

## Course Syllabus

### **Discovery 4: Designing and Supporting Computer Networks**

WVEIS Code: 1648

Chad McKisic, Instructor/Advisor

Credit: 1

Edge Credit Available

#### Course Description

This course provides an introduction to collecting customer requirements, translating those requirements into equipment and protocol needs, and creating a network topology which addresses the needs of the customer. Areas of study include network design concepts, gathering network requirements, characterizing the existing network, identifying application impacts on network designs, creating the network design, using IP addressing in the network design, prototyping campus networks, prototyping the WAN, and preparing the proposal. Students will demonstrate knowledge and technical expertise in the skills necessary to design small Enterprise LANs and WANs. Emphasis will be placed on personal and professional ethics and students will explore a variety of career opportunities. Students will utilize problem-solving techniques and participate in laboratory activities to develop an understanding of course concepts and teachers should provide each student with real world learning opportunities and instruction related to occupations in networking. Safety instruction is integrated into all activities. Students are encouraged to become active members of SkillsUSA for additional co-curricular opportunities that enhance student achievement, develop student leadership, and support experiential learning. Course components also address the 21st Century Learning Skills and Technology Tools. All West Virginia teachers are responsible for classroom instruction that integrates learning skills, technology tools, and content standards and objectives.

#### Prerequisites

Discovery 1,2,3

#### Textbooks and Curriculum

Discovery 4 Curriculum (Web Based)

**Students are responsible for all textbooks assigned to them and will be required to replace them if lost or damaged.**

#### Addition Readings, References, or resources

Some assignments may require research in other network related books. In addition internet research is used extensively. The students are to follow and agree to the Fred W. Eberle Technical Center Acceptable Use Policy before any computer use is allowed.

#### Instructional Philosophy

I am eager to share my knowledge and experience of computer repair with future IT professionals. I have developed my program to be a challenging and interesting. In this program, I am not only training you to be able to repair computers, but I am training you as an IT professional. Therefore, I expect professional conduct and attitude at all times. Professional dress will be required in some occasions and dress should be appropriate for the activities that will be taking place in class that day. That being said, I enjoy computer repair and want you to enjoy it also. However, we can not lose sight of the reason why we are all part of this program: to secure the future IT positions. For that reason, I do not tolerate interruptions or distractions that are detrimental to the class as a whole.

### Instructional Delivery

Discovery 4: Designing and supporting computer networks is the fourth class of four core classes required for the Cisco Networking program. Therefore, it contains the basic information needed to pursue a career in information technology. There is a lot of reading, lecture and written work involved with this course. However, there are several labs, hands on activities, and group projects that are included. Since this course is based on technology we will be using various types of technology.

### Assessment System

Grading Scale is based on the county scale:

A – 93-100  
B – 85-92  
C – 75-84  
D – 65-74  
F – 0-64

Your final grade is determined as follows:

Written assignments:	10%
Quizzes:	5%
Unit Tests:	20%
Weekly Grade:	20%
Labs:	25%
Final Exam:	20%

Extra credit may be provided for extenuating circumstances only

### Academic Rigor

Coursework is guided by:

- Content Standards & Objectives provided by the WV Department of Education
- Industry Standards
- Cisco Networking Academy
- The West Virginia Standards for 21<sup>st</sup> Century Learning

### Classroom Management Plan

#### **Rules**

- Once the bus drops you off, come directly to the classroom, gather your supplies, find your seat and be ready to work.

- Show respect and common courtesy to instructor, peers, and any visitors to our classroom.
- Do not talk while the teacher or anyone else is speaking.
- Raise your hand to be called on when wanting to contribute to discussion or asking a question.
- Request permission to leave your seat or work area.
- Food and drinks in the classroom are a privilege that will be taken away if the room is not kept neat.
- Sleeping is not tolerated. If your head is down, you are considered sleeping.
- Cell phones are prohibited at all times. Any cell phones seen will be taken and returned to the parents only.
- Music players are not allowed during instructional time.
- Break time is a privilege that can be taken away if the class is not making adequate progress or for behavioral reasons.
- In addition, all rules in the Fred W. Eberle Handbook are expected to be followed. .
- Equipment is not allowed to be utilized without instructor permission.
- There must be a signed acceptable use policy in your file before computer use is allowed.

#### **Dress Code**

- No obscene language, drug, sex or alcohol references allowed on any items.
- No revealing shirts or extremely short skirts/shorts.
- Instructor has the right to request that you cover up or change for violations of the dress code.

#### **Attendance Policy & Make-Up Work**

- Students are expected to attend class daily unless ill.
- Appointments should be made after school hours if at all possible.
- Excessive absenteeism may affect your progression in or graduation from the program.
- The student is responsible for obtaining make-up work during break and completing in a timely manner to the satisfaction of the instructor.

#### **Consequences**

Refer to school handbook for disciplinary policy.

#### Contact Information

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