

FLORIDA STATE COLLEGE AT JACKSONVILLE

COLLEGE CREDIT COURSE OUTLINE

COURSE NUMBER: CET 2752

COURSE TITLE: Network Administration

PREREQUISITE(S): CET2186 or CDA 1302 and CET1514 or CDA 1403

COREQUISITE(S): None

CREDIT HOURS: 4

CONTACT HOURS/WEEK: 4

CONTACT HOUR BREAKDOWN:

 Lecture Discussion: 3

 Laboratory: 1

 Other _____:

FACULTY WORKLOAD POINTS: 4

STANDARDIZED CLASS SIZE ALLOCATION: 24

COURSE DESCRIPTION:

This course teaches how to administer a computer network through adding users, assigning rights, and monitoring network usage. Hands-on laboratories reinforce course topics.

SUGGESTED TEXT(S): Managing and Maintaining a Microsoft Windows Server 2003 Environment; Microsoft Press; latest edition

IMPLEMENTATION DATE: Fall Term, 2000 (20011)

REVIEW OR MODIFICATION DATE: Fall Term, 2001 (20021)
Fall Term, 2005 (20061)
Fall Term, 2008 (20091)

COURSE TOPICS	<u>CONTACT HOURS PER TOPIC</u>
I. Installing a Server	4
II. Directory Services	4
III. Server File Systems	8
IV. Advanced File Systems	12
V. Active Directory	8
VI. Network Server Administration	12
VII. Network Printing	4
VIII. Hands-on Testing	8

PROGRAM TITLE: IT Security

COURSE TITLE: Network Administration

CIP NUMBER: 1506120106 (AS)

LIST PERFORMANCE STANDARDS ADDRESSED:

NUMBER(S): TITLES(S):

01.0 Demonstrate an understanding of computer hardware-The student will be able to:

- 01.02 Identify the architecture of major hardware platforms.
- 01.03 Describe the functions of major hardware components of a computer system.
- 01.04 Discuss the potential impact of emerging hardware technologies.
- 01.05 Perform preventive maintenance tasks on microcomputer systems.
- 01.06 Set up and configure computer systems and peripherals.
- 01.08 Install and configure storage devices, controllers, and network interfaces.

02.0 Demonstrate an understanding of networked environments, hardware, and software - The student will be able to:

- 02.01 Discuss fundamental network concepts such as topology, protocols, architecture, and internetworking
- 02.04 Describe the functions and hardware requirements for current popular network servers for such services as: Domain Name Service (DNS), Dynamic Host Configuration Protocol (DHCP), e-mail, the World Wide Web (WWW), proxy, etc.)
- 02.05 Describe the major functions and hardware requirements of network client hardware components
- 02.08 Describe the function of network storage devices and other peripherals such as a Redundant Arrays of Inexpensive Disks (RAID) and CD-ROM towers

03.0 Install and configure secure network systems software and utilities-The student will be able to:

- 03.01 Install and configure current leading system software, drivers, and service packs.
- 03.06 Use system software to perform routine maintenance tasks such as backup, hard drive defragmentation, etc.
- 03.07 Install and configure a secure desktop client operating system.
- 03.08 Describe modifications necessary to an operating system (such as modifying parameters, how to handle conflicting interrupts, etc.) when installing, configuring, and upgrading typical applications software.
- 03.09 Install and configure client software for network-based applications such as e-mail, Web browsing, terminal emulation, file transfer, group conferencing, database, etc.
- 03.10 Install and configure current popular network servers for such services as: Domain Name Service (DNS), Dynamic Host Configuration Protocol (DHCP), e-mail, the World Wide Web (WWW), proxy service, etc.).

LIST PERFORMANCE STANDARDS ADDRESSED: (Continued)

NUMBER(S):	TITLES(S):
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05.0 Demonstrate an understanding of network access control systems and methodology-The student will be able to:

- 05.01 Specify by access control mechanisms what users can do, which resources they can access, and what operations they can perform on a system
- 05.02 Compare and contrast several access control techniques, including access control lists, discretionary, mandatory, lattice-based, rule-based, and role-based access control
- 05.03 Administer computer, group, and user accounts
- 05.04 Manage policies, rights, permissions, and passwords for users and/or groups of users
- 05.06 Oversee password and PIN selection, management, and control
- 05.09 Implement and manage decentralized access controls such as domains and trusts relationships
- 05.13 Investigate audit trails for signs of network intrusions

13.0 Design and implement physical security measures-The student will be able to:

- 13.01 Identify the physical threats to an enterprise's resources that include the employees, facilities, data, equipment, support systems, media, and supplies they utilize.
- 13.03 Specify possible countermeasures to physically protect an enterprise's resources and sensitive information.

14.0 Perform operations and security management practices-The student will be able to:

- 14.03 Perform backups of critical information.
- 14.04 Protect the privacy of personal data.
- 14.06 Demonstrate an understanding of different control types, such as directive, preventive, detective, corrective, and recovery controls.
- 14.07 Determine what resources, including hardware/software, password files, source code, storage and logs, require protection.
- 14.10 Identify different types of monitoring including event, hardware, and illegal software.
- 14.11 Utilize monitoring tools and techniques such as trend analysis, traffic analysis and reporting mechanisms.



NOTE: Use either the Tab key or mouse click to move from field to field. The box will expand to accommodate your entry.

<i>Section 1</i>	
COURSE PREFIX AND NUMBER: CET 2752	SEMESTER CREDIT HOURS: 4
COURSE TITLE: Network Administration	

<i>Section 2</i>		
TYPE OF COURSE: (Click on the box to check all that apply)		
<input type="checkbox"/> AA Elective	<input checked="" type="checkbox"/> AS Required Professional Course	<input type="checkbox"/> College Prep
<input type="checkbox"/> AS Professional Elective	<input type="checkbox"/> AAS Required Professional Course	<input checked="" type="checkbox"/> Technical Certificate
<input type="checkbox"/> Other _____		
<input type="checkbox"/> General Education: (For General Education courses, you must also complete Section 3 and Section 7)		

<i>Section 3 (If applicable)</i>		
INDICATE BELOW THE DISCIPLINE AREA FOR GENERAL EDUCATION COURSES:		
<input type="checkbox"/> Communication	<input type="checkbox"/> Social & Behavioral Sciences	<input type="checkbox"/> Mathematics
<input type="checkbox"/> Natural Sciences	<input type="checkbox"/> Humanities	

<i>Section 4</i>					
INTELLECTUAL COMPETENCIES:					
<input checked="" type="checkbox"/> Reading	<input checked="" type="checkbox"/> Speaking	<input checked="" type="checkbox"/> Critical Analysis	<input checked="" type="checkbox"/> Quantitative Skills	<input type="checkbox"/> Scientific Method of Inquiry	
<input checked="" type="checkbox"/> Writing	<input checked="" type="checkbox"/> Listening	<input type="checkbox"/> Information Literacy	<input type="checkbox"/> Ethical Judgment	<input checked="" type="checkbox"/> Working Collaboratively	

<i>Section 5</i>		
LEARNING OUTCOMES		METHOD OF ASSESSMENT
•	The student will be able to configure and install a server	written and hands-on assessments
•	The student will be able to configure Directory Services	written and hands-on assessments
•	The student will be able to configure and server file system	written and hands-on assessments
•	The student will be able to configure and manage network server	written and hands-on assessments
•	The student will be able to configure and manage network printing	written and hands-on assessments

<i>Section 6</i>
Name of Person Completing This Form: <u>Cheryl Schmidt 3/14/2008</u>