



Server Administration

CTS-2334

Spring Full Term 2023 CRN 20341 3 Credits 01/09/2023 to 04/29/2023 Modified 11/11/2022

Class days, Location, Time

COURSE INFO

Instructional Method: Traditional Online

Start and End Dates: Monday, January 09, 2023 to Saturday, April 29, 2023

CLASS DETAIL

Lead Instructor: Baytar-McTurk, Betti

Class Location: Online (Textbooks: Leesburg Bookstore)

Course Description

This course provides students with the knowledge and skills necessary to install, configure and troubleshoot client and server versions of the Microsoft Windows Operating System. It includes lectures, demonstrations and labs regarding system installation, file systems, administration (users, groups, and policies), network protocols and services, print services, security and reliability.

Requisites

Prerequisite: C or higher in CTS 1133

Course Objectives

Objectives are defined as what the course will do and/or what the students will do as part of the course.

The course will provide the student with actual hands-on practice in applying the following administrative actions in a Windows server environment:

- Windows Server 2019 Installation and Configuration.
- Hardware device management.
- Active Directory administration.
- Advanced File System management.
- Printer management.
- Group Policy.
- Remote server administration.
- Server performance monitoring.
- Backups and disaster recovery.
- Windows Server security.
- Scripting for activity automation.

Student Learning Outcomes

Lake-Sumter State College (LSSC) aims to provide students with a broad foundation of knowledge and skills across the various academic disciplines and programs. A “learning outcome” is defined as the knowledge, skills, attitudes, or habits of mind that students take with them beyond the learning experience.

The following learning outcomes will be assessed in this course:

1. Identify the features of the various flavors of Windows Server 2019.
2. Manage and troubleshoot hardware devices.
3. Create and manage user and computer accounts in Active Directory.
4. Plan and manage groups.
5. Configure permissions for file and folder access.
6. Manage disk and data storage.
7. Utilize Advanced File System Management.
8. Implement and manage printers.
9. Plan, configure and troubleshoot Group Policy.
10. Perform remote server administration.
11. Monitor server performance.
12. Manage and implement backups and disaster recovery.
13. Configure Windows Server security.
14. Create basic scripts for server activity automation.

As a result of completing courses as part of the Computer Information Technology A.S., like this one, students will be able to achieve the following learning outcomes:

1. Apply specific information technology skills to resolve technology issues.
2. Demonstrate appropriate troubleshooting skills in support of technology end-users.
3. Apply specific project management skills to develop IT systems and services.
4. Employ appropriate database development standards to design and build efficient database systems.
5. Analyze current topics in information technology.

Textbooks & Other Course Materials

Click the link below for information about your course textbook:

You will need the campus location, and either your XID or the class information (ex. Spring 2022, ENC 1101, CRN 10111) to find the textbook for your class.

<https://www.lssc.edu/current-students/bookstore/> (<https://www.lssc.edu/current-students/bookstore/>)

COURSE MATERIALS

Title: Hands-On Microsoft Windows Server 2019 3rd Edition, W/ Mindtap
Author: Eckert
Publisher: Cengage
ISBN: 978-0-357-4362-19 (REQUIRED)

[Cengage MindTab Help and Support Link](https://www.cengage.com/student/)
(<https://www.cengage.com/student/>)

IMPORTANT INFORMATION:

All the exams and quizzes are proctored by the program PROCTORU for all courses.

I am the instructor for your Spring 2023 fully online classes and wanted to reach out to you about some class requirements before the beginning of the term (Jan. 9). Below are the technology requirements for the class. Specifically note the need for a working laptop or computer, an external webcam (available from the school for free), and a microphone. Your laptop or computer webcam will not work with ProctorU. Because you need to place the camera on your side higher than where you sit, so the proctor can see your profile and your desktop. So the EXTERNAL CAM is required. These devices are required for you to be able to

complete the proctored testing through ProctorU. Please contact me as soon as possible if you do not have the required equipment.

