

This is a SouthArk Master Syllabus. The course syllabus distributed by the instructor may include additional requirements, must be followed by the student in the given term, and is considered to supersede the Master Syllabus.

Course Number
CSCI 2603

Course Title
Cisco 1

Course Description

This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. By the end of the course, students will be able to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes. **Prerequisite:** CSCI 1323 Networking Fundamentals

College Mission

South Arkansas Community College promotes excellence in learning, teaching, and service; provides lifelong educational opportunities; and serves as a cultural, intellectual, and economic resource for the community.

College Wide Student Learner Outcomes

Critical Thinking Responsibility Communication

ACTS Course **Program Course** Computer Information Technology

ACTS Outcomes

This is not an ACTS course.

Program Outcomes

		Learner Outcomes for all CIS Majors*
PO1	Troubleshooting	Identify and resolve technical issues using appropriate technologies or analytical tools.
PO2	Business communications	Demonstrate communications skills in a business environment.
PO3	Hardware/Software Skills	Demonstrate proficiency as defined by the CIT department, in recognized industry software or hardware.
PO4	Business Ethics	Identify situations that present ethical dilemma inherent in information technology.
		Network System Administration Specialist Option*
TNO1	Network Administration Track - Troubleshooting	Demonstrate basic network troubleshooting techniques.
TNO2	Network Administration Track – OSI Model	Describe and diagram the layers, protocols and the components of the OSI model.
TNO3	Network Administration Track – Topology	Describe and diagram basic components of an enterprise network.

TNO4	Network Administration Track - Configure	Configure network devices.
		*Learning outcomes are based on U.S. Department of Labor IT 2012 Competency Model and Association of Computing Machinery Committee for Computing Education in Community Colleges.

Course Learner Outcomes

CLO #	Course Learner Outcomes (CLO)	Unit Outcomes/ Competencies	ACTS Outcomes	Program Outcomes	Critical Thinking	Communication	Responsibility	Assessment
CLO 1	Build simple LANs	1,3,5, 6, 9 10, 11		PO1 PO2 PO3 TNO1 TNO2 TNO3	CT3			Hands-on labs Virtual labs Quizzes Exams
CLO 2	Perform basic configuration on routers and switches	2,4,		PO1 PO3 TNO1 TNO3 TNO4				Hands-on labs Virtual labs Quizzes Exams
CLO 3	Implement IP addressing schemes	7, 8		PO1 PO2 PO3				Hands-on labs Virtual labs Quizzes Exams
CLO 4								
CLO 5								
CLO 6								

Unit Outcomes/ Competencies/ Objectives

- Unit 1 Exploring the Network
 - 1.1 Globally Connected
 - 1.2 LANs, WANs, and the Internet
 - 1.3 The Network as a Platform
 - 1.4 The changing Network Environment
 - 1.5 Summary
- Unit 2 Configuring a Network Operating System
 - 2.1 IOS Bootcamp
 - 2.2 Basic Device Configuration
 - 2.3 Address Schemes
 - 2.4 Summary
- Unit 3 Network Protocols and Communications
 - 3.1 Rules of Communication
 - 3.2 Network Protocols and Standards
 - 3.3 Data Transfer in the Network
 - 3.4 Summary
- Unit 4 Network Access
 - 4.1 Physical Layer Protocols
 - 4.2 Network Media
 - 4.3 Data Link Layer Protocols
 - 4.4 Media Access Control

- 4.5 Summary
- Unit 5 Ethernet
 - 5.1 Ethernet Protocol
 - 5.2 LAN Switches
 - 5.3 Address Resolution Protocol
 - 5.4 Summary
- Unit 6 Network Layer
 - 6.1 Network Layer Protocols
 - 6.2 Routing
 - 6.3 Routers
 - 6.4 Configure a Cisco Router
 - 6.5 Summary
- Unit 7 IP Addressing
 - 7.1 IPv4 Network Addresses
 - 7.2 IPv6 Network Addresses
 - 7.3 Connectivity Verification
 - 7.4 Summary
- Unit 8 Subnetting and VLSM
 - 8.1 Subnetting and IPv4 Network
 - 8.2 Addressing Schemes
 - 8.3 Design Considerations for IPv6
 - 8.4 Summary
- Unit 9 Transport Layer
 - 9.1 Transport Layer Protocols
 - 9.2 TCP and UDP
 - 9.3 Summary
- Unit 10 Application Layer
 - 10.1 Application Layer Protocols
 - 10.2 Well Known Application Layer Protocols and Services
 - 10.3 Summary
- Unit 11 Build a Small Network
 - 11.1 Network Design
 - 11.2 Network Security
 - 11.3 Basic Network Performance
 - 11.4 Summary

Assessment Description(s)

Independent and collaborative learning activities will be assigned to assist the student in achieving the intended learning outcomes. Examples of activities which contribute to the learning process include, but are not limited to the following: instructor lectures, class discussions, group tasks, quizzes, exams, hands-on labs, virtual labs, assignments, handouts, study guides, and individual conferences with the instructor.

Complete a summative laboratory assignment involving the design and deployment network for a given business scenario. Complete a summative written comprehensive final exam.

