

Course Code: CTE 1301

**For: High School
Home Networking**

Only applicants who meet the following criteria are eligible to apply for this workshop:

- Priority 1: Will be given to high schools that currently have a Home Networking Program, have required Cisco equipment, and need to train an instructor for SY 2013-2014.
- Priority 2: Will be given to high schools that plan to implement a Home Networking Program, have required Cisco equipment, and need to train an instructor for SY2013-2014.

Maximum Number of Participants:	Number of participants allocated to DoDDS Europe	Number of participants allocated to DoDDS Pacific and DDESS Guam	Number of participants allocated to DDESS and DoDDS Cuba
3	1	1	1

Location	Hotel Check-in Date	Session Begin Date	Session End Date	Hotel Check-Out Date
VTC/DCO/WebEx	None	TBD (June 23)	TBD (July 31)	None

Number of Workshop Days	Community Strategic Plan Goal (s):	Number of semester credit hours offered
10	1 and 3B	TBD
Connection of this course and the objectives as related to increasing student achievement: This course is directly related to increasing student knowledge, understanding and skills in working, planning, executing and remediating a Cisco system.		

Level of Training:

Level Three: Application of skills and transfer to classroom settings; implementation and modification of new practices

Level Four: Maintenance and refinement/Teaching others to use skills; refining and integrating practices with other successful practices for greater effectiveness.

Professional Development Knowledge and Targeted Competencies:

- Mastering Content and Curriculum;
- Presenting Organized Instruction;
- Monitoring and Assessing Student Achievement;
- Responding to Professional Responsibilities;
- Evaluating student progress and assesses student instructional needs;

Course Description:

This course prepares a teacher to teach the first and second of four courses in the Cisco Networking Academy series. Instruction includes an orientation to the Cisco Academy course management system and an in-depth exploration of computer networking for the home and small business. The course objectives covered in the workshop include the following:

- Set up a personal computer system, interface cards, and peripheral devices
- Plan and install a home or small business network and connect it to the Internet
- Verify and troubleshoot network and Internet connectivity
- Share resources (files and printers) among multiple computers
- Recognize and mitigate security threats to the home network
- Configure and verify common Internet applications
- Configure basic IP services through a GUI interface
- Describe the structure of the Internet and how communication occurs between hosts
- Install, configure, and troubleshoot Cisco IOS devices for Internet and server connectivity
- Plan a basic wired infrastructure to support network traffic
- Configure a server to share resources and provide common Web services
- Implement basic WAN connectivity using Telco services
- Demonstrate proper disaster recovery procedures and perform server backups
- Monitor network performance and isolate failures
- Troubleshoot problems using an organized, layered procedure
- Describe the OSI model and the process of encapsulation

Particular emphasis is given to the use of decision-making and problem-solving techniques in applying science, mathematics, communication, and social studies concepts to solve networking problems. In addition, instruction and training are provided in the proper care, maintenance, and use of networking software, tools, and equipment and federal safety, building, and environmental codes and regulations.

Selected participants will be required to download and read the entire course curriculum prior to attending this course. This is a very rigorous and fast-paced curriculum that requires participants to be familiar with the course material prior to the start of the course. Participants are expected to bring a laptop computer that can be connected to a network.

Objectives: Educators will be able:

1. To set up a personal computer system;
2. To plan and install a small network connecting to the internet;
3. To troubleshoot network and internet connectivity;
4. To share resources through a server;
5. To recognize and mitigate networking security;

6. To configure an integrated wireless access point and client;
7. To understand the structure of the internet and how communication occurs;
8. To install, configure, and troubleshoot Cisco IOS devices;
9. To implement basic WAN connectivity using Telco services;
10. To demonstrate proper disaster recovery procedures and perform server backups.

Description of how this course will apply Using Data to Differentiate Instruction as the framework for professional development focus:

Educators will learn and apply the results of data/assessment in terms of the Cisco system and use it as data to drive decision making. There is no differentiation of instruction as a model of instruction as this course revolves around the rigor of problem based learning and data driven decision making. Educators will be able to transfer the system's operational pedagogy to the differentiated model in the classroom on how to vary the content, process, or product based upon students' interest, level of functioning or learning profile.

Correlation of this course to:

- **Standards:** The standards that will be used in this course are the industry standards that regulate Cisco as a certificated course;
- **Curriculum:** The curriculum is an industry curriculum that revolves around the application of science, mathematics, decision making and problem solving;
- **Instruction:** This course involves a constructivist approach to teaching and learning;
- **Assessment:** Assessment is on-going in Cisco based upon projects, plans, and execution of operation of plans and projects. These ongoing assessments drive decision making and problem solving. Cisco is about revising and refining as an ongoing aspect of assessment of and for learning.

Expectations upon return to the teaching and learning environment:

Upon return to the work environment, participants will be required to submit a certificate of passing this course to Hoa Nguyen, DoDEA CTE ISS, within one week of the end of this course. **Teachers must pass this course and the final exam in order to teach this course in school year 2013-2014.**

Online evaluation:

Upon completion of this professional development, participants will be required to complete an online evaluation of this session.

Point of Contact:

Hoa Nguyen; DoDEA CTE ISS, DODEA HQ, Arlington, VA; Phone: 571-372-6019.

■ Applicants need to know that completing this form and submitting it does not constitute acceptance or clearance into this or any workshop. This is merely an application process and not an acceptance process. Applicants will be notified on April 29, 2013 by their supervisors if they have been accepted into a workshop by DoDEA Headquarters.