You need to open an account first. Please use your **school email** when you open an account. You also need to register for your exams 72 hours before the exam. They need to know that you are taking the exam so they can schedule their own staff. **So it is essential for you to register earlier, if you are late to register I cannot help you.** Because they will not have enough staff to take care of you, if there is no proctor you will not take the exam, and your grade will be zero. Please click on the below URL and follow the steps.

<https://support.proctoru.com/hc/en-us/articles/115011771348-How-to-get-started-with-your-Testing-Session>
[Links to an external site. \(https://support.proctoru.com/hc/en-us/articles/115011771348-How-to-get-started-with-your-Testing-Session\)](https://support.proctoru.com/hc/en-us/articles/115011771348-How-to-get-started-with-your-Testing-Session)

More Information: <https://www.proctoru.com/live-plus-resource-center> (<https://www.proctoru.com/live-plus-resource-center>)

As you see all your exams except the final exam, are on Sunday, if you cannot take the exam on Sundays, then you need to let me know, in that case, I will schedule you at the Learning center of the school. You will take your exams there.

Technology Requirements

Canvas is a required component of this course. Students unfamiliar with Canvas are expected to visit the HELP/SUPPORT page located in the START HERE module in the course. This area includes the Canvas Student Quick Guide as well as access to many how-to video tutorials.

Cengage MindTap requires broadband internet access and supported web browsers and plugins.

Supported Browsers:

Windows®

Chrome™ (preferred)

Firefox®

macOS™

Chrome™ (preferred)

Safari® 12 and 13

Other browsers and versions than those listed might also work but are not supported. If you have problems when using an unsupported browser version, try using a supported browser version before contacting Customer Support.

Workstation Recommendations

Download bandwidth: 5+ Mbps

RAM: 2+ GB

CPU: 1.8+ GHz / multi-core

Display: 1366 × 768, color

Graphics: DirectX, 64+ MB

Sound (for some content)

Please see the LSSC Lakehawk Helpdesk Page for information on how to [obtain Microsoft Office 365](#) as an LSSC Student.

Methods of Evaluation

Grading Scale: 90-100% A, 80-89% B, 70-79% C, 60-69% D, 59% and below F

Methods of Evaluation:

Each item will be graded electronically using a rubric provided when the assignment is given. Your work will be judged against accepted academic standards for writing and documentation.

Assignment Overview & Grade Breakdown:

Category	Description	% of Total
Assignments	Unit Quizzes (MindTap) Introduce Yourself Discussion (Canvas) Orientation Quiz (Canvas)	20%
Labs	MindTap Labs and Simulations (MindTap)	40%
Exams	Midterm and Final Exams (MindTap)	40%
	Total Weight	100%

* Instructor Policies

Late Work Policy

Labs, Simulations, and Unit Quizzes: All labs, simulations, and Unit Quizzes must be completed and properly submitted by the published due dates and times posted on the Course Calendar. **All late or incomplete homework will receive a zero (0).**

- Work schedules and “I forgot” are not valid excuses for late work.
- Do not wait until the last minute to complete assignments. Starting early will allow students to get timely assistance from their instructor and/or technical support and still meet deadlines.
- It is the student’s responsibility to have an alternate plan if their main computer system fails (i.e. – complete work on-site at a campus library or learning center, have a secondary computer available, etc.).
- Computer hardware, software and/or Internet problems are not acceptable excuses for incomplete assignments.
- Completing homework assignments in a timely manner is an important part of the learning process. Students are expected to complete and submit all assignments by the due date and time listed on the course calendar.
- Instructors are not required to accept nor grade any assignment submitted late. Extensions are not possible.

Mid-term and Final Exams: There is no make up for exams except under documented circumstances such as hospital stay, doctor’s excuse, police report, or military assignment.

- Students are expected to contact their instructor prior to any exam due date if they cannot meet the deadline. **Each situation will be analyzed on a case-by-case basis by your instructor.**
- Instructors are not required to accept nor grade any exam submitted late or incomplete.
- Failure to complete timed exams before the timer runs out will result in a reduced or failing grade for that assessment and no extension or late submission will be possible.

