



Technical College of the Lowcountry
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IST 166 NETWORK FUNDAMENTALS

Course Description

This course is a study of local area networking concepts through discussions on connectivity, communications and other networking fundamentals. The course is designed to prepare the student to be successful in completing industry network fundamental certification exams. Prerequisite: IST 162 3 Cr (3 lect/pres, 0 lab, 0 other)

Course Focus

The focus of this course is to cover server items outside the realm of Microsoft and to prepare students for the CompTIA Server+ 2009 certification

Text and References

Windows Server 2008 Network Infrastructure Configuration(*Exam 70-642*) [Paperback], Microsoft Wiley (Author) ISBN-978-0-470-22515-8, 2008 Labsim ISBN: 978-1-935080-24-4. TestOut LabSim activation code.

Course Goals

The following list of course goals will be addressed in the course. These goals are directly related to the performance objectives.

1. differentiate hardware components
2. recognize different expansion slots
3. perform BIOS operations
4. deploy different chassis types
5. identify cooling components
6. list power supply options
7. differentiate between memory features
8. describe memory compatibility
9. explain Hardware Compatibility List importance
10. differentiate processor types
11. install expansion cards
12. consider fault tolerance scenarios
13. define storage controller types
14. install network operating system
15. describe file systems
16. demonstrate driver installation
17. explain NOS security software
18. discuss basic permission levels
19. discuss share permissions
20. explain server roles
21. summarize server virtualization concepts

22. describe common networking essential elements
23. administer RAID technologies
24. select appropriate RAID level
25. install internal storage technologies
26. summarize external storage technologies
27. write maintenance documents
28. develop system diagrams and procedures
29. explain industry best practices
30. determine physical server location environment
31. implement different methods of server access
32. list physical server security measures
33. compare backup and restoration methodologies
34. contrast different replication methods
35. define disaster recovery plan
36. explain troubleshooting methodologies
37. categorize troubleshooting methods
38. analyze software troubleshooting problems
39. establish network problem diagnostics
40. troubleshoot storage problems
41. apply networking tools
42. understand causes of common storage problems

Student Contributions

Each student will spend at least 6 hours per week preparing for class. Attendance is critical in this class.

Course Evaluation

Unit exams will be performed on manual exam (pen and paper) and Electronic Workbench performance exams.

Grading:	90 - 100	A
	80 - 89	B
	70 - 79	C
	60 - 69	D
	00 - 59	F

Course Schedule

The class meets for 3 lecture/presentation hours per week

ADA STATEMENT

The Technical College of the Lowcountry provides access, equal opportunity and reasonable accommodation in its services, programs, activities, education and employment for individuals with disabilities. To request disability accommodation, contact the counselor for students with disabilities at (843) 525-8228 during the first ten business days of the academic term.

ACADEMIC MISCONDUCT

There is no tolerance at TCL for academic dishonesty and misconduct. The College expects all students to conduct themselves with dignity and to maintain high standards of responsible citizenship.

It is the student's responsibility to address any questions regarding what might constitute academic misconduct to the course instructor for further clarification.

The College adheres to the Student Code for the South Carolina Technical College System. Copies of the Student Code and Grievance Procedure are provided in the *TCL Student Handbook*, the Division Office, and the Learning Resources Center.

ATTENDANCE

The College's statement of policy indicates that students must attend ninety percent of total class hours or they will be in violation of the attendance policy.

- Students not physically attending class during the first ten calendar days from the start of the semester must be dropped from the class for NOT ATTENDING.
- Students taking an online/internet class must sign in **and** communicate with the instructor within the first ten calendar days from the start of the semester to indicate attendance in the class. Students not attending class during the first ten calendar days from the start of the semester must be dropped from the class for NOT ATTENDING.
- Reinstatement requires the signature of the division dean.

In the event it becomes necessary for a student to withdraw from the course ***OR if a student stops attending class, it is the student's responsibility to initiate and complete the necessary paperwork.*** Withdrawing from class may have consequences associated with financial aid and time to completion.

When a student exceeds the allowed absences; the student is in violation of the attendance policy. The instructor **MUST** withdraw the student with a grade of "W", "WP", or "WF" depending on the date the student exceeded the allowed absences and the student's progress up to the last date of attendance *or* under extenuating circumstances and at the discretion of the faculty member teaching the class, allow the student to continue in the class and make-up the work. This exception must be documented at the time the allowed absences are exceeded.

Absences are counted from the first day of class. There are no "excused" absences. All absences are counted, regardless of the reason for the absence.

- A student must take the final exam or be excused from the final exam in order to earn a non-withdrawal grade.

A copy of TCL's **STATEMENT OF POLICY NUMBER: 3-1-307 CLASS ATTENDANCE (WITHDRAWAL)** is on file in the Division Office and in the Learning Resources Center.

HAZARDOUS WEATHER

In case weather conditions are so severe that operation of the College may clearly pose a hardship on students and staff traveling to the College, notification of closing will be made through the following radio and television stations: WYKZ 98.7, WGCO 98.3, WGZO 103.1, WFXH 106.1, WWV 106.9, WLOW 107.9, WGZR

104.9, WFXH 1130 AM, WLVH 101.1, WSOK 1230 AM, WAEV 97.3, WTOC TV, WTGS TV, WJWJ TV, and WSAV TV. Students, faculty and staff are highly encouraged to opt in to the Emergency Text Message Alert System. www.tcl.edu/textalert.asp

Emergency Text Message Alert

Students, faculty and staff are highly encouraged to opt in to the Emergency Text Message Alert System. Participants receive immediate notification of emergency events and weather cancelations via text messaging on their cell phones. Participants can also opt in to receive non-emergency news and announcements. Go to www.tcl.edu. On the homepage, click on “emergency TextAlert at TCL” and fill out the form or go to www.tcl.edu/textalert.asp

BROADCAST LEARNING FORMAT: This class is being taught in a broadcast learning format. Images and word of class participants may be transmitted live or on a delayed basis to other locations. Classes may be rebroadcast due to extenuating circumstance.