Cybersecurity Camp 2014: Questions and Answers

What is Whatcom Community College's (WCC) Cybersecurity Camp?
WCC Cybersecurity Camp involves 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 is the camp for?
Cybersecurity Camp targets high school 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. This camp is 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 camp be located?
Camp will be located at Whatcom Community College in the Computer Information Systems (CIS) network and security lab, located at 237 West Kellogg Road, Bellingham, WA.

When will the camp be held?
Camp will begin in January, 2014, and will include 6 sessions held on Saturdays, from 10:00 a.m. – 3:00 p.m. Session dates are as follows: Jan. 11, Jan. 25, Feb. 1, Feb. 8, Feb. 22, and March 1 – the Cyberdefense competition.

How do students apply?
Applications are available on WCC's website (www.whatcom.ctc.edu/cybercenter). Students must submit a complete application packet to be considered for the camp. A complete packet includes the application form, a brief student essay, a teacher or counselor's letter of recommendation, and the student's high school transcript. All application packets are due back to Whatcom Community College by Thursday, October 31, 2013.

How are students selected?
Students are selected through an application process. Selection will be based on GPA, student essay, and teacher/counselor recommendation. Selections will be handled by a small committee of WCC faculty and administrators led by Principal Investigator (PI) Corrinne Sande. Students selected to attend the camp will pay a registration fee and submit additional forms, including a parent/guardian permission slip.

How much does it cost?
While most of the expenses are covered by the National Science Foundation Advanced Technology Education Grant, Students selected to attend camp will pay a $60 non-refundable charge for the camp. A limited number of partial scholarships will be available for low-income students (on the Free or Reduced Lunch program) to cover $50 of this charge. Students who attend will also receive a camp tee-shirt and lunch. Students who successfully complete the camp may be eligible to receive credit in WCC's 3-credit CIS 110 course. The fee for this credit is approximately $40, payable at the end of the camp.

What are the benefits for students?
Cybersecurity Camps 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. 11	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. 25	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.
Feb. 1	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. 8	4	**Web** Web applications MySQL and php Vulnerabilities Countermeasures	Set up a LAMP server Web vulnerability demonstration
Feb. 22	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
Mar. 1	6	**Competition Day** Teams of 4 students each	Whatcom red team and industry personnel

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