Institutional Policies & Procedures

Academic Integrity

The successful functioning of the academic community demands honesty, which is the basis of respect for both ideas and persons. In the academic community, there is an ongoing assumption of academic integrity at all levels. There is the expectation that work will be independently thoughtful and responsible as to its sources of information and inspiration. Honesty is an

appropriate consideration in other ways as well, including but not limited to the responsible use of library resources, responsible conduct in examinations, and the responsible use of the Internet. See the [college catalog \(https://lssc.smartcatalogiq.com/2019-2020/Catalog-and-Student-Handbook/College-Policies-Procedures/Academic-Integrity\)](https://lssc.smartcatalogiq.com/2019-2020/Catalog-and-Student-Handbook/College-Policies-Procedures/Academic-Integrity) for complete statement.

Basic Needs Statement

Any student who faces challenges securing basic needs such as food or housing and believes this may affect their performance in the course is encouraged to contact a campus dean at deanofstudents@lssc.edu (<mailto:deanofstudents@lssc.edu>). The deans will then be able to share any resources at their disposal.

Course Content

- All LSSC students will be exposed to a learning environment promoting the open exchange of ideas.
- LSSC course content is presented on an adult level and classroom discussions require a mature understanding of divergent viewpoints and the ability to think analytically. Courses will not be modified to accommodate variations in student age and/or maturity.
- This course will be presented objectively and is not presented to espouse, promote, advance, inculcate, or compel any individual to adopt as a belief any of the subjects of the discussion that may be construed as concepts constituting discrimination based on race, color, sex, or national origin as provided by Florida law. Please note that I do not endorse such concepts but present them for academic discussion and consideration. The law does not prohibit discussion of such concepts in an objective manner and without endorsement. Should a student feel uncomfortable with how course content is presented or discussed, please contact the instructor for further conversation.

Important Information for Students with Disabilities

Any student with a documented disability who requires assistance or academic accommodations should contact the Student Accessibility Services immediately to discuss eligibility. The Student Accessibility Services (SAS) is located on the Leesburg Campus, but arrangements can be made to meet with a student on any campus. An appointment can be made by calling 352-365-3589 and specific information about SAS and potential services can be found at [Student Accessibility Services \(https://www.lssc.edu/current-students/student-accessibility-services/\)](https://www.lssc.edu/current-students/student-accessibility-services/).

Initial Attendance

Initial attendance is recorded based on being present in class and/or submitting an assigned academic related activity during the first two weeks of the course. If marked as not attending during this period, the student will be financially responsible for the course and Financial Aid and Veteran benefits may be decreased. Students who are reported as not attending will remain in the class (PRO 3-05).

LSSC Safety Statement

Lake-Sumter State College values the safety of all campus community members. If you have an emergency, call 911. Otherwise, to report a concern, suspicious activity, or to request a courtesy escort, call Campus Safety:

(352) 516-3795 Leesburg

(352) 536-2143 South Lake

(352) 303-7296 Sumter

LSSC also has a free safety app, **Lake-Sumter Safe** that is available for download. You will receive important emergency alerts and safety messages regarding campus safety via LSSC Alert. You are opted into this system when you become an LSSC student. For more information regarding safety and to view available resources, visit the [Campus Safety \(https://www.lssc.edu/safety/\)](https://www.lssc.edu/safety/) web page.

Privacy Policy (FERPA)

The Family Educational Rights and Privacy Act (FERPA) (20 U.S.C. § 1232g; 34 CFR Part99) is a Federal law that protects the privacy of a student's education records. In order for your information to be released, a form must be signed and, in your records, located in the Admissions/Registrar's Office.

Syllabus Disclaimer

Information contained in this syllabus is, to the best knowledge of this instructor, considered correct and complete when distributed to students. The instructor reserves the right, acting within policies and procedures of Lake-Sumter State College, to make necessary changes in course content or instructional techniques with notification to students.