Materials and Technological Requirements

1. 4GB or larger USB drive used only in this class (provided by student)
2. Online textbook provided by instructor
3. Technical manuals
4. You Tube videos pertaining to Cisco Networking
5. Online documentation pertaining to Cisco Networking
6. Instructor created handouts
7. Headphones (provided by student)
8. Speakers for the home computer (optional; provided by student)
9. Highspeed access to the Internet
10. South Arkansas Community College email account
11. South Arkansas Community College Blackboard account

Class Attendance Policy

Students are expected to attend all classes in which they are enrolled. If a student is absent from a class session, it is the student's responsibility to make arrangements to complete or make up any work missed. No make-up work for missed classes will be allowed without the approval of the instructor. Students who enroll late must assume all responsibility for work missed. Classes not attended as a result of late enrollment may be counted toward excessive absences. Students not attending the entire class period may be counted absent for that period. An instructor may drop students with a grade of "WE" if students have been absent for an excessive number of days. Warning letters will be sent to the students advising them of the consequences of nonattendance and urging them to contact their instructors immediately. Excessive absences are defined as follows:

Regular Semester

Courses which meet once a week	2 absences
Courses that meet twice per week	3 absences
Courses that meet four times per week	5 absences

Summer Session

Courses that meet four times per week in a five week session	3 absences
Courses which meet two evenings per week in a 10 week session	3 absences

Students enrolled in special programs or individualized instruction should contact their program director/instructor regarding specific attendance requirements for the program/course. Some of the selective-admission, health-science programs have specific criteria regarding attendance. Students are encouraged to refer to program policies in these matters.

Jury Duty/Military/Official School Function

Scheduled absences are those that occur due to college-related activities or as a result of summons to jury duty or military duty. Classes missed as a result of scheduled absences will not be counted as excessive absences if the instructor is notified and provided documentation prior to the absence(s). Make-up work for scheduled absences will be at the discretion of the instructor.

In all instances, documentation must be provided to the instructor within 24 hours of receipt. Documentation should come from an appropriate party on letterhead or other official stationery with a signature and contact information. Documentation should list the corresponding dates of the leave.

Medical leave

For medical-related absences, documentation must include written notice from the treating medical professional documenting time needed off related to medical reasons and time student may resume classes. The medical reason does not need to be listed on the documentation; the documentation must include only that there is a medical reason, the amount of time the student needs to be absent, and the time the student should be able to return to classes. Students who elect to work at home while on excused leave must meet with their instructors to make arrangements to do so. Working on coursework while on medical leave is not a requirement but can be requested by students. If students request that they be allowed to work at home while on an excused leave, the instructor will make every reasonable effort to ensure that the student is able to do so.

For students who have a medical condition necessitating time off or accommodation:

- 1) They may work at home on assignments if they choose to if on medical leave approved by a medical professional
- 2) Receive appropriate accommodations related to coursework (i.e., excused from labs with potentially harmful chemicals, have a larger desk, etc.)
- 3) Resume their studies where they left off once they return to classes
- 4) Be allowed to make up any missed work related to medical leave
- 5) Receive incompletes on their transcripts until coursework is completed, according to the incomplete grade contract.
- 6) Be given a reasonable time frame in which to complete missed coursework

Academic Honesty Policy

Students enrolled at South Arkansas Community College are expected at all times to uphold standards of integrity. Students are expected to perform honestly and to work in every way possible to eliminate academic dishonesty. Academic dishonesty includes cheating and plagiarism, which are defined as follows:

- Cheating is an attempt to deceive the instructor in his/her effort to evaluate fairly an academic exercise. Cheating includes copying another student's homework, class work, or required project (in whole or in part) and/or presenting another's work as the student's own. Cheating also includes giving, receiving, offering, and/or soliciting information on a quiz, test, or examination.

- Plagiarism is the copying of any published work such as books, magazines, audiovisual programs, electronic media, and films or copying the theme or manuscript of another student. It is plagiarism when one uses direct quotations without proper credit or when one uses the ideas of another without giving proper credit. When three or more consecutive words are borrowed, the borrowing should be recognized by the use of quotation marks and proper parenthetical and bibliographic notations.

If, upon investigation, the instructor determines that the student is guilty of cheating or plagiarism, the following penalties will apply:

- The student will receive a penalty of no less than a zero on the work in question.
- The instructor will submit a Student Academic Misconduct Form, written report of the incident, to the appropriate dean.
- The dean will submit form to Vice President for Learning to determine disciplinary action.
- The Vice President for Learning will determine whether further disciplinary action will be taken.
- All decisions may be appealed for review through the college's academic appeals procedure.

Equal Opportunity-Affirmative Action Statement

South Arkansas Community College does not discriminate on the basis of age, race, color, creed, gender, religion, marital status, veteran's status, national origin, disability, or sexual orientation in making decisions regarding employment, student admission, or other functions, operations, or activities.

Library Services

Library Homepage: <http://southark.libguides.com/homepage> Library Contact: LibraryStaff@southark.edu or 870.864.7115

Procedures to Accommodate Students with Disabilities:

If you need reasonable accommodations because of a disability, please report this to the Vice President of Student Services with proper documentation. . VPSS Contact: 870.875.7262

The Early Alert System

In an effort to ensure student retention and success, South Arkansas Community College employs an Early Alert System to identify and support at-risk students as soon as possible in a given semester. The intent of Early Alert is to provide this assistance while there is still time to address behaviors or issues that have the potential of preventing students from completing their courses and degree plans. Students referred through the Early Alert System will be required to work on a corrective action plan with their student advising coach and to include attendance accountability and mandatory academic tutoring either in the academic division or in the Testing and Learning Center (TLC).

Once the Student Advising Coach has met with the referred student, and again when the student has met the prescribed corrective actions, the coach will update the Early Alert System so that the instructor is kept informed of the progress in resolving issues.

Behavioral Review Team

At South Arkansas Community College (SouthArk), we are committed to proactive leadership in student wellbeing and campus safety. By focusing on prevention and early intervention with campus situations that involve any person experiencing distress or engaging in harmful or disruptive behaviors, the BRT will serve as the coordinating hub of existing resources to develop intervention and support strategies and offer case management. Students, faculty, staff, and campus guests are encouraged to report any person on campus who is a concern. BRT Contact: 870.875.7262 BRT@southark.edu

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