Date Adopted: August 2015 Date Reviewed: August 2015 Date Revised:

# CIS 270 CISCO CCNA I

# I. CIS 270 CISCO CCNA I – 3 Semester Hours

### **II. Course Description**

This course is designed to introduce students to basic concepts of computer networks. Emphasis is placed on terminology and technology involved in implementing selected networked systems. The course covers various network models, topologies, communications protocols, transmission media, networking hardware and software, and network troubleshooting. Students gain hands-on experience in basic networking.

# III. Prerequisite

None

## IV. Textbook

Textbook: Cisco CCENT/CCNA ICND1 100-101 Academic Edition Publisher: Cisco Press Author: Odem, Wendell

### V. Course Objectives

- 1. Explain basic concepts related to networking.
- 2. Building, installing and configuring Ethernet LANs and switches
- 3. Understanding of IPv4 networks

# VI. Course Outline of Topics

- 1. Explain basic concepts related to networking.
  - a. TCP/IP and OSI networking models
  - b. Fundamentals of Ethernets LANs and WANs
  - c. Fundamentals of IPv4
  - d. TCP/IP Transport and Applications
- 2. Building, installing and configuring Ethernet LANs and switches
  - a. Building Ethernet LANs with switches
  - b. Installing and operating Cisco LAN switches
  - c. Configuring Ethernet switches
  - d. Implementing Ethernet switching
  - e. Troubleshooting Ethernet LANs
- 3. Understanding of IPv4 networks
  - a. IPv4 subnetting
  - b. Analyzing classful IPv4 networks
  - c. Analyzing subnet masks
  - d. Analyzing existing subnets
  - e. operating Cisco routers

### VII. Evaluation and Assessment

Evaluation and assessment will be determined by the instructor and specified on the instructor's class syllabus. Grades will be based upon following scale: A = 90 - 100%, B = 80 - 89%, C = 70 - 79%, D = 60 - 69%, and F = below 60%.

### VIII. Attendance

Students are expected to attend all classes for which they are registered. Students who are unable to attend class regularly, regardless of the reason or circumstance, should withdraw from that class before poor attendance interferes with the student's ability to achieve the objectives required in the course. Withdrawal from class can affect eligibility for federal financial aid.

### IX. Statement on Discrimination/Harassment

The College and the Alabama State Board of Education are committed to providing both employment and educational environments free of harassment or discrimination related to an individual's race, color, gender, religion, national origin, age, or disability. Such harassment is a violation of State Board of Education policy. Any practice or behavior that constitutes harassment or discrimination will not be tolerated.

### X. Americans with Disabilities

The Rehabilitation Act of 1973 (Section 504) and the Americans with Disabilities Act of 1990 state that qualified students with disabilities who meet the essential functions and academic requirements are entitled to reasonable accommodations. It is the student's responsibility to provide appropriate disability documentation to the College. The ADA Accommodations Office is in FSC 305 (205-856-7731).