Syllabus Statement

Students may, without prior notice, record video or audio of a class lecture for a class in which the student is enrolled for their own personal educational use. A class lecture is defined as a formal or methodical oral presentation as part of a college course intended to present information or teach enrolled students about a particular subject. Recording class activities other than class lectures, including but not limited to lab sessions, student presentations (whether individually or part of a group), class discussion (except when incidental to and incorporated within a class lecture), clinical presentations such as patient history, academic exercises involving student participation, test or examination administrations, field trips, private conversations between students in the class or between a student and the faculty member, and invited guest speakers is **prohibited**. Recordings may not be used as a substitute for class participation and class attendance and may not be published or shared without the written consent of the faculty member. Failure to adhere to these requirements may constitute a violation of the LSSC Student Code of Conduct.

Zero-Tolerance for Violence Statement

Lake-Sumter State College has a policy of zero tolerance for violence as stated in College Board Rule 2.17. Appropriate disciplinary action will be taken in accordance with Board Rule 2.17.

Withdrawal

Once the Add/Drop period passes, students deciding to discontinue class attendance and/or online participation have the responsibility for formal withdrawal by the withdrawal deadline.

Withdrawal Deadline

Monday, March 27, 2023

Class Calendar

Week	Dates	Objectives & Reading Assignments	Items Due	Notes
1 – Course Introduction and Housekeeping	Jan 9-15	Read and understand the syllabus Register MindTap	<ul style="list-style-type: none">• “Introduce Yourself” discussion in Canvas• Orientation Quiz in Canvas	MindTap offers a two-week free trial, but you must purchase the product to continue after that.
2 – Getting Started with Windows Server 2019	Jan 16-22	Read Module 1	<ul style="list-style-type: none">• Module 1 Review Quiz (MindTap)• Lab 1: Installing Windows Server 2019 (MindTap)• Lab 1-1: Install and Configure Server Core (MindTap)	If you experience issues with the MindTap labs, you must immediately contact MindTap support and share with me your ticket number and issue description.

Week	Dates	Objectives & Reading Assignments	Items Due	Notes
3 – Configuring Windows Server 2019	Jan 23-29	Read Module 2	<ul style="list-style-type: none"> Module 2 Review Quiz (MindTap) Lab 2: Installing Server Core (MindTap) Lab 2-1: Understand Device Drivers (MindTap) Lab 2-2: Understand Services (MindTap) Lab 2-3: Manage Windows Services (MindTap) Lab 2-4: Configure Remote Assistance and Remote Server Admin Tools (MindTap) 	
4 – Implementing Hyper-V and Rapid Server Deployment	Jan 30-Feb 5	Read Module 3	<ul style="list-style-type: none"> Module 3 Review Quiz (MindTap) Lab 3: Managing Virtual Machine Networks (MindTap) Lab 4: Managing Virtual Machine Settings (MindTap) Lab 3-1: Understand Server Installation Options (MindTap) Lab 3-2: Configure Network Installation of Windows (MindTap) Lab 3-3: Manage Virtual Hard Disks with Hyper-V (MindTap) Lab 3-4: Enable Nested Virtualization (MindTap) 	
5 – Introduction to Active Directory and Account Management	Feb 6-12	Read Module 4	<ul style="list-style-type: none"> Module 4 Review Quiz (MindTap) Lab 5: Manage Active Directory Accounts (MindTap) Lab 6: Administer Active Directory Groups and OUs (MindTap) Lab 4-1: Manage Active Directory Infrastructure – Part 1 (MindTap) Lab 4-2: Manage Active Directory Infrastructure – Part 2 (MindTap) Lab 4-3: Manage Active Directory Infrastructure – Part 3 (MindTap) Lab 4-4: Administer OUs and Containers (MindTap) Lab 4-5: Administer User and Group Accounts (MindTap) Lab 4-6: Implement Group Nesting (MindTap) 	

