LIS 5489 NETWORK ADMINISTRATION

SEMESTER | DAYS/TIME

MODE OF INSTRUCTION: ONLINE

Students all meet with instructor for class weekly, synchronously, using a multi-media conferencing system such as Collaborate, at a specific class time indicated in the University's course schedule for each semester. Additional asynchronous interactions among students and with instructor will be required, as indicated below in course evaluation and assessments, to complete the course.

Instructor:

Office:

Office Hours:

E-mail:

Phone:

Course Website:

COURSE DESCRIPTION:

This course focuses on the planning, design, configuration, operation, and management of computer networks containing data communication devices, servers, workstations, and networked applications and support systems. It introduces students to administrative techniques inherent to basic operating systems, and also to enterprise management systems required by larger organizations. Students examine and discuss issues of scalability, performance management, and integration of internal resources with external resources such as cloud-based systems.

COURSE OBJECTIVES:

After successful completion of this course, students will be able to:

- Identify key differences between very small ad hoc networks, small-to-medium hand-managed networks, enterprise networks, and "clouds"
- Define networking services provided by a variety of operating systems, and perform basic operations on them.

  For example, demonstrate key skills in managing networking on Windows and UNIX/LINUX workstations and servers

  Structure and manage various directory services, DNS, and DHCP

Manage various user access objects locally and in directory services

Manage servers and workstations in hierarchical structures

Manage user environments in messaging and other enterprise systems

Design and manage file and print sharing services

Use centralized management features to enforce enterprise policies

- Identify strengths and weaknesses in various network architectures, and identify gaps
- Analyze the role of networked applications such as databases, messaging, and voice, and how they integrate into the enterprise network environment
- Define cloud computing, virtualization and virtualization management systems
- Read, create, modify, and maintain network diagrams and documentation
- Explain how issues like scalability, time and resource management, ethics, and user information needs are critical to the effective practice of network and system administration.
- Demonstrate basic network, server, and workstation troubleshooting functions
- Plan and implement information security policies and measures based on various organizations' needs and requirements
- Plan, prepare, and operate various enterprise-grade network management systems such as virus protection, intrusion detection, and workstation, server, and work performance- and fault-monitoring systems

COURSE MATERIALS:

Required Textbooks:

- ***Mastering Windows Server 2012 R2***   (2012) by Mark Minasi, Kevin Greene, Christian Booth, Robert Butler, John McCabe, Robert Panek, Michael Rice, Stefan Roth; ISBN-10: 1118289420

- ***The Practice of System and Network Administration***, Second Edition   (2007) by Thomas Limoncelli, Christina Hogan, Strata Chalup; ISBN-10: 0321492668

In addition to the textbook material, references to additional reading material such as articles, whitepapers, case studies, etc. will be posted on the course site.

GRADE CALCULATION:

The cumulative grade consists of the following graded items:
- Concepts and Practice Problem Sets - 25%
- Lab Exercises and Participation - 25%
- Team System Build-out and Presentation – 25%
- Team Design Project and Presentation – 25%

GRADING SCALE:

A	93 – 100	A-	89 – 92		
B+	85 – 88	B	81 – 84	B-	77 – 80
C+	73 – 76	C	69 – 72	C-	65 – 68
D+	61 – 64	D	57 – 60	D-	53 – 56
F	0 – 52				

TOPICS TO BE COVERED
Role of network and systems administration in organizations of various sizes Telecommunications review Standalone Servers: Local Users and Groups Share Folders, NTFS Permissions, Workgroups (workstation) Access Management Processes
Standalone Servers: Local Users and Groups Share Folders, NTFS Permissions, Workgroups (servers)
Domain Controllers: Microsoft Domains, Active Directory Installing Active Directory Forests and Domains Configuration Management Processes
IP Address Management, DHCP, and DNS Telecommunications Processes
Member Servers: Joining Workstations and Servers to Domains Active Directory Users and Computers Desktop Support Processes
Remote Server Administration Performance Management Tools Virtualization and Virtualization Management Server Management Processes
Group Policies Login Scripts Software Distribution
Enterprise E-mail and Messaging Enterprise SQL Systems Integrated SQL Systems
Workstation Management Systems Server Management Systems Patch Management Systems Enterprise Anti-Virus Systems Information Security Processes
Team Projects Kickoff Meeting Team Implementation Sessions

Configuration Management Meeting Team Implementation Sessions
Configuration Management Meeting Team Implementation Sessions
Team Design Project Presentations Team System Buildout Presentations

UNIVERSITY POLICIES:

University Attendance Policy:

Excused absences include documented illness, deaths in the family and other documented crises, call to active military duty or jury duty, religious holy days, and official University activities. These absences will be accommodated in a way that does not arbitrarily penalize students who have a valid excuse. Consideration will also be given to students whose dependent children experience serious illness.

Academic Honor Policy:

The Florida State University Academic Honor Policy outlines the University's expectations for the integrity of students' academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to "...be honest and truthful and...[to] strive for personal and institutional integrity at Florida State University." (Florida State University Academic Honor Policy, found at http://fda.fsu.edu/academic-resources/academic-integrity-and-grievances/academic-honor-policy.)

Plagiarism

Plagiarism of any type, including material from Internet sources, will not be tolerated. Cases of academic dishonesty such as plagiarism and cheating will be investigated & pursued vigorously according to departmental and (if needed) university procedures. Before submitting any work for this class, please read the "Academic Honor System" in its entirety (see link above) and ask me to clarify any of its expectations that you do not understand.

Americans With Disabilities Act:

Students with disabilities needing academic accommodation should:
(1) register with and provide documentation to the Student Disability Resource Center; and
(2) bring a letter to the instructor indicating the need for accommodation and what type.

Please note that instructors are not allowed to provide classroom accommodation to a student until appropriate verification from the Student Disability Resource Center has been provided.

This syllabus and other class materials are available in alternative format upon request.

For more information about services available to FSU students with disabilities, contact the:

Student Disability Resource Center
874 Traditions Way
108 Student Services Building
Florida State University
Tallahassee, FL 32306-4167
(850) 644-9566 (voice)
(850) 644-8504 (TDD)
sdrc@admin.fsu.edu
http://www.disabilitycenter.fsu.edu/

Syllabus Change Policy

Except for changes that substantially affect implementation of the evaluation (grading) statement, this syllabus is a guide for the course and is subject to change with advanced notice.

SCHOOL OR DISCIPLINARY POLICIES:

Copyright Statement

Some of the materials in this course are possibly copyrighted. They are intended for use only by students registered and enrolled in this course and only for instructional activities associated with, and for the duration of, the course. They may not be retained in another medium or disseminated further. They are provided in compliance with the provisions of the *Technology, Education, And Copyright Harmonization* (TEACH) Act (refer to the 3/7/2001 TEACH Act at www.copyright.gov/legislation/archive/).

Sexual Harassment Policy

It is the policy of the University that its employees and students neither commit nor condone sexual harassment in any form.
http://registrar.fsu.edu/bulletin/graduate/information/university_notices/

iSchool Hardware and Software Requirements

A list of all hardware and software requirements for students participating in the School of Information (iSchool) courses can be found at the following location:

http://ischool.cci.fsu.edu/academics/online/requirements/

Student Eligibility for an Incomplete Grade

Incomplete ("I") grades will not be assigned, except in the case of exceptional unforeseen circumstances that occur within the last three weeks of the semester and your work has otherwise been satisfactory (C average).