

**JOLIET JUNIOR COLLEGE
DEPARTMENT OF COMPUTER INFORMATION
AND OFFICE SYSTEMS**

COURSE SYLLABUS

Course Prefix and Number	CIS 154
Course Title	Data Communications and Networks
Curriculum	Computer Information Systems
Semester Hours	4
Lecture	4
Lab	0
Prerequisites	CIS 122, or CIS 127, and CIS 145, or consent of department

Catalog Description

The student learns basic concepts and techniques of networks and data communications. The class meets in a PC equipped classroom. Topics include network topologies and operating systems, installation and administration of networks, standard and protocol, and modem communications.

Course Objectives: See attached.

**This course is designed to train students in the management of a Novell 4.X Network. It will help the student to develop guidelines, procedures, and problem solving abilities in a networked environment. Upon completion of this course a student should be able to work in a networked environment using Novell 4.X software.

Prepared by:

Reviewed by:

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Date

Revised 6/09
Revised 2/07
Revised 8/04
Revised 2/02
Revised 12/00
Revised 5/98
Revised 7/97
Revised 10/93
Revised 8/92

STUDENT MATERIALS

A. Textbook:

Title: Certified Linux Engineer 9 (CLE9) Study Guide

Author: Tracy

Publisher: Novell Press

B. Other Required Materials

Storage device

Optional Information Not Required for course:

Drake Testing for Certification

CAN (Certified Netware Administrator) 4X System Administrator

Drake Phone Number: 1-800-RED-EXAM

C. Student Evaluation (Type of Grading)

Tests:

2 quizzes 100 points each

1 midterm 200 points

1 final 200 points

Total test points 600

Grading Scores:

A = 600 - 565

B = 564 - 529

C = 528 - 493

D = 492 - 457

E = 456 - 0

Course Prefix and Number CIS 154 Title Data Communications and Networks

Week	Unit, Topic, Class Activity (Indicate approximate time allotment for each topic/unit)	Comments
1	Introduction to Operating Systems	
2	DOS Review	
3	Installation	
4	eDirectory	
5	Connectivity/Client	
6	File System	
7	Security – Expanded for Script Writing	
8	Queue Based Printing	
9	NDPS Printing	
10	Messaging Services	
11 & 12	Internet Infrastructure	
13	Review	
14	Final Exam	

OBJECTIVES

Upon completion of the course, the student will be able to:

1. Describe a network by its topology.
2. Describe a network by its transmission protocol.
3. Describe a network by its network protocol.
4. Describe a network by its network operating system.
5. Identify the basic elements of a network.
6. Describe the fundamental purposes of a networked computer system.
7. Differentiate between bus, ring and other popular network topologies.
8. Draw a pictorial representation of a network and its related equipment.
9. Describe a variety of wiring implementations for a network.
10. Describe the advantages and disadvantages of various network topologies.
11. Identify a variety of media transmission concerns over a network.
12. Differentiate between popular standards and protocols for networks.
13. Identify types and amounts of equipment necessary to set up and administer a network.
14. Differentiate between a variety of Ethernet specifications and address their strengths and weaknesses.
15. Differentiate between popular network operating systems.
16. Identify basic features, strengths and weaknesses of popular network operating systems.
17. Describe the interaction between the network operating systems and a variety of popular PC operating systems.
18. Describe available networking services through different network operating systems.
19. Perform a basic network installation.
20. Describe those aspects of network parameters that must be set up administratively at initial installation.
21. Identify software concerns for network installation and work station initialization.
22. Identify a variety of backup for an installed network.
23. Identify hardware and software requirements for backing up for an installed network.
24. Describe the effect and implementation of network interconnections and terminal emulations.
25. Identify methodology for PC to PC linkage.
26. Linux Script Writing.