Week	Dates	Objectives & Reading Assignments	Items Due	Notes
6 – Configuring Resource Access	Feb 13-19	Read Module 5	<ul style="list-style-type: none"> Module 5 Review Quiz (MindTap) Lab 7: Configuring Distributed File Systems (MindTap) Lab 8: Configuring SMB and NFS File Shares (MindTap) Lab 5-1: Understand the File Services (MindTap) Lab 5-2: Configure Distributed File System (MindTap) Lab 5-3: Manage File System Security (MindTap) Lab 5-4: Configure Audit Policies (MindTap) 	
7 – Configuring Printing	Feb 20-26	Read Module 6	<ul style="list-style-type: none"> Module 6 Review Quiz (MindTap) Lab 6-1: Understand Print Services (MindTap) 	
8 – Mid-Term Exam	Feb 27-Mar 5	Mid-term Exam covers Module 1-6 (March 5)	<ul style="list-style-type: none"> Mid-term Exam (Canvas) 	
9 – Configuring and Managing Data Storage	Mar 6-12 Please note that this week ends on Saturday. Next week is Spring Break starts on March 12-19	Read Module 7	<ul style="list-style-type: none"> Module 7 Review Quiz (MindTap) Lab 9: Managing Local Storage and Virtual Hard Disks (MindTap) Lab 10: Backup and Restore with Server 2019 (MindTap) Lab 7-1: Understand RAID (MindTap) Lab 7-2: Understand Business Continuity – Backups Only (MindTap) Lab 7-3: Manage Shared Storage Using iSCSI (MindTap) Lab 7-4: Configure Disk Types (MindTap) Lab 7-5: Manage Disk Redundancy (MindTap) 	
Spring Break	March 12-19	Spring Break	<ul style="list-style-type: none"> No work is due 	
10 – Configuring and Managing Network Services	Mar 20-26	Read Module 8	<ul style="list-style-type: none"> Module 8 Review Quiz (MindTap) Lab 11: Configuring Server Domain Infrastructure (MindTap) Lab 12: Implement DHCP Relay Agent (MindTap) 	

Week	Dates	Objectives & Reading Assignments	Items Due	Notes
11 – Configuring and Managing Remote Access Services	Mar 27-Apr 2	Read Module 9	<ul style="list-style-type: none"> Module 9 Review Quiz (MindTap) Lab 13: Implement Microsoft VPN Services Part One (MindTap) Lab 14: Implement Microsoft VPN Services Part Two (MindTap) Lab 9-1: Understand Remote Access (MindTap) Lab 9-2: Manage Remote Access with VPN (MindTap) Lab 9-3: Configure Application Virtualization (MindTap) Lab 9-4: Manage Remote Desktop Services (MindTap) 	
12 – Configuring Web Services and Cloud Technologies	Apr 3-9	Read Module 10	<ul style="list-style-type: none"> Module 10 Review Quiz (MindTap) Lab 10-1: Understand Web Services (MindTap) Lab 10-2: Install and Configure Web Services (MindTap) 	
13 – Managing and Securing Windows Networks	Apr 10-16	Read Module 11	<ul style="list-style-type: none"> Module 11 Review Quiz (MindTap) Lab 15: Implementing Windows Server Update Services (MindTap) Lab 11-1: Manage Updates with Windows Server Update Services (MindTap) Lab 11-2: Configure Group Policy Settings (MindTap) Lab 11-3: Implement Folder Redirection (MindTap) Lab 11-4: Install and Configure Threat Management Software (Windows Firewall Only) (MindTap) 	
14 – Monitoring and Troubleshooting Windows Server 2019	Apr 17-23	Read Module 12	<ul style="list-style-type: none"> Module 12 Review Quiz (MindTap) Lab 16: Implementing Centralized Event Logs (MindTap) Lab 17: Managing Server Performance (MindTap) Lab 12-1: Understand Troubleshooting Methodology (MindTap) Lab 12-2: Manage Windows Event Logs (MindTap) Lab 12-3: Implement Performance Monitor (MindTap) 	
Final Week	Apr 24-28	Final Exam covers all Modules (April 28)	<ul style="list-style-type: none"> Final Exam (Canvas) 	Final Exam must be completed by 11:59 PM on Friday, April 29