and meet the expectations and requirements of the program will be eligible for the following:

- A \$200 stipend awarded to students who attend all six camp sessions and successfully complete all assignments,
- Opportunity to apply for credit for CIS 110 (Introduction to Security), a 3-credit core course in the CIS program at WCC,

- Opportunity to meet with business and industry leaders in the technology field.
- High school credit may be available—students should talk to their high school counselor for more information.

Who is the instructor for the camps?

Corrinne Sande, WCC Computer Information Systems Program Coordinator, will be instructing and overseeing the Cybersecurity Camps. Professor Sande has extensive experience in information security and holds several industry certifications including the SANS certified incident handler and Cisco Certified Network Profession. Professor Sande is actively involved in Cyber Watch, an NSF funded project designed to develop security awareness, career pathways, professional development, and dissemination of best practices related to cybersecurity (<http://cyberwatchcenter.org>). Professor Sande is a member of the Operations Committee for the Pacific Rim Regional Cyberdefense Competition. In addition, WCC has been named a Center for Academic Excellence of Two Year Colleges in Information Assurance Education by the National Security Agency and the Department of Homeland Security as a result of Professor Sande’s work. Professor Sande will be assisted with the camps by the WCC CIS Student Club – IT Professionals of Tomorrow.

What will the participants be doing?

Please see the following table for the camps’ learning activities.

Date	Session	Learning Activities	
		Instruction	Activities
Jan 5	1	Overview of Course and Ethics Careers in cybersecurity Introduction to virtualization Attackers and their attacks, examples of attacks SANS code of ethics	Configure a virtualization image Demonstration of an attack Examine a real life case Business guest speakers Information session for parents
Jan 12	2	Networks Components of a network How data travels through a network The Internet Types of networks	Set up a simple network Test connectivity using command line tools Intrusion detection using Snort Next steps and support in applying for Financial Aid and college.
Jan 26	3	Operating Systems Functions of an operating system Windows and Linux	Windows and Linux activity Secure a vulnerable machine activity Educational Pathways and Programs of Study
Feb 2	4	Web Web applications MySQL and php Vulnerabilities Countermeasures	Set up a LAMP server Web vulnerability demonstration
Feb 9	5	Application Security Examples of vulnerabilities in applications Countermeasures Review and prepare Practice run for securing network	Identify a vulnerability using the CVE list Protect network from WCC student red team Earn points from WCC student judges
Feb 23	6	Competition Day Teams of 4 students each	Whatcom red team and industry personnel

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