Alconbury High School

Course Name and Number
CISCO Networking I: BCT 502

Course Description
This course prepares students to become network engineers and prepares them for entrance into a technology career field or for further technology study. The program includes a complete range of basic and advanced networking concepts – from pulling cables through such complex concepts as subnet masking rules and strategies. Successful completion of this course and the Cisco Networking 2 course should help prepare the student to pass the Cisco Certified Network Associate (CCNA) examination. The two-year program teaches students to design, build, and maintain small to medium-sized networks. Activities are conducted in a lab setting using computers, servers, and routers that students assemble into functional networks.

Text
There is no textbook issued for the class. Students will access the curriculum online at http://cisco.netacad.net
I do have some reference books for students to check out.
There are optional materials that students may wish to purchase on their own.

Teacher Name
Mr. B

Contact Information
E-Mail: Math.MrB@eu.dodea.edu

Location
Room 3, bottom floor of the Main Building.

Philosophy
I expect every student to give 100% effort. Likewise, each student should expect the same from me.

Materials
3-ring binder
Notebook paper
Pencils
Internet access-outside of school

Grading Policy
Engineering Journal: 30%
Labs: 20%
Quizzes: 10%
Online Tests: 40%

DoDEA Grading Scale

90-100	=	A
80-89	=	B
70-79	=	C
60-69	=	D
59 or below	=	F

Assessment

Students will demonstrate their knowledge through tests, quizzes, hands-on demonstrations, and projects. A Chapter Test will be given approximately once a week during class. The tests are taken online.

Homework

Sometimes students will have time in class to re-read the online curriculum; however it is imperative that students read the online curriculum at home so that class time can be used to discuss and understand the concepts that have been read.

Late Work Policy

Students may turn in late work the next day that the class meets after the assignment was actually due; however, the highest grade a student can earn for late work is 50%. Late work is not to be confused with make up work, which is for excused absences such as illness, school activities, etc.

Tutoring/Extra Help

Extra help is available during seminar and during lunch. Passes need to be obtained by students prior to their help session.

Classroom Management

Outlined in the "Behavior Expectations" handout, which is attached. Needs to be signed by both the student and the parent/legal guardian and then returned.

Content Outline

Semester 1:

Module 1: Introduction to Networking
Module 2: Networking Fundamentals
Module 3: Networking Media
Module 4: Cable Testing
Module 5: Cabling LANs and WANs
Module 6: Ethernet Fundamentals
Module 7: Ethernet Technologies
Module 8: Ethernet Switching
Module 9: TCP/IP Protocol Suite and IP Addressing
Module 10: Routing Fundamentals and Subnets
Module 11: TCP/IP Transport and Application Layer
Case Study: Structured Cabling

Semester 2:
Module 1: WANs and Routers
Module 2: Introduction to Routers
Module 3: Configuring a Router
Module 4: Learning about Other Devices
Module 5: Managing Cisco IOS Software
Module 6: Routing and Routing Protocols
Module 7: Distance Vector Routing Protocols
Module 8: TCP/IP Suite Error and Control Messages
Module 9: Basic Router Troubleshooting
Module 10: Intermediate TCP/IP
Module 11: Access Control Lists (ACLs)
Case Study: Routing

Essential Objectives: Upon completion of the course, students should be able to

- Differentiate between OSI model and industry standards
- Convert decimal to binary numbers
- Describe network topologies
- Explain IP addressing, including subnet masks
- Identify networking components
- Prepare basic network designs
- Understand beginning router configuration protocols